



# FInest – Future Internet enabled optimisation of transport and logistics networks



D10.7

## Final Report and Phase 2 Plan for Exploitation of Project Results

Project Acronym	FInest	
Project Title	Future Internet enabled optimisation of transport and logistics networks	
Project Number	285598	
Workpackage	#WP10 Dissemination, Exploitation, Standardization	
Lead Beneficiary	Arçelik	
Editor(s)	H.Gökmen	ARC
Contributors(s)	A.Metzger	UDE
	R. Franklin	KN
	R. Fleischhauer	SAP
	E-J.Harten	AFKLM
Reviewer	M. Stollberg	SAP
Dissemination Level	Public	
Contractual Delivery Date	31.03.2013	
Actual Delivery Date	31.03.2013	
Version	V1.0	

## Abstract

*This document provides the Final Report and Phase 2 Plan for Exploitation of FInest Project Results. All exploitation activities carried out during the second year is reported and it includes FI-PPP Phase 2 plan for exploitation of project results.*

*Introduction part of the document gives short information about transport and logistics industry in the European Union and provides the FInest project description and its expected results. In the next section, annual exploitation activities for the second year are summarized before the Phase 2 Plan for Exploitation of Project Results. Finally, the conclusion and future work section is provided.*

## Document History

Version	Date	Comments
V0.1	29-10-2011	First draft, TOC and initial content
V0.2	23-02-2013	Second draft, content revised
V0.3	18-03-2013	Third draft, for internal review
V1.0	28-03-2013	Final, ready for submission

## Table of Contents

Abstract .....	2
Table of Contents .....	4
List of Tables.....	5
List of Figures .....	5
Acronyms.....	6
1. Introduction .....	7
1.1. Transport and Logistics Industry .....	7
1.2. Project Description.....	7
1.3. Finest Expected Results.....	8
2. 2 <sup>nd</sup> Year Report on Exploitation Activities.....	9
3. Phase 2 Plan for Exploitation of Project Results .....	11
3.1. Towards FI PPP Phase 3: Large-Scale Expansion .....	11
3.2. Commercial Exploitation of the cSpace .....	14
3.3. Individual Exploitation Plans of cSpace Industrial Partners in Phase 2.....	14
3.4. Individual Exploitation Plans of cSpace non-Industrial Partners in Phase 2 .....	16
4. Conclusion and Future Work.....	18

## List of Tables

Table 1: Individual Exploitation Plans of cSpace industrial partners ..... 14

Table 2: Individual Exploitation Plans of cSpace non-industrial partners..... 16

## List of Figures

Figure 1: Future Internet enabled Collaboration & Integration Platform for T&L. .... 8

## Acronyms

Acronym	Explanation
ICT	Information and Communications Technologies
IT	Information Technology
FI PPP	Future Internet Public Private Partnership
FOAK	First of a Kind
GE	'Generic Enabler', technical term for the technologies developed and provided by the FIWARE project as generic and reusable technical building blocks of Future Internet platforms and applications
LCA	Local Competent Authority
LSP	Logistics Service Providers
SME	Small Medium Enterprises
T&L	Transport and Logistics
V1.0	Version 1.0
WP	Work Package

## 1. Introduction

The aim of this document is to provide the Final Report and Phase 2 Exploitation Plan of the FInest project.

The first section of this document is a recap of the introduction section of the deliverable D10.5 “Interim report and revised plan for exploitation”. Furthermore, it covers all exploitation activities carried out during the second year of the FInest project. Finally, it includes the planning of continued activities on exploitation and community building for the FI PPP programme phase 2.

### 1.1. Transport and Logistics Industry

Transport and logistics is a global industry accounting for approximately 7% of the GDP, and more than 5% of total employment, in the European Union. As a highly networked industry, the industry requires the smooth and agile interaction of a multitude of stakeholders and the integration of numerous operational procedures to move people and goods efficiently. The optimization of logistics processes is not only crucial for improving the business efficiency of involved commercial companies, but also has significant ecological impact: around 15% of the global greenhouse gas emissions are caused by transportation, where the total amount transport-caused emissions of ca. 6.7 GtCO<sub>2</sub>e (giga-tons CO<sub>2</sub> equivalent emissions) in 2010 has increased by nearly 50% from the 1990 level and is expected to double again by 2030 (source: World Resources Institute, 2010, <http://www.wri.org/>).

We believe that FInest results can have a high potential to be commercially exploited in Transport and Logistics sector in terms of increasing the economical efficiency while reducing the carbon footprint.

