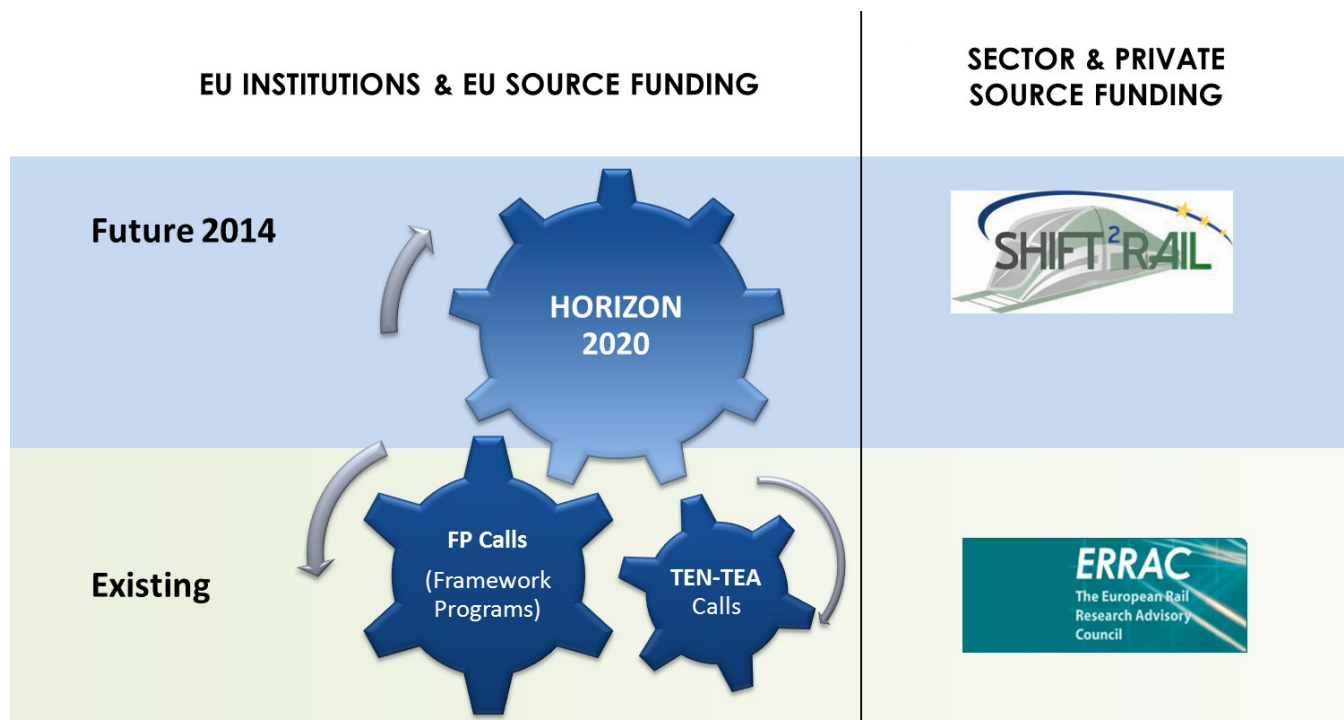


## EU research initiatives - Overview

The relationship between existing and future initiatives and programs for Research and Development (also known as Research and Innovation) at a European Level are presented in the following diagram and summarized below.



**Horizon 2020** is a set of 4 proposals for a regulation on research and development in all areas of activities around Europe, including transport. It aims to provide EU funds for research covering innovation and market related studies and is designed to realize a substantial simplification in funding different activities. In the current Proposal the idea is to allocate 9% of the total budget for Transport related research activities. It will not fund the implementation or deployment activities but only testing phases.

