

Asset Management and Rural Accessibility

Global Solutions Group

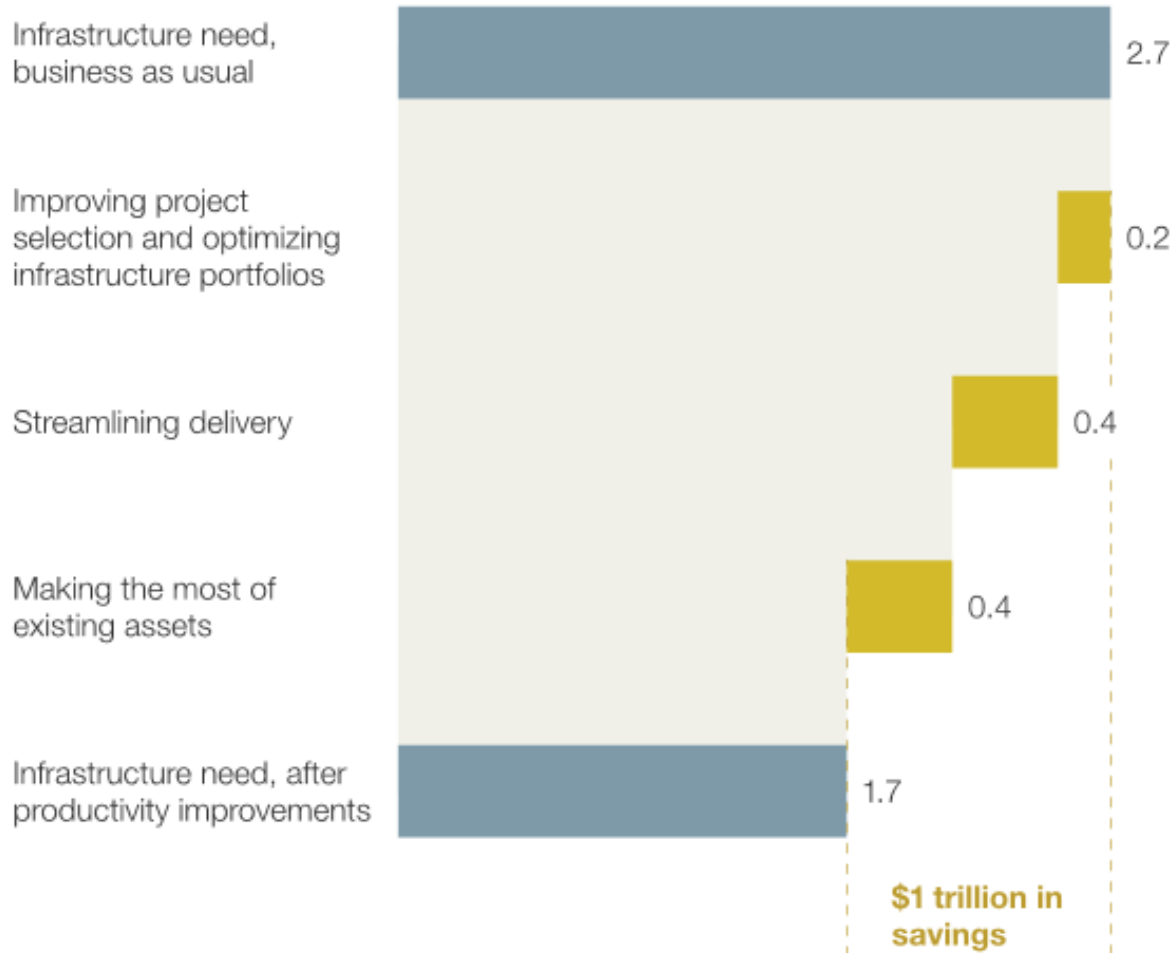
Transportation Sector – Trade Mission



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Transport and ICT Global Practice

