SafetyCube

SafetyCube Stakeholder Workshop

Brussels, June 17th

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8/2/2015

SafetyCube – the project

SafetyCube

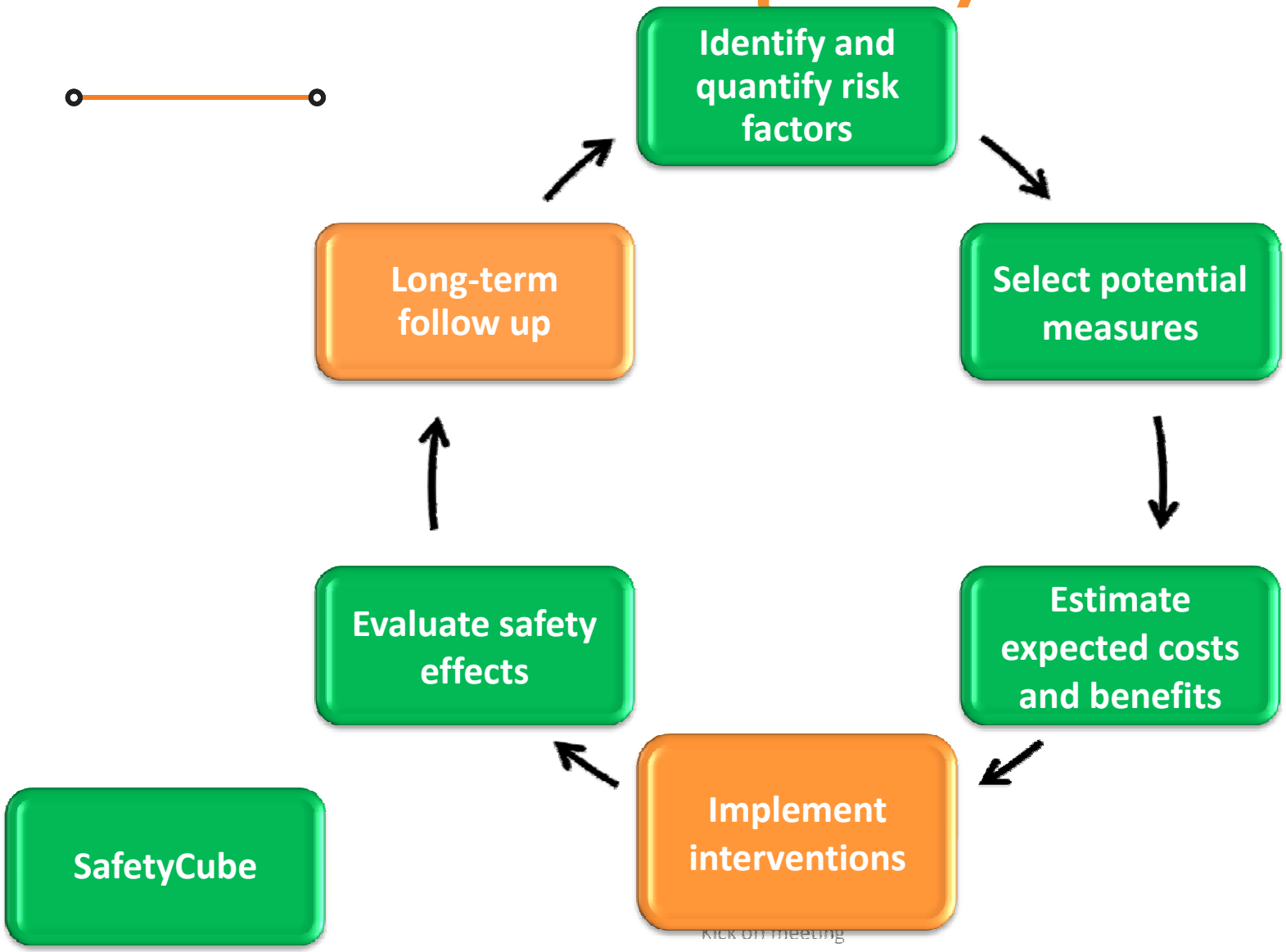
Safety CaUsation, Benefits and Efficiency

- Road safety
- Quantifying risks
- Estimating benefits of measures
- Combining costs and benefits

