

SoCool@EU

Sustainable Organisation between Clusters Of Optimised Logistics @ Europe



Deliverable nº D3.1: Report on Cluster Conference

**Within the context of Work Package 3 - Initiatives to improve
integration: definition of a joint action plan**

Version	Date	Release	Approval
03	09-07-2013	House of Logistics & Mobility (HOLM) and Schumpeter Center for Clusters, Innovation and Public Policy (in-house consultant of HOLM)	Consortium

Document Log

Version	Date	Comments	Name and Organisation
01	24-06-2013	Adaption and further development of project proposals	All consortium partners
02	09-07-2013	Final editing	Pascal Huther (HOLM); Laura Becker, Carsten Schindler (Schumpeter Center for Clusters, Innovation and Public Policy; in-house consultant of HOLM)
03	09-07-2013	Quality control; Format and style update	Meng Lu (Dinalog)

List of Partners

Beneficiary nº	Partner	Country
1 (Coordinator)	Dutch Institute for Advanced Logistics (Dinalog)	The Netherlands
2	House of Logistics and Mobility (HOLM)	Germany
3	Asociación Logística Innovadora de Aragón (ALIA)	Spain
4	Lund University (ULUND)	Sweden
5	Mersin Chamber of Commerce and Industry (MTSO)	Turkey

Table of contents

0	Executive Summary.....	4
1	Introduction to the Cluster Conference	5
2	Discussion of Project Proposals in the Field of Joint Actions	7
2.1	Advanced supply chains and ICT	7
2.2	Cluster development and internationalisation	13
2.3	Green logistics	17
2.4	Intelligent hubs	23
2.5	Knowledge transfer and valorisation.....	25
2.6	Urban logistics.....	27
3	Conclusion and Outlook.....	29
4	Annex.....	30
4.1	Agenda.....	31
4.2	List of participants	32
4.3	Workshop documentation.....	35
4.4	Impressions of the conference	38

0 Executive Summary

This report is part of the project “Sustainable Organisation between Clusters of Optimised Logistics @ Europe (SoCool@EU)”, funded under the 7th Framework Programme of the European Union. Five world-class clusters have joined forces in this project to create an open European hub that will enable research-driven regional clusters throughout Europe to collaborate and mutually learn in order to achieve more sustainable and competitive freight gateways and hubs with associated logistical services and transport operations. Together, they build a leading network of logistics gateways in Europe:

- Dutch Institute for Advanced Logistics (DINALOG), Netherlands South West & Flanders Cluster - The Netherlands / Belgium
- House of Logistics and Mobility (HOLM), Rhein-Main Region - Germany
- Asociación Logística Innovadora de Aragón (ALIA), Region of Aragón - Spain
- Lund University, Øresund Region - Denmark / Sweden
- Mersin Chamber of Commerce and Industry, Mersin Logistics Cluster - Turkey

The partners have implemented a detailed analysis of the collaborating regions and clusters and have elaborated on a Joint Action Plan which describes the identified fields for the development of mutual activities and projects between the clusters. The Joint Action Plan constitutes the foundation for a detailed Business Plan which will specify the relevant joint projects that can be developed among the clusters and its stakeholders. The Business Plan will elaborate on the motivation, objectives, activities, risks, possible actors and funding sources for each project.

The current report provides a summary of the SoCool@EU Cluster Conference which took place at the HOLM-Forum at Frankfurt/Main Airport on 11 June 2013. The feedback received from regional stakeholders of the project clusters in the conference workshops constitutes additional input for the specification of the Joint Action Plan and the Business Plan. A networking event for the regional stakeholders with the opportunity to meet, share knowledge, and create a basis for future business opportunities rounded off the event.

1 Introduction to the Cluster Conference

In the context of the 7th Framework Programme of the European Union, five regional logistics hubs have joined in the project “Sustainable Organisation between Clusters of Optimised Logistics @ Europe (SoCool@EU)” to foster sustainable economic development in Europe by boosting the competitiveness of the transport-related economy. In their position as mature logistics clusters, the five SoCool@EU partners contribute with their expertise as deep sea-, short sea shipping-, airport- and dry hubs.

- Dutch Institute for Advanced Logistics (DINALOG), Netherlands South West & Flanders Cluster - The Netherlands / Belgium
- House of Logistics and Mobility (HOLM), Rhein-Main Region - Germany
- Asociación Logística Innovadora de Aragón (ALIA), Region of Aragón - Spain
- Lund University, Øresund Region - Denmark / Sweden
- Mersin Chamber of Commerce and Industry, Mersin Logistics Cluster - Turkey

More specifically, the goal extends to increasing intra-cluster and especially inter-cluster interaction between actors of the private sector, research institutions and public authorities (“triple helix”) in collaborative projects to

- foster knowledge development and transfer, boost the exchange of best practices and facilitate collaborative efforts in research and education,
- leverage the single European marketplace for logistics and contribute to the internationalisation of the clusters,
- match regional innovation agendas and enable synergies and combined approaches to hub, gateway and intermodal transport operations, and
- provide mentoring services to regions with yet developing logistics clusters.

The present report on the cluster conference at the HOLM-Forum at Frankfurt/Main Airport on 11 June 2013 is part of Work Package 3.

The cluster conference was conducted to present the central findings from the analysis and the cluster report elaborated in Work Package 2 of SoCool@EU, as well as to discuss the emanating project focus with actors from the SoCool@EU clusters external to the consortium and with further international experts from the sector. Attendees were asked to participate in workshops to collect input for the formulation of the Joint Action Plan and Business Plan and discuss and define specific topics and objectives along with possible activities. The current report describes the cluster conference and its central findings as elaborated together with the conference participants (4.2).