### 1.2. Project Description

The FInest project addresses international transport and logistics as a use case for the Future Internet PPP. International transport and logistics operations are concerned with the planning and execution of the world-wide shipment of goods and people. International transport and logistics enterprises operate as global businesses and their activities constitutes the backbone of the European economy. Operating in a highly competitive, distributed, and agile industry, global transport and logistics service providers require novel ICT solutions for enhancing their inter-organizational collaboration capabilities in cooperative business networks. The planned services of Future Internet technologies can facilitate radical improvements in the business efficiency of this industry as well as contribute to positive socio-economic and ecological side effects.

Modern transport and logistics operations are highly distributed inter-business activities often spanning several countries and continents. The involved business partners each aim to optimize their individual complex supply, production and transport chains. Existing ICT solutions – or, more precisely, those currently employed in the industry – are mostly designed for closed logistics supply chains with limited support for agile inter-organizational information exchange and collaboration. Although a wealth of business standards are used for information exchange in transport and logistics, there is high fragmentation in the ICT technologies used by different stakeholders for processing this information. In addition, legal and governmental regulations

require contracts and transportation documents to be provided and carried along in paper form forcing international logistics companies to conduct many of their information based activities that are conducted manually in the current setting. This hampers business efficiency and the innovation potential of all parties involved in modern transport and logistics, and, as a consequence, presents an obstacle to achieving a more reliable, lower cost and environmentally friendly industry.

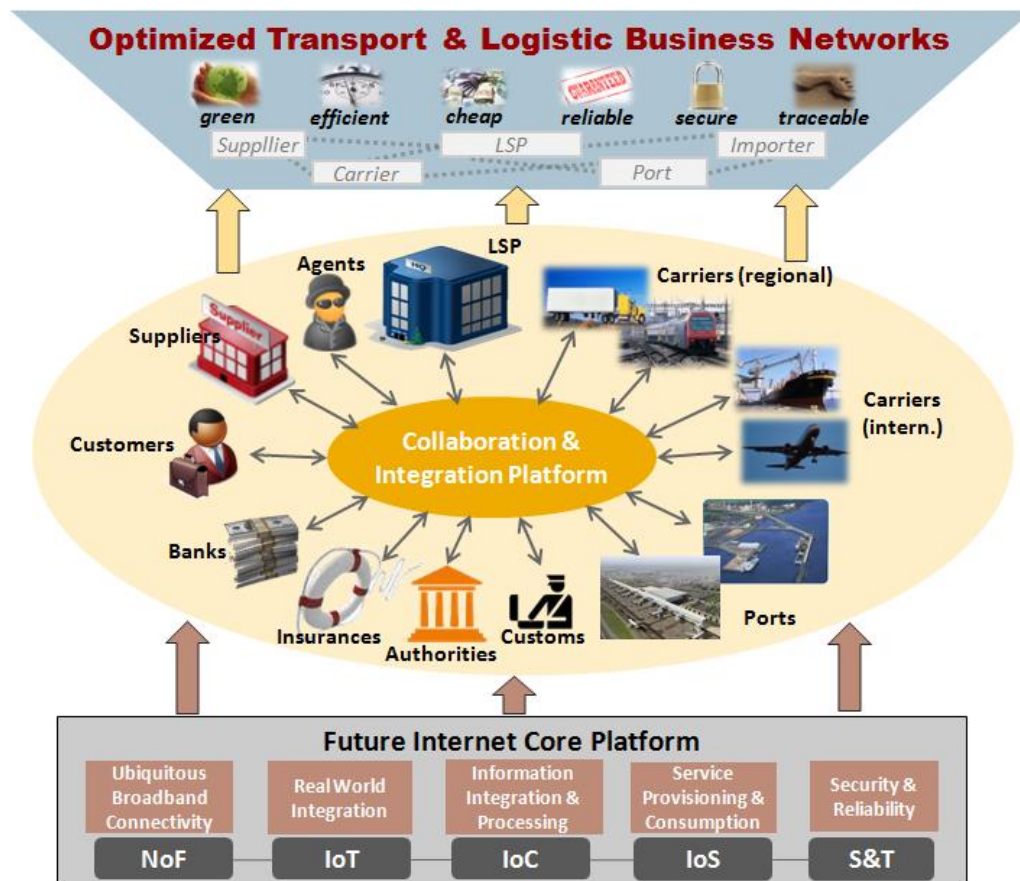


Figure 1: Future Internet enabled Collaboration & Integration Platform for T&L.

