Deliverable 10
Report on the use of the ESTEEM tool and recommendations for improvements

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*C*ultural Influences on *R*enewable *E*nergy *A*cceptance and *T*ools for the development of communication strategies to promot*E* ACCEPTANCE among key actor groups

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Executive Summary

The core aim of the WP 4 in the CA project is testing and refinement of tools and management practices to involve stakeholders in five demo projects. The task of the demos was the application of a preliminary set of instruments, and to recommend improvements which were implemented in the elaboration of the new ESTEEM tool in WP3.

In this report, the experiences from tool application and testing in the five demos (Hydrogen in Iceland, CCS in the Netherlands, biomass in Germany, wind in Hungary and solar thermal power in Italy) are documented. The report encompasses the description of the empirical results, as well as of the process within the CA team.

Besides their different technological background, the demo projects were characterised by very different initial situations. Due to these different starting points a broad range of experiences with the social and political networking and with procedures of participation had to be considered. Additionally, a third category was of importance for the course of the CA process: the relationship between PM and consultant.

Besides the five demos, an additional 'semi'-demo project in South Africa was included. Here, our South African partner tested the different tools and steps in a few local projects on solar water heating (SWH), and solar PV.

The use of the tool had to face and solve real-world problems. The application in the demos can be seen as a professional 'beta testing' of the tool (steps and sub-steps).

Whilst one half of the CA project team was dealing with the application of the tool steps in their demo projects, the other half of the team was responsible for the development of the manual. Furthermore the team supported the demo colleagues and evaluated the ESTEEM application in the demos. CA created a specific management instrument to address this activity: the counterpartner model. The reports of the counter-partners were evaluated and the results and recommendations are included in this final document.

The iterative process between WP 4 and WP 3 is documented stepwise and completed by comments and 'Lessons learned'. A summary of all activities and suggestions gives the very detailed matrix overview which is integrated in this report (D 10 Matrix). Furthermore a list of the executed tools is added as well as the Demo Reports, which give an elaborated insight into each of the demo projects.

1. Introduction

The core aim of the WP 4 in Create Acceptance (CA) is the testing and refinement of tools and management practices to involve stakeholders in the existing project context of five different demonstration (demo) projects. The selection of the demos, representing different renewable and new energy solutions, is based on a set of criteria which were elaborated and refined in CA (see D 6 report).

A further preparatory step was the discussion on the meaning and role of stakeholders in new energy projects. Experiences of a number of evaluated projects as well as the discussions within the five demo projects were summarised. One key finding was that active stakeholder groups differ in their attitudes and expectations, due to the status of projects, type of technology, regional or local customs as well as the project manager's 'reputation' and routine as regards participatory practice (see D 7 report).

While asking actors for their visions on the future environment and their expectations regarding the new technologies, societal (non-)acceptance and potential conflicts might arise and can be addressed by the project manager (PM) in a targeted manner. In this context, we focus on the aspects of planning and preparation of the workshop steps as an integrated part of a comprehensive and long-term communication effort (see D 8 report). The participative workshop is a communication meeting for all the social and economic actors involved in the process of execution of the energy project. They can share the information obtained up to now and reach agreements on the future of the project. The experiences of the workshops were documented in a separate report (see D 9 report).

In the report at hand (D 10), the experiences from tool application and testing in the five demos are documented. The task of the demos was the application of a preliminary set of instruments and the recommendation of improvements. While Socrobust - the original tool - served as a basis, a stepwise elaboration of the new ESTEEM tool was carried out in WP3, making use of the feedback given by the demos.

This report encompasses the description of the empirical results as well as of the process within the CA team, and a summary of recommendations given back to the team elaborating the manual of the ESTEEM tool. The iterative process between WP 4 and WP 3 is documented stepwise and summarised in a matrix overview (see Annex II).

2. The process of the demo projects

In the following, a brief review of the CA-specific process of the demo projects is given.
Besides their different technological background, the demo projects can be characterised by very different initial situations: one extreme is a real start-up (completely new), the other one can be described as a well-prepared follow-up process (replication/dissemination of previous project).

Due to these different starting points a broad range of experiences with the social and political networking and with procedures of participation have to be considered. Additionally, a third category is of importance for the course of the CA process: the relationship between PM and consultant.

In some of the cases, the PM already knew the consultant when starting the CA process, or they were even colleagues who had long-term experience of liaison (SmartH). In other cases, there was no relationship beforehand. Whilst the Dutch ZEPP project can be characterised as a 'start-up' process which could accompany and support their PM from the 'real' start of the project, the German biomass demo (Jühnde dissemination) is a follow-up project with a network of actors that is already in place, other consultants and a PM already actively involved in the region and county of Göttingen. The Italian demo had to explore who their responsible PM was when CA entered the ongoing discussion at the national level, and when stakeholders had to be taken on board. In the Hungarian VEP demo, the consultant had to convince the PM when talking about conflicts and address the actors on a public level.

The use of the tool has to face and solve real-world problems. The application in the demos can be seen as a professional 'beta testing' of the tool (steps and sub-steps). SMARTH2 is an interesting case in this sense because INE has established project management procedures and extensive experience in its field of operation. ESTEEM had to be integrated into those procedures. On the other hand, because it is a small organisation, the testing of ESTEEM was not be 'side-tracked' to a separate expert function (e.g. in the way environmental management or quality management can be in a large organisation). Overlaps, contradictions and synergies between ESTEEM and existing project management tools and procedures became apparent in this demo project.

Due to the types of projects, different recommendations and tool requirements were given. Besides the five demos, an additional 'semi'-demo project in South Africa was included. Here, our South African partner tested the different tools and steps in a few local projects on solar water heating (SWH), and solar PV. Due to the later entrance of South Africa to the project consortium (end of 2006), the consortium only decided in 2007 that the South African projects can be interpreted as a 'semi'-demo project as well. Due to this later start compared to other demo projects which had already started, and the limited resources to execute all steps of the tool, the evaluation and testing was less intense than the testing in the five demonstration projects. However, the results of the South African semi-demo project provide interesting input for the research on the tool.

The more detailed profile of each demo project is documented in Appendix A.

2.1 ZEPP

In Drachten, a town in the North of the Netherlands, the demo project aims to build a Zero Emission Power Plant (ZEPP) that would be able to generate enough 'emission-free' electricity for a small town of hundred thousand households (68 MW). The climate-neutral power plant

has a go/no-go decision point in 2007/2008 and should be operational in 2010. To realise the project, several innovative technologies are combined.

ZEPP is initiated by the Dutch company SEQ Nederland B.V. Financial support is given by energy companies, local and national governments and by Energy Valley, a public-private foundation with local, national and European members, which stimulates the economy of the North of the Netherlands through financing energy activities.

Project manager
From the beginning of the performance of step 1 until the end of the process, the PM of the ZEPP has been positively involved in the process. No conflicts between the PM and the consultant have occurred. Several interviews and meetings between the consultant and the project manager took place. As these meetings proofed to be often time consuming, alternatives were brought up by the consultant to limit the needed time of the project manager as much as possible by asking questions by email, or other.

A general recommendation to the tool concerning the time needed from the project manager to put into the process should be limited as much as possible. Project managers are often people with full agendas that want to spend their time efficiently. In any case it should be communicated in advance very clearly what amount of time is needed from the consultant and the project manager to perform the whole process.

Stakeholders
Most of the stakeholders involved in the ZEPP have reacted positively on the process and agreed easily to deliver the needed input. No stakeholder rejected the invitation for an interview in step 2 and also many stakeholders did show up on the workshop. Disappointing though was the absence of the three governmental institutions that are responsible for granting the needed licenses for the ZEPP (the ministry of Economic Affairs, ministry of Environmental issues and the provincial government) during the workshop.

No mayor conflicts between the stakeholders existed or occurred during the process in this demo project. Most of the stakeholders were interested in getting to know each other and the project and used the workshop for example as network opportunity.

When conflicts exist, this might influence the willingness of stakeholders to participate. This should be taken into account when inviting stakeholders for interviews and the workshop (see Feenstra et.al., 2007).

2.2 ARCHIMEDE

On December 14, 2006, Enel announced with a press release a research & development program for the search of innovative solutions in order to reduce the environmental impact of the production and distribution of electric power and in particular an investment of approximately € 40 mln for the solar thermodynamic project ‘Archimedes’, to be realized in collaboration with Enea.

On March 26, 2007, Enel and Enea signed an agreement protocol, in order to build the ‘Archimedes’ plant in Priolo Gargallo. In this second phase of the project, Enel will become the main contractor. Currently, the question of authorization for the construction of the system in Sicily Region is in progress.

Archimede is a case in which we have worked with a PM who accompanied all the phases before the real demo plant; the PM was a researcher in a public institution, who developed relations with industrial suppliers for the realization of a prototype plant, whose main interest is to

support the development of the technology and who is bound to play a minor role in the future when the industrial partner will take the responsibility of the demo plant.

Given all this, the CA process was easy in all the first part, i.e. from step 1 to step 3; after that the problem of a near change in the responsibility makes more difficult to work on the portfolio of options for Archimede. The other specific aspect is that the new (the industrial) PM is a global player, for whom the solar-thermal powerplant is not a central business. For this reason the project survives, but it has not the potentiality of creating a sufficient installed basis to compete with the learning brought by other countries' experience (i.e., Spain). For the same reason, the project is in some way progressively separated from problem of local acceptance or government support; it is managed as a small niche, as it was more a research activity than an industrial production one.

During the CA process all this becomes more clear, so as some change in the alignment among actors, where the future PM and the Ministry of economic development show a same scarce interest towards these technology (of course Enel is interested in realizing the project, but without a strong commitment), the present PM (Enea), owner of the patents, manifests a growing interest in applying this technology also out of Archimede , in collaboration with other industrial partners and also out of Italy. At the same time a strategy of support for this technology by the Ministry of Environment in agreement with some Regions become evident.

All this has brought us to consider the possibility of applying the ESTEEM tool for finding actions to support the technology in its differentiated ways of being realized, including initiatives of communication, which could help the technology to sort out from a very restricted number of informed actors (see Poti/Di Fiore 2008).

2.3 Jühnde Dissemination

The original bioenergy village project was carried out in the years 2001-06 and consisted of various biomass investments. The project was considered successful and the district administration, the County of Göttingen, decided to disseminate the idea. For this purpose the methodology and human resources of the Create Acceptance process contributed to the dissemination since the beginning of 2007.

In the early stages, contacting the PM was very difficult, as a group of academic consultants already was at hand. The scientists of IZNE who founded the original Jühnde project idea, were also involved in managing the dissemination phase. Therefore, the relation between IZNE and Create Acceptance team was ambiguous. If two different consultants are involved within one project, there is a risk of competition between them. Therefore, the first contact between Öko-Institut and the bioenergy project as well as the PM can be characterized as cautious, and rather reluctant. After a number of individual meetings and telephone calls - and a clarification of responsibilities - Öko-Institut convinced the PM and core stakeholders to support the ESTEEM tool testing.

The PM is a county staff and responsible for the regional implementation of the European LEADER+ program. He is an engaged supporter of the project idea. Over the years he gained many experiences which are important for the development of bioenergy villages. Öko-Institut presented the advantages of the tool for a successful implementation process of the new bioenergy villages and CA entered the Jühnde dissemination at a milestone of the process: the preparation of feasibility studies.

The original project process uses an elaborated set of participation tools. For the reason, that many villages already were involved in the preparation phase of the Jühnde model, most of the possible stakeholders of the Jühnde dissemination were known. Nonetheless critical situations

like the involvement of farmers came up. This problem was almost externally driven: increasing world market prices for agricultural products led to a competition between selling the resources for fodder, food or energy use. A second reason is the potential danger of innovation without covering economical risks. Farmers are not yet familiar with opportunities and risks of the new energy business. As the basis idea of the project was meant to support the rural area and small agro-businesses, these are rather unexpected problems, but they were identified and partially addressed by the CA process.

The named aspects hampered the engagement of the farmers with the consequence that more and detailed expertise was needed. Within the Create Acceptance process the project management tried to start intense discussions with all relevant key actors. The project manager aimed at more flexibility in the contracts between farmers and biomass plant owners.

Regarding nature conservation aspects the tool identified another critical stakeholder and his requirements: local nature conservation actors. Within different workshops the consultant gave a lot of information about solutions to face nature conservation requirements, for example crop rotation, different kind of plant species as well as the use of landscape preservation material. The workshops corresponded with the discussion on the different positions and elaborated common visions and strategies for the dissemination project (see Brohmann/Hünecke 2007).

2.4 VEP

The demo wind project was identified after a television documentary about the site and the plans of the proposed wind park at the village of Vép. The report suggested that the management takes communal relations seriously, so that they are even willing to accommodate to local concerns, involve residents in the process as well as share some of the benefits of the plant with them. It was also seen that there are some impediments, mainly on the authorities' side, that the management faces.

The consultant traced down the PM, and after a personal conversation with the PM and another owner they confirmed the intention to work together. The PM, despite their good previous efforts, saw their limitations and weak points, and looked forward with expectations to explore what the ESTEEM (then still called Create Acceptance) tool can provide. The expectations were to explore and structure strategies that they can follow in order to be able to continue the project, to widen their field of contacts and negotiations from the local level, since locally they were already quite well 'embedded'. These directions were taken to non-local authorities/institutions on the one hand, and national non-governmental organizations on the other.
The ESTEEM process entered in the project line when it had already started, the first phase was implemented, but then further phases were blocked. Thus it was not the most ideal early planning phase, but still a point of time when ESTEEM had the potential still to contribute. Its value could actually be quite substantial if it could move further the halted situation, and the wind project needed an external aid.

The PM also felt the wind project could utilize the test ESTEEM tool, and was very cooperative throughout the project. However, time constraints were appreciated, and besides personal meetings, phone conversations and skype discussions have also taken place. Calls and email exchanges occurred not only related to the application of the ESTEEM tool itself, but to discuss news and developments relevant for the progress of the wind project. Both the PM and the consultant initiated such calls and emails and these created a good working atmosphere and trust. The PM lives near Budapest, which made personal contact easy, but Vép is 3-4 hour drive from Budapest. The consultant visited the site and had conversation with the local part time operations manager and some local residents to obtain first hand field experience about the project and its environment. Formal residential forum was not held in the framework of the Create Ac-

ceptance, since before its start the windpark management had already conducted a thorough local participation and communication process, which had also included local forums and surveys. Also, PM concerns arose as to whether if some opposition of one segment of the society (e.g. concerns of some of the local residents about more than 4 turbines) come to light, another segment (authorities) can use it as an additional argument to back their own argument and negative attitude. However, the PM was always ready to face the problems and compromised with the consultant in a form and extent as to how to present problematic points.

The PM learnt much of the context, the energy policy and economics of his energy project and the absorbing infrastructure during the discussions. When responding questions he was 'forced' to think over some issues he had not been thinking before, discussed these issues with the consultant and realised some new aspects of his project.

Stakeholder relations went smoothly throughout the Create Acceptance process, and they were appropriately cooperative. This was partly due to the opinion expressed by each stakeholder approached that renewable energy was an important issue due to environmental and security of supply pressures. Nonetheless, their cooperation was partly also due to the established professional relationship with the consultant and the knowledge of its institution, and it is dubious how it would have gone if a PM alone had applied the tool. Probably, ministries, agencies and MAVIR would have been very difficult to involve. Even in this test case some incentives had to be provided; either it was emphasised why participation and reactions are fruitful for the stakeholder in their work or the consultant did some favour e.g. gave a presentation on a conference organised by a particular stakeholder or gave minor advice in response to some other energy related questions by another stakeholder (see Fucsko 2008).

2.5 SMART H2

SMART H2 is a demonstration project for hydrogen fuelled vehicles and vessels. The project will test various types of hydrogen-fuelled company cars and other equipment that runs on hydrogen, including a hydrogen auxiliary power unit for a tour ship run by Elding. The project also aims to demonstrate the operation infrastructure for compressed hydrogen and develop the distribution system for hydrogen, for example by organizing and running a small-scale hydrogen transport service.

Icelandic New Energy (INE) is the initiator of the project. One of INE's major shareholders is Vistorka, a company which serves to unite business venture funds, key energy companies, academic institutes and the Icelandic government. In the Create Acceptance project, INE represents both.

In terms of the Create Acceptance process of testing the ESTEEM tool in a demo project, this demo project has some particular features. Iceland New Energy is both a partner in Create Acceptance (and thus represents the 'consultant' using the ESTEEM tool) and the operator of the SMART-H2 project. The demo project leader in CA, is also a 'real life' project leader of one of the SMART H2 Research path. She has also been central in the previous project, ECTOS, and is a central figure in the development of hydrogen systems in Iceland. Thus, from the perspective of the ESTEEM tool, the demo project leader has something of a dual role.

In the ESTEEM tool testing process, the director of Iceland New Energy is designated as the 'Project Manager'. There is thus a separate 'Project Manager' with whom the tool is tested, but the relations between the project manager and the 'Consultant' are closer than is the case in the other demo projects. The 'Project Manager' and the 'Consultant' work in the same organization, which has some benefits but can also make some things more complicated (see Maack/Heiskanen 2007).

2.6 The South African Case

Implementing solar water heater (SWH) technologies in South Africa can be defined as a broad programme supported by different stakeholders. Projects within the programme address specific targets and target groups, eg setting up testing procedures for the poor and mid-to-high income groups. It follows that there is no single project manager for the programme. Stakeholders on their own or as a group drive the process initially and once opportune framework conditions are achieved individual projects are initiated and project managers drive individual projects. It is important that the stakeholders in such informal programmes act and act together to promote SWH and the challenge is to get them together and drive the programme.

The phase in which an informal group of stakeholders promotes a RE technology often precedes the formulation of individual projects. This stage is often necessary to sort out a number of barriers, which the implementation of the new technology faces. It appears that the risk for individual projects is quite high at this stage. For example, one of the reasons why SWH were not accepted was the absence of the mark of approval from the South African Bureau of Standards. It took a long time to set up standards and get testing equipment in place. Individual projects may not be able to wait years to get their technology and installation approved. A wind project took eight years before it could start building the foundation for the windmills!

Stakeholder and environmental groups if they exist are generally not very active as compared to the EU.

SWH for homes are relatively small units and their installation is not a major building project and is completed in a few days. Their operation does not cause emissions, or noise or additional traffic, so they do not affect other people in the neighbourhood. The one aspect that neighbours may not like is the visual impact of SWHs on the roof. But since they may wish to install their own in the future, they generally accept them.

The PM/consultant approach of the ESTEEM tool requires that a company is introducing a new RE or RUE technology and a project manager is appointed to manage the project. The South African SWH is not a specific project with a project manager but a broad programme supporting SWH.

It is challenging to apply the tool to an early stage of renewable technology dissemination. I am aware that it is not what was intended at this stage of tool development but it is the situation I am faced with in both case studies. For these reasons the PM/consultant roles as given in the present process did not apply to the South African case studies. It may be worthwhile to widen the PM/consultant roles in a future phase of the ESTEEM tool to include cases such as this (see Prasad 2007)

2.7 The counter-partner approach

Whilst one half of the CA project team was dealing with the application of the tool steps in their demo projects, the other half of the team was responsible for the development of the manual. Furthermore they supported and evaluated the ESTEEM application in the demos. CA created a specific management instrument to address this activity: the counter-partner model.

The model

The counter-partner approach was created during the course of the CA project. It follows the idea of a twinning system, ensuring and supporting quality and project management in the testing phase of the chosen demos. Besides the quality aspect, the communication and exchange between demo partners and the rest of the CA project team was of high importance. For each of the five demos another partner from the consortium provides assistance.

The task of the counter-partner was twofold: supporting the process of the demo project and reflecting on the ESTEEM tool and its application. Inter alia the counter-partners explored and discussed the local context, supported the preparation of the tool steps in line with the demo and assisted in the application of the tool through a critical reflection on conflicts and solutions.

The experiences

The external evaluation is seen as very useful by consultant and counter partner. The counter partner process included reading the documents, monitoring the results and elaborating an interview. The application and the role of the counter-partner has been as varied as the demos. Whilst an intense exchange between consultant and CP along the whole process took place in one demo, the other case incorporated only one interview for discussing the projects progress during the counter-partner phase.

The counter-partner phase was not only supportive for the ESTEEM tool, but also for the PM's work and the progress of the demonstration project.

An external evaluation and an independent review from counter-partners seemed to be crucial to ensure the adequate tool implementation under the specific CA conditions. The counter-partner can motivate the consultant through 'step-by-step' assessment and reflective support; confronting interpretations and understanding proved useful.

The mediation in the case of conflicting issues seemed to be very helpful for the work of the consultant. Providing critical reflections on the process from a distance was seen as helpful, but it should not lead to being too distant from the process.

An intense exchange between consultant and counter-partner mainly took place during the testing of step 3 and 4. Single demos demanded a temporary 'counter consultant' to this end.

After two thirds of the course had passed, an evaluation was carried out by the counter-partners. On the basis of a common questionnaire, the situation and the CA process within the demos were recorded (see Annex III).

The recommendations

The counter-partner model within the ESTEEM tool was instrumental in the case of a scientific context to gain quality management and risk management (see Counter-partner reports, Appendix C).

For the further implementation in a real-world context the model appears too time-consuming and expensive. Nevertheless recommendations regarding the management abilities of consultants and PM - within the application of the tool - can be drawn: both the consultant and the PM should have the time and talent of self-reflection, an open-minded and flexible approach as well as communicative and conflict-solving abilities. The consultant specifically should provide interdisciplinary know-how in a social, economical and technical sense.

Last but not least the PM has to organise tool use in such a way that no arbitrary splitting of single steps or instruments is implemented - reflective support of this should be assured by the consultant.

Based on the experience with the counter-partner evaluation in a politically delicate demo, three substantial observations regarding the context were made. They can be taken as general preconditions for all kinds of projects:

- It is necessary that the enterprising organisation supports the PM, first in developing the project and secondly in applying the ESTEEM process.

- An informative transparency is needed: when applying the ESTEEM toolkit it is crucial that the enterprising organisation and the PM can explain the project to the stakeholders. If there is no informative transparency, it is very difficult to communicate and to involve actors.
- The political culture and tradition also needs to be borne in mind and managed: if there is a lack of trust in the public institutions, the ESTEEM tool has to reflect and handle this 'starting point' more carefully.

The reflection of context and the existing traditions are crucial for the involvement of stakeholder and build the core of the ESTEEM approach. The reflective dimension must be first ensured by the PM and supported through the assistance of the consultant.
For more information see counter-partner reports of all demos (Appendix C)

3. The empirical results: Experiences with testing the ESTEEM tool

3.1 The process

The testing in WP 4 started stepwise on the basis of a preliminary version of a tool manual. The manual was elaborated by a group of project partners within the scope of WP 3.

Two of the demos began as early as February 2007 - the next version of the manual was elaborated iteratively on the basis of their experiences.

The remaining three demo projects followed, each one after a period of time; they mostly used a modified form of the manual in the process.

Numerous inspirations came from the partners' ideas and experiences despite the different character of each demo project. As testing of the various steps of ESTEEM did not exactly coincide, the experiences of the pioneer(s) of a given step were presented to the others, and then they were fed back to the tool, so other partners often used a second modification.

During the application of steps 1 and 2, the CA team decided to develop a kind of pre-testing, which has been called step 0. This additional step contains a questionnaire and a ranking methodology in order to check if the application of ESTEEM is useful.

In the preparation of the testing phase and in the process of working through the first steps, it became clear that some of the demo projects are strongly orientated towards the network of local actors while the other group of projects is concerned with general actors and decision makers on the national level, which makes for a different kind of communication and information strategy. Besides the question of stage, the question of who the initiator is (e.g. in contrast to the PM) and at what level (i.e. national or local) the project was started seems to be of key importance. While some of the demo projects were confronted by an already existing formal or informal network on the local level, others had to activate stakeholders in this regard and realise a basis of participation.

Furthermore, the type of innovation and its dissemination into societies exert great influence on the usefulness of the ESTEEM tool: for example, for CCS societal positioning is still necessary, while for biomass, public support is already mainstream, and (some) acceptability exists.
After both of the first steps have been carried out, a very detailed discussion was conducted within the CA project team as to the further procedure. Step 3 and 4 were carried out very closely.

The fifth and sixth step were conducted with a considerable delay in the case of several demos. The SmartH project could not scheduled the realisation of the workshop (step 5.2) during the processing period of WP 4; step 6 could not therefore be completed[1]. However, the evaluation, i.e. sub-step 6.4, was brought forward.

[1] As an explanation for the delayed scheduling, the INE gave the following information: During the period Sept 2007 - Dec 2007 four major events occurred which influenced the possible timing of a workshop that incorporates new stakeholders (step 5).
a) The key monitor was allocated the task of collecting information and formulating a national strategy in the Icelandic emission policy - which is mostly related to combat erosion, reforestation, exporting geothermal know-how. This occupied her for 6 weeks in the period in which the preparations of the workshop (planned in October) should have taken place. However, during the September to October period, interviews took place with key persons in the energy sector as a basis for questions to be used at the workshop.

Apart from this case, all demo projects could exhaustively test use of the tool and could finalise the projects, although the Archimedes project focused on the first and last steps after a delayed start. In this context, the explanation of the PM as well as the identification and contacting of local stakeholders represented especially great challenges: the consultant CNR initially assumed that his project did not have a social dimension.

Whilst the Jühnde dissemination project was faced with a participation practice that has already been tested, but also another consultant who was already active, ZEPP had to venture into totally unchartered terrain and first of all handle the existing national dialogue on CCS in the Netherlands.

3.2 The results

The D 10 matrix was developed to show the suggested modifications of the tool and thereby document the results of the testing phase in WP 4.

Here, information regarding three categories was requested from the demo projects:

- Results (order changed, modification of the contents, appliance modification, omit aspects, combine tools, combine aspects).
- Recommendations referring to the demo and its specific requirements and background.
- General recommendations for refining the ESTEEM tool.

After testing and discussion in the CA project group, the demos filled out information on their experiences and recommendations.

To provide an overview of the different results, the following paragraph is prepared stepwise.

Experiences with Step 1 'Project history, context and actors'
In step 1 with its 4 different sub-steps ('Narrative', 'Context analysis', 'Critical moments table' and 'Actors table'), the preparation of the demo process itself emerges: the previous history and context of the demo projects are evaluated. The first sub-step, the so-called 'Narrative', works as a smooth starter, helping the PM and consultant to become acquainted with the project context and possible conflicts.

At this stage clear differences became apparent for the first time between the demo projects with regard to the practicability and usefulness of the individual steps. Whilst the PM of a follow-up project stated no value added on the basis of the „Narrative', the newcomers assessed the very time-consuming instrument as helpful.

The composition of the 'Context table' required a categorisation of results and situations into opportunities and barriers. In several cases this turned out to be difficult in part since some situations always have two sides. The 'Critical moments table' taken from the 'Narrative' was

b) On the 22nd of October the majority within the municipality of Reykjavik lost its power to the minority due to energy policies. This called for a restructuring of all energy policy at the administrational level; the new majority was not prepared to clarify the state of affairs until mid November.
c) In November the municipality company who is the largest stakeholder in SMART-H (Reykjavik's energy service, OR) was reconstructed due to new policies; the fate of SMART was also quite uncertain. As a result the ownership of the SMART-H2 project was unclear. Finally a new steering group for the project was re-established on the 18th of December.
d) Christmas: 7 of the ten relevant persons took an extended holiday until 7th January 2008. The preparations on behalf of Maria to frame the workshop were accepted but the key persons are participating in meetings abroad during 9th - 16th of January, 23rd - 25th January and a conference on the 29th of January. So the only date available is 31st of January.

evaluated as too negatively cast and was re-named as a 'Defining moments table' in the course of the procedure and the discussion during the CA process.

The allocation of different functions and roles to the actors was somewhat complicated in practice and the number of categories that are queried in total should be reduced, according to the recommendation of individual demos.

The experiences of and recommendations for the individual sub-steps are shown in the following overview of all demo results

Table 3.1 *Results of step 1*

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Narrative	Using the questionnaire in a very active phase of project caused kind of 'resistance', tool wasn't regarded very helpful with respect to the value added, time consuming for pm and consultant, identifying critical moments very helpful for consultant, handling closely linked to context analysis, actors table and critical moments table, **Recommendation:** check project status beforehand (--> step 0), adapt questions and process to already existing information	narrative longer than recommended 2-3 pages (5 pages), interview (2h) & writing narrative (8h) are time consuming, tool give relevant input also for actors table, critical moments table and context analysis, **Recommendation:** relevant for filling in other tools, time saving possible if consultant fills in the tables and pm check afterwards, at forehand categorisation of PM's experiences helpful, working with 2 interviewers practical	time consuming meetings with PM necessary to gain all the information for the tool, **Recommendation:** replacing redundant features of the questionnaire, interviewing has to be well organised	questionnaire was helpful but there were redundant features in the guiding questions; tool wasn't regarded very helpful with respect to the value added; time consuming for PM and consultant For the consultant it is a useful starting point, and also for writing the present vision in step 2 **Recommendation:** replace redundant features of the questionnaire, adjust questions regarding already existing information, preparation tables beforehand save time for PM	not very helpful in getting the PM to talk freely, emerged a resistance as if the questionnaire tried to find faults rather than smooth work, made the conversation somehow stiff, less added value within already existing project, **Recommendation:** project description or even description from applications should be used, based on the description consultant construct narrative, check results with PM or stakeholder

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Context Analysis	PM has deep and well grounded know-how on the political, economical and societal environment through the reflection and input of a central planning group, experiences of a precursor project offer valuable information, quantity and specification of questions depend on projects' context, categories of context are very helpful to reflect all relevant areas**,** **<u>Recommendation:</u>** difficult to deal with the key question 'pressure on the existing energy system / fit into existing system', dynamic development has to be reflected, change order of tool use	2h interview to name opportunities and barriers, important to mention it deals with present context, consultant cannot fill in table (too subjective), some difficulties in defining opportunities and barriers, **<u>Recommendation:</u>** start with opportunities: frames mind of PM, fill in barriers and opportunities with PM, consultant fills in level and timing column, PM completes table, skip categories, to save time PM: define opportunities and barriers together with PM and than let PM fill in rest of the table	PM and consultant worked in a complementary way to draw the context analysis, consultant integrate the whole tool, **<u>Recommendation:</u>** PM knowledge of the context can be focused on its interest and be partial, necessary consultant's role regarding information sources such as content of national or local debates, policy initiatives and laws	context tables clumsy, but manageable, requires well prepared and experienced consultant, and also one with a good memory and/or well organised, prepared notes; useful to identify and organise issues systematically, **<u>Recommendation:</u>** changing order of the tools and filling in CMT before context analysis, additional explanation for the tool necessary, 'social network' adjust to 'potential for social leverage', constant consultant feedback important,	tool well grounded in societal context, question is whether a consultant would set the project in a different context, **<u>Recommendation:</u>** reflection of relevant aspects, follow a few keywords here, context to human, financial and natural capital
Defining (Critical) Moments Table	actors of PM and stakeholders are reflecting continuously, high level of awareness, CMT is of high importance and interest, **<u>Recommendation:</u>** questions has to be condensed, some sound very similar and aim at similar facts, CMT better linked with context analysis, table format shouldn't focus on single dates because problems are mostly process dependant, adequate format is yet needed	CMT taken from narrative, extended document, **<u>Recommendation:</u>** should be made easier to use (excel file), remove column on irreversibility, consultant fills in table after interview for narrative and let PM check (saves time for PM), changing the name in defining moments, use table to check narrative on completeness	tool works well, irreversible aspects are important changes which produce a shift in the project journey, useful for context analysis, **<u>Recommendation:</u>** no adjustment	tool easy to use, systematic collection was a good reflecting exercise, PM could chose better strategy, **<u>Recommendation:</u>** changing order of the tools and use CMT before context analysis	CMT important to understand carriers and barriers, kind of SWOT, risk assessment, **<u>Recommendation:</u>** could be linked more to regular PM tools, understandable description, clear link between tools

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Actors Table	adjustment of categories and preparation of the table with already available information was necessary, downsizing from 14 to 11 categories, discussion of the actors table is seen as a good backing for more transparency and potential role conflicts, good overview for pm, **Recommendation:** modification of questions and categories depends on projects' context/status and pm's understanding, condense the amount of categories (…max 10), reformulation of categories like the '(re-)positioning' => 'conflicts', 'resources that actors control' => 'project activities', etc.	key actors table compiled by actors mentioned in narrative, actors added by consultant, extended excel file (not user friendly), consultant fill in table and let PM check (risk for subjectivity but saves time), **Recommendation:** consultant fill in table and check by pm	combined filling in actors table with question on potential conflicts between project vision and actors' expectations inclusive potentially influential actors, facilitated context table, **Recommendation:** adaptation of questions regarding specific project	useful for PM to take a systematic account of players and their roles, strengths and attitudes, importance of emerging potential actors acknowledged, Some points emerged to be considered for the PM, **Recommendation:** Interpretation of 'affinity' should be clarified, handling strategy regarding conflicts between actors is missing	good overview of important actors and relationship between them, actors can have many roles within a project, how can that be made clear?, **Recommendation:** adjust pm's expectations from the stakeholder, implementation of multidimensional actor roles

Experiences with Step 2 'Vision building'

Step 2, the vision building, includes four main activities and tasks (the construction of the project manager's present vision; the construction of the future vision of the PM, the selection of a core group of stakeholders and constructing the future visions of the stakeholders), which are further classified into a number of sub-steps.

The inputs for building a preliminary PM vision are gained from the 'Project Narrative', the 'Context Analysis' and the 'Actors Table' developed in step 1. With this information at hand, the consultants prepared a social network map in close cooperation with the PM. The mapping was seen as less helpful by the PM of the follow-up demos.

Two of the demos preferred to collect and evaluate the stakeholders' visions through a vision/scenario workshop instead of carrying out individual interviews. As a testing result, the manual keeps this sub-step more flexible now.

Due to the chosen methodology, the step 2 was more or less time-consuming in the different demos. The ESTEEM manual was modified with regard to the distinction between future and present vision - following the recommendation of most of the demos.

Table 3.2 *Results of Step 2*

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
PM Present Vision	based on the narrative, context analysis and actors table, difficult distinction between future and present vision, set of time frame for present and future vision, **Recommendation:** time frame should be based on expectations of the PM, separation of present and future vision might not be feasible	instead of present vision an intermediate vision was compiled (based on context analysis) by consultant and checked by PM, **Recommendation:** no added value seen for present vision (it's all been said in narrative already). therefore intermediate vision made by consultant to get PM and stakeholders in 'future thinking mode'	difficult to distinguish between future and present vision, no prior experience about this project	more description of the past and present than a vision, separate intermediate vision was constructed for the midterm future, PM reacted with minor modifications, **Recommendation:** include summary of the narrative, elaborate intermediate vision	description between current and future vision comes as a mix, PM is inside the project constantly preparing for short and long term actions, **Recommendation:** avoid separation between short and long term
PM Future Vision	based on input of the PM (meetings, telephone interviews), **Recommendation:** the frame and the main factors should be discussed, don't follow the concept of split visions		difficult to distinguish between future and present vision, based on input from PM and SH, **Recommendation:** timeframe for the future visions < 5 years	elaborated by consultant, based on the narrative, context analysis and actors table and previous discussions with PM, PM reacted with minor modifications, **Recommendation:** mix qualitative and quantitative state-ments to see the essence, encourage the PM	
Social network map	input by the consultant, modification by PM, **Recommendation:** reduce complexity, mapping should be classified as supportive by the PM	simplified version of network map compiled by consultant, checked by PM, **Recommendation:** clear description of map is needed (or keep it simple), use different colours to indicate differences between visions, change dimensions when needed according to the project	useful for PM to visualise present network of the stakeholders involved in the project; useful to set a reference on which to build future network map, **Recommendation:** input by consultant, comment and adjustment by PM	transparently clarified actors and relationships done by consultant, **Recommendation:** drawn by consultant, easily approved by PM, relationships could be shown more sophisticatedly and illustratively	repetition of the actors' table, **Recommendation:** use the actors table to a greater extent

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Future network map	input by the consultant on the basis of workshop discussion, modification by PM (interview), **Recommendation:** importance of single players in the future is difficult to assume, reduce complexity; mapping should be rated as supportive		input by PM and stakeholders, tool is reflection on present network map, useful to visualize important relationships and the future suitable development, stressing the real expectations of each actors, tool is necessary in order to create future visions and the conflicting issues table, **Recommendation:** no adjustment		
Synthesis	description of map, correction by PM, **Recommendation:** description is crucial		modification by consultant and discussed with PM	description of map, minor correction by PM, **Recommendation:** short sentences, short descriptive summary because much information on relationships included already in visions description	not very helpful for the project manager, goal is not evident, **Recommendation:** remove tool
Vision title	was not of high relevance, but elaborated by consultant and PM, **Recommendation:** clarify the concerns of PM	Composed together with PM & stakeholders, sometimes difficult to indicate in title the small differences between visions, **Recommendation:** just title is often not enough to show the (minor) differences between visions, not really useful when minor differences between visions can not be shown in titles		no high importance, done by PM and consultant together, **Recommendation:** keep it for short labelling visions in discussions,	not very helpful

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Stakeholder present vision	based on the scenario workshop, difficult to distinguish between future and present vision, **Recommendation:** use storylines to involve stakeholder in vision building process, don't follow the concept of split visions any longer, vision implicates the future		modification not done, **Recommendation:** difficult to distinguish between present and future vision, we recommend to have only one intermediate stakeholder vision	PM's vision reacted upon, interview questionnaire was also used, **Recommendation:** various 'tricks' to make stakeholders interested, feedback offer by consultant, address the stakeholders' sensitive points to make them interested	used input from project description and PM's future vision, **Recommendation:** tool not important for project implementation
Stakeholder future vision	See stakeholder present vision	easily written after interview (6 times 1,5h), often on 2 pages, subtitles added to structure text, **Recommendation:** 2 pages are needed to describe all dimensions, dimensions used to structure text, confidential information can easily be used in future vision format, use dimensions and subtitles to structure text	information obtained from the interviews was extrapolated to a short time (5 years), intermediate vision, **Recommendation:** timeframe for future visions < 5 years if the project is new	see stakeholder present vision	describe visions that are much broader, not so much in practical scale but larger future vision for the whole society, **Recommendation:** use tool to access the stakeholders wishful thinking and expectations, use tool to put communication with internal and external stakeholders in the right scale and context

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
PM interviews	modification: combining the feedback on mapping and visions with interviews, **Recommendation:** synchronisation with PM's needs and timeframe is crucial, sub-steps should be linked to avoid time consuming activities	structured interview of 2 hours based on social network map and intermediate vision, **Recommendation:** handful to work 'live' in social network map on laptop with beamer during interview, 2 interviewers for interview (one on laptop and one asking questions), use dimensions social network map to structure interviews	modifications: many PM interviews, focused on the inputs gained during single interviews with stakeholders, interviews were recorded, **Recommendation:** presence of 2 consultants enriched the outcome, added questions, before interviewing search for more information, to obtain more completed and satisfactory answers from PM	**Recommendation:** interactive consultation rather than just having PM to modify/approve visions premade by consultant	
Stakeholder interviews	appliance modification due to the stakeholders schedule: no single interviews but group discussion with core stakeholders, **Recommendation:** PM important as contact person, consultant needs PM support and trustful cooperation; PM should submit some competences, keep tool flexible and allow group discussion	social network map is base for structure of interview, can be worked on during interview, synthesis writing, PM future vision and PM social network map were read by stakeholders before interview, **Recommendation:** start interview with general questions to get the position of the stake-holder, use social network map for structure and to show differences, vision 'live' by drawing on map, stakeholders can easily react on vision PM during interview when read the synthesis writing, future vision and social network map of the PM at front	individual interviews: core group interviews not feasible due to difficulties to organise a joint meeting, questionnaire is time consuming, **Recommendation:** adjustment of questionnaire regarding the project	done by consultant (not PM), single stakeholder interviews, interview questionnaire was also used, stakeholder views elicited, **Recommendation:** various 'tricks' to make stakeholders interested, feedback offered by consultant, use also a questionnaire to elicit broader context views rather than just react on PM's vision?, address stakeholders sensitive issues	workshop was used instead of interviews, useful and cost-effective, **Recommendation:** workshop is a good alternative to interviews if there are no large conflicts

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
BAU	consistent scenario, discussed and reflected with PM and core stakeholder, **Recommendation:** necessary data have to be available, stakeholder have to be included and should get feedback, analysing data by observing changes over time	not written as future vision and network map, but as summary (negation of PM vision) integrated in conflicting issues table step 3, **Recommendation:** no extended future vision and social network map of the BAU is needed as long as summary of BAU can be given in step 3	done by consultant, based on information gathered through interviews and context analysis, tool not used neither discussed, **Recommendation:** tool is done by consultant; document acquired by consultant, regarding the information gathered through interviews as well as the context analysis	short scenario description, discussed and reflected with PM and core stakeholders, stakeholders do not agree on BAU, consultant decided final status	instead of asking the PM for a description of a BAU there is the tendency in critical media to refer to different future vision which then again is nearer to a BAU, **Recommendation:** use the media / societal discourse to find out how the project implications are reflected against BAU

Experiences with Step 3 'Identifying conflicting issues'

The step 3 contains three sub-steps which handle the documentation and categorisation of important issues. First of all, the different visions collected from the various stakeholders were compared in a 'key issues table'. In a second sub-step, the project manager's vision and stakeholders' visions were juxtaposed and compared with one another. Subsequently, the most debated and conflicting issues as well as strong points of agreements were ranked and visualised through a 'Strategic issues graph'.

One demo suggested the supplement of a weighting factor to support the ranking procedure within the 'Issues ranking table'. Another demo suggested an automatic ranking procedure by means of multiplying the categories 'importance' and 'urgency'. The application of the graph was assessed as helpful in the case of start-up projects but less supportive for follow-up projects. One of the demos even suggested the removal of the graph.

Table 3.3 *Results of step3*

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Conflicting Issues table	based on the input of PM present&future vision, stakeholder present&future vision, BAU, devided into 5 evaluation points (infrastructure, environment, economy, social and policy issues), **Recommendation:** as preparation work for the visions very helpful, evaluation points should not change during the 'step-process', classification difficult, description necessary	issues are divided in opportunities and controversies, **Recommendation:** change rows and columns (visions in columns) to make comparison of visions more visible	tool represent a critical review of the whole process	difficult to anticipate not yet identified actors and conflicting issues, **Recommendation:** synergetic points should be stressed/ highlighted more/made more explicit, use colours for conflicts and agreements, uncertainty is not easily visible in print version	heading 'conflicting issues' is perhaps not very appropriate, issues were entered as 'doubtful', 'unresolved' and 'strong support', stakeholder views were identified in a workshop, there is only one stakeholder vision, **Recommendation:** more useful at an earlier stage of the project, harmonise with project management tools (e.g. risk analysis) but helpful in setting a communication agenda
issues ranking table	easy to fill on the base of key issues from conflicting issue table, ranking without weighting factors not possible, modification: implementation of score descriptions and weighting factors, **Recommendation:** check if PM gets additional information, necessity depends on the projects' status (step 0 / typology), more interesting for new projects	ranking difficult when many issues exist, therefore multiplying importance and urgency automatically to get ranking, **Recommendation:** automatic ranking by multiplying importance and urgency	not done	**Recommendation:** instead of ranking use marking between 1-5, some issues can almost equally be of high importance, ranking them in this case may be misleading**,**	some issues are more important in the long than in the short term (added to table)
Strategic issues graph	visualisation of key issues indicating importance and urgency, following the manual and the additional weighting procedure, **Recommendation:** check if PM gets additional information (depends on type of issues and existing knowledge), necessity depends on the projects' status, more interesting for new projects	automatically filled in when ranking issues	not done	visualisation of key issues indicating importance and urgency, **Recommendation:** also include issues anticipated from future, these by nature of the dimension 'urgency' will be 'discounted'	graph redundant, needs more clarification of the expected value, table is easier to read than the graph, **Recommendation:** remove graph

Experiences with Step 4 'Portfolio of options'

The objective of the Step 4 is to identify the variety of options and solutions. The activity within this step is closely linked to step 3 and on the basis of the 'Issues ranking table' a discussion with the PM has to be elaborated. To develop the 'Portfolio of options' two previous sub-steps have to be carried out: an 'Issues/solutions table' and a 'Solutions ranking table'.

The testing generated different recommendations from the demos: the 'Issues/solutions table' was seen helpful to provide an overview, but there should be an additional column to categorise the solutions and one demo opted not to further rank the solutions. While two of the demos classified the 'Portfolio of options' as not useful, one demo opted to keep it and use the table in critical project situations.

For one of the demos it was difficult to keep the PM on track in terms of what was being discussed because of the many different tables and redundant matters.

It was stated that a modified tool might be very useful for difficult project phases, but like the 'Issues ranking table' the 'Solutions ranking table' also needs weighting factors for the different types of action.

Table 4: Results of Step 4

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Issues /solution table	solutions elaborated by consultant and PM, have to be ranked; new ideas for common process options, detailed information on solutions, **Recommendation:** positive and supportive in difficult project phases	4th column is added with 'other' solutions for those that didn't fit one of the 3 types of solutions	clear visualisation of real problems: 3 main issues which rose from conflicting issues table, all these issues involve new and peripheral actors that will have an impact on future strategy, used as input for WS, valuable tool of discussion, allowing to participate on a common basis; effective synthesis of the main problems which constraint the project development; clear picture of 'who is responsible for'	Numerous solution options grouped in 3 categories were invented to solve conflicting issues	OK. Solutions mean that either parts of the project will be redesigned or the old parts will be used but explained and communicated. **Recommendation**: good for keeping overview
Solutions ranking table	ranking with a score between 1-4 and a weighting correction factor, **Recommendation:** definition of the range (score) is needed, check if weighting factor is assistant and needed	not used because we never received back the solution ranking table from the PM, tables request too much detailed information that the PM does not have and added value not very clear to the PM, **Recommendation:** remove table from ESTEEM tool	This table has not been carried out since the present PM cannot wholly control the range of solutions for the development and commercialisation of the technology tested through Archimede and cannot enter into details.	Not used; there was not sufficient and detailed information to fill it. It was decided to prioritise options in Step 5 Workshop and in Step 6 action planning **Recommendation:** Keep it as an optional tool; it can be useful for projects with suffi-	Not applied. Further guidance needed.
Portfolio of options	input for stakeholders, new impulses for pm and new possibilities to solve conflicts support the discussion and the motivation to participate, **Recommendation:** positive for difficult project phases	not used because there is overlap between this instrument and step 5, where there is also testing of the solutions and issues with a large number of stakeholder, instrument is time-consuming with little added value, **Recommendation:** remove instrument from ESTEEM tool	This step seems to be redundant since similar to the capacity for action table. Both are fo-cussed on the feasibility of options. Also in this case, like in the table before, the PM Enea was not able of giving us a suggestion in terms of resources availability and other details.	Not used; all identified solution options were decided to carry on to the Workshop to discuss; **Recommendation:** Drop this instrument from CA	Not applied. Further guidance needed.

Experiences with Step 5 'Getting to shake hands'

The stakeholder workshop plays an important role within the communication strategy of the project. It is an important tool and a starting point for creating the 'right knowledge' or for disseminating information. The informal situation gives all individuals a suitable place to discuss

and, at the same time, to accept opposing views. The preparatory work can be supported by a partners' workshop beforehand.

The basis of substantial workshop results and solution-oriented discussions is careful preparation. The preparation phase of the workshop includes three sub-steps: the selection of stakeholders, the informative preparation of the participants and the management of logistics.

On the basis of the demo experiences the following suggestions were made: the ESTEEM manual was very detailed and the preparation takes up a lot of time but is worthwhile. Alternatives for the pair work should be added because working in larger groups can be more efficient in some cases, for example when many stakeholders don't have a lot of background information on the project. The role of the PM should be more explicitly outlined in the manual. It was somewhat ambiguous to what extent he or she can act as any other participant, but at the same time should not influence the flow of the workshop and the proposals, but also not miss the opportunity to discuss and test his or her own proposals identified in step 4.

The recommendations regarding the application were diverse:

- Try to limit the duration of the workshop as much as possible without decreasing the results.
- Alternatives should be added for the ranking of the strategies and project variations; when the voting is not feasible (due to the large amounts of variations or any other cause), an alternative rating system is needed as the results are a necessary input for step 6, for example a digital ranking afterwards by the participants, or a selection of limited amount of strategies by the consultant which is voted on during the workshop.
- Even when many stakeholders do participate in the workshop, it should always be taken into account that important stakeholders with much power may be absent. These stakeholders may influence the project and future discussions in a major way which not appears in the results of the workshop.
- Besides the activities of PM and consultants it may be supportive for the workshops to ask multiplier and representatives to promote the communicative platform.
- Due to the negative experience with voting, and therefore prioritising, in the following section a simple as well as theoretically well-founded evaluation procedure is recommended. According to Donald Saari (in Economic Theory, 2001), the only fair voting system for more than two candidates to appropriately reflect preferences is the so-called Borda count. It would be a shorter procedure than hand or card voting for each proposal and at the same time would provide a more appropriate result. In the case of numerous proposals, the procedure could also be used for each category of actions (project alteration, information gaps, fiscal incentives) separately, but then priority is not set across the categories. Voting can also be used not for prioritising the proposed options, but possibly to identify what type of participant is against a particular proposal: in the actions in Step 6 they will then need particular attention (see Fucsko 2008, Annex I).