SafetyCube concept

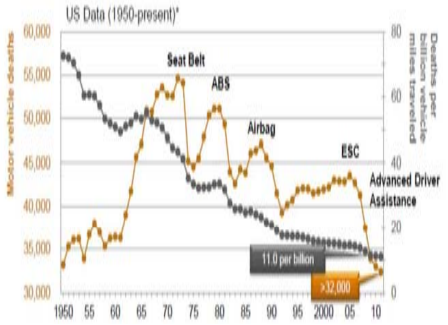
- Problem
  - *Evidence based road safety policies are becoming more usual and there is much better availability of national data and state of the art knowledge*
  - *Effective road safety policies need good information about accident risk factors and about measures*
- SafetyCube will meet this need by generating new knowledge about accident risk factors and the effectiveness of measures relevant to Europe
- It will structure this information so it can be incorporated in ERSO

Evidence-based policy-making



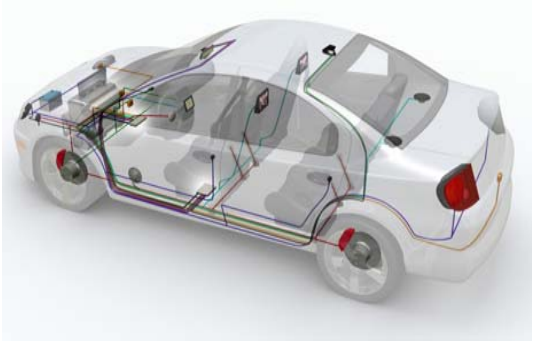
Policy-making – challenges of the evidence base

1. How do we identify and quantify the risk factors and problem areas *(eg. Distraction)?*
2. How do we select the most appropriate measures?*(eg speed – enforcement, infrastructure or vehicle measures)*
3. How do we estimate the likely safety benefits and costs?
4. How do we make decisions when there is a lot of conflicting evidence?
5. How do we make decisions when there is little or no evidence?



SafetyCube Objectives

- To develop new analytic methods to
  - *identify the most important risk factors for crashes*
  - *assess the safety effects of measures that address these factors*
  - *assess serious injuries and socio-economic costs in crashes*
  - *conduct Cost-Benefit Analyses taking account of human and material costs.*
- To apply these methods to available safety data to identify the key accident causation mechanisms, risk factors and the most cost-effective road safety measures for fatally and seriously injured casualties



SafetyCube will

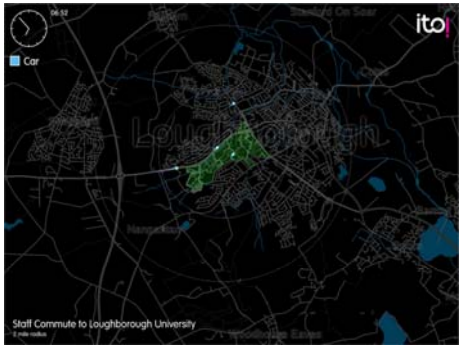
- Improve the evidence base for road safety policy-making
- Develop a new Decision Support System to be accessed when making
- Bring together data about risks, measures and cot-effectiveness within a single comprehensive framework

What is a risk?

- "Risk factor" denotes any factor that contributes to accidents or injuries.
- There are risk factors related to all elements of the road system and the interactions between these elements.
- The importance of a risk factor can be defined as the size of the contribution it makes to accidents or injuries.

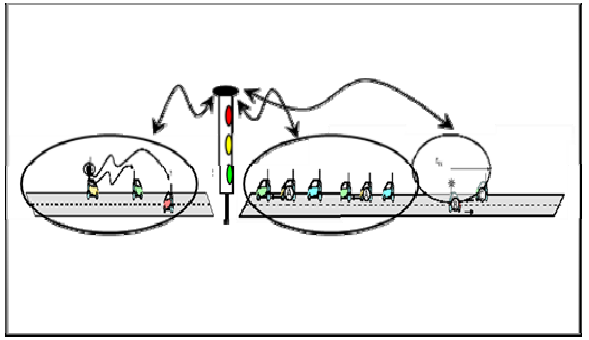
What is a measure?

