LEARN

**Logistics Emissions
Accounting & Reduction
Network**

LEARN Exploitation Plan

D 6.6 - 2018

European
Commission

LEARN Exploitation Plan
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WP6 Dissemination & Exploitation

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Executive Summary

The LEARN Post Exploitation Plan details how LEARN products / outputs will continue to be exploited beyond the project. The plan's overall objective is to maximize the uptake by industry of carbon accounting and reduction. The plan's starting point is the call to action to 4 stakeholder groups (business, government, research and all stakeholders) and the LEARN products or outputs that can help these stakeholders to act. For each of these the key exploitation routes and players were identified, where naturally the 13 LEARN consortium partners take a lead role beyond the project. The plan was further guided by a survey of industry associations and their company members carried out under LEARN.

The exploitation plan is summarized in the table below. It will be updated and finalized in February 2019 after the LEARN International Workshop so that feedback from workshop participants and LEARN Expert Advisory Board members can be incorporated.

CALL TO ACTION	KEY LEARN PRODUCTS	KEY EXPLOITATION ACTIVITIES
Business		
Calculate logistics emissions using the GLEC Framework and various supporting tools and programs Report more consistent and reliable logistics emissions data (and use results for business decisions and actions that reduce emissions)	GLEC Framework Challenge Cases for companies	• SFC to continue with Challenge Cases through updating and expanding them • SFC to use Challenge Cases as input to the updated GLEC Framework (spring 2019) • ZLC to incorporate the Challenge Cases in the training package for road freight carriers
	Guidelines • Guidance (and web-based tool) for GHG Emissions Accounting at Logistics Sites (supplement to GLEC Framework) • Fact Sheets on Logistics Emissions Calculation Tools	• Fraunhofer IML will host the tool for continued availability • SFC to incorporate the guidance as part of the updated GLEC Framework • SFC to continue to update and expand the Fact Sheets on Logistics Emissions Calculation Tools • LEARN partners to bring the guidance products to the attention of relevant stakeholders that can make use of them (companies, managers of programs and initiatives, industry associations)
	Training curriculum and materials for road freight carriers on emissions accounting	• ZLC to take course elsewhere through the MIT network of universities and research institutes • IRU Academy could incorporate training on emissions accounting in the professional training to carriers [to be determined if and how] • SFC developed a GLEC Framework training course and Smart Transport Manager Training course that are brought to carriers working directly with multinational customers, and the LEARN training materials could be linked to these • ZLC to develop 2 Master programs and Open Executive Education programs
	GLEC Declaration (in lieu of eco-label)	• SFC to use GLEC Declaration as reporting format for companies that adopt the GLEC Framework • ZLC to incorporate the GLEC Declaration in the training curriculum and materials • DLR to take GLEC Declaration forward into the ISO development (subject to securing funding)
Government		
Support businesses to calculate and report logistics emissions	Policy Recommendations (full report & summary)	• Associations to influence national government policy and steer public-private partnerships • CLECAT to advocate the recommendations through bilateral meetings and events with policy makers and

CALL TO ACTION	KEY LEARN PRODUCTS	KEY EXPLOITATION ACTIVITIES
		other stakeholders as well as integrate recommendations into CLECAT policy positions.
		• UNTRR to inform its members and to develop its positions and advocacy to the relevant stakeholders at national and EU level, together with the IRU
		• CLECAT, ESC, IRU, Connekt, DLR, Fraunhofer, TNO and SFC who are members of ALICE to take the policy recommendations forward in the Roadmap towards Zero Logistics Emissions 2050.
		• CLECAT, IRU and SFC who are members of ITF's Decarbonizing Transport Initiative to take the policy recommendations forward to the new Horizon 2020 project Decarbonizing Transport in Europe.
Research		
Support businesses to calculate and report logistics emissions	Research development Agenda (full report & summary)	• DLR to explore developing "serious games"
		• DLR and other relevant partners to link the research and development agenda to other EC-funded projects, e.g. SENSE, AEOLIX, SELIS, Decarbonizing Transport in Europe
		• DLR, FNG, IVL, NTM, TNO, ZLC to incorporate recommendations from the research and development agenda into projects of research institutes, including LEARN partners but also other research institutes
		• DLR and SFC to explore how the research and development agenda can be considered in the programs and funding priorities of funders
All Stakeholders		
Join a growing network of stakeholders in support of logistics emissions calculation, reporting and reduction	LEARN Network of Networks >> Smart Freight Community	• SFC will continue to play a coordinating role to help businesses to navigate through the landscape of the various organizations, programs and initiatives that work with businesses on low-emissions freight, as well as link them up with each other
		• To be determined if and how DLR, FNG, IVL, NTM, TNO, ZLC could do something similar for research institutes or how this could be linked to or embedded into the above
	LEARN International Workshop >> Smart Freight Workshop (annual)	• SFC is working out a plan for an annual Smart Freight Summit following the LEARN International Workshops. [To be inserted in the final Post Exploitation Plan so that feedback from the second workshop can be taken into consideration].
Support the development of an ISO standard based on the GLEC Framework	Steps towards a GLEC Framework-based ISO standard	• DLR and SFC started a crowd-funding campaign to secure funding for the German DIN to host the international secretariat for the ISO standard development [status to be updated in the final Post Exploitation Plan]

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1. Introduction

1.1 LEARN Project

The Logistics Emissions Accounting and Reduction Network project (LEARN) empowers businesses to reduce their carbon footprint across their global logistics supply chains, through emissions measurement, reporting and verification (MRV). The LEARN project will last from October 2016 until March 2019 and is implemented by a 13-member consortium, coordinated by SFC and funded by the European Commission.

