FInest

FUTURE LOGISTICS

FUTURE INTERNET PPP

www.finest-ppp.eu

FInest Project Team / Istanbul Plenary Meeting

Europe's Future Technologies

KoçSistem CEO Mehmet Nalbantoğlu implied that for expanding usage of Internet to overcome problems of old population and rivalry, Europe has reserved for 600 million Euro Future Internet Public Private Partnership budget.

Nalbantoğlu denoted that KoçSistem And Arçelik both will be business partners with "FInest" one of the 8 project which will shape EU's future and he said "By taking a part in such a project with our abilities, we're also taking part of designing and creation of the technologic infrastructure for the year 2020.

KoçSistem Tecnology and Innovation Bülent ERBAŞ ,
Project Coordinator Dr. J. Rod Franklin, Koç Bilgi Group CEO Mehmet Nalbantoğlu

Nalbantoğlu also emphasized that a firm or a country doesn't have to discover something big or creating another Facebook for writing success stories and he continued his words: "Right now, our whole life, the way that corporates work, and public services is being changed with the Internet. Behind this, stands broadband internet and Cloud IT Services. KoçSistem is one of the few companies which has expertise and backup in both East and West up a range to 3 thousand kilometers. We believe that we can present new business models of Internet in a perspective of service model, and by doing this we can create a new value for our country.

Cloud IT Services holds the logistics background of whole EU, and giving its services is a huge project. Like this one, we are seeding of a lot of projects. We can be one of the rare countries which provides Cloud IT Services in EU and near territory. Besides we are doing our investments to make it come true too. We see this project as a big step in this long journey."

FInest Project Coordinator and Vice President of Kuhne Nagel, which is one of the top 5 logistics company of the world, Dr. j. Rod Franklin said that project aims to ease the management of the supply chain and added that available systems has many problems such as high costs and lack of dynamism.

Franklin shared the information "The project has started on 1 April 2011 and it will take 24 months to complete. In this first phase we are trying to identify system requirements. After that there'll be a three-year project, the designed projects will be developed phisically. The tangible result which is expected when the project finished is creating a logistics system based on Cloud IT and a suitable Internet for commercial use."

Franklin also stated that after the project, the system created will ease international supply chain management with transparency, simplicy and accessibility; especially will create new opportunities to small players by being a part of the system, and added that the reduced costs will be the benefit of the end users.

Franklin spotlighted that logistics sector is a big part of the international works and said "Logistics operations are calculated to be 7-14% of the countries" GDP. This new technology will benefit to all. We are not only do our duty to our job but also the world by reducing the emissions that causes global warming."

The information from Arçelik A.Ş. shows that 65 thousand foreign trade, 200 thousand inside-Turkey distribution car management, and makes sales more than a hundred country (65% in Europe), the company chooses environmental friendly ways such as sea, rail and river line; acting "sustainable improvement" principals to all destinations possible.

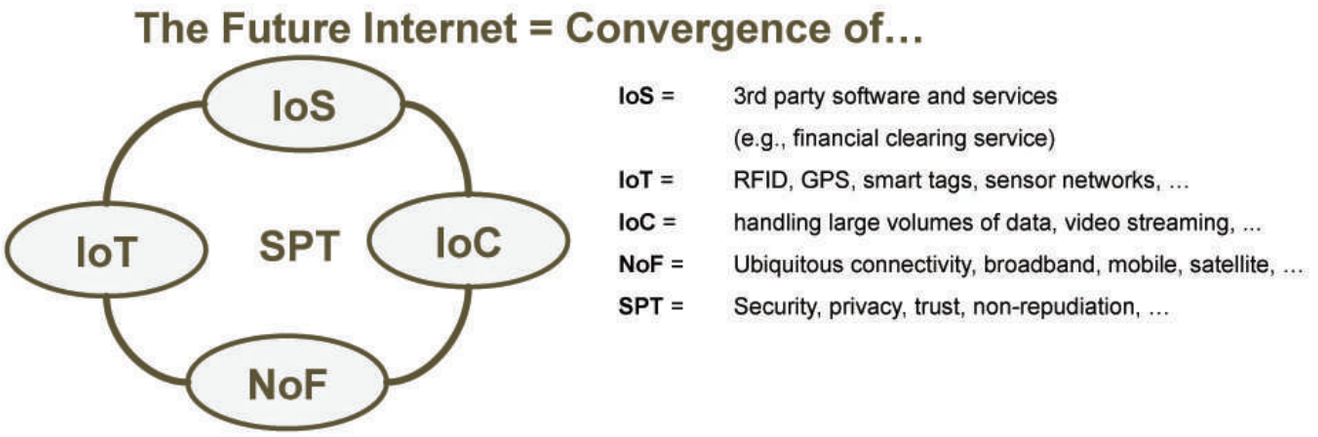
Following their customers' and business partners' expectations, managing supply chain processes effective and efficient way, Arçelik is one of the company that shapes the "FInest Project" which aims to gain a continuous role in logistics, supply chain and production management systems.

The importance of this project to the effiency of transportation and logistic sector, it benefits both the country has a grand piece of the sector cake and its direct influence to reducing the carbon emissions. EU-wide carbon emissions are created by this sector's actions 25%.

