ECTIL – 2014
Architecture

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Reference Architecture

- Co-gistics architecture
  - Cloud architecture
  - Basic infrastructure to support all pilots
    - Core Basic Infrastructure
    - Core Business services
    - Local Business services
  - Vertical and uniform support for communications from Sensors to Logistics Applications levels
    - Static + Dynamic Data
  - It should be possible to link services to entities (ITS systems, sensors, logistics applications...)

Diagram with cities: Thessaloniki, Trieste, Arad, Vigo, Bilbao, Frankfurt, Bordeaux
<table>
<thead>
<tr>
<th>Pilot site Services</th>
<th>Arad</th>
<th>Bilbao</th>
<th>Bordeaux</th>
<th>Frankfurt</th>
<th>Thessaloniki</th>
<th>Trieste</th>
<th>Vigo</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITP/DAM</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Priority &amp; Speed advice</td>
<td>X (speed advice)</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X (speed advice)</td>
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<tr>
<td>Eco-drive support</td>
<td>X</td>
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<tr>
<td>CO2 footprint estimation and monitoring</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>Multimodal cargo</td>
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</tbody>
</table>
Reference architecture

Reference Architecture

Logical architecture

Physical architecture
Reference architecture

Co-gistics
End-user Apps

Co-gistics services

Co-gistics Core solutions

Co-gistics Data Providers

- Parking Availability app
- Eco-Driving app
- Speed Advice service
- Local service GUI

End-user Apps

Intelligent Truck
- MyCicero
- bITS
- LZ Mgmt

Priority & Speed Advice
- DSS Trieste
- Fretis
- Compass4d
- GLOSA
- Datalogger
- Efficient Intersection

Eco-drive Support
- DSS Trieste
- bITS Mobile
- Cost Log. mgmt

CO2 monitoring
- DSS Trieste
- Fretis
- Nos cifel
- CO2
- bITS Mobile
- Cost Log. Mgmt

Multimodal Cargo
- DSS Trieste
- Fretis
- Nos cifel
- traceability
- Emergis

AEON Service
ITP Transpark Service
Itinerary-Traffic Service
ATP CO2 Service

Traffic & transport
Weather, Emissions
Routes, Road capacity
Time Tables, Transit Data
Crowd Sourcing (User’s Data)
Conclusions

- The challenge is to optimize the goods management based on the link of cooperative systems and logistics systems.

- The reference architecture is defined around cooperative systems, M2M, and cloud services, to define a consolidated and cloud-oriented infrastructure.
Thank you for your attention!