After the welcoming words of Dr. Stefan Walter, managing director of House of Logistics and Mobility (HOLM) GmbH, two speakers acquainted the conference participants with the topics of the conference:

- 1) Richard Tuffs, Director of the European Regions Research and Innovation Network (ERRIN), briefly familiarised the attendees with the SoCool@EU project in regard to scope, process and methods. Further, Mr. Tuffs elaborated on the role and activities of ERRIN and the Regions of Knowledge programme in general, and highlighted the importance of the regional perspective for the future innovativeness and competitiveness of European industries.
- 2) Susanna Caliendo, head of the European office at FrankfurtRheinMain, gave insights into the role, objectives and services of the bureau. Ms. Caliendo also presented some current European networks, projects and funding programmes, and summarized prevalent challenges of working in projects on a European/international level.

The main purpose of the following workshop sessions was to gain input from logistics actors external to the consortium regarding joint fields for action for SoCool@EU and related project proposals. Prior to each of the two workshop rounds, each participant was given the opportunity to collect and review an abstract on the project proposals discussed in the different workshops. The one-pagers provided a short overview on the motivation (why?), the objective (how?) and possible activities (what?) as a basis for discussion.

To collect applicable advice on directions for the Joint Action Plan and Business Plan, emphasis in workshop discussions was placed on activities (what?) to be realized in the context of projects. Consequently, a pre-prepared flipchart displayed the activities proposed in the one-pagers. The moderator initiated the discussion by asking participants to comment on the suggested activities. As a result from the following interactive discussion, the initially proposed activities were evaluated for their relevance, and new activities were suggested in cases when missing from the point of view of participants.

Within each workshop, up to three project proposals and their related activities were discussed. To conclude the discussion on each project proposal with a workable result for the Joint Action Plan, the Business Plan, and consequently also Work Package 4, participants received stickers and were asked to prioritize the collected activities in terms of relevance. The following report illustrates the initially distributed abstracts, the minutes from the discussions and the prioritisation of activities as elaborated by conference participants.

2 Discussion of Project Proposals in the Field of Joint Actions

2.1 Advanced supply chains and ICT

Smart humanitarian logistics – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — Humanitarian logistics consists of preparedness for fast and slow on-set disasters (including e.g. development of competence, supplier relationships, pre-positioning of stocks), response (during a disaster) and recovery (getting back to normal state, e.g. rebuilding), and also concerns logistics activities related to long-term development, e.g. education and fighting HIV/Aids. — Humanitarian logistics often involves coordinating a large number of independent actors in context of unpredictable demand, low levels of information, political instability or conflicts, and infrastructure deficiencies. — With logistics accounting for up to 80% of the total costs of a disaster relief project, the potential benefits from improved efficiency are immense. — In humanitarian logistics operations, it is estimated that every year between 2.5 and 7 billion USD are lost due to inefficiencies. At the same time, more than 25 million people in need do not receive support due to insufficient funding.
<i>WHAT</i>	<ul style="list-style-type: none"> — Developing basic tools and training modules within humanitarian logistics in order to improve overall efficiency in conduct, e.g. for logistics and supply chain re-routing/scheduling in response to infrastructure losses. — Identifying best practices for humanitarian logistics, and thereby drawing on knowledge from business-driven logistics (clusters), e.g. construction site logistics.
<i>HOW</i>	<ul style="list-style-type: none"> — Developing basic training courses in short modules in supply chain management that can be delivered to staff at humanitarian organisations as well as over the internet to enhance the capabilities of in-country practitioners in the field at their convenience. — Developing basic tools (e.g. robust IT) for information and inventory management, transport scheduling that can be used by non-supply chain experts.

Summary of the main results

Initially, the moderator underlined the ambition of the consortium to “work on humanitarian logistics on a European level” and pointed out an example of the significance of this activity in the Øresund region. Participants agreed on the importance of training and the need for more training offers to improve overall efficiency in conduct, especially for in-country practitioners in the field. They suggested e-learning as an interesting alternative to seminars and training courses, especially in cases where knowledge needs to be obtained very quickly and in distant places, e.g. in the context of disaster operations. As for institutional education offers, the lack of relevant bachelor programmes was noted (most degree programmes are on a master level).

In the continuing discussion, the suggestion was made from the industry side to put more emphasis on information supply and add an activity in regard to better information and communication to possible project contents. On-the-fly information and information about local experts and contact persons are most relevant to be able to operate efficiently in difficult environments. Also, there seems to be a need for better products in humanitarian logistics to enable more efficient logistics activities in this field.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ¹	Prioritisation
1	Better information and communication	23
2	Basic training courses	19
3	Basic tools	14
4	Models and concepts	12
5	Better processes	7

¹ 13 participants for voting; Highlighted activities are those initially proposed by the consortium.

Clusters' orchestration of horizontal collaboration – Project proposal

WHY	<ul style="list-style-type: none"> — It has been common practice for individual shippers to optimise their respective distribution systems in such a way that their own customers are best served. — For less than full truck load shipments (LTL), the fact that shippers' warehouses are geographically dispersed has to be compensated by the logistics service providers' consolidation network. — Recent research and pioneering pilot cases have shown that consolidation and the related surplus kilometres and emissions can be avoided through an improved efficiency in the system obtained through horizontal collaboration of manufacturers. — An exemplary practice resulting from horizontal collaboration is the co-location of stocks of companies delivering to the same customers or customer regions. If these collaborating shippers are granted only a limited degree of flexibility from their (joint) customers, possibilities for synchronisation and bundling of transport flows open up, leading to an optimisation of activities in a way that is not achievable for individual companies acting on their own.
WHAT	<ul style="list-style-type: none"> — Developing and implementing real cases of horizontal collaboration to promote yet existing potentials for increased efficiency in transport and warehousing through collaborative bundling and synchronisation of activities.
HOW	<ul style="list-style-type: none"> — Identification of the state of the art from recent implementations, cases and EU projects. — Review of existing business models of horizontal collaboration and involved stakeholders. — Development and deployment of necessary tools for horizontal collaboration (e.g. contracting). — Pilot application into specific industries. — Inter-regional and inter-industrial dissemination and transfer of best practices.

