

SoCool@EU

Sustainable Organisation between Clusters Of Optimised Logistics @ Europe



Deliverable n° D3.2: Joint Action Plan

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

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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

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0 Executive Summary

This Joint Action Plan 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

After having conducted a detailed analysis of the collaborating regions and clusters, the partners have developed the current Joint Action Plan. It describes the identified fields of strategic research in which the project clusters will develop projects and initiate research activities to improve the sustainability and competitiveness of logistics services and intermodal transport operations in the European regions. The six identified joint action fields are:

- 1) Advanced supply chains and ICT
- 2) Cluster development and internationalisation
- 3) Green logistics
- 4) Intelligent hubs
- 5) Knowledge transfer and valorisation
- 6) Urban logistics

The Joint Action Plan will constitute the foundation for the creation of a detailed Business Plan which will specify the relevant joint projects for potential development among the clusters and its stakeholders. The Business Plan will identify the motivation, objectives, activities, risks, possible actors and funding sources for each project. Following, the clusters will break down the Joint Action Plan and the Business Plan into an operable project planning and implementation system which will be applied throughout the project.

1 Introduction

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.

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The strategic objective which guided the preparation of the SoCool@EU Joint Action Plan regards the setup of an open European platform of excellence with specific joint projects in supply chain management and logistics connected with hubs and gateways. The platform will enable research-driven clusters in logistics throughout Europe to collaborate and mutually learn from each other and thus drive the competitiveness and sustainability of the gateways and hubs and their associated logistics industry through enhanced innovative activity. 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 current Work Package 3 regards the development of initiatives to improve integration. The motivation is to strengthen the collaboration between the project logistics clusters, with the final objective of defining a strategic research vision for this collaboration. The Joint Action Plan is a main deliverable of the work package. It presents the strategic research agenda along with the pillars and activities in six major fields of action. The fields of action serve as a basis for the development of mutual project impulses between the clusters which will be specified in the

Business Plan and implemented in Work Package 4. Parts of the Joint Action Plan, e.g. within the field of "cluster development and internationalisation", will feed into the discussion on mentoring activities within the frame of Work Package 5. The present deliverable is structured into four major chapters. Following the introduction, Chapter 2 will present the strategic research agenda of the cluster collaboration on a platform, followed by a method description in Chapter 3. Chapter 4 will introduce the strategic pillars, or fields of joint action, in which projects and activities between the clusters will be developed to reach the strategic objective. A conclusion and future outlook will close this document.

2 The Strategic Research Agenda of the Project Logistics Clusters

Except for Mersin, all logistics clusters involved in the project are advanced logistics hubs and gateways in Europe, with mature cluster strategies and research agendas. The Mersin logistics cluster is the mentoring region which has yet to define its cluster strategy and sharpen its profile in cluster development and management. The SoCool@EU project will assist in achieving these goals.

While the clusters have their own successful research profile in their respective hub functions, their strategic research agendas and roadmaps differ significantly. The integration of the isolated approaches in a strategic research agenda between the clusters at EU level is a central instrument to support future innovativeness and competitiveness of the logistics sector in Europe. As a pioneering effort, the current Joint Action Plan presents and justifies major fields of joint action which have been identified in a collaborative, inter-regional work process, and for which specific project impulses will be developed for later implementation within the upcoming Work Package 4 as of summer 2013. The strategic agenda follows a short-, middle-, and long-term perspective and presents an outlook into project status for the years 2015, 2020, and 2025.

In the short term, the operative goal consists in the setup of the platform for collaboration between the research-driven clusters. To define the initial focus of the platform and enable the collaborative research approach between actors of different clusters in specific projects, operative fields for joint action and objectives have been identified and integrated in the present Joint Action Plan, namely

- 1) Advanced supply chains and ICT
- 2) Cluster development and internationalisation
- 3) Green logistics
- 4) Intelligent hubs
- 5) Knowledge transfer and valorisation
- 6) Urban logistics

These fields represent fundamental issues for SoCool@EU clusters demanding a joint approach. The partners are convinced that coordinated research action in the topic areas will contribute to the European vision for a competitive and sustainable transport system as formulated by the European Commission. Initially, the SoCool@EU partner regions will be the primary locus for project implementation. The integration of other clusters will be promoted and piloted.

