



Innovative MRV approaches in Transport Sector

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Supported by





South Pole Group – developing solutions worldwide

VOLUNTARY CARBON MARKET SURVEY 2013



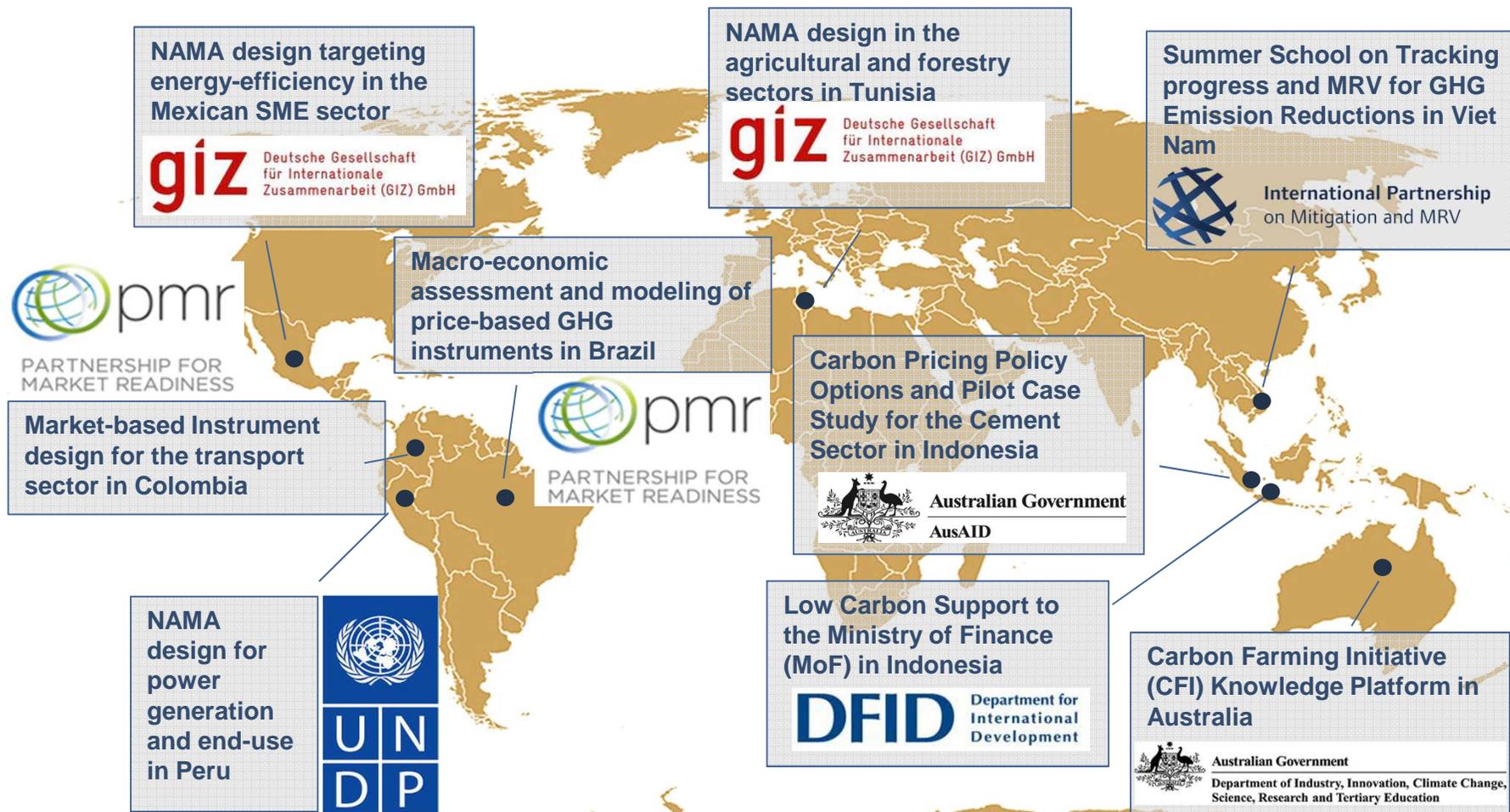
- Head office
- Satellite office
- Local presence



