



5th conference

Transport Solutions:
from Research to Deployment

Innovate Mobility, Mobilise Innovation!

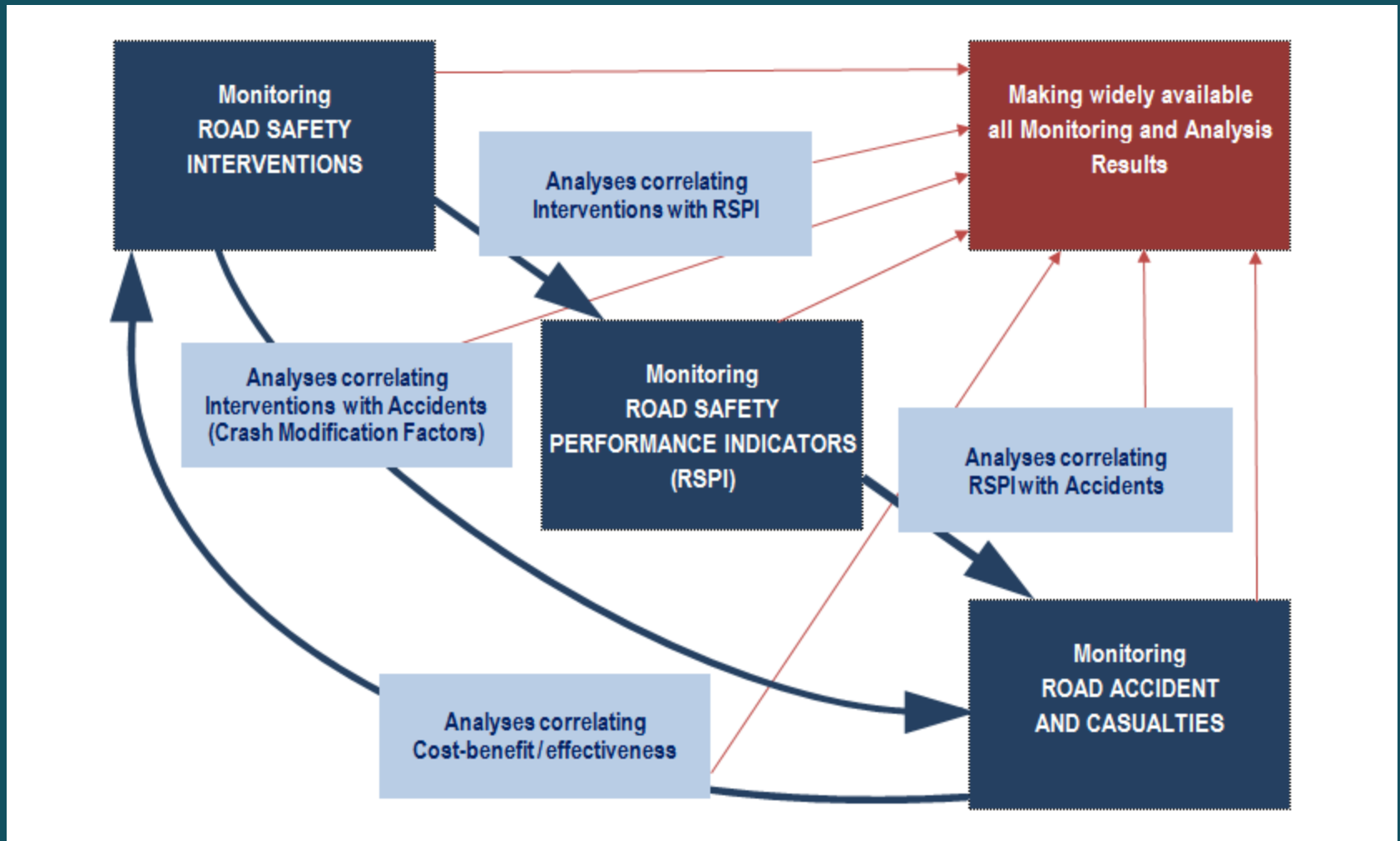
Paris - La Défense CNIT, 14 - 17 April 2014