Summary of the main results

"I do not understand that this has to be invented, it is already there". Participants from the industry initially pointed out that the project lacks a new perspective. Concepts like consolidation of hubs already exist. The argument of the moderator and others was that not every region has the same stage of development in this regard. Further, some participants recommended to rename the project into "Supply Chain and Value Chain Collaboration" since the proposed project title did not seem to fit correctly to the subject treated in the project. Following the discussion on the relevance of the project, the suggestion was made to engage into a screening of best practices, and not only in the logistics industry, but also between stakeholders in a supply chain and in other sectors with potential applicability to the logistics context. Innovative models could then be transferred to the logistics and transportation sector. Participants further suggested adding the issue of transparency on the side of supply chain partners to the activities. Arguably, there is still much potential in this regard to improve the ability to maintain control of a supply chain.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ²	Prioritisation
1	Pilot application	22
2	Development and deployment of necessary tools	15
3	Review of existing business models	14
4	Identification of the state of the art	10
5	Transfer of best practices	7
6	Transparency of SC-Partners	5

² 13 participants for voting; Highlighted activities are those initially proposed by the consortium.

Synchromodal supply chain management – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — The consolidation of freight is a prerequisite to achieve a high efficiency in transport especially in long-distance transit chains, and not only in terms of cost considerations, but also in regard to the utilisation of infrastructure capacities. — The basic idea of synchromodality regards to the ability to use alternative transport modes in a flexible way, depending on temporary circumstances as well as product and supply chain characteristics. Synchromodality is a concept that takes a holistic view of (freight) transport, including and integrating all available modes, infrastructures, (ICT) technologies, policies and governance. — While the benefits of synchromodality are apparent, the ambition to make flexible use of different modes of transportation substantially increases the coordination and planning issues along the transit chain and requires a superb information infrastructure and data exchange between all parties involved.
<i>WHAT</i>	<ul style="list-style-type: none"> — Investigating the costs, benefits and barriers to synchromodal transport, and developing concepts, instruments and new solutions to arrive at seamless synchromodal transit chain solutions.
<i>HOW</i>	<ul style="list-style-type: none"> — Analysis of current knowledge on implementation of intermodal and co-modal transport. — Identification of viable freight for the synchromodal concept. — Development of strategies for a synchromodal transport system with associated adjusted concepts. — Implementation/transition analysis. — Deployment and assessment of a synchromodal transport system. — Linkage of different clusters to extend the reach of the synchromodal transit chain.

Summary of the main results

Synchromodality takes a holistic view of freight transport and includes and integrates all available transport modes to achieve a high efficiency. From the participants' point of view, the identification of viable freight for the synchromodal concept should be accompanied by the definition of new markets and the more detailed observation of emerging markets. In the further discussion on the suggested activities, the idea came up to add the activity of "Supply Chain Agility" as possible project content. In view of participants, this activity should account for the risks that are inherent in all logistics operations, especially when it comes to rail transport. It is an important ability to continue operations even in the case of disruption or temporary disorder.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ³	Prioritisation
1	Development of strategies	33
2	Analysis of current knowledge	17
3	Supply chain agility	15
4	Linkage of different clusters	5
5	Implementation / transition analysis	5
6	Deployment assessment evaluation	4
7	Identification of viable freight markets	1

³ 13 participants for voting; Highlighted activities are those initially proposed by the consortium.

2.2 Cluster development and internationalisation

European expert groups in logistics and mobility – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — The logistics industry in many parts of Europe faces similar challenges e.g. in regard to the globalisation of supply chains, urbanisation trends, infrastructure capacities and increasingly rigorous environmental legislation. — Still, the discussion on the issues and the development of solutions occurs rather isolated, with little interaction between the different regions. — Consequently, the risk of doubled, redundant efforts and application of outdated concepts and technology as a consequence of lacking knowledge on existing best practices may pertain.
<i>WHAT</i>	<ul style="list-style-type: none"> — Fostering the internationalisation and integration of European clusters in logistics and mobility through European expert and knowledge exchange networks on future challenges in logistics and mobility.
<i>HOW</i>	<ul style="list-style-type: none"> — Identification of prevalent issues not yet sufficiently discussed on a European level and consequent initiation of respective expert groups (implementation of groups – work of groups – valorisation of results). — Knowledge transfer between different expert groups for further synergies and ultimate dissemination to relevant external actors.

Summary of the main results

In the introduction of the discussion, participants agreed that the objective and tasks needs to be more specific. Open questions included: What is an expert group? What kind of collaboration is needed on EU level? How can we keep creativity within an expert group? How do we find out who is interested in the same topics? As a result, the group members concluded that first of all the overall aims of the project should be specified and prioritized further.

The specific reasons for working together in an international expert group are not yet clear. Existing collaborations should be supported and further developed. In this regard, the idea of a platform was mentioned. Finally, the suggestion was made to first do an environmental analysis and then to identify the key stakeholders of important clusters.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁴	Prioritisation
1	Foster knowledge transfer	20
2	Mapping - Stakeholder and interest analysis Identification of key stakeholders	16
3	Implement missing expert groups and topics	10

⁴ 9 participants for voting; Highlighted activities are those initially proposed by the consortium.