- 2006: Incorporation in Zurich / Switzerland
- 2012: present on all continents
- About 100 carbon professionals from 22 countries
- 2011, 2012 & 2013: Best Project Developer
- 2013: Runner-up Best Advisory Service
- Strong focus on NAMAs, MRV and design of new carbon markets



Selected advisory references





South Pole's work package

- Identification of 2-3 business cases for innovative MRV approaches
- Builds upon previous work packages
- Looks into climate economy as a whole:
 - UNFCCC framework
 - CDM/JI
 - NAMAs
 - NMM? / FVA?
 - Other schemes
 - Emission trading schemes (e.g. EU, China)
 - Offset schemes (e.g. Gold Standard, VCS, California, Switzerland)
 - Carbon tax schemes
 - Other market-based and non-market based instruments
- Current carbon prices was the most limiting factor in the selection of the business cases
- Presentation focuses on one of the two identified cases studies in the transport sector

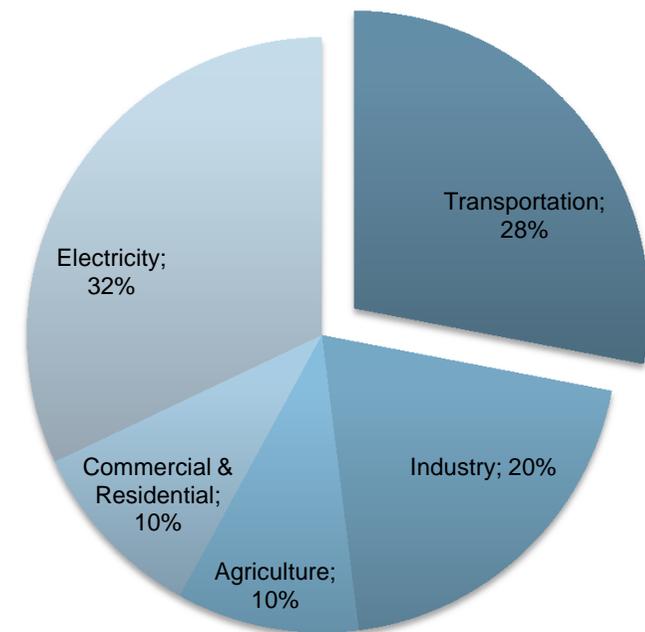


Introduction

In the U.S. GHG emissions from transportation account for about 28% of total emissions, making it **the second largest** after the electricity sector.

The majority of GHG emissions from transportation are CO₂ emissions resulting from the **combustion of fossil fuels**.

