

2010 – 2 opencall

Operation and safety of LRT in interaction with public space



**Service Technique
des Remontées Mécaniques
et des Transports Guidés
STRMTG**



**Centre d'études sur les
réseaux, les transports,
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CERTU**

A proposal initiated by

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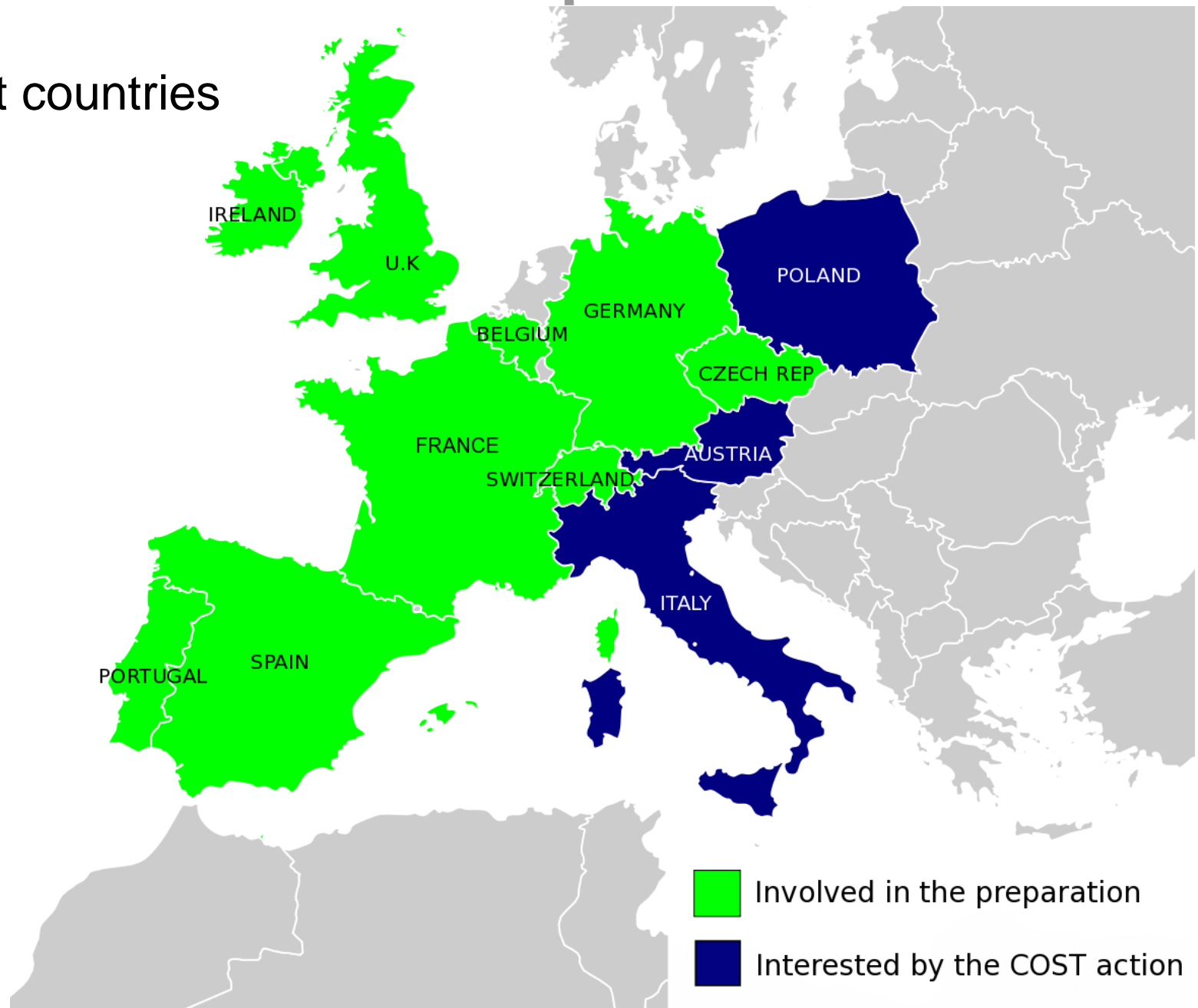
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In close collaboration with various partners