- A measure is any action intended to reduce the numbers of accidents or injuries.
  - *May reduce the risk of a crash*
  - *May reduce the risk of injury*
  - *May reduce exposure to risk*



Federal Highway Authority CMF Clearinghouse

- www.cmfclearinghouse.org
- A central, web-based searchable repository of CMFs (including the ones listed in the HSM) and of additional information and resources related to SPFs and CMFs.
- CMFs are rated according to: study design, sample size, standard error, potential biases and data source.
- A star rating (1-5) is assigned based on the cumulative performance in the five categories.



Challenges in evidence based approaches

- Do we have a comprehensive method to identify risks?
  - *Road, road users and vehicles*
- Do we have a comparable method to evaluate measures?
  - *Road, road users and vehicles*
- How do we estimate the likely casualty reduction of a measure that has not been introduced to the real-world?
- Do we have a comprehensive method to evaluate cost-effectiveness?
- How do we handle the situation where there are many measures of effectiveness but they disagree?

Challenges to access the evidence base

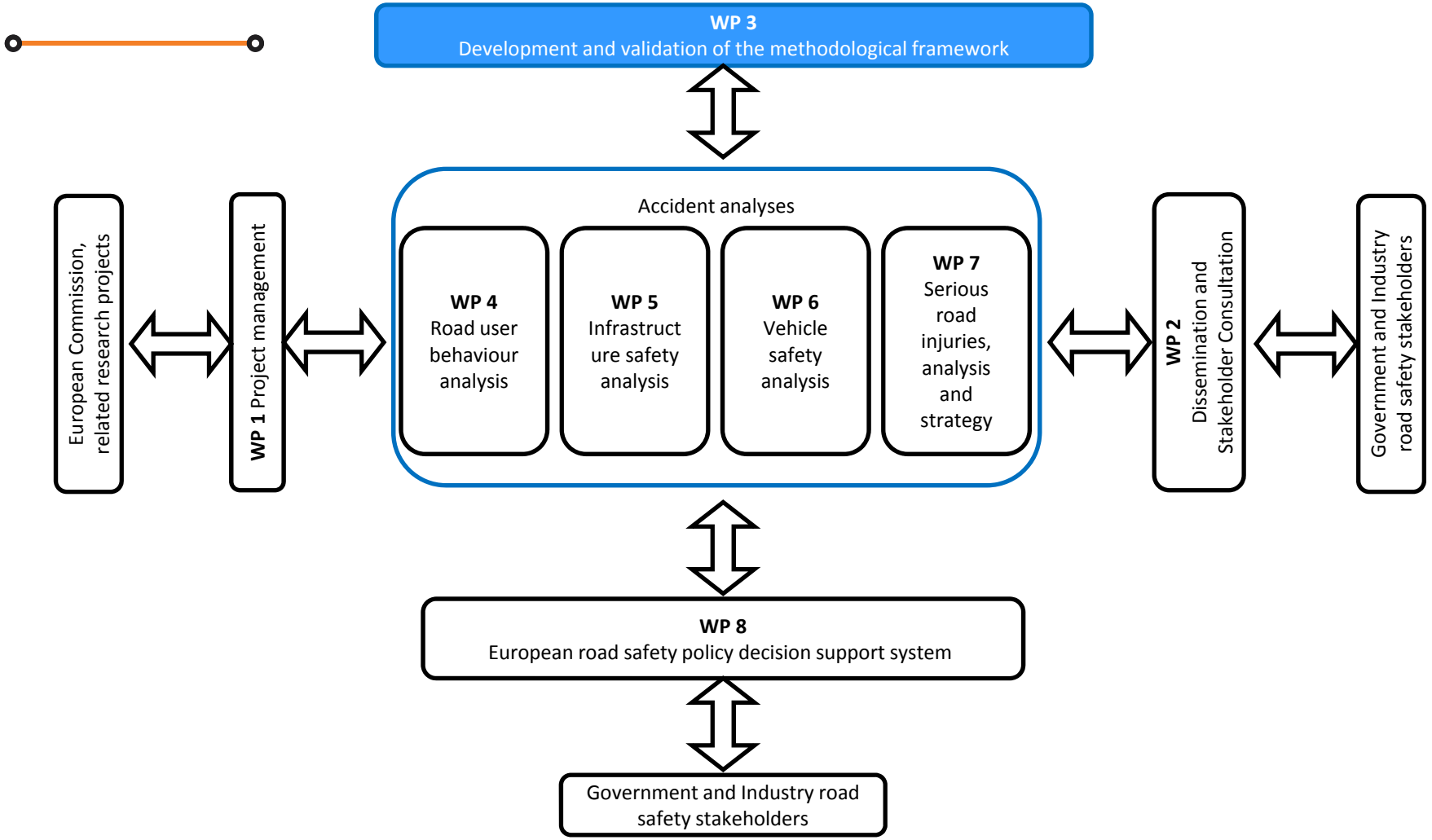
- Much of the evidence on risks and measures is in the research literature – how can it be brought together?
- How can we assess transferability of measures from one country to another?
- How can the available information and data be synthesised?