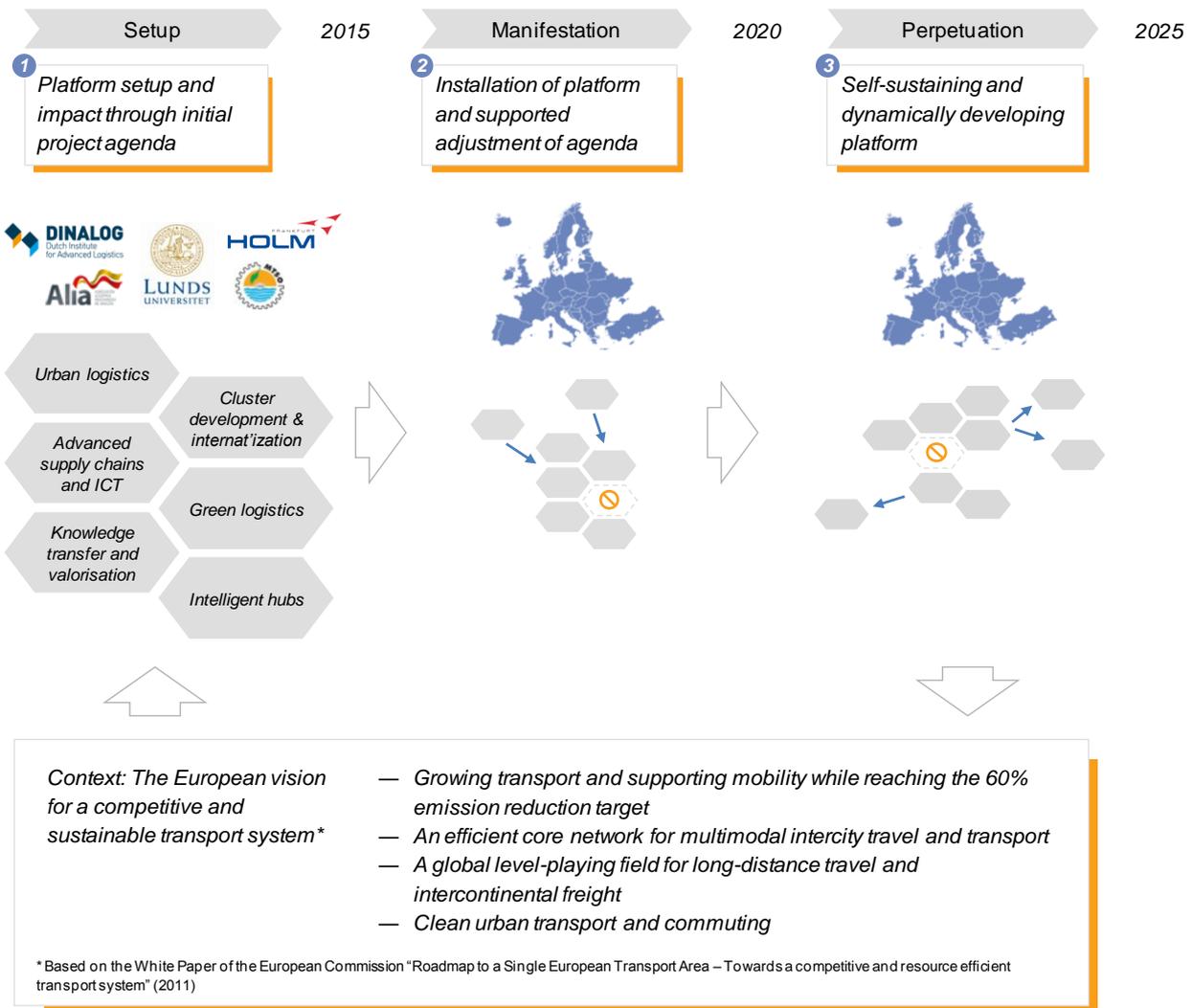


Figure 1 Short-, medium- and long-term objectives for the SoCool@EU platform
 Source: Own illustration, 2013.