The results of the workshop were communicated back in a workshop report which was prepared by the consultants on the basis of minutes, charts, and the given presentations. The scope of the report depends on the material which is available beforehand.
The guidance by the ESTEEM manual was seen as substantially helpful for all the sub-steps of step 5.

Table 3.4 *Results of step 5*

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Selection of WS / participants	depends on aim of the workshop, implementation of partners and stakeholder workshop regarding conflicts, **Recommendation:** one day workshop, selection regarding specific problems, be attentive to all relevant stakeholders	invitation of 45 stakeholders by Email/phone in cooperation with PM and some active stakeholders, **Recommendation:** asking for PM's preferences in participants, ask every stakeholder that might be interested in the workshop and invite these as well, no balance in gender/age; selecting and inviting the stakeholders is active process that changes when people confirm their presence or non-presence and come up with other names	phase is extremely important for selecting right people who are not directly involved, **Recommendation:** starting from context analysis, allows to widen the social dimension in the demo project	invitation of 30 people, represents all relevant segments of society, PM helped the consultant with selection of stakeholders, **Recommendation:** invite several people representing a particular segment/dimension to secure representative and diverse participation unless the first place chosen candidate(s) will surely attend	
Preparing&Information	instead of a dossier an elaborated invitation letter was prepared and a handout was offered to the participants, **Recommendation:** preparation depends on the specific information level of the involved stakeholders	dossier included the intermediate vision of the PM, the future vision of the PM, the issues list compiled by consultant, route description, information booklet ZEPP & agenda. 1 meeting with PM + 1 meeting with moderators/minute taker, **Recommendation:** not feasible to let stakeholders vote on issues upfront, when voting not feasible (e.g., stakeholders don't know enough about project to vote), let consultant decide upon issues to discuss	**Recommendation:** different type of document for different participant group had been necessary due to a confidential matters	within a preparatory meeting between consultant and PM key issues and solution options for the Workshop would be selected and discussed, reformulation the conflicts into more general issues, dossier contained a brief description of the situation of the project, the CA project and the aim of the workshop, - present, intermediate and future vision of PM, maps, **Recommendation:** phone call follow up and providing information for some important invitees, within the workshop material describe shortly the role of the workshop in the ESTEEM process and also send the process chart,	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Facilitator meeting	preparatory meetings and agreements mainly with the project manager are needed, **Recommendation:** a preliminary workshop with partners took place to prepare the stakeholder workshop (presentations, handout, solutions/options)	one of the stakeholders offered their facilities to host the workshop (a neighbour of the future plant): rooms & lunch, **Recommendation:** being physically close to future plant, made discussion more direct & helped imaging what project would look like, informal atmosphere made networking during lunch and breaks possible, try to create connection between project and location of the workshop		unnecessary to hold such a meeting; the CA consultant was the facilitator, **Recommendation:** keep it as an optional substep	
Execution	25 participants, workshop took place Friday afternoon to include all stakeholder groups, solutions and options were prioritized, the workshop helps to build a new communication platform, **Recommendation:** a partners workshop beforehand supported the execution of the main workshop, working groups instead of pairs	morning session: plenary session with presentations on CA, the ZEPP & the aim of the workshop. afternoon: 3 groups of 6-7 persons (1 moderator + 1 (representative of) PM in each group): 2 proposals per person per issue, instead of voting, a summary by the moderators was given in final plenary session, **Recommendation:** when possible, add a fun-part to the workshop (excursion, drink, etc) to facilitate the network-activities among participants, working in pairs not feasible, voting is time consuming, 3 proposals per person too time consuming, add alternative for voting, discussion in small groups increases the interaction and reaction upon each other, (representative of) PM in each group to provide direct answers to questions concerning plans, provide some networking time	half day WS, with a semi structured programme, including a round table on the main points, discussion with all core stakeholders and then open discussion with all the other participants, **Recommendation:** state of the project is the main criterion to choose this kind of WS, to overcome the lack of right knowledge and the awareness of the real conflicts	17 invitees showed up, intro presentation by the consultant (facilitator), group work, proposals were presented, discussed, then evaluated with voting, WS process as recommended in the manual can not strictly be kept, **Recommendation:** workshop process must be taken flexible, aim of the evaluation should be further qualified, evaluation/voting procedure should be improved, to be made simpler, faster, include Borda count voting method as an option, more flexibility for group work, clarification of PM's role and activity during the workshop, allow the process more markedly discussing the Step 4 solution id	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Reporting	to send out a workshop report was supportive for the reflection of participants and PM, **Recommendation:** preparation and availability of workshop material beforehand, the quantity and quality of the workshop report depends on the preparation work: if the dossier or a handout or a presentation is already at hand of the participants not all the material has to be included again	report content: introduction (step 5 of CA, aim of workshop, date & location), workshop description (minutes + results) and appendix (list participants, viewpoint local NGO, slides presentations, pictures, issues list, future + intermediate vision PM), **Recommendation:** record the whole workshop on audio / video tape to help the reporter to recall all details of the discussions	WS report based on a synthesis of the discussion on the three critical issues, include a short history of the project, **Recommendation:** collection of specific references to the position of the single stakeholders before the workshop, following the suggestion of the PM who has been contacted by some institutional stakeholders	WS report was sent to participants and interested other people, presentation were put on the website, consultant called PM to inquiry his perception of the WS and discuss in general the overall results, **Recommendation:** besides participants, send WS report to everyone invited and others who are interested	

Experiences with Step 6: 'Recommendations for action'

Step 6 includes four sub-steps ('Identifying acceptance and feasibility', 'Capacity for action table', 'Recommendations and action plans', 'Evaluation'). The first sub-step, the acceptance and feasibility table is based on the outcomes of step 5.

The overview of key issues and types of action was classified as very helpful. Nevertheless it is suggested that the highlighting of categories should not be implemented within the 'Acceptance and feasibility table'. The procedure was rated as time-consuming and no added value was assumed by some of the demos.

The 'Capacity for action table' divided the key issues into activities that can be done 'today', ones that can only be undertaken 'in cooperation with others' and external dynamics that are relevant but cannot be controlled by the project stakeholders or the PM.

This overview is generally helpful, but the table might be combined with the following action and communication plan - due to the number of actions.

The development of recommendations and strategic action is split into four different steps: while the short-term action plan and the collaboration plan were easy to handle, the long-term monitoring and capacity-building plan had to be modified. One demo stated that the communication plan needs further development and explanation.

The questions of the 'Evaluation' worked well and were considered helpful in reflecting upon the process and the value added. The evaluation by the PM provides an opportunity for receiving feedback, the common reflection was classified as supportive. The questionnaire should be retain its qualitative character.

In general the step and the manual were assumed to be good and its instructions clear. It is an important step, but time consuming, so the application should avoid repetition in strategies and tables. Some of the tools were first pre-filled by the consultant and then a meeting with the PM ensued to discuss and finalise the proposed actions. Further recommendation was made regarding a summary time table for the actions template; a timing column could alternatively be inserted in each table. It was suggested that in a later ESTEEM application the consultant may

also have a follow up and helping hand role in the execution phase of the action and communication plan - in formal terms probably as a separate activity from ESTEEM.

Table 3.5 *Results of Step 6*

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Acceptance and Feasibility Table	input from stakeholder workshop, **Recommendation:** colour code might not always be helpful, the third category is different from the other two and might cause confusion	as no voting took place during workshop, column 3 cannot be filled in, column 3 changed in strategies column with 3 possible combinations: strategy of both PM + stakeholders, strategy of stakeholder, strategy of PM, problem: list becomes long, strategies divided into 5 key issues used in workshop, **Recommendation:** if voting is missing, it needs to be indicated whether a strategy is from the PM, the stakeholders or both	tool works very well, at the end we obtained a clearer vision of how the project is shaping up	for three key issues ten solution options were listed and qualified, **Recommendation:** acceptance indicated as highly or positively should be further clarified: who still opposes?, allow some flexibility in marking feasibility of/capacity for an action to a proposal with two types at the same time (type 1&2, 2&3)	
Capacity for Action Table	helpful in general, but the table might be combined with the following action and communication plan - due to the number of actions, **Recommendation:** differentiation between action and sub-action difficult; coloured activity allocation not necessary	45 strategies left over for further processing. filled in by consultant, sometimes difficult for consultant to decide what exact sub-actions must be undertaken	very useful tool	easy to use summary reorganisation of the Acceptance and Feasibility table, **Recommendation:** list monitoring action and monitored issue together: monitor what issue with what action (what and how)	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Short-term action plan	worked well, identification of project specific strategies, **Recommendation:** the short-term action plan and the collaboration plan can be prepared together	17 strategies pointed out, consultant filled in columns, often repetition in the columns, sometimes difficult for consultant to decide what exact sub-actions must be undertaken, **Recommendation:** critical review on relevance of 2nd column	table gives a clear picture of the room for action at this project stage, instrument involved different institutional actors and funds	straightforward to select type 1 actions from previous table, **Recommendation:** do not take 'actions that PM can do alone' always equivalent with short term actions - type 2 collaboration actions in particular cases can be more crucial and urgent for the success of the project, clarify question of priority with the PM	
Collaboration plan	worked well and is supportive in sorting out cooperation, helpful to reflect on cooperation, **Recommendation:** see short-term action plan	17 strategies pointed out, some difficulties encountered when filling in the 2nd and 3rd column, often repetition of answers, sometimes difficult for consultant to decide what exact sub-actions must be undertaken, **Recommendation:** delete 2nd column	clear identification of relevant stakeholders who can support the real dissemination of this technology but also of the conditions which can support it, helps PM to have higher awareness	not difficult to use, but not that straightforward either as the tables above because of some ambiguity in the meaning of headings, consultant decided upon an interpretation, **Recommendation:** insert a 'with whom?' column, type 2 collaboration actions can be more crucial for the success of the project, in this case these should be addressed first as short term activities, clarify question of priority with the PM, table headings should be further clarified in the guidance, possibly with example filling of the table	
Long-term monitoring and capacity building plan	classification of monitoring specific issues difficult, understanding and definition of long-term not clear, difficult to combine with specific future project activities, **Recommendation**: further explanation in manual; review on relevance	11 strategies pointed out	no modifications of the original plan are envisaged, awareness of the future growing importance of the social acceptance and of the key role played by the communication	**Recommendation:** it should be planned in an economic way to restrict it to such actions that may really bring in some benefits (termi-nology clarification for the checklist is recommended as well as examples for filling in the table	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Communication plan	it worked well, but the aim needed explanation, **Recommendation:** needs further development and explanation	Communication plan written for PM by filling in table, no accompanying text	some suggestion have been done for communication in short and long term	The table calls for the essential info needed and helps rational management of the task; **Recommendation:** tool is well designed if a detailed communication plan is necessary; if not, the integration of this sub-step into the previous tables near the actions is recommended. The detailed format could be left as optional; the right channel for the right target group should be carefully chosen.	
Evaluation of CA process	the questions worked well and were seen as helpful to reflect the process and the value added, feedback of the project manager regarding contacts and advices of the consultant, support of reflection, **Recommendation:** let the questionnaire retain its qualitative character and keep it short		**Recommendation:** projects with less developed aspects (previous experience, social acceptance) can benefit more from ESTEEM	it took about 45 minutes, straightforward to do based on the manual's guiding questions, **Recommendation:** do it on a separate occasion, not right when having finalised step 6, it helps avoid tiredness, gives time to PM's reflection on the whole process	

3.3 Lessons learned: Success and limitation of the CA-Process and the ESTEEM Tool

A challenge of the whole CA process was the parallel testing and developing of the tool in practice and the application of preliminary elements (instruments) in a real-world context of demo projects. The evaluation and feedback interaction with the WP 3 team had to be managed efficiently: the team had to receive the suggestions as results of the WP 4 testing, incorporate the ideas and refine the tool and the manual in more or less real-time.

The most important lesson learned was that the tool can be used without extensive effort. It helps to gain new knowledge of the project and context, both for the PM and other stakeholders, and is likely to encourage projects to start communicating with stakeholders earlier on in the project life cycle.

One demo stated - as a result of the CA process - that the PM has become more responsive to stakeholders and more aware of the communication needs in society. After a vision building workshop took place in step 2 of the ESTEEM testing, it seemed that more acceptance has been developed in the following 2-3 months and that the project actors communicated more in line with the strategies that had been discussed jointly. Also the PM was communicating in a differ-

ent way, making information more accessible and making stakeholders more empowered. The interest groups involved in the project are broader now and the research and university community is more closely linked (see Heiskanen/Maack 2007, Appendix C).

Both research organisations and technology innovators can use the tool. The demos show that the best application of the ESTEEM tool can be reached in concrete projects with a site and a concrete plan which stakeholders can react to.

In terms of individual steps and sub-steps in the ESTEEM tool, the following experiences were gathered as advice for further users:

Parts of the narrative were regarded as very useful in terms of gaining self-understanding, but in already ongoing projects the 'Narrative' should be pre-drafted on the basis of existing documents and presented to the PM rather than based on an interview with the PM. The 'Narrative' could serve the purpose of providing a 'mirror' for the company to self-reflect. It should be a concise description that could start the discussion with the PM to include missing or remove redundant items and develop the 'Critical moments table'. In this case, the 'Actors table' and 'Social network' could be developed in the first meeting; it was also suggested that the first parts of the tool be streamlined and condensed in order to get to the interesting matters sooner. Similarly, the 'PM vision' could be developed at the first meeting; this provides the process with a quick start.

In steps 3-4, the analysis was rated as too detailed and too much focused on the analysis of problems instead of solutions. Moreover, if there is movement in the project at that stage, the tools should be kept up to date with these new developments. One of the demos started to solve some of the issues raised in the meetings with stakeholders immediately after they arose. This was characterised as typical for small companies, and has to be taken into account in further applications: the tool shouldn't hinder the 'natural' project flow. Partly, this problem might occur from the specific CA approach in which certain tools were not quite ready-to-use immediately after step 2.

The manual in its revised version now provides enough flexibility to adequately react. Thus, some parts of the tool are ready, for example, to be used in different steps of the process. Besides the project management organisation, the user (consultant) has to take into account the requirements of the local culture, policy context, etc.

The majority of demos stated that it was crucial to motivate the PM to invite a broader but targeted range of stakeholders in addition to the well-known core group of actors. In most cases the manual only gave a suggestion with regard to the selection in practice.

One substantial lesson learnt has been the fact that when the project, for different reasons, remains in a stand-by position between the pilot and the demo phase, with a PM who is mainly research-focused, the ESTEEM tool can be used only partially. It can produce awareness towards the relevance of a communication strategy towards stakeholders who have not yet been involved, such as social associations and the public, but it has less room for producing clear recommendations for the implementation of the project.

Inter alia it helps to explore adjustment and negotiation options that the PM appreciates and will take further.

It is stated that it is possible to use the tool for developing projects in developing countries and under quite different context situations. But, a process like ESTEEM has to handle - and overcome - the 'starting point' problem of different or inadequate context conditions in different countries or cultural traditions. Therefore step 0 as a pre-test for application is of high impor-

tance. If the possible lack of informative and transparency tradition and the lack of trust in the public institutions is not borne in mind, it can seriously hinder the process.

Due to further perspectives it was assured that at least in one demo the tool will be integrated in the management routines and used for future applications.

3.4 Feedback on ESTEEM of stakeholders

To measure the degree of satisfaction of the stakeholders involved in the five selected demonstration projects, a website survey for stakeholders was planned. However, we felt the need to ensure qualitatively high responses en to get direct responses instead of responses a long time after the testing of the tool when many details of the interaction with the tool might have faded. An addiitonal reason to replace the ex-post websurvey with an ex-durante evaluation was the extra workload for the stakeholders to fill in the survey after spending allready a lot of time on the interviews, preparing and participating in the workshop, etc.
Therefore we replaced this survey by face to face, telephonic and Email evaluations. This replacement was in addition not taking up much additional time since we were able to interview the stakeholders during their presence at stakeholder workshops. As such, the ESTEEM tool was evaluated by stakeholders during the process: during the workshop, in face to face conversations, via telephone and Email. The most important indicator of the positive evaluation of the stakeholders and the project managers regarding the ESTEEM process was that although the ESTEEM process asked for considerable efforts and time of the stakeholders none of them ended their participation before the end of the process. As all participation was on a voluntary basis, this is an important signal of their positive attitude towards the ESTEEM process. The detailed outcomes of the evaluations were translated into interim documents on how to improve and refine the tool and as such led to next versions of the tool during WP4. The final ESTEEM tool as such contains changes that are based on the evaluations of the stakeholders. These changes are reported in the deliverables D9 and D10.
The project team considered these personal evaluations as sufficient and therefore did not perform an additional websurvey. Also many of the stakeholders would not have been reached via a websurvey, simply because they are not digitised, for example the farmers who were stakeholders in the Biomass pilot project in Germany.

The feedback of the dissemination of the ESTEEM tool is measured by the statistics of the website www.esteem-tool.eu, statistics of the website www.createacceptance.net and personal, telefonic and Email reactions of the stakeholders to the project partners. The webstie www.esteem-tool.eu has been put online after the finalisation of the ESTEEM tool in February 2008. This launch has been disseminated via diverse communication channels including the newsletter of Create Acceptance, a message on the website www.createacceptance.net, An Email to the stakeholders involved in the demonstration projects, etc. In March the website had over 3,000 hits with 211 unique visitors. This means that even a broader group than the stakeholders that had been participating have been reached by the dissemination. The statistics also show that the ESTEEM website also kept on attracking visitors after the launch. In April 2008 again almost 200 unique visitors were registered and in May, June and July this year even more than 300 unique visitors are counted.
The website www.createacceptance.net also shows a growth in number of hits and unique visitors in the first months of 2008 with the launch of the ESTEEM tool. In the months January untill June more than 600 unique visitors were registered in each month. The number of hits was in this period between 3,000 and 4,000 in each month.

Apart from these impressive numbers of visitors of the websites the project partners were also contacted by a variety of organisations and individuals who were interested in using ESTEEM in other projects in Germany, South Africa, Spain, Finland, the Netherlands and on European level. also the coordinator and other project partners were invited to several meetings, conferences and workshops to present ESTEEM to a wider public in the months following to the

launch of ESTEEM. For example at the University of Utrecht, at the Free University in Amsterdam, at a project meeting of a European project focussing on nucleair issues, at the Helsinki School of Economics, at the Finnish Foundation for Research and Development, Lumituuli Ltd. wind power company, as well as to a network of companies using the Norppa-label for green electricity, etc.

4. Perspectives: A Website and the electronic Tool ESTEEM

After the finalisation of CA, all partners will continue disseminating the results of the project. For this purpose, the 'translation' of the ESTEEM manual into an electronic, web-based tool (with manual and background material, as well as Excel tables for download), and its publication on a dedicated website was prepared.

In that regard, the demo projects supported the development of both the ESTEEM web tool, and of the respective website.

The elements of the web version were jointly developed by the CA team at regular project meetings, and two specific IT meetings. On the basis of a list of technical and aesthetical requirements agreed upon by the CA team, a sub-contractor of the WP3 leader prepared draft versions of the web tool which were critically reviewed by the CA team, and suggestions for improvements were made. The key recommendations were to simplify the first draft, especially regarding non-dynamic elements and less interactive structure to facilitate future adaptations. A 'flat' design of static HTML code was preferred by the CA team to allow for independent hosting of the ESTEEM website, and easy translation of the web tool into other languages.

Furthermore, the demo projects prepared written input for the ESTEEM web pages to present their cases and experiences.

Appendix A Demo reports

A.1 Description of demo project Jühnde

The central idea of the demo project is based on the already existing bioenergy village Jühnde. The Jühnde model shows a complete shift of energy sources for an entire village, away from conventional (fossil) energy sources to the renewable biomass ressource. One such community is the bioenergy village of Jühnde, located in the southern part of Lower Saxony, Germany. The advantages of bioenergy - such as climate protection and energy supply security - are good reasons for the project dissemination. The district administration of Göttingen and the EU LEADER+ Program are financing preparation of the dissemination. The funding supports the selection of the village and feasibility studies which make up the basis for decision making. The studies will answer the question as to how and at which locations the implementation of further bioenergy villages is realistic.

The official decision of the district council was made on November 29, 2006. The district committee confirmed the preliminary selection of 12 village candidates and is providing financing for the further process. A consulting firm carried out the feasibility studies. The firm was responsible for the technical project support of Jühnde, too. The feasibility studies include basics such as energy demand of households, supply of biomass, willingness for contracts with the cooperative company, willingness of farmers for contracts to deliver biomass. Furthermore, the feasibility studies include the calculation of costs for implementing the projects.

The participation structure of the new villages is similar to the participation structure of Jühnde. There are planning workshops with representatives of IZNE[2] - which also serves as moderator and scientific information resource, the mayors, speaker of the working groups, representatives of the villages and the village councils. A committed communication process supports the dissemination of the project idea. Within the villages, four working groups are set up (public relations, bioenergy, operating company, technical issues). The working groups on technical and economical questions represent an instrument of public participation. They are developing village-specific aspects which are necessary for the implementation of the project idea. Meanwhile, all villages found operating companies. Preliminary contracts secure the further implementation of the bioenergy system.

The inhabitants play an important role in the successful implementation of the project idea. The villagers develop and present their own ideas. This participatory approach maintains self-esteem, and creates acceptance and credibility. The process secures a high compatibility with local needs and the network of actors, while local competence and know-how can be established. Apart from the shift from fossil to renewable energy, one of the formulated aims of the project idea is to support the local cultural heritage and also to strengthen the community life and identity.

A.1.1 The process of the Demo project

The original bioenergy village project was carried out between 2001 and 2006 and consisted of various biomass investments. The project was considered successful and the district administration, the County of Göttingen, decided to disseminate the idea. For this purpose the methodology and human resources of the Create Acceptance process has contributed to the dissemination since the beginning of 2007.

[2] IZNE is an interdisciplinary research group of the University of Göttingen.

In the early stages the contact with the project manager (PM) was very difficult. A group of academic consultants was already at hand. The scientists of IZNE, who founded the original project idea, were also involved in order to manage the dissemination phase. As a result, the relation between IZNE and Create Acceptance was ambiguous. If two different consultants are involved in one project, there is a risk of competition between them. Therefore, the first contact between Öko-Institut and the bioenergy project as well as the project management can be characterized by suspiciousness and rejection. After a number of individual meetings and telephone calls - and a clarification of responsibilities - Öko-Institut convinced the project manager and core stakeholders to support the ESTEEM tool testing.

The PM is a county staff member and is responsible for the regional implementation of the European LEADER+ program. He is a committed supporter of the project idea. Over the years he has gained much experience which is important for the development of bioenergy villages. Öko-Institut presented the advantages of the tool for a successful implementation process of the new bioenergy villages.

The original project process uses an elaborated set of participation tools. Since many villages were already involved in the preparation phase of the Jühnde model, most of the possible stakeholders of the Jühnde dissemination were known. Nonetheless critical situations such as the involvement of farmers came up. This problem was almost externally driven: increasing world market prices for agricultural products led to a competition between selling the resources for fodder, food or energy use. A second reason is the potential danger of innovation without covering economical risks. Farmers are not yet familiar with opportunities and risks of the new energy business. As the basic idea of the project was meant to be the support of the rural area and small agro-businesses, these are rather unexpected problems, but they were identified and partially addressed by the CA process.

The above-mentioned aspects hampered the engagement of the farmers, with the consequence that more detailed expertise was needed. Within the Create Acceptance process the project management tried to develop intense discussions with all relevant key actors. The project manager aimed at more flexibility in the contracts between farmers and biomass plant owners.

With regarding to nature conservation aspects, the tool identified another critical stakeholder and his/her requirements: local nature conservation actors. Within different workshops the consultant provided a lot of information about solutions to meet nature conservation requirements, for example crop rotation, different kind of plant species as well as the use of landscape preservation material. The workshops were linked with the discussion on the different positions and elaborated common visions and strategies for the dissemination project.

A.1.2 Results of testing the ESTEEM tool

We started testing the ESTEEM tool in February/March 2007. The following figure shows the order of the different ESTEEM steps. It can be stated that the steps 1 to 4 are very close linked and partially overlap each other. The success of the ESTEEM tool is based on using the tool completely without splitting up single steps.

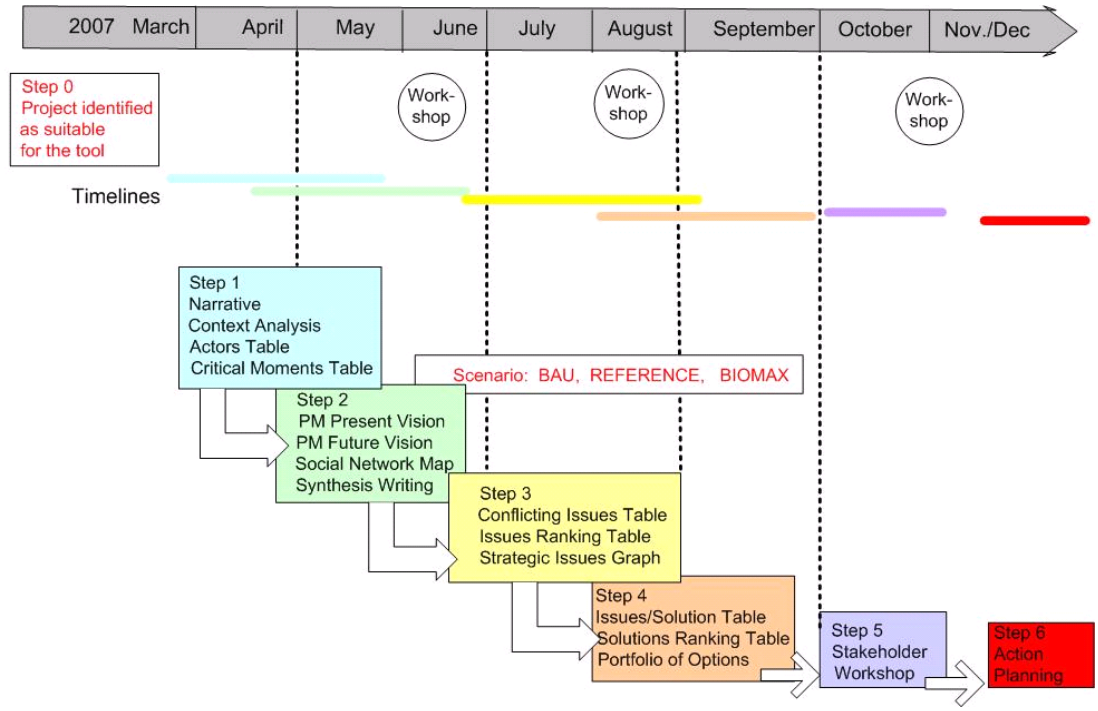


Figure A.1 *Timeline of the steps*

A.1.2.1 Step 0:

Step 0 was elaborated at the end of the testing course of the CA project. The Step 0 questionnaire checks the suitability of ESTEEM for different project types. During the test of step 1+2 it turned out that a starting project has different requirements regarding the management support than an ongoing or a follow-up project. The add-on reflection on tool categories in relation to the project typology identifies recommendations regarding the ESTEEM-tool. The ESTEEM-tool user receives an indication as to whether the tool is useful in his/her case or if it is of less importance.

The questionnaire went well; minor modifications were suggested and implemented. The test with the Jühnde demo recommended a medium usefulness of the tool in this case.

A.1.2.2 Step 1: Project history and context and actors

Project Narrative

The narrative has the function of a basic reference. The tool illustrates the history and the present status of the project. Writing a narrative requires external support - optimally a consultant should assume this role. If a project manager wants to use the ESTEEM tool without a consultant, he/her might ask a colleague who is not involved in the project to perform the role of consultancy. The person producing the narrative is required to have, in particular, good interviewing and writing skills - and the person should not have been involved previously. Someone who is not yet part of the project history might be more independent and critical towards the project history. The Jühnde case showed that the use of the questionnaire in a very active phase of a project might cause 'resistance', because it is time consuming for the project manager and the consultant. The narrative was not regarded as very helpful with respect to the value added, because extensive project descriptions were already available. On the other hand it was helpful for the consultant to identify critical moments. It was suggested that the questions be adjusted with the help of project information that is already available (e.g. flyers, brochures, tenders) before writing the narrative. This kind of preparation by the consultant should save time for the project manager.

Context analysis

The context analysis aims at the project manager's reflection upon the context of the project. The level of sensitivity which the project manager has with regard to the influence of the context should be identified.

Within the Jühnde case the project manager has extensive and well-grounded know-how on the political, economical and societal environment through the reflection and input of a central planning group. Experiences of a precursor project offer valuable information. The quantity and specification of questions depend on the project's context (e.g. precursor process). Nevertheless, the categories of context are very helpful to reflect all relevant aspects. Thereby it is possible to reflect the dynamic development.

Handling the question 'pressure on the existing energy system / fit into existing system' turned out to be difficult. In the case of biomass, the current project fits into the existing energy system. However - with a long-term view and acknowledging the dynamic developments in that area - the successful widespread dissemination may cause problems for the conventional energy supply system. While working with the given format, we decided to continue with a qualitative description because the PM indicated the possibility of confusion and misunderstanding.

Defining critical moments table (CMT)

The critical moments table aims at the extraction of important moments or aspects within the timeframe of the project narrative. The CMT template contains a list of questions regarding critical situations/events. The questions are very helpful, but the format of the CMT was considered 'not adequate' because in the given situation the critical moments are not linked to a single data but are process-driven. The consultant adapted the structure of the CMT. Furthermore, it is supportive for the CMT to have already prepared the context analysis. Many of the critical aspects arise from the external economical development.

In the demo-case the project manager and the stakeholders are engaged in continual reflection. So there is already a high level of awareness and participation. In general the critical moments table is of high importance and interest for the PM. The questions would work well for the project manager if they are condensed - some sound very similar and are aimed at similar information. It is suggested that the CMT be linked with the context analysis. The table format should not focus on single dates because problems are mostly process-driven. It was recommended that a suitable format should be provided by the manual.

Actors table

The actors table categorises and describes all relevant or existing stakeholders within the project. The adjustment of categories and preparation of the table using already available information were necessary. It was suggested that the table be downsized from 14 to 11 categories[3]. The discussion of the actors table is seen as a good basis for more transparency and the identification of potential role conflicts.

In the demo-case the project manager has a good overview of all relevant actors and stakeholder groups due to a precursor project. He is very sensitive with regard to the different roles of actors. A modification of questions and categories was suggested as was condensing the amount of categories to optimise the output of the table. Furthermore it was suggested that categories like the '(re-)positioning' be reformulated as 'conflicts' and 'resources that actors control' as 'project activities'. Last but not least it was suggested to split categories like 'expectations and motivation' into two different categories.

[3] New proposal: 1. Position within the project, 2. Description of actors role, 3. Expectations, 4. Motivation, 5. Project activities, 6. Formal and informal influence on the project, 7. Overlaps in roles, 8. Key actor, 9. Outreach, 10. Target group specific communication channels, 11. Which conflicts exist?

A.1.2.3 Step 2: Vision building

Project manager's present vision

The project manager's present vision is based on the narrative, the context analysis and the actors table. It turned out to be difficult to make a distinction between the future and present vision. For this reason we define a time frame for the present (1 year) and the future vision (20 years). Otherwise the time frame should be based on the expectations of the project manager.

The present vision was built on the information about important actors and the historical context, on given opportunities and strategies and on the expectation of different actors as well as on existing networks - which was pointed out in the actors table. The present vision represents the elements, which are relevant within the current situation of the project under a specific time frame. The present vision is dominated by the regional perspective.

In the demo case the project manager disapproved of the definitions of present and future vision - the dissemination project deals with long-term options. Therefore the differentiation between present and future vision is confusing in part. The project manager was not interested in mapping actors because of his existing knowledge of the different players, so the consultant has to do this. Mapping the (social) network is a by-product that seems to be of minor interest. The synthesis writing is well supported by using the actors and context table.

We highly recommended that the concept of split visions not be followed. The word 'vision' automatically refers to the future.

The BAU Scenario

In this step the consultant prepared a business-as-usual (BAU) scenario which represents a consistent set of assumptions regarding the future **without** the demo project. It is intended as a baseline which the consultant discusses and reflects upon with the project manager and core stakeholders. To create the BAU scenario, the necessary data have to be available, and the BAU scenario discussions with stakeholders are meant to provide feedback. The consultant prepares a draft BAU based on data from national development assumptions, e.g. reference scenarios available for the country, or region. The BAU results were delivered to project manager and stakeholders. Special key factors within BAU are: current energy use pattern (heating mix, electricity demand), greenhouse gas emissions (full life-cycles for CO_2, CH_4, N_2O), costs for investment and operating of heating systems and electricity from the local grid, based on the national generation mix. The BAU data include the analysis of existing heating systems in all candidate villages (oil, gas, wood, el. heating), and the households' electricity demand. All of this 'local' data was provided by the project manager. Furthermore, the specific heating demand per village (based on heated floor space) was estimated by the project manager. Within the BAU scenario, there is no shift to 'other' heating systems, i.e. the current situation is taken as given for the future. A few energy efficiency investments (rural customer behaviour) were assumed. Finally, the GHG emission factors and the fuel and investment cost figures were projected from the base year 2005 to the 2020 BAU scenario. The considerations to derive the BAU scenario are complicated, because of different context frames (projection of current status and future developments). The appropriate 'translation' has to be developed, and made transparent for the stakeholders to comment.

The Project manager's future vision

The project manager's future vision is based on the input from different meetings and telephone interviews in which the project manager has participated. The future vision aims at a wider perspective and a consideration of broader aspects. It reflects a long-term window with major changes in the future (e.g. 2030).

As discussed in above, it was suggested that the concept of split versions be no longer followed. Therefore, we used an integrated approach - also for gaining the stakeholders visions in the next steps of the tool.

Selecting the group of core stakeholders

After a number of meetings with the project manager, representatives of the University of Göttingen and of the Jühnde cooperative, the core group of stakeholders became visible. The consultant participated in different village meetings to identify further potential stakeholders.
The synthesis of information from the project manager and from several key stakeholders, as well as information from village meetings 'creates' the stakeholder core group. The final selection took place on the basis of the criteria given by the tool manual (see below).

Table A.1 *Experience Selection Criteria*

Criteria	*Comment*
Persons corresponding to more than one profile	*easy to identify*
Core group should correspond to the social structure	*depends on the structure of project and given participation*
Non associated should amplify the social structure	*depends on the stage of project*
peripheral stakeholders should be included	*Yes, but depends on the situation and stage of project*
balance between different actor's categories	*easy to stick to*

On the basis of the core group selection, the consultant could identify the participants of the visions workshop.

The stakeholder visions

In contrast to the manual's suggestion, we decided that the Jühnde dissemination would gain the stakeholder visions not by means of single interviews but in a concerted workshop approach.

After identifying the core group of stakeholders, the project manager and consultant invited the participants to the visions workshop. For the preparation, the support of the project manager was very helpful and necessary. The workshop was divided into three phases:

1) Introduction and impulse statement by consultant
2) Preparation of two working groups and
3) A common discussion of the visions and a categorisation of strategies.

Following an integrated concept of visions, we prepared a discussion on the short-term and long-term aspects of living in the region in the future.

Within the working groups the consultant gathered together questions. Afterwards the group began the vision building process by introducing a storyline to develop new dimensions of the future. To introduce the project manager's vision to the stakeholders, the consultant elaborated two different storylines representing the context of the two stakeholder groups 'farmers' and 'customers'. At the end of the workshop the participants evaluated analytical dimensions by assigning indicators of relevance through scoring. The results focused on the 'customers' and the 'farmers' present and future vision.

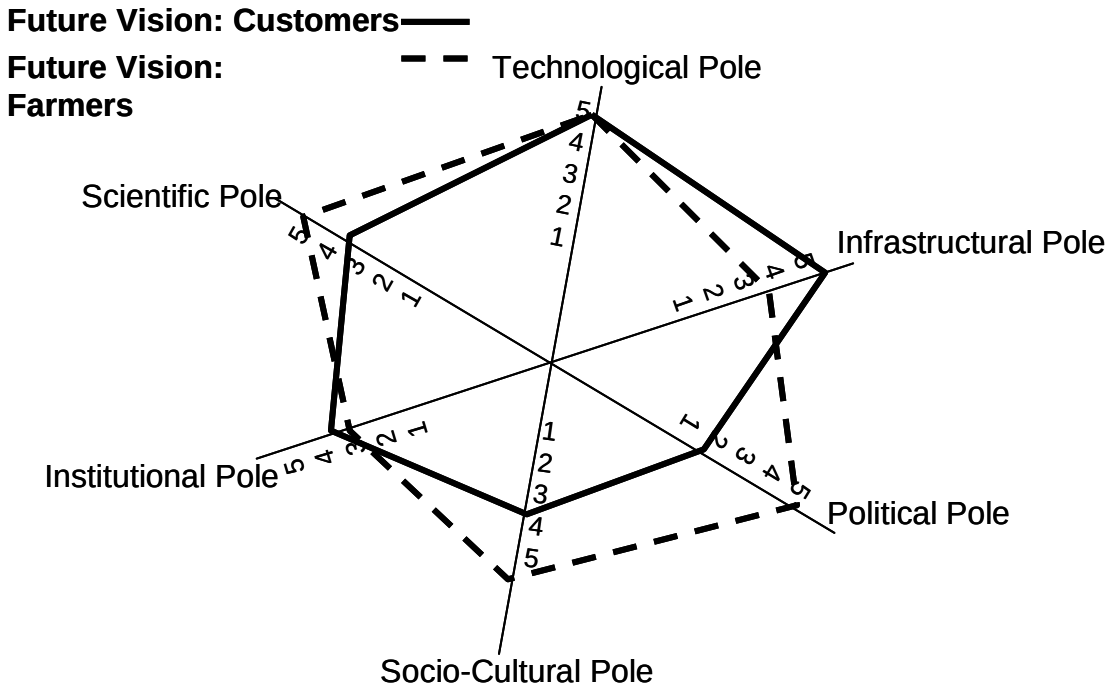


Figure A.2 Techno-economical network (*TEN)*

The techno-economical network (TEN) includes six poles which the stakeholders assess with respect to the importance of their visions. The score description was adapted by the consultant in order to guarantee a common understanding of each pole.

Table A.2 *Assessment of Poles (TEN)*

Score	Description	Background
1	no importance	No influence on the common vision regarding the four dimensions
2	low importance	Nearly of no importance to realize the vision
3	medium importance	Factor of an indifferent influence
4	high importance	Important contribution to realize the vision
5	very high importance	High influencing factor and bound to succeed

The TEN also supported the future social network mapping and the development of a key changes table. The key changes table is a tool that was recommended in the first draft version of the manual to visualise the differences between present and future visions - but was cancelled in the following.

A.1.2.4 Step 3: Identifying conflicting issues

Identification of conflicting issues and features

Based on the input of the project manager's present and future vision, stakeholder visions, and BAU, the consultant divided the table of issues into 5 evaluation points (infrastructure, environment, economy, social issues and policy issues). In the case of the Jühnde dissemination, a successful stakeholder-workshop was supportive to identifying issues and potential conflicts. The evaluation categories might change during the 'step-process'. The expected classification was difficult to understand for the stakeholders. It was suggested that a precise definition and explanation of the categories be provided.

Ranking key actors and issues according to their strategic importance
The issue ranking table has to be filled out on the basis of the key issues from the conflicting issues table. In the given project context, it became apparent that the ranking only worked when a weighting factor was inserted. For this reason the consultant implemented a modification by adding a score description and weighting factor.

Implementation of a weighting step for ranking:
- Score: 1 (low), 2 (medium), 3 (high), 4 (very high)
- Weighting factor: issues on national level (1), issues on regional level (2)

Table A.3 *Issue Ranking Table*

Issue/Features	Urgency	Importance	Sum	Sum Weighted	Rank with Weighting
Farmers supply	4	4	8	16	1
NGO/conditions of cultivation /adjustment of national standards	2	3	5	10	4
Feed-in-tariff	2	3	5	5	6
(National) standards of cultivation	2	4	6	6	5
Public funds	3	3	6	12	3
Heating system	2	4	6	12	3
Farmers and local conflicts	1	4	5	10	4
Contracts	3	4	7	14	2

The ranking table provided less useful information to the project manager. The necessity of the table depends on the project status. It seems to be more interesting for ‘start-up’ projects.

The same aspects concern the strategic issue graph in which the visualisation of key issues indicating importance and urgency of different project issues is undertaken.
It is suggested that it be checked beforehand whether the project manager accesses additional information due to this tool step. The usefulness depends on the type of issues, already existing knowledge and the status of the project: it is mainly supportive for ‘new’ projects.

A.1.2.5 Step 4: Portfolio of options

The portfolio of options includes three main sub-steps which are closely linked to each other. A list of issues should be specified and categorised by the PM and finally ranked and tested.

Listing and evaluating solutions to major issues
Together with the PM, we began listing issues. Then the possible solutions for existing conflicts or potential problems were further elaborated by the consultant and the project manager. Subsequently, they were ranked and evaluated in a solutions ranking table. Some new ideas for common process options were generated. The solution-oriented way is very positive for difficult project phases and can therefore be a helpful tool step.

First testing PM preferred solution for their robustness and resilience
The results of the solutions ranking table were transferred into options (portfolio of options) and taken as an input for the stakeholder workshop. They provide new impulses to the PM and present new ideas for solving conflicts. Furthermore, the discussion and the motivation to participate in the project were supported.

The modified tool is very useful for difficult project phases, but like the issue ranking table the solution ranking table also needs weighting factors.

A.1.2.6 Step 5: Getting to shake hands

The preparations of the workshop

The stakeholder workshop plays an important role within the communication strategy of the project. A careful preparation is the basis of substantial workshop results and solution-oriented discussions. The aim of the workshop was to provide knowledge for specific problems in view of mainly long-term economics, conditions of contracts and framework conditions, as well as the motivation for participation in the project.

Table A.4 Workshop preparation

Design of WS						Cookbook of WS		
Partici-pants	Duration	Information	Selection of participants	Preparation	Public WS	Preparation	Logistics	Results
20-25	1 day (divided into two parts for different target groups) with partner and SH	Different actor groups with different know-how and interests (farmers, associations, NGO)	Follow general criteria, problems/ conflicts solution oriented	Clearing the issues with SH and PM - results of feasibility studies define the specific issues and target; select and book adequate rooms (PM)	Invitation through email and personal address	Feasibility studies; dossier 'Vision Building Paper'; presentation on focus aspects; meeting (optional), conference call and emails between facilitator, consultant and PM	Reservation of rooms and catering, preparation of working tools (charts, metaplan) - press release	Information about standards, prices and feed-in tariffs; closing the information gap; rising motivation, solving existing conflicts, new stakeholder (farmers) involvement

SH - Stakeholder
PM - Project Manger

Realisation of the workshop

Prior to the stakeholder's workshop it was necessary to implement a second workshop regarding different partners. The partner's workshop aimed at a better preparation of the actual stakeholder's workshop. New conflicts which influenced the project process negatively indicated to adjust the communication strategy. The participants (IZNE, engineering firm, county of Göttingen, NGOs and farmers association of the county) discussed the implementation of additional stakeholders, especially concerning NGOs and representatives of farmers. On the basis of the discussions, the consultant prepared an elaborated invitation letter and a workshop handout. In contrast to the manual no dossier was prepared - due to existing feasibility studies. The handout provides a common information level to all participants.
The stakeholder's workshops aimed at the following aspects:

- discussions of present conflicts;
- funded information to selected problems;
- finding of common solutions; and
- next common implementation steps.

The consultant offers three specific presentations as an impulse for the discussion. Strategic aspects and short-term activities were ranked by the participants.

The stakeholder's workshop showed that a common communication strategy based on the exchange of information and knowledge is crucial. It is important that attention is given to all relevant stakeholders and enough time is spent on the preparation and execution.

Returning the results of the workshop
A workshop report was prepared by the consultant on the basis of minutes, charts, the handout and the given presentations. The report documents the discussion and the voting was finally discussed with the PM. The scope of the report depends on the material which is available beforehand. The workshop helped to build a new communication platform. The guidance by the ESTEEM manual was very detailed and was seen as substantially helpful.

A.1.2.7 Step 6: Recommendations for action

Identifying acceptance and feasibility
The acceptance and feasibility table is based on the outcomes of step 5. The overview of key issues and types of action is very helpful. The concentration of all information helps the consultant to reflect upon possible recommendations. Nevertheless it is suggested that the highlighting of categories not be implemented within the acceptance and feasibility table. It is time-consuming and the added value is minimal.

Sorting of options: Capacity for action
The capacity for action table divided the key issues into activities that can be done today, ones that can only be undertaken in cooperation with others and external dynamics that are relevant but cannot be controlled by the project stakeholders or the project manager. This overview is generally helpful, but the table might be combined with the following action and communication plan - due to the number of actions.

Develop the recommendations and action plans
The development of recommendations and strategic action is split into four different steps: while the short-term action plan and the collaboration plan are easy to handle, the long-term monitoring and capacity-building plan have to be modified. The classification of monitoring specific issues is too difficult, the understanding and definition of a long-term action is not clear. The communication plan needs further development and explanation.

Evaluation of the Create Acceptance process
The questions worked well and were seen as helpful in reflecting upon the process and the value added. The evaluation by the PM provides an opportunity for receiving feedback. In the Jühnde dissemination, the PM focused on the new contacts and advices given by the consultant, the common reflection was seen as supportive.

A.1.3 Success and limitation of the CA-Process and the ESTEEM Tool in achieving acceptance in the region

Due to the option of different scenarios which were elaborated by the consultant and the support of discussions with nature protection organisations and farmers associations, the testing of the tool contributed indirectly to the amount of acceptance in the region. The single steps of the ESTEEM tool were helpful in reflecting upon the present and future risks.

A.1.4 Exchange of Demos / Partners Interaction in CA

A.1.4.1 Experiences with Counter partner's support

The external evaluation is seen as very useful by the consultant and the counter partner. The counter partner process comprised reading the documents, monitoring the results and elaborating an interview. As a result of this counter partner support, some aspects required clarification.

The counter partner process was not only supportive for the ESTEEM tool, but also for the project manager and the demonstration project. An external evaluation and an independent view by the counter partner seemed crucial in ensuring an appropriate tool implementation. The counter partner can motivate the consultant by 'step-by-step'-assessment and the reflective support, confronting interpretations and understanding proved useful. Providing critical reflections on the process from a distance was seen as helpful, but should not become too distant from the process. The interview and critical reflections within the demo process helped the consultant during the tool implementation.

A.1.4.2 Lessons learned

Each step of tool testing was presented at the common project meetings. Advice and adjustments were given to the WP3 substep leaders. The exchange of experiences was the basis for motivating the demo leaders and for criticising the workflow respectively. Both aspects were helpful in terms of the adaptation of the ESTEEM tool.

A.2 Demo project ZEPP, the Netherlands

A.2.1 Description of Demo project

In Drachten, a town in the North of the Netherlands, a project is executed to build a Zero Emission Power Plant (ZEPP) that is able to produce enough emission-free electricity for a small town of hundred thousand households (68 MW). The climate neutral power plant has a go/no-go decision point in 2007/2008 and should be operational in 2010. To realise the project several innovative technologies are combined.

The ZEPP will be equipped with an innovative gas generator in which the combustion takes place with pure oxygen (oxyfuel). To avoid extremely high temperatures, water is injected in the flame. The exhaust of the generator consists of CO_2 and water vapour. After condensation, the water is re-used for injection and pure CO_2 remains. This CO_2 is stored in an almost depleted gas field. The plant produces electricity without any substantial emission. This will result in a CO_2 reduction of one megaton in six years.

The ZEPP will use a gas field which is no longer used but still contains a considerable amount of natural gas. The injection of CO_2 leads to an increased pressure and eases the extraction of the remaining gas from the field (Enhanced Gas Recovery), which will be used in the power plant. Additionally the residual heat of the plant will be used for heating nearby buildings on the industrial area where the ZEPP is planned. In the Netherlands, several gas fields are suitable for ZEPP technology. After the plant in Drachten has become operational, possibly other fields will follow. This project will be the first project in the Netherlands with inland underground storage of CO_2.

The ZEPP in Drachten is initiated by the Dutch company SEQ Nederland B.V. Financial support is given by energy companies, local and national governments and by Energy Valley, a public-private foundation with local, national and European members, which stimulates the economy of the North of the Netherlands through financing energy activities.