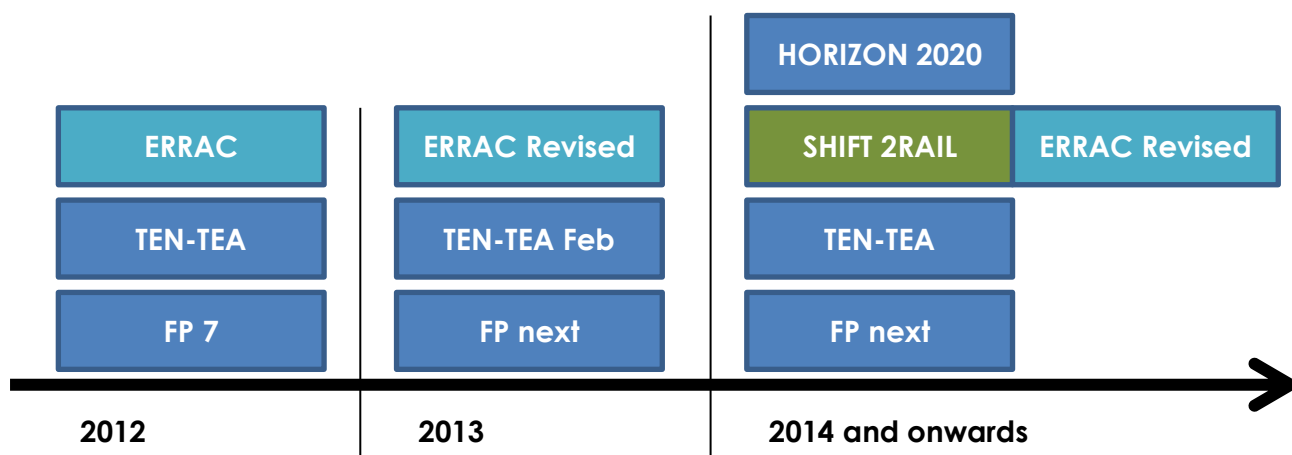
**Shift2Rail** is a future rail sector initiative which will focus on innovation, testing and deployment research activities. It will receive private as well as public (EU) funding.

**ERRAC** (European Rail Research Advisory Council) is an existing rail initiative, set up in 2001, which brings together the Rail Sector and Academia to develop joint projects at a European Level. ERRAC and its members receive private as well as public funds through Framework Programs and TEN-TEA Calls participation. <http://www.errac.org/>

## Timelines for research initiatives

Both Horizon 2020 and SHIFT2RAIL are under negotiations at the level of EU Parliament (TRAN Committee) and EU Commission (DG RTD) respectively, and expect approval by 2013 and 2014 respectively. In the meantime any research related activities relevant to the objectives of Horizon 2020 and SHIFT2RAIL are supported by already existing programs such as **TEN-TEA, and Framework Program Calls**.

## Funding for R&I Programs



In addition, with the procedure linked to the **Connecting Europe Facility (CEF)** initiative, the EU Parliament has defined a priority in funding sustainable and interconnected transport, energy and digital networks for Europe's social and economic development. The Connecting Europe Facility (CEF), which forms part of the Multiannual Financial Framework (MFF), will determine how the Union's resources will be invested across transport, energy and telecommunications/digital infrastructures but is not part of the Research and Innovation programme.



[http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

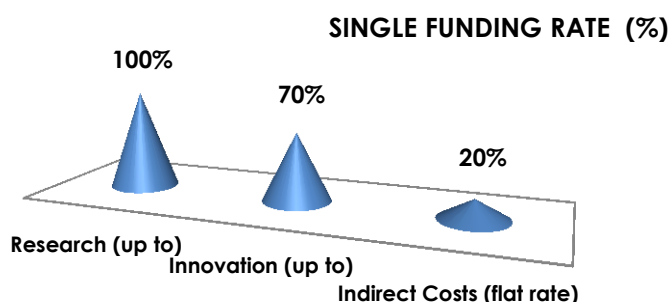
**WHAT:** European Commission proposal on funding rules for research and innovation for the period 2014 till 2020. Research objectives should be linked and should reflected in:

- Projects of the Framework Programs (FPs)
- Projects which will be developed under SHIFT2RAIL (as JTI\*)
- Focus on Innovation and demonstration, market studies

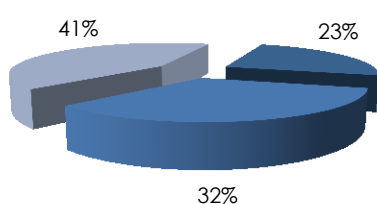
**SCOPE:** Range from basic research to close-to-market innovation