SafetyCube will meet these challenges

SafetyCube will

- Develop new methods to quantify risks
- Provide new information about the effectiveness of measures by bringing together published information
- Produce a comprehensive method to evaluate the costs and benefits of measures
- Produce new information about seriously injured casualties
- Produce a new Decision Support Tool that will enable easy access to information on risks and measures

Project structure



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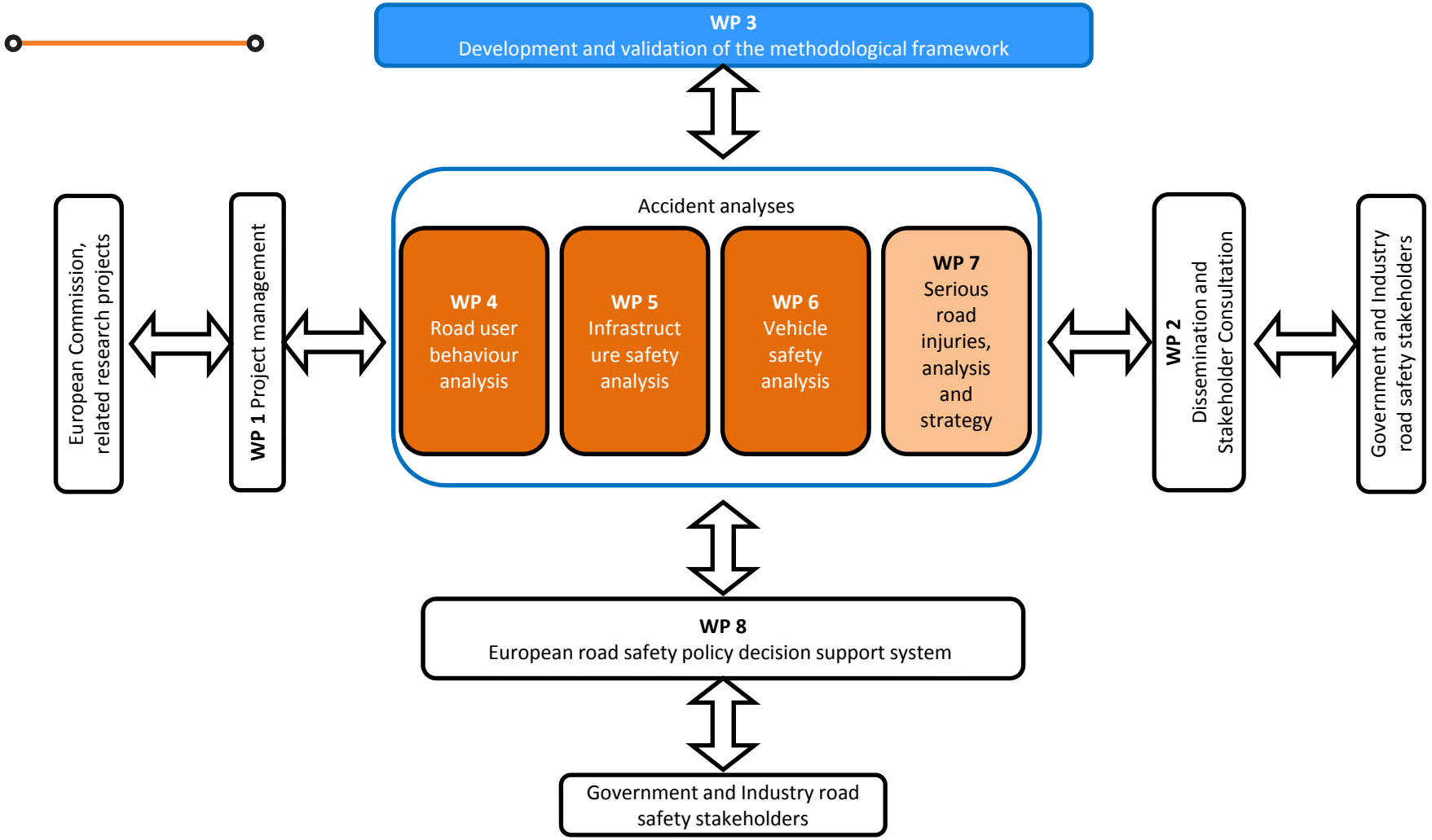