A.2.2 The process of the Demo project

Project manager

From the beginning of the performance of step 1 until the end of the process, the PM of the ZEPP has been positively involved in the process. No conflicts between the PM and the consultant have occurred. Several interviews and meetings between the consultant and the project

manager took place. As these meetings proofed to be often time consuming, alternatives were brought up by the consultant to limit the needed time of the project manager as much as possible by asking questions by email, or other.

A general recommendation to the tool concerning the time needed from the project manager to put into the process should be limited as much as possible. Project managers are often people with full agendas that want to spend their time efficiently. In any case it should be communicated in advance very clearly what amount of time is needed from the consultant and the project manager to perform the whole process.

Stakeholders
Most of the stakeholders involved in the ZEPP have reacted positively on the process and agreed easily to deliver the needed input. No stakeholder rejected the invitation for an interview in step 2 and also many stakeholders did show up on the workshop. Disappointing though was the absence of the three governmental institutions that are responsible for granting the needed licenses for the ZEPP (the ministry of Economic Affairs, ministry of Environmental issues and the provincial government) during the workshop.

No mayor conflicts between the stakeholders existed or occurred during the process in this demo project. Most of the stakeholders were interested in getting to know each other and the project and used the workshop for example as network opportunity.

When conflicts exist, this might influence the willingness of stakeholders to participate. This should be taken into account when inviting stakeholders for interviews and the workshop.

A.2.3 Results of testing the ESTEEM tool

A.2.3.1 Step 0:

The radar which is based on the answers to the questions asked in step 0 indicates that at the start of the ESTEEM process it was recommended to use the ESTEEM tool for the ZEPP project because:

- The project manager and stakeholders are not very familiar with the technology.
- There are still quiet some possibilities to adapt the design, planning and execution of the project.
- There is currently limited knowledge about the level of societal acceptance for the technology.
- There is uncertainty about the impact of the project.

A.2.3.2 Step 1: Project history and context and actors

The four tools of step 1 complement each other. The PM is elicited to tell the story of the project in different ways with different emphasis that complement each other. At the end of step 1 this gives both the consultant and the project manager a complete overview of the project.

The first step is quiet time consuming but necessary as the consultants need to know all the details of the project to perform the following steps. Time can be saved when the consultant fills in the tables beforehand and let the PM react by Email or in a face to face interview. Here objectivity of the consultant is needed and the opinion of the project manager should be leading. Another alternative is to let the PM fill in the tables at home first and than discuss the results in a meeting with the consultant.

The experience of the PM with similar projects influences the process (experienced or not, technical, economic or political background, well known person in context, historical conflicts with

stakeholders, etc). An categorization of project managers is recommended (for example in a step 0).

Project Narrative
The narrative of the ZEPP demo project has become longer than the 2-3 pages (5 pages). The interview (2h) and writing of the narrative (8h) are time consuming but give relevant info for both the actors table, the context analysis and the defining moments table. The consultant can fill in the tables beforehand on the basis of the narrative.

Time is saved when defining moments and important actors are pointed out by the project manager during the interviews. It therefore works best to have two interviewers. One person asking questions, the other making minutes.

The narrative is thus the basis for filling in the other tools of step 1.

Context analysis
Within the ZEPP demoproject we based the context analysis on a 2 hour interview with the project manager. During this interview all the opportunities and barriers were defined. Some problems were encountered when defining the barriers and opportunities as they are often two sides of the same coin. After the interview the consultant filled in the columns on level and timing. The project manager filled in the rest of the table at home. It is difficult for the consultant to fill in complete tables as his or her vision may be too subjective.

Recommended is to start with the opportunities table as it frames the thinking of the project manager. The column on categories is not really useful (only of importance to the consultant) and we recommend to skip this one.

Defining moments table
In the ZEPP demo project the consultant filled in the defining moments on the basis of the narrative and the project manager checked it afterwards. This saves time for the project manager. It becomes an extended document and reading it is easier in Excell. Recommended is to skip the column on irreversibility.

Because it is difficult to tell what critical moments are, we recommend to change the name in defining moments. Still a selection of moments has to be made as some moments are very linked to each other and than only one is chosen.

Another recommendation is to use the defining moments table to check whether the narrative is complete.

Actors table
The table was filled by naming the actors pointed out in the narrative. This list was extended by actors the consultant thought were important and were not yet mentioned by the project manager. This elicited the project manager to tell more about the actors that were not mentioned in the narrative Also this table was filled in by the consultant beforehand and checked by the project manager to save time of the project manager.

A.2.3.3 Step 2: Vision building

Subjectivity is less of a problem in step 2 compared to step 1. Also the amount of time needed can be arranged better (about 2 hours per interview and 2 hours for the writing of each future vision).

Project manager's present vision
Within the ZEPP demo only a present network was drafted for the present vision. In addition an intermediate vision was drafted: the ZEPP in 2010 which serves as a basis for the vision on 2020. The intermediate vision was written by the consultant and finalized by the project manager. It served as a starting point for the future vision and framing the mind of the project manager who had never before articulated in this much detail the future of the whole project in detail.

The intermediate vision of the project manager was also used during the interviews with the stakeholders to get them as well in a future thinking mode.

Recommended is to include the intermediate vision of the project manager in ESTEEM.

The BAU Scenario
Within the ZEPP demo project, the consultants had difficulties in putting together the BAU scenario. Finally only a summary (to be used in step 3) was written after all the other future visions were compiled. No social network map of the BAU was compiled. The reason for this was that the consultant did not really know who's vision the BAU would be and what to put in the middle when drawing the social network map.

The BAU vision of the ZEPP demo became basically a negation of the future vision of the project manager. When he said for example that the project would improve the local economic situation, the BAU-vision stated that the economic situation would not improve. Recommended is to remove the BAU from ESTEEM.

The Project manager's future vision
In a 2 hour interview the consultants of interviewed the project manager to draft his future vision. The vision was written in the form of a fictional 2 page newspaper article published in 2020, in which the project manager looks back on project development. The title of the future vision was drafted together with the project manager. Also a social network map was drafted.

Selecting the group of core stakeholders
Together with the project manager the consultant selected the core group of stakeholders. It was taken into account that at least one stakeholder of each dimension was selected.

The Stakeholder future visions
Each stakeholder of the core group was interviewed by a consultant for 2 hours. The intermediate and future vision together with the social network map of the future vision of the project manager were sent to the stakeholders beforehand to prepare them for the interview by giving information on the project and in the meantime get them in the future thinking mode.
The social network map of the project manager was used to structure the interview and talk about one dimension at a time. Based on the interview an article was written for a newspaper in 2020 and a title of this article was drafted by the consultant. Also differences in each social network map of the stakeholders and the project manager were made visible by using different colours.
All, the article, the title and the social network map were sent back to the stakeholders to check and validate the documents before they were used in step 3.

A.2.3.4 Step 3: Identifying conflicting issues

For the ZEPP demo project 20 issues were identified in step 3. A 2 hour meeting with the project manager took place and the consultant spent an additional 4 hours at performing this step.

Identification of conflicting issues and features
To make the comparison of visions easier and more visible, it is recommended to change the columns and rows (visions in the columns, dimensions in the rows). For the ZEPP demo the colour blue was not used in the table (only green and red for opportunities and possible conflicts). The BAU vision did not have an added value as the outcomes of the table didn't change when adding this vision to it. 20 issues were identified

Ranking key actors and issues according to their strategic importance
The ranking was experienced difficult in the ZEPP demo as many issues exist. Therefore the importance and urgency ratings were multiplied automatically to get a more balanced result. The result of the ranking was transferred into the strategic issues graph. This graph made the visible which issues were most important and most urgent and which are less of importance and urgent

A.2.3.5 Step 4: Portfolio of options

Within the ZEPP demo project 30 solutions were identified.
The tools in step 4 can be easily used by the project manager alone. The consultant can just help with filling in the first rows of each table as an example.

Listing and evaluating solutions to major issues
Recommended is to add a 4th column with 'other' to the issues and solution table for the options that do not fit into the first 3 columns. The solutions ranking table was not used in the ZEPP demo project. This table asks for too much detailed information that the project manager does not have and the added value is not clear to both the project manager and the consultant. Recommended is therefore to skip the solutions ranking table.

First testing PM preferred solution for their robustness and resilience
Within the ZEPP demo project the instrument portfolio of options was not used because there is too much overlap between this table and step 5. This instrument is too time consuming and it is recommended to skip this table.

A.2.3.6 Step 5: Getting to shake hands

The preparation of step 5 costs a lot of time but is really much worth it.

The preparations of the workshop
Together with the project manager and some active stakeholders a group of stakeholders was selected which was invited for the workshop. We tried to achieve a balance between stakeholders from different dimensions (market, society, technology, policy, project partners, etc) and different level (local vs national). 45 stakeholders were invited by Email and mail. When no reaction was received, they were called by phone.

One of the stakeholders offered their facilities to hold the workshop physically close to the future ZEPP plant.

When the stakeholders had confirmed their participation in the workshop a dossier was sent to them by Email which contained: the agenda, route description, intermediate and future vision of the project manager, an issues list compiled by the consultant and an information leaflet of the project. Also every stakeholder was asked to come up with the name of another stakeholder that should be invited for the workshop. Recommended is to use this via-via way to reach new / all stakeholders.

It was not feasible for stakeholders to vote before the workshop on issues as some of the future visions were confidential. Therefore it was chosen that the consultant compiled a list of issues to be discussed during the workshop. Recommended is to add this option to the manual.

During the preparation also a 1 hour meeting with the project manager took place to inform him about his role during the workshop (listening and being positive towards each proposal of the stakeholders). It is recommended to put some extra effort in this as it is important that the project manager knows how to act during the workshop.

To inform the moderators of the workshop another 1 hour meeting took place with everybody of the organizing team present: the moderators and the person taking minutes.

Realization of the workshop

A 1 day workshop was organized with project manager, core group stakeholders and other stakeholders. A 2 day meeting was not feasible and already in the case of a one-day workshop some stakeholders complained about the duration of the workshop. Recommended is therefore to limit the duration of the workshop as much as possible without influencing the results negatively. 2 participants that had confirmed their presence did not show up during the workshop. 1 participant that was not invited, but did show up.

Being physically close to the plant helped imaging the local impact and context of the plant. The informal atmosphere during the workshop made networking between the stakeholders during lunch and coffee breaks possible. Recommended is thus to have some time for stakeholders to talk to each other.

The consultant and the project manager first presented the background of the workshop and the project. The consultant also explained the details of groupsessions in the afternoon. After lunch the group was split in three subgroups and each discussed the five issues defined by the consultant: economic and technical issues, local impact, local profits, relation with renewable energy. Every participant was asked to give 2 strategies for each issues and these were grouped in the solutions table.

Recommended for the tool was to add the option to work in groups instead of pairs. Depending on difference in the level of stakeholders' knowledge of the project, it can be helpful to work in subgroups and have representative of the project manager in each group to answer possible questions and observe the working of the groups. Also the working in groups increased the interaction between stakeholders that started acting in reaction to each other.

After the group work all participants came together again for the final part of the workshop. As over 100 strategies and project variations were identified voting for each proposal was not feasible. In stead the moderators of each of the subgoups summarized the results of their group. Recommended is to add an alternative for the ranking of issues in stead of the voting during the workshop, for example a summary before voting, the voting digitally afterwards, etc.

Returning the results of the workshop

The person making minutes during the workshop (and recording the workshop) has compiled the report of the workshop. This report contained: introduction on Create Acceptance and aim of the workshop, workshop description (minutes of the day), appendix with list of participants, viewpoint of local NGO that could not be present, slides of the presentation given, pictures, the issues list, and the intermediate and future vision of the project manager.

After writing the report was first sent to the project manager for a final check and later sent to all the participants.

A.2.3.7 Step 6: Recommendations for action

Step 6 is considered as the most important step but also quiet time consuming.

Identifying acceptance and feasibility

As the voting did not take place in the workshop of the ZEPP demo project, the 3rd column can not be filled in. Therefore this column was changed into a strategies column with three possible combinations: strategy of the project manager, strategy of both the project manager and a stakeholders and strategy of the stakeholders. Only the strategies in the last two columns are included for further processing.

Sorting of options: Capacity for action

Within this demo project 45 options were included for further processing in the recommendations and action plans.

Develop the recommendations and action plans

The tables that are the basis for the recommendations and action plans were filled in by the consultant. Often some repetition of actions occurred in the columns. We decided to integrate the communication plan in the tables for action on short, middle and long term. We added a fourth column to each of these tables with recommendation on the communication channels that should be used to fulfill the strategy. After filling in the tables they were sent by email to the project manager to react on them and discussed in a final meeting. During this final meeting the PM indicated a few questions he had concerning the strategies and wanted to change a few words in the action plans.

Evaluation of the Create Acceptance process

The evaluation of the Create Acceptance process with the PM took place in a half an hour meeting with the PM. The nine questions of the manual were asked. Two questions were added: Is their a balance between your input and the results of the process and would you do it again. In general the PM was very positive about the Create Acceptance process and did not have many remarks. The main added value of the process for him was the communication with the local stakeholders and the knowledge that the project has more impact on people outside the project, than he realized before.

Suggestion is to add a few words on the evaluation from the side of the consultant. How did the consultant experience the project, the process and the collaboration with the project Manager?

A.2.4 Success and limitation of the CA-Process and the ESTEEM Tool in achieving acceptance in the region

During the stakeholder workshop the project was presented to some new local stakeholders who were not involved in the project before: a local journalist and a representative of the residential area close to the plant. Both stakeholders reacted positively to the project. Other local and regional stakeholders that have been involved in the ZEPP and the ESTEEM process before have also always been reacting relatively positively to the plans. Therefore it can be said that both new and existing local stakeholders have been reacting relatively positive towards the project and the ESTEEM process. As the project is still waiting for some important decisions on the future of the plant, it can not be said yet, whether the ESTEEM tool also had a positive effect on these. It can be argued though that by showing the willingness of involving local stakeholders and thus the importance of societal acceptance for the project, the ZEPP has left a positive feeling at many stakeholders which might influence their future decisions concerning the project.

A.2.5 Exchange of Demos / Partners Interaction in CA

A.2.5.1 Experiences with Counter partner's support

During the project meetings the consultant has presented all the outcomes of the steps of the tool performed in this demo project to the consortium of Create Acceptance. Based on the experiences with the tool in this demo project also recommendations were formulated for the tool.
The counter partner of the ZEPP has been involved from a side line. The counter partner has read all the documents and tables produced in the execution of the tool in this project as well as the recommendations for the tool. The counter partner has summarized all the results and presented this to the consortium of Create Acceptance.

A.2.5.2 Lessons learnt

The lessons learned are reported in the previous sections.

A.3 Demoproject Archimede, Italy

In 2000, the Italian Government granted an extra-ordinary contribution to Enea, for a program of research, development and demonstrative production of electric power at the industrial scale, by using solar energy as source of heat for high temperatures. The financing was 100 million of Euros to be distributed on 3 years, from 2001 to 2003; this extraordinary contribution can support not more then 40% of the total industrial investment. Prof Rubbia was charged with the development of the project. He then named Ing. Vignolini as responsible for the plan and delegated to him the choice of the work group that would be dedicated to the development of the plan. On the 7th of January 2001, this work Group was constituted and the scientific effort for the choice of the plan began; the team decided to develop one completely innovative technology instead of doing incremental innovations to the already existing solar technology. The 'Great Thermodynamic Solar Plan' was instituted on July 2001; in August 2001, Prof Rubbia introduced the 'Archimede' project to the Ministry of Productive Activities (MAP).

The idea of Prof Rubbia was to build a solar plant formed by a series of parabolic mirrors. He wanted to introduce a critical innovation in the solar thermal accumulation and in the capability of reaching high temperatures, in comparison with the existing systems. The existing technologies, in fact, were not suitable to the type of highly innovative system planned by Rubbia. The technologies available at that moment used a diathermic oil as a thermo carrier fluid in order to transport the heat, but they are polluting. The existing solar systems, moreover, can reach temperatures up to 380°; in addition, they do not have the solar thermal accumulation: this means that when there is not the sun, a gas stove works to produce energy. On the contrary, the Archimedes project can use the energy produced from the sun that can reach high temperatures up to 550°, by using a mixture of fused salts to produce energy.

Meantime, the political elections of May 2001 gave room to a centre-right government that in the field of energy had a different vision, compared to the previous government, more oriented towards nuclear energy. From 2001 to 2004, Prof Rubbia works very actively to awaken the interest of the industry towards the plan and in order to diffuse, through the mass media, the existence and the scope of the project. But with the financial law n° 273 of the 2002, the new government reduced the extra-ordinary contributions assigned to Enea, making it altogether 67.139.397 Euro (130 billion Liras), a third of which was to be devoted to a program of efficient use of the energy. The period after completing the phase of research, 2004-2005, was dedicated to the realization of a prototype plant at Casaccia, Enea.

The law n°388/2000 had set that the phase of realization of the demo plant Archimede would be realised by Enea in collaboration with a commercial partner, chosen by it. Prof. Rubbia, there-

fore, in 2004 had contacted Enel, in order to involve the company in a joint venture to realize an experimental plant on industrial scale in one of the Mediterranean regions

Enel was interested in the project, that it considered strongly innovative, but proposed to realize the plant in Sicily, integrating it with a power plant that already existed, in order to use the existing competences and saving costs in infrastructures.

Prof Rubbia, who had not considered the possibility of a synergy with an operating power plant, reacted positively to the proposal, signing an agreement protocol between Enea and Enel. This agreement, for two years, foresaw two moments: the first one concerned the building and the working of the prototype plant, with a technical check of its operation, the second one regarded the opportunity to commercialise this technology.

A feasibility study started, by involving both Enea technicians, for the performance analysis of the plant in Casaccia, and Enel technicians for the plant design analysis.

At the same time, in 2004, Enel contacted the responsible ministries, informing them of the agreement protocol signed with Enea, demanding the arrangement of a decree relative to green certificates providing incentives to the production of solar thermodynamic energy, as stated by the law n° 388/2001. But they had not and still have not been enacted.

In the meantime, relations became tense between Rubbia and the government: the frontal clash happened in July 2005: the Enea Board of directors, named by the Government at the beginning of 2004, in open opposition to the Prof, was discharged, forcing Rubbia to resign.

Therefore, in August 2005, Prof Rubbia left, in a sign of protest. On the 15th of July 2005, the Council of Ministers put the Enea under compulsory administration and named the Prof. Paganetto as extraordinary Commissioner.

As a consequence, Enel didn't continue its collaboration, due also to the lack of the decree by the Ministry of the Productive Activities, because Enel didn't have the necessary guarantees of economic sustainability of the investment. The Prof. Paganetto supported the plan and restarted the contacts with Enel. Enea technicians proposed to start constructing modules of 5-6 MW power instead of a modular solution of 20 MW, like initially planned together with Prof Rubbia.

On the 14th December 2006, with a press release, Enel announced a research & development program for the search of innovative solutions in order to reduce the environmental impact of the production and distribution of electric power and in particular an investment of approximately 40 million euros for the solar thermodynamic project 'Archimedes', to be realized in collaboration with Enea.

On the 26th of March 2007, Enel and Enea signed an agreement protocol, in order to build the 'Archimedes' plant in Priolo Gargallo, in the presence of the Minister of the Environment, Alfonso Pecoraro Scanio, and Hon. Gianni Silvestrini, from the Ministry of Economic Development - of the City council member to the Environment of the Region Sicily, Hon. Rossana Interlandi - and the Nobel prize-winner Carlo Rubbia. In this second phase of the project, Enel will become the main contractor.

Currently, the question of authorization for the construction of the system in Sicily Region is in progress. The 20th May the documentation has been introduced, so as to be able to open the yard in January 2008. The first production of energy is forecasted for the end 2009 or beginning 2010.

A.3.1 The process of the Demo project

Archimede is a case in which we have worked with a PM who accompanied all the phases before the real demo plant; the PM was a researcher in a public institution, who developed relations with industrial suppliers for the realization of a prototype plant, whose main interest is to support the development of the technology and who is bound to play a minor role in the future when the industrial partner will take the responsibility of the demo plant.

Given all this, the CA process was easy in all the first part, i.e. from step 1 to step 3; after that the problem of a near change in the responsibility makes more difficult to work on the portfolio of options for Archimede. The other specific aspect is that the new (the industrial) PM is a global player, for whom the thermodynamic solar plant is not a central business. For this reason the project survives, but it has not the potentiality of creating a sufficient installed basis to compete with the learning brought by other countries' experience (i.e., Spain). For the same reason, the project is in some way progressively separated from problem of local acceptance or government support; it is managed as a small niche, as it was more a research activity than an industrial production one.

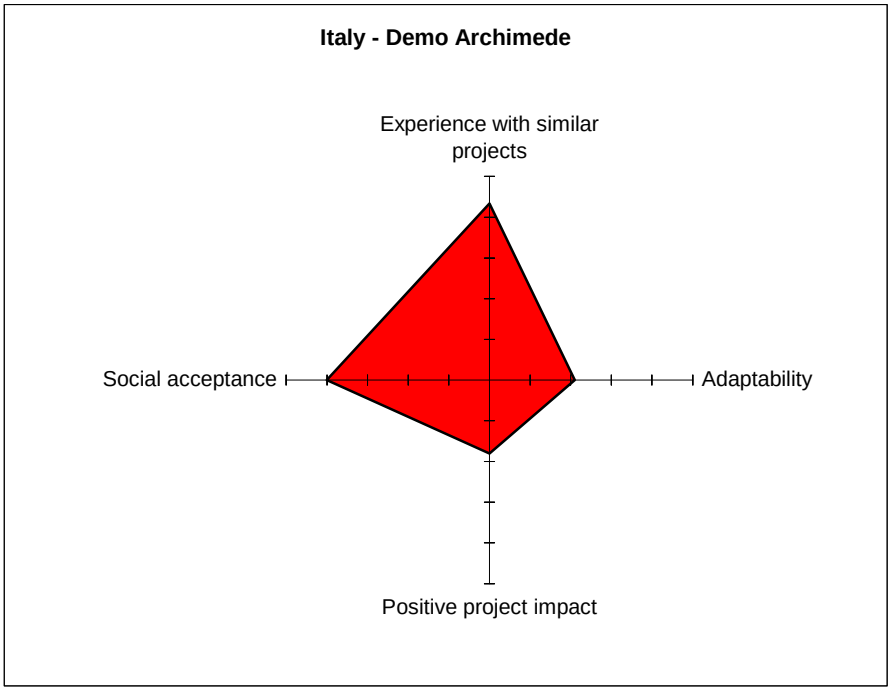
During the CA process all this become more clear, so as some change in the alignment among actors, where the future PM and the Ministry of economic development show a same scarce interest towards these technology (of course Enel is interested in realizing the project, but without a strong commitment), the present PM (Enea), owner of the patents, manifests a growing interest in applying this technology also out of Archimede, in collaboration with other industrial partners and also out of Italy. At the same time a strategy of support for this technology by the Ministry of Environment in agreement with some Regions become evident.

All this has brought us to consider the possibility of applying the ESTEEM tool for finding actions to support the technology in its differentiated ways of being realized, including initiatives of communication, which could help the technology to sort out from a very restricted number of informed actors.

A.3.2 Results of testing the ESTEEM tool

A.3.2.1 Step 0:

Based on step 0, the Archimede Project is a project in a starting phase : it has no similar experiences to which to refer and it is the first industrialization of a pilot project. This demo project has gone through many adaptations, mainly size reduction and plant combination, and in its last version, given the present financial constraints, the demo Archimede is no more so adaptable to new stakeholders' expectations. The local authorities look at the project positively, even if they don't have expectations of a relevant impact in terms of less pollution or more jobs, given its size; generally speaking, there is a scarce diffusion of information regarding this project



A.3.2.2 Step 1: Project history and context and actors

Project Narrative
We met PM many times, gaining a complete vision of the past and present narrative: this helped consultants to re-elaborate and to check the Narrative result.

Context analysis
The PM knowledge of the context can be focused on its interest and be partial. Therefore, it was necessary the consultant role, looking for information sources such as content of national or local debates, policy initiatives and laws.

Defining moments table
This tool was very useful for PM because it represents a synthetic vision of the past and present project history. It was a reflection moment on the chronological events and on the internal changes of this project. Good feedback for the project narrative.

Actors table
Easy to fill. Less easy questions have been the 'Social organizations' for our project.

A.3.2.3 Step 2: Vision building

Project manager's present vision
PM present vision is drawn in the Step1

The BAU Scenario

It was prepared, but not used neither discussed

The Project manager's future visions.
The time considered for the future visions was no more than 5 years, that is the visions concerning the project. The version of the PM future vision benefited a lot of the discussion with con-

sultant, becoming less essential and more articulated (our PM is a researcher more than an entrepreneur).

Selecting the group of core stakeholders
This selection was made by PM, with a wide help of the consultant. This has been an active moment of the ESTEEM tool, as it has been for the project context analysis.

The Stakeholder future visions
Future visions of stakeholders cannot be compacted in one: we have three main, highly institutionalised core stakeholders: Ministry of Economic Development, Ministry of Environment, Enel (future PM) Consortium of industrial suppliers (the leader). As result, the stakeholders' future visions are composed by three different future expectations, mainly because all of the key actors participate with different interests. We use the individual interviews option (see Manual) in Step 2.

A.3.2.4 Step 3: Identifying conflicting issues

Identification of conflicting issues and features
This tool represented a critical review of the whole process applied to Archimede project. Starting from the result obtained from Step 0, it emerged the real room for action towards this pilot project.

The aspects that had to be examined are mainly related to:
Relevance of social aspects: why no social aspects? Because Archimede is a starting project, with no previous experience. Notwithstanding this, the PM has prepared an Evaluation of Environemnt Impact of the project and, after presented it to the technicians and policy authorities at regional and local level, has set a dossier for future meetings with the local population, answering to questions linked to the impact of the plant (example, the effect of the mirrors on the plane fly; the effect of the salt residual on the ground). These dossier will be used by a team of young expert on behalf of Enel.

The plant should not produce any user problem (variation of cost, continuity of the supply) because the electricity supply will remain conventional, given the characteristics of the solar plant (size, combined plant).
\
The critical events, as the reduction of Government support, in terms of financial resources and also the absence of incentive for industrial suppliers, produced the agreement between Enea and Enel on a downsizing of demo plant from 20 to 5 MW (from 8000 parabolic mirrors to 2000) and on a a combined loop plant and solar thermal plant , with a lower impact from the site point of view

Due to this, currently this project is sustainable, from the perspective of investment , and doesn't provoke any real local (negative or positive) impact. This implies that the short term solution for the project is a **convergence of all key actors for very different reasons and interests.**

Technology versus project: Archimede is still a prototype project, asking for further development: the three possible trajectories, which can complement each other are stand-alone solar thermodynamic plants, smaller decentralised plants and more conventional solution, including only partial innovation**.** Due to this, the problem of the future is mainly the destiny of the techology and the social problems and opportunity are mostly shifted to the future (technology).

Short versus long term horizon. From this perspective, the conflicting issues are:

1. structural: very low dimension of national industrial supply (size of production processes + low risk sustainability)
2. lack of an incentive policy
3. competitive attractiveness of other country localizations, in terms of favorable attitudes of governments and/or stronger solar radiations .

All these issues involve new and peripheral actors that will have an impact on future strategy. To catch the potential opportunities for this technology, the main actors will be the industrial competitors, asking for collaboration; foreign government, asking for developing the technology (China, North Africa, Mid East), or countries with strong incentive policy, attracting Enel (new PM).

Hence, it has to be considered that the stakeholder core will probably change in the future, grasping new national and global opportunities. Finally, using the tool for international markets it is more difficult, because is less easy to include/ involve participants

The first conclusion that we have drawn is that the future strategy could be built on opportunities coming from peripheral from present core actors, such as new regions in Italy or new countries in the Mediterranean. At the same time, we think that other scenarios are less realistic for Archimede, while they are possible for the technology i.e. a strong commitment of a part of the national government, bringing with it related effect of social conflicts, or long term effect of research activities for small solar thermodynamic plants and distributed systems. This forecast has been recently confirmed by the latest political developments that overcome this demo plant and are giving strong economic effort to the solar technology, implementing new projects, in other sites and with a bigger power capacity (50 MW power).

In sum, while the building of the Archimede plant has started in January 2008, and there are all the conditions for its realization, many new initiatives are on the table: more conventional plants, with innovation in the plant components, to be developed in Mediterranean countries by an engineering company which has associated Enea and the main industrial supplier of Archimede; investments of the Italian main industrial supplier in more conventional and more innovative more equipment for the production of components for different markets around the world; the agreement between national Government and some regions for feasibility studies for plants which are mixed solutions compared to Archimede (traditional carrier, but with an innovative storage system); last but not least proposals of collaboration on the solar thermodynamic technology by large utilities such as Edison and Endesa.

Ranking key actors and issues according to their strategic importance: we have realized the table 4. 1.1 later, after the last meeting with the PM since we had the impression that Archimede was loosing its relevance. In fact there has been a positive acceleration in the last two months in favor of all the solar thermodynamic initiatives, which has brought also to an availability of the Ministry of Economic development towards a policy of incentive for the promotion of the solar thermodynamic plants. As to the Archimede project **Enel will be the new PM, Enea has signed a protocol of agreement for collaboration until 2009, the Region Sicilia and the local authorities have given the authorization, the Ministry of Economic Development and the Ministry of Environment have become supportive towards the project.**

A.3.2.5 Step 4: Portfolio of options

Listing and evaluating solutions to major issues**:** also this table has been realized later, since from the stakeholder interviews we have got the impression that Archimede had only a marginal position, out of a real national commitment. What has changed? The direct confrontation of actors during the workshop and a positive acceleration in favor of Archimede and all the possible application of the solar thermodynamic has allow to revisiting this idea. Some key issues have been presented and discussed during the workshop and verified in the last meeting with Enea.

Some of the discussed issues have been confirmed as relevant, while other ones (sites availability) resulted as not significant. This table includes these results.

First testing PM preferred solution for their robustness and resilience
We thought that in our case it was less useful to compare the PM position on options with other stakeholders', instead of asking all stakeholders to pronounce themselves freely on some critical issues during a common discussion. This again because the Project was going into a change of PM , where the new PM didn't show a real commitment towards the project. The stakeholder workshop has allowed the emergence of possible alternatives. We looked at the stakeholder workshop as a strategic moment to test the commitment towards the project and the feasibility of new roads for the technology.

A.3.2.6 Step 5: Getting to shake hands

The preparations of the workshop.
The first step was to call all stakeholders, asking for a confirmation of their presence. At the same time, we tried to reach by phone also Professor Rubbia, the promoter of Archimede Project. After many attempts, we managed to speak with his assistant. The phone call was long and very interesting; she was interested in this WS. As Prof. Rubbia was very busy in November, we have agreed to fix the date of WS for the first week of December. This implied a time consuming invitation procedure. Moreover, she asked me to send her information on the CA project and the list of participants. After 2 weeks she told me that Prof. Rubbia could not be present at the WS. Only then we selected the room, the WS and sent the program to Ecoinstitut for a check. Following CA suggestions, we selected a 'participants WS', trying to involve representatives of other social dimensions, especially local representatives and environment and consumer association, together with industrial companies and associations. This choice was made by the consultants, because the PM did not have an enlarged view of the context in which will be put the demo. The PM asked to be 'one among the other' participants and to attend only after a formal consensus from the Enea President. Core stakeholders gave a positive reaction, but someone wanted to know more about the program. Our contact person at the Ministry of the Environment changed: DR. Fabbri was moved to Brussels and we had to contact the technical secretariat to find a substitute, to whom we presented again the European project and what we did so far. Contact with the Mayor of Priolo Gargallo, Massimo Toppi, was only by phone. Before talk to him, we were able to speak with Dr Gianni Attard, Head of Civil Protection in Priolo Gargallo. He gave us a lot of information on the municipality availability towards Archimede and the perception of the plant at the local level.

Realization of the workshop
The number of participants to the WS was lower then expected. The reasons have been of two types:
transport problems: delays and reduced activity of Fiumicino airport, due to the bad weather. The Mayor and the Head of the civil protection service of Priolo Gargallo were not able to reach us; the same was for the people of the industrial Association 'Assosolare' coming from Milano;
grounds of expediency: people from Enel at the last moment communicated that they preferred not to come, since the WS was not only on technical aspects. The fact is that Enel in this specific moment is engaged in reducing the national electrical energy dependence from oil in favour of nuclear, and this is a controversial question for Italy. Therefore at the same time their interest towards Archimede is less urgent (also because the plant is going to be realised) and Enel people don't want to be under examination.

non collaborative position: the representative of the Ministry of Economic Development, who showed a low interest towards the solar thermodynamic technology and specifically towards Archimede, sent an email during the WS justifying his absence with another relevant meeting.

Notwithstanding these people's absence, the WS was very lively and constructive, stressing two aspects:

- There is a smaller group of stakeholders who has a strong will of going on and of promoting the technology at national level through new industrial applications and at international level, through the participation to bid for new investments broad and through collaborations with other countries.
- The needs of communication initiatives for supporting the understanding of this technology and for promoting trust.

Returning the results of the workshop

Our expectations were the following:

'The workshop aims at highlighting the differences among stakeholders' future visions and producing a free confrontation. It can produce a much higher awareness of the viability of the alternatives, by comparing the critical points regarding the different visions. Another goal is to define jointly the pathway of the project with regard to: technology development; feasibility and long term support for the project'.

The WS allowed getting a really free and lively participated confrontation on the technological, market and political issues related to the project and to the technology. It has been an occasion for the PM to present some clarification directly to the Government on some critical aspects of the technology applications. In particular PM showed the role of the Archimede towards relevant technical issues (accumulation and high temperature) and at the same time the existence of applications matching the capacity of accumulation of Archimede with the more diffused use of diathermic oil. Moreover the industrial participants (the stakeholder and an engineering company interested in the high temperature solar technology) showed that they are involved, also with Enea, in many qualified on going initiatives abroad. The technology, even if in an experimental phase, has found a market and things are developing fast, notwithstanding the delay of the Government.

The representative of the Ministry of Environment on his side showed a strong commitment to support this technology and presented an interesting programme for developing a market (supporting the role of the first adopters, see agreements with Regions). He also stressed the necessity of promoting new initiatives of communication, asking for being involved directly or indirectly (through a NGO which was present, Legambiente). Some contrasting vision was presented by an environmental association, and this was a good occasion for opening a dialogue, which probably will have further development

A.3.2.7 Step 6: Recommendations for action

Identifying acceptance and feasibility

Step 6, arriving at the end, after the stakeholder workshop and the check with the PM of new events, has been easily realized. The table works very well and gives value added, since at the end we got a clearer vision of what the project is going to become or, better, what roads the technology is going more probably to follow.

Sorting of options: Capacity for action

Also this table resulted very useful, designing the paths at short and long term. Table 5.4.1 e 5.4.2. give a coherent design of the possibility for the present PM to sustain the technology, also beyond Archimede.

Develop the recommendations and action plans

The recommendations for actions have been easily derived from the previous table. PM has helped us to identify the actions that, without a revision of its plan, can better help the success

of the project together with that of the new technology. The aim is to work on many different directions so that the solar thermodynamic technology go out from its niche dimension (accepting also hybrid solutions), so that there be a position of strength for the Italian industrial suppliers and so that there is the development of a large, global market.

A.3.3 Success and limitation of the CA-Process and the ESTEEM Tool in achieving acceptance in the region

The Archimede project did not provoked any opposition, on the local side. When we contacted the Mayor of Priolo Gargallo, he showed a positive reaction because he supports the Archimede Project. Moreover, this Municipality is facing huge environmental problems. From this point of view, the original plant (20 MW) was better, in terms of employment, support to local industry and could be a best practice for this area. Instead, a plant of 5Mw power is not significant. Due to this, there is no a debate against this demo plant, there is a neutral position, mainly because there are other urgent priorities: project on re-gasification plant in Priolo Gargallo, by IONIO GAS (ERG /Shell). The involvement of local stakeholder was a right choice to widen the debate. At the same time, the participation of the Municipality was motivated mainly by the need to discuss about the pollution emergency in this area.

A.3.4 Exchange of Demos / Partners Interaction in CA

Experiences with Counter partner's support

The relation with the counter partner has been finalized mainly to the realization of the workshop. The suggestion to enlarge the discussion to new stakeholders, representing civil society, even if not yet involved in the project and all the support we received for the organization of the workshop has been for us very useful.

A.3.4.1 Lessons learned

It was fundamental to look at the differences among projects and define the project typology, who are the main actors of the project (public or private), the position of the PM towards the core stakeholders, and towards the project. Some project with less developed aspects (previous experience, social acceptance) can benefit more of CA.

At the same time, even if less developed under some aspect, a project can have become 'less flexible', given its history, i.e. given the time already covered by the project when ESTEEM tool enter in. If the project started long time before and underwent many changes, probably it has already found by itself a solution, it has already implemented a reduced process of 'acceptance', not negotiated in a collective way, but through bi-univocal relationships within a stakeholder core group. As main consequence, this provokes the reduction of the potential of the project, and at the same time the technology embedded in the project can take new paths. This doesn't mean that CA is not useful, since it can be used to create a basis for the future projects, starting with a communication strategy.

A.4 Demoproject Vép, Hungary

A.4.1 Description of Demo project

Although wind technology can be regarded as mature itself, for a demo project it was selected in the CA project based on the fact that in Hungary only a few MWs of wind capacity existed in 2005 and 2006, but a boom was expected to ensue. Investor interest suddenly exploded due to the rather high feed-in tariff, which in turn caused lower level, but blocking regulatory resistance. Infrastructural and regulatory innovations are needed to absorb more wind capacity in the

rather inflexible Hungarian electricity infrastructure. Also, the so far usually positive residential attitudes could change if the number of turbines massively increases. These were the issues that made it worthwhile to explore the capacities the Create Acceptance process in testing a wind project in this particular context.

The Hungarian demonstration project is located in Western Hungary, close to the Austrian border, near the village of Vép (3000 inhabitants). The project company is Szélerő Vép Kht. They have one 0.6 MW wind turbine already operating, and they have a two step extension plan: first to install three more turbines of altogether 4.8 MW (second phase), and then 16 turbines of 32 MW (third phase). This would result in altogether a 37.4 MW windfarm.

The company form is special, a so-called public benefit company (so not the classic limited liability company or public limited company). Some of the owners and management have strong local commitment. The company has a supervisory board, of which the president is the mayor of the village. At the moment neither the village (nor the mayor), nor the residents are owners, but the plan is that at the completion of the project 20% of ownership will be transferred free to the municipality, and some 40% will be sold at preferential prices for residents. Landowners will receive 5% share (those without turbines on their land, too, to prevent envy). The company even now, from the revenues of the single already operating turbine pays the public lighting costs of the village. Landowners, who have a turbine in their land, receive rent.

There had been several forums held and surveys conducted in the village on the proposed wind plant, and it is mostly supported largely due to dedicated involvement both as regards local participation and ownership plans. The municipality has plans to earmark part of the profit on the 20% municipal share for the social support system of the village (local unemployment is high). The residents are proud of their existing turbine, it is favoured meeting and excursion point. For all these features of intensive public involvement the project labels itself as ‘communal implementation’.

A large part of the already installed development was financed from EU support, the rest from bank credit and some own capital, and similar is the financing strategy for the second and third phase, also involving Interreg grants and Austrian support. The company has a special priority option contract with Enercon, a major wind turbine manufacturer, therefore the turbines could be quickly delivered despite the for a year reserved manufacturing capacities of the supplier.

However, in Hungary the regulatory situation is not favourable for new plans for wind developments, since the Hungarian Energy Office, on the suggestion of the system operator, put a 330 MW limit on total wind capacities in the spring of 2006 (for an unspecified time). The argument justifies it on the basis of balancing and security of supply problems that intermittent energy can cause to the electricity system as it stands now. The 330 MW quota has been allocated among ‘early bird’ applicants for wind power plant licences. There were applications for more than 1500 MW, thus questions and conflicts of allocating scarce resources arose.

Szélerő Vép Kht. has obtained an Energy Office permit and quota only for the one, already operating unit. However, they have not received from the quota even for the 2nd phase of proposed extension, although they obtained all other permits, concluded necessary contracts and fulfilled the conditions of connection of the distribution network operator.

Due to not having obtained from the wind quota, it is uncertain that for this company there will be further turbines erected in the coming 2-3 years. However, they continue their coordination, designing and permit acquisition work, and need a structured aid for navigation through the complex field of interests. The quota is not set for ever, and bringing together the several views can accelerate the quota revision, which, due to lobby forces, technical and regulatory developments, may be probable.

The rapidly and significantly increased interest in wind developments has raised and will still raise different concerns and conflicts among stakeholders, including residents, local and regional authorities, traditional generators, distribution network operators and not least also the system operator and the regulator. The Create Acceptance process was expected to equip the Project Manager with knowledge and capacities for navigating among stakeholder interests, help the consolidation process, and in the meantime useful experience could also be gained on the power/capabilities of the ESTEEM tool to be tested. The company management was very much looking forward to cooperation and being a demonstration project.

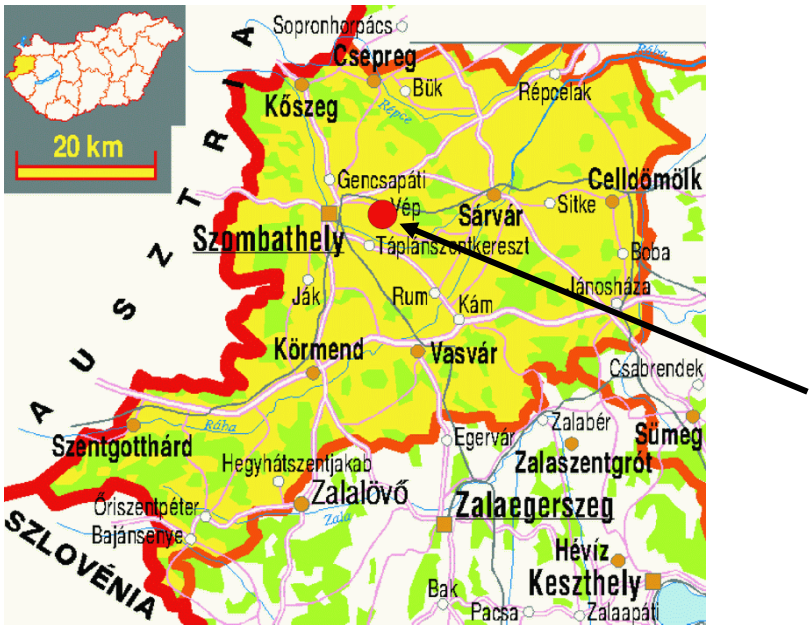


Figure A.3 *Location of Vép and the windfarm*


Figure A.4 *The 0,6 MW turbine at Vép, Hungary*

Figure A.5 *Permanent poster exhibition on the project and wind energy at the feet of the turbine*

A.4.2 The process of the Demo project

The demo wind project was identified after a television documentary about the site and the plans of the proposed wind park at the village of Vép. The report suggested that the management takes communal relations seriously, so that they are even willing to accommodate to local concerns, involve residents in the process as well as share some of the benefits of the plant with them. It was also seen that there are some impediments, mainly on the authorities' side, that the management faces.

The consultant traced down the project manager (PM), and after a personal conversation with the PM and another owner they confirmed the intention to work together. The PM, despite their good previous efforts, saw their limitations and weak points, and looked forward with expectations to explore what the ESTEEM (then still called Create Acceptance) tool can provide. The expectations were to explore and structure strategies that they can follow in order to be able to continue the project, to widen their field of contacts and negotiations from the local level, since locally they were already quite well 'embedded'. These directions were taken to non-local authorities/institutions on the one hand, and national non-governmental organizations on the other.

The ESTEEM process entered in the project line when it had already started, the first phase was implemented, but then further phases were blocked. Thus it was not the most ideal early planning phase, but still a point of time when ESTEEM had the potential still to contribute. Its value could actually be quite substantial if it could move further the halted situation, and the wind project needed an external aid.

The PM also felt the wind project could utilize the test ESTEEM tool, and was very cooperative throughout the project. However, time constraints were appreciated, and besides personal meetings, phone conversations and skype discussions have also taken place. Calls and email ex-

changes occurred not only related to the application of the ESTEEM tool itself, but to discuss news and developments relevant for the progress of the wind project. Both the PM and the consultant initiated such calls and emails and these created a good working atmosphere and trust. The PM lives near Budapest, which made personal contact easy, but Vép is 3-4 hour drive from Budapest. The consultant visited the site and had conversation with the local part time operations manager and some local residents to obtain first hand field experience about the project and its environment. Formal residential forum was not held in the framework of the Create Acceptance, since before its start the windpark management had already conducted a thorough local participation and communication process, which had also included local forums and surveys.

The PM felt that some of the actor relations of the Vép project is very sensitive, and diplomatic finesse was necessary to decide on disclosing conflicting points. Some actors, like the regional Distribution System Operator (provider of the local grid connection), or the national system operator (MAVIR TSO, responsible for system balance and physical power regulation) are very important actors in the long term, and manageable relations - must be cultivated and maintained. A fear was that the process revealing and publicising conflicts could make some actors' attitude hostile and unhelpful. Thus a concern of his was what conflicts, to what extent and how to make public, if at all. It arose not only as a task to think over for the strategy to handle those actors, but also even in filling the ESTEEM tool tables , as they can also become public. The latter concern may have distorted some of the results of the tool relative to a non-test situation, where some of the consultation documents can remain confidential.

Also, PM concerns arose as to whether if some opposition of one segment of the society (e.g. concerns of some of the local residents about more than 4 turbines) come to light, another segment (authorities) can use it as an additional argument to back their own argument and negative attitude. However, the PM was always ready to face the problems and compromised with the consultant in a form and extent as to how to present problematic points.

The PM learnt much of the context, the energy policy and economics of his energy project and the absorbing infrastructure during the discussions. When responding questions he was 'forced' to think over some issues he had not been thinking before, discussed these issues with the consultant and realised some new aspects of his project.

It was a bit difficult to go ahead with the process parallel with the tool development. It made the application of the ESTEEM process lengthier than an ideal pace. Sometime long pauses ensued between steps despite the natural impetus of the process because the next step still had to be fully elaborated. This is natural in this research project, but it would be useful to recommend a timeline of the process, even if flexible and adaptable to the particular circumstances of the energy project to be supported.

Stakeholder relations went smoothly throughout the Create Acceptance process, and they were appropriately cooperative. This was partly due to the opinion expressed by each stakeholder approached that renewable energy was an important issue due to environmental and security of supply pressures. Nonetheless, their cooperation was partly also due to the established professional relationship with the consultant and the knowledge of its institution, and it is dubious how it would have gone if a PM alone had applied the tool. Probably, ministries, agencies and MAVIR would have been very difficult to involve. Even in this test case some incentives had to be provided; either it was emphasised why participation and reactions are fruitful for the stakeholder in their work or the consultant did some favour e.g. gave a presentation on a conference organised by a particular stakeholder or gave minor advice in response to some other energy related questions by another stakeholder.

A challenge is how to follow up the further progress of the project. In this test case the consultant formally leaves the PM with Step 6, but in later ESTEEM applications the consultant may also have a follow up and helping hand role also in the execution phase of the action and com-

munication plan. Even in the Vép case the good relations with the PM and good experience gained in working together allow further informal and perhaps formal cooperation in order to achieve the complete implementation of the windpark project.

A.4.3 Results of testing the ESTEEM tool

A.4.3.1 Step 0:

Step 0 originally is to be done ex ante so that the PM could assess to what extent the ESTEEM process can help them to carry out the project. With the Vép wind demo project it was filled in by the consultant well in the 2nd half of the project (judging the knowledge and thinking of the PM at the start of his project), and the final score and diagram indicated that there were two dimensions in which the process could especially be useful for the PM to enhance acceptance. These dimensions were indicated as no experience with similar projects and the project being still in an adaptable phase. The project was 'predicted' to be less useful in the other two aspects as no extreme negative impacts were expected and social acceptance was not particularly low.

The questions are easy to understand and respond (with a good knowledge of the project and context), and it takes less than half an hour to answer them.

Step 0 can be a useful tool to raise interest in potential users. It is recommended to make it available also separately on the ESTEEM website - not only as part of the whole ESTEEM package - so that anyone interested can experiment with it quickly.

A.4.3.2 Step 1: Project history and context and actors

In Step 1 the PM deemed it very useful to reflect upon the history, decisive moments, current status, actors and context of the project in - as he called it - a systematic way.

This step is organised for the delivery of 4 main tools, and it was considered useful and relatively straightforward, but time consuming by both the consultant and the PM. It helped to build a common understanding between consultant and PM, and the documents were consulted several times during steps. The time spent by the PM (about 5 hours of interview altogether) and by consultants (about 15 hours) was however considered important. The consultant and the PM already knew each other and some documentation and project background was already collected during the WP2 case study on Vép.

The consultant elaborated an additional tool, the Innovation Characterisation table (see Appendix of tools as applied to the Vép wind project). The PM filled it in as an add-on to the other four tables of this step. He was comfortable with it and with explanations it took some additional 15 minutes. The Context tables are complex enough to incorporate the Innovation Characterisation. It is recommended to keep it as a separate optional add-on table. It is useful for the PM to reflect on the position of the project and it is a base for strategy elaboration.

