



To implement or not to implement an Urban Construction Consolidation Centre

28th September 2016

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Thematic area: Reduction of costs and negative impacts of the construction supply chain

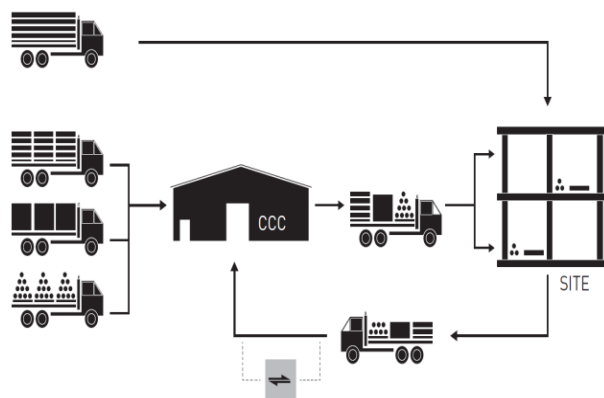
Topic: To what extent and how can the supply chain management and Construction Consolidation Centres (CCCs) concepts bring about generic solutions to improve the construction supply chains?

Duration: 36 months (Start 01/05/2015)

Total budget: 3.2 M€

Funding: European Commission, Horizon 2020 programme, MG-5.2-2014: Reducing impacts & costs of freight & service trips in urban areas

CIVITAS: SUCCESS is one of ten H2020 projects that have been selected to become member of the network



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 633338.

4 countries, 4 construction sites



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Luxembourg (LU)

- 11,400 m²
- 21 M€
- Refurbishment & construction of apartments, shops, offices
- Residential area, close proximity with business district, one road to access the site
- No U-turn on site, public space rental for temporary delivery areas and living accommodation

Paris (FR)

- 55,475 m²
- 230 M€
- Conversion of two buildings into a single complex with offices
- Highly dense area, sensitive buildings
- Dedicated logistics team, delivery area booking system, public space rental



4 countries, 4 construction sites



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Valencia (ES)

- 7,772 m²
- 16 M€
- Renovation of historic buildings and construction of new ones
- Dense area, very close proximity to train stations
- Large space on site, coordination with railway operations

Verona (IT)

- 83,914 m²
- 126 M€
- Enlargement and renovation of two hospitals
- Highly congested area, sensitive buildings
- Traffic lights, control at entrance, BIM



Different maturity levels of logistics

SUCCESS work plan



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Data Collection

- Construction Supply Chain understanding
- Logistics costs allocation
- Factors identification for a viable Business Model

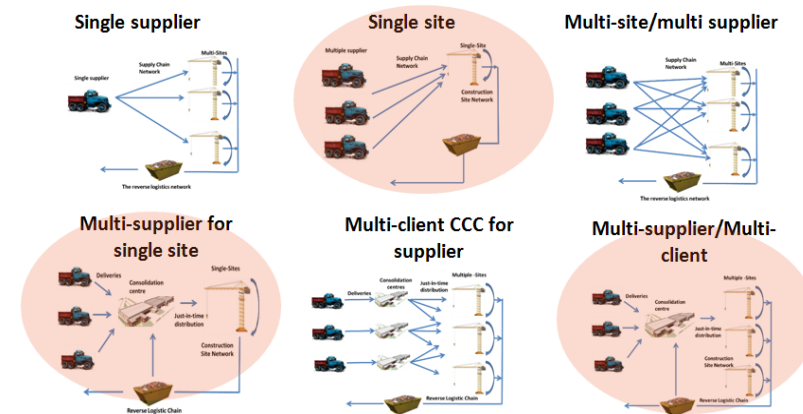
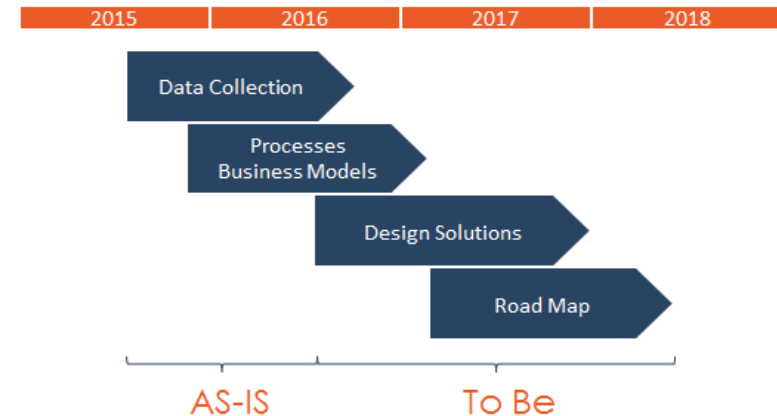
Processes and Business Models

- Mapping logistics organisation
- Define methods and tools to optimise the Construction Supply chain
- Develop modelling and simulation tools

Design Solutions

- Simulate alternative scenarii
- Design business models

Road Map for Take Up



Lessons learned



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Material costs represent 30-40% compared to the other construction costs (hidden transport cost)

Very limited use of ICT (BIM, tracking system, ...)