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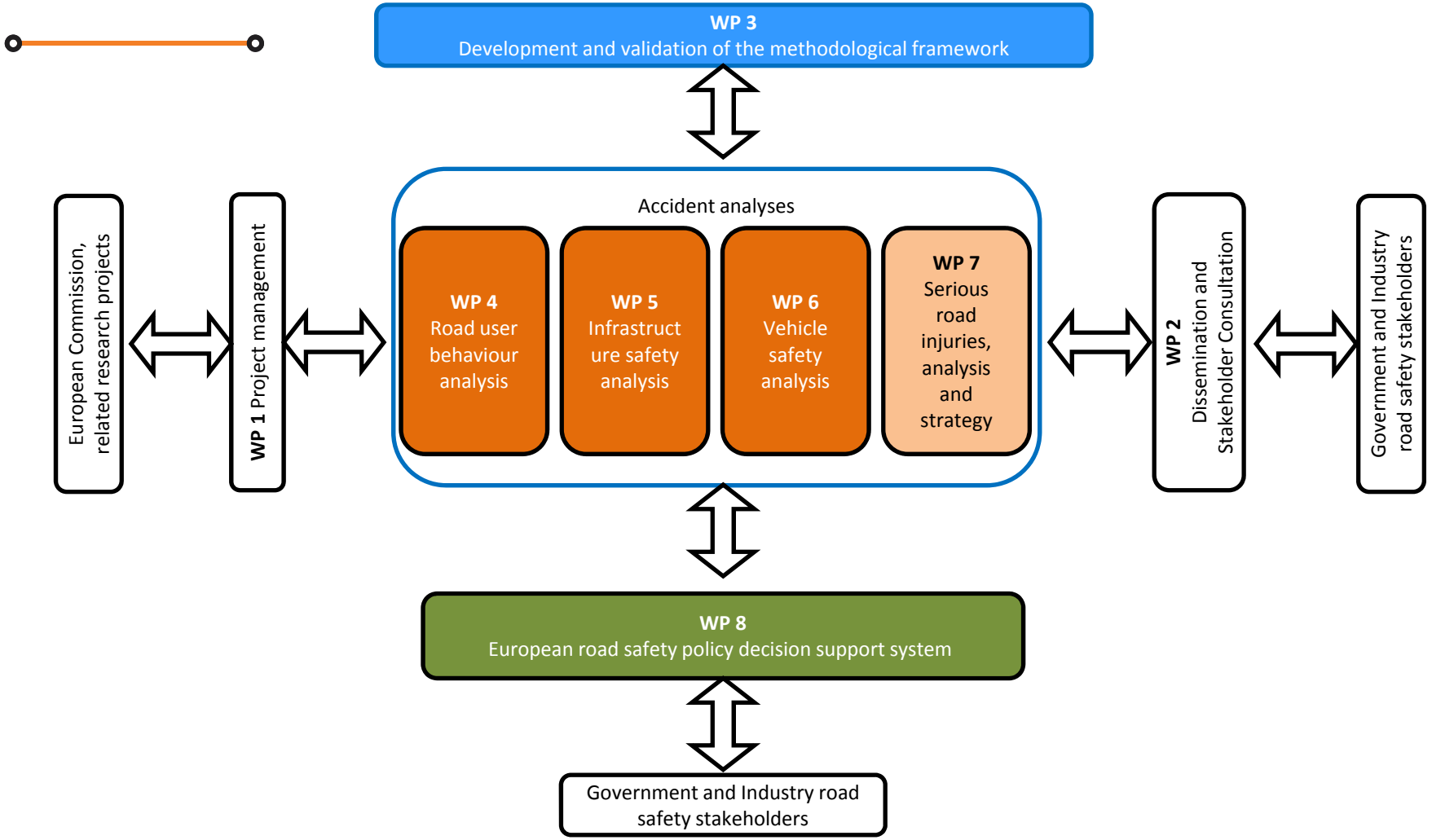