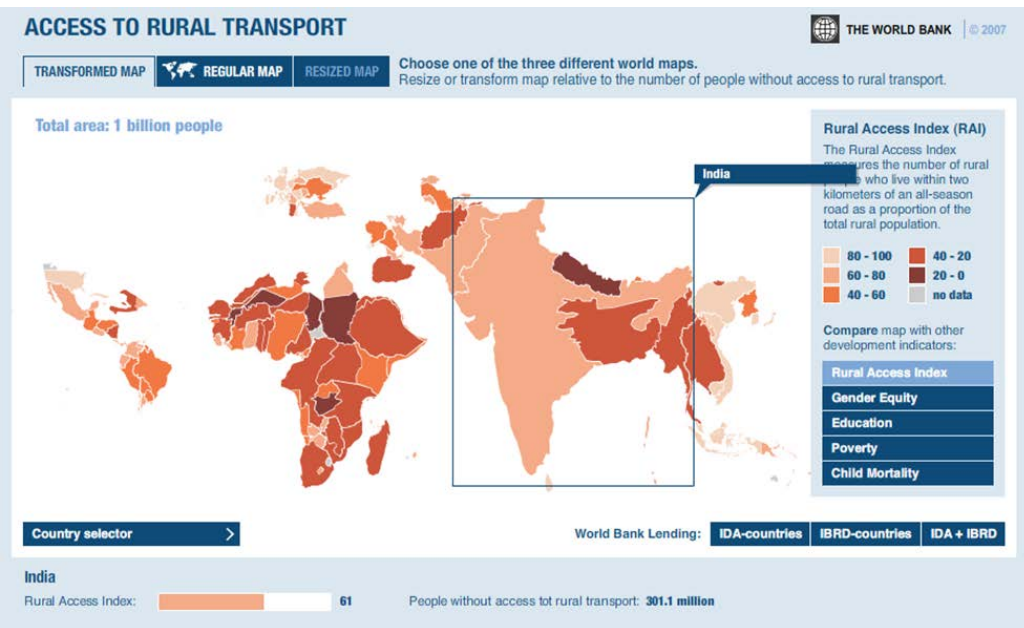
Why Asset Management

Global infrastructure investment, projected yearly average, 2013–30, \$ trillion



- WB client countries have 22 million km of road
- Approximate road asset value of 30% of GDP (\$140 trillion ??)
- Given the value of these assets we know very little about them
- Quality of public expenditures could be substantially improved