All in all: Step 1 provided a good systematic reflection on the project and its context both for PM and consultant.

Project Narrative

The questionnaire provided by the Manual to guide and structure the process was helpful but there were redundancies in the questions- The tool wasn't regarded very helpful with respect to new knowledge, but it is not its goal. For the consultant it is a useful starting point, and also a basis for the writing of the PM's present vision in step 2. It is time consuming for PM and consultant. It was pre-filled by consultant and then amended by PM during a 2 hour interview as a basis for starting the discussion. After the interview the consultant wrote it up and sent to the

PM for a final check, who sent it back with minor corrections. The narrative is relatively short taking less than three pages.

Recommendations:
- Check if questions are consistent and remove redundancies);
- Check, if project descriptions are already available; reduce and/or adjust questions utilising already available project information (e.g. flyers, brochures, tenders). Preparation by consultant should save time for the PM.

Context analysis
It was pre-filled by consultant and then completed and filled in by PM during a personal interview. The PM and the consultant went through together the various cells. The context tables took 2.5 hours to go through; it was tiring for PM However, both felt it was a useful tool to systematize the PM's view of the context of the project, but the filling process was perceived somewhat clumsy and long (but also manageable), and it often required guidance and explanations on the consultant part. It Requires a well prepared and experienced consultant, and also one having a good memory and/or well organised, prepared notes.

Recommendations
- Context tables are a jump in the deep water suddenly for the PM, it is better to put Defining Moments before it; DM gives a good warm-up with a feeling of first achievement.
- PM interpreted some headings differently, but easily understood with a few sentence additional explanation. It is recommended to make Context Table headings less ambiguous.
- PM Interpretation of expected result was sometimes just the evident 'success', some hint would be expedient in the guidance for the PM.
- Social networks - let us characterize their significance with the phrase: potential for 'social leverage', because relationship with actors which have links to other influential actors may increase probability of acceptance.
- Continuous consultant feed back/intervention (cell by cell) is recommended;
- If the PM has no ideas - toss up the ball for PM to consider (he can accept or reject it; think about it or not).
- Optionally complement the context analysis with the Innovation characterisation table.

Defining moments table
Again, it was pre-filled by consultant, then checked and complemented by PM. This process was rather straightforward. It was an easy to use, systematic collection and good reflecting exercise. The PM realised, he could have chosen better strategy for building windpark if Government position had been announce earlier.

Recommendations:
- Using the DM table before the Context table (as originally suggested in the Manual) seems more appropriate. DM gives a good warm up for the PM with a feeling of first achievement.

Actors table
The Actors table was drafted jointly, from the narrative on the consultant part and then on the basis of questions asked to the PM like who are the important players. This tool was considered useful as it helped PM systematically consider the social environment of its project. The actor table was a synthesising character summing the known actors but enlightening some of their features that might be important later in the process. Also, the importance of actors with emerging potential (but not yet influential) was acknowledged. Some points arose to be considered for the PM, for example to join or not a RES association. A PM concern was to smear or be explicit regarding conflicts with important actors. Not only as a task to think over the strategy to handle these conflicts, but also regarding how to present these in the tables, as the tool might be public,

and he did not want to impair relationships. Also, the core group of stakeholders for interview for Step 2 were selected together by PM and consultant.

Recommendations
- Interpretation of 'affinity' (response 'supportive') was ambiguous, it should be clarified. An authority, for example, supportive, hostile or neutral (doing its job impartially) when provides or denies a permit?
- Consultant Intervention: if the PM has no ideas - 'toss up the ball' for PM to consider (he can accept or reject it; think about it or not.

Overall PM perception for Step 1:
He did not feel it as a waste of time despite the fact that not much new information came out of it (apart from conveying over some consultants knowledge when explaining context headings), but it was useful to go through the various aspects of context, and also to take a systematic account of players and their roles, strengths and attitudes.

A.4.3.3 Step 2: Vision building

In this step the PM's and 'core' group stakeholders' visions about the project and its context was constructed. This forms the basis of comparisons of visions and analysis in the subsequent step.

The present, intermediate and future PM visions, as well as the present and future social network maps were drafted by the consultant from Step 1 material and a phone discussion and then sent to PM for review and amendment. A meeting was then organised with the PM to finalise the visions and maps. The PM modified them only very slightly. These tools were considered straightforward by both the consultant and the PM.

The core stakeholders were interviewed to elicit their future visions as well as they were requested to reflect upon the future vision and future map of the PM. Based on this, the consultant wrote a short synthesis summary for each stakeholder's vision.

Some problematic points/recommendations related to each map and vision were:
- Interpretation of poles vs needs clarification.
- It is recommended to use the same aspects/dimensions in Step 1 and Step 2.
- Placing actors in one particular pole/dimension is not always easy: poles/dimensions may overlap.
- Carry on the same aspects/dimensions to Step 3 Conflicting Issues table.

Project manager's present vision
The PM's present and intermediate (around 2015) visions, present social network map were first drafted by the consultant (based on step 1 and discussions with PM), and then reacted by PM (as detailed above).

A few specific remarks and recommendations besides the general one in the Step 2 introduction:
- PM Present Vision is More descriptive of the past and present than a vision; -a- separate intermediate vision was constructed for the midterm future so as to make vision more tangible and the path explicit.
- Include some sum of the narrative in the present PM vision to make other stakeholders know the project when they react to elicit their vision.
- Vision title: no high importance - done by PM and consultant together; they were only chosen for the PM's visions, and not for stakeholders'.
- Social network map: it required not always easy pondering which (non-PM) relations to represent or ignore.

- Synthesis of the maps should be written in short sentences, sort of a short descriptive summary because much information on relationships included already in visions description.

The BAU Scenario

The BAU scenario is necessary to have a 'the world without the project' reference point or more precisely, a reference line ahead in the future relative to which the visions of PM and stakeholders can be compared and evaluated. A problem can be whose BAU should be taken as any BAU is coming from a research institute or the state administration (Ministry or an energy agency). The consultant tried to briefly synthesise the common forecast pieces reflecting no particular renewable energy policy efforts. As due to its size - apart from the local context - the project itself makes no much difference, definitely not in the energy mix, the BAU is more a description of likely major trends of variables, attitudes and policies the development of which in another way would otherwise provide a friendly background to the Vép project. The BAU was discussed with the project manager and shown to core stakeholders in Step 2, and also sent to invitees to the Step 5 Workshop.

Some further guidance to reduce ambiguities in constructing the BAU could be useful.

The Project manager's future visions

The PM's future (2020-2030) visions, future map (around for 2020-2030) were first drafted by the consultant (based on step 1 and discussions with PM).), and then reacted by PM (as detailed above).

A few specific remarks and recommendations besides the general one in the Step 2 introduction:

- Future social network map: it required not always easy pondering which (non-PM) relations to represent or ignore.
- Vision title: no high importance - done by PM and consultant together; it was only chosen for the PM's vision, and not for stakeholders'.
- It is a mix of qualitative and quantitative statements, but more qualitative statements than quantitative to see the essence - not to be lost in numbers.
- Synthesis of the maps should be written in short sentences, sort of a short descriptive summary because much information on relationships are included already in visions description.
- It may be a challenge to make the PM contradict with the consultant/expert drafted intermediary view - how to provoke/encourage the PM?
- PM interview should be interactive consultation rather than just having PM to modify/approve visions pre-drafted by the consultant.

Selecting the group of core stakeholders

This was done in a discussion with the PM right after Step 1 Actors' table had been completed. The PM had earlier contacted, communicated quite professionally with locals - but only with locals, and it was useful for PM that the CA process widened/opened the world of stakeholders (e.g. involvement of ministry officials, regulators, system operator, national organisations etc).
From local population only the mayor was involved the 'standard' way in the core group. No other local population representative was selected into the core group due to several reasons. First of all, previous involvement, interactive communication, exhibitions, forums and surveys discovered and addressed local concerns; no sharp conflicts remained. Also, the residents of Vép are not organized into relevant local NGOs - there are no representative residents. In this respect forums could work, but such forums had been done earlier by PM and a communication team.

The Stakeholder future visions

Six core stakeholder interviews were conducted. The core stakeholders were made to be interested: either to show it in itself provides help in their work or sometimes 'services' were given/promised in return (expert advice on an issue intriguing them, presentation by the con-

sultant on their event). The interviewees were the expert in charge of Renewable Energy Policy at the Ministry of Economy, the head of the Economic Department at Hungarian Energy Office, the expert in charge of climate change strategy at the Ministry of Environment, the head of balancing services at MAVIR (System Operator), one representative of the Energy Club NGO and the Mayor of Vép. Local population views were assessed based on former survey results and informal conversations with residents and the mayor.

Core stakeholders reacted to the PM's visions and responded questions in the interviews; they reacted moderately to PM's materials - questions had to be used to elicit there views. From these reactions, a synthetic note was drafted for each stakeholder as an input into Step 3. The stakeholder interviews took approximately 2 hours each. Particular stakeholder present vision was not drafted, but some stakeholders also reacted upon some points of the PM's present vision.

Recommendations:

- Use also a questionnaire to elicit broader context views of core stakeholders rather than just react on PM's vision.

A.4.3.4 Step 3: Identifying conflicting issues

In this step the consultant analysed Step 2 material alone. He compared the PM's visions with those of core stakeholders in order to discover in what they contradict and coincide and thereby to identify and characterize conflicting and synergetic issues. It worked well that it was a consultant's analysis session; minimization of PM involvement is recommended in this phase and the consultant should go to the PM well prepared in Step 4 for seeking solution options that are then can be offered in step 5 for negotiation.

Identification of conflicting issues and features

Conflicting Issues table

The consultant listed numerous issues that characterised the vision of a given stakeholder, then examined which of these contradict or support the vision of PM. There were only a few conflicting points, and somewhat more synergetic points found that were straightforward to identify for the stakeholders involved.

Recommendations for the Conflicting Issues table:

- It is recommended to check and in cases to keep the internal consistency column (originally included then dropped from the tool manual) to check if there are contradictions within the vision of a given stakeholder (across dimensions);
- The chosen approach of core stakeholder interviews in Step 2 and their analysis in Step 3 does not provide for anticipating potential future actors and conflicting issues (apart from future map in Step 2 to some extent).

Ranking key actors and issues according to their strategic importance

In this tool the consultant ranked four conflicting issues according to their importance/significance to the project and to their solvability. Filling the Issues Ranking Table was found easy and straightforward.

Recommendations for the Issues Ranking Table:

- Also include issues anticipated from future.
- In some cases instead of ranking, marking between 1 and 5 might be useful - there might be close to equal important issues.

- Whether the consultant or PM should judge solvability is a question: should consultant come up with her/his hint and then make PM react or PM would judge it first hand (and therefore involve PM even in Step 3 or combine this substep with the Step 4 meeting).

Experience with the Strategic Issues Graph:
The Strategic Issues Graph, indicating importance and urgency, is a nice visualisation and summary of this Step, but adds no additional info or facility.

Recommendation for the Strategic Issues Graph:
- Also include issues anticipated from future, these, by nature of the 'urgency' dimension, will have a 'discounted' urgency.

A.4.3.5 Step 4: Portfolio of options

Listing and evaluating solutions to major issues
In this tool the PM and consultant met in order to seek solution options in three categories (as in the Manual) for the conflicting issues ranked in Step 3. Before the meeting, the consultant pre-filled the table with his solution proposals and then discussed them with the PM. Eventually three of the four conflicting issues were dealt with. The fourth (securing finance for advancing with the wind project) was dropped as it proved to be trivially solvable once the major conflicting issue (having no permit from the Energy Office) is solved (its solvability is fully conditional on another issue). The PM accepted the consultant's solution proposals and also added some possible solutions. Formal evaluation and ranking - partly on the advice of the CA process counterpartner - was not carried out. The PM and consultant agreed that all the proposals discussed are worth putting forward for discussion on the Workshop (in Step 5), and their practical evaluation and priotising would take place during action planning in Step 6 (after finalisation of the solution options as a result of the Workshop).

First testing PM preferred solution for their robustness and resilience
According to the testing experience of other partners and discussions at the project meeting in Budapest, this substep was not done.

A.4.3.6 Step 5: Getting to shake hands

The workshop was the 5th step out of six in the process of Create Acceptance project. The goals and procedure of CA had been described in the background material sent earlier to the invitees. The workshop was held in the meeting room of one of the major opposing stakeholder, MAVIR Zrt. (Hungarian Transmission System Operator Company Ltd.) on the 16th of November, 2007.

The aim of the workshop was to start discussions - or even negotiation - between stakeholders with the mutual recognition of their differing future visions, conflicting opinions and to seek for and compromise possible solution options that could help to overcome the deadlock situation of the Vép wind project.

The preparations of the workshop
The consultant informed the PM about the form and content of the workshop and his role during the workshop in a meeting a few days before the workshop. Earlier, the PM had helped the consultant with putting together the list of stakeholders who were to be invited.

The consultant and PM selected and discussed - based on Step 3 and 4 - the key issues and solution options to put up for discussion on the Workshop. The PM asked to reformulate to a more general issue one of the selected issues: the results of a local survey on the attitude of residents towards the rapid growth of the number of wind turbines was not fully supportive. It was reformulated as

- The social impact and general/local acceptance of (expected) rapid growth to large scale in the number of wind turbines

This general formulation was a compromise with PM; he did not want to reveal the concrete result of the earlier survey that approximately 50% would support more than 4 turbines fearing that other participants (authorities) might use this result as a counter argument against augmenting the windpark.

After putting together a first list of some 30 stakeholders to invite for the workshop, an invitation by email was sent. As a follow up, the consultant reacted actively on the reactions of the invited people: Criteria for the selection of participants in manual were useful and applied, we tried to invite people from each dimension of society, attempting to achieve more representativity in scope than what the core group of Step 2 showed. Eventually 17 attendees showed up, but this did not much affect the aim that each type of stakeholders were represented except science and consulting.

A dossier was sent by Email to all participants a few days before the workshop. It contained:
- a brief description of the situation of wind projects and Vép wind project, the Create Acceptance project and the aim of the workshop
- present, intermediate and future vision of PM, description and maps
- a chart showing the CA process
- agenda of the workshop.

Printed brochures about the wind project at Vép and printed versions of the agenda and the Create Acceptance process scheme were distributed to all participants right before the workshop.

Realization of the workshop

The workshop started with an introductory presentation by József Fucskó (MAKK) - the facilitator - describing the aim of the workshop, the Create Acceptance process, the demonstration projects and in detail the status of the Vép wind project (achievements, obstacles). He described a summary of stakeholders' visions, the conflicting and synergetic issues, and proposed the most burning issues that were selected in previous CA steps to be discussed for the workshop. These selected issues were carried over to the next part of the workshop so as to find various solution proposals to them and thereby help Vép wind project PM to step forward with his project from the halted situation. The audience did not add further points to discuss.

Participants were then divided into small groups to come up with solution proposals. Working in small groups of four people rather than pairs (as originally the Manual suggested) worked well. Then a representative of each group presented its proposals which was then discussed by the participants. Finally an evaluation of the options ensued by the means of voting.

During the workshop the PM was just one participant among the other ones. It was the consultant who presented the project and answered questions in the plenary phase. During the discussion in smaller groups, the PM took part in the session work in one of the groups, acted as any other participant, gave some own ideas, reacted positively on inputs given by the stakeholders in the group, and did not turn down suggestions. It was not the PM who presented the group's opinion, was reserved in the plenary discussion of suggestions, but took part in the prioritising vote.

The role of the facilitator had to be somewhat more active than envisaged, because due to the numerous general proposals, he had to introduce some more PM focused proposals that were not raised by stakeholders. However, even the proposals targeting other stakeholders can be in one way or another utilized, mainly when lobbying, cooperating with allies and negotiating with opponents. This is something to explore in step 6.

The overwhelming majority accepted each solution option. It raises the question for what and how we want to use the evaluation/voting procedure. In its given form it is not appropriate for priotising the proposed options, but possibly to identify what type of participants are against a particular proposal. Even a few opposing stakeholders can be influential and block the advance of the project, even if PM is going ahead with the implementation of a seemingly widely supported option. Priotising was not really successful also due to the clumsy, lengthy and after a while boring, and consequently (after the tiring point) somewhat anarchistic voting procedure. However questions during voting helped to further interpret some issues/proposals.
These experiences raise the question as to how to simplify or substitute voting in evaluating the proposed options.

Participants can be a little bit undisciplined - it is difficult to fully follow the instructions of Manual - for example noting proposals on stickers - it seems immaterial but it causes practical problems for grouping and ordering the proposals in the next step of the workshop

The focussed objectives that were indicated by the consultants before the workshop were mostly met during the workshop:

- Evoking a wider scope of stakeholders' view on future of wind integration - mutual understanding of system regulation concerns and prospects.
- Address concerns about rapid growth of wind.
- Evoking suggestions for improvements -discover if there are any conditions under which the wind project can go ahead; alterations the wind project can do.
- Attempting the convergence of solution proposals; to start a discussion process.
- Test main possible project variations identified in earlier steps regarding their acceptability.

The workshop also offered a relevant network-facility for the stakeholders that had not met each other before. New contacts between stakeholders and the project manager with stakeholders were made in the workshop

Expected results

- New communication space opened for the project and wind energy.
- Conflicts were made explicit - alliance and lobbying strategy can be built on it.
- Conflict resolution potential discussed/discovered/started to do list for stepping ahead in step 6.
- Numerous solution proposal discussed, partial agreements achieved - some were new and deemed valuable and will be investigated by PM.
    - But even when agreements seem to take shape, understanding is still superficial, when the issue cuts materially again, same rooted conflicts may revive.
- The workshop was not really successful in priotising the proposals.
- WS report was made and distributed.

The Vép project manager, for whom many of the issues and proposals were already familiar, seemed to accept more project adjustments (and consequently costs), and was more ready to compromise than other wind developers, for whom most of the proposals would need further ‘digestion’. In sum, first steps towards moving out from the deadlock were made.

Recommendations for the ESTEEM tool, Step 5
The role of PM during the Workshop should be more explicitly described and advised on in the CA Manual. It was somewhat ambiguous to what extent he can act as any other participant, but at the same time should not interact the flow of the workshop and the proposals, but also not lose the opportunity to discuss and test own proposals identified in step 4.

Due to the negative experience with voting, and therefore priotising, in the following section a simple, as well as theoretically well-founded evaluation procedure is recommended.

According to Donald Saari (in Economic Theory, 2000), the only fair voting system for more than two candidates to appropriately reflect preferences is the so called Borda count (proposed by Jean Charles Borda in 1770 to elect the members of the French Academy of Sciences.). The Borda procedure is simple as long as there are not too many candidates or, in our case, proposals. If there are options X, each voters ranks the options: the most preferred option receives X points, the second preferred X-1 and so on. Then the points of each option are simply summed and the number of points gives the preference order. The participants can do it on a slip of paper and then the papers are collected and points counted. It would be a shorter procedure than hand or card voting for each proposal and at the same time would give a more appropriate result. In the case of numerous proposals the procedure could also be done for each category of actions (project alteration, information gaps, financial incentives) separately, but then priority is not set across the categories.

Voting or evaluation can also be used not for priotising the proposed options, but possibly to identify what type of participants are against a particular proposal. Then in the actions in Step 6 those type of actors will need particular attention.

Returning the results of the workshop

The workshop report was prepared by the consultant and was sent to all participants and also to those who indicated that they wanted to receive it (e.g. some invitees had responded that they were not able to attend but would like to see the written outcome). On their initiative, the report and the presentation were also placed on the website of the Hungarian Wind Association from where anyone (not only members) can download it. There was no particular feed back sent to the consultant on the report.

A.4.3.7 Step 6: Recommendations for action

In this step the consultant and PM synthesised and turned into action plans what they had learnt throughout the Create Acceptance process about the adaptation possibilities of the wind project and its context. The goal of the action plans is to help the PM be able to move the project out of the current deadlock situation by adjusting its features and operation mode whereby making it more acceptable for stakeholders.

This step relied heavily on steps 3, 4 and the Workshop (Step 5). As a start, the consultant called the PM for a phone interview to discuss the results of the Workshop. The PM felt he had learnt some proposals that he thought were valuable and he would further investigate them

The tools were first pre-filled by the consultant and then a 2 hour meeting with the PM ensued to discuss and finalise the proposed actions.

In this test case the consultant formally leaves the PM with Step 6, but in later ESTEEM applications the consultant may also have a follow up and helping hand role also in the execution phase of the action and communication plan.

Identifying acceptance and feasibility

Based on Step 4 and the Workshop (Step 5) the consultant pre-filled the Acceptance and Feasibility table which was easy and straightforward. For three key issues ten solution options (ten groups of options) were listed and qualified.

Some ambiguity arose as to when a solution option should qualify as highly accepted. Should high acceptance be interpreted as accepted by almost every Workshop participant (including the

PM and other wind developers) or just 'outsiders' only. A recommendation is that it should be indicated, if for a particular proposal there is high acceptance by other stakeholders, but low by PM or other developers of similar projects, because it would require too much sacrifice. Another possible situation is, if most stakeholders and the PM agree, but developers of other similar projects' (in our case wind projects') do not, but agreement of the developers and concerted action is necessary.

Also sometimes it is not unambiguous whether the capacity for action for a particular option is to be marked 1 or 2, or in other cases 2 or 3. As some actions can be done by the PM quickly but it does not make much sense if he does not cooperate so both 1 and 2 are appropriate. Also some collaboration actions (type 2) address issues that are important, but chances for influence are low. So these are also issues to monitor (type 3).

Sorting of options: Capacity for action

It is an easy to use summary reorganisation of the Acceptance and Feasibility table. A remark here is that in 'type 3 actions', which are about monitoring, the essence is not about actions, but the issues to be monitored. The guidance for this column itself mentions issues as opposed to the column heading. The actions themselves are certainly easily doable in this category - alone by PM or with others - but the issues the monitoring actions address are outside the influence of PM and his allies; only there is some little chance that they lead to changes. It is these issues that are interesting here, and naturally also their monitoring actions, thus it is recommended to list them together in this column in a form: *monitor what issue with what action (what and how)*. The monitoring actions themselves are then detailed in a later substep, in the Long-term monitoring and capacity-building plan.

Develop the recommendations and action plans

a/ short term action plan

Based on the previous exercises, it is easy to select type 1 actions, here labelled as short term actions. Problematic can be in some cases that we take 'actions that PM can do alone' equivalent with short term actions; just because he can do it alone, *should* then he also do it *now?* For example, in the case of Vép, type 1 (PM can do alone) activities are not the most important and urgent ones, but type 2 collaboration actions are more crucial for the success of the project, so these should be addressed first as short term activities (even if some of them may run into the medium term). For Vép Wind case, only then or at most coincidentally should come type 1. The consultant kept the Draft Guidance Manual's categorisation, but clarified this question of priority with the PM.

b/ collaboration plan

See remark above on priority of collaboration plan.

It is worth noting that in finding collaborative partners, the PM should explore, keep in mind and utilise synergies! Cultivate liaisons with those with whom some particular common goals (synergies) exist, communicate and emphasize these synergies to them and the public.

A specific recommendation for the tool: Insertion of a 'with whom?' column would be explicit, make it more transparent and useful. All in all it is a **collaboration** plan table. The collaborators otherwise are jammed in the type of action column, and the table is not so transparent that way.

c/ Long-term monitoring and capacity-building plan

A general remark here is that it can easily swell too big, it can be very time and resource consuming for the PM to execute an ambitious monitoring plan, so it should be planned in an economic way to restrict it to such actions that may really bring in some benefits.

The checklist contain some items that are ambiguous whether they are monitoring actions or more active initiations, e.g. 'potentials to exploit', or 'pitfalls to avoid'. The latter is explained as problematic PM behaviour or problems in the company's organisational structure, which are

not external dynamics that the PM cannot influence. Some terminology clarification for this substep is recommended as well as example filling of the table.
Capacity Building should also be defined, e.g. efforts that make PM better prepared to monitor and understand 'big' issues and if time comes to that also make PM capable to intervene.

d/ Communication plan
The communication plan is an important interface with the target stakeholders and general public. It can even easier run out of resources than the monitoring activities, so the important issues, the right channel for the right target group should be carefully chosen.

The tool is well designed if a detailed communication plan is necessary; if not, the integration of this substep into the previous tables near the actions is recommended.

e/ For all actions
A summary time span table for the actions template would be useful for the users (either the PM or consultant). Alternatively a timing column could be inserted in each table, where relevant. It can include a time interval, a deadline or the word 'continuous'.

Evaluation of the Create Acceptance process
As the discussion of capacity plans was exhaustive and time consuming, the evaluation was done in a separate occasion in a phone interview. It took about 45 minutes to go through the evaluation questions and talk about overall PM experience related to the CA process.

The PM's general feelings were very positive, he felt CA provided added value to his efforts in achieving the continuation of the project. However, by the nature of the mostly regulatory impediments, and thereby the necessity of collaborative actions, even in the case of success, it will be a result of common efforts, therefore the contribution of CA, probably is not separable and determinable.

A.4.4 Success and limitation of the CA-Process and the ESTEEM Tool in achieving acceptance in the region

Local and regional acceptance is not a perceivable problem currently for the wind project due to the previous efforts of the management. There are some residential concerns anticipated though (discovered by surveys before the CA process started). The concerns of the minority of the population about erecting more than 4 turbines, however, are not strong, in tendency decreasing, and are not the bottleneck now of the project. Despite this, they are addressed in the action plans, and success or failure of ESTEEM can only be judged if this issue becomes timely and relevant. The CA process successfully involved the mayor and a few residents in Step 2 and 5.

A.4.5 Exchange of Demos / Partners Interaction in CA

A.4.5.1 Experiences with Counter partner's support

The counter partner for this demo was chosen because his extensive experience of acceptance problems of wind developments in France, and also due to his experience in using the predecessor (SOCROBUST) tool for innovative projects. The particularities of the Hungarian situation made it somewhat difficult for an outsider to understand every detail of the project, the context and the problems, but still the counter partner had some essential insights and provided good recommendations. One was for the consultant to not only focus on the regulatory 330 MW limit as a hindrance for the project, but also to look behind and address the policy reasons behind it, as policy (decision makers) can be uncertain as to what direction of the transition of the energy system should take, and also lobbying of conventional stakeholder forces may push strongly against making absorption of more RES-E and wind possible. Also, it was recommended to skip

the Solutions ranking table, as there was not enough information at the time to fill it in the same way as the table requires, and on the other hand the necessary basic judgements were also possible to make without it.

A.4.5.2 Lessons learned

Numerous inspirations came from other partners' ideas and experiences despite the different character of each demo project. As testing of the various steps of ESTEEM did not exactly coincide, the experiences of the pioneer(s) of a given step were presented to the others, and then they were fed back to the tool, and other partners often used the modified tool.

The main lesson learnt of applying ESTEEM is that it is doable with non-extensive efforts that are also tolerable to the PM, it helps to gain new knowledge of the project and context both for the PM and other stakeholders, it helps to explore adjustment and negotiation options that the PM appreciates and will take further, and that the PM hopes may lead to higher acceptance and ultimately contribute to the completion of the project.

A.5 Sustainable Marine and Road Transport, Hydrogen in Iceland

A.5.1 Description of Demo project

SMART H2 is a demonstration project for hydrogen fuelled vehicles and vessels. The project will test various types of hydrogen-fuelled company cars and other equipment that runs on hydrogen, including a hydrogen auxiliary power unit for a tour ship run by Elding. The project also aims to demonstrate the operation infrastructure for compressed hydrogen and develop the distribution system for hydrogen, for example by organizing and running a small-scale hydrogen transport service.

The project is based on the vision that Iceland can in the future use hydrogen made with local renewable energy and water as a transport fuel. This will enable the country to cut its carbon dioxide emissions and replace imported fossil fuels with a locally made fuel. The tests are an important learning phase in realizing the large-scale introduction of hydrogen. A shift to hydrogen fuel will require the development of new equipment and the introduction of a partially new fuel delivery and production infrastructure.

Icelandic New Energy (INE) is the initiator of the project. One of INE's major shareholders is Vistorka, a company which serves to unite business venture funds, key energy companies, academic institutes and the Icelandic government. In the Create Acceptance project, INE represents both

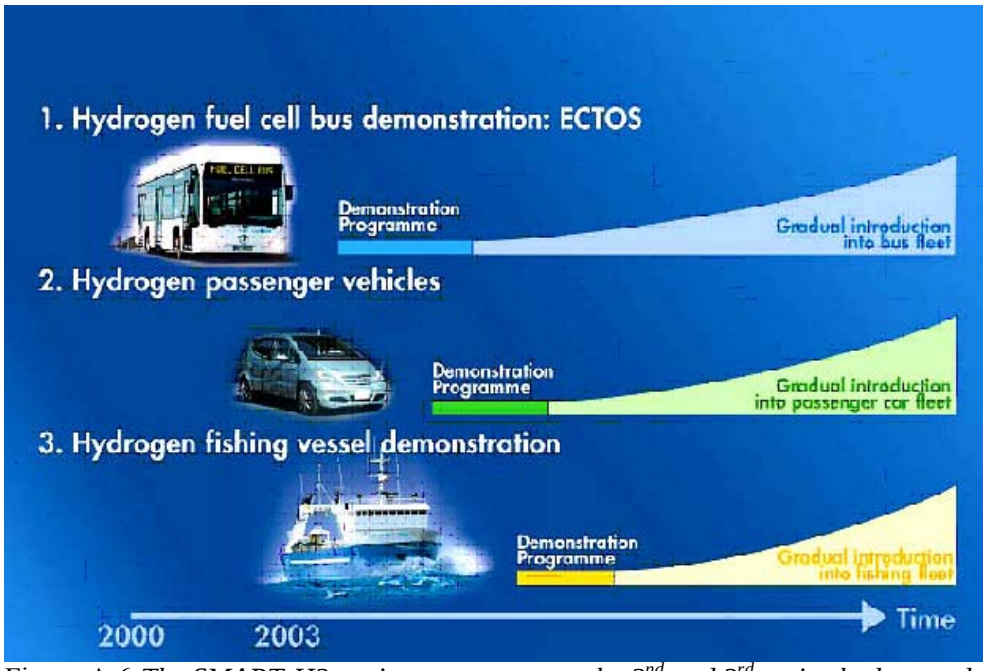


Figure A.6 *The SMART-H2 project encompasses the 2nd and 3rd major hydrogen demonstration projects that pave the way for an operational hydrogen energy system in Reykjavik*

SMART H2 is the second and third major test project in Iceland. It is rooted in the experience gained in the use of hydrogen fuelled public buses in the ECTOS and HYFLEET: CUTE projects also initiated and run by Icelandic New Energy (INE) and run partly on EU funding. SMART H2 aims to extend the experiences gained in public transportation to other types of cars and to the shipping fleet. It is also different from the previous projects in the sense that SMART H2 is funded domestically by Vistorka and the Icelandic government.

The project consists of three paths:

- SMART H2 ICE path focuses on company and rental cars. These cars run on conventional internal combustion engines (ICEs), which represent an intermediate step toward the shift to fuel cell cars. The cars will be retrofitted Toyota Prius vehicles that use hydrogen instead of gasoline. The cars will fill up at Shell Hydrogen's hydrogen station. The aim of the SMART H2 ICE path is to test the hydrogen distribution options, collect data on vehicle and station performance, collect drivers' experiences, and validate the market potential in Iceland.
- SMART H2 FC path focuses on fuel cells. The first demonstration project within this path will test an auxiliary power unit based on a hydrogen hybrid engine. This will be done on the whale-watching tour boat Elding. The engine will produce the electricity needed on board. This demonstration aims to develop the auxiliary power unit into a marketable product for other vessels or other types of users. The path will also create awareness of hydrogen based technology among the hospitality industry and tourists. Also fuel cell powered cars will be tested within this path at a later stage.
- SMART H2 Research will focus on assessing the economic, environmental and social effects of using hydrogen as the main fuel in Iceland compared to other alternative fuels. It will also compile data on user experiences, performance, reliability, operational design, and operators' experiences.

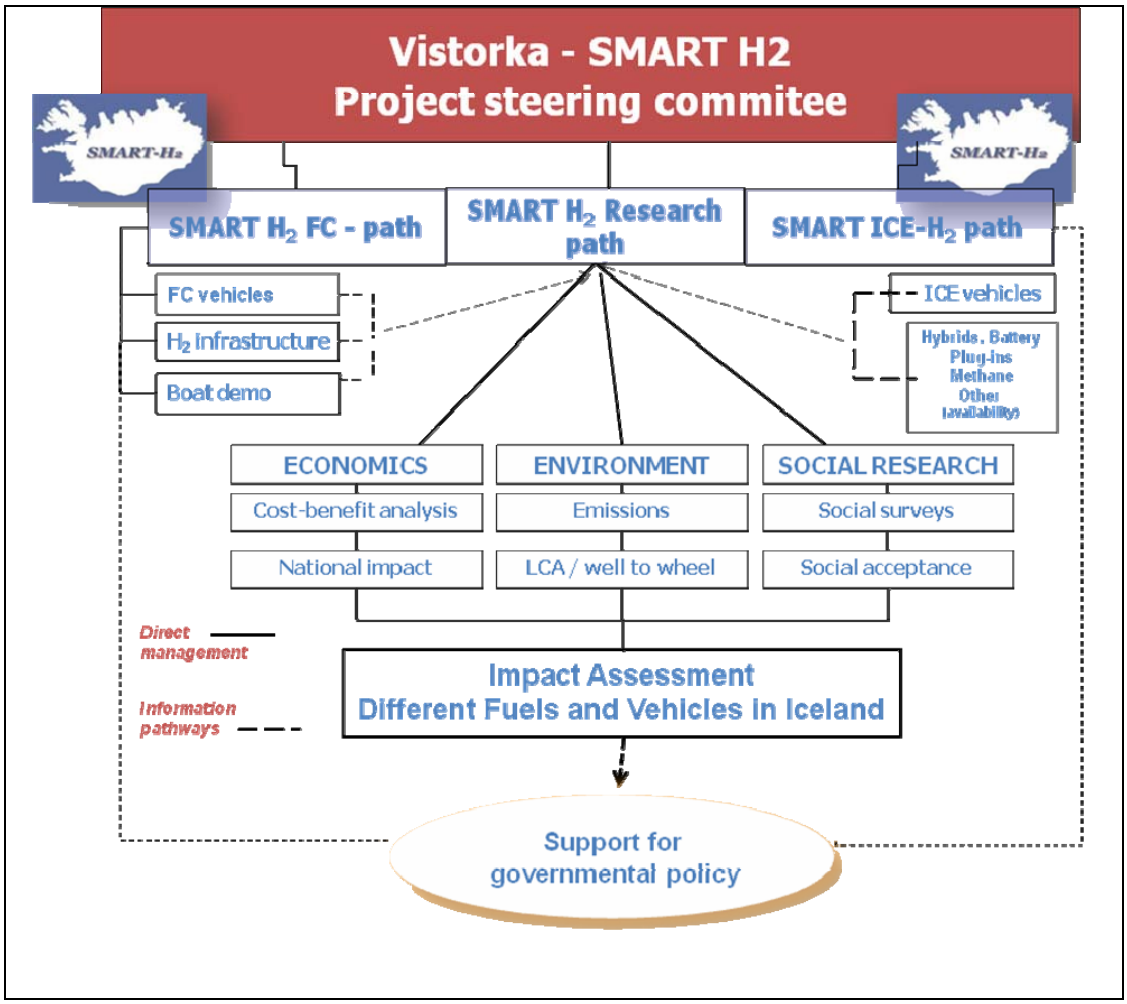


Figure A.7 *Overview of the SMART-H2 paths*

INE has been working on projects to prepare for an eventual hydrogen economy in Iceland for almost a decade, and SMART-H2 represents a natural continuation of previous projects and promotion activities for hydrogen in Iceland. The project managers are very familiar with the domestic and international debate surrounding hydrogen and have years of experience in promoting hydrogen. They are fairly well aware of the views of different stakeholders and have longstanding contacts with many of the stakeholders. But opponents have not been contacted directly even though their protests appear at times in local and international media.

Currently there are more than 20 organizations participating in the SMART-H2 project. Three closely co-operating project managers from Iceland New Energy (INE) are in charge of the different paths. The main parties involved are providers of materials and technology (Orkuveitan: power, Daimler Chrysler, fuel cell cars, Quantum: ICE cars, other vehicle providers, fuel cell provider, the users of the equipment (e.g., Hertz, Alcoa, Landvirkjun, Orkuveitan, Elding boat and tour operator), administrators and regulators, and different research institutes and universities involved in the research. Meetings with users, suppliers and other stakeholders have been ongoing since September 2006. The companies participating in the tests will need to agree to provide data for the research conducted by INE.

In terms of the Create Assessment process of testing the ESTEEM tool in a demo project, this demo project has some particular features. Iceland New Energy is both a partner in Create Acceptance (and thus represents the 'consultant' using the ESTEEM tool) and the operator of the SMART-H2 project. The demo project leader in the Create Assessment project, Maria Maack, is also a 'real life' project leader of one of the SMART H2 Research path. She has also been

central in the previous project, ECTOS, and is a central figure in the development of hydrogen systems in Iceland. Thus, from the perspective of the ESTEEM tool, the demo project leader has something of a dual role.

In the ESTEEM tool testing process, the director of Iceland New Energy is designated as the 'Project Manager'. There is thus a separate 'Project Manager' with whom the tool is tested, but the relations between the project manager and the 'Consultant' are closer than is the case in the other demo projects. The 'Project Manager' and the 'Consultant' work in the same organization, which has some benefits but can also make some things more complicated.

This demo project thus provides some insights on the use of the ESTEEM tool in a situation when the 'Consultant' is in-house. It can also give some insights into situations where there is no particular consultant at all, but the 'Project Manager' or some of the project staff use the ESTEEM tool themselves.

A.5.2 The process of the SMART-H2

The SMART-H2 demo project differs from the other demo projects in a number of ways. These are discussed in the following in terms of

1. technological maturity,
2. management capabilities of the project manager,
3. governance of the demo project,
4. local context and
5. the stakeholder relations of the demo project. All these characteristics have implications for how the ESTEEM process works in the demo project.

(1) Hydrogen is an 'emerging' technology, which is probably closest to actual application in Iceland. Iceland has a number of natural advantages in the use of hydrogen as a transport fuel, most notably the abundant hydroelectric and geothermal energy resources that can be used to produce hydrogen, as well as long experience in running community based systems with renewable energy only. There are also some natural 'disadvantages' that make hydrogen very attractive as an alternative fuel, most notably the lack of domestic biomass reserves and the distance of the country from the rest of Europe. Nonetheless, in Iceland as elsewhere, actual market applications of hydrogen technology have taken longer to materialize than might be expected on the basis of some of the public/international discussion. Many aspects of market application require the co-operation of foreign partners, including oil/fuel companies and car manufacturers. On the other hand, there is a strong economic rationale in Iceland to develop hydrogen-based transport fuels because this would provide a new product for the domestic energy industry.

(2) The SMART-H2 project represents a fairly mature project in terms of managerial capabilities. INE is a small organization with a very small but very capable staff. The owners of INE are large companies for which INE is strategically important. Promotion of hydrogen has been the main mission of INE since the inception of the company. INE has fairly established project management procedures. The SMART-H2 project has been in a very intensive phase, and testing the different steps of the tool is difficult to integrate into this fast-moving project.

(3) Governance of the demo project is complicated, because it is owned by a number of different companies with somewhat different interests. Because SMART-H2 is strategically very important for the owners of INE, there have been some uncertainties about when to make public specific aspects of the project. The owners of INE have various roles in the project - they are not merely financial investors, but also users, producers and stakeholders of the project. This aspect requires significant sensitivity to context when applying the ESTEEM tool. A partial solution to the situation was to involve an outsider, the department of natural resources at the University of Iceland to implement the stakeholder workshop in step 4.

(4) Iceland is a small country (about 300 000 inhabitants) where people tend to know each other and inhabit a number of different roles at the same time. Because of the tight-knit and non-hierarchical nature of the community, communication routes are quite informal. Also the organization of social life and the relations between different interest groups follow a similar, fairly informal pattern. In such a community, highly organized forms of, e.g., stakeholder consultation may be viewed as 'over-organized' and may not fit the local traditions.

(5) The stakeholder relations of the demo project reflect some specificity of the project and its national context. Because hydrogen has raised so much international interest, it has been widely aired in the international media. Icelanders follow such media (e.g., BBC World, Financial Times, Newsweek, Stern, le Monde etc) closely, and thus receive communications concerning 'their' hydrogen projects 'from outside'. This has raised large expectations about the materialization of the hydrogen economy, which are challenging to meet.

The project does not involve notable conflicts between the project manager and the local population concerning the *design* of the project. There are clearly differences of interest among different stakeholders. The most obvious ones are between the different parties that finance (or fail to finance) the project and governing the institutional environment of the project. Often, such questions are perhaps perceived of as being different from questions of 'societal acceptance' (even though this might not necessarily be the case). In this case, society has accepted and expects more commitment from the government and municipalities and an official discourse on the role of the company versus government and other fuel companies. But it is worth raising the question about the extent to which ESTEEM is suitable for organizing 'high-level' negotiation processes among financial stakeholders and the national government, for example. There are established procedures for conducting such negotiations and we need to think about whether and how ESTEEM can contribute to such procedures.

In contrast, the ESTEEM process has contributed to improved *communications* between the project and its stakeholders. A number of communication needs were identified through the ESTEEM process and the project has developed closer relations with a number of 'non-core' stakeholders such as local citizens, academia and other similar organizations.

A.5.3 Results of testing the ESTEEM tool

The ESTEEM tool was tested in the demo project between April and December 2007. In the following results are presented by step.

A.5.3.1 Step 0:

Step 0, the self-test for whether ESTEEM is useful for the project, was completed in autumn 2007, so the testing had already started. The Step 0 test reveals that SMART-H2 is in the mid-range of projects - not the ones for which the tool is most suitable, but not the ones which will benefit least, either (Figure A.3).

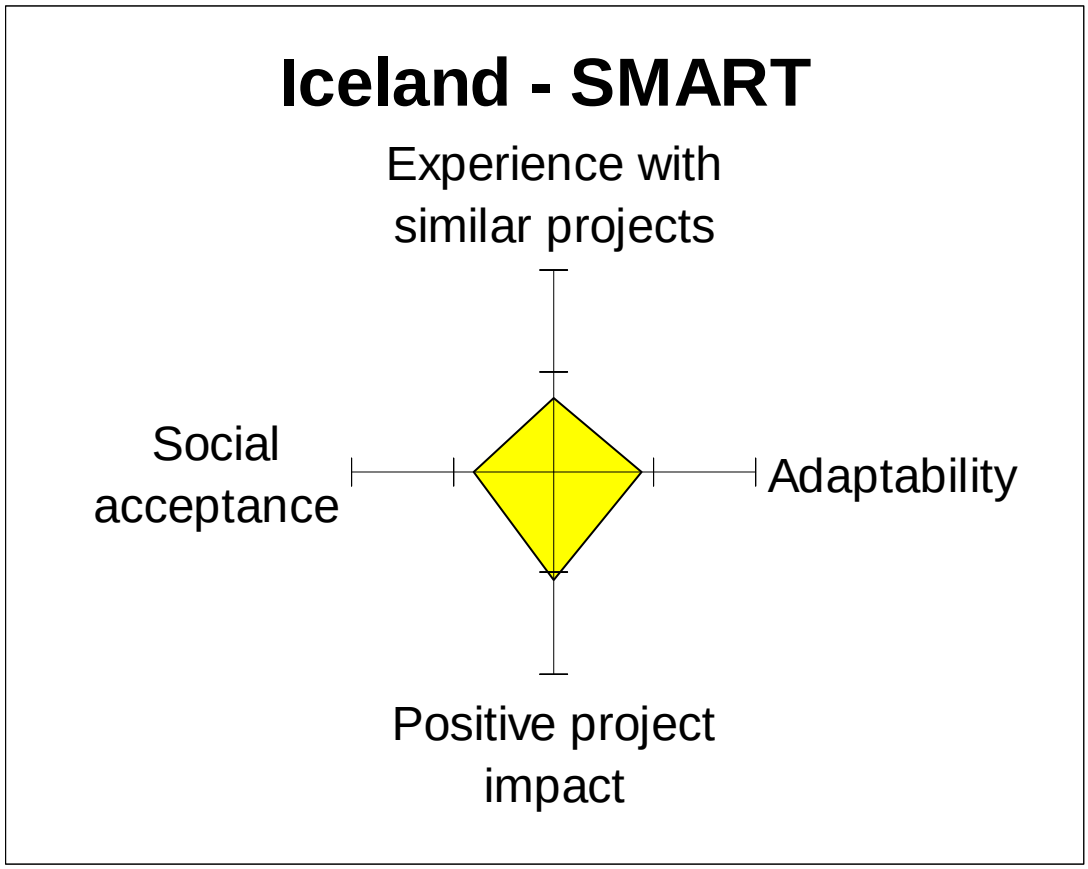


Figure A.8 *Score of SMART-H2 from the ESTEEM self test tools*

A.5.3.2 Step 1: Project history and context and actors

The project had been in the design and negotiation phase several years before the ESTEEM tool was applied. Step 1 was conducted in April-May 2007. All Step 1 materials are compiled in a separate document (17 pp.) delivered to the Create Acceptance team on May 4th.

Project Narrative

In this specific demo, the narrative was more for the use of the Create Acceptance team because the Consultant is very well acquainted with the history of the project. It was useful, however, to write down a description of the background, history and context of the project and the narrative has served as a useful reference document throughout the process as well as description for a few contact persons. Several comments were though sent to the CAcc team on the frames set for description whereas the frames were found to be too strict to allow for the project managers free description and later categorization or analysis of the design and development procedures.

Context analysis

The outline for the context analysis changed somewhat parallel to the SMART-H2 the project time, so only earlier versions of the ESTEEM tool were used at first. Later the final versions seemed to worked better in outlining both potential opportunities and barriers. None the less these emerged as outcome of the first workshop discussions and were used to redesign public relations.

Defining moments table

In Step 1, identification of the 'defining moments' was useful for creating self-awareness and establishing the status of project. As an example, the 'defining moments table' (or 'critical moments table', as it was called at that time) is presented in Table A.5.

Table A.5 *Critical moments/defining moments table from the SMART-H2 project*

CRITICAL MOMENTS TABLE
The most important moments in the projects' unfolding all happen to be positive events: 1. When the Icelandic partners realised that local conditions, initiatives and know how should take actions as the opportunities exceed those of the EC members in general. 2. When car manufacturers were visited and it became evident that internal combustion engine vehicles would play an intermediate role in introduction hydrogen to the market. 3. The whale watching operator offered their ship as a test platform for hydrogen systems - to promote their environmental tourism - a clear market demand 4. When the board of Vistorka accepted the general outline for SMART-H and the department of Industry supported that the public companies assist in the market introduction of hydrogen. 5. The responses from research funds which are expected in May - June 2007 will also have major moral impacts on the project. In the starting phases they were showed reluctance.

Actors table

The actors table was very useful to construct for this project, because there are many 'internal' stakeholders involved in the complex ownership structure of the project. The actors table was not outlined in detail according to the template in the ESTEEM, but was presented as a list of actors. This is because this step was done shortly before starting out on Step 2, so the list of actors was immediately elaborated into the communication map for Step 2 vision building as shown in Figure A.4.

Step 2: Vision building

Step 2 followed closely on the footsteps of Step 1. Because it was known that the project was not particularly controversial, it was decided to extract the 'core group' visions through a workshop rather than using individual interviews. All the work for Step 2 centered fairly closely around this workshop and the necessary preparations for it. The workshop was organized on May 15, 2007 in Reykjavik and many members of the Create Acceptance team were present and helped in planning and arranging the workshop.

Project manager's present vision

It was useful that the time-lag between Step1 and Step 2 was small, so there was much synergy between conducting these steps (see suggestions at the end of this report). In preparation for the workshop, a communication map was drawn up to show the complexity of the project and the the sociograms for 'PM present vision' and 'PM future vision' were combined. Later, when a frame had been offered by the CAcc project these were redrawn and are to be found in pp17)

The BAU Scenario

The BAU scenario was constructed as part of the project managers' present vision (upper corner of Figure A.2). It relates to the continuous role of imported fossil fuels, which are currently dominant.

The Project manager's future visions

The Project manager's future visions were constructed as part of the project manager's present vision (lower corner of Figure A.2). The future vision relates to expanding the SMART-H2 project to other fleets in addition to those involved in the demo project.

Selecting the group of core stakeholders

The core stakeholder visions were extracted by organizing a workshop (rather than through interviews as suggested as the first choice in the ESTEEM manual). The SMART-H2 was already

engaging with a large number of stakeholders, in particular owners and customers. Special attention was devoted to involving 'ordinary people' and stakeholders who do not yet know about the project. Following the Step 2 instructions, attempts were also made to invite women and men of different ages. About 16 people were contacted and invited to participate in the workshop. Twelve of them eventually participated, one left very early and one was less active than expected. INE concluded from the workshop that people find the topic interesting on the whole and want to participate by discussing and interacting. The informal atmosphere was dynamic but there was some concern that some participants might not have taken it seriously. The participants gave INE positive feedback after the workshop.