European perspectives for reliable crash modification factors

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Accident Prediction Models



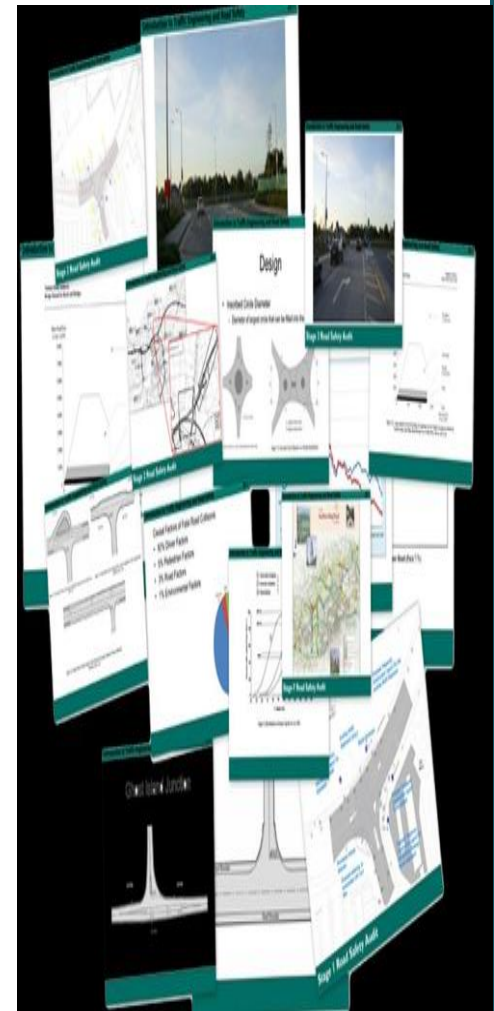
- Accident Prediction Models: important tool in the hands of decision makers but a **complex task**.
- Accident Prediction Models require:
 - high **expertise** to deal with the analyses complexity,
 - impartiality and expert **independence**,
 - maximum **transparency**.
- Accident Prediction Models (APMs) and Crash Modification Factors & Functions (CMFs) are fundamental for estimating road safety outcomes and identifying the most effective safety measures.



International road safety best practice guides



- The handbook of road safety measures
- The Highway Safety Manual
- The CEDR Report
- The FHWA Clearinghouse CMFs
- The Cochrane reviews
- Countermeasures that work: A Highway Safety Countermeasure Guide For State Highway Safety Offices
- Austroads Road Safety Engineering Toolkit
- International Road Assessment Programme Road Safety Toolkit
- The PROMISING project
- The ROSEBUD thematic network
- The SUPREME project
- The IRTAD Annual Reports
- I-cars network, Thematic group on impact assessment measures



Technical barriers for reliable APM and CMF



- difficulties in **isolating the safety effect** of a specific measure
- difficulties in **aggregating** information/data due to high diversification of the measures
- difficulties in **comparing and transferring** information/data among countries:
 - differences in road traffic environments,
 - differences in the actual investment costs among the countries,
 - differences in methodologies of safety effect calculation



Political barriers for reliable APM and CMF



- **Authorities and other stakeholders** may fear that ex-post evaluation of measures may prove that important road safety investments had little or limited impact.
- Comparisons of measures effectiveness between different regions and between different countries may reveal **high discrepancies** not only in the unit cost of the measures but also in the implementation effort.
- Sometimes measures assessment invited by the **authorities** tend to use faster and less rigorous methodologies, favouring prevailing opinions and decisions already taken, creating thus a wide variety of non-converging efficiency results.
- The **scientists'** competition and quest for the "excellent" methodology, together with the inherent difficulties of measures efficiency assessment, puts in question any initiative.



Next Steps for efficient monitoring of road safety policies and performance



- More **surveys** for exposure, performance indicators, driver behaviour.
- More large scale **analyses & experiments** (in-depth investigation, naturalistic driving, driving simulator).
- More **APM research and analyses**.
- More **solutions** to (new) real life problems.
- A global network of **repositories/clearinghouses** with well documented APM and CMF.



In conclusion: Monitor – Analyse - Publish



- APMs and CMFs can be **transferred** to conditions different from the ones for which they have been developed if selected based on scientifically valid criteria and adapted to local conditions based on historical crash data.
- Beneath each high road safety performance lies **a powerful system** for the monitoring and analysis of interventions, indicators and safety results using the appropriate APM and CMF.
- Road safety Monitoring and Analysis, including reliable APM and CMF should become **a mandatory procedure** for all road safety investments. Any following Investments should be linked with the performance of the previous investments.





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