### 1.3. Finest Expected Results

Figure 1 illustrates the overall vision of the Finest project. The two following requirements are necessary in order to provide adequate ICT support for the central business

- Efficient support for **inter-organizational collaboration in cooperative business networks** that operate in agile and dynamic environments and involve a multitude of stakeholders.
- **Seamless integration of information and data** in heterogeneous IT landscapes along with embedded facilities for **real-world data acquisition and integration**.

Central features of the platform are:

- **Information integration from legacy and third party systems** enabled by a **service-based integration layer** that works with established business standards;



- Support for the **planning and execution of multi-modal international transport from a global perspective** with message-based coordination among the involved business partners;
- Integrated techniques for **event-driven transport monitoring, tracking, and re-planning** on the basis of data integration from sensor systems and smart infrastructures;
- **Role-based views for the individual participants in logistics processes** along with **integrated security and privacy management** for access control to confidential information; an
- **Ubiquitous connectivity** for allowing access from anywhere at any time via any device.

The platform will be realized on the basis of an integrated Future Internet Core Platform as envisioned to be developed within the FI PPP. For realizing the desirable features, generic facilities for all technical building blocks that are considered for the Future Internet are required. First group of generic facilities/enablers are partly developed and released by FI-WARE in this period whereof 6 GEs are used within the FInest proof-of-concept implementations, for 8 GE have been taken into consideration for the technical design and specifications, and another 10 are considered within the phase 2 implementation plans. The GE usage overview can be found in “Alignment with FIWARE” section of deliverable D9.3. On top of these technical building blocks, the desirable domain-specific capabilities for inter-organizational process coordination, transport monitoring and tracking, event-driven re-planning, and security and privacy management in business networks requirements analysis were completed in this period and the development will be done in phase 2.

The FInest project focuses on international freight transport as the primary use case domain; the results can expectably also be applied in other areas such as passenger transport or cooperative business network management in multi-modal production supply chains.

## 2. 2<sup>nd</sup> Year Report on Exploitation Activities

FInest consortium is working as a whole on a user community forming and stakeholder engagement plans to fully exploit FInest results. Some of the potential user groups/stakeholder organizations have been contacted in this period and some meetings held for FInest exploitation possibilities within those groups. These activities are summarized in the deliverable D10.6 Final report and Phase 2 plan for Dissemination and Standardization.

In addition to these activities, FInest consortium is contributing to FI-PPP activities with joining the Exploitation and Business Modelling Working Group whose objective is to maximise the impact and exploitation potential of the FI-PPP Programme and the individual FI-PPP projects.

The FInest partners have continued their exploitation activities within their product portfolio and ecosystem.

KN has closely watched the progress of the FInest project over the past year. Discussions with air and sea freight customers on their interest in a cloud based collaboration and logistics management service were conducted. Based on positive feedback from these discussions KN decided to transfer oversight of the FInest project from its Contract Logistics organization to its Customer Solutions Group. The Customer Solutions Group interfaces directly with KN’s primary customers to deliver novel and innovative service solutions that assist both KN and its customer in creating greater value through logistics operations. It is KN’s belief that as the FInest project progresses into its phase II cSpace model that the Customer Solutions Group’s

direct interaction with leading edge shippers will lead to rapid uptake in the model and the beginning of a robust ecosystem.

UDE has continued to exploit the results of FInest to augment its research in the promising field of software- and service-based systems. Specifically, in close collaboration with the S-Cube NoE, UDE members have investigated into how predictive monitoring could be beneficially applied to the T&L setting. Based on real operational airfreight data from FInest members (i.e., K&N and AFKLM), significant opportunities for joint research (even beyond the scope of FInest) have been identified.

SAP has intensified its exploitation efforts during the last year. In April 2012 they started an internal customer engagement project based on the results of FInest. The project was completed in the beginning of 2013 and successfully validated an approach to forecast transport demands for shippers with high cargo quantities. SAP's project team also has continued with the alignment of SAP's product portfolio to the FInest vision and were able to contribute to several products, esp. SAP Transportation Management and SAP Event Management. SAP filed three different patents in the US based on project results. Those patents directly took advantage of the BCM (work package 5) development and were influenced by the idea of an advanced multi-stakeholder messaging framework, which was brought into the consortia by SAP. Furthermore, the project team extended their efforts to present the project and its results to internal stakeholders in order to increase the awareness of the novel FInest vision in product teams. During the cSpace project (phase 2), SAP plans to further intensify the involvement of internal stakeholders. By the recent Ariba acquisition SAP has now access to a large customer network. That network is a promising test and evaluation opportunity for cSpace results.

