

*Disclaimer: This information is made available as a service to the public but has not been edited or approved by the European Foundation for the Improvement of Living and Working Conditions. The content is the responsibility of the authors.*

## **Team work and its contribution to High Performance Workplace Organisation**

Topic report contribution from the Netherlands

*In this document the way team work is measured in the Dutch national surveys and recent research is described, as well as it's associations to other worker, risk factor and outcome characteristic following a set of questions from the leading institute.*

### **Part 1: Survey sources and questions**

#### *Question 0: Description of surveys on teamwork*

(dates, coverage, size and response rates, in case of qualitative surveys the leading methodology) used in answering the questions. Correspondents are asked to report on relevant available surveys such as:

#### **Q.0.1 working conditions national representative surveys (quantitative methodology)**

To keep this category, the national representativeness is the most important criterion. The population surveyed might be employees, employers, HR specialists, social representatives etc..

#### **Q.0.2 other establishment of company surveys (quantitative methodology - e.g. larger sample of employees; structured questionnaire used )**

This category of surveys differs from the previous one by national representativeness. The survey sample is often constituted by employees of one company only.

#### **Q.0.3 qualitative studies (at different levels)**

Studies where qualitative methods have been used to understand teamwork and its consequences.

Note: Please label each survey with abbreviation which will be used when answering next sections of questionnaire to indicate the source survey.

#### ***Response:***

In (re)analyzing the data on team work there is the 'problem' that team work is almost by definition something that one would expect to make sense in larger organisations. It is hard to think of organisations of 10 (or less) employees, or even up to 20 employees, to work in teams. One would expect that this label is assessed to be 'not applicable' in many of these organisations. We have one data base (out of several) in which many employers indeed indicate this to be the case: about half of the employers/organisations of 10 or less employees indicate that team work 'is not applicable'. In companies with 5 employees about 15%, however, says that team work is present, and almost 25% working in companies of 5-9 employees says that team work is present.

We tend to say that the team work concept, almost per definition is a larger company organisational structure. Particularly in small companies, it is natural to work together... but in that case it is difficult to conceive of the organisational concept of team work to be 'applicable'. Indeed we do see a lot of small companies to indicate 'team work' as 'not applicable' (see also Appendix 1). Particularly in cases when the 'not applicable' answering category is not there, it appears best as to skip the companies of less than 20 employees. Even if the representatives of these companies below 20 employees say they work in teams it may be that they misconceived of the concept as it was defined, particularly in cases where this definition has been lacking.

For the TNO survey on Labour Relations 2005 we had to use the employees in companies of at least 30 employees (since there was no lower cut off point). This is a consequence of the answering categories we used for the variable company size.

#### TNO survey on Labour Relations 2005

In 2005, 10.942 members of an internet panel of a market research company were asked to participate in our research on Labour Relations. The market research company has drawn a sample from its panel which is representative for the Dutch work force, stratified by sector. Depending on one's answer to the question: 'Do you directly manage any employees?', respondents filled out either a questionnaire for employees (when their answer was 'no'), or a questionnaire for managers (when 'yes'). The two respective questionnaires were filled out by 1613 employees and 1525 managers respectively or 931 supervisors and 1225 employees in companies of at least 30 employees.

Besides these samples we were also interested to get dyads of an employee and his or her supervisor. In order to get data from different sources, especially managers' performance assessments of employees, we asked to all participating employees and managers whether they were willing to give an e-mail address of their respective manager c.q. employee about which managers just had filled out a questionnaire. If they agreed, their manager c.q. employee received an e-mail with a link to the questionnaire. Following this procedure, we finally got a sample of 149 employee-manager dyads or 89 dyads in companies of at least 30 employees.

#### TNO/SZW survey on Working in the Information Society 1998

In 1998 TNO Work and Employment carried out an extensive survey on the topic 'Work in the Information Society'. For the measurement in 1998 TNO had the opportunity to join the former SZW/ZARA employer panel with a lot of questions. We added a lot of questions on Work in the Information Society to a panel survey. With the questionnaires several aspects of work were studied, amongst which were team work and working conditions. Data were gathered on both the company/employer level and the employee level. The data at the employer level were representative for the companies in the Netherlands (excl. government and education). In the questionnaire for the employers we included a question whether the respondent was prepared to distribute questionnaires among a number of his employees. If the employer was prepared to do so, a set of questionnaires with instructions on how to distribute these were mailed. Companies with 10 to 30 employees were required to give questionnaires to all employees. Companies with more than thirty employees were requested to distribute 30 questionnaires at random among their employees. For the analyses on the data base reported below we use the employee response of 9,154 persons in the companies with 20 or more employees. The employer questionnaire was carried out partly by means of 'paper and pencil' because for some information it was easier when the respondent looked it up in advance. Most questions were answered by means of

computer assisted telephone interviews. The employee questionnaire was completely carried out by means of ‘paper and pencil’.

### TNO/NIPO survey on Labour in the Information Society 2002

In 2002 for the collection of data among employers the NIPO Business Monitor was used, for the SZW/ZARA-panel did not exist anymore in this year. The NIPO Business Monitor is a continuous telephone collection of data in a panel of employers in Dutch profit sectors (government, health care & education and agriculture are not included.) We chose to select only employers with ten or more employees. For the analyses here, we use the data of the 506 companies with 20 or more employees. The original sample size was 1020 companies.

The research designs of the 1998 and 2002 data gathering were cross-sectional, although a longitudinal measurement was originally intended. However, on the company level trends in team work for the period from 1998-2002 can be assessed.

**Table 1: Surveys on team work in the Netherlands**

	<b>TNO survey on Labour relations 2005</b>	<b>TNO/SZW survey on Labour in the Information Society 1998</b>	<b>TNO/NIPO survey on Labour in the Information Society 2002</b>
<b>Acronym</b>	TNO AA 2005	TNO/SZW Aidl 1998	TNO/NIPO Aidl 2002
<b>Sample size</b>	surveys of 1525 supervisors and 1613 employees in companies $\geq$ 2 employees: 931 supervisors and 1225 employees in companies $\geq$ 30  149 supervisor-employee dyads in companies $\geq$ 2 employees: 89 supervisor-employee dyads in companies $\geq$ 2 employees	Company level: 3618 companies (establishments) $\geq$ 2 employees; 1094 companies $\geq$ 20  Employee level: 11351 employees; 9154 in companies $\geq$ 20	Companies: 1020 companies (establishments $\geq$ 10 employees); 506 companies $\geq$ 20 employees.
<b>Year</b>	2005	1998	2002
<b>Response rate</b>	Employer/supervisory response: 29%	Company response: 56% Employee response: 25%	Company response: 24%
<b>Frequency</b>	Once in 2005	Last wave of a panel survey: in the wave of 1998 TNO added questions	Panel ('Business Monitor') with continuous data-collection (whole year through): TNO added questions once in 2002
<b>Method</b>	Superiors: Web questionnaire Employees: Web questionnaire	Companies (respondent=HR-professional): PAPI (postal questionnaire) CATI (telephonic interviewing) Employees: Postal questionnaire	Companies (respondent=CEO): CATI (telephonic interviewing)
<b>Sample</b>	Representative sample of the Dutch Labour Force (except for	Representative sample of companies in the Netherlands	Representative sample of companies in the profit sector in

the dyad level)