- different countries
- UITP



- *Field of investigation*

- *Aims of the Action*

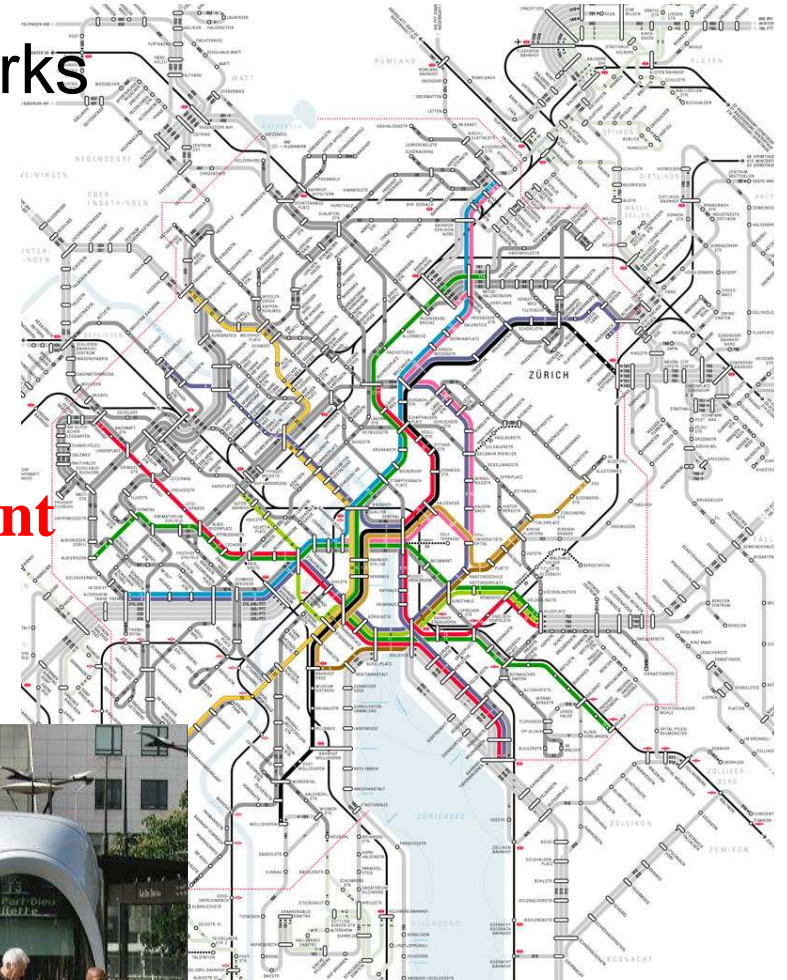
- *Content of the Action*

- *Organisation*

Field of investigation

Light Rail Transit (LRT) = a major tool for transport management

- structuring lines of transport networks
- high level of service
- support for urban development



LRT's development continues all over Europe



Bordeaux



Lyon

Safety: a critical issue for LRT systems

primary cause of LRT accidents:

the conflicts with other
public space's users

accidents are

- often spectacular
- overexposed in the media
- sometimes serious

59.000 accidents on 10 years,
(in 21 networks, source : UITP, 2005)



Safety: a critical issue for LRT systems

⇒ direct consequences for victims



⇒ big impact on the transport systems and urban functioning

but few studies on the interaction between urban space and LRT



LRTs' urban insertion : a key element to reduce accidents' impacts

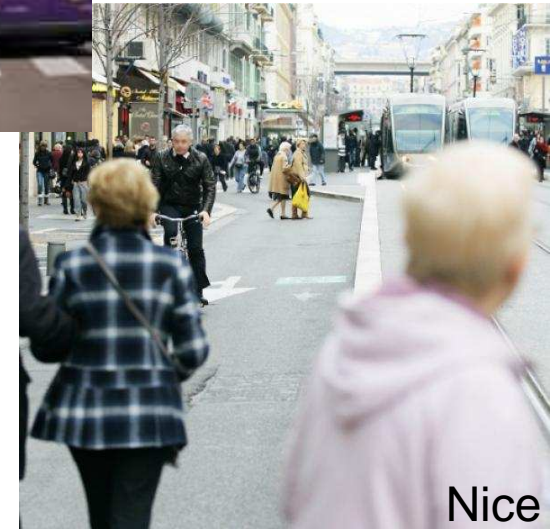
➤ To optimise :