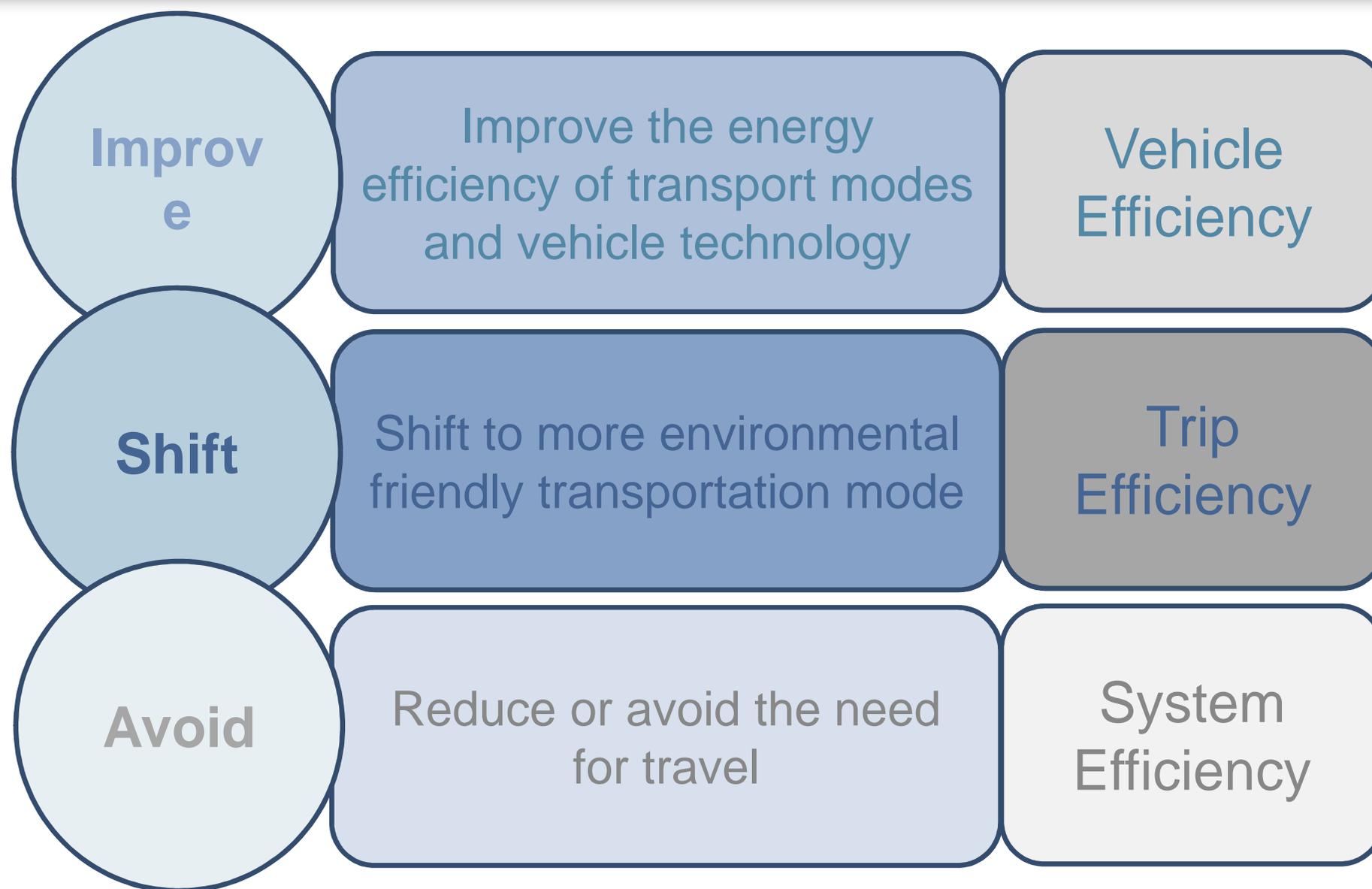
The largest sources of transportation related GHG emissions include passenger cars which account for over **half of the emissions** from the sector.



Total U.S. GHG Emissions in 2012



Main types of mitigation action in transport sector





Status Quo of Climate Change Mitigation Programs

Type of climate action	Improve	Shift	Avoid	Shift and Improve
CDM projects	7	8	0	13
VCS projects	3	4	0	2
NAMAs	4	2	1	1
Total	14	14	1	16



Several PMR countries are implementing or considering climate change mitigation programs in the transport sector