(excl. government and education)  
Non-representative sample of  
employees in these companies

the Netherlands: industry,  
building industry, trade, transport  
& communication, commercial  
services. (Agriculture,  
government, health care &  
education not included)

**Coordination** TNO Work & Employment

IVA-Astri/TNO Work &  
Employment

TNO Work & Employment/NIPO

---

## Q1 Question wordings and figures which deal with the prevalence<sup>1</sup> of teamwork in the Netherlands

### *Question wordings (Q.1a)*

#### **National representative surveys and quantitative case studies:**

We are interested how national representative surveys and quantitative case studies cover incidence of teamwork in the country or in particular company. Correspondents are asked to give relevant existing question wordings to this issue.

#### Information from the TNO AA 2005:

##### *Supervisor level:*

The question on team work used in this survey was formulated as follows:

Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together? 1 yes; 2 no; 3 don't know

##### *Employee level:*

The question on team work used in this survey was formulated as follows:

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together? 1 yes; 2 no; 3 don't know

#### Information from the TNO/SZW AidI 1998:

##### *Company level:*

The question on team work used in this survey was formulated as follows:

Has, at the production level, group work been implemented in this establishment?

---

<sup>1</sup> We are only in the position to produce prevalence data (the status at a particular point in time), but not the newly identified cases (incidence)

Interviewer: by group work is meant: groups of several workers who have a common task and have the authority to independently plan and distribute the work amongst each other. 1 yes; 2 no; 3 no, not applicable in this company

*Employee survey:*

The question on team work used in this survey was formulated as follows:

Do you work in a so called autonomous task group or self managing team? 1 no 2 yes

Information from the NIPO/TNO AidI 2002

*Company survey:*

The question on team work used in this survey was formulated as follows:

Has, at the production level, group work been implemented in this establishment? 1 yes; 2 no; 3 don't know

**Content and main findings – national representative surveys (Q.1.b)**

In this paragraph we can meet with most variables to be broken down, but we don't have info in 'type of ownership'.

When we look at the TNO AA data we can see that in 2005 72% of the supervisors manage and 71% of the employees work in a team of minimum 4 and maximum 20 persons who work on a product or service together (see tables 2 and 3).

**Table2: Prevalence of team work on the basis of the TNO AA 2005 data - supervisor level (frequencies and number of respondents)**

Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	%	N
No	28.8	264
Yes	71.2	653

**Table 3: Prevalence of team work on the basis of the TNO AA 2005 data - employee level (frequencies and number of respondents)**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	%	N
No	27.5	336
Yes	72.5	885

In table 4 the prevalence of team work is broken down by several background variables. We performed this analysis on the basis of the TNO AA 2005 data (employee level). The analyses we performed were cross tabulations. We only report on associations which are at least .10 (Cramer's V).

Some small but significant differences between the subgroups became apparent. Some interesting differences are:

- The prevalence of team work is lowest in the building sector and business services. The agricultural sector (which is a rather small sector), and the hotel and restaurant sector have the highest percentage of team work.
- Higher general secondary education, pre-university education, intermediate vocational education

The association of team work with company size is only very small (in organizations of less than 50 employees team work is somewhat less prevalent than in organizations of at least 205 employees). Further, the analysis does not show any significant difference between male and female workers. The analysis also does not show any significant difference between the types of occupation we operationalized (table 4).

**Table 4: Team work broken down by gender, type of occupation, sector, company size (0-49; 50-249,250 and more employees) and educational attainment; on the basis of the TNO AA 2005 data - employee level (percentages and number of respondents)**

	Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?				
	% no	N	% yes	N	
<b>Gender</b>					
male	29.6%	205	70.4%	488	100.0%
female	24.8%	131	75.2%	397	100.0%
Cramer's V= .05; n.s. (not significant)					
<b>Type of occupation</b>					
physical work (for example production worker, cook)	24.7%	61	75.3%	186	100.0%
working with people (for example teacher, Salesman, nurse)	25.3%	64	74.7%	189	100.0%
clerical work (for example bookkeeper, secretary)	29.9%	83	70.1%	195	100.0%
policy or research work	33.3%	34	66.7%	68	100.0%
working mainly with a telephone, computer or other digital equipment	25.1%	59	74.9%	176	100.0%
other	32.7%	35	67.3%	72	100.0%
Cramer's V= .07; n.s.					
<b>Sector</b>					
agriculture. hunting and forestry	<b>4.5%</b>	1	<b>95.5%</b>	21	100.0%
winning of minerals	50.0%	1	50.0%	1	100.0%
industry	25.6%	42	74.4%	122	100.0%
electricity. natural gas and warm water	40.0%	6	60.0%	9	100.0%
building industry	<b>51.5%</b>	17	<b>48.5%</b>	16	100.0%
trade	28.1%	9	71.9%	23	100.0%
hotels and restaurants	17.6%	6	82.4%	28	100.0%
transport and communication	31.8%	47	68.2%	101	100.0%
financial services	23.8%	25	76.2%	80	100.0%
business services	<b>40.6%</b>	26	<b>59.4%</b>	38	100.0%
government and social insurances	26.6%	25	73.4%	69	100.0%
Education	28.0%	21	72.0%	54	100.0%
health care and Welfare work	26.7%	56	73.3%	154	100.0%
culture. environmental. recreation and other services	32.3%	10	67.7%	21	100.0%
Cramer's V= .16; p<.05					
<b>Company size</b>					
30-49 employees	<b>36.3%</b>	58	<b>63.8%</b>	102	100.0%
50-249 employees	28.9%	131	71.1%	323	100.0%
250 and more employees	<b>24.3%</b>	148	<b>75.7%</b>	461	100.0%
Cramer's V= .09; p<.01					
<b>Educational attainment</b>					
primary education	34.1%	15	65.9%	29	100.0%
lower vocational education	24.4%	30	75.6%	93	100.0%
lower general secondary education	22.8%	36	77.2%	122	100.0%
higher general secondary education, pre-university education, intermediate vocational education	<b>24.8%</b>	135	<b>75.2%</b>	410	100.0%
higher vocational education, university	34.2%	120	65.8%	231	100.0%
Cramer's V= .10; p<.05					

**Content and main findings – national representative surveys (Q.1.b)**

If trend is available please give the trend data with a brief commentary.

Because question wordings were not exactly the same in the two measurements (see Q1.a), we had to combine information to make the variable of team work comparable. We combined the question on group work – the production structure – with a question on the control structure, which was an explicit part of the question in 1998. In 2002 the question about the control structure was an separate question.