MRV of emissions by companies is improved and accelerated by LEARN in four ways:

- provide support to companies through guidance, training & education, and develop a blueprint set of calculation requirements for use of emissions data in labels
- test and validate with companies the practical applicability of emissions MRV and a label in complex multi-modal logistics settings
- promote and facilitate supportive policy and research
- develop and involve a LEARN multi-stakeholder network to maximize business uptake of carbon accounting and reduction

Figure 1. LEARN project

LEARN partners will work closely with related organizations, initiatives and already existing networks, several of which are managed by LEARN partners themselves.

> **LEARN partners:**
> - Smart Freight Centre (SFC) – Coordinator
> - Clecat - European Association for Forwarding, Transport, Logistics and Customs Service (CLE)
> - Deutsches Zentrum fuer Luft - und Raumfahrt EV (DLR)
> - Energy Saving Trust (EST)
> - European Shippers' Council (ESC)
> - Fraunhofer Gesellschaft zur Förderung der Angewandten Forschung eV (FHG)
> - Fundacion Zaragoza Logistics Center (ZLC)
> - IRU Projects ASBL (IRU)
> - National Union of Road Hauliers from Romania (UNTRR)
> - Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek (TNO)
> - Network for Transport Measures (NTM)
> - Stichting Connekt (CON)
> - Swedish Environmental Research Institute (IVL)

1.2 LEARN Post-project Exploitation Plan

Background and objective

A LEARN Communication Plan was developed that presents communication objectives linked to LEARN's overall objectives and main activities, and main communication objectives and messages for these general target audiences. The Stakeholder and Network Engagement Plan gives a more detailed overview of relevant stakeholders within these broader target groups, identifies specific priority organizations within these, and describes collaboration with each of them.

The LEARN Initial Exploitation Plan detailed for <u>during the project</u> the route-to-market of the LEARN products / outputs toward carbon accounting, the use of data to determine emission reduction opportunities, and public policy making and research in support of this.

This document is the **draft** LEARN Post-project Exploitation Plan that explains **how LEARN products / outputs will continue to be exploited <u>beyond the project</u>**. The plan's overall objective is to maximize the uptake by industry of carbon accounting and reduction. This can be achieved through the action of others, for example, policy makers that act upon policy recommendations from the project, industry associations that recommend quick wins to their company members, or research institutes that fill remaining gaps in carbon accounting. This document will be updated in February 2019 after the LEARN International Workshop.

Starting points

Industry associations provide a window to industry and are in a good position to assess the relevance to their members and support the uptake by companies. Three industry associations are partners of the LEARN consortium exactly for this reason: the European Shippers Council (ESC), the European Association for Forwarding, Transport, Logistics and Customs Services (CLECAT) and the International Road Transportation Union (IRU).

For this reason, the starting points for the LEARN Post-project Exploitation Plan are more heavily influenced by industry needs:

- LEARN products/outputs and relevance to carriers, LSPs and shippers according to industry associations (Annex A)
- LEARN industry survey of industry associations and company members (Annex B)
- Call to action to business, government, research institutes and other stakeholders (see table below).

Target audience	Call to Action	LEARN products/outputs
Businesses	Calculate logistics emissions using the GLEC Framework and various supporting tools and programs Report more consistent and reliable logistics emissions data (and use results for business decisions and actions that reduce emissions)	GLEC Framework Challenge Cases for companies
		Guidelines • Guidance (and web-based tool) for GHG Emissions Accounting at Logistics Sites (supplement to GLEC Framework) • Fact Sheets on Logistics Emissions Calculation Tools
		Training curriculum and materials for road freight carriers on emissions accounting
		GLEC Declaration (in lieu of eco-label)
Government	Support businesses to calculate and report logistics emissions	Policy Recommendations (full report & summary)
Research institutes	Support businesses to calculate and report logistics emissions	Research development Agenda (full report & summary)
All stakeholders	Join a growing network of stakeholders in support of logistics emissions calculation, reporting and reduction	LEARN Network of Networks >> Smart Freight Community
		LEARN International Workshop >> Smart Freight Workshop (annual)
	Support the development of an ISO standard based on the GLEC Framework	Steps towards a GLEC Framework-based ISO standard

Structure

The LEARN Exploitation Plan is structured into chapters 3 to 6 for these four stakeholder groups. Within these chapters, for each LEARN product or output the following is provided

- Product description
- How exploitation will occur and who will be involved

It is noted that specific stakeholders are identified in the Stakeholders and Network Engagement Plan, such as green freight programs, governments, companies and associations. For brevity, these are not listed again under the exploitation description for each product in this document.