Common MRV elements and challenges

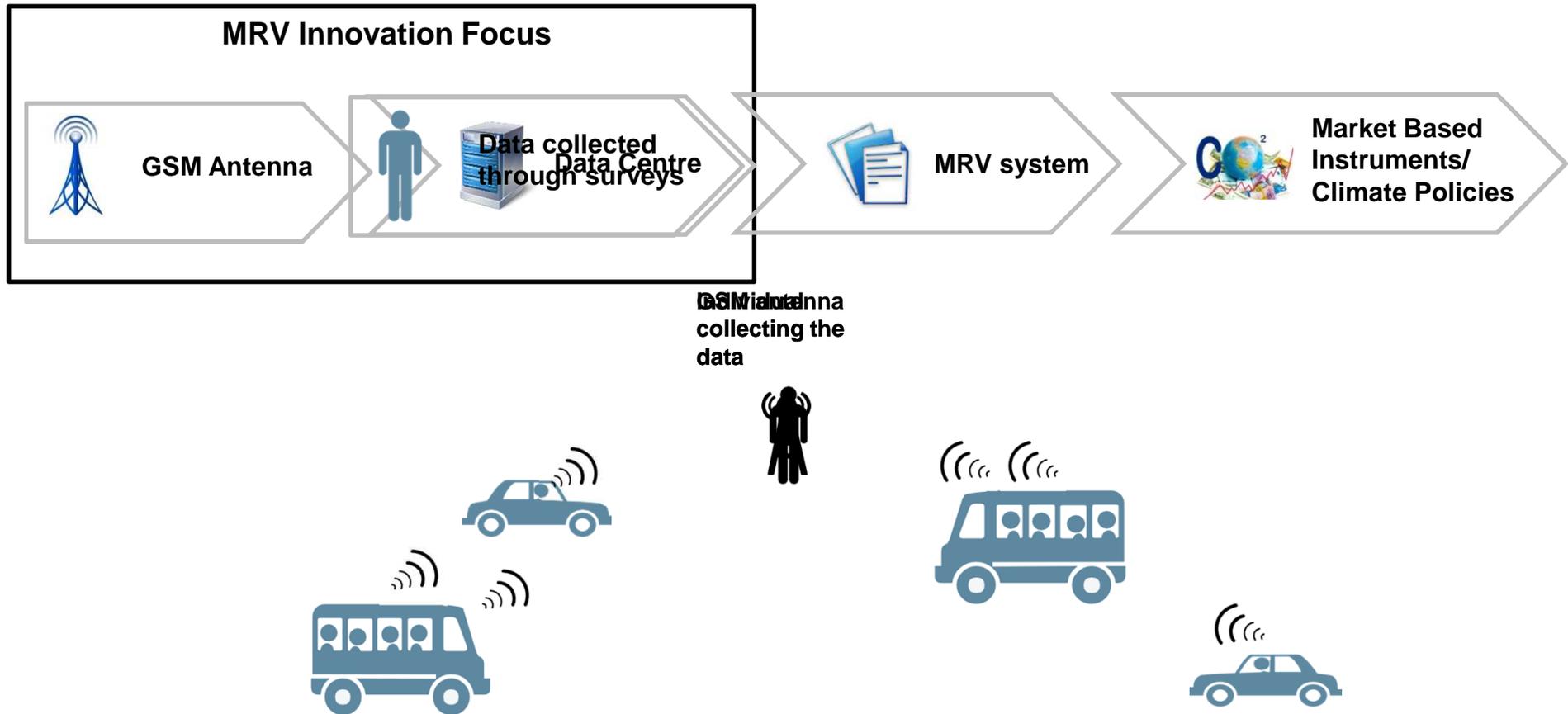
To define baseline and project scenarios, following parameters are typically needed:

Focus of proposed solution

MRV Parameter	MRV approach	Challenges
Number of passengers	Survey, sample measurements	Time consuming and expensive
Occupation rate per vehicle category	Sample measurements (visual observation, ticketing, etc.)	Time consuming and expensive
Mode switch	Surveys or specific studies on a local, national or international level	Time consuming and expensive
Share of fuels used per vehicle category	National or regional vehicle registration statistics	Publicly available data, however can be inaccurate sometimes
Specific fuel consumption	Specific studies on a local, national or international level	Publicly available data, however can be inaccurate sometimes
Emission factors per fuel	IPCC, studies on a local or national level	Publicly available data, however can be inaccurate sometimes