FInest dissemination, exploitation and standardisation manager, Haluk Gökmen, with Vice President of the European Commission, Neelie Kroes at Future Internet PPP Launch Ceremony, Brussels.

Further Reading:

R. Franklin, A. Metzger, M. Stollberg, Y. Engel, K. Fjørtoft, R. Fleischhauer, C. Marquezan, and L. S. Ramstad, "Future Internet technology for the future of transport and logiscs," in A. Zisman, I. Llorente, M. Surridge, W. Abramowicz, and J. Vayssiére (eds.) *ServiceWave 2011*, Springer, LNCS, 2011.



FInest's contribution to sustainable logistics services?

Dr. Metzger: "FInest is developing innovative application scenarios and IT solutions to demonstrate the opportunities that the Future Internet will expose to accomplish sustainable freight transport and logistics. Transport and logistics has a significant environmental impact, which has roughly doubled since 1990. FInest will exploit intelligent, Future Internet technology to create more reliable, more cost efficient and more eco-friendly and thus more sustainable transport and logistics networks".

Example for improvements made possible by FInest?

Dr. Metzger: "Let's take the construction of a large technical product, such as an offshore wind energy plant, as an example. Here, you need to integrate and assembly on-site many different high-precision parts from many suppliers and countries. Currently, processes for constructing those products involve resource-intensive, intermediate steps, such as interim storage and thus additional transport legs. Only when assembling the parts, you realize today if there was some damage to those parts during transport. Thus, you need to test-assemble them before actual on-site assembly. Exploiting the Future Internet, such as the Internet of Things, we will be able to retrieve online information from the transported goods in order to determine their state. As an example, if one were to know at the construction site that all parts are fine, there would no need to perform a test-assembly. And, even in the case there was damage to a part, one could immediately plan counter measures, such as ordering spare parts. This means less intermediate steps, shorter transport routes, less buffers and thus ultimately will lead to significant reduction of emissions."

How is FInest made possible?

Dr. Metzger: "FInest will build on the next major leap of information and communication technology, the "Future Internet"' The Future Internet constitutes a future ICT infrastructure in which various technology streams converge. Specifically, we will see the convergence of the Internet of Services, the Internet of Content and the Internet of Things, enabled by Networks of the Future and comprehensive mechanisms for Security, Privacy and Trust. As an example, FInest will be able to exploit smart sensors of the Internet of Things, which are connected via the Networks of the Future. Those smart sensors allow us to gather online and up-to-date information about transported goods. Based on such a wealth of information, we will be able to continuously improve the transport and logistics process."

What capabilities FInest will offer?

Dr. Metzger: "The FInest team, together with stakeholders from the domain, has identified four core capabilities that will be offered by FInest: (1) a collaboration hub, providing communication and collaboration facilities for all stakeholders involved in the transport and logistics chain, (2) an electronic contract manager, which provides service provider selection, contract negotiation and agreement, as well as contract management and monitoring, (3) an event processing engine that gathers and analyses real-world and business data to determine critical events, and (4) a transport (re-)planning module. In addition, the FInest architecture will be flexible enough to allow for customer-specific configuration and also extension."

FInest technical coordinator, Dr. Andreas Metzger (middle) at 2nd Future Internet Summit, Luxembourg.

FInest = Novel ICT Solutions for Sustainable Transport & Logistics:

Higher business network agility through better visibility on T&L processes

Lowered barriers for inter-organizational collaboration and SME access by enabling open logistic supply chains

Increased business efficiency by reduction of manual and rigid steps

About FInest

The efficient operation of international transport and logistics networks is a critical success factor for sustainable growth in global trade. Inefficient operation creates barriers to trade by causing shipment delays and raising trading costs. Since transport and logistics activities account for 10% to 20% of a country's Gross Domestic Product, increases in the efficiency of these activities can dramatically improve a country's competitiveness. In addition, environmental impacts resulting from the operation of transport and logistics activities are significant, so any improvement in efficiency within a logistics network positively contributes to sustainability objectives.

While the transport and logistics industry has made great strides in attempting to improve its efficiency, limitations in technology, transport infrastructure and regulatory regime incompatibilities have created significant barriers to future improvements. Overcoming these barriers requires new information and communication technologies and tools that allow organizations to rapidly assemble collaborative logistics networks that can efficiently and effectively execute international trading activities. The Future Internet, with its promise of ubiquitous operation and information access, provides a potential platform for overcoming the limitations of current ICTs.

Building on the proposed capabilities of the Future Internet being developed under the European Union's Future Internet Public Private Partnership program (FI PPP), the FInest Use Case project is designing a collaboration and integration platform for the transport and logistics industry.

Project Coordinator Dr. J. Rod Franklin, **e-mail:** rod.franklin@kuehne-nagel.com

KUEHNE+NAGEL SAP IBM MARINTEK arçelik KoçSistem "Your imagination is our strength" UNIVERSITÄT DUISBURG ESSEN PALUNO The Ruhr Institute for Software Technology TiL NCL NORTHSEA CONTAINER LINE PORTS OF AALESUND TYRHOLM & FARSTAD AIRFRANCE KLM CARGO

FInest is funded by the European Community's Seventh Framework Programme FP7 / 2007 - 2013 under Objective 1.8 'Future Internet PPP'

SEVENTH FRAMEWORK PROGRAMME

www.finest-ppp.eu