3. Business

The call to action to businesses, including shippers, LSPs, carriers and operators of logistics sites is to

- Calculate logistics emissions using the GLEC Framework and various supporting tools and programs
- Report more consistent and reliable logistics emissions data (and use results for business decisions and actions that reduce emissions)

3.1 LEARN product: GLEC Framework Challenge Cases for companies

Product description

Feedback from the testbeds (see LEARN deliverable 4.4) is that companies face practical challenges in applying the GLEC Framework as shown in the figure below.

For that reason, "GLEC Framework Challenge Cases" of 2-3 pages were developed for the following 6 main challenges:

- How to adopt the GLEC Framework in combination with the methodologies, tools or standards they have been working with so far?
- How to integrate the collection, processing and reporting of data needed to calculate fuel use and emissions into the existing TMS and broader IT systems of the company?
- How to apply the GLEC Framework to specific segments and/or combinations of multiple modes and logistics sites of their logistics supply chain?
- How to decide when to use default or modelled data in the absence of primary data, and where to find these default factors?
- How to report results from applying the GLEC Framework to customers and the public/external stakeholders using the GLEC Declaration?
- How to use the results from using the GLEC Framework for different decisions and implementation of actions that improve efficiency and reduce emissions?

Each of these include a description of the challenge and ways to solve/address these. Experiences from the case study companies that participated in the LEARN project will be used as examples where applicable.

Product exploitation

All LEARN partners will be distributing the challenge cases and make use of them in their own work beyond the LEARN project. Exploitation activities include:

- SFC will use the Challenge Cases as further guidance for businesses that want to adopt or implement the GLEC Framework and update and expand them based on additional experiences from companies
- SFC will use the feedback from the testbed companies (as reflected in the Challenge Cases and/or deliverable 4.4 with the results of the testbeds) to improve the updated GLEC Framework that is to be released in spring 2019.
- ZLC will incorporate the Challenge Cases in the training package for road freight carriers

3.2 LEARN product: Guidance for GHG Emissions Accounting and Logistics Sites

Product description

Experiences of the testbeds, which were carried out during the LEARN project WP4 showed, that companies need guidance / support for the GHG assessment of logistics sites and the calculations of carbon intensity values for

complete logistics chain calculations (supported by the result of LEARN WP 3 and 5). For this reason, The following LEARN products are developed:

- Guidance for GHG Emissions Accounting and Logistics Sites was developed that details for logistics sites how to calculate GHG emissions conform the GHG Protocol and GLEC Framework.
- Web-based calculation tool to enable industry to easily evaluate logistics sites in the context of GHG emissions. [Note: this is pending approval of use of left-over funding as requested in Dec 2018]

Product exploitation

Exploitation activities include:

- Fraunhofer IML will host the guidelines and tool for logistics sites for continued availability
- SFC will incorporate the logistics sites guidance as part of the updated GLEC Framework
- LEARN partners will bring the guidance products to the attention of:
  - Companies, including shippers, LSPs, carriers and logistics sites operators
  - Managers of programs and initiatives, either industry or government led, for example in the UK where there are a number of initiatives that are reporting emissions for various reasons then the outputs from the LEARN project can be incorporated in a way that harmonizes approach and delivers impacts that are comparable. Another aspect will be in relation to government, where a need to meet carbon reduction targets exist and where targets are set that challenges the freight industry to take action. LEARN outputs on measurement and evaluation will be used to ensure that the uptake of measurement, reporting and validation is actually conducted and in a consistent manner.
  - Industry associations to ensure the guidelines reach companies but also to explore if these can be incorporated in sector specific guidelines. For example, the chemical or automotive industry sectors that have logistics emissions reporting guidelines.

3.3 LEARN product: Fact Sheets on Logistics Emissions Calculation Tools

Product description

The testbeds identified that many companies want to know if adopting the GLEC Framework can be combined with using an external calculation tool, which calculation tools are available and how they compare. Furthermore, among the 47 respondents to the survey of industry associations and member companies, 76% of respondents are 'quite likely' or 'very likely' going to make use of an overview of emissions calculation tools & strategies to improve efficiency and reduce emissions, if this would be made available to them.

For this reason, the following LEARN product is developed: Fact Sheets on Logistics Emissions Calculation Tools using a standard template will be prepared for at least 4-6 logistics emissions calculation tools available on the market as a starting point for companies and other relevant organizations to decide which tool is more suitable to their needs. [Note: this is pending approval of use of left-over funding as requested in Dec 2018]

Product exploitation

Exploitation activities include

- SFC will continue to update and expand the Fact Sheets on Logistics Emissions Calculation Tools
- LEARN partners will bring the guidance products to the attention of companies, managers of programs and initiatives, industry associations such as the European Warehousekeepers Federation (EWF) who can help with the uptake of logistics sites guidelines

3.4 LEARN product: Training curriculum and materials for road freight carriers on emissions accounting

Product description

The training products

- Curriculum with topics + relevant literature + instructions on how to prepare the training:
  - Webinars 30-90 min
  - In person course 0.5 – 2 days
- Training materials (English, Romanian, Spanish, with subtitles where necessary)