**HOW MUCH:** 32billion EUR in total,  
9% for transport =

### 7.9billion EUR



**BUDGET DISTRIBUTION (%)**



- Industrial competitiveness
- Scientific Excellence
- Societal Challenges

<b>Ongoing</b>	Negotiations of Horizon 2020 and of the total EU budget (2014-2020) by EP and E Council
<b>End-2012</b>	Final calls FP7, for research to bridge the gap until Horizon 2020 is in place
<b>Mid-2013</b>	Adoption of legislative acts by the European Parliament and the European Council
<b>1 Jan 2014</b>	Horizon 2020 starts, launch of first calls

\* Joint Technology Initiatives (JTIs) are legal entities which are proposed as a new way of realizing public-private partnerships in relevant industrial research and development fields at European level.



<http://www.unife.org/page.asp?pid=194>

<p><b>WHAT:</b></p>	<p><b>A Sector Initiative for Innovation and Deployment</b></p> <ul style="list-style-type: none"> <li>• Originally initiated by UNIFE. Copy of the Clean Sky Program (<a href="http://www.cleansky.eu/content/homepage/about-us">http://www.cleansky.eu/content/homepage/about-us</a>)</li> <li>• Addresses the objectives of Horizon 2020 and Transport White Paper. Target for Capacity and Reliability</li> <li>• Specific innovations for specific sectors, i.e. technology demonstration and testing</li> <li>• Collaboration with DG Research and DG MOVE</li> <li>• New platform to complement (or replace?) the existing ERRAC which became weaker in its involvement towards R&amp;D projects (almost only academic projects). ERRAC is now being revised and will be expected to drive the strategic vision.</li> </ul>
<p><b>SCOPE:</b></p>	<p><b>5 Innovation Programs</b></p> <ul style="list-style-type: none"> <li>• IP5 relevant for freight: "Technologies for Sustainable &amp; Attractive European Freight"</li> <li>• IP 5 to involve the entire supply chain of the rail freight business</li> <li>• Content and themes for projects should be defined by the freight companies</li> </ul>
<p><b>WORKING STRUCTURE</b> <b>(still under criticism and discussion):</b></p>	<p>Administration body composed by EC and Joint Undertaking who will manage the different IPs. Joint Undertaking Groups will consist of the members/companies who commit for 6-7 years.</p> <p>Two Levels of Membership</p> <p><b>Level 1:</b></p> <p>Long term commitment: financial and resources contribution</p> <p>There is MoU for new industrial partners and Operators which gives access to info and related work</p> <p>14 Members at the moment who are acting as funders and beneficiaries: Manufacturers, RUs and IMs</p> <p><b>Level 2:</b> Call by Call Members: Shift2Rail will present open calls for proposals to encourage wider participation</p>





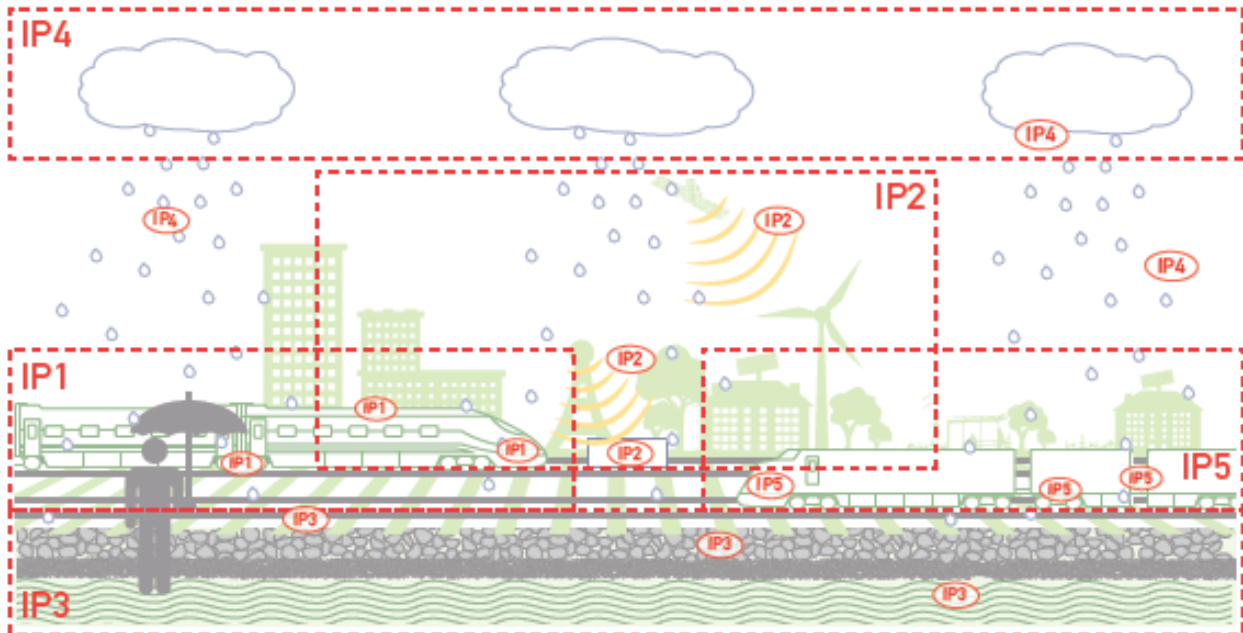
## SHIFT2RAIL – JOINT TECHNOLOGY INITIATIVE (JTI)