Air France/KLM Cargo has continued FInest introduction meetings in this period. The concept was introduced in these meetings and feedbacks are collected from the participants. It has continued to spread the word of FInest Concept within AFKL organisation and gather feedback regarding the concept and more concrete solutions.

Port of Alesund has continued to present FInest project and its expected results to the potential users and stakeholders in this period. Alesund City Council has been informed about the FInest project during Port of Alesund team visit. FInest project presentation was done during Maritime Forum NorthWest Event. Shortsea Promotion Center's "Choose the seaway" campaign visited Alesund and the FInest project is presented during their visit.

Arçelik has continued its activities in this period and made presentations in South Africa within the new acquired DEFY Appliances (Pty) Ltd. Arçelik has collected information about the existing suppliers of DEFY to be contacted in the second phase activities. DEFY is Southern Africa's largest manufacturer and distributor of major domestic appliances that markets its products under the DEFY and Ocean brand names.

Arçelik and Koç Sistem have continued exploitation activities within their group companies. Koc Holding (the largest private conglomerate in Turkey, which operates in four core industries: Energy, Automotive, Consumer durables and Finance) and Tupras (Turkish Petroleum refineries co, the largest industrial enterprise in Turkey) have provided a letter of commitment to become associated partners to the cSpace project. These institutions support the general aim of the cSpace contributing as an observer, advisor and potential exploitation partner to this project in the following way (specified and enriched in each of the commitment letters in the cSpace proposal):

- Participation in cSpace International meetings
- Diffusion of cSpace project results;

- Definition of specific experiments using cSpace and active search for sources of public or private funding (out of the FI PPP programme, i.e. national/regional/federal funding etc) to support the experiments deployment and testing;

The associated partners will be invited to 1 or 2 international working sessions and they will be assessed as potential members of the cSpace Advisory Board. In addition to these, Koç Sistem and Arçelik have contacted YASAD (Turkish Software Industry Association) and TUBISAD (Turkish Informatics Industry Association) during this period and they have also joined the associated partners of cSpace project. YASAD and TUBISAD members constitute the 98% of Turkish ICT sector.

### 3. Phase 2 Plan for Exploitation of Project Results

The Finest consortium has since the start of the programme has engaged with other use case projects in order to identify collaboration opportunities and synergies. Specifically, discussions with the use case projects SmartAgriFood and InstantMobility have been strengthened as they promised the highest potential collaboration possibilities. As an outcome of those interactions, The two complementary use-case streams from Finest and SmartAgriFood have been combined into one phase 2 project proposal, namely cSpace, which has been accepted as trial project in phase 2. The cSpace proposal has been retained for negotiations and thus our phase 2 plan for exploitation covers a common strategy for Agri-Food and Transport & Logistics industries.

In full awareness that market impact is considered as a key result of use case projects in phase 2 of the FI PPP, the cSpace project aims at (1) transforming project results into real exploitable assets and (2) demonstrating real business opportunities of those assets. For this, it is a central goal of the project to prepare for commercialization and establishment of the cSpace, fostering and demonstrating the potential for innovation of cSpace related to market impact and business creation in the Agri-food and transport and logistics sector. It is also an exploitation objective to foster the B2B collaboration capabilities of the cSpace to other business domains through cross-project collaboration.

#### 3.1. Towards FI PPP Phase 3: Large-Scale Expansion

Phase 3 of the FI PPP offers cSpace a good opportunity to demonstrate market impact and business creation and possibility to scale up cSpace-based solutions all across Europe. For this, 20 new projects will be selected to act as innovation platforms to rapidly connect communities of SMEs and web-entrepreneurs to take-up in the technologies developed in phase 1 and phase 2 of the FI PPP. Phase 3 projects will have as target outcome a large set of innovative and technologically challenging services and applications developed under the previous phases of the FI PPP. These new projects will bring together partners in full ecosystems that support SMEs to deliver new applications and services allocating 80% of the project budget in open calls for SMEs that will build and experiment applications, scaling up the FI PPP results in phase 1 and 2<sup>1</sup>.