In the medium-term, the platform will be manifested and expanded, with full-scale integration of logistics clusters from all over Europe. The project agenda will be actively redefined as the interests and needs of newly involved partners are taken into consideration, results from the initial projects are used for further collaborative activities or specific joint actions are discontinued due to goal achievement or redundancy. Implicitly, the consortium partners will continue to collaborate and foster collaboration in and between their and other clusters after the end of the funding period for SoCool@EU. Finally, the long term objective consists in the perpetuation of the platform. The emerged inter-cluster linkages should be enabled to sustain themselves and define agendas/issues as well as initiate consequent projects on the platform independently. While the SoCool@EU platform initially applies the European vision for a competitive and sustainable transport system as a guiding agenda for development, in later stages it will also be able to return valuable input to the European policy programmes.

As impact, the project- and topic-related collaboration within the strategic research agenda between the SoCool@EU clusters and beyond answers the needs of the European logistics sector across key logistics elements and objectives respectively. Figure 2 shows the relation of research and innovation in the fields of joint action of the SoCool@EU clusters and their implication for finding solutions to European needs and drivers.

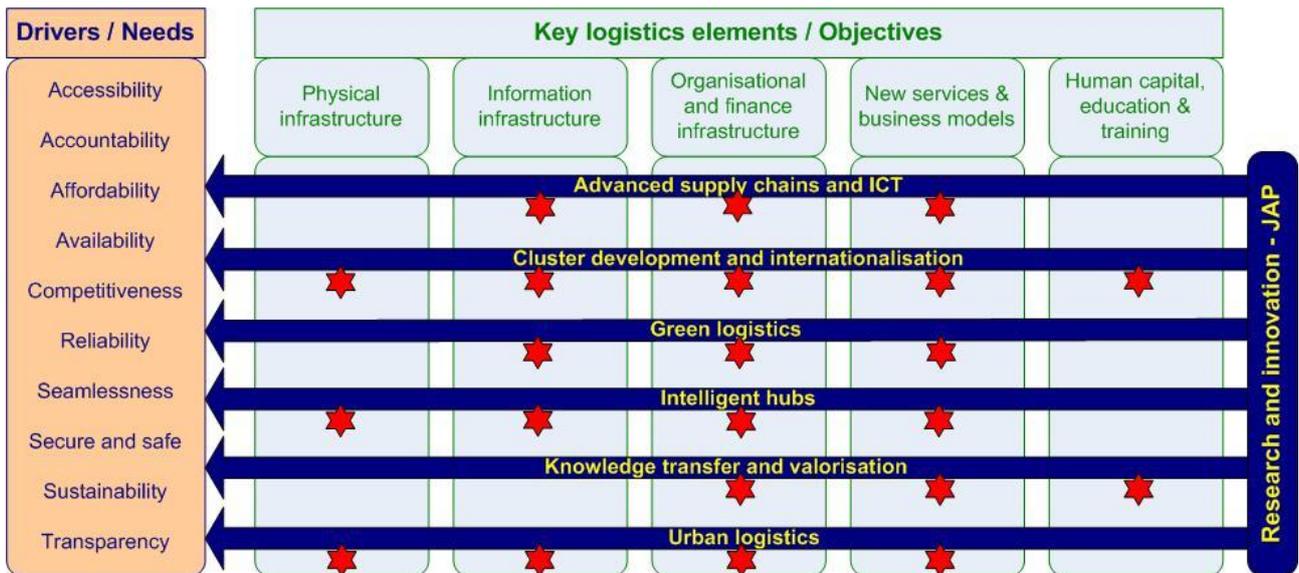


Figure 2 The relation between SoCool@EU and European needs in logistics and transport
 Source: Own illustration, 2013.

Implementing research-, innovation- and collaboration activities in SoCool@EU across projects and topics related to physical infrastructure; information infrastructure; organisational and finance infrastructure; new services and business models; and human capital, education and training directly leads to satisfying different challenges. These range from increasing accessibility, accountability, affordability and availability to enhancing competitiveness, reliability and seamlessness of one Single European Transport Market while at the same time safeguarding secure and safe, sustainable and transparent logistics operations. The six fields of joint action thereby have a different focus on the key logistics elements and objectives respectively. Subsequently, the Joint Action Plan of SoCool@EU has the inherit role to support Europe in developing mechanisms and activities to strengthen logistics and transport as key industries defining prosperity through collaborative innovation.