- Videos of webinars (1 Spanish, 1 English, 3 more to follow in English on specific topics)
- Video of interview with Alan Lewis (as part of Romanian training)
- Ppt presentations
- GLEC Framework Challenge Cases
- Platform: website with materials, links, contact
- Survey of stakeholders (this will also be published in a book on user-centric transport that is published by Springer in 2019)

Product exploitation

Exploitation activities in relation to the curriculum and training materials include:

- ZLC is part of an MIT network of universities and research institutes that could take the training course elsewhere
- IRU Academy that provides professional training to carriers [To be determined if and how IRU Academy will make use of these]. It is noted that industry associations in the survey (see annex) indicated 'quite likely' or 'very likely' to offer training on carbon emission accounting to their members/staff/subcontractors (64%), but few (25%) of them are willing to pay for a license fee to be able to provide such trainings – meaning that an alternative fee structure needs to be found to make training work if it is to be delivered through associations.
- SFC developed and is already delivering a GLEC Framework training course and Smart Transport Manager Training course that are brought to carriers working directly with multinational customers, and the LEARN training materials could be linked to these
- Training curriculum and materials online can be used by other organizations / training providers to deliver training to carriers.
- ZLC wants to develop and deliver a course to Master students (2 Master programs and Open Executive Education programs) that builds on the curriculum and training materials
- [ZLC to add information on the exploitation of the training and education survey]

3.5 LEARN product: GLEC Declaration (in lieu of eco-label)

Product description

Shippers face challenges with obtaining relevant and consistent data from transport operators/carriers, and in reverse, transport operators are faced with customers asking for different information and varying formats. This results in inefficient use of resources and reduces the reliability of data and usefulness of results by companies.

For this reason, the "GLEC Declaration" was developed in consultation with businesses as well as green freight programs, NGOs, policy makers and the EC. The aim is to reach a more harmonized disclosure of data / information and increase transparency. The GLEC Declaration provides a standard "menu" of information companies can report covering GHG data, explanation of what is included, data sources, and whether information was independently verified. A GLEC Declaration can be issued at two levels:

- Business to business reporting (may be supported through a green freight program or similar initiative)
- Public reporting or reporting to other external stakeholders

Use of the GLEC Declaration will streamline the effort required by businesses to report and achieve assurance on reported information, leading to greater understanding of results, lower costs and allowing greater focus on emission reduction.

Product exploitation

Exploitation activities in in relation to the GLEC Declaration include:

- SFC will use the GLEC Declaration as reporting format for companies that adopt the GLEC Framework. This includes embedding it, along with the GLEC Framework itself, in relevant programs and initiatives, most importantly

- ZLC to incorporate the GLEC Declaration in the training curriculum and materials
- DLR to take GLEC Declaration forward into the ISO development (subject to securing funding, see section 6)

4. Government

The **call to action** to government, including national, provincial/state and city governments as well as international governmental organizations such as the United Nations is to support businesses to calculate and report logistics emissions.

4.1 LEARN Product: Policy Recommendations

Product description

There are gaps and inconsistencies in policies that make it harder for companies to calculate and report their logistics emissions. For this reason, as part of LEARN, a coherent set of policy recommendations was developed for use by national governments, the European Union (EU) and related organizations involved in setting or implementing policy agenda such as development banks and non-governmental organizations (NGOs). The objective is to, through recommending policy priorities, enable policy making that is aligned with both high-level targets and industry needs and activities. Policy recommendations are grouped around the four enablers that were identified in the LEARN proposal, namely:

- Methodology development for logistics emissions measurement
- Data collection and exchange
- Verification and certification
- Labels to reward business

Recommendations are provided for governments in general and the EC specifically.

Exploitation

Exploitation activities will be geared primarily to policy makers and gives priority to the EU and US as listed in the Stakeholders and Network Engagement Plan and organizations influencing policy, such as associations and NGOs. LEARN partners that are involved with policy makers and regulators will refer to LEARN project outputs to influence programs, initiatives and emission reduction strategies in a way that will lead to consistent and harmonized methods of measuring, reporting and verification that support policy objectives.

However, given that the recommendations will be from the perspective of how better policy can work to incentivize companies to account for and reduce emissions, the most logical partners to take the lead on this exploitation are industry associations ESC, CLECAT, IRU and UNTRR. It is noted that the survey of industry associations and selected member companies (see annex) found that respondents are affected and concerned about regulations on GHG emissions calculation and reporting but this has yet to translate in active involvement in public policy making or a request to industry associations to give support in this area. At the same time, 50-70% of respondents would 'likely' support the specific policy recommendations from the LEARN project. This means that industry associations should take a leading role and not wait for the majority of its members to request for policy action.

All four associations indicated to use LEARN policy recommendations to influence national government policy and steer public - private partnerships with the aim of setting commitments for the freight industry. An example is UK DfT commitment or challenge to the road freight logistics sector to reduce emissions by 15% by 2025 within the "Road to Zero" strategy document.