As can be seen in table #, the prevalence of group work with some decentralized responsibilities by almost 10% increased in the period between 1998 and 2002.

**Table 5 Trends in team work on the basis of the TNO/SZW Aidl 1998 data and TNO/NIPO Aidl 2002 data; profit branches (frequencies and number of respondents)**

Year:	No group work or group work but not responsible for work planning and distribution		Group work and partly responsible for work planning and distribution		Group work and mainly responsible for work planning and distribution		Total
	%	N	%	N	%	N	%
1998	<b>68.5%</b>	749	<b>16.0%</b>	175	15.5%	170	100.0%
2002	<b>55.9%</b>	283	<b>25.9%</b>	92	18.2%	92	100.0%

Cramer's V= .131; p<.001

*Content and main findings – company surveys, case studies or other qualitative research (Q.1.c)*

Correspondents are asked to give the main findings emerging from the most recent case studies on the issue of **the extent of teamwork** (the summary and expert reflexion of existing case studies on that issue is required).

## **Q.2 Do in the national representative surveys or other surveys exist questions dealing with form and organisation of the team?**

*Example:*

*- If you have opportunity to work in team, what is its usual form?*

*Flexible teams build up to solve particular project or problem.*

*Teamwork in a simple form of job rotation without having opportunity to decide about methods of work or task.*

We have no question wordings & quantitative data on the studies as reported next:

1. In January 2000 a survey was held among 835 employees to investigate under what kind of production concept interviewees were working by Steijn.<sup>2</sup> Four production concepts were distinguished: 1] tayloristic (high division of work, low autonomy), 2] professional (high autonomy, high craftsmanship), 3] team oriented (high level of group work; relatively low autonomy as in Lean Production and Business Process Redesign teamwork), 4] sociotechnical (high level of group work; high decision autonomy). Team oriented and sociotechnical production concepts, two variants of working with teams, adds up to 45%. Team work occurs most in organisations where working with people is crucial, like education and health care.
2. Another TNO survey (Kraan, Van Dalen & Van de Bovenkamp, 2004)<sup>3</sup> aimed to get an overview of the prevalence of virtual teams in the Netherlands. This was part of a telephone survey among managers on virtual work; apart from virtual teams, questions were available on mobile work, shared service centres and virtual work throughout the supply chain.

### *Q.2.a Question wordings (study by Steijn, 2001):*

Production concept is operationalized as follows:

“To what degree can you take decisions on the following aspects of organisation and the content of your job?:

Answering categories were:

1. particularly others, like my supervisor, management, take decisions on this aspect
2. I can take decisions myself on this aspect
3. decision authority is delegated to the team I work in; so my colleagues and I can take decisions on this aspect jointly

---

<sup>2</sup> Steijn, B. (2001), Working in the information society. Assen: Van Gorcum (in Dutch). Pp. 69-74.

<sup>3</sup> Kraan, K., EJ van Dalen, M van de Bovenkamp (2004). "Virtualisering van Organisaties 2004; Resultaten uit een survey onder 500 organisaties uit vijf bedrijfstakken". TNO-rapport, TNO Arbeid: Hoofddorp.



Tayloristic	6	15	12	27	31	16	37	46
Professional	57	45	18	16	30	40	18	21
Teamoriented	26	31	50	44	27	34	32	25
Sociotechnical	12	9	20	13	12	10	13	8
N= 765 Cramer's V= .23								

**TNO Survey (Kraan et al, 2004).**

In the study by Kraan the 'virtual team' is operationalised by using the following questions:

-Does your establishment have permanent work groups or temporary project groups with shared tasks?

-Do these groups collaborate from different locations / buildings?

-What type of communication tools do these groups use? (telephone, mobile, conference calls, video conferencing, e-mail, chat, ftp, document sharing,)

A *high virtual team* is viewed if the first two answers are 'yes' and if the team uses is at least one of the tools apart from telephone, mobile and e-mail; a *low virtual team* uses only telephone, mobile and e-mail.

In table 7 a and b 'virtual teams' is presented by sector and the size of the organisation.

**Table 7 Virtual teams by sector (a) and size of the organisation (Kraan et al, 2004)**

**Table 7a**

Percentage of organisations with virtual teams (by sector)	<i>Organizations with low virtual teams</i>	<i>Organizations with high virtual teams</i>	<i>Employees working in low virtual teams</i>	<i>Employees working in high virtual teams</i>
Process industry	0	18	0	3
Transport and communication	0	28	0	4
Commercial services	8	25	2	11
Financial services	7	22	2	5
Care and cure	9	29	2	11
<b>Total</b>	<b>6.5</b>	<b>25.8</b>	<b>1.5</b>	<b>9.0</b>
(N=525) Cramer's V	.114	.094		

**Table 7b**

Percentage of organisations with virtual teams (by company size/ no. of employees)	Virtual teams		
	none	low virtual	high virtual
small (10-49 employees)	<b>71,2</b>	5,6	<b>23,2</b>
medium (50-99)	66,2	<b>11,8</b>	22,1
large (100+)	<b>49,2</b>	4,6	<b>46,2</b>
Total	67,9	6,3	25,9
Cramer's V = .14; p<.001			

These TNO-survey figures show that around 25% of the organizations are using virtual teams; only 9% of the employees are working in virtual teams. In large firms most virtual teams are found, in medium sized firms the least.

#### Q.2.c Content and main findings company surveys, case studies or other qualitative research

De Leede, Kraan, Kwakkelstein & De Vroome (2005)<sup>4</sup> published a study on virtual teams. Based on a review of recent studies on virtual teams they present a number of key conditions for effectiveness: degree of virtuality, job demands, autonomy, social support, team leader support and use of communication tools. They collected data on virtual teams in a global software company, based in the Netherlands. Based on a multiple regression analysis, including the interaction effects of high versus low virtual workers, they found that high job demands are critical for virtual teams: higher demands lower efficiency and increase the likelihood of job stress. Furthermore, a better use of communication tools is only positive for the efficiency of high virtual workers. Finally, they found that approachability of team leaders towards their employees has a positive effect on low virtual workers, but not on high virtual workers.

### **Q.3 Does teamwork increase autonomy of employees in decision making about their work? Which degrees of self-regulation can be distinguished?**

#### *Question wordings (Q.3.a)*

**National representative surveys and quantitative case studies:** We are interested how national representative surveys and quantitative case studies cover autonomy of members in a team (See examples above). Correspondents are asked to give relevant question wordings to this issue.

#### Information in the TNO AA 2005:

##### *Supervisor level*

The team autonomy scale (4 items; Cronbach's alpha = .73) in this data set consists of the following four questions:

To what extent do the following statements apply to your team:

As a team we ourselves can decide how we do our tasks.

As a team we ourselves can decide what will be our end products or services.

