WP11 progress
SP6 Dissemination meeting, Brussels – 3rd November 2016
SP1 Plenary meeting, SYSTRA, Paris – 7th December 2016

Pierre-Etienne GAUTIER
SP1 leader
Design requirements and methodology

This task was completed in the first period and the related deliverable (D11.1) was delivered on 28/05/2015.
Task 1.1.2 & Task 1.1.3

- New slab track concepts, generation, design, prototyping and testing

Both concepts are not patented yet so it is no possible to give more information at that time.

### Modular track
- RAMS oriented design
- All elements are precast
- Asphalt subgrade
- Easy parts replacement
- 2 stiffness levels

### Ladder track
- LCC oriented design
- All precast elements
- Asphalt subgrade
- Continuously supported rail

Co-owners
Task 1.1.2 & Task 1.1.3

- New slab track concepts, generation, design, prototyping and testing

Roadmap

<table>
<thead>
<tr>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Preliminary workshops</td>
<td>Detailed design</td>
<td>Final design</td>
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T 1.1.2

T 1.1.3

Prototyping | Testing Concept 1 | Testing Concept 2

Possibility of testing on plain track?
Task 1.1.4

- Upgrade infrastructure to meet new freight demand

This task was completed in the first period and the related deliverable (D11.4) was delivered.

- **Main chapters contents:**
  - Type of changes (loadings, longer trains...)
  - Substructure: role of track stiffness, measurement techniques: GPR, resistivity ...
  - Substructure improvement methods (deep mixing, jet grouting, stabilizing berms, precast slab on piles, soil nailing, vibrocompaction, columns, ...)
  - Bridges (refined calculations, change X section, change static system, prestressing, external bonding with FRP...), metallic, masonry...
  - Tunnels
  - Track and switches (damage laws for rails, switches, ...)
  - Maintenance routines
Thank you for your kind attention

Pierre-Etienne GAUTIER
SP1 Leader
SYSTRA
pegautier@systra.com