Empowering industrial Internationalisation through Inter-cluster collaboration – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — The clustering of different competences along a value chain in a region is an important element of competitive advantage in many industries. In newer times, however, the successful participation in international value chains has become another condition for economic success. — Especially small and medium-sized enterprises (SME) often lack the necessary resources to engage in large-scale internationalisation efforts and require assistance in the setup of international business relations and collaborations.
<i>WHAT</i>	<ul style="list-style-type: none"> — Providing business support services in regard to international networking and cooperation through the SoCool@EU clusters, allowing industrial members (especially SMEs) to grow and innovate through strategic business cooperation.
<i>HOW</i>	<ul style="list-style-type: none"> — Elaboration and implementation of a business support strategy for international networking and collaboration, thereby building on existing regional programmes (e.g. Chambers of commerce). — Fostering of strategic collaborations between European networks, including European strategic cluster partnerships.

Summary of the main results

The group members agreed that it is necessary to not only focus on cluster-to-cluster cooperation, but especially also on the smaller level of business-to-business cooperation. In order to get involved in international collaboration, companies require (business) contacts in and information about the foreign market. To facilitate inter-cluster collaboration, the competencies present in clusters therefore have to be identified and leveraged. In view of participants, the first step could consist in the identification of gaps in collaboration by doing a detailed cluster analysis revealing the needs of the regional industry in regard to cooperation. Existing key players should be empowered.

Participants noted that the European Enterprise Network is already supporting inter-cluster cooperation. Still, this is not working in every European country, which is why there is a further need for fostering international collaboration. The participants of the group discussion agreed that inter-cluster cooperation should not be limited to the logistics sector, but should also include clusters in other industries such as ICT.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁵	Prioritisation
1	Sharing of information (dialog / forum)	14
2	Mapping of needs	7
3	Gap analysis (regional and EU)	7
4	Fostering strategic collaboration	5
5	Business support for international networking and collaboration	4

⁵ 9 participants for voting; Highlighted activities are those initially proposed by the consortium.

2.3 Green logistics

Green supply chain – Project proposal

WHY	<ul style="list-style-type: none"> — The growth in transport activities is an increasing burden for the environment. The global challenge consists in achieving growth and a reduction of the environmental impact at the same time. — All actors involved in a supply chain need to acknowledge their individual responsibility to reduce CO₂ emissions in order to account for future environmental standards in Europe and improve public acceptance of logistics/transport.
WHAT	<ul style="list-style-type: none"> — Exchange and dialogue on how a European incentive programme for CO₂ reduction in freight transport could be designed and implemented under consideration of the interests of the industry. — Identification of compatible business models.
HOW	<p>The project will take action to initiate an internationally coordinated (European) incentive programme</p> <ul style="list-style-type: none"> — to identify viable sources of greenhouse gas emission reductions, — initially focusing on one or two concrete target/s (e.g. emission reduction as an objective in fleet operations, CO₂ emission reporting abilities), — driven from the demand side, — aiming for a European-wide reach/impact.

Summary of the main results

The general introducing discussion regarded the fact that companies do not invest in green conduct because often the tangible economic benefit is missing. Even more, the European-wide trading of CO₂ emission certificates is currently not producing the effects hoped for, and there is thus hardly any incentive for the industry to save carbon emissions in operations.

The participants wondered what would be needed to bring a change to greener supply chains about. It was argued that leaving the necessary actions to industry alone will only produce small, insufficient steps forward, e.g. in terms of lowered engine emissions. As a result, a point was made towards the need for EU regulation changing the playing field, e.g. in context of cities to shut down access for conventional combustion engines. The establishment of a market for air quality to link also public health (besides environmental considerations) to emission reduction was a further possibility suggested.

Yet, the discussion group was not unanimous in opinion on this approach. While also acknowledging the necessity to take the environment into consideration, the burden put on the logistics industry by drastically restricting the use of important factors of production (e.g. trucks) would in the first place lead to welfare losses through price increases as well as a contraction of the industry. While incentives are important, they should not handicap, but rather open up

opportunities, e.g. in terms of new and compatible business models. A supply chain thereby has to be viewed in a holistic fashion, that is, from a production and consumption perspective. In fact, environmental aspects can be linked with benefits for business, e.g. in regard to the optimisation of the operations/driving behaviour of employees and the related ability to track fuel consumption and CO₂ emissions. In any case, to arrive at an informed decision on a project, the status quo of existing programmes would have to be analysed.

Following, the discussion moved on to the role of different modalities for environmental-friendly supply chains. In many instances there is still much potential to move freight to ships, which would produce less transportation costs and environmental impact than road transport. While the benefits for business are existent, there is yet much need for infrastructure expansion and the related supply of long-term financing.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁶	Prioritisation
1	Identification of compatible business models	15
2	Setting regulation / framework (e.g. EU)	12
3	Awareness building	10
4	Internationally coordinated incentive program	10
5	Long term finance of hub / infrastructure	8
6	Identification of status quo	5
7	Eco-driven behaviour	4
8	Setting up reporting abilities	3

⁶ 12 participants for voting; Highlighted activities are those initially proposed by the consortium.