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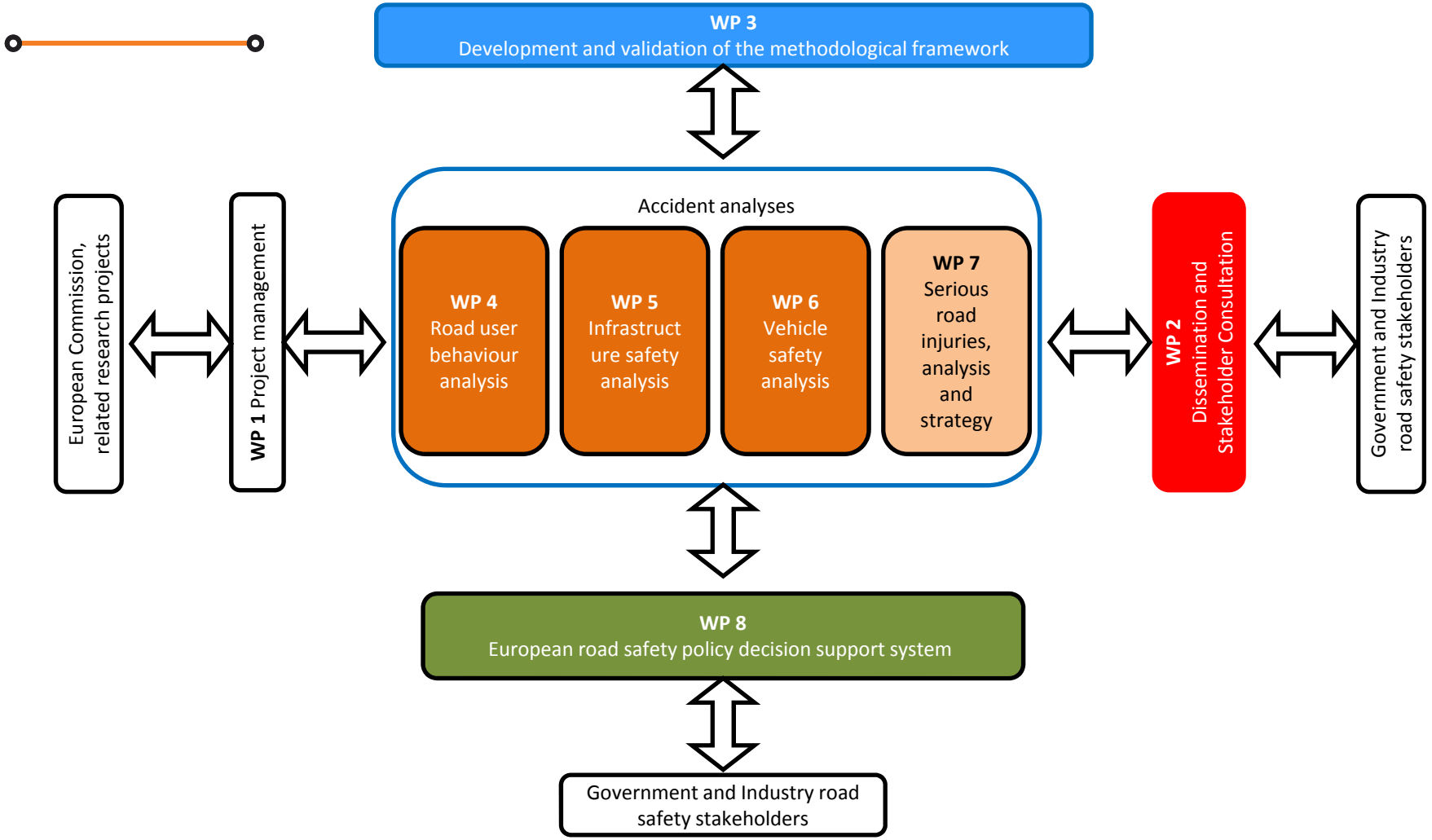