As a team we ourselves can decide which tasks we do when.

As a team we can distribute the work ourselves ('who does what').

1 certainly not 2 hardly 3 a little 4 certainly 5 most certainly 6 don't know/not applicable

---

<sup>4</sup> Leede, J de, K Kraan, T Kwakkelstein & E de Vroome (2005), 'Op zoek naar de 'high road' voor virtuele teams', in Tijdschrift voor Arbeidsvraagstukken, 21(4) 314-325.

*Employee level:*

Team autonomy scale (4 items; Cronbach's alpha = .83):  
idem.

*Employee level:*

The task autonomy scale (working method, order, pace) (3 items, Cronbach's alfa = .87) in this data set consists of the following four questions:

To what extent do the following statements apply to your job?

I can decide on my own how I do my work

I decide on my own about the order of my work activities

I decide on my own when I do a task

1 certainly not 2 hardly 3 a little 4 certainly 5 most certainly 6 don't know/not applicable

Information from the TNO/SZW AidI 1998:

*Employee level*

The task autonomy scale (working method, order, pace) (5 items, Cronbach's alfa = .71) in this data set consists of the following five questions:

Can you decide on your own how you do your work?

Do you decide yourself on the order of your work activities?

Can you regulate the pace of work on your own?

Is your method of working prescribed to a large extent?

Can you choose an own working method?

no; yes

*Company level*

The questionnaire contains a question about decentralisation of several responsibilities. This question was formulated as follows:

I'm going to mention some subfields of corporate policy.

To what extent is the shop floor, those who are the production workers, responsible for these?

- for the price(s) policy?
- for investments in technology policy?
- for innovation of products or services?
- for the own work planning and distribution of work?
- for the own work team?

1 not at all responsible for; 2 partly responsible for; 3 mainly responsible for

Information from the NIPO/TNO AidI 2002:

**Content and main findings – national representative surveys (Q.3.b)**

Correspondents are asked to give figures on the issue of autonomy in a team eventually autonomy at work from national representative quantitative surveys (crosstabs are preferred, correlations, other reported associations).

Between the groups of supervisors of teams with minimum 4 and maximum 20 persons who work on a product or service together and the other supervisors we compared the mean scores on team autonomy (t-tests for independent samples).

As can be seen in table 8 and 9 (for operationalisations see directly below Q3), the supervisors of these types of teams report that they have more autonomy than the other supervisors. But, as can be seen in table 7, employees don't report such a difference.

**Table 8: Means of the variable team autonomy with the variable team work based on the TNO AA 2005 data – supervisor level**

Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range 1-5)	N	Std. Deviation
No	3.44	263	.80
Yes	3.61	653	.76

Eta = .10; p<.01

**Table 9: Means of the variable team autonomy with the variable team work on the TNO AA 2005 data – employee level**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range 1- 5)	N	Std. Deviation
No	3.18	214	1.05
Yes	3.24	883	.88

Eta = .03; n.s.

In the TNO AA 2005 data set task autonomy does not differ between the groups who do or do not work in a team of minimum 4 and maximum 20 persons who work on a product or service together.

For the variable 'group work' as formulated in the TNO/SZW AidI 1998 questionnaire, we also examined the differences on the variable task autonomy, but the difference between workers who do and who do not work in a so called autonomous task group or self managing team, are only very small (Tables 10 and 11). (Those who work in a so called autonomous task group or self managing team have slightly more task autonomy).

**Table 10: Means of the variable task autonomy with the variable team work on the TNO AA 2005 data – employee level**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range 1- 5)	N	Std. Deviation
No	3.69	336	1.12
Yes	3.68	884	.99

Eta = .02; n.s.

**Table 11: Means of the variable task autonomy with the variable team work on the TNO/SZW AidI 1998 data – employee level**

Do you work in a so called autonomous task group or self managing team?	Mean (range 0- 5)	N	Std. Deviation
no	3.66	4843	1.50

yes	3.93	4210	1.32
Eta = .09; p<.001			

The TNO/SZW AidI 1998 questionnaire for companies offers us information on the responsibilities of the shop floor (Table 12). Compared to organizations that have not implemented group work, the shop floor - the production workers - as well as service providers in team based organizations have more responsibility for the own work planning and distribution of work, more responsibility for innovation of products or services and more responsibility for the (functioning of their) own work team. They are more often (partly and) mainly responsible for these aspects than workers in non-team based organisations. Partial responsibility of the workers for the aspect price(s) policy is also more common in organizations which implemented group work.

With regard to the partial responsibility for the investments in technology the difference between the two subgroups is negligible.

**Table 12: Responsibility on the shop floor with the variable group work on the TNO/SZW AidI 1998 data – company level**

Responsibility for the price(s) policy							
Group work	not at all responsible for	N	partly responsible for	N	mainly responsible for	N	Total
no	<b>80.7%</b>	1030	<b>16.1%</b>	206	3.2%	41	100.0%
yes	<b>76.0%</b>	582	<b>19.7%</b>	151	4.3%	33	100.0%
Cramer's V=.06; p<.05							
Responsibility investments in technology policy							
Group work	not at all responsible for	N	partly responsible for	N	mainly responsible for	N	Total
no	<b>75.5%</b>	966	<b>22.6%</b>	289	2.0%	25	100.0%
yes	<b>66.5%</b>	512	<b>30.6%</b>	236	2.9%	22	100.0%
Cramer's V=.10; p<.001							
Responsibility for innovation of products or services							
Group work	not at all responsible for	N	partly responsible for	N	mainly responsible for	N	Total
no	<b>59.9%</b>	763	<b>35.7%</b>	455	<b>4.4%</b>	56	100.0%
yes	<b>44.0%</b>	335	<b>45.8%</b>	349	<b>10.2%</b>	78	100.0%
Cramer's V=.17; p<.001							
Responsibility for the own work planning and distribution of work							
Group work	not at all responsible for	N	partly responsible for	N	mainly responsible for	N	Total
no	<b>20.6%</b>	264	<b>47.7%</b>	611	<b>31.6%</b>	405	100.0%
yes	<b>7.5%</b>	58	<b>42.3%</b>	326	<b>50.2%</b>	387	100.0%
Cramer's V=.22; p<.001							
Responsibility for the own work team							
Group work	not at all responsible for	N	partly responsible for	N	mainly responsible for	N	Total
no	<b>21.5%</b>	273	41.9%	533	<b>36.6%</b>	466	100.0%
yes	<b>6.9%</b>	53	41.2%	317	<b>51.9%</b>	399	100.0%
Cramer's V = .21; p<.001							

*Content and main findings – case studies or other qualitative research (Q.3.c)*

Correspondents are asked to give the main findings emerging from case studies or qualitative research on the issue of teamwork and autonomy. We are interested in to what extent the growth in autonomy within the team results in better group performance and higher job satisfaction (the summary and expert reflexion of existing case studies on that issue is required).