The impact of e-commerce service models on supply chain cost and emission efficiency – Project proposal

<i>WHY</i>	— While the growth of e-commerce has been spectacular, the impacts of the business model on the supply chain are only beginning to be analysed. The transition from a supply chain organized for scheduled delivery service to retail stores to one that must also handle on-demand delivery to individuals can result both in cost inefficiencies and increases in transport-related greenhouse gas emissions.
<i>WHAT</i>	— Evaluating the impact of the e-commerce business model on costs and emissions of a representative supply chain, including the reverse loop, as well as developing adjusted logistics concepts and strategies to enable increased efficiency in the e-commerce supply chain.
<i>HOW</i>	<ul style="list-style-type: none"> — Evaluation of the field and problem set: comparative data collection, analysis and benchmarking of retail store shipment models vis-à-vis e-commerce shipment models (including the reverse loop). — Expert-driven search for innovative practices for e-commerce supply chains and subsequent testing in pilots / prototypes. — Communication of results for implementation in real business field trials.

Summary of the main results

The abbreviated discussion commenced with a focus on the last mile delivery to private households which assumes major importance in e-commerce related business models. Last mile logistics often represents the most expensive step in a logistics chain. The quality of the reverse loop (e.g. returning goods) has gained substantial importance in e-commerce related delivery models and represents a further open issue.

When it comes to solutions, especially in context of city logistics, the collaborative store-and-forward concept alleviates the impact of e-commerce business models on the environment. Such a collaborative approach would enable higher levels of consolidation and efficiency. Still, the feasibility for widespread application is questionable considering the interests of companies in this regard. Further issues brought up by the participants included tracking and tracing for last mile logistics as well as monetary and data security aspects.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁷	Prioritisation
1	Expert driven (re)search for innovative practices	15
2	Port track system (via IT)	11
3	Innovative packaging	10
4	Evaluation of the problem set	10
5	Safeguard of the monetary / data flow	8
6	Consolidation / payment system of last mile	6

⁷ 12 participants for voting; Highlighted activities are those initially proposed by the consortium.

Innovative models in the rail freight transportation system – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — Increasing the share of rail freight in total transport volumes is one of the key objectives for transport policy in order to reach the goal of reducing CO₂ emissions by 60% for 2050 compared to 1990 levels. — Although rail freight has been seen as a future opportunity to reduce both costs and negative environmental impacts of logistics, the share of rail freight transport decreased in the EU (from 18.8 in 2001 to 17.1% in 2011). — Supposedly one of the main reasons behind this trend is the difficulty to have a truly interoperable and seamless European rail freight network without which rail often performs worse to road in terms of reliability, cost and lead times.
<i>WHAT</i>	<ul style="list-style-type: none"> — Analysis of current opportunities for moving freight from road to rail (e.g. in regard to corridor development as well as infrastructure and capacity planning) and subsequent implementation of specific projects making use of identified best practices.
<i>HOW</i>	<ul style="list-style-type: none"> — Information exchange and identification of cases for a best practice transfer based on previous findings. — Exploration, definition and development of innovative trans-European rail transport models e.g. related to Ferroutage. — Fostering of horizontal collaboration between shippers and developed in projects such as CO3.

Summary of the main results

The discussion group acknowledged the fact that the modal shift from road to rail inherits large potential for greener logistics. While rail today is seemingly utilized below its potential, participants also noted that there are still many infrastructure bottlenecks existing on national and especially international level along trans-European corridors and infrastructure hubs. These bottlenecks require identification and solution to support sustained growth in rail transport volumes. Especially the infrastructure of different countries still lacks integration into an international transport system. Often, tracks are owned by the state which in turn do not manage their assets in a business-oriented fashion, e.g. in regard to capacity maximisation and international integration. In this regard, more international collaboration is required, especially in regard to alignment of regulation and concerted efforts of multiple owners.

Further, participants noted that freight will not be moved to rail because of environmental considerations, but because it is beneficial for business in terms of time and/or costs. There are many examples in which tracks were built to connect logistics hubs and projects were initiated to increase freight transport, but which failed after a short term because of lacking efficiency. Cost-benefit and total cost of ownership analyses (in best case from a neutral party) for predefined routes could contribute to understanding modal choice and gain insights on the efforts needed to make rail transport more attractive.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁸	Prioritisation
1	Hub infrastructure development	12
2	Inter-country cooperation (technology, framework)	9
3	Network coordination	7
4	Best practice transfer	7
5	Identification of bottlenecks	7
6	Cost-benefit analysis	6
7	Fostering collaboration	5
8	Trans-European rail transport models	4
9	Capacity investment	3

⁸ 12 participants for voting; Highlighted activities are those initially proposed by the consortium.

2.4 Intelligent hubs

Increasing efficiency of inbound cargo into hubs through collaboration and ICT Solutions – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — Large logistics hub infrastructures such as ports, airports, and multimodal terminals often represent bottlenecks in regional, national and international transport systems. — The accumulated quality of coordination of common activities between infrastructure owners, hub operators and forwarders is a critical determinant for the efficient operation of hub infrastructures and consequently also all actors drawing on hub services. — As infrastructure expansion is often met with resistance, in order to come up to the challenge of constantly growing volumes, the coordinated and efficient utilisation of existing hub infrastructures is of central importance.
<i>WHAT</i>	<ul style="list-style-type: none"> — Coordinating incoming cargo traffic volumes to entry points of large infrastructure hubs through integration of stakeholders in cargo communities and extended application of common information technology.
<i>HOW</i>	<ul style="list-style-type: none"> — Review of existing structural, management-related and technical solutions in the regions as well as the work done on international/European level. — Cooperative identification of optimisation potentials in terms of business models, governance structure, technical feasibility and acceptance in the business community. — European-wide knowledge exchange of best practices through development of collaborative business cases and pilots.