In addition, CLECAT indicated the following exploitation activities:
- Identification of policy 'hooks' i.e. relevant policy initiatives where LEARN recommendations can be advocated;
- Carrying out this advocacy through:
    - Bilateral meetings with policy-makers (Commission, MEPs, Permanent Representations) linked to these initiatives;
    - Events (CLECAT, European Logistics Platform, etc.) on sustainable logistics subjects with a policy-making audience;
    - Bilateral meetings and events with other stakeholders in order to recruit supportive allies for LEARN recommendations
    - Integration of recommendations into CLECAT policy positions

UNTRR from Romania indicated to

- Inform members, Romanian road transport companies on LEARN policy recommendations.
- Use LEARN policy recommendations, based on Romanian road transport companies feedback, to develop its positions and advocacy to the relevant stakeholders at national and EU level, together with the IRU.[1]

ALICE-ETP. CLECAT, ESC, IRU, Connekt, DLR, Fraunhofer, TNO and SFC are all members of the Alliance of Logistics Innovation and Collaboration in Europe (ALICE). Sophie Punte of SFC is also the chair of the Sustainable Logistics working group of ALICE to develop a "Roadmap towards Zero Logistics Emissions 2050." The framework for a decarbonization roadmap (shown below), consists of five solution areas, four stakeholder groups and five transition management measures where stakeholder need to collaborate. This framework can be applied at the global, regional and national/local levels and used by businesses or other organizations individually or collectively.

The LEARN policy recommendations have been embedded in the transition management part of the roadmap focused on calculating and reporting emissions. The process to further develop the roadmap for Europe leading to 80%+ emission reduction by 2050 will continue into 2019 and conclude in September 2019 in Vienna. This is then followed by ALICE supporting the implementation of the Roadmap. This will take place beyond LEARN, and thus the policy recommendations are taken forward.
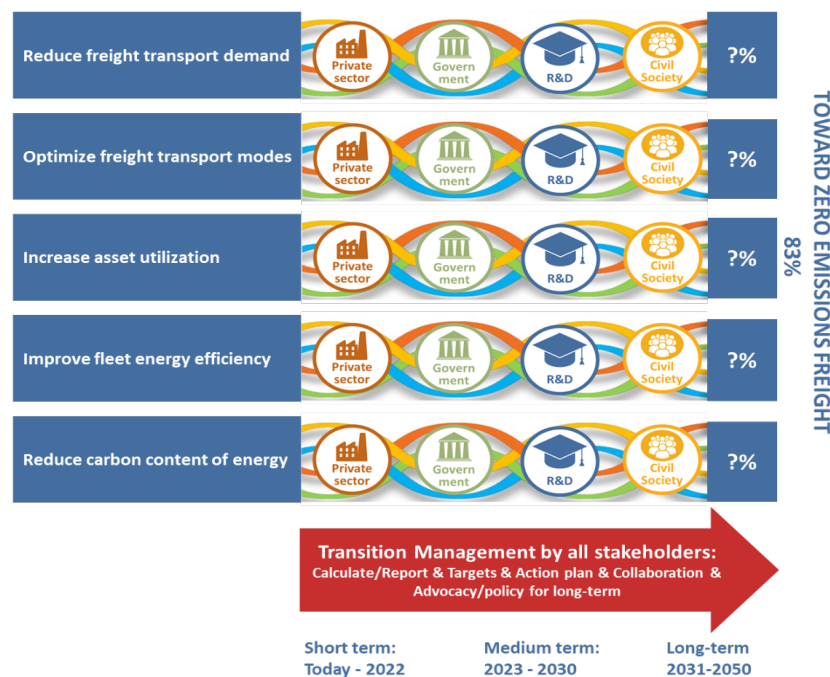
We will also seek to feed the ALICE Roadmap, including the LEARN policy recommendations, into the new Horizon 2020 project started by the International Transport Forum (ITF) on Decarbonising Transport in Europe. It aims to help European stakeholders identify effective policy measures and scenarios to reduce transport CO2 emissions and meet Europe's climate goals. CLECAT, IRU and SFC are member of ITF's Decarbonising Transport initiative and often involved as experts in workshops and other activities under this initiative, and can therefore take the LEARN policy recommendations to this initiative too.

Finally, it is noted that the EC Energy Efficiency Directive could have a significant influence on the speed at which logistics emissions calculation, reporting and reduction takes place. Article 7 of the Energy Efficiency Directive places an obligation on energy companies to take steps and work with other stakeholders to invest in energy reduction activities. To-date very few countries have included the transport sector in the implementation of Article 7, but it is our understanding that this will change during 2019 with some important changes being planned. Two of the countries that have implemented Article 7 in the transport sector, France and Ireland, have extremely relevant schemes. The French legislation on GHG reporting dating from 2012 is well known, but I did not realize until recently that the supporting programs like ObjectifCO2 and FRET21 are part-funded by energy sector contributions. The situation in Ireland is more directly relevant because there is a scheme in place where carriers report emissions into a centralized system that is used to track their energy and emission reductions and pay financial incentives. SFC is in discussion with both of these

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[1] In 2017 UNTRR has addressed a letter to the National Regulatory Authority in the field of Energy in Romania(ANRE), informing it on UNTRR involvement in LEARN project and asking for information on the applicable legislation on energy efficiency in road transport. The same year, some Romanian transport companies participating in LEARN tests have been asked by ANRE to provide declarations on annual fuels consumption for road transport activity.

schemes, separately, to amend their structures and align with the GLEC Framework and the required data structures. However it is time consuming to make even minor changes to systems that are already in place. The expansion of Article 7 to many other countries provides the opportunity to shape the data structure that is put in place from the start. Common data structures for carrier data collection remain a gap that we will highlight at the conference. Put simply, a coordinated data collection requirement like this would be a crucial signal to the companies that provide carriers with their software to upgrade the information requested – something that is not coming from the market alone.