Why Rural Access

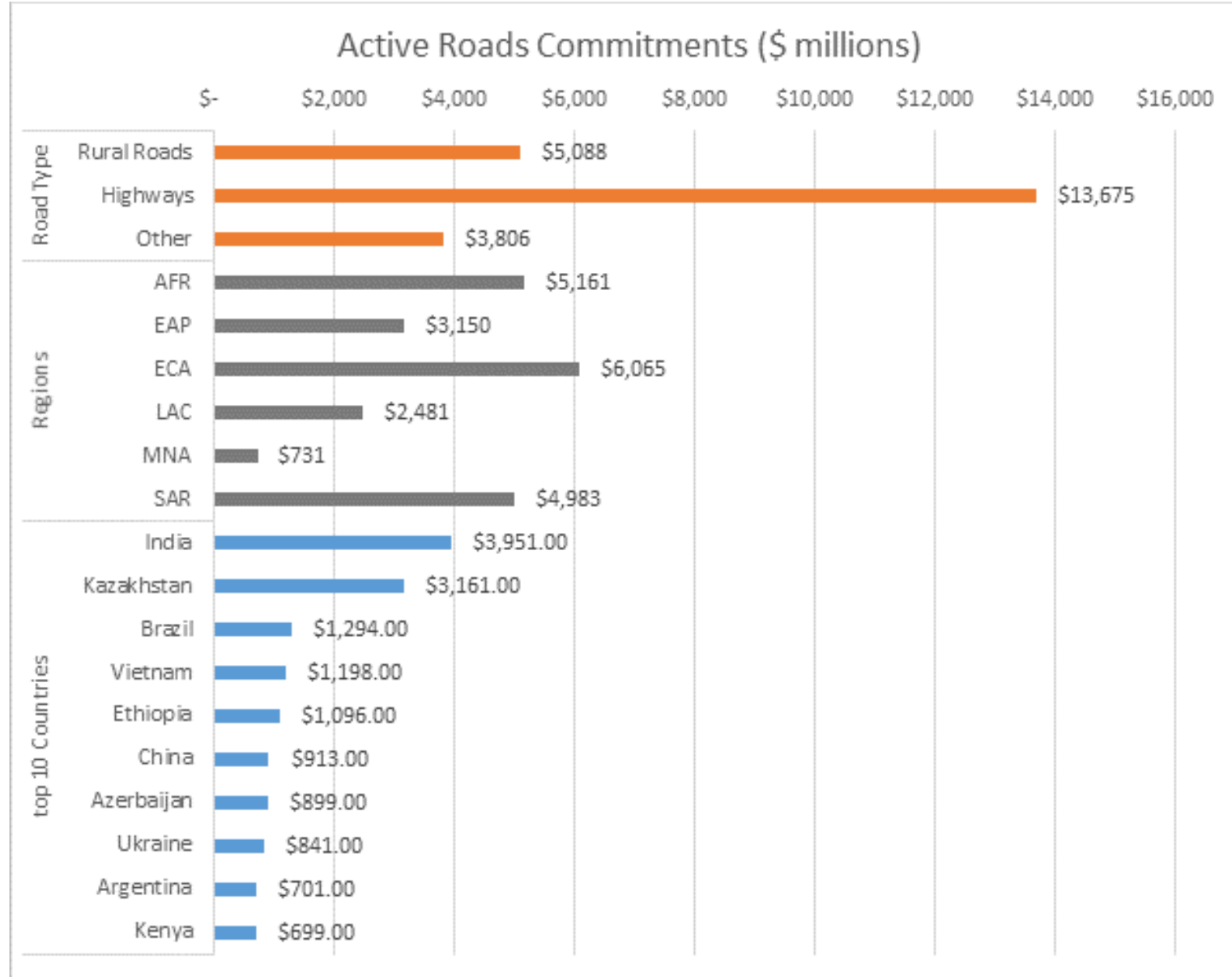


- Over 1 billion people living without year round access to transport
- 60% of rural population in IDA countries lack access
- Strong correlations between rural access and poverty reduction