**Q.4. To what extent are workers satisfied with team based way of working? Can you also report on association between overall job satisfaction and teamwork presence? Does teamwork increase overall job satisfaction?**

*Question wordings (Q.4.a)*

**National representative surveys and quantitative case studies:** We are interested how national representative surveys and quantitative case studies cover satisfaction with teamwork. Correspondents are asked to give relevant question wordings to this issue.

Information in the TNO/SZW AidI 1998:

*Employee level*

Questions on commitment to work and organisation had the following formulations:

Can you indicate whether you agree or disagree with the following statements:

I feel very uncomfortable when something goes wrong in work, also when it is not my fault

I have this organization very much at heart

My job means a lot to me

I feel very much at home in this organisation

Compared to most other organisations, working in this organisation is very attractive  
disagree; agree

*Content and main findings – national representative surveys (Q.4.b)*

If direct question on satisfaction with teamwork is available, please give the figures. Correspondents are also asked to give figures on the issue of teamwork (YES/NO) and job satisfaction (SATISFIED/NOT SATISFIED) from national representative quantitative surveys (crosstabs are preferred, correlations, other reported associations).

As can be seen in Table 13 the commitment to work and organisation does not differ mentionable between workers who do and those who do not work in a so called autonomous task group or self managing team.

**Table 13: Commitment to work and organisation with the variable team work on the TNO/SZW AidI 1998 – employee level**

Do you work in a so called autonomous task group or self managing team?	I feel very uncomfortable when something goes wrong in work. also when it is not my fault				
	% disagree	N	% agree	N	Total
no	9.5%	457	90.5%	4355	100.0%

yes	7.4%	312	92.6%	3877	100.0%
Cramer's V=.04; p<.001					
My job means a lot to me					
Do you work in a so called autonomous task group or self managing team?	% disagree	N	% agree	N	Total
no	12.3%	4205	87.7%	590	100.0%
yes	9.5%	3780	90.5%	397	100.0%
Cramer's V=.05; p<.001					
I have this organization very much at heart					
Do you work in a so called autonomous task group or self managing team?	% disagree	N	% agree	N	Total
no	18.0%	854	82.0%	3889	100.0%
yes	15.8%	656	84.2%	3506	100.0%
Cramer's V=.03; p<.05					
I feel very much at home in this organisation					
Do you work in a so called autonomous task group or self managing team?	% disagree	N	% agree	N	Total
no	16.4%	784	83.6%	3996	100.0%
yes	13.4%	558	86.6%	3609	100.0%
Cramer's V=.04; p<.001					
Working in this organisation is very attractive					
Do you work in a so called autonomous task group or self managing team?	% disagree	N	% agree	N	Total
no	34.3%	1603	65.7%	3070	100.0%
yes	29.2%	1197	70.8%	2903	100.0%
Cramer's V=.06; p<.001					

### Content and main findings – case studies or other qualitative research (Q.4.c)

Correspondents are asked to give the main findings emerging from the most recent case studies or qualitative research on the issue of teamwork and job satisfaction (the summary and expert reflexion of existing case studies on that issue is required)

## Q.5 Does in your country exist any evidence about interconnection between teamwork presence and higher work intensity and probable work overload?

### Question wordings (Q.5.a)

**National representative surveys and quantitative case studies:** We are interested how national representative surveys and quantitative case studies cover the problems of interconnection between teamwork introduction and higher work intensity and higher stress exposure. Correspondents are asked to give relevant question wordings to this issue.

### Information in the TNO AA 2005:

#### *Employee level*

The question in this data set was formulated as follows:

Do you work under time pressure?

1 never; 2 sometimes; 3 often; 4 always; 5 don't know.

Information in the TNO/SZW AidI 1998:

*Employee level:*

The quantitative job demands scale (4 items; Cronbach's alpha = .78) in this data set consists of the following five questions:

Do you have to work very fast?

Do you have to do a lot of work?

Do you have to work extra hard?

Do you in general have enough time to finish al your work?

Is your work hectic/ no; yes

*Content and main findings – national representative surveys (Q.5.b)*

Correspondents are asked to give figures on the issue of interconnection between teamwork introduction and higher work intensity and higher stress exposure from national representative quantitative surveys. Please use both figures from direct questions and also figures form higher level analysis e.g. teamwork (YES/NO), higher risk of stress occurrence (YES/NO) (crosstabs are preferred, correlations, other reported associations).

As can be seen in Table 14 (TNO AA 2005 data) the extent to which one has to work under time pressure does not differ between employees who do and who do not work in a team of minimum 4 and maximum 20 persons who work on a product or service together.

Also the extent to which employees experience quantitative job demands is not associated with working in a so called autonomous task group or self managing team (TNO/SZW AidI 1998 data; table 15).

**Table 14: Working under time pressure with the variable team work on the TNO AA 2005 data – employee level**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range 1-4)	N	Std. Deviation
No	2.37	336	.73
Yes	2.46	883	.73

Eta = .05; p<.01.

**Table 15: Quantitative job demands with the variable team work on the TNO/SZW AidI 1998 - employee level**

Do you work in a so called autonomous task group or self managing team?	Mean (range = 0-5)	N	Std. Deviation
No	2.15	4716	1.76
Yes	2.25	4179	1.76

Eta = .03; p<.01.

**Content and main findings – case studies or other qualitative research (Q.5.c)**

Correspondents are asked to give the main findings emerging from case studies or qualitative research on the issue of teamwork and higher exposure to overload and stress. Is the work intensity or paste of work higher within organisations which have introduced the work in teams? (the summary and expert reflexion of existing case studies on that issue is required)

## Q.6 What is the impact of teamwork on learning environment in organization?

### *Question wordings (Q.6.a)*

**National representative surveys and quantitative case studies:** We are interested how national representative surveys and quantitative case studies cover the problems mentioned above. Correspondents are asked to give relevant question wordings to this issue.

### Information in TNO AA 2005:

#### *Employee level:*

The skill discretion scale (Cronbach's alpha = .83) in this data set consists of the following four questions:

To what extent do the following statements apply to your job?

For the practising of my job skills/craftsmanship is required

My job is varied

My job requires that I learn new things

My job requires creativity

1 certainly not 2 hardly 3 a little 4 certainly 5 most certainly 6 don't know/not applicable

### Information in TNO/SZW AidI 1998:

#### *Employee level:*

The skill discretion scale (Cronbach's alpha = .71) in this data set consists of the following five questions:

Does practising your job demand skills/craftsmanship?

Is your job varied?

Does your job require that you learn new things?

Does your job require creativity?

Do you have the opportunity to develop your skills/craftsmanship?

no; yes

The questions on training were formulated as follows:

In the past 12 months did you via your employer follow a training/education to increase your expertise or skills?

no; yes.