3 Method

The process of defining the projects for the Joint Action Plan and future implementation in the SoCool@EU regions was initiated in Work Package 2 in the course of a detailed analysis of the participating clusters in regard to their competitive profiles in logistics and transport. The methodological approach applied to analyse the clusters consisted of a multi-method design based on qualitative and quantitative analytical elements (Figure 3).

The results from the regional cluster analyses yielded a catalogue of current and future issues in logistics and transportation in each region. Regional workshops with local experts and stakeholders especially from the private sector were organised following the analysis to discuss and verify the results and identify possible projects and recommendations for action for the clusters.

As a main outcome, the expert rounds resulted in evaluations on fields for action in regard to their relevance for the regional business community and their relevance in a more European/global context. Further, specific ongoing and planned projects as well as gaps in the activity landscape within each field for action were identified to evaluate and prioritize urgency for action.

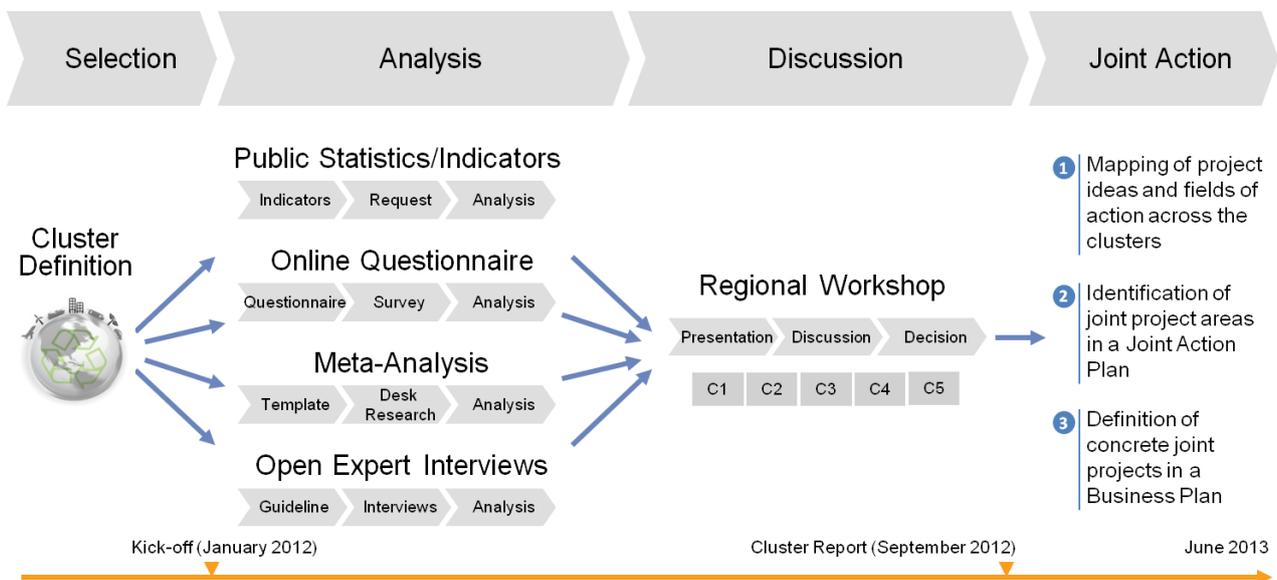


Figure 3 Approach of the identification of joint European fields of action and projects

Source: Own illustration, 2013.

In the initiation of Work Package 3, each SoCool@EU partner region communicated the results from their regional workshops and the identified fields for action to all other partners. A subsequent comparative mapping exercise revealed common fields for action to SoCool@EU clusters. These overlapping topic domains were merged, adjusted and reformulated in a Joint Action Plan, which consists out of six overarching fields for action. The fields represent a basic common

understanding between the consortium partners on relevant issues which should initially determine the agenda of the future platform and adjacent projects.