**Strategy for Phase 3 Preparation:** Phase 3 is considered as the exploitation phase for the cSpace concept in the context of the FI PPP, using, exploiting, and expanding on the results from Phase 2. The cSpace project will address Phase 3 preparation and large-scale Trials by:

---

<sup>1</sup> Objective ICT-2013.1.8 Expansion of Use cases

1. **Ecosystem incubation** is designed to identify, build and prepare ecosystems for phase 3, supporting proposers and selected projects, so they are ready to deliver using the cSpace project results; external parties have already confirmed interest
2. **SMEs and developers community building** pro-actively engaging players and associations from relevant industries and IT industries.
3. **Providing the right tools for developers and users:** a professional online space (wiki) for users and developers containing all the guides, technical documentation of all cSpace components, demo cases and other relevant information.
4. cSpace will provide intensive **knowledge transfer** and **educational activities** to phase 3 proposers and projects, and to the SME and developers community. cSpace will organize two rounds of training workshops for phase 3 projects based on cSpace V2 and V3 public releases, targeting the ones oriented to the Agri-Food and T&L domains.
5. cSpace will disseminate phase 2 capabilities beyond its ecosystem for wider European outreach during phase 3 proposal preparation and promote cSpace capabilities to all the phase 3 projects providing **a communication channel with phase 3** and supporting the engagement of the cSpace SME community with the phase 3 projects.
6. cSpace will **ensure software capabilities, hosting capabilities and experimentation capabilities during the project life** through a dedicated task (T570) that coordinates efforts from all the cSpace WPs. The cSpace experimentation environment will be adaptable to new use case Trials once they come in phase 3, leveraging the experience gained and lessons learned during phase 2.
7. Applying **measures to support phase 3 projects after cSpace project conclusion:** cSpace is provided in an open manner and specification of the software will be open and publicly accessible. Every cSpace component and every App will be open and no fees will be charged until the end of the project so that everyone can use & test it and there will be public website / Wiki space where all the Components & Apps will be described and accessible. Close cooperation with phase 3 projects (transferring knowledge) and capacity building project, for the deployment of several cSpace Experimentation Environment across Europe, will also contribute to support SME uptake in year 5 of the programme.
8. cSpace will work in **close collaboration to other FI PPP projects for phase 3 success** and in particular the other Phase 2 projects, the capacity building project, close collaboration with the phase 3 selected projects for Technology Foundation Extension and Usage, target outcome d) (usage and participation) focused on the involvement of the take-up actors and support to them (year 2 of the cSpace project).

**Approach for Ecosystem Incubation:** referring to the first strategy activity, the aim is to engage external stakeholders to build local, regional and cross-border communities across Europe, that get to know, to understand and to use the project capabilities, and therefore are able to exploit the potential for innovation of the cSpace project results (within and beyond the context of the FI PPP programme). For this, the project will work towards:

- **Build ecosystems upon existing communities and partner contacts** pro-actively engaging players and associations from relevant industries and IT industries and transferring assets from phase 1(communities of interest created by SAF and Finest during phase 1 and existing Living Labs/innovation ecosystems engaged with FI PPP) to accelerate the community building process.
- **Build upon the cSpace project pilots**, where project partners are involved, and therefore the transfer of knowledge can be easily managed (using local languages), and where incubation of ideas and collaboration opportunities can more naturally happen around the existing demonstration capabilities (pilots).
- **Collaborate with the FI PPP projects**, to more easily reach other communities across Europe (i.e. communities already engaged in FI PPP but not naturally with cSpace), to

foster cross-use case innovation capabilities and demonstrate the potential of cSpace B2B collaboration in other domains.

- **Living Labs across Europe (and worldwide):** Definition of criteria for extension across Europe fostering and building ecosystems of innovation or Living Labs across Europe able to experiment and exploit cSpace results. Engaging local and regional authorities, and linking the cSpace expansion to the Smart Specialisation Strategy of the regions.
- **Transfer knowledge:** provide open documentation and training material to educate interested users and App developers to exploit and contribute to the cSpace ecosystem.

Ecosystem incubation is not only about targeting specific stakeholders separately but to support them to know each other, to collaborate together creating open innovation platforms for project generation, and providing them capabilities to create and experiment innovative solutions in a collaborative way using cSpace project results. Stakeholders of these communities shall include SMEs and web entrepreneurs, system development organizations, enterprises and businesses from various sectors, owners of certification schemes, local, regional and national policy makers, local and regional researchers, incubators, infrastructure owners and funding communities (e.g. venture capitalist, regional funding agencies), etc.