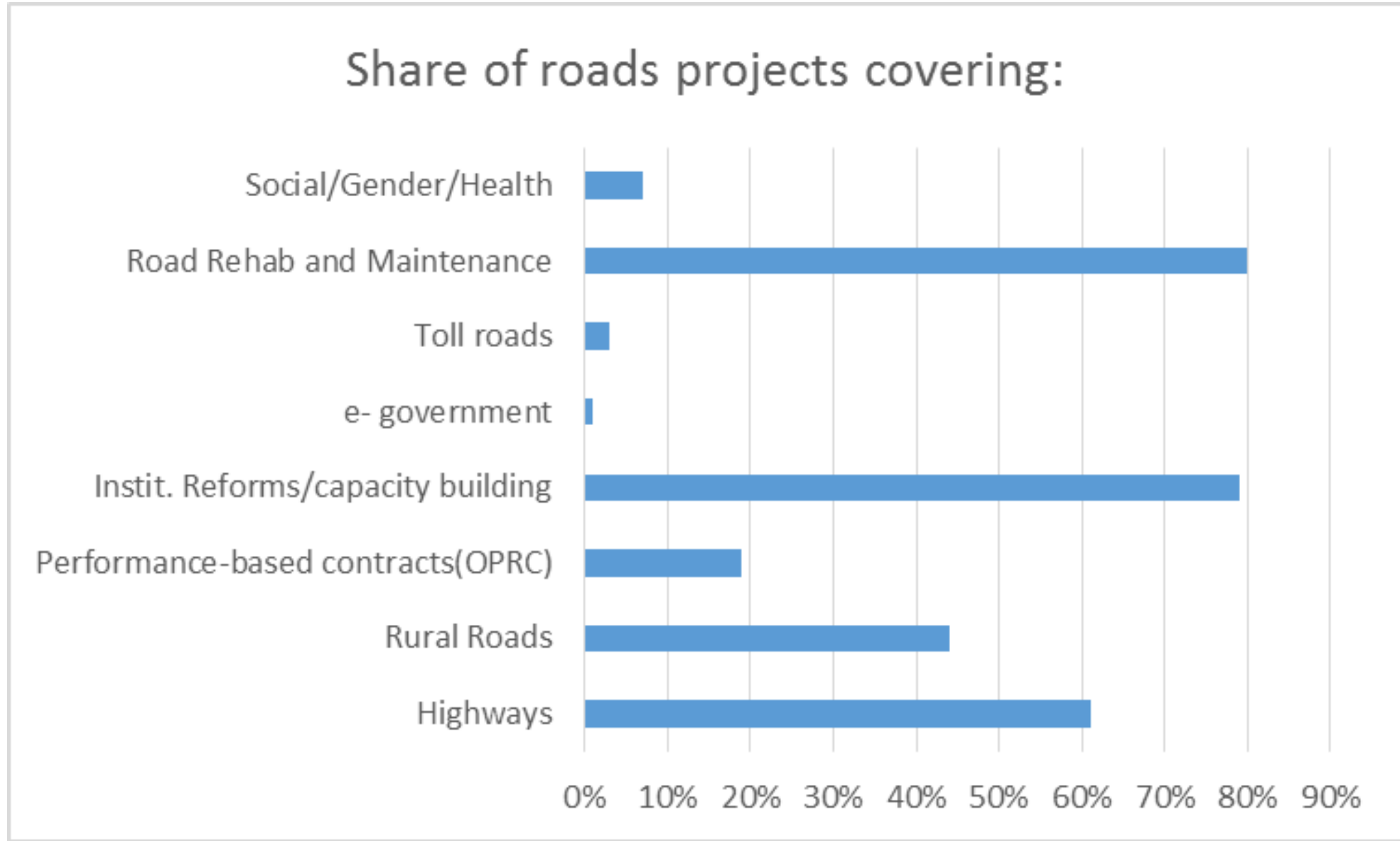


“People have gone to the moon and we are still trying to reach the village and the village is getting farther [away],” Julius Nyerere.