The presented Joint Action Plan elaborates on the problem background and need for action. In the next step, a Business Plan will define the concrete joint projects within the topic areas of the Joint Action Plan. The Business Plan will specify selected projects in regard to objectives, activities, partners funding, benefits and risks.

4 Fields of Joint Action of SoCool@EU in European Logistics

The objective of the present Joint Action Plan is to describe the joint project areas which were identified in the analysis of the clusters as being the most relevant for future collaborative activity. As the common denominator, these areas constitute the cooperation potentials on a European level in which the SoCool@EU partners will stay in close exchange for project development.

The platform is open to further topics and actors. The SoCool@EU clusters, for their part, will continue to follow activities and project networks on a regional level and provide results and focal points of interest as input for the SoCool@EU platform to create synergies among all stakeholders involved. All logistics regions in Europe are invited to follow this example and exchange issues and experiences on the platform and contribute to collaborative project development.

The following sub-chapter describes in brief outlines the problem background of each joint project area, conceivable solutions and potentials for joint actions.

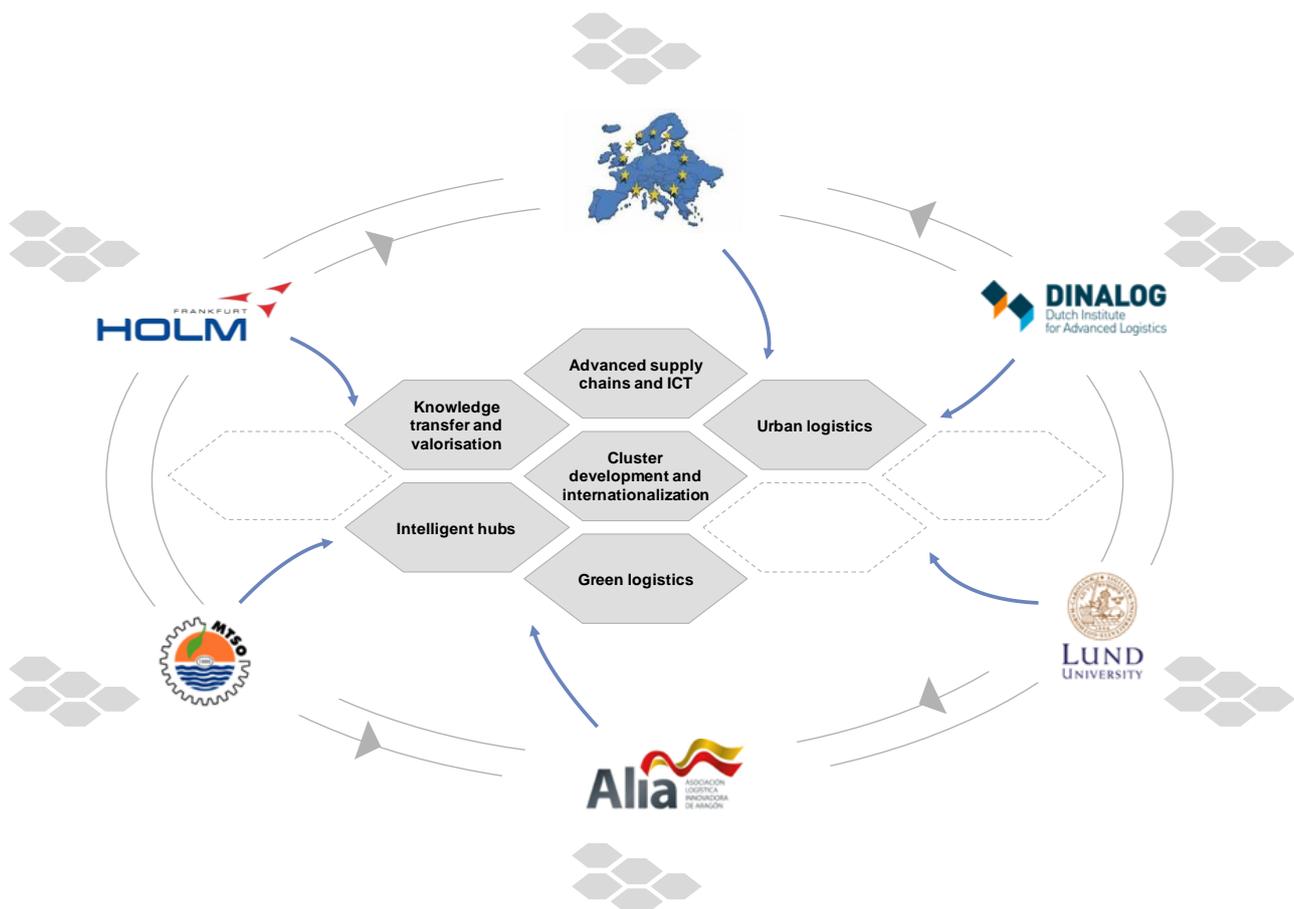


Figure 4 Joint Action Plan for European logistics on the SoCool@EU platform

Source: Own illustration, 2013.

4.1 Advanced Supply Chains and ICT

The design and optimisation of supply chains is a central issue for the European logistics industry, demanding ever more sophisticated and integrated solutions. Increasing the interoperability of information systems of actors in a supply chain is the key to persist in the global competitive race for supply chain reliability, time and cost.

Lead time, efficient inventory levels and the requirement to control up- and downstream logistics have contributed to an increase in complexity in supply chains. With constantly expanding sourcing and market opportunities in the light of globalisation and increasingly sophisticated customer requirements in regard to quality, time and cost, the configuration and control of multi-stage processes across organisational boundaries in a value chain and a collaborative approach to operations has become a decisive aspect of a company's competitiveness.

Yet, the integration and coordination of different actors still poses a major challenge. The harmonisation of information systems of companies in the supply chain to achieve unbroken information flows across all

partners as well as new business models based on collaborating partners are central fields for innovation. Powerful information technology and skilled human resources play decisive roles as enablers. The awareness for the importance of transparency in the supply chain is also imperative.