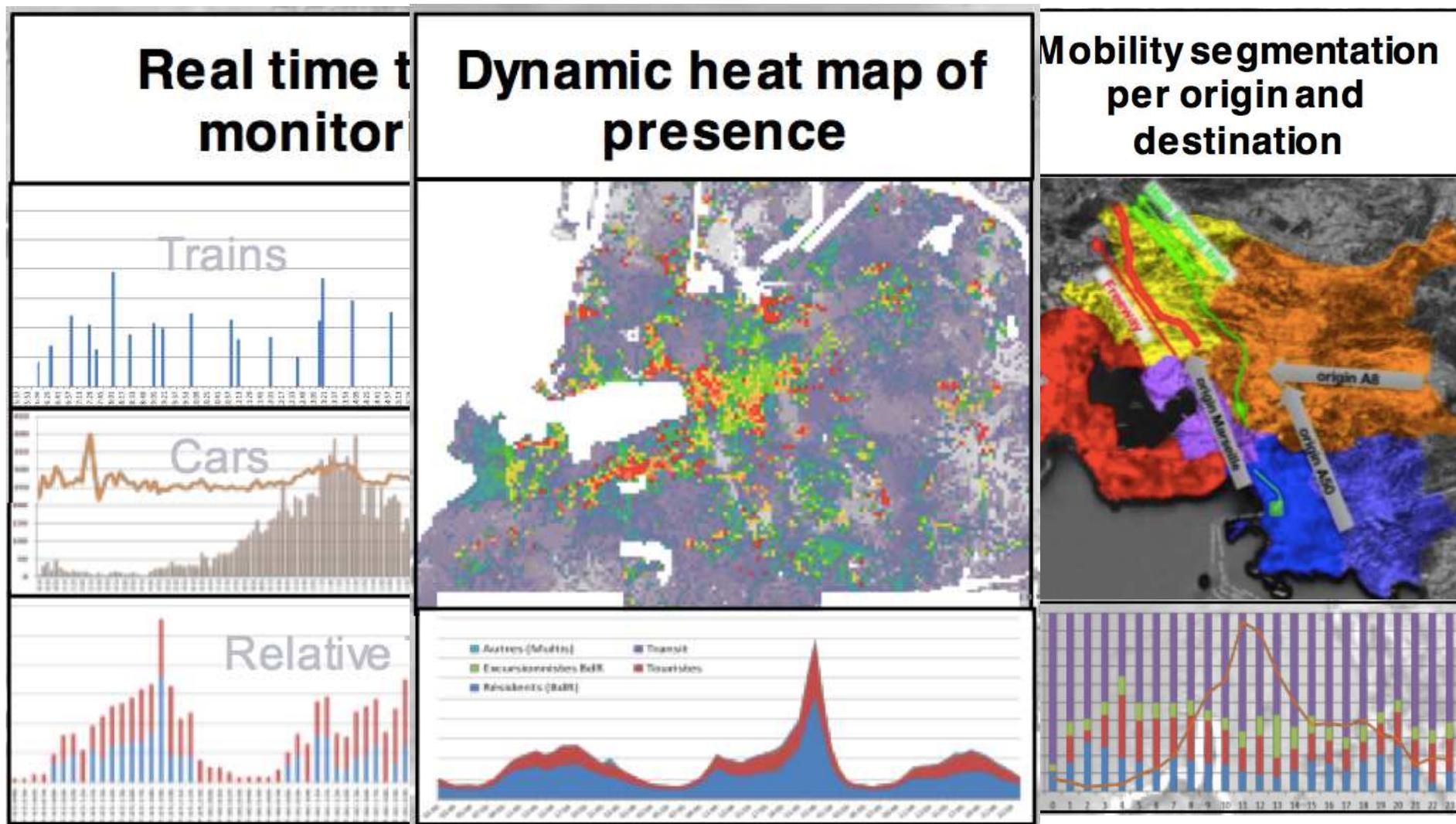


Proposed Innovation Concept

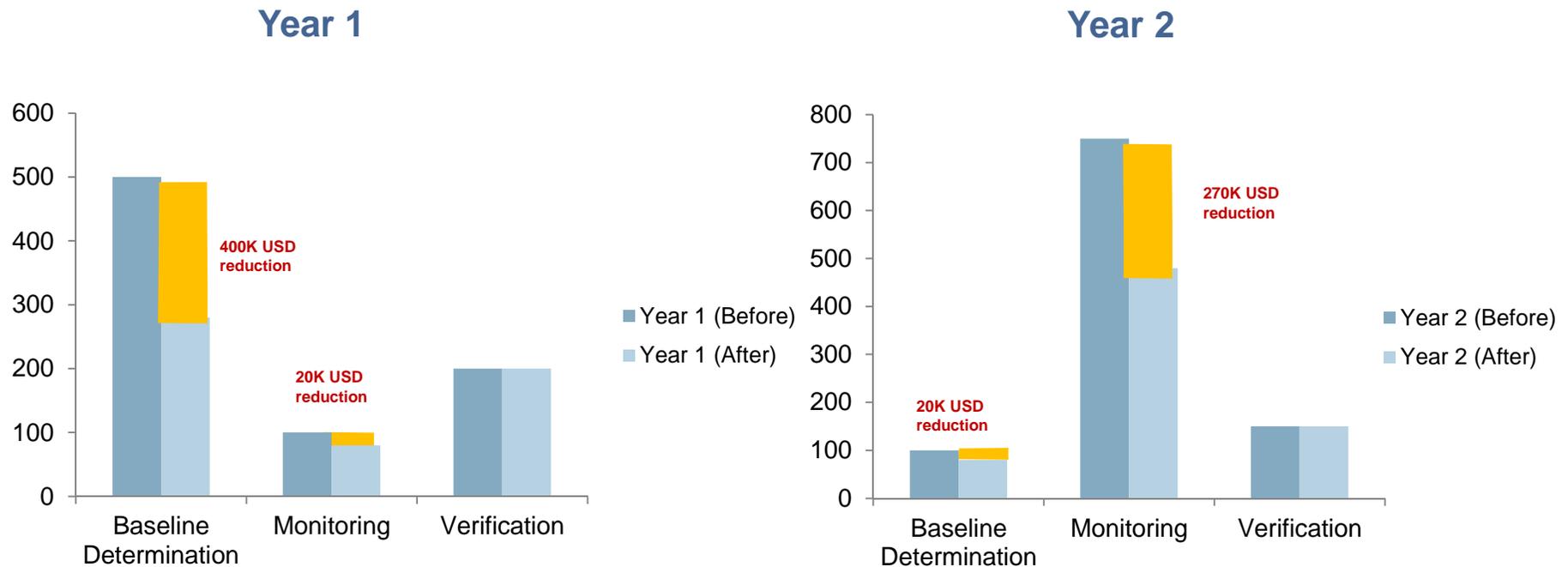




Technological possibilities



Case Study: MRV costs for large-scale transport programs



Cost reductions are potentially very significant whilst increasing precision



Conclusion & next steps

This innovation offers:

- Easier (and cheaper) ways of MRV in the transport sector
- More accurate, complete and transparent dataset
- Higher rate of frequency for data collection (up to real-time monitoring)
- Scalable, reproducible and comparable solution

Moreover, it can be implemented in any country where mobile signals exist!

Next steps:

- Further assessment of technical and financial feasibility together with leading telecom company
- Potential pilot project in Paris with demonstration at COP21 in 2015
- Assessment of possible application of the approach in the context of national/sub-national GHG inventories, NAMAs, market-based instruments, etc.



THANK YOU

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