A central pre-requisite for successful ecosystem incubation is that several **cSpace project partners have direct access to multiples networks and industrial and non-industrial relevant actors**. In addition to the membership in related European and national initiatives (please see Appendix 5.21.List of Related International & National Initiatives in D10.6), the most relevant direct connections for ecosystem incubation and community building are:

- **KN's** service partners are also potential interested parties who would benefit from a service such as that being developed under the cSpace project effort.
- **SAP** customers and business partners as potential users (pro-active involvement possible & planned), established contacts to international, national, and regional networks in relevant industries (production, manufacturing, transport & logistics, retail, etc.); SAP Partners as potential providers of cSpace Services & Apps.
- Stakeholders within maritime industry (Shipping companies, such as NCL and Wallenius Wilhelmsen, DNV, ports, system developers etc.) through **Marintek**, complemented by close connection within academia and research (MARINTEK is part of the SINTEF Group, co-located with Norw. Uni. of Science and Technology), stakeholders within standardization bodies (IMO, ISO, IEEE), and stakeholders within governmental bodies (Norw. Coastal Adm., Norw. Maritime Directorate etc.).

Some of the stakeholders listed above showed the intention and interest to be part of the cSpace ecosystem contributing to the trials, to build phase 3 projects, to disseminate project results and / or for assessment of commercial exploitation (their Support Letters can be seen in appendix of cSpace proposal). In addition, in preparation of the project the consortium has addressed relevant actors at European and non-European level committed to assess the possibility of implementing some cSpace experiments (out of the European context and funding) and to assess real possibilities of further project results exploitation targeting non-European markets. These are called the “cSpace associated partners”. The associated partners will be invited to 1 or 2 international working sessions and they will also become members of the cSpace Advisory Board. Already engaged organizations are (associated partners’ letters can be found in appendix of cSpace proposal): Future Logistics Living Lab (Australia), Global G.A.P. c/o FoodPlus GmbH (Koln, Germany), Centre of Excellence in Farm Business Management (OneFarm) (New Zealand), Pardalis (Oklahoma, US), JOHN DEERE GmbH & Co. KG European Technology Innovation Center (Germany), EDEKA (Hamburg, Germany), China Telecom Corporation Limited Beijing Research Institute (CTBRI) (China), ORGAINVENT (Germany), Union Fleurs

AISBL (Belgium), Westfleisch eG (Munche, Germany), Sebrea Minas Gerais (Brazil), Eurofins GmbH (Hamburg, Germany), European Retail Academy, Borborena Group (Brazil).

### 3.2. Commercial Exploitation of the cSpace

In order to facilitate the commercial exploitation of cSpace project results, the elaboration of business models is planned as a main activity in WP500, aiming at:

1. Creating a full understanding of the complex, end-to-end cSpace value network and outlining a number of generic business models for cSpace solutions, focusing both on the platform itself (ICT side) and changes brought in the sectors envisaged (e.g., SaaS, PaaS from an ICT perspective, potential role shifts/new roles in agricultural and logistics models);
2. Identification of market needs, and assessing the project outcomes with respect to these;
3. Delineating, analyzing and validating applied business models for several exemplary services to be implemented and tested within the project, and;
4. Constructing a clear set of validated business models for which a strategic fit exists between the different stakeholders in terms of the cSpace-enabled value network (including the platform itself, the module and service providers, but mostly the beneficiary sectors), its functional architecture, the cost and revenue structure for the cSpace enhanced service provision and the value proposition offered.

For the Overall Exploitation Plan, this is complemented with the Individual Exploitation Plans of the project partners. The project objectives have mainly been driven by industrial needs. Table 1 lists the plans for exploitation by the industrial partners for pre-product development and business innovation. However, the cSpace project target outcomes are not limited to industrial exploitation but also relevant for non-commercial R&D activities. For this, Table 2 below enlists the exploitation plans of the non-industrial project partners.

### 3.3. Individual Exploitation Plans of cSpace Industrial Partners in Phase 2

The phase 2 project cSpace objectives have mainly been driven by industrial needs. The plans for exploitation by the industrial partners (only Finest partners) are listed in Table 1 below:

**Table 1: Individual Exploitation Plans of cSpace industrial partners**

No.	Partner	Exploitation prospects
2	KN	As one of the world’s largest logistics service providers (LSPs), Kuehne + Nagel must develop and manage complex supply chains on behalf of its customers. The competitive nature of the market in which Kuehne + Nagel competes demands that these supply chains be set up rapidly and efficiently and effectively managed no matter what problems may arise during their operation. The cSpace project promises to develop a set of new collaboration and management processes based on reusable and user focused tools that will enable Kuehne + Nagel to perform the supply chain creation and management services demanded by its customers in a more cost effective and high quality manner. The service provided by and through the Future Internet will enable Kuehne + Nagel to quickly respond to events that are happening in a supply network and, through the cSpace project’s ability to facilitate rapid supply network planning and re-planning, develop improved solutions to problems. This service capability will extend the capabilities of logistics service providers in general and, in the process, provide customers of these organizations with better service at a lower overall cost. This outcome is a key factor in why Kuehne + Nagel is participating in the cSpace project and it will be a significant driver of business benefits to LSPs like Kuehne + Nagel and to their customers.