infrastructure design + traffic handling + users behaviour

➤ Sharing :

- encountered problematics
- feed back and experiences
 - ✓ good practices in design and running
 - ✓ bad interactions between LRT and urban space

⇒ a collective approach involving all transport actors



Why working at the European scale ?

- ⇒ LRT exists in many countries :
 - some have a very long experience
 - others are (re)discovering it
 - *with various configurations and running conditions*
 - *also different ways of monitoring safety*
- ⇒ to get out of an individual point of view
- ⇒ to avoid making the same mistakes already made elsewhere



Prague



Dublin



Lisbon

Aims of the Action

What impacts are expected ?



- improvements in LRT safety
and in road safety in general
- minimised negative impacts on level of service
- better productivity and reduced operation costs
- better understanding of each context and know how
- homogeneous approach in a context of internationalisation

What benefits for the participants ?

- to share and to benefit from successful or less successful experiences
- to know more about the causes of LRT accidents in urban space
- to improve monitoring methods of safety
- to have a better idea of societal and economical stakes
- globally, to strengthen European skills and know-how in LRT safety and urban insertion

Prior to the Action

a consensus is necessary about:

1. our field of discussions

- “Light Rail Transit”
- what safety ?



2. some basic definitions concerning

- infrastructure design
- running conditions

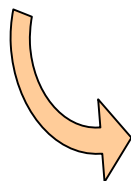


Content of the Action

First phase : state of the art

- different contexts
- existing rules about LRT's running and integration into public space
- ways, methodologies and difficulties for data collection
- assessment tools
- infrastructure design and operating methods
- results in terms of safety and its impact on service level

⇒ **WP1 : basis of the thinking and the database**



deliverables : * Information database
* Overview of contexts, actors and tools

Second and third steps : analysis and outcomes

to study

- causes of accidents
 - statistics with indicators,
 - a qualitative approach on accident scenarios
- infrastructure layouts
 - performing designs
 - recurrent accident configurations



⇒ **WP2 : deep thinking on problematic and tools**

to produce recommendations on

- data collection, monitoring & assessment tools
- corrective actions and best practices

deliverables : guidelines

⇒ **WP3 : formalisation of the outcomes and prospects**

Communication

In a COST Action, communication is essential :

- between involved actors
- with other partners

How ?

- website with dedicated and public parts
- national or international conferences
- articles in specialised press
- appropriation and use of tools by the Action members

⇒ **WP4 : feeds the Action, makes it known and disseminates outcomes**

And afterwards ...?

The COST Action will enable

- intense exchanges
- harmonised methods and tools
- information and links between actors