If yes: which training/education? (more than one answer possible):

training with regard to job content;

training in the use of new technology/use of computer;

social-communicative training (speak, discussion and/or advise skills);

training in management skills (leadership, conflict management, problem solving, external confer);

other training/education

no; yes

*Employee level:*

The question on job enlargement was formulated as follows:

Do you regularly take over tasks or activities from colleagues?

1 no 2 yes

The question on job enrichment was formulated as follows:

Do you regularly take over tasks or activities from your direct superior, chief or boss?

1 no 2 yes

The question on job rotation was formulated as follows:

When it turns out so in your company, are you then employable for activities which in fact belong to another job or department?

1 no 2 yes

If yes: How often does that happen?

1 very often 2 often/regularly 3 once or twice 4 never happened so far

Information in the TNO/SZW AidI 1998:

*Company level:*

The question job enlargement and job enrichment on was formulated as follows:

Is job enlargement or job enrichment part of your policy for the purpose of increasing the employability of the employees?

1 yes; 2 no; 3 no, not applicable in this company

The questions on job and department rotation were formulated as follows:

Is rotation over tasks or jobs applied in your company for the purpose of increasing the employability of the employees?

1 yes; 2 no; 3 no, not applicable in this company

Is rotation of workers over different departments applied in your company?

1 yes; 2 no; 3 no, not applicable in this company

**Content and main findings – national representative surveys (Q.6.b)**

Correspondents are asked to give figures on the issue of interconnection of teamwork and learning opportunities from national representative quantitative surveys. Do team members use the opportunity to enhance their professional skills in workplace training more than other employees working in different organizational structures? (crosstabs are preferred, correlations, other reported associations).

Table 16 (TNO AA 2005 data) shows that the extent to which one's job requires skills does not differ between employees who do and who do not work in a team of minimum 4 and maximum 20 persons who work on a product or service together.

But when we look at the operationalization of team work in the TNO/SZW AidI 1998 data the results are different. Employees report more skill discretion if they are part of a so called autonomous task group or self managing team (Table17), although the association is weak.

**Table 16: Skill discretion with the variable team work on the TNO AA 2005 data- employee level**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range = 1-5)	N	Std. Deviation
No	4.05	336	.82
Yes	4.05	884	.83

Eta = .00; n.s.

**Table 17: Skill discretion with the variable team work on the TNO/SZW AidI 1998 – employee level**

Do you work in a so called autonomous task group or self managing team?	Mean (range = 0–5)	N	Std. Deviation
no	4.20	4825	1.23
yes	4.44	4204	1.05

Eta = .10; p<.001.

The training employees followed in the foregoing year does not differ between those working in a so called autonomous task group or self managing team and those who do not (Table 18; TNO/SZW AidI 1998 data).

**Table 18: Type of training with the variable team work on the TNO/SZW AidI 1998 – employee level**

training with regard to job content					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
no	79.4%	3894	20.6%	1010	100.0%
yes	76.4%	3247	23.6%	1003	100.0%
Cramer's V=.04; P<.001					
training in the use of new technology/use of computer					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
no	86.9%	4261	13.1%	643	100.0%
yes	85.6%	3639	14.4%	611	100.0%
Cramer's V=.02; n.s.					
social-communicative training (speaking, discussion and/or advising skills)					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
no	93.2%	4571	6.8%	333	100.0%
yes	91.8%	3901	8.2%	349	100.0%
Cramer's V=.03; p<.05					
training in management skills (leadership, conflict management, problem solving, external confer)					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
no	94.7%	4646	5.3%	258	100.0%
yes	92.8%	3943	7.2%	307	100.0%
Cramer's V=.04; p<.001					
other training/education					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
no	87.8%	4306	12.2%	598	100.0%
yes	87.6%	3722	12.4%	528	100.0%
Cramer's V=.00; n.s.					

When we break this association down by educational attainment of the employee, only two associations of at least .10 (Cramer's V) become apparent (Table 19):

- workers with only primary education who are working in a so called autonomous task group or self managing team report somewhat more often they did follow in the past 12 months via their employer a training with regard to job content. Of these workers 13.7% did follow such a training versus 7.3% of the other workers with only primary education.
- The same holds true for training in the use of new technology/use of computer. Of those who work in a so called autonomous task group or self managing team and are only educated at primary level 4.8% followed this type of training. Amongst the other workers educated only at primary level .9% followed such a training.
- At this educational level associations are absent for the other types of training.
- On the other levels of educational attainment the analyses do not at all show a relationship between team work and the types of training.

**Table19: Type of training with the variable team work broken down by educational attainment on the TNO/SZW Aidl 1998 – employee level**

		training with regard to job content				
Educational attainment	Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
primary education	no	<b>92.7%</b>	204	<b>7.3%</b>	16	100.0%
	yes	<b>86.3%</b>	126	<b>13.7%</b>	20	100.0%
Cramer's V=.106; p<.05						
lower vocational/lower general secondary education	no	83.8%	737	16.2%	142	100.0%
	yes	80.0%	487	20.0%	122	100.0%
Cramer's V=.050; n.s.						
higher general secondary/pre-university/intermediate vocational education	no	<b>79.4%</b>	1951	<b>20.6%</b>	506	100.0%
	yes	<b>76.1%</b>	1746	<b>23.9%</b>	548	100.0%
Cramer's V=.040; p<.01						
higher vocational education, university	no	73.0%	877	27.0%	325	100.0%
	yes	73.0%	788	27.0%	291	100.0%
Cramer's V=.001; n.s.						
		training in the use of new technology/use of computer				
		% no	N	% yes	N	Total
primary education	no	<b>99.1%</b>	218	<b>.9%</b>	2	100.0%
	yes	<b>95.2%</b>	139	<b>4.8%</b>	7	100.0%
Cramer's V=.120 p<.05						
lower vocational/lower general secondary education	no	95.0%	835	5.0%	44	100.0%
	yes	93.1%	567	6.9%	42	100.0%
Cramer's V=.040; n.s.						
higher general secondary/pre-university/intermediate vocational education	no	86.5%	2125	13.5%	332	100.0%