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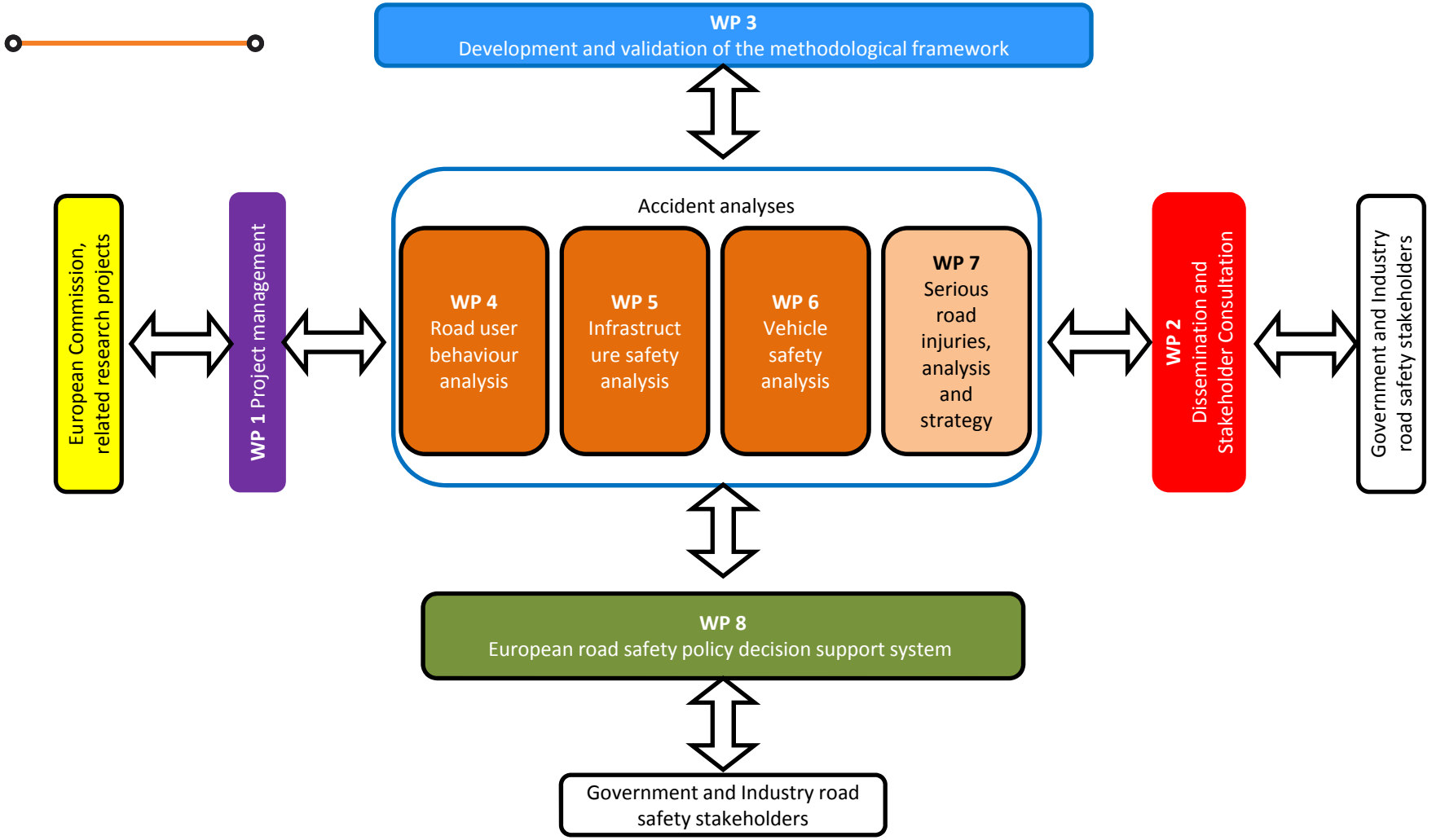

Hot Topics

- An important current question in safety about a risk factor or the effectiveness of a measure.
  - *Distraction*
  - *Automatic Emergency Braking*
  - *Cooperative driving systems*
  - *Helmet use for eBike riders*
- Stay topical for duration of SafetyCube

We need your help

- What is the best way SafetyCube can support evidence based decisions?
- What would you like to see in the Decision Support System?
- What will it look like? How will it operate?
- What are the hot topics we should focus on?

Purpose of today

- To introduce SafetyCube to key stakeholders
- To form a relationship that we would like to last the duration of the project
- To start a dialogue about the project outputs to ensure they are as beneficial to road safety stakeholders as possible

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