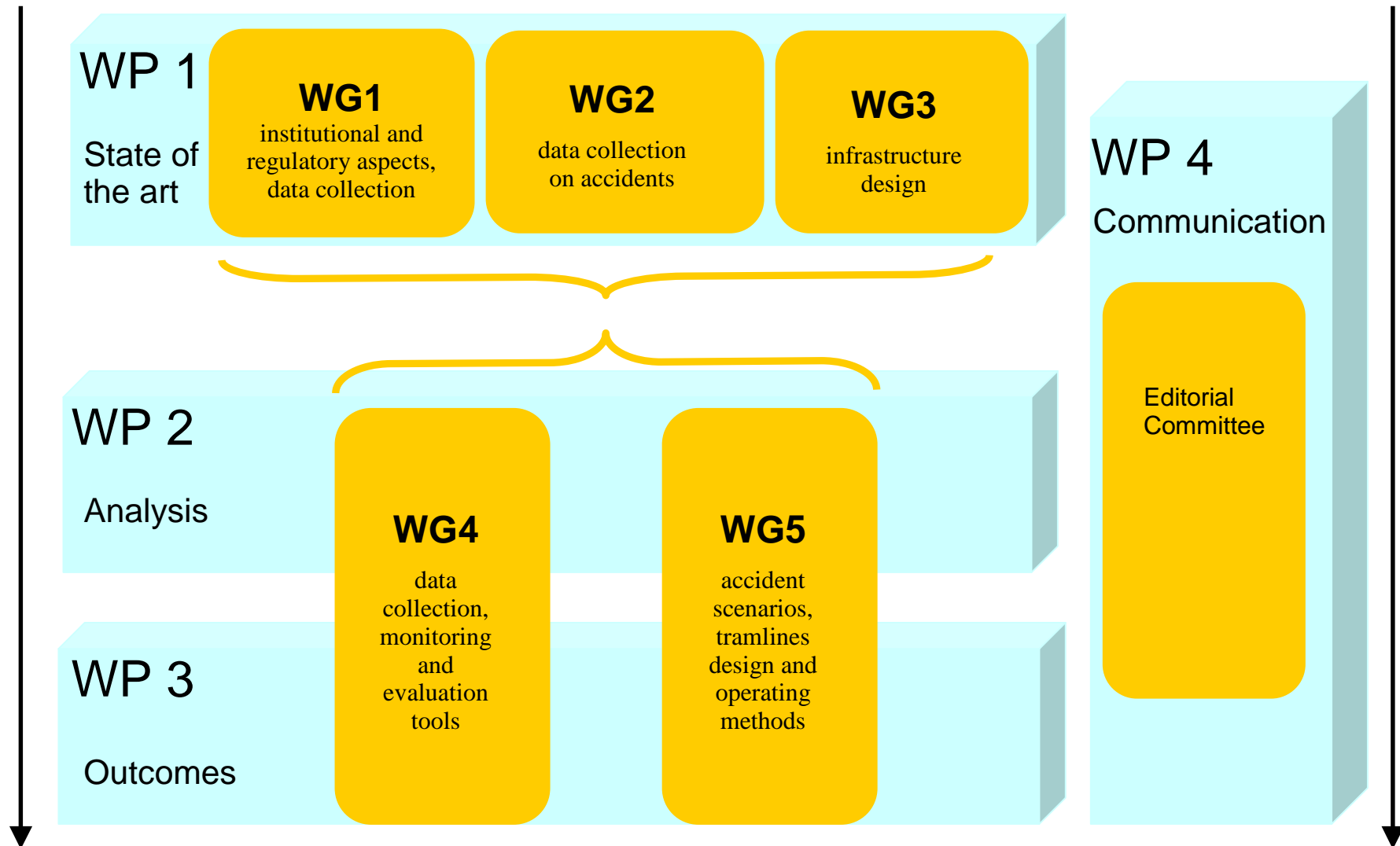
Therefore

- an impulse to build a long term European network
- an incitative action to go on sharing and working together...

in order to increase LRT safety in Europe.