5. Research Institutes

The **call to action** for research, which includes universities, research institutes, researchers working at consultancies or similar organizations and independent researchers is to support businesses to calculate and report logistics emissions.

5.1 LEARN Product: Research and Development Agenda

Product description

Supportive research is important to inform and advance action by industry. For this reason, as part of the LEARN project a Research and Development Agenda was developed with stakeholders on the issue of transport chain emission calculation to the attention of the European Commission, policy leaders and civil society. It builds on two previous research publications ('Status-quo of research and publications development on emission calculation standardization for transport chains' and 'Approach for closure of identified gaps for eco-labelling of transport chain emissions'), feedback from the LEARN mid-term strategic report and the interim testing results.

The Research and Development Agenda covers four areas:
* Methodology improvements
* Expansion of methodologies: air pollutants, infrastructure, packaging
* Data exchange & neutral platform
* Forecast calculations of emission reduction measures

Exploitation

Exploitation focuses on how the research and development agenda finds its way into
* Research work/programs of different organizations, most importantly research institutes, the EC and national governments
* Policy: the report on closure of methodology gaps will feed into the policy recommendations, which will be updated once the research and development agenda is finalized.
* Funding priorities of foundations, development agencies and other funders, especially those with a research-industry nexus, such as the Volvo Research and Education Foundation (VREF).

Exploitation activities include:
* DLR to explore developing "serious games"
* DLR and other relevant partners to link the research and development agenda to other EC-funded projects, e.g. SENSE, AEOLIX, SELIS, Decarbonizing Transport in Europe
* DLR, FNG, IVL, NTM, TNO, ZLC to incorporate recommendations from the research and development agenda into projects of research institutes, including LEARN partners but also other research institutes
* DLR and SFC to explore how the research and development agenda can be considered in the programs and funding priorities of funders

6. All Stakeholders

LEARN stakeholders span a wide range of stakeholders: companies (carriers, LSPs, cargo owners), research and academic institutions, NGOs, standardization and certification bodies, consultants/service providers, development agencies, foundations, international organizations, and national and local governments. The **call to action** for all stakeholders is to

- Join a growing network of stakeholders in support of logistics emissions calculation, reporting and reduction
- Support the development of an ISO standard based on the GLEC Framework

The LEARN products are:

- LEARN Network of Networks >> Smart Freight Community
- LEARN International Workshop >> Smart Freight Workshop (annual)
- Steps towards GLEC Framework-based ISO standard

6.1 LEARN Network of Networks >> Smart Freight Community

Description

The fragmentation of organizations, programs and initiatives working on low-emissions freight has meant that many businesses don't see the wood for the trees, often resulting in less effective efforts, or worse, inaction. "Organizing" stakeholders is therefore of essence.

As it is not possible to reach out to each individual stakeholder, LEARN had to especially target those who bring stakeholders together or represent them as shown in the figure in chapter 1: associations and business networks; programs and initiatives; research networks; standardization and certification bodies; international organizations and forums, and governments. To be efficient <u>and</u> effective in dissemination and exploitation, LEARN operated at three levels (see diagram below):

- consortium partners & Advisory Board that lead LEARN
- participants, associates and supporters that take active part in the LEARN work packages
- and the broader LEARN network for further reach and exploitation.

The LEARN project focused on establishing a 'network of networks' to build on what already existed and ensure continuation beyond the project period.

	Business, associations & business networks	Govern-ments	Standardization & certification Bodies	International organizations & networks	Research networks	Programs & initiatives & NGOs
LEARN broader network	*Stakeholders within the LEARN broader network*					
LEARN Participants, Associates & Supporters	GLEC IAPH DHL ECTA K+N (tbc) ITEC Maersk Geodis Ford UIC INLCAM UIRR De Rooy Transport Hapag Lloyd KALEIDO		DIN WRI	World Bank GIZ UN CCAC UNCTAD EBRD WEF ICLEI	MIT ITBA CIRCE Newrail	ICCT ECO Stars EcoTransIT TK Blue ALIA Logistop TSC
LEARN Consortium Partners	IRU ECF CLECAT UNTRR				IVL DLR ZLC FHG TNO	SFC Connekt NTM EST
LEARN Advisory Board	DB Schenker HP	ADEME USEPA			KLU	Ertico – ITS Europe Green Freight Asia

Exploitation

For exploitation in the longer term, the focus needs to lie on how to continue to foster and grow this 'network of networks' that makes use of and leverage existing channels of LEARN partners, rather than establishing new ones, <u>and</u> can continue beyond the LEARN project.