Lack of communication between stakeholders

Lack of expertise in logistics (human resources, methods, ...)

Poor logistical performance:

- Inefficient planning of deliveries and resources (e.g. crane) leading to congestion on and outside the site
- Multiple handling of materials
- Large time slots for suppliers deliveries
- Not JIT deliveries
- No clear assigned storage area
- Unsorted waste
- ...

Opportunity to make construction logistics more sustainable (financially, environmentally and socially)



Lessons learned



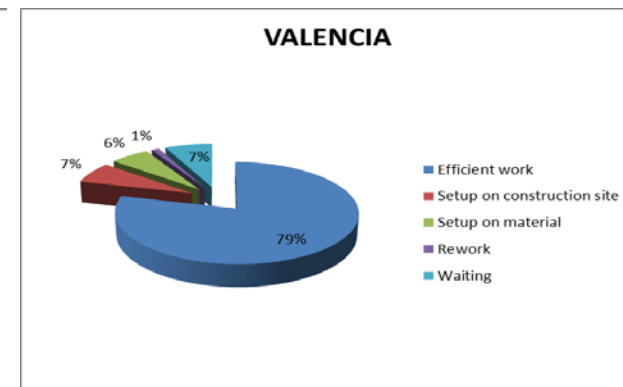
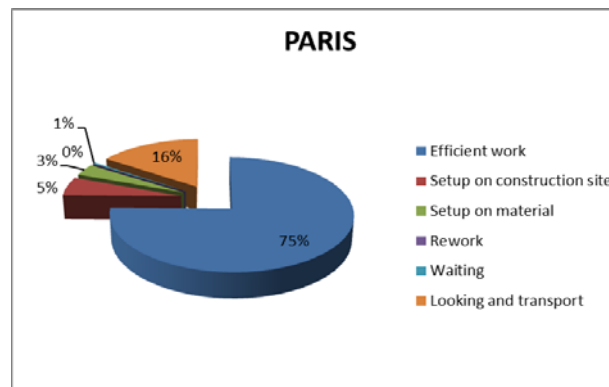
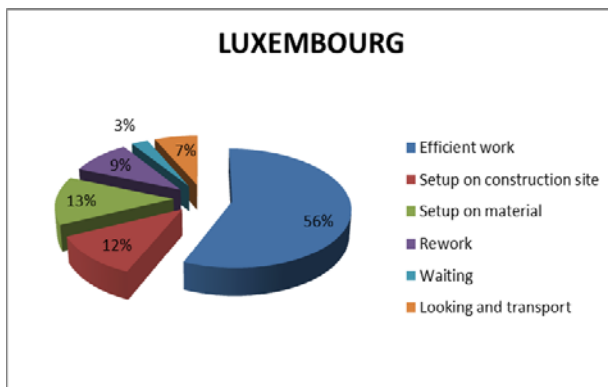
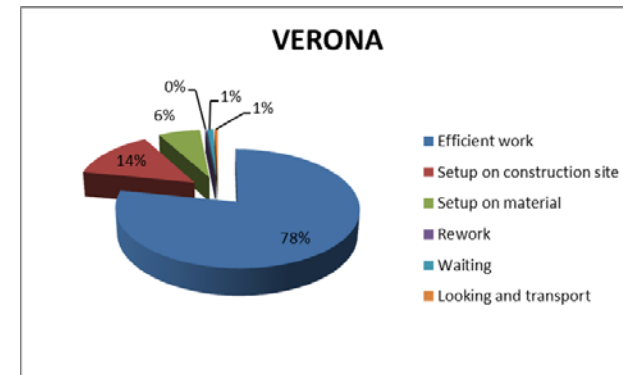
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Dedicated logistics team (FR) seems to avoid unproductive times

Site specificities (ES) are also impacting unproductive time due to logistic issues

Preliminary analysis of production time shows that CCC is one of the solutions to increase productivity at least in some sites: JIT deliveries with adapted delivery vehicles

Differences between sites point to a high potential for a transfer of best practices



Data collection successfully achieved for the four pilot sites (8 months until 07/16)

Call for expression of interest



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A two-days workshop to develop a road map specific to the local context

Target:

- 3 meetings
- Located in Eastern Europe, Northern Europe and MED
- Involving 12 cities in total
- Building and transport associations, transport companies, construction companies, policy makers, researchers

Candidates interested to apply are invited to contact the Project Coordinator

Thank you for your kind attention !

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Consortium:



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