The workshop had a specific design, which is different from the workshop formats presented in the ESTEEM tool manual. The format was designed in collaboration with a number of the Create Acceptance team members. Stakeholders worked in pairs including one external and one internal stakeholder on the issues suggested in the ESTEEM tool manual. This was a well-functioning solution.

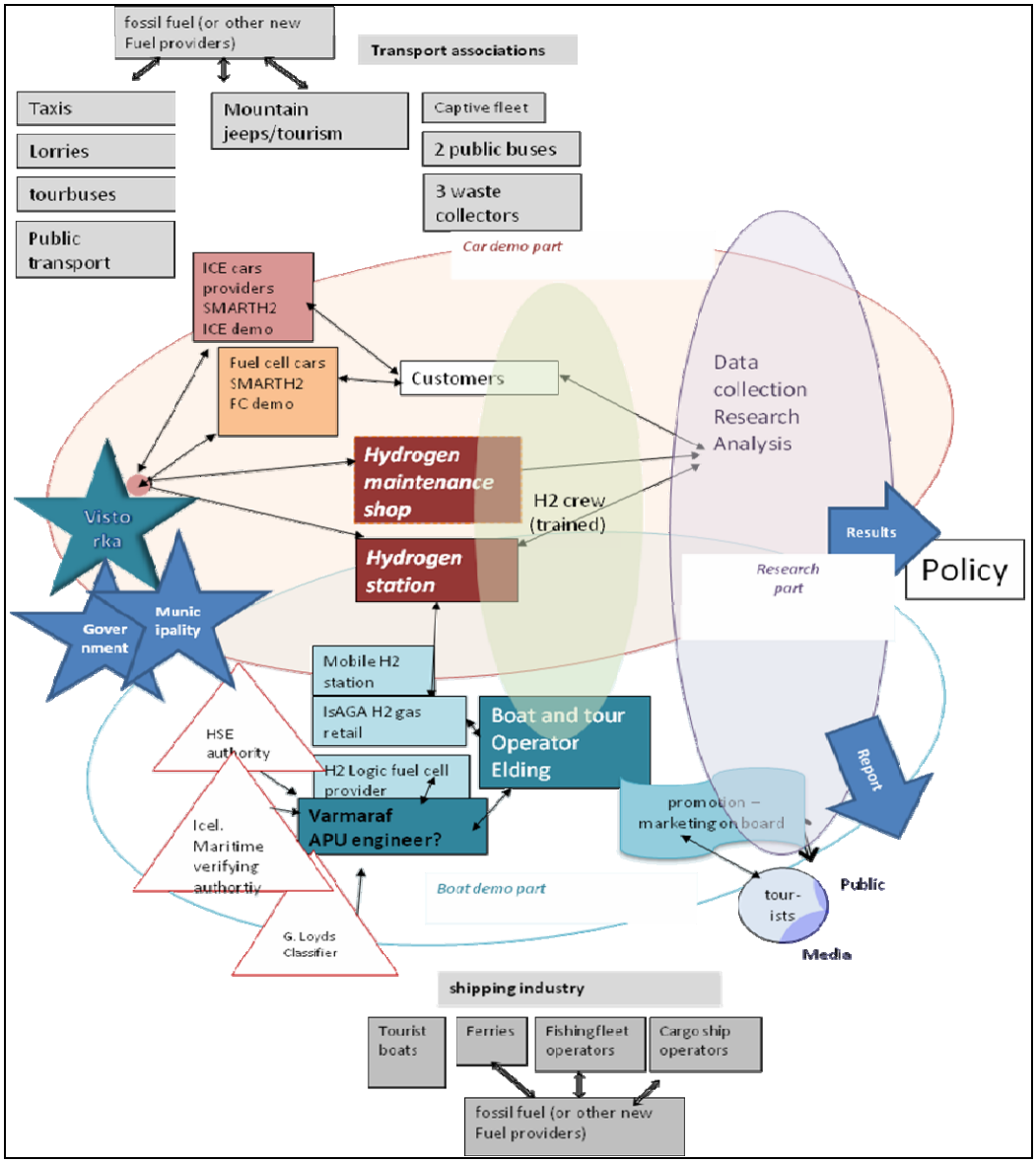
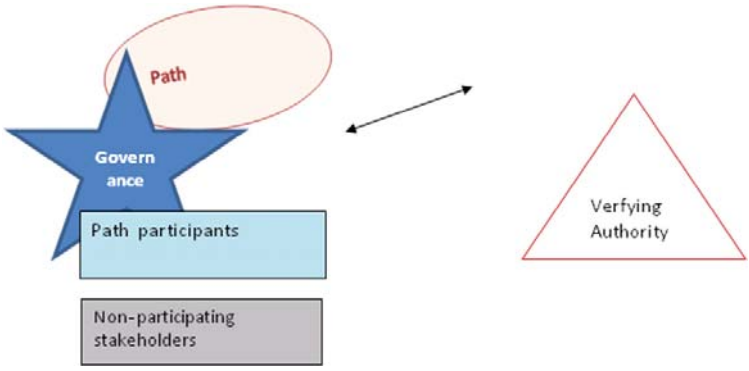


Figure A.9 *The SMART-H2 communicatioin flow outlining present and future vision. The gray boxes do not participate in SMART-H2 but are found important stakeholders. Arrows stand for communication Legend to figure below. Societal map is to be found in del 17*



The Stakeholder future visions

Because different stakeholder groups were not consulted separately, it was not possible to draw 'future vision maps' for each stakeholder group. Nonetheless, the following conclusions about the 'stakeholders' future visions' were drawn:

1. Visions of different stakeholders seem to be fairly well aligned.
   - All agree that alternative fuels (to oil) need to be found
   - All appear to be in favour of moving toward hydrogen as a transport fuel in Iceland
2. Stakeholders have questions about the timeline (when will it happen)
   - Stakeholders have doubts about the commitment of oil companies, car companies and the government whereas they seem invisible in the project
   - There are in particular concerns about the lack of H_2 cars, technological maturity and questions about when and where they will appear (and can cars be made only for Iceland?)
3. Stakeholders are concerned about continuity
   - They want to know why ECTOS 'was discontinued' (as they understand it) and why the H_2 buses are no longer running (but the project mangers know that they are simply finalised!)
   - Stakeholders wonder why hydrogen is not visible in their everyday life (but Iceland is presented as the world's first hydrogen economy in the international media)
4. Stakeholders want to see rapid progress
   - Managing expectations is crucial (what will happen by 2020 and how can stakeholders see that it is happening)
5. There is not much discussion of why moving to hydrogen would be good for the environment.

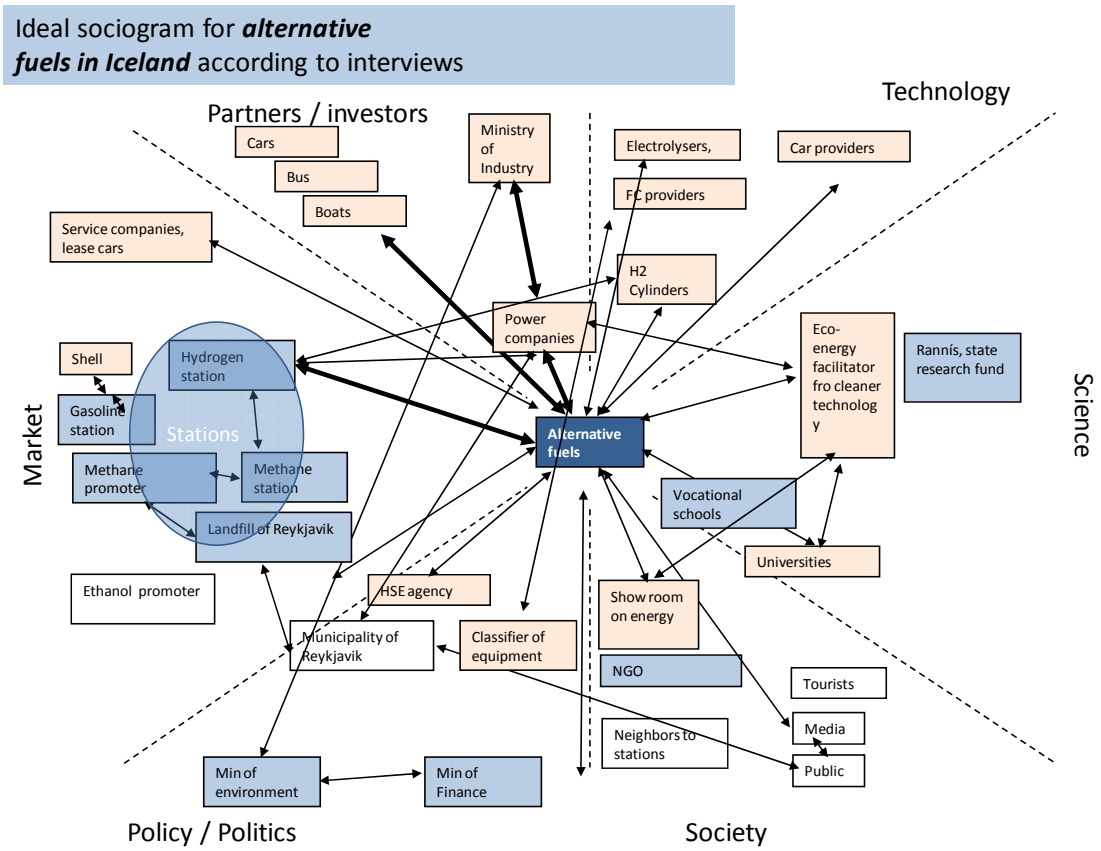


Figure A.10 *Sociogram of future arrangements for alternative fuels drawn with the frames provided by ESTEEM tools*

A.5.3.3 Step 3: Identifying conflicting issues

After the workshop, it took some time to get to Steps 3 and 4. Final versions of these were not available immediately after the workshop, and then the SMART-H2 project required other kinds of urgent attention. Nonetheless, conclusions were immediately drawn on the basis of the workshop and improvements implemented.

Steps 3 and 4 conducted in August 2006. They are very closely related, so they were conducted as one single process. In the Manual, Step 3 is work to be done by the consultant and Step 4, work that should be done together by the consultant and project manager. This division is not so necessary when the consultant works in the project manager organization.

Identification of conflicting issues and features

The SMART-H2 project did not involve major conflicts, but it was fairly easy to see which are the main issues of concern of the different stakeholders. These included concerns about continuity, lack of local visibility, lack of visible infrastructure, lack of visible commitment by car and oil companies and lack of an environmental discussion in connection with fuels in general. This last point is most clearly one which links up with broader policy debates and the potential competition between different fuel types, which in fact became an issue for INE, which was given responsibility for assessing also other new fuels, in addition to hydrogen. That is why the second workshop

Ranking key actors and issues according to their strategic importance

Ranking was not applied, and the SMART-H2 experience shows that it does not make sense in every project. Small and large issues can be equally important to deal with. Urgency and impor-

tance were rated on a qualitative scale of high-medium-low and this was quite sufficient to gain an overview of the issues and their importance.

Even though Table A.5 and Table A.6 describe the same things. The issues importance graph was found useful for communicating priorities and inspiring a search for solutions (Figure A.4). As a result, continuity and local visibility were identified as having high urgency and priority, and these are the issues that SMART-H2 started working on right after the Step 2 workshop.

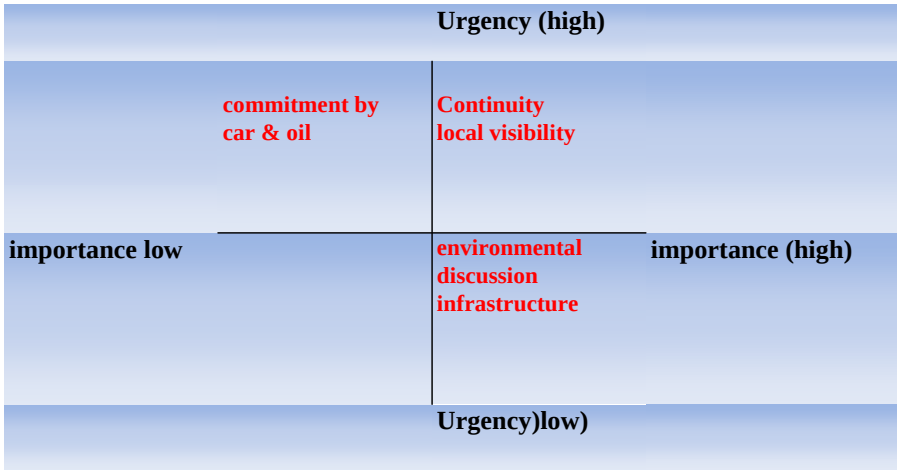


Figure A.11 The issues rating graph from Step 3 for the SMART-H2 demo project

Issues	Description			
Issue 1	Concerns about continuity: what happened to ECTOS			
Issue 2	Lack of local visibility (administration, corporate, public)			
Issue 3	Lack of visible infrastructure			
Issue 4	Lack of visible commitment by car & oil companies			
Issue 5	Lack of environmental discussion in connection with fuels			
Issues	Urgency	Importance	Rank	Implemented Solutions
Issue 1 continuity	High	high	?	easy to solve (enhanced communications)
Issue 2 local visibility	Medium	high (in the long term)	?	will be tackled in October by a future scenario workshop
Issue 3 infrastructure	Medium	high (in the long term)		A new H2 station is now planned on the University lot
Issue 4 commitment by car & oil	Low	medium (in the long term)		Shell in Iceland has now taken over the hydrogen station till 2010.
Issue 5 environmental discussion	Low but rising	??		The head of the parliamentary committee came to discuss links between the H2 projects & environmental issues

Figure A.12 *Conflicting issues as outlined after the vision workshop*

A.5.3.4 Step 4: Portfolio of options

Because the project did not involve major controversies, it was fairly easy to identify solutions to the issues raised in the Step 2 workshop. Some of the options were quite practical and easy to start implementing, such as enhanced communications. Others were more long-term and collaborative issues, such as intensifying co-operation with the university and with policy makers. And when working with those the boundaries for discussion were opened up to incorporate comparison of all alternative fuels and the

Listing and evaluating solutions to major issues

Because Steps 3 and 4 were done some time after the Step 2 workshop, INE had already started solving the problems that were most urgent and most feasible to solve immediately. These are indicated as 'implemented solutions' in the Step 4 tables shown above in Figure A.7. The suggesteions were implemented shortly after the visions workshop and the project development into a broader context was rolling. As can be seen, an exact rating of issues is sometimes difficult, but the table clearly serves its purpose.

A.5.3.5 Step 5: Getting to shake hands

The preparations of the workshop

A team of 3 students and 3 experts was formed as a consultant- and organization group for the workshop. The experts come from research, hydrogen and innovation. The students have background in social science, engineering and environment.

The three experts suggested 45 participants of all ages and both genders according to the following matrix:

Table A.6 *The matrix for suggesting participants in a large alternative fuel- workshop*

Level	Societal role	Technical role	Economy	Environment
Government	Travel and tourism association	Orkusetur Vegagerðin	Central bank	Head of environm committee
Municipalities and community	The city research centre	City and other community technical department	Leader of the agenda 21 (Umís)	Political Opposition HSE inspector
Instituttes	Lung specialist at the National research Hospital	Energy Authority Centre of entrepreneurship	Statistical office	Planning and EIA agent Marine and Port authority
Education and research	IR Vocational schools, out of Rvik	Biofuel option - Farmers University college	UoI dep of economy, Techn Uof Rvk	U of didactics Docent for enviro-education
Care users	Consumers association	Car tecnicians	Automotiver Association	NGO Framtíðarlandið

Realization of the workshop

Three large rooms / halls were reserved at the facilities of the Energy Authority to host the meeting. The invitations went first out via telephone conversations. Even at the first contact, during the invitation process several invitees showed interest and started talking about the topic but would not come to the workshop. The following inputs were collected:

- People find it important to act and show collaboration with European carbon policies
- The market must play its role and yes, emissions should be charged or taxed somehow.
- Much information is lacking on fuel options
- Comparison for different drive trains and fuel efficiency must be made public
- More tests were needed
- Oil prices are going up; oil prices are going down
- Why is the city not more involved in testing alternative fuel on public transport

- The government should be clearer in its emission policies

And if people were interested they got the following message via email (see following page):

Issue: invitation following a telephone converstation to assist research students to set frames for future fuel scenarioes for Iceland and fuel development until 2030.

Place and time: The Energy Athority Thursday 31st Jan 2008.

Dear recipient,

We trust that the following questions will wake your interest and kick off your emaginatin:

- Will your personal life be affected because of actions taken to mitigate climate change?
- Will your personal travels in 20 years (2028) differ from the way you commute today?
- Which effect on toursim do you foresee if carbon taxes should be added to the price of carbon fuels?
- Which type of infrastructure do you think municipalities have to offer to meet the demands of road transport by 2030? Will gasoline stations dissapear?
- Would you care to see some actions taken in order to facilitate the participation of the public in decreasing CO_2 emissions?

In other words; which changes do you foresee in the transportation sector and local offer of fuel types. The changes referred to here are for example hihger gasoline price, growing concern for air emissions and climate change and the rising interest for environmental affairs. How will these issues effect the Icelandic context?

At the Universitu of Iceland tutors and students want to deal with real issues in their research projects. Now a really interesting research field is opening up: Fuel for the future.. There are many available choices on offer and no obvious winner so far in sight. Earlier the cheapest option outcompeted other options but now other values such as environmentally effects and social factors have to be weighed into the decision making on top of the economic effectiveness.

The University of Iceland, more precisely the Department for the environment and natural resources, and the Institute for Sustainable Development with support from the UOOR, CreateAccptance, the SMART-H2 hereby asks about 30 individuals to participate in a Workshop to brainstorm and discuss our common energy future and fuel options. The outcome will be processed to form a platform for fuel related research to compare the aspects of the suggested pathways. The participants will be informed about the outcomes and receive information before the workshop is held.
Responsible for the workshop are: Gudrun Petursdottir, institute for sustainable development, Brynbhidlur Davidsdottir, associate professor for the department of natural resource management and Maria Maack project manager for SMART-H2.

Message ends

After this the following communication took place: The invitees were sent a document explaining the following:

- Goal of the Workshop

- Reasons
- List of participants
- Reading material on all types of alternative fuel and the government policy for cutting down CO_2
- Suggestion to write a paragraph that is an imaginary newsflash in the year 2030 on how the last stages of shifting from fossil fuels has been successful.
- Also names of those involved, facilitator (neutral) students and how the processing of outcomes will proceed.
- The agenda and procedures according to Create Acceptance cookbook for a ½ day workshop with preparation
- A reminder the day before attending via email.

Returning the results of the workshop

A.5.3.6 Step 6: Recommendations for action

But the workshop could not be held within the given time frame for the analytic rproceedures For the following reasons:

During the period Sept 2007 - Dec 2007 four major events occurred that influenced the possible timing for a workshop incorporating new stakeholders (step 5).
a) the key monitor was allocated the task of collecting info and formulating a national strategy in the Icelandic emission policy - which is mostly related to combat erosion, reforestation, exporting geothermal know how. This held her occupied for 6 weeks in the period that the preparations of the workshop (planned in October) should have taken place. But still during this period of Sept - October interviews were made with key persons in the energy sector as basis for questions to be used at the workshop.
b) On the 22nd of October the majority within the municipality of Reykjavik lost their power over to the minority due to energy policies. This called upon restructuring of all energypolicy within the administrational level and the new majority was not ready to clarify their stand until mid November
c) In November the municipality company who is the largest stakeholder in SMART-H (the reykjaviks energy service, OR) was reconstructed due to new policies and the fate of SMART was quite uncertain. Therefore the ownership of the SMART-H2 project was unclear. Finally a new steering group for the project was re-established on the 18th of Dec.
d) Christmas, - 7 out of ten relevant persons took an extended holiday to 7th of January. The preparations on behalf of Maria to frame the workshop were accepted but the key persons had meetings abroad, 9th - 16th of January, 23rd - 25th January and a conference on the 29th of January. So the only date available is 31st of January

Identifying acceptance and feasibility
Sorting of options: Capacity for action
Develop the recommendations and action plans
Evaluation of the Create Acceptance process

SMART-H2 is an interesting case to test the ESTEEM tool because of some specific features of the project and INE. Because INE has established project management procedures and extensive experience in its field of operation, ESTEEM needs to be integrated into those procedures. On the other hand, because it is a small organization, the testing of ESTEEM cannot be 'sidetracked' to a separate expert function (e.g., in the way environmental management or quality management can be in a large organization). This is a good thing: ESTEEM is really being tested and not merely executed symbolically. On the other hand, overlaps and contradictions and synergies between ESTEEM and existing project management tools and procedures become apparent in this demo project.

When joining the Create Acceptance project, INE expected to receive an almost ready tool to test and apply in their project. The work needed to turn Socrobust into a multistakeholder tool has turned out to be a larger effort than expected. The project has thus involved more work than expected, and more input into developing the ESTEEM tool. INE originally thought they would be more in a customer's role, and be provided with a ready-made tool.

In terms of individual steps and substeps in the ESTEEM tool, the following positive experiences were gained:

- Parts of the narrative were useful to gain self-understanding.
- The workshop (Step 2) opened up new issues and helped to engage new stakeholders.
- Further processing is ongoing concerning the items that came out of Steps 3 & 4. Partly, INE tried to deal with these issues directly as they arose, before engaging in the formal process of issues identification and classification or the systematic listing of all solution options. INE is working further on these issues and solutions, which seem logical in terms of what could be immediately concluded from the workshop.
- The tool will definitely be used in further projects by INE

Other steps and substeps in the ESTEEM tool were found by INE to require some optimization:

- The narrative should be pre-drafted on the basis of existing documents and presented to the Project Manager (rather than based in the first place on an interview with the Project Manager). This would raise issues that the Project Manager does not realize. It could also serve the purpose of providing a 'mirror' for the company to self-reflect. It should be a concise description that could start the discussion with the Project Manager to include missing or remove redundant items and develop the critical moments table.
- In this case, the actors table and social network could be developed in the first meeting. It would be good to streamline and condense the first parts of the tool in order to get to the interesting things sooner.
- Similarly, the PM vision could be developed at the first meeting, after which the other actors' visions could be derived. This would enable a quick start for the process.
- At the second meeting, the actors' map and suggestions about potential conflicts could be discussed with the Project Manager and the interviews/workshop introduced and planned. It is important to motivate the Project Manager to include in addition to the Core Group also those who are in the periphery - competitors, NGOs, etc. Because not all those who are in the Core Group will come, one would have at least 2-3 persons from the Core Group and an equal number of outsiders. This is not a large public arena, but allows for some outsider views, bringing in new items on the agenda.
- In Steps 3-4, the analysis seems too detailed and too much focused on analysis of problems, not solutions. Moreover, if there is movement in the project at that stage, it is difficult for the tools to keep up with the new developments.
- INE started to solve some of the issues raised in the workshops immediately. (This is typical for small companies, which like to solve problems immediately rather than internalize them and reflect on them for a long time). Partly, this problem results from the Create Acceptance context, in which certain tools were not quite ready-to-use immediately after Step 2.
- INE sees the Step 5 workshop as a way to align the stakeholders' expectations with what INE is actually doing, and its purpose is more strategic than informative.
- Some parts of the tool may be used within a different step. For example, INE plans to use the idea of a 'newspaper article for 2015' as a tool to derive visions (used by ECN in Step 2) as a way for the stakeholders to prepare for the Step 5 workshop.

Figure A.13 *From the Vision workshop stakeholders watch how the issues unfold*

A.5.4 Success and limitation of the CA-Process and the ESTEEM Tool in achieving acceptance in the region

As stated earlier, the SMART-H2 demo has not involved notable conflicts in Iceland, nor have the future visions of a shift to the hydrogen economy been particularly controversial. In particular, the local community and the general public have been and remain supportive of the use of hydrogen fuels. Nonetheless, the ESTEEM tool revealed a number of areas in which the project could do better - most notably early communications with a broader group of stakeholders. Communications have also evolved in a more interactive and networked direction, which has provided clear benefits for the project.

Somewhat more problematic are the relations with the policy community and competitors. Hydrogen has gained more support from the government than other new energy initiatives. This, and the fact that INE has been so efficient in gaining momentum and visibility, created envy in society. Now INE is also in charge of other fuels than hydrogen, and the financial support from government to alternative fuels is combined. INE will allocate resources to other fuels, in addition to the development of hydrogen technology, without adding to the staff.

INE has applied for research funding with a larger scope than previously, including analyses of the environmental and socio-economic impacts of different fuels. These research efforts will involve students and other outsiders, e.g., universities. But there are scarce resources and few people so this problem is only partly solved.

These conflicts have evolved and been put in focus partly during the CA process, but are not caused by it or solved by it. But the CA process has helped to open up the project toward the outside stakeholders and has thus facilitated the process of engaging other fuels (competitors) and external research and other resources. In this, the ESTEEM tool workshop organized in Step 2 was particularly useful.

As a result of the process, INE has become more responsive to stakeholders and more aware of the communication needs existing in society. It seems that more acceptance has developed in the 2-3 months following the workshop. People in INE are happy to have more open and informal communication with the Icelandic society.

One example is a recent conference which dealt with all fuels. Because of the ESTEEM process, INE is now communicating in a different way, making it more accessible and making stakeholders more empowered. The interest groups involved in the project are now broader.

INE intends to communicate more strategically, but there are still many open questions in the project, about which it is not clear how to communicate.

It is not clear yet what the process means for individual stakeholders. At least the research and university community is now more involved.

A.5.5 Exchange of Demos / Partners Interaction in CA

A.5.5.1 Experiences with Counter partner's support

INE feels that the Create Acceptance partners have been really supportive. In particular, support provided in organizing the Step 2 workshop in Reykjavik was warmly appreciated. INE is also pleased with the help received from the counterpartner. The roles of the counter-partner in the SMART-H2 project have been to:

- Assist in applying the ESTEEM tool, in particular to identify the correct steps and substeps to use in the demo project.
- Discuss with the consultant specific features of the local context which require tailoring of the ESTEEM tool and particular steps and substeps.
- Assist in the documentation of the tool testing process.
- Conduct the counter-partner interview and draft the counter-partner report.

Co-operation between INE and the counter-partner NCRC in the demo project has been very close and has proceeded very smoothly.
INE has been surprised on how systematic and well structured the process has been and thinks it has been exceptionally helpful. On the other hand, what was found a bit frustrating in this demo was the difficulty of finding the documents and establishing 'where we are in the process'. So it has consumed some time without immediate reward.

This is partly due to the 'in progress' nature of the tool. The structure and process became much more clear once a manual of the entire tool became available. So some of the difficulties derive from developing the tool in parallel with using it. The use of a ready-made tool is thus likely to be easier, in particular if a good integration is achieved with existing project management tools and procedures.

A.5.5.2 Lessons learned

For INE
The Create Acceptance project and tools have been very helpful indeed to reach the goals and root the SMART-H2 project in society. The narration has been used to help people better understand the purpose and goals of the project the actors tables were used internally to look at relationships and important communication lines, the workshops were eye-opening towards the larger context that the hydrogen project is set in. It draw attention to those who needed to be involved, gave individuals the opportunity to discuss different aspects of the project and how it links into other societal matters.

The process has given rise to improvement of our work and our project.

For Create Acceptance

The process of developing and testing the tool, in particular in the SMART-H2 case, reveals some of the problems involved in developing generic (or even industry-specific) management tools:

- It is very difficult to develop management tools that are appropriate for a range of contexts. Management cultures and standard operating procedures vary between and within countries and industries, and among large and small organisations. Moreover, when developing a multi-stakeholder tool, it is also necessary to take into account the requirements of the local culture, policy context, etc., surrounding the project management organisation.
- Projects are a specific kind of organisation in which time is a crucial element. Unlike a 'normal' organisation which has a cyclical management structure in which certain activities recur, a project organisation is temporary and exists in time. This is to some extent acknowledged in the Socrobust tool, but it is not such a problem as Socrobust addresses a short period at the early stage of a project. The problem is compounded in the ESTEEM tool which extends over a longer period in the project life cycle. Fitting the ESTEEM steps into the project management cycle - in which the length of different stages cannot be predetermined, but also depend on external factors - is a significant challenge.
- These two factors have created a large challenge for 'testing' and further developing the tool in the demo projects within a relatively short period of time. Fitting in the activities prescribed by the ESTEEM process with activities occurring for other reasons in the project has been a challenge. Nonetheless, one can assume on the basis of the experiences that using ESTEEM is likely to encourage projects to start communicating with stakeholders earlier on in the project life cycle, which is a good thing.

On the other hand, the process reveals the amount of new information that starts to circulate and the new insights that develop once an organisation opens itself to co-operation with external parties with different competences and backgrounds.

The researchers have learned a lot about the practicalities and hard work involved in the early stages of creating a hydrogen economy. This is also an important lesson for developing a multi-stakeholder tool. It is important to leave room for interacting with those stakeholders that are important for each particular phase of the project. They can be very different and have very different kinds of concerns (e.g., authorities vs. technology users). It is important to acknowledge that project managers also interact with stakeholders on a day-to-day basis, and try to fit management tools into existing activities.

A.6 The solar water heaters project in South Africa

In the developed countries renewable energy (RE) technologies such as solar water heating are most often introduced for environmental reasons - to reduce GHG emissions mandated under the Kyoto Protocol. South Africa signed the Protocol in 2002, but it does not commit non-Annex 1 (developing) countries such as South Africa to any emission targets in the first commitment period (2008 to 2012), and it creates no external pressure to reduce emissions. Disseminating solar water heaters (SWHs) in South Africa addresses two major concerns: reducing peak load at a time when electricity generation cannot always meet demand, and reducing greenhouse gas (GHG) emissions. And, at the household level, SWHs save electricity cost in the long term.

RE technologies are not as widely disseminated in South Africa as in some European countries, despite high solar radiation making them well suited. The only RE technology, which grew steadily in the last 30 years is unglazed solar water heaters used for luxury swimming pools (Cawood 2002). The general environmental awareness is not as high as in most European countries, and only recently has the media been regularly covering environmental issues such as global warming and its impact on South Africa more.

The South African government generally supports RE, and the relevant policy has a voluntary target of 10 000 GWh to be supplied from renewable sources by 2013. This is approximately 10% of the country's electricity demand and at present less than 1% originates from renewable sources (DME 2004). Different players in projects and the industry account variously for why the market has not responded more positively, often adducing the absence of promotion, high initial capital costs, and the comparatively low electricity tariffs as primary explanations.

The two South African case studies describe SWHs (case study 1) and electricity from solar home systems (SHSs) (case study 2). Both studies include the impact of poverty on the dissemination and acceptance of the technology.

Subsidised SHSs using photovoltaic panels to generate electricity were expected to light the countryside and bring light and television services to remote rural homes at a much faster rate than they actually did.

SWHs were rapidly distributed in the late 1970s and early 1980s and then their uptake substantially declined. They have been marketed to the general public and made available to poor households in specially targeted projects. The history of the SWH by-law in Cape Town is interesting, because it was inspired by the corresponding ordinance in Barcelona, another one of the case studies in the Create Acceptance project. The technology transfer from north to south began in 2003 when the deputy mayor of Barcelona was invited to speak about the experiences at a workshop in Cape Town.

A.6.1 Description of the demo project

South Africa has abundant sunshine and the average daily solar radiation is between 4.5 kWh and 6.5 kWh per square metre. This resource is relatively predictable and well distributed throughout the country, with some regional variations. SWH are the least expensive means of heating water for domestic use on a life cycle cost basis because solar energy is free (Austin & Morris 2005).

SWHs have been identified as a means whereby RE could significantly contribute to alleviating poverty, through improving the general welfare of households as well as developing productive activities to generate employment. The country has an established manufacturing infrastructure for SWHs and their manufacture and installation would contribute to job creation and skills development. However, the lack of promotion and the high upfront capital cost of SWHs are two key barriers to the development of a SWH market in South Africa.

There are three types of collectors used for SWH: glazed, unglazed, and evacuated tubes. The glazed collectors are used for domestic solar water heating, the unglazed collectors are generally installed for swimming pools. Evacuated tubes, which are more efficient than either, are more recently being imported into the local market mainly from China.

A.6.2 The process of the demo project

Implementing SWH technologies in South Africa can be defined as a broad programme supported by different stakeholders. Projects within the programme address specific targets and target groups, e.g. setting up testing procedures for the poor and mid-to-high income groups. It follows that there is no single project manager for the programme. Stakeholders on their own or as a group drive the process initially and once opportune framework conditions are achieved individual projects are initiated and project managers drive individual projects. It is important that the stakeholders in such informal programmes act and act together to promote SWH and the challenge is to get them together and drive the programme.

The phase in which an informal group of stakeholders promotes a RE technology often preceeds the formulation of individual projects. This stage is often necessary to sort out a number of barriers, which the implementation of the new technology faces. It appears that the risk for individual projects is quite high at this stage. For example, one of the reasons why SWHs were not accepted was the absence of the mark of approval from the South African Bureau of Standards. It took a long time to set up standards and get testing equipment in place. Individual projects may not be able to wait years to get their technology and installation approved. A wind project took eight years before it could start building the foundation for the windmills!

Stakeholder and environmental groups if they exist are generally not very active as compared to the EU.

SWHs for homes are relatively small units and their installation is not a major building project and is completed in a few days. Their operation does not cause emissions, or noise or additional traffic, so they do not affect other people in the neighbourhood. The one aspect that neighbours may not like is the visual impact of SWHs on the roof. But since they may wish to install their own in the future, they generally accept them.

The PM/consultant approach of the ESTEEM tool requires that a company is introducing a new RE or RUE technology and a project manager is appointed to manage the project. The South African SWH is not a specific project with a project manager but a broad programme supporting SWHs.

It is challenging to apply the tool to an early stage of renewable technology dissemination. I am aware that it is not what was intended at this stage of tool development but it is the situation I am faced with in both case studies. For these reasons the PM/consultant roles as given in the present process did not apply to the South African case studies. It may be worthwhile to widen the PM/consultant roles in a future phase of the ESTEEM tool to include cases such as this.

A.6.3 Results of testing the ESTEEM tool

A.6.3.1 Step1: Project history, context and actors

Project narrative

There is abundant sunshine in South Africa but very few homes have SWHs. The history of solar water heaters explains some of the reasons. SWH dissemination in South Africa can be divided into three historical phases.

Phase 1: 1978-1983 Widespread acceptance and installation of SWH:
The government supported the promotion of SWHs. The Centre for Scientific and Industrial Research (CSIR) developed effective communication strategies and projects, which motivated homeowners to install them. Homeowners would pay, either with a home improvement loan, or cash. The SWH market grew, and six major companies manufactured, marketed and/or installed SWHs, focusing on middle- and high-income customers. The average heater cost around R3500 for the 200-litre system which most houses installed. The industry flourished, and in 1983 about 27 000 m^2 of solar collectors were produced. In that year the SWH communication project came to an end, and following the discontinutation of the CSIR promotion the market collapsed and has not yet recovered since - although there are encouraging signs of an industry revival more recently.

Phase 2: 1984-2003 Collapse of the SWH market:
In this period, SWH installations dropped and annual glazed collector installations were about half of what they had been in the previous phase. Some SWHs were installed in social housing

projects, such as that in Lwandle near Cape Town, where a workers' hostel was transformed into family units (photo on cover page).

Phase 3: New initiatives starting about 2003/2004 - the SWH by-law for middle- and high-income households and SWH for the poor:
The White Paper on Renewable Energy gave a new perspective and created renewed interest in the field. The City of Cape Town has taken the initiative to support RE and is committed to ensuring that 10% of households have SWH systems by 2010, and has initiated a number of activities to promote the technology.

- The City has drafted a by-law (see Appendix 1) and is currently consulting stakeholders to promote the use of SWHs in middle- and high-income homes to contribute to the RE target.
- Ubushushu Bendalo - meaning 'heat from nature', was founded in August 2004 as a joint initiative by civil society organisations and the City of Cape Town. The Ubushushu Bendalo strategy is to harness expertise, knowledge and capacity in Cape Town to provide a channel for resources to enable effective and efficient implementation of RE and energy efficiency technologies, in particular SWHs.
- The City plans to retrofit 2 300 SWHs in low-income homes in Kuyasa in Khayelitsha township.
- The Central Energy Fund (CEF) is a government-supported company managing the future energy needs of the country. It subsidised 500 SWHs with funding from GEF and UNDP, which were installed in the first half of 2007. In each of the three major cities (Johannesburg, Durban and Cape Town) 165 systems were installed. The project was advertised in the newspapers and it had a positive demonstration effect and renewed customer interest in SWH and encouraged the SWH industry.

The poor cannot afford SWHs and need financial assistance if they are expected to install them. A project to explore the institutional, financial, social and technical feasibility of providing the poor with retrofitted SWHs is being implemented in the township of Kuyasa, Khayelitsha in Cape Town (Figure A.9). A pilot project has fitted ten houses with SWHs. Besides the water heater, a ceiling is added and compact fluorescent lights (CFLs) are distributed, to improve the thermal performance of the houses and the lighting and water heating efficiency. This will result in reduced electricity consumption and avoided CO_2 emissions (from coal-generated eletricity). The project developed the methodology and procedures for receiving certified emission credits of the Clean Development Mechanism (CDM) and the CDM credits were approved.

Very recent developments:
The SWH industry is currently experiencing a revival. The media have included more coverage; notably an advertisement in several local and national newspapers from the CEF and two articles by Eskom encouraged the industry, and sentiment is generally positive. SESSA50 is another project which installed subsidised SWH and collected data for a detailed assessment of the technology.

At the SWH workshop held at the International Conference on the Domestic Use of Energy in Cape Town in April 2007, Eskom presented its new approach to solar water heating and its inclusion into Eskom's Demand Side Management Programme. In June 2007 the Eskom Board approved the investment of ZAR2bn to be made over five years (€1 = R9,30 in April 2007). This will have a major positive impact on the SWH industry.

Figure A.14 *Solar water heater on low-cost housing*

Context analysis

The context is analysed in terms of opportunities and barriers. Table A.7 analyses the opportunities and Table A.8 analyses barriers to the dissemination of SWHs.

Table A.7 *The relationship between project and context: what opportunities emerge?*

		When will this opportunity become important to the project (immediately, within the next year, within next five years, or long-term)?	*Level on which opportunity emerges (local, national, international)?*	*How large are the possibilities to seize the opportunity (low, medium, high)?*	*To what extent is the project concerned with seizing the opportunity? (low, medium, high, go-no-go)?*	*Describe the project strategy to seize the opportunity (monitoring, indirect influence, direct influence).*	*Describe specific actions within the strategy.*	*Is the strategy focus internal (changing the project) or external (changing the context)?*	*What is the expected result of the strategy?*
	Describe the opportunity	Immediately	Local, national	Very high	High	Implementing pilot projects: SESSA50, CEF500	Eskom 150 000 subsidised SWH	SWH are better known and ultimately widely accepted and installed	
Policy context	As a consequence of the SWH byelaw 10% of the houses in Cape Town will acquire SWH technologies	Within the coming year	Local	High	High	Indirect and direct	Working out optimal strategy for dissemination	Both	Enhancing the opportunities for SWH dissemination
Socio-economic context	Increased SWH demand creates employment	Immediately	Local, national	Medium	Medium/high	Indirect and direct	Enhance education and information	Both	
Cultural context	Knowledge of SWH is disseminated	Immediately	Local and national	High	High	Information campaigns	Newspaper articles and advertisements	External	More people become aware of the benefits of SWH
Geographical context	High solar radiation	It is always present	Local and national	High	High	Putting SWH collectors in the correct position, frost protection in some areas	Insisting on correct position of SWH	external	Increasing efficiency of SWH

Table A.8 *The relationship between project and context: what barriers emerge?*

	Describe the barrier	*When will this barrier become important to the project (immediately, within the next year, within next five years, or long-term)?*	*Level where barrier emerges (local, national, international)?*	*What is the expected influence of the barrier on the project (low, medium, high, go-no-go)?*	*To what extent is the project concerned with dealing with the barrier? (low, medium, high)?*	*Describe the project strategy to seize the opportunity (monitoring, indirect influence, direct influence).*	*Describe specific actions within the strategy*	*Is the strategy focus internal (changing the project) or external (changing the context)?*	*What is the expected result of the strategy?*
Technology context	SABS had no approval system in place	Immediately	National	Medium	High at the national level	High at the national level	SABS has recently acquired a testing rig	External and internal	People will have greater confidence in the technology
Policy context	No byelaw or subsidy policy	Immediately	Local and national	High	High	Support for byelaw and Eskom subsidy	Cape Town is passing a byelaw; Eskom has approved a capital subsidy	Internal	More SWH will be installed due to the byelaw and SWH will become more acceptable due to the subsidy
Socio-economic context	Capital cost too high	Immediately	National and international	High	High	Subsidies	Approval of Eskom subsidies	External	More people can afford a SWH
Cultural context	Environmental awareness and concerns are low	Immediately	Local, national	High	Medium to high	Communication strategy	Media campaigns	External	More people will become aware of the benefits of SWH
Geographical context	Back up system required in the winter rainfall areas and frost protection in the highveld areas	Immediately	Local	Low	Low	SWH installers are aware of the climatic barriers in the different regions	To be taken care of by installers	External	Little effect on the project

Defining moments

There are three major defining moments. The first was in 1983 when the SWH communication project came to an end and customer demand dropped sharply and the SWH market collapsed.
The unprecedented blackouts in the winter (March - July) of 2006 were the second turning point in the programme when the electricity company Eskom could no longer meet the demand. A number of alternatives to reduce electricity consumption were proposed such as using gas for cooking and replacing incandescent light bulbs with CFLs. Some pilot projects were carried out to find out the costs and benefits. Renewable energy alternatives were considered to reduce the load of the national grid. The alternatives had to be such as to be implementable immediately and SWHs were the least expensive options to reduce load in the short term.

The third defining moment was in response to the second. In early 2007 Eskom decided to choose SWHs as a means to reduce electricity load and to roll out 150 000 subsidised SWHs as part of its demand side management programme.

Actors table

The actors were identified in late 2006 when making the invitation list for speakers at the workshop (Table A.8) An organising committee was set up for the SWH workshop and it selected the major actors. They were then invited to the workshop and asked to give a presentation of the aspect of SWH they are working on or have a major stake in. The programme of the workshop (Appendix 2) lists the major actors, their affiliation and the topic they were presenting.

Figure A.15 *Bathroom with solar water heater used as a storage space. Subsidised low-income houses are very small and additional rooms rather than solar water heaters are a greater priority*
Source: Jacqueline van Meygarden, 2007

Table A.9 *The actors' table*

Characterization	*1. Identification*	*2. Interests and power*				*3. Social organization*		*4. Affinity to the project*
Type of stakeholder	name /description of actor	expectations or concerns: motivation to participate	resources that the actor controls	replaceability	Formal and informal influence channels on the project	overlaps in roles	social networks	
A. Private sector companies (business partners, financiers, competitors, etc.)	SESSA as the umbrella group for the industry, Eskom	Increase business opportunities	Access to technical expertise, technology development, skilled labour, financial resources, integrate with national grid	There are about 15 SWH companies introducing competition in the sector	The major companies have both formal and informal influence, partly through SESSA, Eskom can exert great influence and still is considered reliable and has a good public image	Consultants	High potential to mobilize access to social networks	Closeby and supportive
B. Experts	SESSA, consultants, academics	Grow business, respect	Expertise and contacts	Individual experts are replaceable	Influence through professional networks	Experts are closely associated with companies, SESSA and other organisatios	Experts have extended social networks	Closeby or supportive

Characterization	*1. Identification*	*2. Interests and power*				*3. Social organization*		*4. Affinity to the project*
C. Public sector (administrators, politicians)	Ministries of energy, and science and technology, energy regulator, bureau of standards	Achieve RE targets, facilitate uptake of SWH	Policies, strategies, regulation, standards	Not replaceable	Substantial formal influence, eg, policies, regulation, standards, finance			Closeby and supportive of government RE policy
D. Associations and NGOs (e.g., resident's associations, environmental organisations, church)	Southsouthnorth, Sustainable Energy Africa (SEA), Agama and others	Grow their business, expertise, government connections, represent the interests of the poor	Expertise, mobilisation of funding, government connections	Individual NGOs are replaceable	NGOs have well developed networks and know how to use them		NGOs have very wide networks	Closeby and supportive
E. Non-associated persons and groups (e.g., neighbours, consumers)	Consumers	Interested in subsidised systems, saving on the electricity bill	Purchasing power	As a group not replaceable, individual consumers are replaceable	Some consumers hold powerful positions and can use the influence	Consumers have extensive networks		A few are supportive the majority is indifferent or their position is unknown

A.6.3.2 Step 2: Vision building

Present vision

Figure A.11 gives the social network map by sector.

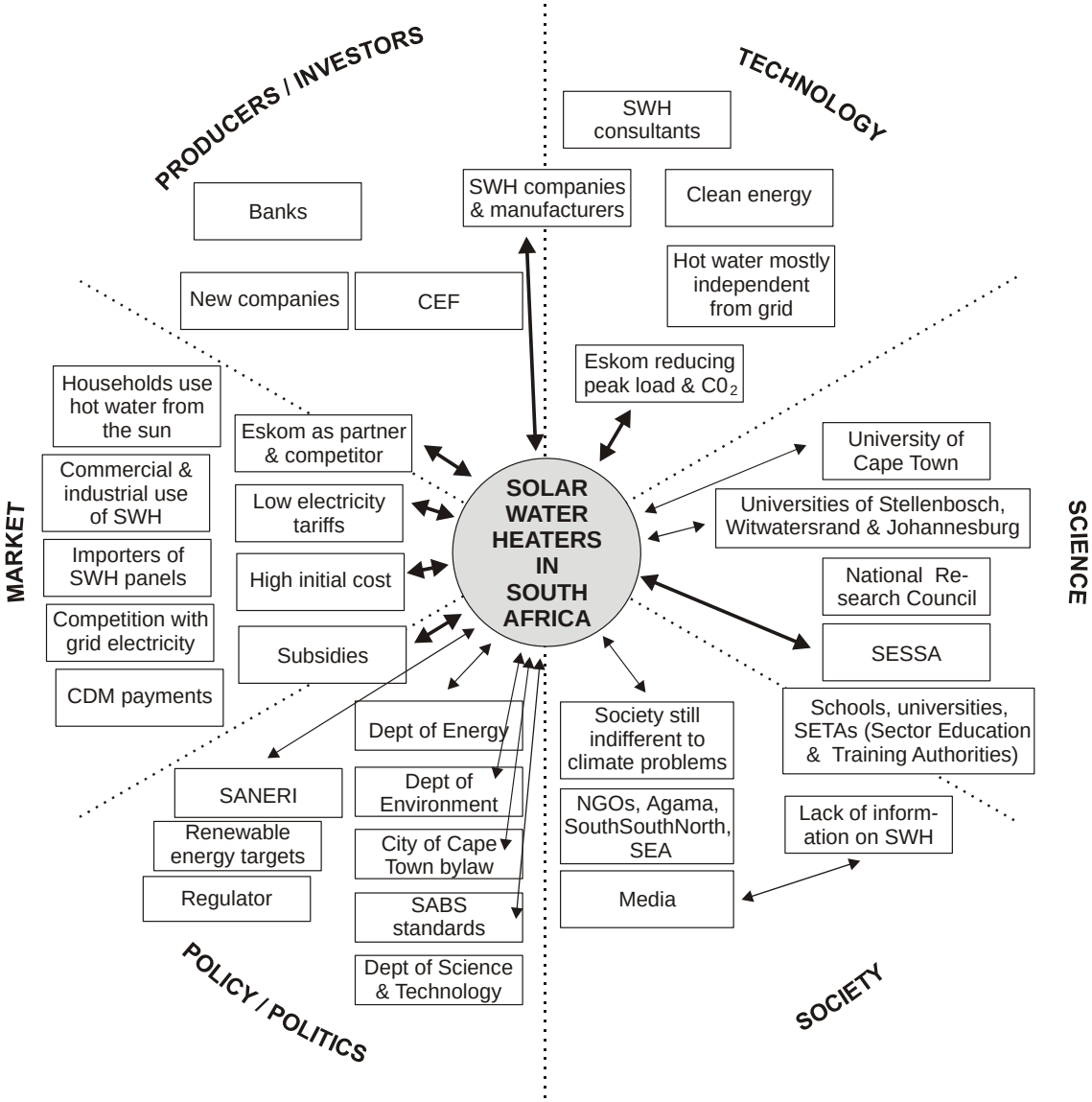


Figure A.16 *Social network map for solar water heaters in South Africa*

The national RE strategy supports the use of RETs generally. In Cape Town the SWH bylaw to be passed by the City Council in early 2008 creates a favourable environment for the SWH market. Pilot projects such as SESSA50 and CEF150 have introduced the technology in the three major cities (Johannesburg, Cape Town and Durban) and many homeowners have now been exposed to the technology. Media reports have informed the public and highlighted the benefits of SWH. The 2006 blackouts in Cape Town, which are still continuing at a national level, are a turning point and present a good opportunity to switch from grid to decentralised solar for water heating. SWH will reduce electricity demand from the grid, helping to reduce blackouts and load shedding. It will also reduce high GHG emissions from the coal-fired power stations.