Summary of the main results

The workshop group first discussed on best practices and examples and in how far a transfer to other regions and logistics hubs is possible, considering the oftentimes strongly differing conditions. The connection of hubs and the improvement of links, especially with regard to multimodal transport activities, were considered as very important issues in need for improvement. After a lively debate, the participants decided to split the proposed project into two separate ones: The first one would deal with the subject of hub management and especially on-site logistics management. The second project would pertain to supply chain management.

In view of participants, most important activities for both projects regard to (1) tracking & tracing and RFID, (2) standardisation and (3) ownership of data as well as (4) hub strategy. These four issues build fundamental links to which the three activities proposed by the consortium could be applied. Participants from the industry highlighted the urgent need for common standards for data, ideally on a global level. A better data basis with consistent data formats could help to improve monitoring of goods in the whole supply chain.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ⁹	Prioritisation
1	Standardisation of Data	19
2	Ownership of data	10
3	Strategy hub	9
4	RFID	7
5	European-wide knowledge exchange	6
6	Review of existing solutions	5
7	Cooperative identification of optimisation potentials	4

⁹ 13 participants for voting; Highlighted activities are those initially proposed by the consortium.

2.5 Knowledge transfer and valorisation

Logistics education, training and valorisation – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — Research institutions inherit large potential to contribute to industry development and business conduct with their work. Still, findings are seldom brought successfully to the market. — Oftentimes, industry is not aware of research results with potential for application in practice. On the other side, research institutions often lack understanding for the needs of industry, and renders their work inapplicable for companies. — A related challenge regards to the increased complexity of operations in transport and supply chains which increase the need for constantly updated knowledge bases of the workforce and the consequent alignment of education curricula with business requirements.
<i>WHAT</i>	<ul style="list-style-type: none"> — Fostering interaction between industry and science in view of common research interests and valorisation possibilities of results and alignment of training curricula with business requirements.
<i>HOW</i>	<ul style="list-style-type: none"> — Development of a framework to bridge the gap between science and practice, identify common interests and improve the transfer and application of new technologies and scientific results in innovative products and services. — Development and implementation of tailor-made concepts to increase interaction between education and practice to reflect prevalent issues in logistics and supply chain management in education programmes.

Summary of the main results

The European logistics sector suffers from a lack of qualified employees. At the same time, it is difficult for universities to connect to industrial partners. The group members acknowledged the fact that companies often do not get involved in education and training, mostly due to a lack of time and resources. It is therefore important to demonstrate clear benefits from collaborations between practice and science to business companies.

In view of participants, universities should increase efforts to offer and promote their courses to the industry and adjust to the requirements of practice, so to account for the fact that companies represent a broad range of different interests. In this regard, participants brought up the idea of labelling classes, where companies give their brand name for a specific course.

The participants also noted that the educational system has to improve basic training. The importance of lifelong learning was emphasized to account for constantly changing conditions and technologies in the logistics sector. Since education models vary between different countries, there is an opportunity for mutual learning. There are for example no universities of applied sciences in Spain, but they are a successful model in Germany. The House of Logistics and Mobility was

named as a best practice for cooperation and mutual learning between science and practice in Germany and also on an international level.

The discussion group also noted that there is a general need for improving the image of the logistics sector to attract more potential future employees, and especially also women.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ¹⁰	Prioritisation
1	Bridge the gap between science and practice	12
2	Best common practice strategies	10
3	Universities offer and promote their courses more intense to industry	7
4	Foster industry involvement	7
5	Life-long learning	4
6	Tailor-made concepts for education	3
7	Branding and image building (e.g. Rolls-Royce Course)	3
8	Abstract reasoning needs from industry	2

¹⁰ 8 participants for voting; Highlighted activities are those initially proposed by the consortium.

2.6 Urban logistics

Coordinated European development of pilot solutions for urban logistics – Project proposal

<i>WHY</i>	<ul style="list-style-type: none"> — Many countries currently observe an ongoing migration trend from rural to urban areas, leading to higher population densities and growing economic activity in those locations. — As a consequence, local urban transport infrastructures have to accommodate ever larger cargo and passenger traffic volumes, and face additional volume growth due to new delivery business models and residing logistics hubs. — In order to sustain an efficient functioning of the economic system and preserve quality of life in metropolitan areas, new solutions for the movement of cargo and passengers in the urban context have to be found.
<i>WHAT</i>	<ul style="list-style-type: none"> — Sustaining and improving the efficient transport of goods and passengers in urban areas in view of increasing volumes while at the same time sustaining the quality of life in these conurbations.
<i>HOW</i>	<ul style="list-style-type: none"> — Data collection on traffic generators and flows in urban areas and integration into a database. — Development of simulation models for traffic scenarios, network capacities and stress tests. — Identification of opportunities and optimisation potentials. — European-wide benchmarking of results and established best practices. — Collaborative development of specific concepts and pilot activities for cities or urban regions.

Summary of the main results

Initially, the participants noted that the discussion on how to serve inner cities has been going on for quite some time. Still, from the manifold projects conducted in regard to urban logistics very few have outlived the initial funding period. The discussion group concluded that integration of many stakeholders and multiple cities as well as the identification of viable business cases are essential to upscale and sustain impact. Considering the environmental aspects as one of the main goals of current and future policy, the participants emphasized that there will be no efforts from the side of industry towards greener business conduct without respective economic incentives/benefits.

Following, the group heatedly discussed smart regulation. In terms of introducing time slots for delivery, benefits such as alleviated traffic congestion and reduced environmental stress in cities are most apparent. Still, restricting or prohibiting delivery (e.g. at daytimes) will not only cost more, but would require a change of operation and scheduling of the whole logistics chain. As a result of the differing views, some participants recommended a best practice exchange on regulation between different urban regions. While this exchange could prove fruitful, different framework conditions (e.g. public transportation infrastructure, geography) and commuting cultures (e.g.

prevalence of bicycles) will always limit the applicability of one regulative concept to several urban areas.