Joint activities are especially applicable in fields related to IT-driven optimisation of supply chain processes and in the field of collaborative decision systems, through real-time traceability of orders, shipments and in-transit inventory across a European or global trading or production partner network. Further, coordinated action is expedient to foster integration of supply chains into far-reaching and border-crossing synchromodal transport solutions, thus reducing costs and negative externalities of logistics at the same time.

There is also yet large potential for innovative approaches in collaborative shipping solutions to increase efficiency and reduce emissions in transport. A European perspective for the special challenges of humanitarian logistics and supply chains is also bound to improve conduct on the side of a large number of stakeholders.

4.2 Cluster Development and Internationalisation

The active promotion of cooperation between actors of the triple helix in European logistics cluster opens up new possibilities to promote firm internationalisation, capitalise on the European marketplace, integrate knowledge bases and push on common agendas.

The increasing political and economic integration of European countries in recent decades has led to unprecedented opportunities for the industries of EU partners to act on a single (European) market. The increasing pace of technological advancement constantly expands the possibilities for sophisticated cross-border, multimodal transport networks and supply chains. At the same time, these new opportunities raise the requirements towards technology, processes and coordination, and consequently research and development.

In order to stand up to the challenge and fully leverage the potentials of integrated business models and projects, firms need to relate to relevant partners not only within the regional

cluster, but also and especially on a European level in order to build integrated solutions and gain access to yet missing resources and knowledge.

Joint approaches to facilitate collaboration on a regional as well as a European level may foster innovative activity and lead to the realisation of synergies as well as avoidance of duplicate efforts. In that, there is yet much potential for an alignment and integration of framework conditions to the needs of the sector. Specific joint actions concern the active support of triple-helix cooperation through topic-oriented expert rounds to improve knowledge dissemination, lobbying and agenda setting across European logistics regions.

Further, the setup or strengthening of firm (SME) networks through match-making missions and the fostering of collaboration among research centres has large potential to contribute to European economic and social integration and drive a wide array of issues related to the European vision of a competitive and sustainable future for transport.