No.	Partner	Exploitation prospects
		<p>For the cSpace FI PPP phase II project Kuehne + Nagel has directly involved its Customer Solutions organization in project oversight activities. The Customer Solutions group assists Kuehne + Nagel in deploying and testing new technologies in customer environments. This organization's involvement in the project will allow Kuehne + Nagel to develop a community of interest in the cSpace concept and facilitate the rapid exploitation of the cSpace concept as it is developed. The creation of this community of interest will, hopefully, begin the creation of a logistics services ecosystem that realizes the vision of the cSpace project and the FI PPP.</p>
5	SAP	<p>SAP is market leader for enterprise software solutions and, thus, highly interested in improved capabilities for business network collaboration in Transport and Logistics. Traditionally, SAP had focused on on-premise software for various business processes, e.g., in the area of enterprise resource planning, supply chain management, and transportation management. The emergence of cloud computing opened up new business opportunities for SAP, its customers, and partners – especially for future ICT support for cross-organizational collaboration, which cSpace targets. Based on the development, testing, and ecosystem incubation activities, valuable insights can be obtained on how to become a relevant and profitable cloud provider. With this, cSpace results add value to current products and are evaluated by SAP's customers in various industry branches; this is planned to be conducted in form of transfer projects in close collaboration between SAP Research and specific product development units. The strong link to the product groups moreover assures a maximal orientation on customers' requirements and product portfolio relevance.</p> <p>SAP will exploit cSpace results in several dimensions:</p> <ul style="list-style-type: none"> <li>• Provide insights for future technology and business models for collaborative business software on the Cloud</li> <li>• Develop and sell new cSpace apps via cSpace Store</li> <li>• Use existing products as foundation for new apps offered in cSpace</li> <li>• Learn and investigate use cases together with cSpace partners and customers</li> <li>• Integrate collaboration concepts from cSpace into existing SAP products, e.g. SAP Transportation Management or SAP Supply Chain Management</li> <li>• Development of new products based on experience with cSpace development</li> </ul>
6	IBM	<p>A very important subject of Research, nowadays, is cloud centric applications. IBM is actively engaged in creating cloud centric solutions. The development of cSpace is a prime example of a cloud centric application. These can serve as a foundation for much other, similar vertical exploitation of cloud centric solutions in various areas. A similar platform can serve the financial industry. Others can serve various smarter planet solutions. Our pioneering work in cSpace development is to influence the IBM line of products in the space of cloud centric solutions. We are to contribute a cloud based ESB as well as a cloud scale consistency service both are in the heart of such solutions. The other major strategic direction in IBM relevant to cSpace is Smarter Planet. The smarter planet initiative views the world as instrumented, interconnected, and intelligent with the focus on sustaining businesses, operations and cities, to name a few. Within this direction there is a very strong focus by industry domains and the industries of transport &amp; logistics and agriculture receive high and ever increasing attention. The vehicle for exploitation is for example through IBM's Intelligent Transportation, a software to enable real-time communication and collaboration to coordinate actions and resolve issues in an efficient manner around transportation in cities - available on IBM SmartCloud (IBM's cloud computing technology). The software such as IBM Intelligent Transportation goes along with an asset library and an adoption process that allows for inclusions of new contributions at varying levels of maturity until full adoption upon technical and business proof in the field with customers</p>
7	ATOS	
8	KoçSistem	<p>KoçSistem is one of the world's largest outsourcing services and systems integration companies providing complex ICT solutions and services for its respective customers. KoçSistem has engaged in several public and private projects to develop solutions for various sectors and widely makes use of these developments in commercial areas. The cSpace project promises to develop a new B2B collaboration solution that enable processes based, user focused services that will enable KoçSistem to create and extend supply chain focused services and solutions. These solutions and services will greatly benefit our customers who are involved in supply chain activities by allowing them to seamlessly integrate operations with their partners, lower overall supply chain costs and reduce carbon emissions in their transport operations. The Future Internet will quickly respond to events that are happening in a supply network and, through the cSpace's ability to facilitate close supply chain collaboration, enable partners to access Internet based Software as a service (SaaS) solutions that will keep their products flowing as required. This will extend the capabilities of their processes, provide customers of these organizations improved service quality and reduce overall costs. The cSpace project will be a significant driver of</p>