Cramer's V=.024; n.s.	yes	84.8%	1945	15.2%	349	100.0%
higher vocational education, university	no	78.5%	944	21.5%	258	100.0%
Cramer's V=.038; n.s.	yes	81.6%	880	18.4%	199	100.0%
		social-communicative training (speaking, discussion and/or advising skills)				
		% no	N	% yes	N	Total
primary education	no	98.2%	216	1.8%	4	100.0%
Cramer's V=.069; n.s.	yes	95.9%	140	4.1%	6	100.0%
lower vocational/lower general secondary education	no	<b>97.2%</b>	854	<b>2.8%</b>	25	100.0%
Cramer's V=.069; p<.01	yes	<b>94.4%</b>	575	<b>5.6%</b>	34	100.0%
higher general secondary/pre-university/intermediate vocational education	no	92.6%	2275	7.4%	182	100.0%
Cramer's V=.011; n.s.	yes	92.0%	2110	8.0%	184	100.0%
higher vocational education, university	no	90.3%	1085	9.7%	1202	100.0%
Cramer's V=.020; n.s.	yes	89.1%	961	10.9%	1079	100.0%
		training in management skills (leadership, conflict management, problem solving, external confer)				
		% no	N	% yes	N	Total
primary education	no	99.1%	218	.9%	220	100.0%
Cramer's V=.048; n.s.	yes	97.9%	143	2.1%	146	100.0%
lower vocational/lower general secondary education	no	<b>98.2%</b>	863	<b>1.8%</b>	16	100.0%
Cramer's V=.060; p<.05	yes	<b>96.2%</b>	586	<b>3.8%</b>	23	100.0%
higher general secondary/pre-university/intermediate vocational education	no	<b>95.5%</b>	2347	<b>4.5%</b>	110	100.0%
Cramer's V=.051; p<.001	yes	<b>93.2%</b>	2137	<b>6.8%</b>	157	100.0%
higher vocational education, university	no	89.7%	1078	10.3%	124	100.0%
Cramer's V=.010; n.s.	yes	89.1%	961	10.9%	118	100.0%
		other training/education				
		% no	N	% yes	N	Total
primary education	no	87.3%	192	12.7%	28	100.0%
Cramer's V=.037; n.s.	yes	89.7%	131	10.3%	15	100.0%
lower vocational/lower general secondary education	no	88.2%	775	11.8%	104	100.0%
Cramer's V=.003; n.s.	yes	88.3%	538	11.7%	71	100.0%
higher general secondary/pre-university/intermediate vocational education	no	88.6%	2178	11.4%	279	100.0%

Cramer's V=.024; n.s.	yes	87.1%	1997	12.9%	297	100.0%
higher vocational education, university	no	86.8%	1043	13.2%	159	100.0%
Cramer's V=.019; n.s.	yes	88.0%	950	12.0%	129	100.0%

Of the variables job enlargement, job enrichment, job/department rotation in the TNO/SZW AidI 1998 data at the employee level, there is almost no association with the team work variable or only very weak in the cases of job enlargement and job enrichment (Table 20).

**Table 20: Job enlargement, job enrichment, job rotation and department rotation with the variable team work on the TNO/SZW AidI 1998 data – employee level**

Job enlargement:					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
No	48.3%	2367	51.7%	2537	100.0%
Yes	39.7%	1687	60.3%	2563	100.0%
Cramer's V=.09; p<.001					
Job enrichment:					
Do you work in a so called autonomous task group or self managing team?	% no	N	% yes	N	Total
No	74.8%	3666	25.2%	1238	100.0%
Yes	67.3%	2860	32.7%	1390	100.0%
Cramer's V=.08; p<.001					
Job or department rotation:					
Do you work in a so called autonomous task group or self managing team?	% no. never	N	% once/very often	N	Total
no	35.4%	1737	64.6%	3167	100.0%
yes	31.6%	1341	68.4%	2909	100.0%
Cramer's V=.04; p<.001					

The answers given by the employers however (TNO/SZW AidI 1998), show that both job enlargement/job enrichment and job rotation and department rotation more often are in place when the company had implemented group work (table 20 + 21).

**Table 21: Job enlargement, job enrichment, job rotation and department rotation with the variable team work on the TNO/SZW AidI 1998 data – company level**

Job enlargement or job enrichment					
Group work	% no	N	% yes	N	Total
no	28.7%	367	71.3%	912	100.0%
yes	15.4%	119	84.6%	656	100.0%
Cramer's V=.15; P<.001					
Job rotation					
Group work	% no	N	% yes	N	Total
no	47.1%	601	52.9%	675	100.0%
yes	30.5%	236	69.5%	538	100.0%
Cramer's V=.16; p<.001					
Department rotation					
Group work	% no	N	% yes	N	Total
no	61.9%	792	38.1%	488	100.0%
yes	48.1%	373	51.9%	402	100.0%
Cramer's V=.13; p<.001					

### *Content and main findings – case studies or other qualitative research (Q.6.c)*

Correspondents are asked to give the main findings emerging from case studies or other qualitative research on the issue of teamwork and learning. We are interested in what is the extent of sharing the knowledge within the team. Do employees working in teams have better opportunities to learn new things in the job than other workers?" "Is learning environment within team more stimulating?" (the summary and expert reflexion of existing case studies on that issue is required)

### *(Q.6.d)*

It is assumed that teamwork contributes positively to job enrichment and job enlargement (for definition and concept see page n. 8 ).As these two job characteristics consists of different attributes of work and cannot be measured directly, they must be operationalised. **Can you find in your national studies (both quantitative and qualitative) any reported association between teamwork, job enrichment and job enlargement?**

## **Q.7 Team effectiveness subjectively perceived**

### **Question wordings (Q.7.a)**

**National representative surveys and quantitative case studies:** We are interested how national representative surveys and quantitative case studies cover the problems what is the impact of teamwork introduction on team effectiveness (from the subjective point of view). Correspondents are asked to give relevant question wordings to this issue.

### Information in TNO AA 2005:

#### *Supervisor level:*

The team productivity scale (self assessed by supervisor) (Cronbach's alpha = .84) in this data set consists of the following five questions:

Compare your team to teams who do comparable activities, inside or outside your own organization: how do you evaluate the performance of your team? Give report marks.

the extent to which costs are kept low

the extent to which team goals are being realised

the extent to which my team is financially healthy (high profits compared to low costs)

the extent to which we succeed to realize the setting of our task within budget

the extent to which services or products are produced faultless

Very bad 1 2 3 4 5 6 7 8 9 10 Very good; not applicable; don't know. (In the Netherlands, where this study was performed, the standard norm is that report marks run from 1 to 10, with 1 = very bad, 5 = just insufficient, 6 = just sufficient and 10 = excellent.)

Also the questionnaire for supervisors contained several other questions about team performance:

How do you evaluate the performance of your team? Give report marks.

the extent to which my workers can be mobilized broadly on different tasks

the quality of delivered products and/or services

the extent to which agreements with (internal) customers are kept timely

the extent to which new products/services are being developed

the extent to which (internal) customers are satisfied

Information in TNO AA 2005:

Dyad level:

The question on Employee performance, as assessed by the supervisor of the involved employee, was formulated as follows:

Please assess your employee with a report mark from 1 to 10 for his/her overall work performance in the past four working weeks.

*Content and main findings – national representative surveys (Q.7.b)*

Correspondents are asked to give figures on the issue what is the impact of teamwork introduction on team effectiveness subjectively perceived (crosstabs are preferred, correlations, other reported associations).

Team productivity as reported by the team supervisor him/herself, does not differ between the group of supervisors of teams of minimum 4 and maximum 20 persons who work on a product or service together, and other supervisors (Table 22).