4.3 Green Logistics

Optimising logistics activities under the premise of ecological sustainability will become a key asset in the future logistics market and a prerequisite to reach the goal of reducing greenhouse gas emissions in the European Union.

Congestion, noise and air pollution from transport operations are already major issues discussed in the European context. Generally, transport volumes will only increase in the future, e.g. due to new business models in areas such as e-commerce, and – all else equal – will put additional pressure on the environment and quality of living in Europe. Yet, a significant share of current environmental stress is due to a lack of infrastructure and operations integration in European transport, and thus potentially avoidable. Even disregarding the volume trends and possibilities for raised efficiency, fossil fuels as a central input for transport and major source of CO₂ emissions will become scarce in the long term future and viable alternatives will have to be considered.

Answering to these realities, the concept of green logistics aims to increasingly combine economic and environmental efficiency to create a shared value for companies and the society. It is an important element in achieving the objectives of the European Union in regard to the reduction of green-

house gas emissions and plays a crucial role in determining the future development of the quality of life in Europe.

To take effect, green logistics concepts require new instruments and approaches to measure and minimize the impact of logistics activities in all areas of the sector. Standardised and transparent regulation and procedures as well as a joint view on infrastructure development, technology and governance in networks are prerequisites to fast, economically and ecologically efficient cross-border transport activities and international business in Europe.

Joint actions should support the ongoing efforts to integrate European transport (infrastructures) in green corridors with resource and environmentally compatible traffic nodes. This includes also the modal shift of freight from road to rail transport. Further collaborative investigation is apt to explore the impact of new business models on traditional transport solutions and possibilities for new approaches, putting special consideration on the increasing importance of the reverse loop in logistics. To enhance industry acceptance for greener logistics, the application of pressure from the demand side through awareness-raising is a promising approach already implemented and inheriting further potential in the current context.

4.4 Intelligent Hubs

Efficient transport and storage are highly dependent on shared infrastructure assets. They are a critical enabler of Europe's agenda for economic development and an essential competitive advantage to guarantee the prosperity of European citizens and the productivity of Europe's enterprises.

European logistics hubs face every increasing demand for the handling of goods due to new business models as well as increasingly international production structures and supply chains. While volumes rise, infrastructures at transport crossroads are seldom enlarged accordingly, with space limitations for warehousing, government infrastructure budget cuts as well as increasing public resistance to negative externalities of logistics hubs being only some of the main reasons.

The enhancement and integration of current modes of transportation and storage as well as their related infrastructures into intelligent multi-modal systems is thus recognised as a

most important success factor by European logistics hub regions. Facing the volume and congestion challenges with given resources demands for new solutions especially in regard to the integration and harmonised usage of existing infrastructures.

The coordination of incoming and outgoing transport passing through major infrastructures of central transport network hubs such as ports or airports has yet large potential to contribute to sustained handling performance even in face of larger volumes. The hinterland connectivity of large hubs is thereby as important as the smart infrastructure development in the conurbations themselves. New collaborative approaches integrating all relevant hub actors and customers have to be investigated for their potential contribution to coordinated hub operations.

Further, logistics regions across Europe are well advised to work towards terminal networks to successfully connect on coordinated transport corridors.

4.5 Knowledge Transfer and Valorisation

The ability to transfer and integrate external knowledge is increasingly important for logistics companies to stay ahead in the global race for innovation. There is still potential for companies to make better use of research institutions and their work in practice.

Quality, time and cost of logistics activities and services are commonly deemed key factors when it comes to the competitive advantages of a logistics cluster. Yet, to arrive at superior performance in conduct and innovation in logistics, a company and the industry as a whole has to constantly expand its knowledge base, e.g. through internal experience-based learning, but also through integration and application of external knowledge. Experience, education and training of new and existing employees are major determinants in this regard. Further, research institutions represent a major potential knowledge source.

Large potentials for transfer and practical application of results gained in sciences are still lying idle, assumingly due to a lack of effort from the side of researchers, but also

due to lacking awareness or interest from the side of the industry.

To enhance the ability of cluster firms to integrate external knowledge from research and education and foster sustained collaboration between these triple-helix actors, common ground and interests of practice and science have to be mediated. Intensified interaction will potentially also contribute to aligned and practice-oriented education agendas of academic institutions. As knowledge and innovation is seldom bound to a nation state, a European perspective for action is most applicable.