In regard to the proposed data gathering activity, the participants noted that static one-time collection is outdated and will not produce applicable results. Real-time data collection is required to ensure cost-efficient models in delivery. Although a collaborative approach to data collection and business model formulation might be feasible and bear advantages, competition on the market favours independent development and commercialisation.

In general, a collaborative approach to delivery in cities is seen critically by participants. Why should DHL for example hand over shipments/business to UPS? If at any, an initiative for consolidation with consequent reduction of logistics vehicles in inner urban areas would have to come from the shipper.

The group noted additional aspects and trends which have to be taken into account in the future. The increasing share of old people for example will by trend also make use of convenient delivery solutions in all aspects of life and thus further raise the demand for inner city logistics. Being related, developments in e-commerce should be considered in urban logistics planning, and especially with a view on the reverse loop, which offers new opportunities for business, but will also add to the pressure on inner city traffic volumes.

The following table lists the recommended activities in regard to future project development and implementation.

Rank	Activities / Recommendations ¹¹	Prioritisation
1	Data collection (real time)	10
2	Development of business case / service models	9
3	Research for new business opportunities	8
4	Simulation models	7
5	Measurement of impacts of e-business on urban logistics	6
6	Measurement of impacts of demography on urban logistics	4
7	European wide benchmarking	2
8	Collaborative development of activities	2

¹¹ 10 participants for voting; Highlighted activities are those initially proposed by the consortium.

3 Conclusion and Outlook

The report on cluster conference at hand presented the central findings from the discussion on the different project impulses within the SoCool@EU project. At the event, the cluster partners together with experts from the regional triple helices reflected on the objective-setting and the activities planned to achieve the objectives in each of the project proposals. HOLM as work package leader and the project partners filtered and processed the results to come up with the here mentioned main outcomes and collection of prioritised recommendations for future steps to be taken in the project impulses. These results lay the foundation for a joint implementation of the fields of joint action from the Joint Action Plan and the respective projects within the Business Plan, both further deliverables of Work Package 3.

The international attendees to the cluster conference from the different cluster regions of the SoCool@EU project are considered to represent the main pool of potential partners for project implementation. Using this network and spanning it further through the snowball effect will help to further specify and develop the projects within the frame of Work Package 4, along with clearly identified funding sources and interested consortium partners of the projects. This future work package will for every project hold separate workshops to elaborate on the project impulses and to implement the projects with partners in the different regions following individual business models and cases.

The concept and methodology of the cluster conference applied here could be considered as a blueprint to repeat the approach in the other cluster regions from the SoCool@EU project and beyond. This way, results become more comparable and differences and commonalities in the regional requirements from cluster actors regarding the project impulses could be detected and processed accordingly. This will support in contemplating the projects from different perspectives and have a balanced approach to project planning and implementation between the regional research-driven clusters.

4 Annex

Agenda

List of participants

Workshop documentation

Impressions of the conference

4.1 Agenda

Programme	
11:00 – 11:30	Registration and coffee
11:30 – 11:40	Welcome & Opening <i>Dr. Stefan Walter, Managing Director, House of Logistics & Mobility (HOLM)</i>
11:40 – 12:00	ERRIN: European Regions Research and Innovation Network – Presentation and opening speech <i>Richard Tuffs, Director, ERRIN</i>
12:00 – 12:30	Connecting Regions, Sharing Knowledge, Going for Europe – Impulse presentation and discussion <i>Susanna Caliendo, Head of European Office of the Metropolitan Region FrankfurtRheinMain</i>
12:30 – 13:00	Implementation of the Business Plan: From impulse to realization – Presentation of the next steps and possibilities for participation <i>Jan Boyesen, Business Development Manager / Maritime Development Center Europe (MDCE)</i> <i>Pascal Huther, Senior Project Manager, House of Logistics & Mobility (HOLM)</i>
13:00 – 14:00	Lunch break (incl. distribution of workshop material for round 1)
14:00 – 15:00	Round 1: Discussion of projects in European logistics: The Business Plan – Workshop groups according to the thematic fields from the Joint Action Plan with collection of project ideas and feedback from the participants Group 1: Advanced supply chains and ICT Group 2: Cluster development and internationalization Group 3: Green logistics
15:00 – 15:30	Coffee break (incl. distribution of workshop material for round 2)
15:30 – 16:30	Round 2: Discussion of projects in European logistics: The Business Plan - Continuation Group 4: Intelligent hubs Group 5: Knowledge transfer and valorisation Group 6: Urban logistics
16:30 – 17:30	Summary of the day Presentation and discussion of results from workshop groups Outlook . . .
17:30 – 21:00	Networking Dinner (HOLM Forum)