No.	Partner	Exploitation prospects
		business benefit to our customers and extend our SaaS based services capabilities.
9	The Open Group	
19	ARCELIK	<p>Arçelik's import and export logistics groups handles over 81000 shipments per year and this transaction volume doubles with the inclusion of inland shipments. Thus, Arçelik will exploit the cSpace solution in its supply chain to handle these transactions for secure forecasting, planning and monitoring which will increase its competitiveness. cSpace platform will enable secure forecasting, planning and monitoring using modern Internet technologies in a more cost effective and high quality manner. ARC will inform all its suppliers and customers during bilateral meetings, company visits and trade shows about the potential outcome of the cSpace project to persuade them to benefit from cSpace's results.</p> <p>Arçelik Group belongs to the largest private conglomerate in Turkey, Koç Group, which operates in four core industries - Energy, Automotive, Consumer Durables, Finance - and had a consolidated turnover of 38.8 billion USD in 2010.</p> <p>Koç Group companies active in the energy sector can maximize synergies among their petroleum products distribution networks and LPG distribution businesses with using the cSpace results. In addition to the energy sector, through strong and committed joint venture partnerships with major international automakers, Ford, Fiat and Case New Holland, Koç Group is the largest automotive player in Turkey. Koç Group manufactures about half of all the motor vehicles in Turkey and is also responsible for about 50% of all Turkish motor vehicle exports. Therefore, Koç Group companies active in automotive sector together with their suppliers and customers can exploit cSpace results as well.</p>
20	Bon Preu	
24	Kverneland	
25	M&A	
26	NCL	Their explorations activities will be: (1) Internal presentations at NCL business partner network (customers, agents, ports, authorities, suppliers, ICT partners); (2) Presentations at different industry network events (e.g. Short Sea Promotion Center events and projects).
28	AgroSense	
29	INNOV	

### 3.4. Individual Exploitation Plans of cSpace non-Industrial Partners in Phase 2

Exploitation and further use of cSpace results from non-industrial partners (only Finest partners) are listed in the Table 2 below:

**Table 2: Individual Exploitation Plans of cSpace non-industrial partners**

No.	Partner	Exploitation prospects
1	DLO	
3	ATB	



No.	Partner	Exploitation prospects
4	<b>University of Duisburg-Essen (UDE)</b>	<p>As an academic partner, UDE's exploitation strategy has the following three key elements:</p> <p>R&amp;D Collaborations: UDE will exploit cSpace results to augment and complement its research activities and influence the European research agenda in the field of Future Internet systems;</p> <ul style="list-style-type: none"> <li>• Teaching: UDE will use the results gained from cSpace to strengthen the quality of teaching and education by conducting knowledge transfer to young academics, thereby supporting educational portfolio demands in its core areas of competence;</li> <li>• Training and Consulting: UDE plans to offer training services in the area of Future Internet technologies and in particular cloud solutions for transport and logistics, thereby strengthening industrial contacts and collaboration with practitioners and consultants.</li> </ul>
10	<b>Aston University</b>	
11	<b>CentMA</b>	
12	<b>ENoLL</b>	
13	<b>iMinds</b>	
14	<b>KTBL</b>	
15	<b>Marintek</b>	<p>MARINTEK aims to build upon results from the cSpace project in current and future research activities, and will use the project work to strengthen the competence of the institute in the fields of Future Internet solutions for the maritime transport sector. As a research institution, knowledge of and experience with emerging technologies that can benefit the maritime transport sector is of high importance, both in order to provide good results in ongoing projects as well as generating new research projects.</p>
16	<b>NKUA</b>	
17	<b>UPM</b>	
18	<b>WU</b>	
21	<b>Europool</b>	
23	<b>GS1</b>	
27	<b>OPEKEPE</b>	

## 4. Conclusion and Future Work

The FInest exploitation activities carried out closely with dissemination activities and with this way information flow to and from external parties were provided. This helped FInest partners to tailor project outcomes and results in such a way as to make them relevant beyond the life of the project. In addition to this, partners have identified groups and organizations that could potentially be interested in FInest (cSpace in the second phase) outcomes and their feedbacks collected to determine whether any modifications would be required for them to be able to exploit it. It was also necessary to keep regional, national and European authorities and policy-makers in the loop to communicate FInest project results which may require new policies for deployment of project results.

This final report covers the M13 through M24 activities and second phase plan, based on the feedbacks from project partners' activities and information collected from external organizations and groups. This plan will be used in the beginning of cSpace project in the second phase of FI PPP programme.