The BAU scenario

People continue to heat water with grid electricity supplied from the national grid. As electricity demand is increasing, power cuts will become more frequent in the near future. In the medium-to-long-term future the shortfall of supply would be addressed by building new coal-fired and nuclear power stations. The cost of investment for new power plants has driven up electricity prices: tariffs will rise by 14% in 2008 and then annually by similar amounts. Energy efficiency measures have offset some of the cost. Emissions from the coal power stations would continue to contribute increasingly to the high national GHG emissions. Fewer people would be employed in the new coal and nuclear power stations than if the same amount of power were generated from solar sources. As electricity prices go up so does household expenditure for hot water. The target of generating 10% of the country's electricity demand from RE by 2013 is not met.

Future vision

SWHs are widely disseminated and are the preferred option for water heating in the domestic, commercial and industrial sector. A vibrant industry is manufacturing and installing SWH. Technological innovations have increased efficiency and the economy of scale has reduced prices so that most people can afford the SWHs. The industry has absorbed many unemployed particularly young people. Technical colleges offer courses on different aspects of solar water heating and enrolment has steadily increased over the years. Homeowners are conscious and proud of saving GHG emissions and doing their part for the environment and reducing climate change.

Selecting the group of core stakeholders

The core stakeholders were selected when preparing the workshop. The organising committee listed the people and organisations which could make a major contribution to or negatively influence the project. Areas of expertise which are useful and important to the programme were also considered. The members of the organising committee invited the core stakeholders by phone and this was followed up by an email explaining what presentation was expected from them. Some stakeholders wanted to expand their topic, have more time, etc and such requests were negotiated and agreement was reached. Personal contacts of the committee members greatly helped to motivate the attendance of speakers, but if the selected person was not available a replacement was chosen. The core stakeholders were requested to give presentations on the areas of expertise relevant to the programme. The list is given in the workshop programme (Appendix 2).

Free hot water from the sun

15 November 2015

Hot water panels have become a common sight on homes in all parts of the city and households enjoy water heated by the sun. The new technology is easy and quick to install and the sun heats water for free.

In the last years we also see more and more solar water heaters on commercial and industrial buildings and the trend is spreading fast.

Almost any body can afford a solar water heater these days. Over the years prices have come down substantially and banks give loans, which can be repaid over a long term. People have realised that they save of up to 40% of their electricity bill when they are using solar water heaters.

The solar water heater industry has grown over the years and created a considerable number of jobs. Technical colleges offer training courses in SWH. SWH are generally tested and are of high quality. Manufacturers export solar water heaters to the neighbouring countries and further a field in Africa.

As electricity tariffs from the national grid go up SWH have helped to keep the electricity bill down. At the same time homeowners are consciously saving GHG emissions and use energy responsibly.

The stakeholders' future vision

There being no project manager, there were no differing visions of the two parties. The future vision of the stakeholders is similar to what is described above 'Present vision' and 'Future vision'. The vision itself was not conflicting, but understandings of the most effective way to get there differed in some instances, and this is discussed below under A.6.3.3.

A.6.3.3 Step 3: Identifying conflicting issues

Identification of conflicting issues and features

Five major issues have been identified which if resolved might lead to greater acceptance of SWHs.

- Necessary subsidy and who should pay for it?
  It had become obvious that homeowners would not install SWHs until there was an incentive of a subsidy. Electricity prices are among the lowest in the world and it did not seem worthwhile to spend the initial capital to buy a SWH.
- Subsidy level
  The subsidy level raised some controversy. The organisations which pay the subsidy want to keep it as low as possible so as to benefit a larger number of people. The SWH industry wants higher subsidies because they know people will not order SWH unless there is a substantial subsidy. Homeowners also want a high subsidy so as to reduce the upfront capital cost.
- Adherence to standards and quality control
  The SWH industry suffered a serious loss of reputation and credibility in the past when fly-by-night companies installed unreliable SWHs. The established companies are keen to prevent this happening again.
- Communication
  The public knows very little about solar water heaters and this contributes to the lack of acceptance.
- Free SWH for the poor: Are SWHs their priority?
  The poor cannot afford SWH and they have other priorities.

Ranking key actors and issues according to their strategic importance

The key actors were ranked and the strategically most important ones were invited to give a presentation at the workshop. They are listed in Appendix 2. Other actors were invited or made aware of the workshop.

A.6.3.4 Step 4: Portfolio of options

Step 4 identifies the variety of options the PM/programme can take to enhance social acceptance, and their implications. The four key issues and possible solutions are given in Table A.10.

Table A.10 *Issues/solutions table for the solar water heater programme in South Africa*

SWH case	Possible solutions		
Key issues	**Equipment/environment Improved adaptation**	**Knowledge gap reduction**	**Financial incentive**
1. High initial capital cost	Subsidy Bank loans, CDM mechanism	Communication of benefits of SWH, long-term savings on electricity cost	Subsidy Economy of scale
2. Lack of communication	Pilot projects	Design communication and education campaign	
3. Standards	Introduce testing	SABS to issue mark of approval	
4. Poor cannot afford SWH and may have other priorities	Explore financial contribution from CDM mechanism		Need 100% capital subsidy

The upper part of Table A.11 is derived from Table A.10 and the lower part ranks the solutions.

Table A.11 *Solutions ranking table*

Solution	Description							
1. Cost Solution 1 Solution 2 Solution 3	Introduce subsidies Negotiate bank loans for SWH and use CDM mechanism to contribute to cost Explain benefits of SWH such as long-term savings on electricity bill							
2. Communication Solution 1 Solution 2	Make pilot projects more visible, eg, media spots, newspapers Design a communication campaign to educate the public about SWH							
3. Standards Solution 1 Solution 2	Improve the image of SWH by testing procedures carried out by the South African Bureau of Standards Attach a mark of approval to the equipment							
4. Poor cannot afford, have other priorities Solution 1 Solution 2	Explore financial contribution from CDM mechanism and government housing subsidy The poor need 100% capital subsidy because they have other more urgent priorities such as additional space							
	Strategic impact				Costs/benefits		Preferred process	Rank
	urgent	necessary	feasible	fit	Costs	Benefits		
1. Cost/solution 1	1	1	1	1	High	High	Compromising	1
Solution 2	4	4	4	4	50 000			4
Solution 3	1	1	1	1	2Billion	High	Compromising	1
2. Communication Solution 1	2	2	2	2				2
Solution 2	2	2	2	2	200 000			2
3. Standards/quality control/Solution 1					40 000 for company	High		1
Solution 2					Included in above	High		1
4. Poor cannot afford, have other priorities Solution 1					CDM covers about 15% of cost	High		
Solution 2					100% of cost	High	Compromising	

There is not a single and unique preferred solution. Several solutions have the rank 1 because one solution alone will not achieve the desired result. Several things have to happen almost at the same time.

A.6.3.5 Step 5: Getting to shake hands

The preparation of the workshop

It is difficult to get the major actors together for a workshop as they are busy, and some hold senior positions in their organisations. The cost of air tickets - it is a two-hour flight from Johannesburg/Pretoria and Durban where most of the major stakeholders work - and accommodation is another consideration. The yearly International Conference on Domestic Use of Energy is held in March/April and usually workshops on topics of general interest are added on or held simultaneously. A colleague and I had organised a SWH workshop in 2006 and there was demand for holding another one in 2007. I thought that was a good opportunity to get all the major actors together and try out step 5 of the ESTEEM tool. The attraction would be twofold: to attend the Conference and to attend the SWH or other workshops and professional meetings. Being in the organising committee of the Conference provided me with additional resources to put the workshop together and to access the major stakeholders. As in the year before, a small organising committee was formed with colleagues from Johannesburg/Pretoria and Durban. A colleague from industry, Will Cawood, who has worked on SWH in South Africa for the last 35 years, knew most of the actors and played a vital role in approaching and inviting them. The framework of the Conference advertised the workshop, and we could not have had if we had organised the workshop as a stand-alone event of the CA project. The workshop was a public event, which everybody could attend.

The workshop was planned such that the major actors present their point of view and position and in the subsequent discussion other major actors and the audience, including stakeholders and interested persons, debate the issues. The format of the workshop - patterned on meetings in which researchers present their findings - is well known to all participants and is designed to bring critical issues into the open. The poor are not present at such workshops and their interest is generally represented by NGOs.

The preparation of the workshop started in the third quarter of 2006. The major actors were selected on the criteria of involvement in the SWH programme. They were asked to give a presentation of their SWH-related work. If the people approached could not come replacements were selected until qualified speakers covered most relevant areas of SWH. Having a small organising committee consisting of four well connected professionals in Johannesburg/Pretoria, Durban and Cape Town helped greatly to contact people or remind them when confirmations were outstanding. The major communication tools were email and telephone.

A detailed programme was drawn up, agreed upon by all presenters and it was part of the Conference programme. This gave the SWH workshop wide exposure.

Realization of the workshop

The workshop took place on 12 April 2007. It was open to everybody who was interested. The major stakeholders attended because they were presenting their work and other stakeholders and generally interested public were also present. Interest and activist groups wanting to capture a workshop for their own interest and publicity operate only sporadically in South Africa; as it proved correctly, we did not expect this to happen.

The speakers presented their work and point of view and I as chairperson invited the audience to ask questions or comment. The audience contributed additional information, asked many questions to clarify issues and there were at times lively discussions. Many issues were explained and people were generally satisfied with the outcome.

I had intended to draw up a research agenda of the outstanding problems as one of the outcomes of the workshop and had asked the key stakeholders to send me, or present at the workshop, outstanding problems that needed further investigation or research. Labelling them research problems, which anybody who wished to could solve, reduced personalised controversy. Towards the end of the workshop I presented the submitted issues and most were discussed and resolved then and there, and I gave up my idea of presenting a list of research topics to the research funding agency of the government.

Returning the results of the workshop

At the end of the workshop I asked all presenters if they agreed to put their presentations on the conference website. All did, bar one who first had to submit his findings to the funding organisation. Shortly after the workshop the presentations were on the website, which added greatly to the information exchange and gave the presenters a greater feeling of being part of the workshop. For some the public exposure added value to their work or business.

A.6.3.6 Step 6: recommendations for action

Identifying acceptance and feasibility

Table A.12 gives the acceptance and feasibility of the proposed solutions.

Table A.12 *Acceptance and feasibility: Project redesign and stakeholder negotiation options*

1	2	3	4	5	6
Key issue	Alternative solutions	Acceptance (stakeholder response)	Type of action(s) required	Does it require collaboration by others?	Feasibility
High capital cost	Subsidies	High	Eskom to roll out subsidised systems	Industry	High
	Loans, CDM	Medium	Negotiate with banks, CDM body	Banks, CDM body	Medium
	Explain long-term savings	Medium	Communication campaign	Funding source and communication project	Medium
Standards	SABS testing	High	SABS to buy and install testing equipment	SABS	High
	Attach mark of approval	High	SABS to attach after testing	SABS and industry to pay for it	High
New issue (from step 5) Quality control	SESSA as umbrella organisation to oversee industry	High	To influence industy	SESSA and industry	High

Sorting the options: Capacity for action

Eskom stated at the workshop that it will subsidise 150 000 systems over the next three years. The level of subsidy was not resolved and was further debated in the subsequent Eskom workshops and email discussions. The SABS will certify the SWH and the installation. SESSA (Solar Energy Society of South Africa) stated that, as a representative body of the industry, it will look after quality control, and people appeared to be happy with this solution.

Homeowners accept SWHs when they are subsidised, as the quick uptake of SWH under the SESSA50 and CEF500 projects has proved. SWH companies are urged to roll out the Eskom-subsidised SWHs as soon as possible so that the momentum of acceptance is seized as an opportunity and is not lost in lengthy delays.

Communication strategy
The stakeholders thought that a communication strategy would be good, but there was no decision made and no stakeholder took ownership of the issue.

Evaluation of the Create Acceptance process
Participating in the process of developing the ESTEEM tool has been a valuable experience, which added insight and value to my work. Comparing the acceptance or lack of RET in Europe and South Africa it emerged that RETs may not be accepted for different reasons but the tool is still applicable and valuable in many different circumstances, as the demos have shown. The local circumstances in South Africa - particularly environmental awareness and the development of renewable energy technologies - lag far behind the European developments.

Overall I found the process extremely interesting and useful. The tool is definitely applicable to the South African situation although some adjustments will have to be made and this may be done when the tool is developed further to apply to a less specific PM/consultant situation.

A.6.4 Success and limitations of the CA-process and the ESTEEM tool in achieving acceptance in the region

The tool is of great help guiding the consultant. In the South African case I had to interpret the tool freely and follow the spirit more than the actual instructions. This was made necessary by the lack of a project manager, the consultant taking almost a double role, imagining what a project manager would have done in a particular situation. The tool appears to address primarily activist and concerned stakeholder objections and lack of acceptance. In South Africa the activist movements are not as strong as in Europe, and people are often quite indifferent to environmental issues, which translates into a lack of urgency to introduce, disseminate and use renewable energy technologies. RETs are in an early stage of development, dissemination and use. I have tried to apply the tool to this situation and found that some adjustments have to be made. This could be done in a second phase of the ESTEEM tool development if there is one.

A.6.5 Exchange of demos/partners interaction in CA

This was very encouraging and useful. Just to present the results of the case studies and receive expert comments at the presentation or later on the submitted report was valorising my experience.

A.6.5.1 Experiences with counter partner's support

So far the exchange has been limited. Presumably the counter partner is waiting for this report.

A.6.5.2 Lessons learnt

The tool is an excellent guide to be followed where applicable. Each project is specific and also in a different stage of development and adjustments for the specific situations have to be made.
The tool encourages the consultant to address the issues very systematically and find solutions to increase the chances of acceptance. If the tool is applied early in the project development when opposition has not yet firmly developed it is easier to engage opposing stakeholders.
The tool might also be of interest to workers in developing countries where technologies and practices new to a particular environment are continually introduced as part of the development process.

A.6.6 References

Austin, G. & Morris, G. 2005. The status of solar water heating for domestic hot water supply in the low-income sector in South Africa. Agama Energy. Stellenbosch.
Cawood, W. 2002. Baseline study - solar energy in South Africa 2000-2001. Report prepared for DANCED.
DME 2004. Capacity building in Energy Efficiency and Renewable Energy. Report no. 2. 3. 4. - 19. Economic and Financial Calculations and Modelling for the Renewable Energy Strategy Formulation. Department of Minerals and Energy, Pretoria.

A.6.7 Appendices

Appendix 1: City of Cape Town: Draft By-law

CITY OF CAPE TOWN

SOLAR WATER HEATER BY-LAW

Draft 10

12 March 2007

To regulate the incorporation of solar water heaters for the production of sanitary hot water in buildings in the City of Cape Town; and to provide for matters connected therewith.

BE IT RESOLVED by the Municipal Council of the City of Cape Town, as follows:-

OBJECTIVES

a. To improve energy security and improve energy risk management;
b. To reduce the use of electricity;
c. To reduce the national contribution to environmental impacts associated with the burning of fossil fuels, such as carbon dioxide (C02), sulphur dioxide (S02) and nitrous oxide emissions (N03);
d. To improve the quality of life through the provision of hot water;
e. To create jobs in the solar water heater industry.

SCOPE

a. This By-law applies to all new buildings in the City other than those exempted in subsection (c.).
b. This By-law applies to all additions to existing buildings, which will require the use of hot water (eg bathroom, bedroom with en-suite bathroom and kitchen extensions) other than those exempted in subsection (c.).
c. This By-law does not apply to the following cases:

i) Water used only for industrial purposes in buildings where hot water requirements exceed that which can be reasonably obtained through solar water heating;

ii) Any privately funded residential building of which the extent is less than 75 m^2 (including garage space)

a. The City shall be authorised to exempt buildings or parts of buildings from the obligations of this bylaw if there are valid reasons for such an exemption, such as :-

i) Historical Buildings;

ii) Buildings in areas, which, due to permanent shading, are not able to have solar water heating.

a. Multi-storey buildings are required to have as much solar water heating as can be technically and economically accommodated by the structure and may apply for a Notice of Exemption for the hot water requirements not able to be served.
b. No Notice of Exemption will be valid unless given in writing over the signature of an authorised official.

REQUIREMENTS FOR BUILDING PLAN APPROVAL

a. An application for building plan permission must disclose a description of the solar water heating system, showing compliance with this bylaw.
b. The description shall, as a minimum, contain the following information:
    i. aperture area; where an aperture area of 0.7m2 per 50l of usage is deemed the minimum acceptable;
    ii. size of the water storage tank to be installed

iii. whether the SWH is freeze resistant or not freeze resistant;

iv. for domestic solar water heating, a signed declaration on compliance of the SWH with SANS 1307 in terms of section 4(2)(e) from manufacturer or distributor;

v. a declaration including the rated daily output according to SANS 6211-1 or SANS 6211-2 which should equal 80% unless exemption has been given as per Clause **3** (**d.**) or (**e.**). In the absence of SABS standards, international standards should be adhered to;

vi. the name of the installer and the installing company.

Appendix 2: Programme for stakeholder workshop

International Conference on Domestic Use of Energy 2007: Solar Water Heater Workshop Programme

8.30 to 15.00 Thursday 12 April 2007

Cape Peninsula University of Technology

Each presentation will last ten minutes followed by questions clarifying issues. A discussion will follow at the end of the session

SWH Workshop Chairpersons: Gisela Prasad and Will Cawood

Time	*Topic*	*Presenter*	*Organisation*
Plenary			
8.30 - 8.55	Keynote address: Solar water heating	Andrew Etzinger	Eskom

Solar Water Heater Workshop			
9.00 - 9.15	SESSA solar water heater activities	John Ledger	SESSA
9.15 - 9.30	SESSA Solar 50 project	Jon Adams	SESSA
9.30 - 9.45			
9.45 - 10.00	UNDP/CEFSWH 500 programme	Nadia Hamid	Central Energy Fund (CEF)
10.00 - 10.15	SWH activities in other countries	Dieter Holm and Will Cawood	Consultants
10.15 - 10.30	Report on REEP SWH programme and the REEP SWH workshop	Glynn Morris	REEP
10.30 11.00	*Refreshments*		
11.00 - 11.15	Report on Eskom SWH activities and the Eskom SWH workshop	Cedric Worthmann	Eskom
11.15 - 11.30	Current status of SABS SWH specifications	Solly Peter	SABS
11.30 - 11.45	Current status of testing facilities, cost, time and other relevant issues	Cornelis van Hoeve, Karel Deist	SABS
11.45 - 12.00	Presentation on SWH installations testing programme	Cedric Worthmann	Eskom
12.00 - 13.00	*Lunch*		
13.00 - 13.15	CDM and other financing mechanisms	Jason Schaffler	
13.15 - 13.30	Towards a framework of clean energy receptivity: SWH case study	Steve Thorne	Southsouthnorth
13.30 - 13.45	Employment opportunities in the SWH industry	Glynn Morris	Agama
13.45 - 13.55	Cape Town's proposed by-laws and their impact on the solar water heating programme	Andrew Janish	Sustainable Energy Africa
13.55 - 14.15	Kuyasa - Learning by doing - solar water heating for poverty alleviation	Shirene Rosenberg	City of Cape Town
14.15 - 14.25	Other solar water heating initiatives in Cape Town apart from the Kuyasa project	Wouter Roggen	City of Cape Town
14.25 - 15.00	Presentation of outstanding problems and discussions	Gisela Prasad	University of Cape Town

Appendix B Matrix overview

Step1 - Project history, context and actors

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General evaluation		four tools of the first step add to each other; PM is encouraged to tell the same story in different ways (with different starting points: defining moments, actors, chronological story, etc) which gives a complete picture in the end; **Recommendation: first step is quiet time-consuming but necessary to get to know the project; time can be saved by consultant by filling in tables and let PM check (difficult to be objective) or by letting PM fill in tables at home; the experiences of the PM with similar projects influence the process; at forehand an catagorisation of PMs is necessary (experienced or not, technical, political or economic background, well known figure, historical conflicts with sthlds, etc)**			
Narrative	using the questionnaire in a very active phase of project caused kind of 'resistance'; the tool wasn't regarded very helpful with respect to the value added; it is time consuming for PM and consultant; for the consultant it helps to identify critical moments; **Recommendation: check, if project descriptions is already available; adjustment of questions with already available project information (e.g. flyers, brochures, tenders); before starting step 1, the project state should be reflected: what is the pm's information background, awareness and experience; handling closely linked to context analysis, actors table and critical moments; preparation by consultant should save time for the PM**	narrative longer than recommended 2-3 pages (5 pages); interview (2h) & writing narrative (8h) are time consuming, but give relevant input also for actors table, critical moments table and context; **Recommendation: during interview PM for narrative directly critical moments and actors can be pointed out -> relevant for filling in other tools; works best to have 2 interviewers (1 asking questions, 1 writing down); use narrative as input for the other tools of step 1**	to meet many times PM was needed in order to gain all the information; **Recommendation: some redundancy in the narrative questionnaire; interviewing PM many times and in an organized way (through tables) allowed PM to develop a higher reflexive and enlarged vision of the project**	the questionnaire was helpful but there were redundancies in the guiding questions; the tool wasn't regarded very helpful with respect to the value added; it is time consuming for PM and consultant; for the consultant it is a useful starting point, and also for writing the present vision in step 2; **Recommendation: check if questions are consistent and remove redundancies); check, if project descriptions are already available; reduce and/or adjust questions utilising already available project information (e.g. flyers, brochures, tenders); preparation by consultant should save time for the PM**	The narrative frame was not very helpful in getting the PM to talk freely. There emerged a resistance as if the questionnaire tried to find faults rather than smooth work. At the beginning of a project this rather decreased fluent communication - also when other important stakeholders within the project consortium made the conversation somehow stiff. **Recommendation: Instead of using such a narrative where the project manager is set in sort of interrogation the project description or even description from applications should be used. The consultant can then scan the description and construct his own narrative. This can then be presented to the PM for discussion. By this the consultant can interpret his understanding and check that against the main stake-**

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
					holder; the PM. As an insider, a PM, the framework does not give much added value, a PM can therefore go directly to the next phase.
Context Analysis	PM has a deep and well grounded know-how on the political, economical and societal environment through the reflection and input of a central planning group; experiences of a precursor project offer valuable information; quantity and specification of questions depend on projects' context (e.g. precursor process); categories of context are very helpful to reflect all relevant areas; **Recommendation: very useful to reflect relevant aspects; difficult to deal with the key question "pressure on the existing energy system / fit into existing system"; the dynamic development has to be reflected; change order of tool use**	2h interview to name opportunities and barriers; important to mention it deals with present context; consultant cannot fill in table (too subjective); some difficulties in defining opportunities and barriers (often two sides of same coin); **Recommendation: start with opportunities: frames mind of PM; take 3 hours for interview; fill in barriers and opportunities with PM; consultant fills in level and timing column; PM completes table; skip catogories (only for consultant use); to save time PM: define opportunities and barriers together with PM and than let PM fill in rest of the table**	PM and consultant worked in a complementary way to draw the context analysis; PM gave us only some information; consultant must integrate the whole tool; **Recommendation: the strategy related to the context analysis (see table) can be referred to different moments of the project: i.e. in our case Archimede has a change of leadership; we have chosen to refer to the strategy of the first PM, since the change is still on going; PM knowledge of the context can be focused on its interest and be partial; necessary the consultant role looking for information sources such as content of national or local debates; policy initiatives and laws**	context tables a bit clumsy, but manageable; requires well prepared and experienced consultant, and also one with a good memory and/or well organised, prepared notes; PM regarded it as highly useful to identify and organise issues systematically; **Recommendation: context tables are a jump in the deep water suddenly, better to put critical moments before it; requires much patience from project manager, lengthy (Context tables took 2.5 hours, tiring for PM); PM interpreted some headings differently, but easily understood with a few sentence additional explanation; PM Interpretation of expected result was sometimes just the evident „success", some hint would be expedient for PM?; complemented with innovation characterisation table; make social networks; let us characterise their significance with the phrase: potential for „social leverage"; continuous consultant feed back/intervention (cell by cell) recommended; if the PM has no ideas – toss up the ball for PM to consider (he can accept or reject; think of fit or not)**	The PM context analysis is pretty well grounded in societal context. But the question is whether a consultant would set the project in a different context. **Recommendation: very useful to reflect relevant aspects; it could be helpful to follow a few keywords here; context to human capital, financial capital, natural capital**
Defining Moments Table	actors of PM and stakeholders are reflecting continuously; so there is a high level of awareness; critical moments table is of high importance and interest; **Recommendation: questions work well with the PM if they were condensed; some sound very similar and aim at similar facts; critical moments table is better linked with context analysis, table format**	critical moments taken from narrative; extended document, should be made easier to use (excell file); remove column on irreversibility; consultant fills in table after interview for narrative and let PM check (saves time for PM); **Recommendation: difficult to indicate what critical moments are (and what not); this becomes easier when changing the name in defining mo-**	the tool works well; and is of high importance and interest; **Recommendation: this tool is very useful for PM because it represents a synthetic vision of the past and present project history; process works well; irreversibility aspects are important changes wich produce a shift in the project journey, but they are still open to changes or lock in; useful for**	it was easy to use; systematic collection was a good reflecting exercise; PM realises: could have chosen better strategy for building wind park if government position had been known; **Recommendation: using the CM table in the original order, and only afterwards the context seems more appropriate. CM/DM gives a good warm up with a feeling of first**	critical moments are important to understand as carriers and barriers; this is in a way a SWOT exercise, which PM are familiar with; or a risk assessment; **Recommendation: This part could be linked more to regular PM tools. if the project manager is using a management tool, descriptions from common (engineering) literature there needs to be an**

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
	shouldn't focus on single dates because problems are mostly process dependant, an adequate format is yet needed	**ments; change name in defining moments table; consultant fills in table and let PM check (saves time PM); use table to check narrative on completeness**	**the context analysis**	**achievement; none other than the order change; it is ok and easily usable**	**understandable; clear link between these two tools**
Actors Table	the adjustment of categories and the preparation of the table with already available information was necessary; downsizing from 14 to 11 categories; the discussion of the actors table is seen as a good backing for more transparency and potential role conflicts; **Recommendation: PM has a good overview of relevant actors and stakeholder groups through precursor project; PM is very sensitive relating to different roles of actors; modification of questions and categories - depends on projects' context (e.g. precursor process) and PM's understanding; condense the amount of categories (…max 10) – Reformulation of categories like the •"(re-)positioning" => "conflicts" •"resources that actors control" => "project activities"; split categories like "expectations and motivation"**	key actors table compliled by actors mentioned in narrative and actors added by consultant; extended excell file (not user friendly); consultant fill in table and let PM check (risk for subjectivity but saves time PM); **Recommendation: by adding actors that were not mentioned in narrative, the PM was encouraged to tell more detailes about project for the narrative; saving time of PM by filling in table by consultant and let PM check (at any time - not during interview)**	while filling in the actor table we asked PM on potential conflicts between project vision and actors' expectations + potentially influential actors. this facilitated the filling in the context table; **Recommendation: not all the questions are relevant for all the projects; in our case the less relevant ones are: three questions on social organization; in the table the key issues are: role and interest, power, communication channels, trust from the PM; repositioning**	it was tool 4, so came after the context and CM tables, and that is ok; it was useful for PM to take a systematic account of players and their roles, strengths and attitudes; importance of emerging potential actors acknowledged; some points emerged to be considered for the PM; e.g to join or not a RES association; **Recommendation: interpretation of "affinity" (response „supportive") was ambiguous, should be clarified; a PM concern was to smear or be explicit regarding conflicts with important actors; not only as a task to think over the strategy handling them, but also to present these in these tables; interpretation of "affinity" (response „supportive") was ambiguous, should be clarified**	The actors table gave a good overview of the important actors and the relationship between them. But a missing element is the dimension that may be important to notice; actors can have many roles within a project, how can that be made clear? **Recommendation: Perhaps the PM should give a good description of what he expects from the stakeholders and back check the actors.**

Step 2 - Vision building

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General evaluation		less time consuming than step 1; **Recommendation: subjectivity is less of an option in this step**			
PM Present Vision	based on the narrative, context analysis and actors table; difficult distinction between future and present vision; set of time frame for present and future vision; **Recommendation: time frame should be based on the expectations of the PM; separation of present and future vision might be not feasible**	in stead of present vision an intermediate vision was compiled (based on context analysis) by consultant and checked by PM; **Recommendation: no added value seen for present vision (it's all said in narrative allready); therefore intermediate vision made by consultant to get PM and stakeholders in 'future thinking mode'; change present vision PM in intermediate vision**	difficult to distinguish between future and present vision; no prior experience about this project	more descriptive of the past and present than a vision; separate intermediate vision was constructed for the midterm future; PM reacted with minor modifications; **Recommendation: include some sum of the narrative to make other stakeholders know the project; elaborate intermediate vision to make vision more tangible and the path explicit**	description between current and future vision comes as a mix the PM is inside the project constantly preparing for short and long term actions; **Recommendations: Can a consultant separate between these for a PM this is not possible?**
Social network map	input by the consultant, modification by PM; **Recommendation: if the main players are wellknown; mapping is easy; reduce complexity; mapping should be rated as supportive**	simplified version of network map compiled by consultant; checked by PM; **Recommendation: dimensions may be changed a bit to better fit the project; clear description of map is needed (or keep it simple); what to do when relations change over time?; use different colours to indicate differences between visions; change dimensions when needed according to the project**	input by consultant comment and adjustment by PM; **Recommendation: very useful for PM to visualise clearly the present network of the stakeholders involved in the project; it was useful to set a reference on which to build future network map**	tansparently clarified actors and relationships done by consultant; **Recommendation: drawn by consultant, easily approved by PM; it required not always easy pondering which (non-PM) relations to represent or ignore; relationships could be shown more sophisticatedly and illustratively**	This tool is in a way a repetition of the actors' table; **Recommendation: use rather the actors table to more extent**
Synthesis	description of map; correction by PM; **Recommendation: description is crucial**		modification: done by consultant and discussed with PM; **Recommendation: it is difficult to be too much demanding with the PM; more work must to be done by the consultant**	description of map, minor correction by PM; **Recommendation: should be in short sentences, sort of a short descriptive summary because much information on relationships included already in visions description**	For the project manager this is not very helpful and the goal is not evident.
PM Future Vision	based on input of the PM (meetings, telefon interviews); **Recommendation: the frame and the main factors should be discussed; don't follow the concept of split visions**		difficult to distinguish between future and present vision; based on input from PM and SH; **Recommendation: time for the future visions: no more than 5 years**	elaborated by consultant; based on the narrative, context analysis and actors table and previous discussions with PM; PM reacted with minor modifications; **Recommendation: a mix of qualitative and quantitative statements, but more qualitative statements than quantitative to see the essence; not to be lost in numbers; it may be a**	ditto

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
				challenge to make the PM contradict with the consultant/expert prefabricated view; how to provoke/encourage the PM?	
Vision title	was not of high relevance, but elaborated by consultant and PM; **Recommendation: clarify the concernment with PM; vision title not always of high importance**	composed together with PM & stakeholders; sometimes difficult to indicate in title the small differences between visions; **Recommendation: just title is often not enough to show the (minor) differences between visions; not really usefull when minor differences between visions can not be shown in titles**		no high importance; done by PM and consultant together; **Recommendation: no high importance, but good to keep it for short labelling visions in discussions**	This is not very helpful whereas this project is a second step in a larger context called hydrogen economy by media.
Future network map	input by the consultant on the basis of workshop discussion; modification by PM (interview); **Recommendation: the importance of single players in the future is difficult to assume; reduce complexity; mapping should be rated as supportive**		input by PM and stakeholders; **Recommendation: both for PM and stakeholders; this tool is a reflection about the present network map; this tool deepens the most important relationships and the future suitable development; it allow stressing the real expectations of each actors; this tool is necessary in order to create future visions and the conflicting issues table**		
Stakeholder present vision	based on the scenario-workshop; difficult to distinct between future and present vision; **Recommendation: use storylines to involve stakeholder in vision building process; don't follow the concept of split visions any longer; vision implicates the future**	?	modification: not done; **Recommendation: it was difficult to distinguish between present vision and the future one and we chose to have only one intermediate stakeholder vision**	PM's vision reacted upon; interview questionnaire was also used; **Recommendation: various "tricks" to make stakeholders interested; sometimes return service was offered by consultant; address the stakeholders' sensitive points to make them interested**	They used the description given in the project description and that the PM's future vision; **Recommendation: Not found important**
Stakeholder future vision	based on the scenario-workshop; difficult to distinct between future and present vision; **Recommendation: use storylines to involve stakeholder in vision building process; don't follow the concept of split visions any longer; vision implicates the future**	easily written after interview (6 times 1,5h); often on 2 pages; subtitles added to structure text; **Recommendation: 2 pages are needed to desribe all dimensions; dimensions used to structure text; confidential information can easily be used in future vision format; use dimensions and subtitles to structure text**	modification: all the information obtained from the interviews was extrapolated to a short time (5 years) (intermediate vision); **Recommendation: time for the future visions: no more than 5 years since the project is new**	PM's vision reacted upon; interview questionnaire was also used; **Recommendation: various "tricks" to make stakeholders interested; sometimes return service was offered by consultant; address the stakeholders' sensitive points to make them interested**	can describe visions that are much broader; not so much in practical scale but larger future vision for the whole society; **Recommendation: use this to catch the stakeholders wishful thinking and expectations; use this to put communication with internal and external stakeholders in the right scale and context.**

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
PM interviews	modification: combining the feedback on mapping and visions with interviews; **Recommendation: synchronisation with the PM's needs and timeframe is crucial; substeps should be linked; substeps might be linked to avoid time consuming activities**	structured interview of 2 hours based on social network map and intermediate vision; **Recommendation: handfull to work 'live' in social network map on laptop with beamer during interview; 2 interviewers for interview (one on laptop and one asking questions); use dimensions social network map to structure interviews**	modifications: many PM interviews, focused on the inputs gained during single interviews with stakeholders; the interviews were recorded; **Recommendation: the presence of two consultants enriched the outcome: added questions; before interviewing PMs, we searched for more information, especially about energy policy and international Solar thermodynamic R/D projects, so that we obtained more completed and satisfactory answers from PM**	intercactive consultation rather than just having PM to modify/approve visions premade by consultant; (Slightly) modified and approved visions and maps resulted	
PM stakeholder interviews	appliance modification due to the stakeholders schedule: no single interviews but group discussion with core stakeholders; **Recommendation: PM important as contact person; consultant need pm support; PM must trust in the consultant and should submit some competences**	Social network map is base for structure of interview; can be worked on during interview; synthesis writing; PM future vision and PM social network map were read by stakeholders before interview; **Recommendation: start interview with general questions to get to know the position of the stakeholder; use social network map for structure and to show differences between PM vision and stakeholder vision 'live' by drawing on map; stakeholders can easily react on vision PM during interview when read the synthesis writing; future vision and social network map of the PM at front**	single interviews: the core group interviews not feasible due to the difficult to organise a joint meeting; following the questionnaire is time consuming	done by consultant (not PM); single stakeholder interviews; interview questionnaire was also used; stakeholder views elicited; **Recommendation: various "tricks" to make stakeholders interested; sometimes return service was offered by consultant; use also a questionnaire to elicit broader context views rather than just react on PM's vision?; address the stakeholders' sensitive points to make them interested**	A workshop was used instead of interviews. This was useful and cost-effective. **Recommendation: The workshop is very useful as a reality check. Unfortunately NGO representatives did not participate in the workshop. workshop is a good alternative to interviews if there are no large conflicts**
BAU	consistent scenario; discussed and reflected with PM and core stakeholder; **Recommendation: necessary data have to be available; stakeholder have to be included and should get feedback; analysing data by observing changes over time**	not written as an future vision and network map; but as summary (negation of PM vision) integrated in conflicting issues table step 3; **Recommendation: difficulties in defining the BAU-vision (whose vision is it?) and social network map (what to put in the centre of the map); no extended future vision and social network map of the BAU is needed as long as summary of BAU can be given in step 3**	done by consultant, based on information gathered through interviews and context analysis; it was prepared, but not used neither dicussed; **Recommendation: this document is done by consultant; it is a document not discussed but acquired by the consultant; as regards the information gathered through interviews as well as the context analysis**	a short scenario description, discussed and reflected with PM and core stakeholders; stakeholders do not agree on BAU; consultant decided final status; **Recommendation: Whose BAU? How to settle different BAU visions? Hard to separate stakeholders "standard" vision from BAU?**	Instead of asking the PM for a description of a BAU scenario there is the tendency in critical media to refer to different future vision which then again is nearer to a BAU. **Recommendation: use the media / societal discourse to find out how the project implications are reflected against BAU given by the society ?; This recommendation is again a suggestion on how to go about the work without a consultant.**

Step 3 - Identifying conflicting issues

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General Evaluation		4h of consultant and 2h meeting with PM needed; 20 issues identified			
Conflicting Issues table	based on the input of PM present&future vision; stakeholder present&future vision; BAU; devided into 5 evaluation points (infrastructure, environment, economy, social and policy issues); **Recommendation: the preparation work for the visions was very helpful; a successful stakeholder-ws is supportive (necessary); the evaluation points changed during the "step-process"; the classification is difficult**	change rows and columns (visions in columns) to make comparison of visions more visible; issues are divided in opportunities and controversies; no blue is used in table; **Recommendation: no added value for BAU vision -> no differences in outcome table with or without BAU**	this tool represented a critical review of the whole process applied to Archimede project; **Recommendation: it is a very useful moment of synthesis for the consultant: it emerged the real room for action towards this pilot project**	it was few conflicts and straightforward to identify for existing stakeholders; but difficult to anticipate not yet identified actors and conflicting issues; **Recommendation: beyond indicating consensus, synergetic points should be stressed/made more highlighted/explicit; colours for conflicts and agreements and uncertainty is not well visible in print; beyond indicating consensus, synergetic points should be stressed/made more highlighted/explicit**	The heading 'conflicting issues' is perhaps not so appropriate. Issues were entered as 'doubtful', 'unresolved' and 'strong support'. Because stakeholder views were identified in a workshop, there is only one stakeholder vision. **Recommendation: Would have been more useful at an earlier stage of the project? harmonise with project management tools (e.g. risk analysis) but helpful in setting a communcation agenda**
Issues ranking table	easy to fill on the basis of key issues from conflicting issue table; ranking without weigthing factors not possible; modification: implementation of score descriptions and weigthing factors; **Recommendation: check if pm gets additional information; neccessity depends on the projects' status (step 0 / typology); more interesting for new projects**	ranking difficult when many issues exist; therefore multiplying importance and urgency automatically to get ranking; **Recommendation: automatic ranking by multiplying importance and urgency**	not done; **Recommendation: it has to be considered that core stakeholders will probably change in the future, grasping new national and global opportunities**	issues ranked; **Recommendation: also include issues anticipated from future; instead of or besides ranking I would use marking between 1-5, as some issues can almost equally be of high importance, ranking them in this case may be misleading**	ok; some issues are more important in the long than in the short term (added to table); **Recommendation: ditto**
Strategic issues graph	visualisation of key issues indicating importance and urgency; following the manual and the additional weighting procedure; **Recommendation: check if PM gets additional information (depends on type of issues and existing knowledge); neccessity depends on the projects' status, more interesting for new projects**	automatically filled in when ranking issues; **Recommendation: discussion whether this graph should be used in further process or not**	not done; **Recommendation: because there will be soon a new PM, with different interest (Enel)**	vsualisation of key issues indicating importance and urgency; useful for external communication; **Recommendation: also include issues anticipated from future, these by nature of the "urgency" dimension will be "discounted"**	This graph seems a bit redundant. It needs more clarification of the expected value. The table is easier to read than the graph.

Step 4 - Portfolio of options

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General Evaluation		30 solutions identified; started during interview PM and finished by PM at home; **Recommendation: saving time by letting PM fill in tables at home; tools can be filled in by PM at home; with little help of consultant (by giving examples or help with filling in first rows)**			
Issues /solution table	solutions worked by consultant and pm; still ranked; **Recommendation: new ideas for common process options; detailed information on solutions; positive for difficult project phases**	4th column is added with 'other' solutions for those that didn't fit one of the 3 types of solutions	clear visualisation of real problems: 3 main issues which rose from conflicting issues table; all these issues involve new and peripheral actors that will have an impact on fu-ture strategy; **Recommendation: used as input for WS: this is a valuable tool of discussion; allowing to participate on a common basis; effective sinthesis of the main problems which constraint the project development; clear picture of "who is responsible for"**	numerous solution options groupped in three categories were invented to solve conflicting issues; **Recommendation: none**	OK. Solutions mean that either parts of the project will be redesigned or the old parts will be used but explained and communicated. **Recommendation: for example car companies' & oil companies' commitment; It is part of the project but cannot be realised at this stage. good for keeping overview**
Solutions ranking table	ranking with a score between 1-4 and a weighting correction factor; **Recommendation: definition of the range (score) is needed; check if weighting factor is assistant and needed**	not used because we never recieved back the solution ranking table from the PM; the tables asks too much detailed information that the PM does not have and added value no very clear to the PM and to ECN (how will it be used later on in the process?) **Recommendation: remove table from ESTEEM tool**	this table has not been done since the present PM cannot wholly controll the range of solutions for the development and commercialisation of the technology tested through Archimede and cannot enter into details	not used; there was not sufficient and detailde information to fill it; it was decided to priotise options in Step 5 Workshop and in Step 6 action planning; **Recommendation: none; keep it as an optional tool; it can be useful for projects with sufficient information**	not applied; further guidance needed; **Recommendation: further guidance needed; step 4 includes many tables; difficult to keep track of the issues and communicate to PM what we are talking about**
Portfolio of options	input for stakeholder-ws; **Recommendation: new impulses for PM and new possibilites to solve conflicts support the discussion and the motivation to participate; positive for difficult project phases**	not used because there is overlap between this instrument and step 5, where there is also testing of the solutions and issues with a large number of stakeholder; instrument is too time-consuming with little added value; **Recommendation: remove instrument from ESTEEM tool**	this step seems to be redundant since similar to the capacity for action table; both are focused on the feasibilty of options; also in this case, like in the table before, the PM Enea was not able of giving us a suggestion in terms of resources availability and other details	not used; all identified solution options; were decided to carry on to the workshop to discuss; **Recommendation: none; drop this instrument from CA**	not applied; further guidance needed; **Recommendation: further guidance needed; Would be good to have examples on how this can be applied!**

Step 5 - Getting to shake hands

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General Evaluation	important role within communication strategy, manual was very detailed and seen as substantially helpful	preparation costs a lot of time but is worth it, **Recommendation: a two day workshop was not feasible; some participants / stakeholders complained allready about a duration of 1 day; try to limit the duration of the workshop as much as possible without decreasing the results**			
Selection of WS / participants	depends on aim of the workshop, implementation of partners and stakeholder workshop regarding conflicts, **Recommendation: one day workshop, selection regarding specific problems in the view of mainly long-term economic, be attentive to all relevant stakeholders**	in coorperation with the PM and some active stakeholders we have invited 45 stakeholders by Email (majority) and some by mail; when no reaction, we called the invited persons by phone **Recommendation: PM has preferences in participants; ask every stakeholder that you communicate with to come up with other persons (organisations) that might be interested in the workshop and invite these as well; no balance in gender / age feasible; selecting and inviting the stakeholders is an active process that changes all the time when people confirm their presence or non-presence and come up with other names**	this phase is extremely important for selecting right people who are not directly involved yet, **Recommendation: starting from context analysis, allows to widen the social dimension involved in the demo project**	approx. 30 people were invited to represent all relevant segments of society; PM had helped the consultant with putting together the list of stakeholders who were to be invited, **Recommendation: invite several people representing a particular segement/dimension to secure representative and diverse participation unless the first place chosen candidate(s) will surely attend**	
Preparing&Information (Dossier, issues list)	instead of a dossier an elaborated invitation letter was prepared and a handout was offered to the participants, **Recommendation: because of the existing feasibility studies as a common information basis; no dossier was needed; the preparation depends on the specific information level of the involved stakeholders**	dossier included the intermediate vision of the PM, the future vision of the PM, the issues list compiled by consultant, route description, information booklet ZEPP & agenda. 1 meeting with PM + 1 meeting with moderators/minute taker, **Recommendation: not feasible to let stakeholders vote on issues upfront, consultant compiled list of five issues: local pro's, local cont's, technical & legal issues, economic issues & relation with renewable energy; when voting not feasible (f.e. stakeholders don't know enough about project to vote), let consultant decide upon issues to dis-**	Step 1+ Step2 --> Core stakeholder group Step 1+ Social Map + Issues/Solutions --> new participants; **Recommendation: different type of document for different participant group had been necessary due to a confidential matters**	on a preparatory meeting the consultant and PM selected and discussed the key issues and solution options to be discussed on the workshop; the PM asked to reformulate into a more general issue one of the selected conflicts; a dossier was sent by Email to all participants before the workshop. It contained: a brief description of the situation of wind projects and the Vép wind project, the CA project and the aim of the workshop; present, intermediate and future vision of PM, maps; a chart showing the CA process; agenda of the work-	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
		cuss		shop; printed brochures about the wind project at Vép were distributed to all participants right before the workshop; **Recommendation: phone call follow up and providing information is recommended for some important invitees; it is recommended in the sent material to describe shortly the role of the workshop in the ESTEEM process and also send the process chart**	
Facilitator meeting	preparatory meetings and agreements mainly with the project manager are needed (in the Jühnde demo consultant and PM cover the facilitator function); **Recommendation: in Jühnde a preliminary workshop with partners took place to prepare the stakeholder workshop (presentations, handout, solutions/options)**	one of the stakeholders offered their facilities to host the workshop (a neigbhour of the future plant): rooms & lunch, **Recommendation: being physically close to future plant, made discussion more direct & helped imagening what project would look like, informal atmosphere made networking during lunch and breaks possible, try to create connection between project and location of the workshop**	not done	it was unnecessary to hold such a meeting; the CA consultant was the facilitator; two collegues of his were aids, **Recommendation: none; keep it as an optional substep**	
Execution	25 participants, workshop took place Friday afternoon to include all stakeholder groups, solutions and options were prioritized, the workshop helps to build a new communication platform, **Recommendation: a partners workshop beforehand supported the execution of the main workshop; the workshop helps to build a new communication platform**	morning session: plenary session with presentations on CA, the ZEPP & the aim of the workshop. afternoon: 3 groups of 6-7 persons (1 moderator + 1 (representative of) PM in each group): 2 proposals per person per issue, instead of voting, a summary by the moderators was given in final plenary session, **Recommendation: 2 participants that confirmed did not show up; 1 participant that was not invited did show up; when possible, add a fun-part to the workshop (excursion, drink, etc) to facilitate the network-activities among participants, working in pairs not feasible, voting is time consuming, 3 proposals per person too time consuming, add alternative for voting, discussion in small groups increases the interac-**	we chose half day WS, with a semi structured programme, including a round table on the main points, discussion with all core stakeholders and then open discussion with all the other participants, **Recommendation: the state of the project is the main criterion to choose this kind of WS, as agreed with our CP; to overcome the lack of right knowledge and the awareness of the real conflicts; the better path was to manage a meeting during which the discussion among the main stakeholders was, at the same time, observed by peripheral stakeholders, without filters**	17 invitees showed up, intro presentation by the consultant (facilitator), group work for participants to come up with solution proposals, proposals were presented, discussed, then evaluated with voting, new useful contacts established between the project manager and stakeholders, WS process as recommended in the manual can not strictly be kept, it must be taken flexible according to the particular situation and the people attending; **Recommendation: flexibility for group work, e.g. working in groups of four people; the WS process as recommended in the Manual can not strictly be kept, it must be taken flexible according to the particular situation and the people attending (e.g.**	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
		tion and reaction upon each other, (representative of) PM in each group to provide direct answers to questions concerning plans, provide some networking time		**how to involve them, how to make them present their results, etc.); the aim of the Evaluation/Voting should be further qualified: what we want to learn from it, for what we want to use the outcome; evaluation/Voting procedure should be improved, to be made simpler, faster; include Borda count voting method as an option; use voting or evaluation also identify what type of participants are against a particular proposal; allow more flexibility for group work, e.g. working in groups of three, four or five, rahter than in pairs or having multi level grouping; further clarification of PM's role and activity during the workshop is recommended; allow the process more markedly discussing the step 4 solution ideas not just as last resort if participants do not mention such solution options**	
Reporting	to send out a workshop report was supportive for the reflection of paticipants and PM, **Recommendation: the charts of the presentation as well as the other background material was already available beforehand; the quantity and quality of the workshop report depends on the preparation work: if the dossier or a handout or a presentation is already at hand of the participants not all the material has to be included again**	report content: introduction (step 5 of CA, aim of workshop, date & location), workshop description (minutes + results) and appendix (list participants, viewpoint local NGO, slides presentations, pictures, issues list, future + intermediate vision PM), **Recommendation: record the whole workshop on audio / video tape to help the reporter to recall all details of the discussions**	the WS report has been based on a synthesis of the discussion on the three critical issues presented and on the proposals that emerged; all introduced by a short summary about the history of the project; **Recommendation: we have chosen to omit specific references to the position of the single stakeholders, we had collected before the WS; following the suggestion of the PM who has been contacted by some institutional stakeholders (Enel; Ministry of Economic Development) showing to be worried about circulation of information on their official position**	WS report was sent to participants and interested other people; WS report and the presentation were put on the Hungarian Wind Association website; consultant called PM to inquiry his perception of the WS and discuss in general the overall results; **Recommendation: besides participants, also send WS report to everyone invited and others who are interested**	