**Table 22: Team productivity (self assessed by supervisor) with the variable team work on the TNO AA 2005 data – supervisor level**

Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range = 1-10)	N	Std. Deviation
no	7.16	251	1.02
yes	7.26	619	1.12
Eta = .04; n.s.			

In this data set were also several questions on other performance measures. Supervisors of teams of minimum 4 and maximum 20 persons who work on a product or service together, report more positively about the degree of flexibility of their employees than other supervisors (table 23). Flexibility was operationalized by the extent to which workers can be deployed in different tasks. Also the supervisors of teams report somewhat more positively about the extent to which the team develops new products/services, although the association is very weak. There are no differences on the performance measures of product quality, timely keeping up of agreements with (internal) customers and satisfaction of (internal) customers.

**Table 23: Other performance measures (report marks self assessed by supervisor) with the variable team work on the TNO AA 2005 data – supervisor level**

	Mean (range = 1-10)	N	Std. Deviation
--	------------------------	---	----------------

Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	The extent to which my workers can be mobilized broadly		
no	6.97	259	1.43
yes	7.27	651	1.19
Eta = .11; p<.01			
Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Product quality		
no	7.59	260	1.264
yes	7.64	650	1.217
Eta = .02; n.s			
Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Timely keeping up of agreements with (internal) customers		
no	7.47	258	1.162
yes	7.42	642	1.282
Eta = .02; n.s			
Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Development of new products/services		
no	6.41	236	1.737
yes	6.75	613	1.553
Eta = .09; p<.01			
Do you and your employees form a team of minimum 4 and maximum 20 persons who work on a product or service together?	Satisfaction of (internal) customers		
no	7.53	260	1.360
yes	7.44	644	1.255
Eta = .03; n.s.			

Finally, the TNO AA 2005 data in which we combined information of the supervisor and his or her employee gives us the best information about employee performance (report mark assessed by supervisor). The analysis presented in Table 24 shows quite a strong association between team work and employee performance. Employees working in a team of minimum 4 and maximum 20 persons who work on a product or service together, are given a report mark of 7,7 for their performance during the foregoing four weeks. On the contrary, workers who do not work in such a team are assessed a 7,3 by their supervisors.

**Table 24: Employee performance (report mark assessed by supervisor) with the variable team work on the TNO AA 2005 data – employee supervisor dyads**

Do you work in a team of minimum 4 and maximum 20 persons who work on a product or service together?	Mean (range = 1-10)	N	Std. Deviation
no	7.25	20	.72
yes	7.74	68	.75
Eta = .27; p<.05			

*Content and main findings – case studies or other qualitative research (Q.7.c)*

Correspondents are asked to give the main findings emerging from case studies or other qualitative research on the issue of team effectiveness subjectively perceived (the summary and expert reflexion of existing case studies on that issue is required).

**Q.8 Please reflect briefly on the existing governmental documents, policies, programs or social partners agreements**

## **discussing implementation of new work organization forms with emphasis on teamwork at national level.**

The topic of the implementation of new forms of work organization is hardly a policy issue in the Netherlands today. The standpoint of the government and the Ministry of Economic Affairs and the Ministry of Social Affairs and Employment are that this is the responsibility of social partners, companies and workers. Government policy restricts itself to combating risks, like in the field of safety and working conditions, and facilitating economic activities, by making rules and laws and breaking down governmental hindrances. The last governmental initiative in this field of new forms of work organization and team work dates from the mid nineties.<sup>5</sup> Since then work organisation and teamwork had an decentralised, indirect policy interest, especially via policy on working conditions. Legislation and policy making with regard to working conditions promoted healthy workplaces. One way of doing this was to offer social partners handbooks on organisational renewal to improve well-being at the workplace. Partly inspired by such handbooks<sup>6</sup>, there was a stream of projects aiming at organisational renewal by using management concepts from modern sociotechnology, lean production, world class manufacturing and business process reengineering since the beginning of the nineties. Many of these projects aimed at the introduction or improvement of team work. The other way to promote healthy work places was by installing covenants as a new way of governance<sup>7</sup>, especially in the realm of working conditions, so-called 'arbo-convenanten'. Within these covenants, which are agreements at sector level between social partners and the government, it was possible to set up organisational renewal projects. A few of such projects had team work as a topic. Similar projects could also be installed as a consequence of collective bargaining agreements. Unfortunately there is no overview of such projects. One example is the covenant in the construction sector to reduce health risk factors. Based on insights from sociotechnical design theory pilot projects were started to improve primary processes and logistics. A key variable was to improve team work aligned by sociotechnical principles. By now, there are many sectors in industry, services and the public sector that are working or have experienced with team work. Recently, the interest of the government is shifting back to the organisation of work. Under the denominator of 'social innovation' and 'working smarter' government is pushing the idea that any innovation cannot be exclusively technical innovation, but should also take into account human and organisational factors to become successful. Team work, however, is yet not mentioned as a central theme connected to social innovation.

---

<sup>5</sup> see Jongkind, R., Korver, T., Oeij, P., Vaas, F. (October 2004), Organizational perspective on market driven efficiency improvement. In Ministry of Economic Affairs (Reitsma, A., Raes, S., Schmieman, E. & Winden, P. van, Eds.), Market Regulation: Lessons from Other Disciplines (pp. 139-169). The Hague (Netherlands): Ministry of Economic Affairs. (from: [www.ez.nl](http://www.ez.nl); <http://apps.ez.nl/publicaties/pdfs/04AEP06.pdf>), page 166.

<sup>6</sup> e.g. Vaas, S., Dhondt, S., Peeters, M.H.H., Middendorp, J. Method well-being at work. Alphen aan den Rijn/Zaventem (Netherlands/Belgium): Samsom, 1995 (in Dutch).

<sup>7</sup> e.g., Korver, T. & Oeij, P.R.A. (2005), The Soft Law of the Covenant: Making Governance Instrumental. In European Journal of Industrial Relations, 11(3), 367-384. (From: <http://ejd.sagepub.com/current.dtl>).

Appendix A Company size by team work in an employer sample on team work

			Has your organisation introduced group work			Total
			yes	no	Not applicatble	
Company size	<=4	Count	325	658	1200	2183
		Row %	14,9%	30,1%	55,0%	100,0%
	5-9	Count	173	239	293	705
		Row %	24,5%	33,9%	41,6%	100,0%
	10-19	Count	126	151	95	372
		Row %	33,9%	40,6%	25,5%	100,0%
	20-49	Count	84	101	39	224
		Row %	37,5%	45,1%	17,4%	100,0%
	50-99	Count	28	39	9	76
		Row %	36,8%	51,3%	11,8%	100,0%
	>= 100	Count	23	29	6	58
		Row %	39,7%	50,0%	10,3%	100,0%
Total		Count	759	1217	1642	3618
		Row %	21,0%	33,6%	45,4%	100,0%

Karolus Kraan, Peter Oeij and Jan de Leede, TNO Work and Employment