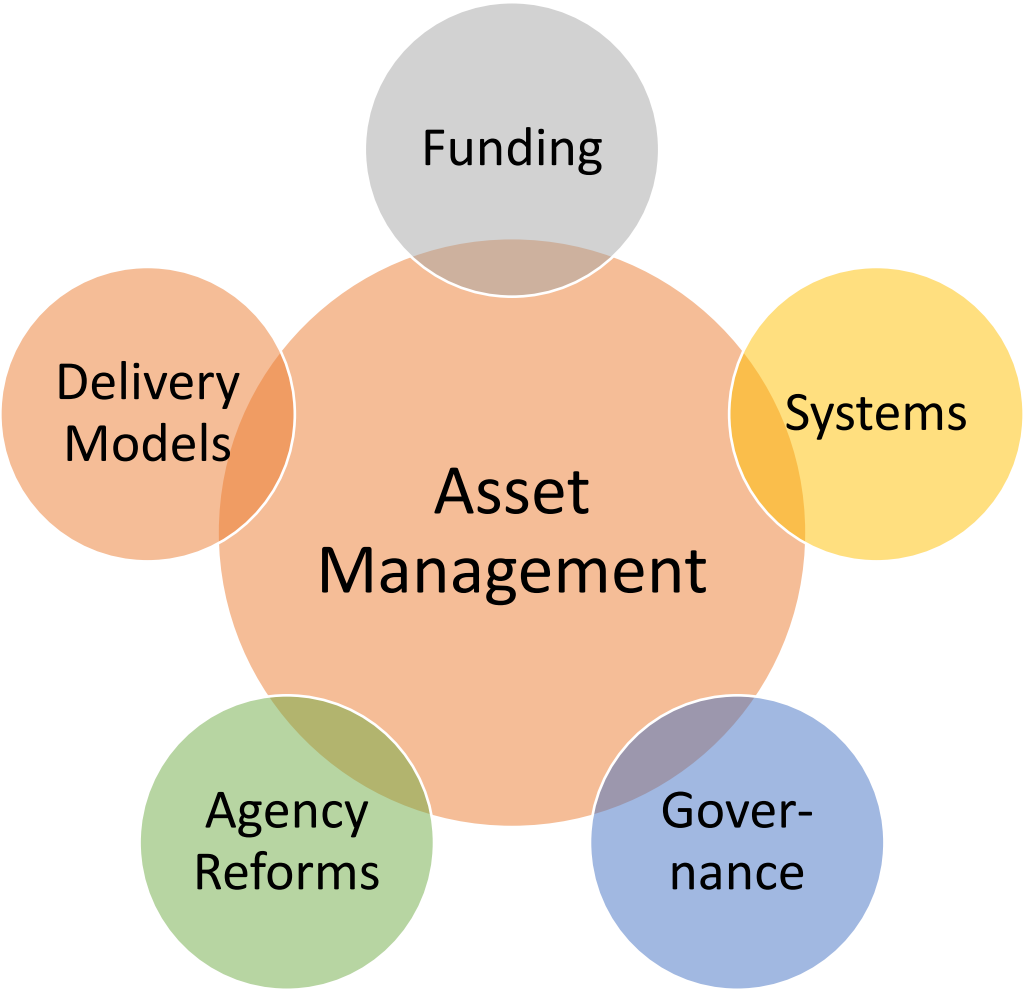
Portfolio Highlights



Topic Areas



ASSET MANAGEMENT IS MUCH MORE THAN SYSTEMS?



Main Bank focus under Asset Management...and where are the opportunities for the private sector

- Road Asset Management Systems – better modelling and decision making
- Climate change – mitigation and resilience
- Links with ICT – for instance ITS
- Contracting methods – performance based contracting and PPPs
- Institutional – organizational arrangements and sector finance

Emerging Issues to be addressed in Road Asset Management Systems

- Vehicle and fuel technologies
- Techniques and materials for road construction
- Traffic congestion
- Road safety
- GHG emission and environmental performance
- Climate resilience
- ITS
- Urban versus Rural investments
- Low-volume roads
- Assessment of broader benefits
- Risks and uncertainties

Main opportunities:

- Supply and implementation of RAMS/GIS
- Data collection
- Technical assistance

It is the general recommendation by the World Bank that clients implement COTS systems rather than bespoke systems

The World Bank is a key stakeholder and driver in the International Study on Road Asset Management Models (ISRAMM), which will involve interested stakeholders from the private sector.

Climate Change Adaptation – Interventions and Strategies

Land-use planning

- Roads should not lead to pop/economic activity in vulnerable regions

Planning & Analysis

- Downscaled climate models
- Decisions under deep uncertainty: what to do?
- Vulnerability analysis: where to focus?

New Infrastructure

- Design standards
- Materials

Existing infrastructure

- Improving at-risk infrastructure
- Asset management
- Relocation or abandonment

System effects

- Redundancy
- Contingency planning – critical systems

- Post-disaster

Main opportunities:

- Technical assistance (planning, modelling, design etc.)
- Materials and solutions