The benefits for both sides have to be made most apparent. Joint actions are apt in the development of explicit concepts to stimulate science to transfer and collaboratively apply research results in practice. On the side of the industry, new strategies could raise awareness for research institutions as knowledge sources and determinants of the quality of future logistics employees, and foster the willingness to engage in collaborations accordingly.

4.6 Urban Logistics

An increasing number of European citizens live in metropolitan areas. Innovative urban logistics concepts are necessary to provide a sustainable supply of goods and services to the customer in such highly complex and concentrated living environments.

Metropolitan conurbations as centres of productivity are driving forces of economic growth. The omnipresent trend to move from rural regions to larger cities raises ever new challenges to infrastructure and coordination of (economic) life in these areas. Traffic infrastructures and systems as well public transport increasingly operate on capacity limits. At the same time, demographic change, individualisation and environmental protection are exemplary trends fundamentally changing consuming behaviour in these large agglomerations, e.g. in terms of smaller order quantities and related flexible single deliveries around-the-clock.

Whereas public transport and infrastructure operators have to answer to steadily rising volumes of traffic and passengers, logistics actors especially from retail, supplier markets, courier, express and parcel delivery (CEP) as well as service providers will require new freight distribution solutions specifically designed for these urban areas.

Joint action and innovation is especially required in drafting scenarios and developing solutions for smart cities of the future. Issues relate to the efficient and sustainable urban distribution of goods, e.g. in terms of last mile city logistics. Further concepts regard the active steering of traffic flows and infrastructure usage along with environmentally friendly mobility concepts in urban areas. The optimisation of interfaces of different hubs in the European logistics network is another field with large potentials for joint action. A best-practice exchange between European metropolitan areas and with other parts of the world (e.g. China) in the field of urban development concepts is commendable.

The recent chapter has presented the strategic fields for joint action. They are part of the strategic research agenda which will be unfolded on the platform of SoCool@EU. All strategic fields have short-term, middle-term, and long-term perspectives. In the short-term, there will be an impulse for projects in each strategic field, i.e. a project outline which will be specified within the Business Plan. In the mid-term, these project ideas will be translated into detailed project outlines, clarifying the business models and the role of the clusters in the projects. This effort will be performed within Work Package 4. In the longer term, and after the SoCool@EU project has officially ended, the projects will be self-sustaining and producing results during further implementation. The Business Plan will also allow a prioritisation of the projects in the topic areas, determining project impact and conceivable implementation difficulties.

5 Conclusion and Outlook

The six fields of joint action in European logistics provide the basis for a common programme of joint activities and projects of the SoCool@EU clusters in the future. The project areas are directed towards policy, business and research alike and also address concerns of the general public with regard to logistics and transport.

The fields of joint action should be understood as an impulse for the SoCool@EU project and logistics actors across Europe. The consortium partners support the development of projects at the core and periphery of the mentioned topic areas and consider the Joint Action Plan as a first step towards a structured and interdisciplinary dialogue between SoCool@EU and other logistics gateways in Europe. The document at hand is an explicit invitation and motivation for logistics actors across Europe to initiate and/or be involved in specific joint activities of SoCool@EU, during and beyond the duration of the EU project.

The following next steps are expressed and will be conjointly undertaken by the consortium partners in 2013:

- 1) Official adoption of the Joint Action Plan. Senior-level representatives of the SoCool@EU cluster institutions will commit to this strategy paper.
- 2) The fields of joint action mentioned here as future-oriented project areas will be translated into specific and precise projects with action potentials for the triple-helix of the clusters. These specific projects will be further specified in the Business Plan.
- 3) The projects developed in the Business Plan will be implemented in Work Package 4. The Joint Action Plan and Business Plan will be broken down into an operable project planning system with the definition of clear individual business models and cases along with project goals, deliverables, implementation schedules and activities. The implementation phase will also clarify the engagement of stakeholder in the clusters, identify funding sources and drive the integration of projects with other projects, programmes and initiatives.

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