SFC will continue to play a coordinating role to help businesses to navigate through the landscape of the various organizations, programs and initiatives that work with businesses on low-emissions freight, as well as link them up with each other. This is shown below and mainly done through

- Work on embedding the GLEC Framework (and GLEC Declaration) in green freight programs and tools (who can be accredited "conform the GLEC Framework"), guidelines of industry associations (e.g. CEFIC, FEPORT), and sustainable investment and rating schemes (e.g. CDP and DJSI)
- Advocate for and give input on logistics emissions calculation, reporting and reduction in initiatives that have their own networks (e.g. ALICE, Sum4All, and ITF Decarbonizing Transport Initiative), as well as business networks
- Continuation of the process to make stakeholders aware of information that includes news, events and publications that was initiated through the LEARN project, by compiling and disseminating overviews every 2-3 months.

[To be inserted if and how DLR, FNG, IVL, NTM, TNO, ZLC could do something similar for research institutes or how this could be linked to or embedded into the above].

6.2 LEARN International Workshop >> Smart Freight Workshop

Description
Two LEARN International Workshops are held, one in April 2017 and a closing workshop in February 2019. Participants are

- Businesses (shippers, logistics service providers, freight operators, OEMs and technology providers) that are thinking about or working towards more efficient and low-emission freight transport.
- Organizations or policy makers that interact with the freight sector and that want to keep informed on the latest developments in and feasibility of options to drive low emission freight.
- Academics and researchers that want to keep informed of the perspectives of governments and business to steer research that is relevant to supporting the sector transformation.

Feedback from the first LEARN International Workshop held in April 2017 was that participants would welcome an annual workshop on the topic of logistics emissions accounting and reduction and particularly geared to businesses.

Exploitation
SFC is working out a plan for an annual Smart Freight Workshop following the LEARN International Workshops. This is likely to be carried out in partnership with others, such as ALICE-ETP, USEPA SmartWay or UNCTAD [Description to be inserted in the final Post Exploitation Plan so that feedback from the second workshop can be taken into consideration].

6.3 Steps towards GLEC Framework-based ISO standard

Description

The policy recommendations confirmed that governments are likely to back the GLEC Framework faster if it were to evolve into an ISO standard. For this reason, as part of the LEARN project, work was undertaken to propose the development of an international standard encompassing a common methodology for the calculation and declaration of energy consumption and greenhouse gas (GHG) emissions related to any transport service (i.e. of freight, passengers or in combination).

The proposed standard will specify general principles, definitions, system boundaries, calculation methods, apportionment rules (allocation) and data recommendations, with the objective to promote standardized, consistent, credible and verifiable declarations, regarding energy consumption and GHG emissions related to any transport service. It will also include examples on the application of the principles and default emission and consumption data recommended in the absence of available company data. The proposed standard is in its scope related to the whole transport chain and needs to enable seamless carbon accounting throughout the transport chain.

Potential users of this proposed standard are any person or organization who needs to refer to a standardized methodology when communicating the results of the quantification of energy consumption and GHG emissions related to a transport service, especially:

- Transport service operators (freight or passenger carriers)
- Transport service organizers (carriers subcontracting transport operations and freight forwarders)
- Transport service users (shippers or cargo owners and passengers).

The content of the freight transportation aspects of this standard will be based on the latest version of the GLEC Framework available at the time of development in order to ensure alignment with the current state of the art in industry capability and thinking in this area. Alignment with the GLEC framework will ensure that the ISO standard is fully in line with the requirements of Scope 1-3 reporting according to the GHG Protocol "Corporate Value Chain (Scope 3) Accounting and Reporting Standard."

The above development also relates to revision of the existing EN 16258:2012 and its review scheduled to occur in 2019. It envisages that the related ISO standard is developed according to the Vienna Agreement leading to a single form of wording and approach at global level. The proposed ISO standard shall be part of an already existing family, with preference to ISO 14067 (once issued) or ISO 14040, ISO 14044, ISO 14064 as applicable.

Exploitation

The timescales for the development of such an ISO are lengthy. Assuming that approval is given then the likely duration of the formal process is 3 to 4 years, even with a solid basis such as is provided by the GLEC Framework and the existing EN 16258.

Added to this is the formal process to gain approval for the standard development process through the relevant ISO committees, such that the decision to proceed will only be taken in summer 2018. Hence the earliest date for approval if a final standard would be late 2021, with implementation no earlier than 2022; i.e. well after the LEARN project has finished.

Bringing this about will depend upon the development of a strong network and momentum for this project while LEARN is underway, such that all mechanisms are in place at ISO and CEN levels, with the necessary support from standards bodies, industry representatives, researchers and policy makers to ensure a successful outcome.

[DLR and SFC started a crowd-funding campaign to secure funding for the German DIN to host the international secretariat for the ISO standard development. Status and next steps to be updated at the end of the LEARN project in the final Post Exploitation Plan].

ANNEXES

A. Ranking of LEARN products / outputs by industry associations

Together with CLECAT, ESC and IRU we identified for key LEARN products and services whether these are of high, medium and low relevance to carriers, LSPs and shippers. This is shown in the table below.