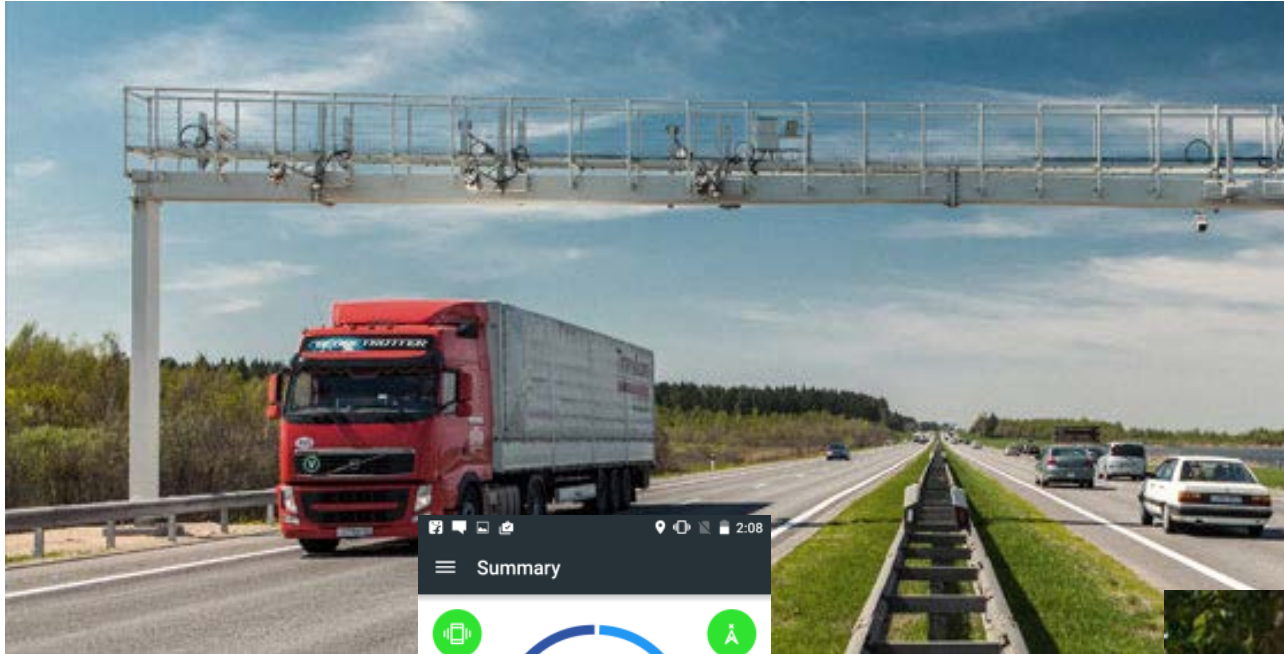
Access Infrastructure: ITS & IoT



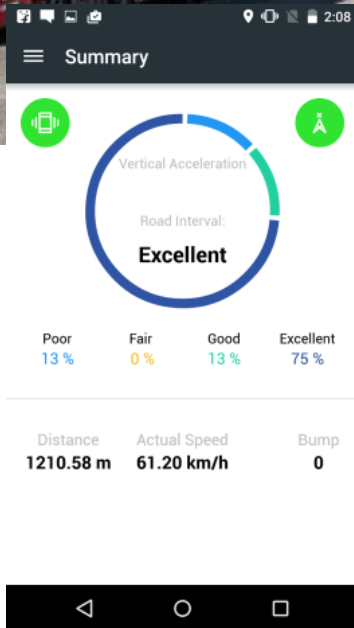
Concrete Examples of ITS in Infrastructure

Main opportunities:

- Technical assistance
- Solutions
- Development



Electronic tolling



'RoadLab' App

Automatic speed enforcement

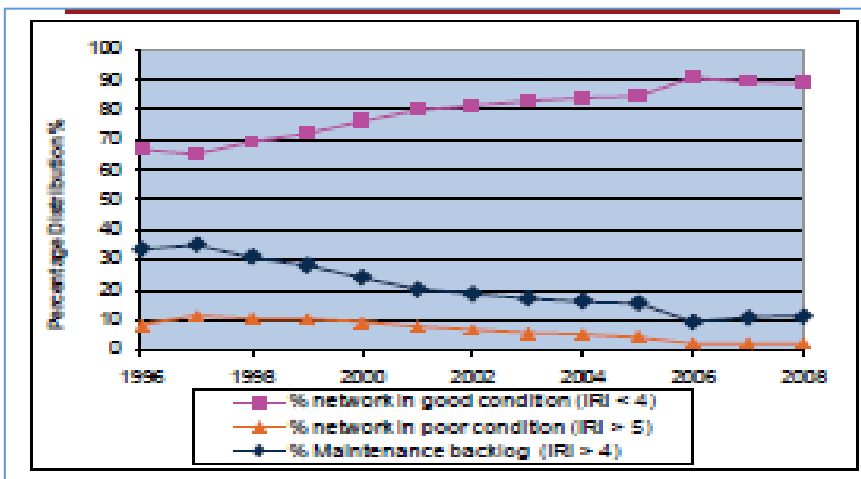


Weigh-in-Motion



Contract Methods

- Traditional methods (design & supervision and construction)
- Performance Based Contracting
- PPP – corporation with IFC 



- Maintenance backlog reduced from 35% to 10%
- Road in poor condition reduced from 11 to 2%
- Roads in good condition increased from 65% to 90%
- Estimated Road user cost savings at least US\$275 million annually

Main Opportunities:

- Technical Assistance (design, supervision, PBC contracting)
- Construction and maintenance
- Concessions

Argentina CREMA Four Phases Pavement Surface condition