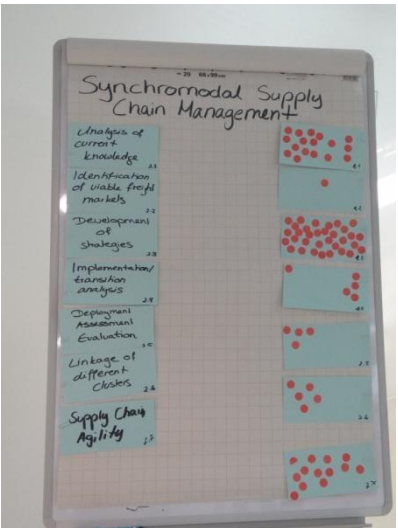

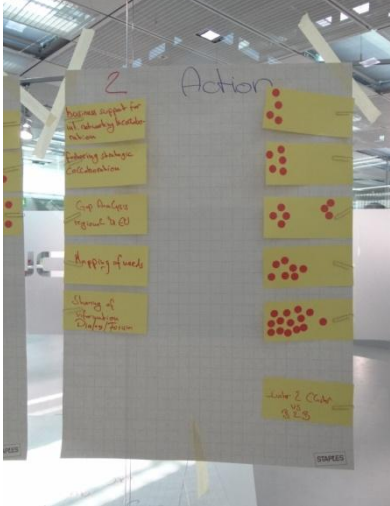
4.2 List of participants



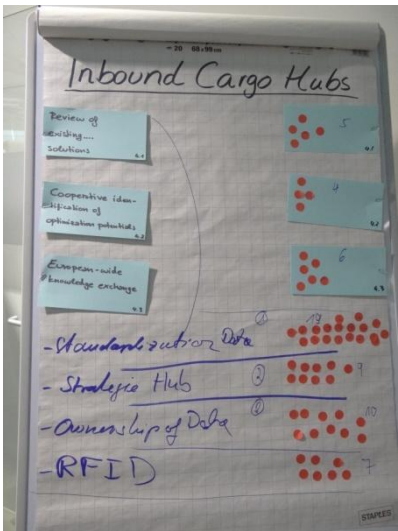

Participants	Organisation
Jens Adam	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Dr. Bernhard Albert	Foresight Solutions
Steve Bageritz	Wirtschaftsförderung Frankfurt
Laura Becker	Goethe Universität Frankfurt
Prof. Dr. Helen Bicknell	Hochschule Fresenius
Jeanett Bolther	Zaragoza Logistics Center (ZLC)
Francisco Bordeje	Asociación Logística Innovadora de Aragón (ALIA)
Jan Boyesen	Maritime Development Center of Europe (MDCE)
Prof. Dr. Dorit Bölsche	Hochschule Fulda
Martin Brandt	KLOK Kooperationszentrum Logistik e.V.
Hinrich Brümmer	ETC Transport Consultants GmbH
Sven Clasen	Amt für Wirtschaft und Liegenschaften Wiesbaden
Christiaan de Graaff	Fraunhofer-Institut für Materialfluss und Logistik IML
Prof. Dr. Alexander Ebner	Goethe Universität Frankfurt
Teresa Gaspar	Instituto Tecnológico de Aragón (ITA)
Katharina Gehle	HOLM GmbH

Nadja Gläser	Regionalmanagement NordHessen GmbH
Dagmar Grote Westrick	EffizienzCluster Management GmbH
Dr. Thomas Hanke	Universität Duisburg
Pascal Huther	HOLM GmbH
John Karlsson	Lund University
Silke Klinger	Regionalverband FrankfurtRheinMain
Kay Lied	Bundesverband mittelständische Wirtschaft Unternehmerverband Deutschlands e.V. (BVMW)
Dr. Meng Lu	DIALOG
Gregor Luft	Luft Consulting
Dr. Klaus Manns	MANNS Ingenieure Dr. Manns + Conrad GmbH
Bianca Martin	HOLM GmbH
Eric Menges	FrankfurtRheinMain GmbH
Daniel Mira	Kühne & Nagel (Denmark)
Frank Nagel	Hartmann Nagel Art & Consulting
Dr. Peter Pfragner	Fraport AG
Daniel Pulko	DB Schenker
Dirk Rabien	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Dr. Falk Raschke	HOLM GmbH
Kevin Rolko	TU Darmstadt
Carsten Schindler	Goethe Universität Frankfurt
Jens M. Sorg	HOLM GmbH
Arnim Spengler	EffizienzCluster LogistikRuhr
Ferdinand Stumpf	Railistics GmbH
Casper Svensson	Citylogistik Kbh
Kai-Uwe Tebbe	Infraserv Logistics GmbH
Matthias Uhrig	Intargia Managementberatung GmbH
Leonie van Driel	Wim Bosman Holding B.V.
Dr. Hans-Jörg von Berlepsch	traffiQ Frankfurt GmbH
Dr. Stefan Walter	HOLM GmbH
Sebastian Wiesenhütter	TU Dresden
Fikret Zorlu	Mersin Chamber of Commerce

4.3 Workshop documentation

Workshop 1 Moderator Co-Moderator	Advanced supply chains and ICT Gregor Luft Jan Boyesen	
Smart humanitarian logistics	Clusters' orchestration of horizontal collaboration	Synchronomodal supply chain management
		
Workshop 2 Moderator Co-Moderator	Cluster development and internationalisation Jens M. Sorg Jeanett Bolther	
European expert groups in logistics and mobility	Empowering industrial	Internationalisation through
logistics and mobility	Inter-cluster collaboration	
		

Workshop 3 Moderator Co-Moderator	Green logistics Pascal Huther Dr. Meng Lu
Green supply chain	The impact of e-commerce service models on SC Cost and Emission Efficiency
	
Workshop 4 Moderator Co-Moderator	Intelligent hubs Gregor Luft Jeanett Bolther
Increasing efficiency of inbound cargo into hubs through collaboration and ICT Solutions	
	

Workshop 5 Moderator Co-Moderator	Knowledge transfer and valorisation Jens M. Sorg Dr. Meng Lu
Logistics education, training and valorisation	
	
Workshop 6 Moderator Co-Moderator	Urban logistics Pascal Huther Jan Boyesen
Coordinated European development of pilot solutions for urban logistics	
	

4.4 Impressions of the conference