Step 6 - Recommendations for action

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
General Evaluation	medium time consuming, but well instructed by manual	good, clear instructions, most important step, but time consuming, **Recommendation: try to avoid repetition in strategies and tables**		step 6 tools were first pre-filled by the consultant and then a 2 hour meeting with the PM ensued to discuss and finalise the proposed actions, **Recommendation: a summary time table for the actions template would be useful for the users, alternatively a timing column could be inserted in each table, in later ESTEEM applications the consultant may also have a follow up and helping hand role also in the execution phase of the action and communication plan - formally probably as a separate activity from ESTEEM**	
Acceptance and Feasibility Table	input from stakeholder workshop, **Recommendation: colour code might not always be helpful, the third category is different from the other two and might cause confusion**	as no voting took place during workshop, column 3 cannot be filled in, column 3 changed in strategies column with 3 possible combinations: strategy of both PM + stakeholders, strategy of stakeholder, strategy of PM, problem: list becomes long, stategies divided into 5 key issues used in workshop, **Recommendation: in the ZEPP case the results of the voting are missing; than it's relevant to indicate whether a strategy is from the PM, the stakeholders or both**	the table works very well and gives value added; since at the end we got a clearer vision of what the project is going to become	for three key issues ten solution options were listed and qualified, **Recommendation: acceptance indicated as highly or positively should be further clarified: who still opposes?, allow some flexibility in marking feasibility of/capacity for an action to a proposal with two types at the same time (type 1&2, 2&3)**	
Capacity for Action Table	helpful in general, but the table might be combined with the following action and communication plan - due to the number of actions, **Recommendation: differentiation between action and subaction difficult; coloured activity allocation was not necessary; if the number of actions is manageable the following substeps might be integrated**	45 strategies left over for further processing. filled in by consultant, **Recommendation: sometimes difficult for consultant to decide what exact subactions must be undertaken**	this table resulted very useful; designing the paths at short and long term	easy to use summary reorganisation of the Acceptance and Feasibility table, **Recommendation: list monitoring action and monitored issue together: monitor what issue with what action (what and how)**	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Short-term action plan	worked well, **Recommendation: identification of project specific strategies; the short-term action plan and the collaboration plan can be prepared together**	17 strategies pointed out; consultant filled in columns; often repetition in the columns**Recommendation: sometimes difficult for consultant to decide what exact subactions must be undertaken, critical review on relevance of 2nd column**	this table gives a clear picture of the room for action at this stage; a large range of actions are on the agenda: collecting experience through participating to other bids on solar thermodynamic plants, with different degree of innovation; going on with research near to the new PM of Archimede (Enel); sustaining the promotion of the technology together with the national industrial suppliers and their learning curve through two dedicated Industrial Innovation Projects; a new instrument involving different institutional actors and funds, through which Government has launched a new industrial policy, managed by the Ministry of Economic Development, **Recommendation: Positive reaction by PM (Enea) who is giving up the management responsibility but will continue to operate for Archimede in agrement with the new PM.**	straightforward to select type 1 actions from previous table, **Recommendation: do not take "actions that PM can do alone" always equivalent with short term actions - type 2 collaboration actions in particular cases can be more crucial and urgent for the success of the project, clarify question of priority with the PM**	
Collaboration plan	worked well and is supportive in sorting out cooperation, **Recommendation: was helpful to reflect on cooperation, see short-term action plan**	17 strategies pointed out; some difficulties encountered when filling in the 2nd and 3rd column; often repetion of answers **Recommendation: sometimes difficult for consultant to decide what exactly subactions must be undertaken; delete 2nd column**	clear identification of the relevant stakeholders who can support the real dissemination of this technology (industrial suppliers) but also of the conditions which can support it (large involvement of political authorities such as Regions); **Recommendation: the latest events created a positive push to the project, but comparing the whole experience and the result of the CA process help PM to have higher awareness**	it was not difficult to use, but not that straightforward either as the tables above because of some ambiguity in the meaning of headings; consultant decided upon an interpretation **Recommendation: insertion of a "with whom?" column would be explicit, make it more transparent and useful; type 2 collaboration actions can be more crucial for the success of the project, in this case these should be addressed first as short term activities; clarify question of priority with the PM; explore, keep in mind and utilise synergies!; table headings should be further clarified in the Guidance, possibly with example filling of the table**	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Long-term monitoring and capacity building plan	classification of monitoring specific issues difficult, understanding and definition of long-term not clear, **Recommendation: difficult to combine with specific future project activities; review on relevance**	11 strategies pointed out	no modifications of the original plan are envisaged; awareness of the future growing importance of the social acceptance and of the key role played by the communication, together with the necessity of a national plan for energy and a European programme for renewable energy and solar thermodynamic technology; **Recommendation: Archimede project has been revisited many times and it is now arrived to its realisation, without relevant oppositions**	it was not that straightforward to use, some ambiguity in the meaning of some items in the checklist, consultant decided upon an interpretation, **Recommendation: it should be planned in an economic way to restrict it to such actions that may really bring in some benefits (to avoid swelling to worthlessly comprehensive, some terminology clarification for the checklist is recommended (see Vép D10 report) as well as examples for filling in the table**	
Communication plan	it worked well, but the aim needed explanation, **Recommendation: open conflicts between farmers and PM were seen and a communication strategy will be elaborated; needs further development and explanation**	communicationplan written for PM by filling in table, no accompanying text	some suggestion have been done for communication in short and long term; **Recommendation: the comunication plan can be suggested to the new PM Enel and performed in collaboration**	straightforward to do, format well designed for a detailed communication plan, **Recommendation: the tool is well designed if a detailed communication plan is necessary; if not, the integration of this substep into the previous tables near the actions is recommended; the detailed format could be left as optional.;** **it can easily swell big and run out of PM's resources, so the important issues; the right channel for the right target group should be carefully chosen; the table calls for the essential info needed and helps rational management of the task**	

	Biomass Germany	ZEPP Netherlands	Archimede Italy	VEP Hungary	SMART H Iceland
Evaluation of CA process	the questions worked well and were seen helpful to reflect the process and the value added, **Recommendation: feedback of the project manager regarding contacts and advices of the consultant, support of reflection, keep the questionnaire in a qualitative manner and short**		it was fundamental to look at the differences among projects and define the project typology; **Recommendation: some project with less developed aspects (previous experience, social acceptance) can benefit more of CA; this process is a starting point to create "right knowledge" or disseminate information, since we learnt that there is a real problem of building a common awareness of what the project is and of how many opportunities it brings (different possible applications, design and localizations)**	it took about 45 minutes, traightforward to do based on the manual's guiding questions, **Recommendation: do it on a separate occasion, not right when having finalised step 6, it helps avoid tiredness, gives time to PM's reflection on the whole process**	

Appendix C Counter-partner reports

C.1 Counter partner - Evaluation report dissemination Jühnde

C.1.1 Short Description of Demo project and Counter partners' activities

The CA Biomass Demonstration Project was commenced in January 2007. However, the CA Demonstration Project is a continuation of an earlier project started under the EU funded regional projects (Save I and later on the Leader). The original biomass village project was carried out in the years 2001-06 and consisted of various biomass investments *e.g.* in agricultural biogas and district heating. The initial idea was to transfer the 'model' of an entirely bioenergy-supplied village (Jühnde) to five other villages in the County. The project was considered successful and the regional authority of the County of Goettingen decided to disseminate its results and make it replicable also in other villages of the region. For this purpose the methodology and human resources of the CA project were used from January 2007 onwards.

The project manager's focus was on the dissemination of bioenergy villages and investments in the region. A local consulting company developed the feasibility studies for the eight selected villages. In parallel, the planning group consulted with the village inhabitants within the framework of local working groups, addressing different topics.

The main actors in the process can be listed as follows:

- *Project manager*- the regional authority County of Goettingen represented by its employee Mr. Berndt and his staff. It is important to note that they are highly motivated to disseminate the use of biomass in the region but they are not supposed to take any investment decisions but rather encourage them on the local level,
- *Consultancy groups*: there are two types of consultants in the project due to the fact that the bioenergy village project already has it history in the past. The first group of consultants, which were engaged in the project before the Create Acceptance process started, are the scientific staff of IZNE - still accompanying the County in the dissemination phase of the project. The second group of consultants consists of the CA methodology group *i.e.* Oeko-Institute. These two separate consultancies learn from each other's experiences and accompany the Council in the process of encouraging bioenergy investments in the region,
- potential investors: farmers, local enterprises,
- others: NGOs *etc*.

  The Create Acceptance methodology was implemented by the German partner in the project *i.e. Oeko-Institute*. It was decided by the project consortium that each of the demonstration projects will be reported by an external observer. For the biomass project in Germany EC BREC IEO Ltd. of Poland was chosen as an observer and thus is an author of this report.

C.1.2 Check of project steps

C.1.2.1 Assessment of material and given information

All work undertaken since January 2007 by the CA consultant Oeko-Institute was well documented; all steps from 1-4 clearly described. Additionally, one telephone interview was carried out with the evaluator of the process EC BREC IEO Ltd., which clarified some points. At this point of time the whole process was not finalised and the observation will continue.

C.1.2.2 The type and process of the Demo project

The implementation of the CA methodology started in January 2007. It took approximately 10 months to carry out the steps 1-4, however in terms of man-hours requirements of all the communication processes took only 2 weeks altogether.

The project was evaluated as very dynamic, which was additionally supported by the fact that:

- The project already had its history in the past, previous activities concerning the bioenergy village were carried out in the years 2001-2006, the project is a continuation and dissemination of the already very advanced process.
- The project manger, who is the regional authority *i.e.* the County of Goettingen is very dedicated to the realisation of the project and actively supports the implementation of the CA methodology.
- The financial resources for the initial phase of the projects (2001-2006) were secured by the external EU funds, also now the dissemination phase as well as the implementation of the CA methodology is supported by a mixture of EU funds and County‘s own financial resources.

To sum up the prospects for the smooth completion of the CA methodology have always been very promising.

C.1.2.3 Conflicting issues from Counter partner’s point-of-view

From the point of view by the evaluator of this demo there are some doubtful issues concerning the role of PM in the project. Is the final goal of the project to disseminate the idea of bioenergy villages or is it to carry out the investments? Probably both?

The project manager which is the County of Goettingen, can provide information, technical support, financial advice and encourage but not force any investments. The real investor is the association of farmers or any other local enterprise, which can decide for or against a biomass investment. At the end of the day the final investment decisions depend not on the PM but on the stakeholders who will invest their financial resources.

The final outcome of the CA exercise shows that all key issues lead to a potential investor anyway. It also shows that it is not to PM who will have to overcome barriers but the investors. In this demo case the potential investors were not in the main focus but were merely described as stakeholders. The time will probably show for whom the tool was more useful: for the PM or the real investors?

C.1.3 Results of the Counter partner Interview

C.1.3.1 Role of the Consultant in the Demo

The role of the consultant from the different points-of-view

As mentioned before the bioenergy village project had two groups of consultant due to its past record, before the commencement of the CA project. The first consultancy group were the scientific staff of IZNE. They still accompany the County in the dissemination phase of the project. The second group of consultants consisted of the CA methodology staff *i.e.* the Oeko-Institute. These two separate consultancies learn from each other through their experiences and simultaneously support the County in their bioenergy activities.

The relation of IZNE to the CA was evaluated as ambiguous. The general feeling of the CA consultant was that IZNE felt a kind of competition from them. When two different consultants are involved there is a risk of feelings of competition between them.

The role of IZNE and its relation to CA project is interesting for two reasons:

- They can be potential users of CA methodology in the future. It is for such entities that the methodology is being deviced.
- Their activity in the CA is voluntary, as a consultant they can learn but they do not get paid for it.

Now that a much simpler version of the methodology is being elaborated it would be interesting to know their opinion on the applicability of the tool.

Expectations beforehand

C.1.3.2 Relationship between Project Manager and Consultant

Character and role of the Project Manager

The co-operation between the project manager (the County) and the consultant (Oeko-Institute) went very smoothly. The PM was always very dedicated to assigned tasks during the whole process - hosting the consultation meetings, sharing its own ideas and ensuring that the process went smoothly.

During the whole process about 10 meetings rsp. phone conferences between the PM and Oeko-Institute were organised. They were carried out in the atmosphere of mutual understanding and ownership of the project. The PM was eager to know the solutions, he followed them but he also expressed a lot of his own ideas. He was also very keen on the effectiveness of the whole process.

Description of Conflicts in the Demo and Role of Consultant

In the process there was a potential uneasy feeling of the competition between two consultants IZNE and Oeko-Institute. As both are basically advising the PM County of Goettingen in the same biomass project, Oeko-Institute makes the utmost effort to avoid bad feelings, communicates all findings with the other consultant and invites IZNE to learn new skills during all activities.

C.1.3.3 Relationship between Stakeholder and Consultant

There were 3 workshops organised for all stakeholders. All of them were hosted by the project manager and facilitated by the consultant *i.e.* Oeko-Institute. Another 4 meetings took place with a selected group of stakeholders. Participants showed great interest and it was possible to formulate present and future visions for customers and farmers.

The final results of the project *i.e.* 8 feasibility studies for villages will enable the stakeholders to make investment decisions.

C.1.3.4 Success and limitation of the CA-Process and Tools in achieving acceptance in the region

The analysis of the key issues led to a conclusion that many legal and economic issues depend on the decisions made on the national and not the regional level. However, as many of the actors involved on the regional discussion are also part of the discussion carried out on the national level - for instance the green NGO Friends of the Earth Germany - the problems and concerns raised on the regional level will become a part of the national debate.

In the 8 feasibility studies, which are being prepared at the moment for bioenergy villages the key legal and financial issues (for instance level of support) will be included.

C.1.3.5 Exchange of Demos / Partners Interaction

The project partner Oeko-Institute listened very carefully to presentations of other demos in the CA project. Especially interesting seemed the experiences of hydrogen stations in Island. All projects were different and also there were different problems encountered on the way but all of them seemed very interesting to compare experiences.

The question of the applicability of the methodology for other technologies and other regions in the world was raised. There will be made attempts to replicate the results for other technologies (other than green energy). As far as the regional replicability is concerned it was concluded that the public acceptance project could be realised only in political systems where the public opinion is valued and guarded by the legal system, in regimes like China it would be hardly possible to apply.

C.1.4 Experience of Counter partner's support

Oeko-Institute thinks that the external evaluation of the project can be very useful; it can give their biomass project a different perspective. From the point of view of the external evaluator it was also an extremely useful exercise. While reading the documents, some points required clarification. It turned out that it is always good to have an outsider's point of view.

As an external evaluator who did not carry out any demo project herself I was also paying attention to the possibility to replicate the methodology in Poland. Which things would be different, which things would be similar? I think from the Polish perspective the most urgent issue would be to secure the financing for the realization of the CA methodology. The regional authorities, no matter how excited they can be on green energy, would have little financial and human resources to carry out such a project without external financial support. Thus, the question remains whether the dedication to the project by the PM *i.e.* the County of Goettingen, is replicable in other regions of Europe.

I am also personally very interested in the outcome of the project *i.e.* the real investments. How many of them will be realized, who will withdraw from the project, who will decide to invest their financial resources. It would be extremely interesting to find out how the project and the methodology were useful for the investor and how it contributed to making his investment decisions.

C.2 Counter partner - Evaluation Report ZEPP demo

C.2.1 Short Description of Demo project and Counter partners' activities

The Zero Emission Power Plant (ZEPP) is a project that is being developed in Drachten in the North of the Netherlands and has a go/no-go decision due in 2007 and a plan to be operational by 2009. The project developer is SEQ Nederland BV and involves a number of partners (Eneco, Wintershall, Siemens, Volker Vessels, Clean Energy Systems US). This development is taking place within the context of the so-called Wadden Sea discussion that was ongoing from the late 1990s onwards. This discussion centred on the question of whether oil extraction in the Wadden Sea would result in the subsidence of the ground and involved both those who suggested there was no indication that this would be the case (Shell) but also interests counter to this position. It is with this context in mind that Wouter van de Waal - formerly employed on a freelance basis by Shell - developed, in August/September 1999, the idea to store CO_2 under the Wadden Sea to prevent subsidences.

Van de Waal developed the concept of a Zero Emission Power Plant (ZEPP), which uses pure oxygen to combust the natural gas. This concept, which is called the oxyfuel principle, has the advantage that the CO_2 does not have to be removed from the natural gas before combustion, while CO_2 can be captured after combustion and stored subterranean. Van de Waal asked his former university teachers to check his concept and acquires a patent on the concept.

Following a long series of negotiations and reports, by the end of 2004 the project had a location, storage capacity in the form of an almost empty natural gas field, a partner from the elec-

tricity field (ONS), a concession and a partner from the oil and natural gas business (Wintershall). The only thing missing is subsidies to finance the 'unprofitable part' of electricity production in the ZEPP (the part of the price that was higher than conventional electricity).

Van de Waal expects that in the third quarter of 2007 the ministry of Economic Affairs will announce if and how much money will be available for the ZEPP plant. SEQ will also start with applying for the necessary permits (environmental and construction permits). Van der Waal expects that construction can start by the end of 2007. To that end several technology suppliers are now forming a consortium (including Siemens). Construction might also include a connection with a local district heating system for supply to local industry as well as new residential areas. Other stakeholders in the area include Energy Valley (a public-private partnership that focuses on concentrating energy research and projects in the North of the Netherlands) and the municipality and province (who are both proponents of the project).

The role of SURF has been as a counter-partner to ECN who have been 'applying' the in-draft steps and tools of the developing Create Acceptance approach. As part of this process SURF has undertaken the following work:

- We have read all the numerous documents produced by ECN through their engagement with the ZEPP project. This has included the processes through which the different steps of the process have been 'applied' and 'populated'.
- We have also undertaken a one hour interview with Rob Raven from ECN which addressed the key strengths and weaknesses of the application of the steps in relation to the ZEPP project.
- We drafted a note of this interview from reflection made both at the time of the interview and from listening back to the tape of the interview.
- We have utilised these different approaches to analyse the process of application of the steps in relation to ZEPP and through reflecting on the issues in the sections below.

C.2.2 Check of project steps

Assessment of material and given information

ECN has at the time of writing undertaken 4 of the proposed steps in the process. In this section an overview of this process is provided. Step 1 consists of four tools. In relation to ZEPP the following assessment is made:

1. It appeared that at least 4 hours of formal interviewing went into Step 1. There was also time dedicated to liaising with PM and other actors. Added together this requires a significant investment of time from the PM.
2. Project narrative - the narrative was considerably longer than the 2-3 pages recommended, but it is clear and comprehensive and provides the context for relating to the other tools in the Step.
3. Context analysis- there appeared to be some difficulties in terms of the practicalities of filling in the Context analysis table and some effort was needed to elicit what were seen by the PM as barriers or opportunities for the project in relation to context.
4. Defining moments table- there was some difficulty in eliciting defining moments.
5. Actors table - in this case the consultant filled in the table, which was a helpful way of building on the actors pinpointed by the narrative but which also provided the basis for the PM to reflect on actors that may not have been thought about in relation to the narrative.

In relation to Step 2 the following reflections are made:

1. With the heavy time investment in Step 1 the second step is somewhat quicker to negotiate.
2. The Present vision of the PM was built by the Consultant - although this was in fact not a Present vision but something that tried to add value and build on the 'Present Vision' encompassed by the Project narrative.

3. The social network map was simplified, constructed by the Consultant and responded to by the PM.
4. The BAU - There was some difficulty in ascertaining whose vision the BAU was. As such this was integrated with the Conflicting issues table in Step 3 rather than being produced as a standalone Future vision.
5. Stakeholders Future visions - these were written in the style of short newspaper articles (often a couple of pages) - which seemed to be a very useful way of doing this. In terms of time, this took around one and a half hourse each for each of the seven interviews.

Step 3 allowed a series of conflicting steps to be highlighted, which required a two hour meeting with the PM and a further four hours of Consultant time. A series of Conflicting/controversial issues were elicited and ranked according to their significance (1 low and 5 high) and their solveability (low, medium and high). These were then plotted on a 2x2 matrix of Strategic issues.

Step 4 provides a largely useful way of listing and presenting the controversies and opportunities surrounding ZEPP and the possible contextual, knowledge, financial and other responses to these controversies and opportunities.

The type and process of the Demo project
The type of Demo is outlined both in the Introduction to this paper and also in respect of the Project narrative.

Conflicting issues from Counter partner's point-of-view
We have done this in Section 2.1. But just to add that the process as currently constituted takes a considerable amount of time and commitment from both the PM and Consultant and that it would be useful for both to lay down their expectations of the process at the start to make sure that there is not too big a gap between expectations and to provide a basis on which the process can proceed productively.

Role of Counter-partner
The role of the counter-partner has been one of engagement, reflection and response. We have achieved this through a number of methods. We have monitored ECN's involvement with the ZEPP project over a period of time. This has involved listening to presentations, reading reports and write-ups of the process, assessment of the application of different tools, undertaking of a detailed interview with the Consultant, and the making of notes and reflections on that interview.

In terms of what may be done differently if this exercise was to be repeated. It would be useful as Counter Partner to get 'closer' to the ZEPP project. Although the value of the Counter Partner is in providing critical reflections on the process from a distance. There has to be some care that this critical distance does not lead to the Counter Partner being too distant from the process.

C.2.3 Results of the Counter partner Interview

C.2.3.1 Role of the Consultant in the Demo

The role of the consultant from the different points-of-view
In this case there was no real need to explain the research process to the Project Manager which was largely due to the specific characteristics of the project being about carbon capture and sequestration. There were a lot of discussions going on generally in the Netherlands about CCS and whether the public would accept this. With this context in mind the PM was open to finding people who could help him in this respect. The consultant, from the PM's perspective, was somebody who could perform this kind of role. The personal expectations of the Consultant re-

lated to their interest in strategic niche management as a conceptual framework on the role of experiments and projects in technological change. In particular, the hope was to move the conceptual insights gained from strategic niche management on 'a step further' to inform the development of instrumental tools: that is 'something that a project manager could do something with'.

Expectations beforehand

So in negotiations to enrol the PM the consultants did not have to explain too much in advance about the process. Having said this, at the first meeting ECN did take along a couple of slides about aims of the Create Acceptance project and what it was about. At this time ECN had no idea about what the Create Acceptance project would look like. With this in mind, most of the 'pitch' to the PM was based on the expectations of those researchers from ECN working on Create Acceptance, and information and experience from the application of the Socrobust tool. The expectations of the PM centred around finding people who could help with addressing issues of 'public acceptance' of CCS.

C.2.3.2 Relationship between Project Manager and Consultant

In thinking about the relationship between PM and consultant the key point that was raised is that: 'Intervention is much more than just giving somebody instruments'. It is also a learning process of *how* to intervene in a project in reality. In terms of learning it highlights the key issue of (1) how to communicate things and (2) the fact that you cannot just push instruments on people. You need to convince people but also listen to them and in doing so get a sense of what their own expectations and aims are and how to align them with the assumptions of the tool. The key point here is that it requires a very active relational process of getting a tool to make sense in a context with particular people, which requires a huge amount of effort from the consultant.

Character and role of the Project Manager

The PM was a very busy person and at the start of the project worked alone with one other colleague - although more people are involved now. Within that context the consultant suggests that the PM may have made a judgment about whether he was willing to give certain information and also to engage with certain parts of the process. In the case of the Solutions Ranking Table the Consultant suggests that the PM probably made the judgement that this was not important enough to do now. This does not necessarily mean he is not willing to do it in other sets of circumstances. Yet the PM does seemingly take public acceptance seriously.

The issue essentially is one of getting the tool to 'work' in context. In one example, for part of Step 4 (the Solutions Ranking Table) there was difficulty in getting the PM to do certain things where, for example, the PM was asked for information that they could not give or were unwilling to give or that just took too much time. On the other hand there is a requirement for information as a consultant so you have to balance what the PM is willing and capable to give and what you require as a consultant.

Description of Conflicts in the Demo and Role of Consultant

In terms of the futures laid out in the visions there were examples of both consensus and conflict but the Consultant pointed out that they had expected more conflicts but instead got a lot of consensus. Many people, although they had minor issues, were largely in favour of the demonstration plant. The local NGOs and entrepreneurs were very positive as was the municipality. There were not so many controversies but rather these were seen as opportunities for the PM. The area of the proposed demonstration plant is one of relatively high unemployment. Although the plant would not provide large employment opportunities there was the suggestion from some stakeholders that the PM should do more to encourage the development of local level contracts and getting other industries on board in the area. Using the plant as a 'badge' for activities in the region (as a 'Silicon Valley' for energy). In addition, the tool helps to widen the learning process

and widen the collection of information that a PM would often do in a tacit way - but this makes it more manifest. A final issue is that many of the Steps are time consuming, in a context of a busy PM - in this respect the Consultant filled in many of the tables. This raises issues about the aspirations for the process to eventually be standalone.

Experiences with the consultant's support (in using the ESTEEM tool)
In terms of then tool and its 'implementation' there are a number of things that have worked well. These include: 1) the comparison of the visions and the way this was done through writing newspaper articles from the future; 2) this in turn helped to organise subsequent material, including the tables in Steps 3 and 4; and 3) as a basis for analysing the information. In the beginning the Consultant was hesitant to do this in this way as it requires an awful lot of asking of questions. But then once Steps 2, 3 and 4 had been started it became clear that this provided very helpful foundations. It provided a way of seeing the future from the present and a link between the two - a way of connecting the prospective and retrospective. The formulation of the PM vision in a newspaper article was a very helpful way of capturing their vision. visions of PM was formulated in an newspapers article.

C.2.3.3 Relationship between Stakeholder and Consultant
If the tool requires active work in context and the Consultant is an 'ambassador' for the tool there was a sense that some stakeholders had to be persuaded more than others. In particular the PM was the person who had to be persuaded most particularly as he was busy but was also a key source of information. The PM takes the process seriously but the Consultant was not sure that he will take the outcomes and the recommendations of the process seriously. That will be the 'ultimate proof' of whether he has taken the project seriously, according to the Consultant.

C.2.3.4 Exchange of Demos / Partners Interaction
The relationship between the PM and Consultant was, as one would expect, something that had to be continually worked at given their differing expectations of the process outlined above but also given the mutual need in achieving what they each wanted from the process. The importance of reflexive learning to the process raises the issue of whether the interaction between the PM and some sort of consultant can be avoided if this process is to be effective. That is to say can the process ever be constituted effectively as a stanalone tool or does it need somebody to 'manage' the process of how it is applied in what are often different 'local' contexts?

C.2.4 Experience of Counter partner's support
In this section we wish to add a few further suggestions and issues that have arisen from the process of being a Counter Partner in trying to support the Consultant. In particular we wish to highlight five issues:

1. There are processes of exclusion as well as inclusion in the process of trying to create acceptance. This raises the issue of whether there is there a limit to the types of stakeholders that should be involved? For example, in ZEPP, Greenpeace isn't involved, there's somebody against the project who the Consultant wanted to involve in the workshop but now can't, etc, etc. How do you decide who to include and exclude? And what have we as researchers and consultants learned from this process?
2. It is the PM who is the limit and he who decides whether to involve stakeholders or not. The process starts from the PM. In terms of evaluating our own collective approach to creating acceptance - is this the most effective/best place to start from?
3. The researcher as Consultant is not a passive participant but is active in raising issues in the process and for the PM that otherwise wouldn't have been raised.
4. This asks questions about what the role of the researcher is in this process and suggests more reflexivity is required about what we as researchers are doing.

5. In short, there is a politics and a selectivity to processes of creating acceptance that we as researchers need to be aware of and feedback into our practices.

C.3 Counter partner - Evaluation report Archimede demo

The origins of the Archimede Project are in December 2000 when the Italian National Agency for New Technologies, Energy and the Environment (ENEA) obtains extra funding for starting an experimental project in solar thermo energy. (200.000.000 lira to get from 2001 to 2003).

This initiative is fixed in a Pilot Project called 'Archimede Project' in 2001. This one is supported by the technical and scientific guarantees of Carlo Rubbia and Mr. Vignolini from ENEA is designed as the responsible for executing the Demo Project.

In May 2001, there is a politic change and the new Italian government (a right wing - Berlusconi- government) is more interested in the nuclear energy than the solar one. Therefore, the budget for the project that should received ENEA has a reduction of 35% of the initial extra funding.

After that, from 2001 to 2004 ENEA develops the technical requirements (in tubes and others...) for the development of the Archimede Project.

In 2004 ENEA and ENEL (the main energy company in Italy) reach an agreement. There is a collaboration Protocol between them for building and setting of the plant for checking the technology. The protocol establishes the conditions of the commercialization of the new technology as well.

The same year, ENEL asks for the Decree[4] of the green certificate that recognises the solar thermo as a renewable energy source to the Ministry of Economic Development but this decree is blocked in the Environmental Ministry. ENEL was very interested in the passing of this decree for gaining a normative and financial support.

Afterwards ENEL, tacking into account the lack of normative and financial support and Rubbia's resignation because of the tight relationship with the government, blocks the Archimede Project in 2005.

In the meantime, during 2006, there were the general elections and the new government of Italy will be a left wing party that will support the project. Therefore, the Archimede Project restarts at the end of 2006 with a new agreement between ENEA and ENEL supported by the Environmental Ministry, the Economic Development Ministry, the environmental department of the Region of Sicily and Carlo Rubbia. This new agreement includes some modifications:

- the power plant will be downsized from 20 to 5 Mw (from 8000 parabolic mirrors to 2000)
- the demo plant will be a combined loop plant and solar thermal plant introducing modifications in a current plant in Sicily
- and ENEL is the main contractor of the project. In other words, ENEL will be the new PM when the construction of the demo plant starts in January 2008.

The current situation is that ENEL is waiting for the authorization of the Sicilian Regional Government for building the demo plant. It is foreseen that the building works starts in January 2008 and the plant will start functioning at the end of 2009 or the beginning of 2010.

This demo project has a very important macro political and economical dimension with political and economical partners that have non-explicit interests. As an example, the project has been

[4] Decree foreseen in 2000 that has not been enacted in 2004 yet.

blocked approximately one year because ENEL had not the financial and normative support. Nevertheless, afterwards and regardless the public support, ENEL decides to start again the project at the same time that ENEL came into the Spanish energy market where they can develop the technology.

During all this process, the social dimension of the project has been underdeveloped because the consultants did not detect any need to introduce the social dimension in the process of gestation of the 'final' design of the Archimede Pilot Project.

Role of the Counter-partner
The role of the Ecoinstitut as a Counter Partner until now has been to offer support and help to the demo leader, but the demo leader decided to develop the steps one and two of the Esteem toolbox without our support.

Now, once the project has a new design, the consultants consider that is the moment to look for the social stakeholders and to include a social dimension in the project (particularly in the step 5 and the execution of the workshop). The Ecoinstitut will support and help in the preparations of the workshop and will attend the workshop as observer.

C.3.1 Check of project steps

C.3.1.1 Assessment of material and given information

The information and material that the demo leaders sent to the counter partner is:

Step 1:
- Project narrative
- The context table (in English)
- The actors table
- The critical moments table (defining moments table)

Step 2:
- PM Vision (title, synthesis writing and social network map)
  - Mr. Vignolini -ENEA (Project Manager from 2000 to 2007)
  - Mr. Fanno - ENEL (Project Manager from 2008, when the construction of the demo plant starts)
- Core Group Visions (title, synthesis writing and social network map)
  - Environmental Ministry
  - Economical Development Ministry
  - Angelatony Industry
- BAU vision

These are all the tools that have been sent to the counter partner. The documentation of step 1 and 2 has been sent to the counter partner on 20th of September 2007. Excepting the context table, all documents are in Italian. The documents are simple, clear and clarify a lot the project although sometimes because of the inherent complexity of the project it is difficult to follow all the facts related to the demo (agreements and disagreements, changes on the main contractors of the demo...).

C.3.1.2 Conflicting issues from Counter partner's point-of-view

The Archimede Project is a demo project that is very marked by the political and economical interests at the macro level, so much that the execution of the demo plant has been stopped because of, on one hand the political tensions among the government and the project leaders, and on the other hand because of the lack of public financial and normative support.

Afterwards the project is taken up again but the demo plant has substantial modifications: initially it was a very ambitious project with an avant-garde technology and now it has become a smaller project and related to loop plant.

Until now, the Archimede project has been developed without the social dimension because this dimension has been not considered applicable in a project of these characteristics[5]. Moreover, ENEA had not have a clear and explicit support for the PM and Archimede Project, and as a result for applying the CA process.

The lack of the social dimension in the project is the main conflicting issue[6] for several reasons: Instead of including the social dimension[7] in the redesign phase of the demo plant when the project was in 'hibernation', the demo leaders have considered that it was not pertinent. Therefore, the opportunity of counting on the social support of environmental and social NGO's, or local authorities in the initially design of the project is lost.

Now, the demo plant will be constructed at 2008 with a design that cannot like or can cause disagreements among the main social actors, above all the environmental NGO's who (in all probability) can be against the new design. For that reason, probably the conflicting interests with the social stakeholders will emerge at the end of CA process, in the workshop of step 5, because they have not been asked before.

The same could happen with the point of view of the local authorities affected by the project: until now, the consultants consider that no conflicting issues will appear in this field, and therefore they do not consider necessary any involvement or consultation with possible local or regional stakeholders in application of the Esteem Tool.

This point is very important for the final design of the Tool: it should be very clear that in Step2, the visions of the core group have to include at least 1 vision from a stakeholder of each social dimension (in this case, including the NGO vision and including the local / regional governments vision). It cannot be the role of the consultant to exclude conflicting issues because in his/her personal opinion they do not exist. This is exactly the objective of step 2: identify possible future conflicts that are not in mind of the PM or the consultant.

Therefore, in the final design of the Esteem Tool it should be avoided that the tool permits to jump to conclusions.

In the other hand, it is very important that the organization (ENEA) support the project, the project manager and the application of Esteem tool, otherwise the application of the tool can be hampered by the lack of informative transparency that can inhibit the stakeholders communication and involvement.

C.3.1.3 Role of Counter-partner

As a counter-partner, the Ecoinstitut insisted on helping the demo leaders offering its support in all the steps but the demo leaders have not used it yet. Maybe it happened because the demo leaders have not considered pertinent the social dimension in the project.

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[5] The argument of the demo leaders is that the Archimede Project develops in a macro level that has not place for the social dimension. This dimension is only needed in local projects or in the case of conflicts with social actors (local authorities, NGO's...).

[6] The other conflicts related to the design of the demo plant, its execution, the fundraising, the agreements and disagreements of the partners and stakeholders belong to the ordinary development of a project that was in gestation as Archimede was.

[7] For example: letting know the project and the state to environmental national NGO's, or getting in touch with consumers associations or local public authorities...

Currently the demo leader is getting in touch with the stakeholders of the social dimension for the workshop that will be at the middle of November and Ecoinstitut is supporting the demo leader in the organization of the workshop and will attend it as an observer.

C.3.2 Results of the Counter partner Interview

C.3.2.1 Role of the Consultant in the Demo

The role of the consultant from the different points-of-view

In the interview, the consultants said that at the beginning, they listened a lot and systematically they became more active, made more clear questions and they looked at policy and other information. As they explained, as consultant they play the role of researchers who listen, learn, formulate questions and research other information.

Maybe the consultant could play two more roles, as a helper of the PM and as a tester of ESTEEM tool. These two roles are much linked, are the two sides of the same coin.

There is the role of facilitator that helps the PM accompanying the PM in the execution of the project taking into account the involvement of the partners and stakeholders and whenever there are conflicts helping in solving conflicts that hamper the execution of the project.

Obviously, the PM is who has to solve the conflicts, but the consultant accompanies, gives ideas, and facilitates the resolution of the conflicting issues taking into account the involvement of the stakeholders.

In addition, these tasks of accompaniment are executed using the ESTEEM toolbox for testing the usefulness of tools and steps (with or without conflicts).

In the Archimede Demo Project, and maybe because of ENEA PM and the consultants have been overcome by the Archimede development, these other roles (helper and tester) have been executed only partially.

It is necessary to have in mind that the conflicts that hinder the project have been solved by their own. In other words, it seems that neither ENEA PM nor the consultants have had an active intervention to solve or to improve the situation that blocked the project. Because when ENEL has had the business chance in the Spanish market and has changed its market strategy restarts the project, but as a result, ENEA has lost the project management and ENEL will be the new PM when the construction of the demo plant will start (foreseen in January 2008).

Expectations beforehand

The consultant's expectations beforehand were:

1. Press the political level for obtaining the green certificate for the solar thermo energy. This is the main obstacle for the development of the project.
2. Put in contact the main stakeholders, without intermediaries, and increase substantially the communication among them.
3. Increase the public debate on the Archimede Project in Italy. Therefore, the information on the project comes out of the institutional framework.

C.3.2.2 Relationship between Project Manager and Consultant

All the comments on the PM are about the ENEA PM, because he has been the PM since the beginning and will still be the PM of the project until the construction of the demo plant start. The protocol that establishes that the main contractor, or in other words, the new project manager will be ENEL is agreed in 26th March 2007.

Character and role of the Project Manager
The relationship between the ENEA Project Manager and the Consultant has been always relaxed; there is a good relation of trust and the consultants have seen him eight times. They explained that it is a confidence relationship.

The PM has been very interested, active and participative. On one hand, he has been very transparent and collaborative with the consultants and, on the other, he used some of the documents elaborated in the CA process for his presentations of the project. Although the reaction of the PM was not that he learned something new, he thinks that there are very useful tools (as the social network map).

Description of Conflicts in the Demo and Role of Consultant
Some conflicts appeared immediately when the project started in 2000 before the CA process, the conflicts on the financial issues and affected by the political change in the government. Afterwards, when the consultants started the interviews, there still were some conflicts on the financial issues and the solutions came through the agreement between ENEL and ENEA. The situation of the market changed and Vignolini got many offers (for selling the patent), there was new knowledge that came from the market, from peripheral actors, independent from the consultant and appeared new economical opportunities in the international market (Spain). The consultants think that the solution of the conflicts came from outside. The PM said, *'There are many conflicts, but the market started and we want to promote the technology'*. The problems with the region were not taken into account, ENEA and ENEL want to realise the demonstration plant and they can do it without any kind of local support.

Experiences with the consultant's support (in using the ESTEEM tool)
The consultants consider that the Archimede Project is a macro level project and the CA process maybe is not very suitable for this kind of project. Having in mind this, in the interview the consultants said that maybe the workshop could help to create attention and can be an occasion for the exchange of knowledge and to make evident the decisions.

About the acceptance of the pilot project in the region, the consultants have two opinions. On one hand, they said that this question is for another type of projects (non-macro) and on the other hand, the consultants think that it is not pertinent because the loop plant that will be modified is build yet and therefore there are no problems.

On the success of the CA for the individual stakeholders, the resistance came mainly from Ministry of Economy, but maybe currently this has changed. Whereas the industrial manager of the consortium is very open for new ideas, he is very open to the market.

C.3.2.3 Relationship between Stakeholder and Consultant
The PM selected the persons in the Ministries, and they contacted them via phone. The third stakeholder was met in a conference (from the region); the consultants think that he is not a really critical actor.

On the missing social dimension (as NGO's, Municipalities...) the consultants consider that there is no problem, so they do not need to talk with them. However, in the interview they agreed to open the debate with NGO's and social actors at national level for the workshop.

C.3.2.4 Success and limitation of the CA-Process and Tools in achieving acceptance in the region
The consultants thinks that there are different kinds of projects (local and macro), in the Archimede case, it is a very innovative project it is a macro level project and it comes to the market, so, the social local dimension is not pertinent. So there evaluation is that maybe the CA-

Process is not suitable for the project, or that maybe the tools could be used partially selecting interesting steps and actors.

Moreover, they consider that the loop plant that will be modified is constructed yet, so there is no problem.

The only one local social actor that the consultants take into account is the Regional Government of Sicily, the public local institution that has to give the authorization for the construction of the modification of the loop plant.

About the use of the tools: the concrete tool that have been more useful for PM and stakeholders is the social network map, it helped to comment and to decide importance of different aspects. On the other tools, the consultants think that they should not be improved.

C.3.2.5 Exchange of Demos / Partners Interaction

The consultants said that they found a lot of collaboration in the CA process, but they also consider that some partners do not understand so well what kind of project do they have. There were some conflicts in discussion; it seemed that only projects with regional / local context are accepted. The consultant found that some partners were totally close to the difference between micro and macro projects.

C.3.3 Experience of Counter-partner's support

In our opinion, the demo leaders, as consultants of the PM, have not played an active part in using and testing the ESTEEM tool in the Archimede Project. Their attitude towards the use of ESTEEM tool was not checking and testing the tool, 'forcing' the tool for improving it so much that the tool works. The demo leaders' attitude is other, the demo leaders are working with the PM in the execution of the Archimede Project and they use the steps and tools that consider pertinent for their project but they are not testing the ESTEEM tool.

Therefore, the Archimede Project has been developed without a demo leader's active attitude because they have not considered pertinent to take part **as a consultants** of the PM in the redesign of the Archimede Demo Plant. They did not know that they could get involved as consultants in Create Acceptance process.

In other hand, it is important to remark that the Archimede Project and the project manager have been not clear and explicit supported by ENEA, and this context can hinder the application of the Create Acceptance process. Therefore, it is important to take into account for the further application of Esteem Tool that it is needed an explicit and unequivocal agreement on the application of the tool that allows the informative transparency that requires the communication and the involvement of the stakeholders.

As said before, in our opinion it is absolutely necessary to include in the selection of stakeholders in Step 2 at least 1 stakeholder from every social dimension. For us the basic aim of the Esteem Tool is to identify future conflicts (and opportunities) and to integrate possible new solutions in the design and execution phase of a project. The 'jump to conclusions' is exactly what happens normally without using a tool as Esteem in the development of the project. On the other hand, there is a risk that the Esteem Tool could be used in an incorrect way: it seems that the social dimension and participation has been included in a project, when in reality the consultant only added some interesting aspects or sub-steps to the conventional way of planning and deciding.

C.4 Counter partner - Evaluation report demoproject Vep, Hungary

C.4.1 Short description of demo project and counter-partner's activities

The Vép demonstration project aims at developing an important wind park of 37,4MW capacity in Western Hungary, nearby the Austrian border. Set in 2002 with the creation of a dedicated company, the plan is to install a 20 turbines farm in three phases. Hungary is not particularly windy, but Vép is situated in the Nothwestern part of the country, relatively gifted compared with most part of the country. Vép is home to 5000 inhabitants, and the plan was to site the park in the nearby countryside. Reason for this choice included favorable wind conditions and good connections of one of the founder with local actors.

Two founders were in fact two neighbours, Rudolf Pillér, an entrepreneur, and Szilàrd Horvàth, quiet knowledgeable about wind areas particularly the Vép site and its local actors. Another actor was a local teacher. Together, they established Scélêro Ltd in January 2002 as a vehicle to implement their plan. Investment partners included an Austrian partner, that could transfer part of its experience with wind parks. The project was presented as an opportunity to develop the village and not for profit. After having successfully presented their plan to local authorities and local land owners, the company's activity started with the successful participation of the company in a tender called by the West Pannon Regional Development Agency. This allowed Scélêro to start up with wind farm conception, with the help Elinor ltd. A 'communal implementation' model of ownership was favoured: local authority, landowners and citizen were offered a large share of the company and the benefits of the farm (up to 65%). The E.ON EDASZ utility was also consulted, as local supplier of energy and the operator of the energy grid, but they were not fully supportive, and started to stop communication as the investment plan unfolded. Next step was concerned with starting to build the turbines. In order to finance this investment, the two founders turned to an EU tender called PHARE. To be able to bid, they had to transform the company into a non profit organisation Szélëro Vép Kht. Project received a PHARE Contract in 2004, and was granted the founds to build their first pilot turbine (0,86 million euros). The building permit was granted by local government based and the Regional Technical Safety Licensing and Inspection and the first turbine was built in june 2005 by the company Enercon (later the Hungarian Trade Licensing Office validated this although it was consulted late).

This project is however not isolated in Hungary. Until the 2000th, no large wind turbines were used in this country, as more traditional power plants were doing the job though. At the beginning of the 2000th however, numerous wind farm projects flourished over the country. Some 13 large size projects of more than 20 MW investments were presented to the Hungarian Energy Office by 2006, and a total 1100 MW investment plan for the country. Facing a turmoiling demand, and sharing some of the concerns of the established utilities and grid operators coordinator (Mavir), the Hungarian Energy Office strictly limited the national level of wind investment by setting an overall 330MW limit in the spring 2006. Arguments included wind energy irregularity and then the difficulty to plan and manage it in a global manner to match customer's demand as well as possible risks of damage for the grid and utilities installations. Although 4 additional turbines were actually ready to be build, they did not obtain the HEO permit to be exploited, and are then left virtual since 2006. Only the pilot turbine of 600kW capacity, that was granted a permit beforehand, while no HEO permission was yet required, could actually be operated so far.

So the situation is locked since the spring 2006 and no proper solutions could be devised so far, endangering the project greatly. At first sight, it sounds like a regulation question. With a closer look, in reality, the project is facing a real societal acceptance problem, including notably utilities, established energy firms and organisations, at a national (MAVIR, HEO), and at a local level (EON-EDASZ). The point is not about the technology itself, as the feasibility of a Hungarian wind farm was made in Kulcs. Opposition to the project are concerned about wind energy mass production and the effect of relying massively on wind energy to satisfy customers demand of electricity. Difficulties associated with the reliance of wind turbines on natural and difficult to plan resources conflicts with the public service mission to deliver electricity on demand to each citizen.

When the Create Acceptance team arrived in the project in 2006, it was already blocked by HEO. As one turbine has been put in operation 'for real', local citizen started to consider that a limited number of turbines would probably be more appropriate rather than the planned 20. Project manager had some expectations that HEO quotas might be eased but it did not occur so far. A case study was performed under the auspices of WP2 - 'historical and recent attitude of stakeholders: Wind power plant in Western Hungary, near Vép' during winter 2006. A number of public and Szélëro Vép Kht internal documents were collected, and two interviews performed (with the project manager and a manager from E.ON EDASZ). This preliminary study then helped the implementation of the Create Acceptance method in 2007. At the date of this report, 3 steps have been cleared and the fourth has been prepared and is about to be organised with the project manager.

Our role at IAE as a counter-partner has been to support MAAK in the implementation of the step by step methodology of the Create Acceptance tool. In this context, IAE has:

- Send Maak documentation on wind energy and social acceptance of wind energy on their demand.
- Engaging discussion with Maak, especially sizing face to face meetings opportunities, about the methodology and its application to the Vép case.
- Critically reading the different documents delivered in the process of Create Acceptance application by Maak
- Provide an external look and reflection on the major sources of conflicts and possible solutions as a preparation for step 4.
- Perform a feedback interview during the 'counter-partners interview sessions' in the Budapest meeting and draft a note about this interview.
- Reflect upon the process of Create Acceptance application in the Vép case, as stated in the following sections of this document.

C.4.2 Check of project steps

So far, MAAK implemented steps 1 to 3. Step 4 is in preparation for its near implementation. A description of this process, the material it generated, the type of demo project, conflicting issues seen from the counter-partner and the role of the counter-partner as we experienced them is provided in the following lines.

C.4.2.1 Assessment of material and given information

All in all, the process of implementing the Create Acceptance methodology took a long time in the Vép case. In 6 months, 3 steps were carried out and an additional 1,5 months will certainly be necessary to finalise it.

Step 1

This step is organised for the delivery of 4 main tools, and it was considered useful and relatively straightforward by both the consultant and the PM. It helped built a common understanding between consultant and PM, and the documents were consulted several times during ulterior steps. The time spent by the PM (about 5 hours of interview) and by consultants (about 15 hours) was however considered important. This is time consuming and it took one formal interview plus additional phone calls to clear the step. This is all the most important that, as we have noticed already, the consultant and the PM already knew each other and that some documentation and project background was already collected during the WP2 case study on Vép.