<b>HOW MUCH:</b>	<p>Total budget not yet clearly estimated.</p> <p>Budget investment from Level 1 Members, which would require a commitment of 6-7 year from public and private funds. EC asked to cover 50% in the form of reimbursement.</p> <p>Does not include administration costs.</p>
<b>EC VIEW:</b>	<p>Sector must first define exactly the content!</p> <p>Sector must define the Governance, the budget and the institutional structure = define the way the initiative should be structured and run.</p> <p>The current proposal is too complicated.</p> <p>EC concerned that the EP will not support it.</p> <p>Research in rail freight linked to innovation and deployment.</p> <p>Suggested Key Areas: <b>electro-pneumatic disc brakes, automatic coupling, noise and market approach</b></p>

### TIMELINE AS FORESEEN by UNIFE

<b>Ongoing</b>	Negotiations with the Sector and the European Commission
<b>2013</b>	Approval by the EC and proposal to the EP and E Council Adoption of legislative acts by the EP and the E Council
<b>2014</b>	Launch

## SHIFT2RAIL – IP5: Technologies for Sustainable and Attractive Freight



From what UIP understands now, Shift2Rail may be a unique opportunity to co-define the structure of common future activities in research & innovation linked to rail freight business. In order to provide a proper input in the ongoing discussions, we have to define the areas of interest for wagon keepers and propose the right structures and our own priorities (including market and freight related studies) which serve the strategic work undertaken at company level in the fields of research and innovation. This first strategic move could allow keepers' in a second step to participate to the Joint Undertaking Groups and get 50% of expended resources refunded through EU money.

You can find on next page a detailed analysis on IP5.



## SHIFT2RAIL – JOINT TECHNOLOGY INITIATIVE (JTI)

IP5 is under big discussion and the involvement of the freight actors is necessary in order to develop its scope and context. What Research Questions are important for UIP and wagon keepers?

**Budget:** **50 million EUR (indicative)**  
**30 Million EUR of EC, 20 Million EUR from partners in kind , i.e. through studies and resources**

**Scope and context:** IP5 Freight actors to consider:

- What does the freight market want?
- It is not what we can do with the innovative product, but what innovative products should be developed to meet the needs of the Wagon Keepers and freight actors of the supply chain
- What innovative changes are needed to achieve the market benefits for the Wagon Keepers?
- What are the current projects and the business cases for the freight actors?
- What risks, benefits and costs do we foresee (or are calculated) when certain retrofits are carried out?
- What are the benefits for the Wagon Keepers and freight industry from higher wagon performance?

**Types of Involvement:** Defining issues through studies (market, cost/benefit in new products, business cases for using new technologies, etc.)  
Participate in development tests- Wagon Keepers to participate in the testing innovation on their wagons  
Carry out Large demonstrator studies

**Sector Discussions & Considerations** The German “5Ls” project and “Capacity for Rail” project under 6th proposal for FP7 are seen as baseline for defining the scope and context of IP5  
Logistics companies are not active but interested to know what direction IP5 will take  
Most discussions are carried out among UIC and CER members  
UIP input is much welcomed and appreciated at sector and EC level