



Towards a Shared European Logistics Intelligent Information Space



SELIS Newsletter

SELIS workshop summarises the project output at the 6th International Physical Internet Conference (IPIC) 2019, London 9th to 11th July

The physical internet aims to transform how freight is moved, stored, supplied and used, supporting a more sustainable and efficient system of global logistics. Over three days at Church House, in Westminster, London, presenters and attendees discussed the wide range of technical, organisational, policy and business enabling solutions and strategies that will be required to deliver this vision.



The case for change was made in the opening address by Herald Reuijters, pictured above, the Director of Investment for Innovative and Sustainable Transport for DG-MOVE at the European Commission, who emphasised the need for greater

intermodality, and the necessity of shared solutions to make this optimisation of logistics through multi-modal routing a simple and everyday reality.

Reducing risk through collaborative research and development

Helen Wylde, pictured below, from Connected Places Catapult made the case for pre-competitive collaborative research and development, arguing that developing and implementing the physical internet is complex and high risk, with logistics the ‘heartbeat that holds most countries together’ and so together ‘we have got to be able to think it through’. Helen underlined this by saying that commercial enterprises in the transport and logistics sector make gains through the art of thrift and increasing prices through improving service, and that networks as an infrastructure need to be designed and open and shared rather than individually owned. Risk can be therefore reduced through collaborative development and backing the most convincing technologies. Fernando Liesa, Secretary General at ALICE, underlined this synergy between precompetitive research and entrepreneurialism: “We’ll see research and start-ups at this conference – research can give us in Europe the opportunity to exploit the concepts.”



Jaco Voorspuji of GS1 said that whilst there is a need for global data standards, many of the principles required to create seamless protocols already existed, such as ISO standards, and so the challenge is bringing the existing elements together. However, much remains to be determined and Stephan Neugebauer pointed out the need for all upcoming discussions on research programmes to be flexible, as no-one knows where standardisation, regulation and technological frameworks will be in the next decade.

The need for collaboration across sectors and markets was further made clear and gaps were highlighted by the panel in the opening plenary session. Stephan Neugebauer, ETRAC and BMW, said that “we have a system approach – it will not be enough to focus only on the vehicle,” and pointed out the need for pan-European collaboration and standardisation by saying that whilst “we have clear targets for electrification for passenger cars, we need infrastructure for logistics and transport, and we have no European masterplan for charging infrastructure.” Stephan pointed out the mix of pull and push factors required to make transformational change happen – both business

case and regulation to accelerate the take up of technology.

Making the sustainable irresistible

The social dimension is a clear catalyst for urban logistics, and Sergio Barbarino, Chairman of ALICE, research fellow at P&G, argued that perhaps paradoxically, freight will be prioritised for cities to become liveable places; “People travel in tubes like worms, whilst the freight gets to see the view.” As several speakers pointed out, the need for collaboration is partly a consequence of today’s diverse and deregulated parcel delivery system, as where twenty years ago a parcel was delivered along with twenty others to the same street, today deliveries are not consolidated. Whilst Sergio pointed out that data sharing remains a barrier to be overcome, he also warned against creating false expectations, (although what is considered necessary may well depend on your choice for dinner); “At P&G we have to make the sustainable irresistible, but nothing needs to be delivered in fifteen minutes unless life-saving or pizza.” Hans Schurmans, Proximus, told how they had re-educated consumers about the benefits of customer delivery hubs through offering them faster and earlier availability, and through doing so reduced home delivery from 80% to 60%, in the process reducing emissions and rationalising the use of existing warehouses.

Matt Whelan at Ocado Technologies demonstrated the compact automated warehousing solutions that they have devised for the grocery business and are looking to deploy to solutions elsewhere. Elisah Van Kempen of TNO presented the early results of the SOLiD study, and a future built around self-organisation, swarming and hierarchical allocation of robot convenience to achieve automated flowing of parcels through a delivery chain. There was much discussion about the consequences of optimisation of existing capacity. Helen Wylde mentioned sortation hubs that are inactive for twelve hours a day, which could clearly be better used. However, it was acknowledged that rationalisation and automation would have implications for the existing workforce within logistics and transportation businesses.

Software as a Service

Software as a Service has the potential to break through legacy, interoperability and deliver complex problem solving. But it will only do so if such a solution becomes the obvious, superior alternative to existing operational management processes and systems. As Carlo Borghini of Shift2Rail pointed out, “legacy systems which companies are attached to remains the biggest barrier.” Thomas Bagge of the newly founded Digital Container Shipping Association, pictured below, cited a McKinsey study recently published in HBR that found transportation and warehousing lagging behind other sectors in the deployment of digital solutions. Thomas Bagge added that “ICT were the people who brought laptops to people, not enablers of transport.”

is far greater than that so far delivered, and how to extract value from shared industry data is likely to remain a research and innovation focus for years to come.

The Industry state of the art model involving IBM & Maersk was shown to illustrate an example of working towards a supply chain ecosystem that will share a single trusted view of shipping events, in support of paperless trade.

Takis explained the use of Collaborative Logistics Models (CLM), specifying the targeted collaboration actors, KPIs, information sources and machine learning goals, components that should provide for clear optimisation opportunities or the delivery of insight.

Mission delivered

The mission statement of the project was explained, that is to remove the barriers to creating Innovative supply chain collaboration communities, and that to deliver this goal the aim was to build a trusted data sharing environment, using existing industry knowledge, open standards and a common language. The platform should be easy to integrate, non-disruptive, and protect existing IT investment where possible. These goals have been met, and the living lab case studies have proved the concept, technology and vision that the project sought to create.

Next steps for the project as the active funding phase draws to a close are:

Finalisation of Supply Chain Community Nodes (SCN) for each Living Lab.

The release and open dissemination of Opensource version of SCN for use by EU researchers, industry actors and commercial development.

A commitment to expanding the market testing of the SELIS proposition

The living lab case studies were presented so as to explain their role in testing various functional requirements of the architecture as set out in the research proposal, and the summary of each trial presented by Makis, pictured below, demonstrated the successful testing and deployment of features required by the project brief. Makis also quickly summarised the learning gained from both the successes and challenges in making each living lab a reality.





Ioannis Konstantinou then presented a technical description of the SELIS Community Node (SCN), and finally, Ioannis presented the SCN Architecture, with a particular focus on security and control of access to data. Ioannis explained that “from day one, we had questions around data access and security from commercial partners, and we addressed and deployed solutions early on.”

The project finishes at the end of August and case studies on the living labs will be available on the website www.selisproject.eu

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