Organisation

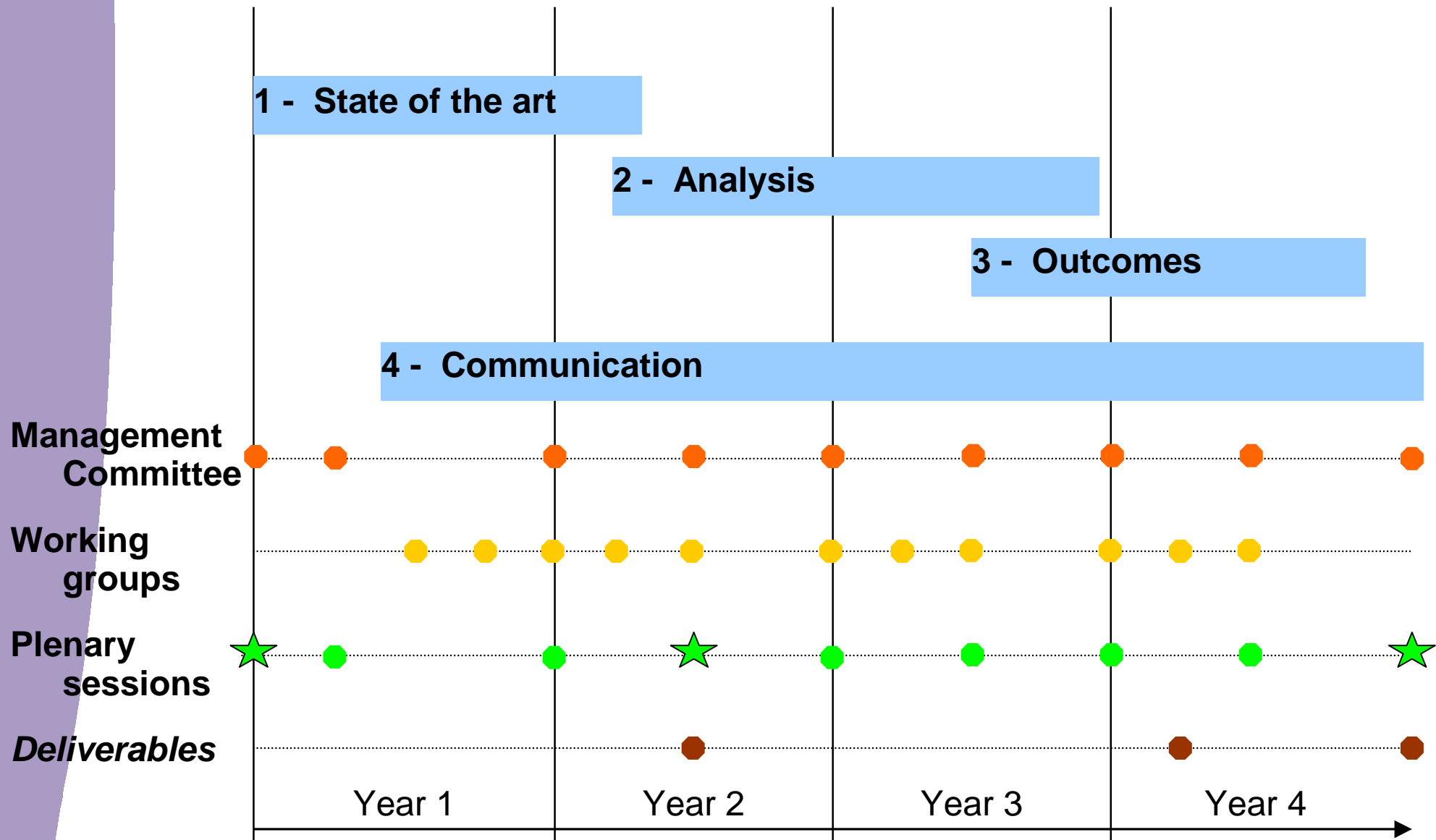
Which organisation ?



Which methods and means ?

- all actors' contribution all along the Action (information and data, debates and dissemination)
- specific actions and case studies through STSM
(*examples : disruption measurements, accidents data collection, other research and studies incomes, particular layout design or running conditions...*)
- an essential tool : the website
 - **a private part** : a collaborative tool
 - to compile
 - data and information,
 - Working groups production
 - to share ideas and documents
 - **a public part** : in an interactive way (RSS, forum)
 - to disseminate news and results

Time table



Conferences : ★

Who could join us ?

The expected actors :

- *various countries and organisations*
- *gender balance and young researchers*
- all people directly involved by LRT accidents
 - ❖ transport authorities
 - ❖ operators
 - ❖ regulations agencies
- researchers : to bring hindsight and new methods, new complementary perspectives and possible solutions
- architects and designers : concerned by new projects
- other professions (*e.g. psychologists*)

Thank you for your attention.