Project narrative

It was pre-filled by consultant and then amended by PM during the interview as a basis for starting the discussion. The narrative is relatively short and fits the allocated 2-3 pages. As a

counter-partner, we sometimes could not clearly understand some implicit statements, but it was an interesting bases to ask a number of questions to consultant.

Context analysis table
It was pre-filled by consultant and then completed and filled out by PM during the interview. Together, PM and consultant went through the different cells. Both felt it was a useful tool to systematize the PM vision about its project, but the filling out experience was felt somehow clumsy and long, and filling out often required some guidance and explanations on the consultant part.

Defining moment's table
Again, it was prefilled by consultant and complemented by PM. This process was rather straightforward.

Actor's table
Was drafted jointly, from the narrative on the consultant part and then on the basis of questions asked to the PM like who are the important players. This tool was considered useful as it helped PM systematically consider the social environment of its project.

Step 2

This step confronts two sets of visions, PM vision seized through a number of descriptive writings and maps, and stakeholders visions as written reactions it. Step 2 was very much facilitated by step 1 preparation. However, it proved equally fairly time consuming for the consultant (estimated 20 hours), as the choice was made to go for individual interviews with stakeholders in the Vép project rather than organise a stakeholder's workshop.

PM vision & social network maps
The present, intermediate and future visions, as well as the present and future social network maps were drafted by the consultant from the step 1 material and then sent and submitted to PM validation and amendment through an interview over the phone. A meeting was then organised with the PM to finalise both vision and maps. These tools were considered relatively straightforward by both the consultant and the PM.

BAU
BAU was equally drafted by the consultant and then discussed with project managers and shown to stakeholders.

Stakeholders future visions
According to most problematic issues and more critical actors as defined in step 1, 5 main stakeholders were actually selected for interviewing. The expert in charge of Renewable Energy Policy at the Ministry of Economics, The head of the economic Department at HEO, the expert in charge of climate change strategy at the Ministry of Environment, the head of connecting management at MAVIR, one representative of the Energy Club NGO, the Mayor of Vép. Individual interviews were preferred to a workshop. The PM vision, BAU and social network maps were sent to stakeholders beforehand, but eventhough, it was observed that this high number of documents was sometimes discouraging to them, and not all documents were red and used. The maps appeared to be the most straightforward tool for interacting with stakeholders and getting their reactions during the 2 hours interviews. From these reactions, a synthetic note was drafted for each stakeholders as an input into step 3.

Step 3

This step is the time when the consultant alone tries to take some distance from the material and the demo in order to identify a list of issues and rank them according to their importance/significance to the project and to their solvability. Filling the tables was found relatively easy and straighforward, although clarifications about the next steps of the process were asked as they were not obvious in reading the Create Acceptance manual.

This was done in two stages. First, the consultant spent about a day working on the list of issues. Second, we considered it might be interesting at this value adding stage that the counter-partner take a more active part in the process. We then organised a one hour skype phone session to confront readings and interpretations of the case between the consultant and the counter-partner. This confrontation was very fruitful as it helped consultant taking more distance from the PM viewpoint. Part of the discussion also went on preparing step 4 in terms of starting to think of possible options and ways out the blocked situation that could be kept in mind during the next meeting with PM (step 4) and during the shake hand session with stakeholders (step 5).

C.4.2.2 The type and process of the demo project

In this project of wind farm, the basic wind farm technology is not a problem and could easily be transferred from international firms to the Hungarian local context.

Equally, the local actors are generally favorable and supportive to the project, as it is a non for profit mission performed by a non for profit organisation. Being presented as a local development project, with a governance and a ownership largely opened to local actors, the project was equally widely publicised by the company.

The key issue here from a demo project point of view is that the project is socially blocked by national level planning and coordinating organisations (MAVIC, HEO, E.ON EDASZ) and by competing networks (hydropower, fossil fuel). The Vép project and its societal acceptance problems are indeed to be understood in the wider context of a technological transition at a moment where Hungarian society is wondering which energy system to choose for its future. As such, it is an interesting demo project for the Create Acceptance method, and its confrontation with practicalities, one of the difficulties in such project being to get a hold on for local actors on remote and global issues and actors.

C.4.2.3 Conflicting issues from counter-partners point of view

Conflicting issues are a very central way through which counter-partner can play a value added role. From the Vép experience, we consider that the clear identification of such issues, that suggest taking some distance from the project commitment is a really crucial input of Create Acceptance methodology and is not so easy for project managers. This is also on discussing different interpretations of what are the most important conflicting issues that the dialogue between consultant and counter-partner might prove useful.

As regards the Vép project, project managers and the consultant pointed to the regulatory authorities as a major source of blocking the project. With a more distant view point, we considered that this focus left the importance of competing actors and their arguments aside and that it should be considered more directly as a conflicting issues ’what energy system for the Hungarian future?’ that needed to be addressed. This has important implications too as regards possible solutions and options. We think that as long as this question will not be settled, and the interest of wind energy as a reliable and economical source of electricity demonstrated, regulatory authorities might prove reluctant to move on. Practical implications such as balanced provision of electricity through mixed of combined plants, technical safety of irregular electricity feed into the grid, might be considered as well.

C.4.2.4 Role of counter-partner

The role of the counter-partner has been described in section 1. Important lessons learned from our experience are the following:

1. Working at a distance was not always simple and easy. Not knowing the Vép site, project manager and not being able to face to face interact with consultant with more regularity was perceived as a limiting constraint and we would recommend that counter-partners should live close, possibly in the same city as the consultant in order to ease interactions.
2. Another side to it is the translation issue. Conversely to demo projects in which english was used all the way, the Vép demo project was implemented in Hungarian and then all the documents had to be translated to the counter-partner, which was very time consuming and provoked some delays in issuing the documents.
3. besides its role in following up of documents delivery, favouring the clarification of some points, and easing the application of the methodology, we found that it could be very useful to have a more active interpretative involvment of the counter-partner in the last steps of the process (from step 3), as much value added and interpretation on the consultant part takes place there.

C.4.3 Results of the counter-partner's interview

C.4.3.1 Role of the consultant in the demo

Role of the consultant from the different points-of-view

PM was relatively opened to questions and approaches about social acceptance. Nevertheless, he could not devote much time to the Create Acceptance methodology and consultant tried to facilitate the process of implementing it by preparing most of the documents.

On the stakeholder side, one of the issue was really to not be considered as part of the project management team. It was crucial to be perceived as a third party helping in getting the project more participative and ease stakeholders views consideration. Many of the stakeholders called upon in the Vép demo were important regulatory authorities member and policy makers involved in important national issues. So the role of the consultant had to be clarified to them as a facilitator, not a lobbyist of a participant, otherwise they would have refused to participate.

Expectations beforehand

To the consultant, methodologies to favour social acceptance of projects were not very familiar. So more than expectations as such, there was a real curiosity to experiment with the Create Acceptance method, and see whether it could be of practical use in solving acceptance problems. The Vép project had been blocked for some time, and the PM certainly was ready to get support in solving this situation.

C.4.3.2 Relationship between project manager and consultant

One of the important dimensions in the relationship, beyond the implementation of the method as such, which demands a lot of efforts and understanding of the PM constraints and problematic, is, for the consultant to establish a trust relationship with them. In the Vép case, Maak good reputation in the field of renewable energy policy, as well as the access of Maak to key high level national figures played a positive role in this respect. Consultant managed to establish friendly and trustful relations with PM.

Character and role of PM

PM is a commercial in power electronics goods. Szélëro management is then not his main job. As a result, he is kept very busy and can not devote so much time on the method. Consultant took this into consideration and tried to lower the burden associated with the implementation of Create Acceptance down. Consultant considers that in terms of project management, and con-

sidering that it is not his full time job, the Szélëro team achieved quite good results in developing their projects.

The PM is very opened to social acceptance issues and support from the consultant as he considers himself not to be very knowledgeable on this matter. So he demonstrated a very important ability to listen to the consultant and to give credit to him. He was really ready to go through the Create Acceptance tool with an open mind, and considered most of it with credit, as long as the consultant presented the tools to him.

On the other hand, due the project history and its implication, PM has developed some judgements about some stakeholders that he would not easily change. At the latest stage of the Create Acceptance, it might hamper dialogue and negotiation processes and put the all result at risk. Consultant will have to devise a way to overcome such possible difficulties.

Description of conflicts in the demo and role of consultant

According to the consultant, most conflicts in the Vép project are conflicts of interest. When listing the number of important issues, a short list of 3 to 4 came up, no more. But on the other hand, conflicts between different interest groups that ended up in blocking the whole Vép project through the establishment of quotas seem difficult to resolve. One reason is that competing networks like fossil fuel and hydropower would not easily participate in negotiation processes as they seem more inclined to lobby through their well established networks of relations. On the other hand, some stakeholders like the EU or the ministry of environment might prove important allies as they are supporting renewable energies.

In this process, the consultant might play an important role by bringing different actors into the discussion and negotiation process. Independence from project management is therefore critical. For instance, relations with the Ministry of Economics was fully managed by the consultant and no direct contact was yet organised with PM.

Experiences with the consultant support (in using the ESTEEM tool)

There was a number of clear results obtained thanks to the ESTEEM tool implementation.

1. CA contributed to enrich project manager's vision about stakeholders. In some cases, invisible stakeholders were made visible to him.
2. Step 1, 2, 3 required a lot of efforts and preparation, and while in the process, it was sometimes not easy to understand the how this would finally turn into useful action. This might also be partly due to the Create Acceptance method being in progress as its implementation in demo projects had already started to keep up with the schedule. It all started to make more sense with the implementation of step 4 and the evocation of possible solutions to important issues.
3. CA helped a number of stakeholders be more aware of the social acceptance issue as a key aspect. In the case of Vép, as it is a non for profit development project, questions of acceptance by the neighbours and citizen is well handled. In this case, the acceptance problem is more at a national level and of a technology transition and energy policy nature.
4. Helped PM get a more systematic representation of its projects and rooms for manoeuvre.

C.4.3.3 Relationship between stakeholder and consultant

The consultant already managed to get a number of key high level stakeholders involved in the Create Acceptance process which the project manager could never have done, ever because of a lack of connections, or because of his position in the conflicting/ political scene.

Step 4 and 5 will be crucial in determining if the consultant will be as well in a position to start negotiation process and a number of actions capable of closing the gap that resulted in the blocking of the Vép project, and more widely in the 330 MW quota policy to limit wind energy development in Hungary. If successful, Vép can very well become a catalyser for a major change in the energy policy and technology landscape in Hungary. Will the Create Acceptance

method be helping that process, and will the consultant establish constructive and trust enough relations with key stakeholders to unlock blocked forces?

C.4.3.4 Exchange of Demos/ partners interaction

As mentioned earlier, implementation of the demo projects started while the Create Acceptance method was still under development. Moreover, the feedback from demo project was an important input into finalising the Create Acceptance method.

In this collective learning situation, the exchange organised about different practices was absolutely fruitful and useful to the consultant. Tools might sound a little abstract sometimes, and seeing real examples of how to use and fill them like the Jühnde and Zepp maps was very enlightening. Consultant in Vép has gone several times through other demos examples to do the job.

C.4.4 Experience of Counter-partner's support

Overall, the experience of being a counter-partner to a demo project was a positive and interesting experience. In the specific context of the Create Acceptance demo project, it was important to have counter-partners to discuss and follow up the application of the method with 'consultants'. Is such a role of counter-partner going to be as useful once the method is more established or for use by 'real consultants'? We are not sure it should really be maintained as such.

1. One of the difficulties has clearly been to work at a distance, with very little direct interaction with 'consultant' and no interaction with actors and Vép project reality. Another side to it has been the hassle for the consultant to constantly need to translate the produced documents into English for communication to counter-partners, in addition to the already time consuming process of implementing the experimental methodology. One important point we think is that the existence of a counter-partner does not add too much of a burden on the consultant.
2. Beyond the support in applying the methodology through clarification of points and discussion of deliveries, one very positive contribution of the counter-partner role has been to contribute in the interpretative work that started from step 3. Step 1 and 2 are mainly aimed at building a common understanding of the PM view of the project, so it is PM-centric.
3. But from step 3, consultant is starting to become more actively contributing to interpretation and actions by identifying key issues that the PM did not fully consider and their implications, contributing to identify and choose key stakeholders who should be on board for discussion, starting to establish relationships and a discussion and negotiation process between actors that otherwise would not have talked to each other. This is when getting reflective support from counter-partner, confronting interpretations and understanding proved useful. And we suggest that even if counter-partner as such might not be extended to more routine used of Create Acceptance, such qualitative team support to consultant should probably be maintained in preparing step 3 and 4. In terms of consultancy, it might mean that the main consultant would find a temporary counter-consultant for step 3 and 4, or that a internal brainstorming about the case might be organised by the consultancy organisation. One way or another, this part of the methodology is involving important strategic and theoretical insights on the part of the consultant, that we think are important for success.
4. We consider the Vép project is a very important and interesting demonstration project for Create Acceptance. It is rather exemplary in the sense that Szélëro incorporated important social acceptance arrangements from the start with the model of 'communal implementation'. It allowed citizen and neighbours to get a significant ownership and share in the governance structure of the wind farm very much on the model of the successful Danish wind farms (the EU PHARE framework importantly contributed to this).
   So the acceptance nexus in this case is very much of a technology transition kind: competing forces at play to define a strategy for Hungary Energy policy for the future. This raises a very specific challenge to Create Acceptance as an important focus was placed on local ac-

tors acceptance. The question then is: can the method be adapted successfully to deal with more institutional questions and how? This is what the Vép consultant is now trying to do, and clearly identifying this challenge was already an outcome of consultant - counter-partner relation.

C.5 Counter partner - Evaluation report demoproject SMARTH, Iceland

C.5.1 Short Description of Demo project and Counter partners' activities

SMART H2 is a demonstration project for hydrogen fuelled vehicles and vessels. The project will test various types of hydrogen-fuelled company cars and other equipment that runs on hydrogen, including a hydrogen auxiliary power unit for a tour ship run by Elding. The project also aims to demonstrate the operation infrastructure for compressed hydrogen and develop the distribution system for hydrogen, for example by organizing and running a small-scale hydrogen transport service.

The project is based on the vision that Iceland can in the future use hydrogen made with local renewable energy and water as a transport fuel. This will enable the country to cut its carbon dioxide emissions and replace imported fossil fuels with a locally made fuel. The tests are an important learning phase in realizing the large-scale introduction of hydrogen. A shift to hydrogen fuel will require the development of new equipment and the introduction of a partially new fuel delivery and production infrastructure.

Icelandic New Energy (INE) is the initiator of the project. One of INE's major shareholders is Vistorka, a company which serves to unite business venture funds, key energy companies, academic institutes and the Icelandic government. In the Create Acceptance project, INE represents both

SMART H2 is the second major test project in Iceland. It is rooted in the experience gained in the use of hydrogen fuelled public buses in the ECTOS and HYFLEET: CUTE projects, also initiated and run by Icelandic New Energy (INE) and run partly on EU funding. SMART H2 aims to extend the experiences gained in public transportation to other types of cars and to the shipping fleet. It is also different from the previous projects in the sense that SMART H2 is funded domestically by Vistorka and the Icelandic government.

The project consists of three paths:

- SMART H2 ICE path focuses on company and rental cars. These cars run on conventional internal combustion engines (ICEs), which represent an intermediate step toward the shift to fuel cell cars. The cars will be retrofitted Toyota Prius vehicles that use hydrogen instead of gasoline. The cars will fill up at Shell Hydrogen's hydrogen station. The aim of the SMART H2 ICE path is to test the hydrogen distribution options, collect data on vehicle and station performance, collect drivers' experiences, and validate the market potential in Iceland.
- SMART H2 FC path focuses on fuel cells. The first demonstration project within this path will test an auxiliary power unit based on a hydrogen hybrid engine. This will be done on the whale-watching tour boat Elding. The engine will produce the electricity needed on board. This demonstration aims to develop the auxiliary power unit into a marketable product for other vessels or other types of users. The path will also create awareness of hydrogen based technology among the hospitality industry and tourists. Also fuel cell powered cars will be tested within this path at a later stage.
- SMART H2 Research will focus on assessing the economic, environmental and social effects of using hydrogen as the main fuel in Iceland compared to other alternative fuels. It will also compile data on user experiences, performance, reliability, operational design, and operators' experiences.

Currently there are more than 20 organizations participating in the project. Three closely co-operating project managers from Iceland New Energy (INE) are in charge of the different paths. The main parties involved are providers of materials and technology (Orkuveitan: power, Daimler Chrysler, fuel cell cars, Quantum: ICE cars, other vehicle providers, fuel cell provider, the users of the equipment (e.g., Hertz, Aloca, Landvirkjun, Orkuveitan, Elding boat and tour operator), administrators and regulators, and different research institutes and universities involved in the research. Meetings with users, suppliers and other stakeholders have been ongoing since September 2006. The companies participating in the tests will need to agree to provide data for the research conducted by INE.

In terms of the Create Assessment process of testing the ESTEEM tool in a demo project, this demo project has some particular features. Iceland New Energy is both a partner in Create Acceptance (and thus represents the 'consultant' using the ESTEEM tool) and the operator of the SMARTH2 project. The demo project leader in the Create Assessment project, Maria Maack, is also a 'real life' project leader of one of the SMART H2 Research path. She has also been central in the previous project, ECTOS, and is a central figure in the development of hydrogen systems in Iceland. Thus, from the perspective of the ESTEEM tool, the demo project leader has something of a dual role.

In the ESTEEM tool testing process, the director of Iceland New Energy is designated as the 'Project Manager'. There is thus a separate 'Project Manager' with whom the tool is tested, but the relations between the project manager and the 'Consultant' are closer than is the case in the other demo projects. The 'Project Manager' and the 'Consultant' work in the same organization, which has some benefits but can also make some things more complicated.

This demo project thus provides some insights on the use of the ESTEEM tool in a situation when the 'Consultant' is in-house. It can also give some insights into situations where there is no particular consultant at all, but the 'Project Manager' or some of the project staff use the ESTEEM tool themselves.

The roles of the counter-partner in the SMARTH2 project have been to:

- Assist in applying the ESTEEM tool, in particular to identify the correct steps and substeps to use in the demo project.
- Help to identify when to apply the tools in a project that already was into the developmental phase before CreateAcceptance started.
- Discuss with the consultant specific features of the local context which require tailoring of the ESTEEM tool and particular steps and substeps and known project management tools
- Assist in the documentation of the tool testing process.
- Conduct the counter-partner interview and draft the counter-partner report,. Thereby highlighting the interactions between the demo project and the ESTEEM.

This report is based on discussions between the demo path leader (INE) and the counterpartner (NCRC). Original tables, figures and other material from the WP3 tool development process are provided as examples.

C.5.2 Check of project steps

C.5.2.1 Assessment of material and given information

At present, Steps 1-4 have been tested in the SMARTH2 project. Step 5 is planned and a stakeholder workshop is organized in November 2007. Step 6 will be implemented shortly thereafter.

Step 1 was conducted in April-May 2007. In this specific demo, the narrative was more for the use of the Create Acceptance team because the Consultant is very well acquainted with the history of the project. Nonetheless, identification of the 'critical moments' was useful for creating

self-awareness and status of project. Moreover, the actors' table and context analysis proved useful and are closely linked to the work done for Step 2. The actors table also helped the Project Manager to devote more attention to 'external' and 'peripheral' stakeholders in addition to the Steering Group members, i.e., owners and customers of the project.

It was useful that the time-lag between Step1 and Step 2 was small, so there was much synergy between conducting these steps (see suggestions at the end of this report). All Step 1 materials are compiled in a separate document delivered to the Create Acceptance team on May 4th.

Step 2 followed closely on the footsteps of Step 1. The stakeholder visions were extracted by organizing a workshop (rather than through interviews as suggested as the first choice in the ESTEEM manual). The workshop was organized on May 15, 2007 in Reykjavik and many members of the Create Acceptance team were present and helped in planning and arranging the workshop.

In preparation for the workshop, the sociograms for 'PM present vision' and 'PM future vision' were combined. They show that the SMARTH2 project is an extremely complex project with many different activities and thus also many different kinds of stakeholders (Figure C.1).

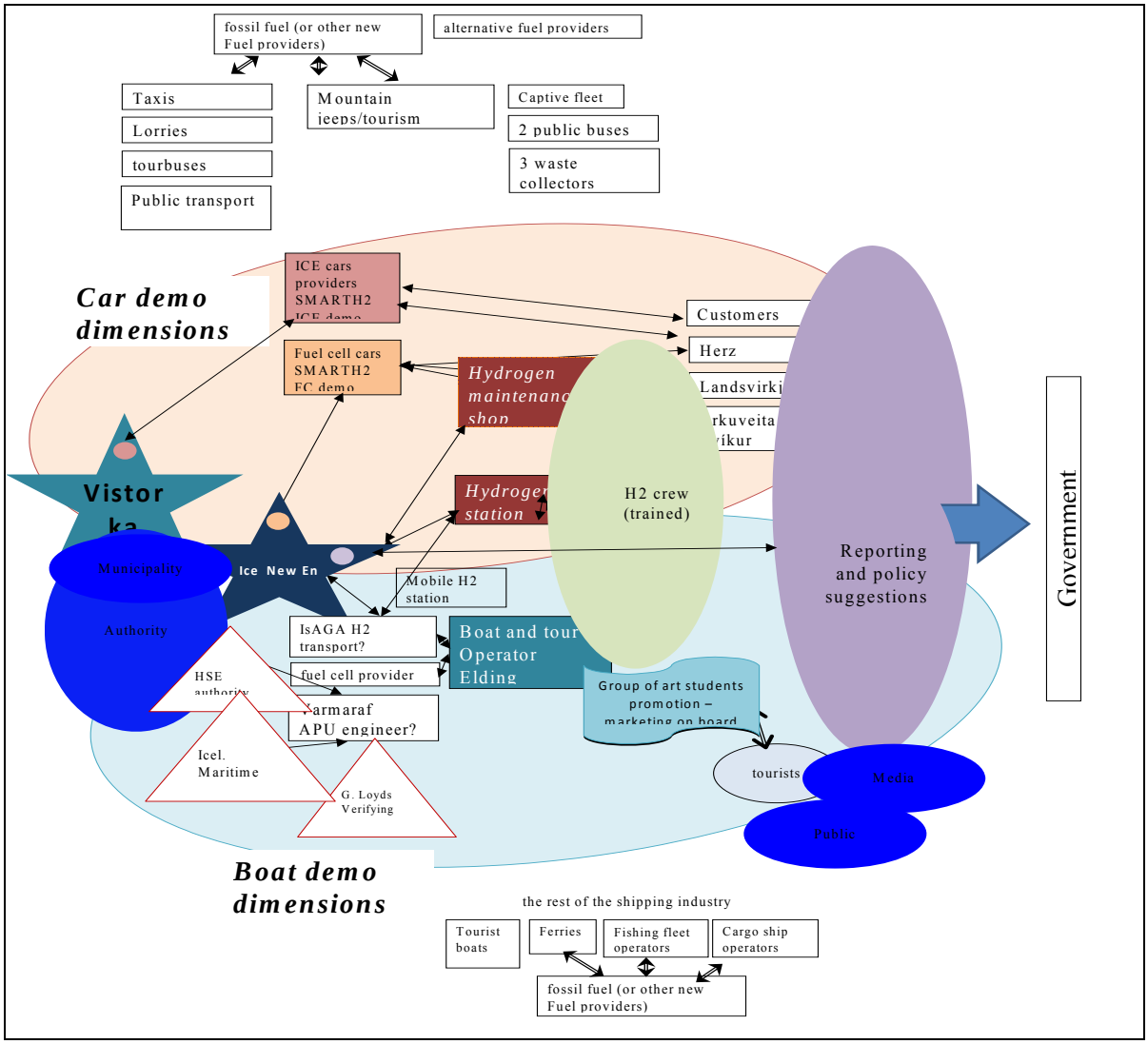

Figure C.1 *The PM present/future vision sociogram for the SMARTH2 demo project*

About 16 people were contacted and invited to participate in the workshop. Twelve of them eventually participated, one left very early and one was less active than expected. INE concluded from the workshop that people find the topic interesting on the whole and want to participate by discussing and interacting. The informal atmosphere was dynamic but there was some concern that some participants might not have taken it seriously. The participants gave INE positive feedback after the workshop.

The workshop had a specific design, which is different from the workshop formats presented in the ESTEEM tool manual. The format was designed in collaboration with a number of the Create Acceptance team members. Stakeholders worked in pairs including one external and one internal stakeholder on the issues suggested in the ESTEEM tool manual. This was a well-functioning solution.

Because different stakeholder groups were not consulted separately, it was not possible to draw 'future vision maps' for each stakeholder group. Nonetheless, the following conclusions about the 'stakeholders' future visions' were drawn:

1. Visions of different stakeholders seem to be fairly well aligned.
   - All agree that alternative fuels (to oil) need to be found
   - All appear to be in favour of moving toward hydrogen as a transport fuel in Iceland
2. Stakeholders have questions about the timeline (when will it happen)
   - Stakeholders have doubts about the commitment of oil companies, car companies and the government whereas they seem invisible in the project
   - There are in particular concerns about the lack of H_2 cars, technological maturity and questions about when and where they will appear (and can cars be made only for Iceland?)
3. Stakeholders are concerned about continuity
   - They want to know why ECTOS 'was discontinued' (as they understand it) and why the H_2 buses are no longer running (but the project mangers know that they are simply finalised!)
   - Stakeholders wonder why hydrogen is not visible in their everyday life (but Iceland is presented as the world's first hydrogen economy in the international media)
4. Stakeholders want to see rapid progress
   - Managing expectations is crucial (what will happen by 2020 and how can stakeholders see that it is happening)
5. There is not much discussion of why moving to hydrogen would be good for the environment

After the workshop, it took some time to get to Steps 3 and 4. Final versions of these were not available immediately after the workshop, and then the SMARTH2 project required other kinds of urgent attention. Nonetheless, conclusions were immediately drawn on the basis of the workshop and improvements implemented. These are indicated as 'implemented solutions' in the Step 4 tables. Steps 3 and 4 were conducted in August 2003.

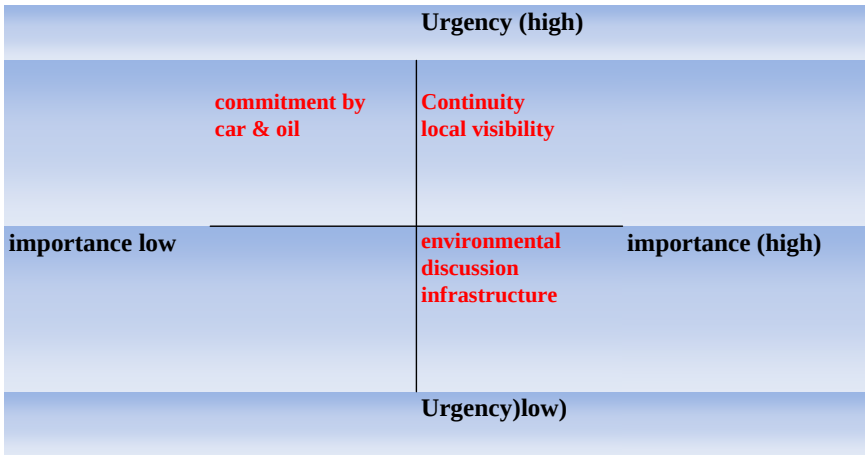

Figure C.2 *Example of the issues rating graph from Step 3 for the SMARTH2 demo project*

Step 3 was useful for organizing the results of the workshop and establishing priorities. Even though Figure C.2 and Figure C.3 (numbered according to the ESTEEM - logic), describe the same things. The format is useful for communicating priorities and inspiring a search for solutions. As a result, continuity and local visibility were identified as having high urgency and priority, and these are the issues that SMARTH2 started working on right after the Step 2 workshop.

Step 4 tables were used in this context to monitor which issues had already been solved and to follow the development of the issues and solutions in the time following the workshop (Figure C.3). As can be seen, an exact rating of issues is sometimes difficult, but the table clearly serves its purpose.

Issues	Description			
Issue 1	Concerns about continuity: what happened to ECTOS			
Issue 2	Lack of local visibility (administration, corporate, public)			
Issue 3	Lack of visible infrastructure			
Issue 4	Lack of visible commitment by car & oil companies			
Issue 5	Lack of environmental discussion in connection with fuels			
Issues	Urgency	Importance	Rank	Implemented Solutions
Issue 1 continuity	High	high	?	easy to solve (enhanced communications)
Issue 2 local visibility	Medium	high (in the long term)	?	will be tackled in October by a future scenario workshop
Issue 3 infrastructure	Medium	high (in the long term)		A new H2 station is now planned on the University lot
Issue 4 commitment by car & oil	Low	medium (in the long term)		Shell in Iceland has now taken over the hydrogen station till 2010.
Issue 5 environmental discussion	Low but rising	??		The head of the parliamentary committee came to discuss links between the H2 projects & environmental issues

Figure C.3 *Excerpt from the Step 4 table for the SMARTH2 demo project*

The type and process of the Demo project

The SMARTH2 demo project differs from the other demo projects in a number of ways. These are discussed in the following in terms of (1) technological maturity, (2) management capabilities of the project manager, (3) governance of the demo project, and (4) stakeholder relations to the demo project. All these characteristics have implications for how the ESTEEM process works in the demo project.

(1) Hydrogen is an 'emerging' technology, which is probably closest to actual application in Iceland. Iceland has a number of natural advantages in the use of hydrogen as a transport fuel, most notably the abundant hydroelectric and geothermal energy resources that can be used to produce hydrogen, long experience in running community based systems with renewable energy only. There are also some natural 'disadvantages' that make hydrogen very attractive as an alternative fuel, most notably the lack of domestic biomass reserves and the distance of the country from the rest of Europe.

Nonetheless, in Iceland as elsewhere, actual market applications of hydrogen technology have taken longer to materialize than might be expected on the basis of some of the public discussion. Many aspects of market application require the co-operation of foreign partners, including oil companies and car manufacturers. On the other hand, there is a strong economic rationale in Iceland to develop hydrogen-based transport fuels because this would provide a new product for the domestic energy industry.

(2) The SMARTH2 project represents a fairly mature project in terms of managerial capabilities. INE is a small organization with a very small but very capable staff. The owners of INE are large companies for which INE is strategically important. Promotion of hydrogen has been the main mission of INE since the inception of the company. INE has fairly established project management procedures.

INE has been working on developing the hydrogen economy in Iceland for almost a decade, and SMARTH2 represents a natural continuation of previous projects and promotion activities for hydrogen in Iceland. The project managers are very familiar with the domestic and international debate surrounding hydrogen and have years of experience in promoting hydrogen. They are fairly well aware of the views of different stakeholders and have longstanding contacts with many of the stakeholders.

SMARTH2 is an interesting case to test the ESTEEM tool because of some specific features of the project and INE. Because INE has established project management procedures and extensive experience in its field of operation, ESTEEM needs to be integrated into those procedures. On the other hand, because it is a small organization, the testing of ESTEEM cannot be 'sidetracked' to a separate expert function (e.g., in the way environmental management or quality management can be in a large organization). This is a good thing: ESTEEM is really being tested and not merely executed symbolically. On the other hand, overlaps and contradictions and synergies between ESTEEM and existing project management tools and procedures become apparent in this demo project.

(3) Governance of the demo project is complicated, because it is owned by a number of different companies with somewhat different interests. Because SMARTH2 is strategically very important for the owners of INE, there have been some uncertainties about when to make public specific aspects of the project. The owners of INE have various roles in the project - they are not merely financial investors, but also users, producers and stakeholders of the project. This aspect requires significant sensitivity to context when applying the ESTEEM tool. A partial solution to the situation was to involve an outsider, the department of natural resources at the University of Iceland to implement the stakeholder workshop in step 4.

(4) The stakeholder relations of the demo project reflect some specificity of the project and its national context. Because hydrogen has raised so much international interest, it has been widely aired in the international media. Icelanders follow such media (e.g., BBC World) closely, and thus receive communications concerning 'their' hydrogen projects 'from outside'. This has raised large expectations about the materialization of the hydrogen economy, which are challenging to meet.

Iceland is a small country (about 300 000 inhabitants) where people tend to know each other and inhabit a number of different roles at the same time. Because of the tight-knit and non-hierarchical nature of the community, communication routes are quite informal. Also the organization of social life and the relations between different interest groups follow a similar, fairly informal pattern. In such a community, highly organized forms of, e.g., stakeholder consultation may be viewed as 'over-organized' and may not fit the local traditions.

C.5.2.2 Conflicting issues from Counter partner's point-of-view

As the previous sections illustrated, there are some aspects of the project which require significant tailoring of the ESTEEM tool to the demands of the local context. A summary of these is presented below:
(1) The dual role of 'consultant'/'project manager' in the same organization has created some scheduling challenges. The SMARTH2 project is in a very intensive phase, and testing the different steps of the tool is difficult to integrate into this fast-moving project. This may be more of a problem in the demo project - testing an unfinished tool - than it would be if the tool were ready to use and could be used at a time appropriate for the project. Moreover, the tool should be very user-friendly and easy to adapt to existing project management procedures.

(2) The project does not involve notable conflicts between the project manager and the local population concerning the *design* of the project. There are clearly differences of interest among different stakeholders. The most obvious ones are between the different parties that finance (or fail to finance) the project and governing the institutional environment of the project. Often, such questions are perhaps perceived of as being different from questions of 'societal acceptance' (even though this might not necessarily be the case). In this case, society has accepted and expects more commitment from the government and municipalities. But it is worth raising the question about the extent to which ESTEEM is suitable for organizing 'high-level' negotiation processes among financial stakeholders and the national government, for example. There are established procedures for conducting such negotiations and we need to think about whether and how ESTEEM can contribute to such procedures.

In contrast, the ESTEEM process has contributed to improved *communications* between the project and its stakeholders. A number of communication needs were identified through the ESTEEM process and the project has developed closer relations with a number of 'non-core' stakeholders such as local citizens, academia and other similar organizations.

(3) Because of the very active participation of the owners of INE in its governance and management (and because the owners also have other roles vis-à-vis the project), using the ESTEEM tool requires their co-operation. This raises the question of integrating the ESTEEM tool into the governance and management procedures of the 'project manager' organization. The project manager is rarely in a position to decide alone on many issues, and time is needed to consult with other stakeholders with a decision-making role in the project.

(4) Projects like SMARTH2, with established project management procedures, highlight the importance of integrating ESTEEM into existing project management procedures and into the project management process.

(5) Local conventions on how stakeholders usually communicate and participate in projects vary. Some local cultures are hierarchical and highly organized while others are more spontane-

ous and informal. Thus, it is important that the ESTEEM tool offers a variety of ways in which stakeholder interaction and participation can be organized.

C.5.2.3 Role of Counter partner

The roles of the counter-partner in the SMARTH2 project have been to:

- Assist in applying the ESTEEM tool, in particular to identify the correct steps and substeps to use in the demo project.
- Discuss with the consultant specific features of the local context which require tailoring of the ESTEEM tool and particular steps and substeps.
- Assist in the documentation of the tool testing process.
- Conduct the counter-partner interview and draft the counter-partner report.

Co-operation between INE and the counter-partner NCRC in the demo project has been very close and has proceeded very smoothly.

C.5.3 Results of the Counter partner Interview

C.5.3.1 Role of the Consultant in the Demo

The consultant had a particular role in this demo as she also works in the Project Manager organization, INE, and is project manager for one of the SMARTH2 paths, the Research path. The 'Project Manager' in the demo project is the consultant's supervisor and the director of INE. This means that the consultant has a number of different roles: partly consultant, partly project manager. Moreover, she has an existing work role vis-à-vis the Project Manager in the demo project, i.e., the director of INE.

As a manager working in INE, the consultant has a number of management support tasks: discussion, analysis and suggesting changes and new strategy. She has always taken an active role in this process, and it is difficult to separate her role as consultant and her 'ordinary' work role in INE.

The role of the consultant from the different points-of-view

The role of the consultant from the project manager's perspective is unavoidably coloured by their work roles outside the ESTEEM tool testing process. In these work roles, the director of INE has direct access to the project Steering Committee and the Board of INE, and thus controls the flow of information. Maria Maack (as a manager in INE) has no direct access to the Steering Committee, who is very active in the governance and even the management of the project, partly because they are not only the owners of INE but also the users of its results.

As a manager in INE, Maria Maack is very active vis-a-vis stakeholders. She is the manager of the 3rd project path, research, which is networked and connected to stakeholders. She is used to communicating a lot horizontally and vertically, and can go above the Board to e.g., discuss with the Ministers. This active role also relates to the cultural context where there are few people, everyone takes an active role, and people expect direct communications.

Expectations beforehand

INE was linked to the Create Acceptance project via ECN, which was viewed by INE as a high-quality research organization. ECN as an interesting partner because they have a lot of experience in stakeholder management in energy projects.

INE expected to receive an almost ready tool to test and apply in their project. The work needed to turn Socrobust into a multistakeholder tool has turned out to require more work than expected. .

The project has thus involved more work than expected, and more input into developing the ESTEEM tool. INE originally thought they would be more in a customer's role, and be provided with a ready-made tool.

C.5.3.2 Relationship between Project Manager and Consultant

The relations between the Project Manager and the Consultant are defined more by their existing work roles than by the Create Acceptance process. They are both open and relaxed but also sometimes strained and conflicting. It is an issue of the two parties' characters and their need to find a way to work together. They have six years' experience in working together. Conflicts are due to the lack of clarity and overlaps in roles: Maria Maack is sometimes consultant, sometimes Project Manager, and sometimes assistant. This has been repeated by involvement in the Create Acceptance process, where the Project Manager can play evasive to formal interviews stating that the consultant already knows everything about SMARTH2.

Character and role of the Project Manager

The Project Manager is a confident, self-sufficient and efficient manager. He appreciates Maria Maack's criticism (as a co-worker and co-manager in INE) and takes it into account. Maria can influence the Project Manager's decisions, even though this influence is not always formally acknowledged. Maria has an important role in the company and the Project Manager is very aware of the crucial assets that she represents. The Create Acceptance process has not changed these relations in any way. Nonetheless, it is worth noting that in this specific demo, the results of the Create Acceptance process are filtered to a great extent into the decision making in the project via Maria Maack as Consultant-Project Manager.

Description of Conflicts in the Demo and Role of Consultant

Previous, but already solved conflicts in the project relate to the relations between the owners of INE and their different interests. An important owner of INE, Daimler Chrysler did not want any technology involved in the project that they could not produce themselves. This was a major conflict but it was solved when other Board members overruled Daimler Chrysler on this matter and the path managers were allocated different technology management.

Another conflict, which is as yet partly unsolved, derives from the fact that hydrogen has gained more support from the government than other new energy initiatives. This, and the fact that INE has been so efficient in gaining momentum and visibility, created envy in society. Now INE is also in charge of other fuels than hydrogen, and the financial support from government to alternative fuels is combined. INE will allocate resources to other fuels, in addition to the development of hydrogen technology, without adding to the staff.

INE has applied for research funding with a larger scope than previously, including analyses of the environmental and socio-economic impacts of different fuels. These research efforts will involve students and other outsiders, e.g., universities. But there are scarce resources and few people so this problem is only partly solved.

These conflicts have evolved and been put in focus partly during the CA process, but are not caused by it or solved by it. But the CA process has helped to open up the project toward the outside stakeholders and has thus facilitated the process of engaging other fuels (competitors) and external research and other resources. In this, the ESTEEM tool workshop organized in Step 2 was particularly useful.

Experiences with the consultant's support (in using the ESTEEM tool)

Both the consultant and the ESTEEM tool were viewed as being very supportive. As a result of the process, INE has become more responsive to stakeholders and more aware of the communication needs existing in society. People in INE are happy to have more open and informal communication with the Icelandic society.

C.5.3.3 Relationship between Stakeholder and Consultant

INE has active and direct relationships with stakeholders, and these are already largely managed by Maria Maack (as a manager in several projects at INE). She has had the responsibility and initiative in horizontal communications, whereas the Director (the Project Manager) has communicated more vertically (with the Steering Group and Board). This division of roles pre-existed in INE, but the horizontal communications have been supported and reinforced by the Create Acceptance process. Thus, it seems quite natural that if the Consultant is someone from within the project managing organization, a person with good contacts to outside stakeholders is a good choice for Consultant.

C.5.3.4 Success and limitation of the CA-Process and Tools in achieving acceptance in the region

As a result of the process, INE has become more responsive to stakeholders and more aware of the communication needs existing in society. It seems that more acceptance has developed in the 2-3 months following the workshop. INE intends to communicate more strategically, but there are still many open questions in the project, about which it is not clear how to communicate.

One example is a recent conference which dealt with all fuels. Because of the workshop, INE is now communicating in a different way, making it more accessible and making stakeholders more empowered. The interest groups involved in the project are now broader.

It is not clear yet what the process means for individual stakeholders. At least the research and university community is now more involved.

In terms of individual steps and substeps in the ESTEEM tool, the following positive experiences were gained:

- Parts of the narrative were useful to gain self-understanding.
- The workshop (Step 2) opened up new issues and helped to engage new stakeholders.
- Further processing is ongoing concerning the items that came out of Steps 3 & 4. Partly, INE tried to deal with these issues directly as they arose, before engaging in the formal process of issues identification and classification or the systematic listing of all solution options. INE is working further on these issues and solutions, which seem logical in terms of what could be immediately concluded from the workshop.
- The tool will definitely be used in further projects by INE

Other steps and substeps in the ESTEEM tool were found by INE to require some optimization:

- The narrative should be pre-drafted on the basis of existing documents and presented to the Project Manager (rather than based in the first place on an interview with the Project Manager). This would raise issues that the Project Manager does not realize. It could also serve the purpose of providing a ‘mirror’ for the company to self-reflect. It should be a concise description that could start the discussion with the Project Manager to include missing or remove redundant items and develop the critical moments table.
- In this case, the actors table and social network could be developed in the first meeting. It would be good to streamline and condense the first parts of the tool in order to get to the interesting things sooner.
- Similarly, the PM vision could be developed at the first meeting, after which the other actors’ visions could be derived. This would enable a quick start for the process.
- At the second meeting, the actors’ map and suggestions about potential conflicts could be discussed with the Project Manager and the interviews/workshop introduced and planned. It is important to motivate the Project Manager to include in addition to the Core Group also those who are in the periphery - competitors, NGOs, etc. Because not all those who are in the Core Group will come, one would have at least 2-3 persons from the Core Group and an

equal number of outsiders. This is not a large public arena, but allows for some outsider views, bringing in new items on the agenda.
- In Steps 3-4, the analysis seems too detailed and too much focused on analysis of problems, not solutions. Moreover, if there is movement in the project at that stage, it is difficult for the tools to keep up with the new developments.
- INE started to solve some of the issues raised in the workshops immediately. (This is typical for small companies, which like to solve problems immediately rather than internalize them and reflect on them for a long time). Partly, this problem results from the Create Acceptance context, in which certain tools were not quite ready-to-use immediately after Step 2.
- INE sees the Step 5 workshop as a way to align the stakeholders' expectations with what INE is actually doing, and its purpose is more strategic than informative.
- Some parts of the tool may be used within a different step. For example, INE plans to use the idea of a 'newspaper article for 2015' as a tool to derive visions (used by ECN in Step 2) as a way for the stakeholders to prepare for the Step 5 workshop.

C.5.3.5 Exchange of Demos / Partners Interaction and Experience of Counter partner's support

The Consultant-Project Manager Maria Maack feels that the Create Acceptance partners have been really supportive. In particular, support provided in organizing the Step 2 workshop in Reykjavik is warmly appreciated. She is very pleased with the help she has got from her counterpartner.

INE has been surprised on how systematic and well structured the process has been and think it has been exceptionally helpful. On the other hand, what was found a bit frustrating in this demo was the difficulty of finding the documents and establishing 'where we are in the process'. So it has consumed some time without immediate reward.

This is partly due to the 'in progress' nature of the tool. The structure and process became much more clear once a manual of the entire tool became available. So some of the difficulties derive from developing the tool in parallel with using it. The use of a ready-made tool is thus likely to be easier, in particular if a good integration is achieved with existing project management tools and procedures.

C.6 Counter partner - Evaluation report demoproject solar, South Africa

C.6.1 Introduction

Implementing SWH technologies in South Africa can be defined as a broad informal programme supported by different stakeholders. Projects within the programme address specific targets and target groups, e.g., setting up testing procedures or the poor and mid-to high-income groups. It follows that there is no single project manager for the programme. Stakeholders on their own or as a group drive the process initially and once opportune framework conditions are achieved individual projects are initiated and project managers drive individual projects. It is important that the stakeholders in such informal programme act and act together to promote SWH and the challenge is to get them together and drive the programme.

The phase in which an informal group of stakeholders promotes a RE technology often proceeds the formulation of individual projects. This stage is often necessary to sort out a number of barriers which the implementation of the new technology faces. It appears that the risk for individual projects is quite high at this stage. For example one of the reasons why solar water heaters were not accepted was the absence of the mark of approval from the South African Bureau of Standards. It took a long time to set up standards and get testing equipment in place. Individual projects may not be able to wait years to get their technology and installation approved. A wind project took eight years before it could start building the foundation for the windmills!

It is challenging to apply the tool to an early stage of a renewable technology dissemination. I am aware that it is not what was intended at this stage of tool development but it is the situation I am faced with in both case studies. For these reasons the PM/consultant roles as given in the present process did not apply to the South African case studies. It may be worthwhile to widen the PM/consultant roles in a future phase of the ESTEEM tool to include cases such as this.

The blackouts in the winter (March - July) of 2006 were the turning point in the programme when the electricity company Eskom could no longer meet the demand. Renewable energy alternatives had to be considered to reduce the load of the national grid. The alternatives had to such as to be implementable immediately.

Eskom presented its SWH project at the stakeholder workshop on 12 April 2007. These workshops were held in Johannesburg and like many other participants I took part via email.

Eskom invited me to all its SWH workshops from January to June 2007.11.22

C.6.2 What kind of role did you play

Sometimes an active role, e.g., organizing and chairing the stakeholder workshop and at other times a 'behind the curtain' role, e.g., in the very technical Eskom workshops when the active role was played by Eskom.

I did not expect that the stakeholders' workshop could achieve as much as it did. People came together from all parts of South Africa. The workshop was organised as part of the International Conference on Domestic Use of Energy which is a well known yearly event. Some stakeholders came specifically for the workshop and others came for both events. In the stakeholder workshop they discussed openly and freely and outlined their roles and 'territories' vis-à-vis each other. I had encouraged participants to write down or communicate to me the outstanding problems. I projected these on the screen and they were discussed and in many cases resolved. Conflict appeared to be resolved before it actually happened because stakeholders now better understood and appreciated each others' roles and contributions.

C.6.3 The relationship between stakeholders and 'consultant'

I had prepared a printed programme with speakers and the time of presentation and discussion and this was distributed as part of the conference programme weeks before the workshop started. Consequently the workshop was well structured and the knowledge and opinions of the major stakeholders could be communicated. Other stakeholders contributed in the discussions. The workshop was closed in mid-afternoon when all the relevant topics were discussed and no new issues were brought forward.

The atmosphere was open and relaxed and everybody felt free to speak. Some of the stakeholders got so interested in one of the presentations (SESSA solar 50 project) that the speaker was asked to elaborate further during lunch break.

C.6.4 The character and role of stakeholders

Stakeholders were open, cooperative and supportive. They defended their 'territories' and made clear who should do what, eg., who should check the adherence to standards. They had a common interest in the dissemination of solar water heaters to succeed.

C.6.5 Main conflicts in the demo are the following

- Necessary subsidy and who should pay it?
- Subsidy level
- Adherence to standards

The first two are issues rather than conflicts and are well known. They are one of the major causes why solar water heaters are not accepted. Eskom stated at the workshop that it will subsidise 150 000 systems over the next three years. The level of subsidy was not resolved and was further debated in the subsequent Eskom workshops and email discussions. SESSA (Solar Energy Society of South Africa) stated that as a representative body of the industry it will check the adherence to standards and people appeared to be happy with this solution.

C.6.6 Relationship between stakeholders and 'consultant'

I communicated directly, actively and openly with the stakeholders.

C.6.7 Socrobust process and consultant

Both were seen as supportive in general. The stakeholders would not have come to the workshop from all over South Africa if they did not think the process to be useful.
More acceptance and understanding was achieved.

C.6.8 Socrobust tools

- Social network mapping
  This was important and helped to identify the relevant people to be invited to the stakeholder workshop
- Stakeholder workshop

These two were the most useful.

C.6.9 CA: exchange of demos/partners interaction

My participation in the CA process was limited by the facts that; I joined almost a year after the project had started; I attended only two meetings; and the local circumstances in South Africa - particularly environmental awareness and the development of renewable energy technologies - lag far behind the European developments. I sometimes struggled to 'connect'.

Overall I found the process extremely interesting and useful. The tool is definitely applicable to the South African situation although some adjustments will have to be made and this may be done when the tool is developed further to apply to a less specific PM/consultant situation.