Products/services (and project month of delivery)	Carriers	LSPs	Shippers	Relevance to companies and comments
• Guidelines for validation and reporting of emissions & reporting templates (mth 29)	Urgent	H	H	Different guidelines for with/without assets
• Eco-label blue print (mth 14 +29) – NOTE: this has become the "GLEC Declaration"	L (H if customer asks)	H	H	Declaration of data reliability
• Policy recommendations for MRV (mth 18 + 30)	0	L	L	Relevant for member associations
• Report on approach for closure of methodology gaps (mth 14) • Research and Development Agenda recommendations (mth 25)	L	L	L	Relevant if companies focus on the specific gap (e.g. warehouse operators) Gaps solutions should be included in guidance
• Testing results with companies (mth 15 + 26)	H	H	H	Highly relevant only if beyond technical: Link to "what's in it for me" Lessons learned Data interpretation & use Steps to apply (process, not technical)
• Training course (mth 16 – 29)	H	H	H	Must be linked to what's in it for me + guidelines Different courses for with/without assets and for management and employees
• LEARN network (ongoing)	L	M	L	Some relevance for member associations For carriers only if trucks are owned Relevant if can establish direct link with cost savings, e.g. fuel-saving measures

B.LEARN Industry Survey

A survey was conducted between June and August 2018 among members of the four industry associations that took part in LEARN (ESC, CLECAT, IRU and UNTTR) on calculation and reporting of GHG emissions in the logistics sector. Key results are summarized below.

Respondents profile
Of the 47 respondents
- 13 European countries, mostly from Western Europe
- 9 (18%) operate outside of Europe as well
- 31% represent associations, including shippers (3%), freight forwarders/LSPs (8%) and carriers (20%)
- 66% represent individual companies including shippers (26%), freight forwarders/LSPs (26%) and carriers (14%)
- 3% represent other type of respondents

Barriers
Respondents ranked the following barriers to logistics emissions accounting and reporting in order of importance
- Uncertainty over which calculation methodology to apply or calculation tool/reporting scheme to use
- No mandatory requirement to report GHG emissions of logistics services
- No regular demand from customers for data on GHG emissions
- Difficulty to identify and evaluate the immediate benefits of this activity
- Reluctance to share data on operations with other companies
- Not enough human/financial resources available within the company to carry out this task

Use of LEARN products
Overall, more than two-thirds of respondents are 'quite likely' or 'very likely' going to make use of LEARN products as follows:
- 76% Overview of emissions calculation tools & strategies to improve efficiency and reduce emissions
- 68% Standard template to collect and report data
- 64% Standard statement that describes reliability of reported data ('GLEC Declaration' in lieu of Eco-label)
- 64% Training materials & case studies on logistics emissions calculation
- 64% Overview of green freight programs and initiatives
- 52% Overview of relevant stakeholders

Training
More than two-thirds of respondents expressed an interest in training. Respondents are 'quite likely' or 'very likely' to
- Participate in training on calculation & reporting of carbon emissions (56%), assurance of the carbon footprint reported (48%) and strategies to improve efficiency & reduce emissions (68%), showing that a more effective way is to promote emissions calculation and reporting is by coupling it to reduction strategies.
- Participate in blended courses (44%) over e-learning (28%) and in-person training (12%) on its own
- Participate in a 1-day training (43%), over a half-day training (33%) or 2-day training (24%)
- Pay for a training course based on a 240-360 Euro per day fee (56%)
- Offer training on carbon emission accounting to their members/staff/subcontractors (64%), but few (25%) of them are willing to pay for a license fee to be able to provide such trainings – meaning that an alternative fee structure needs to be found to make training work

Research priorities
Over 75% of respondents 'agree' or 'strongly agree' that the following research topics on the calculation and reporting of carbon emissions are important, starting with topics that ranked highest:
- Data specification for all transport modes to calculate emissions
- GHG emission calculation methods
- Using calculation results for the planning and evaluation of transport services
- Air pollutant calculation methods
- Measures to improve efficiency and reduce emissions Sources for unambiguous default data for all modes and transhipment centers

- Formats and protocols for data collection, reporting and assurance defined on a global scale, enabling communication and comparison across organisations

Policy agenda

Respondents are affected and concerned about regulations on GHG emissions calculation and reporting but this has yet to translate in active involvement in public policy making or a request to industry associations to give support in this area.

- 79% are affected to different degrees by regulations on carbon emission accounting: 50% somewhat, 8% quite, and 21% very much affected, for example by the 'French Decree' that mandates logistics emissions reporting
- 84% are concerned by potential future regulations on carbon emission accounting: 33% somewhat, 38% quite, and 13% very concerned
- 71% are active in trying to influence public policies on carbon emission accounting: 50% somewhat, 17% quite, and 4% very active
- 15% are looking for support from industry associations on policy advocacy on the topic of logistics emissions calculation and reporting

At the same time, respondents that would are 'likely' going to support policy recommendations from the LEARN project:

- 70% or more
  - Support for initiatives linking emission calculation to reduction efforts
  - Logistics emission reduction targets at the national/EU levels
  - ISO standard on GHG emission accounting
- 60% or more
  - Information and awareness campaigns
  - Overview of emission reduction measures
  - Single set of fuel emission factors using a common calculation approach
  - Protocols for data collection, reporting and assurance for all modes and transhipment centres
- 50% or more
  - Company recognition scheme that builds on existing national schemes
  - Survey to establish business readiness for emission reporting