

Amsterdam Practical Trial (APT) Big data integration to Smarter Transportation

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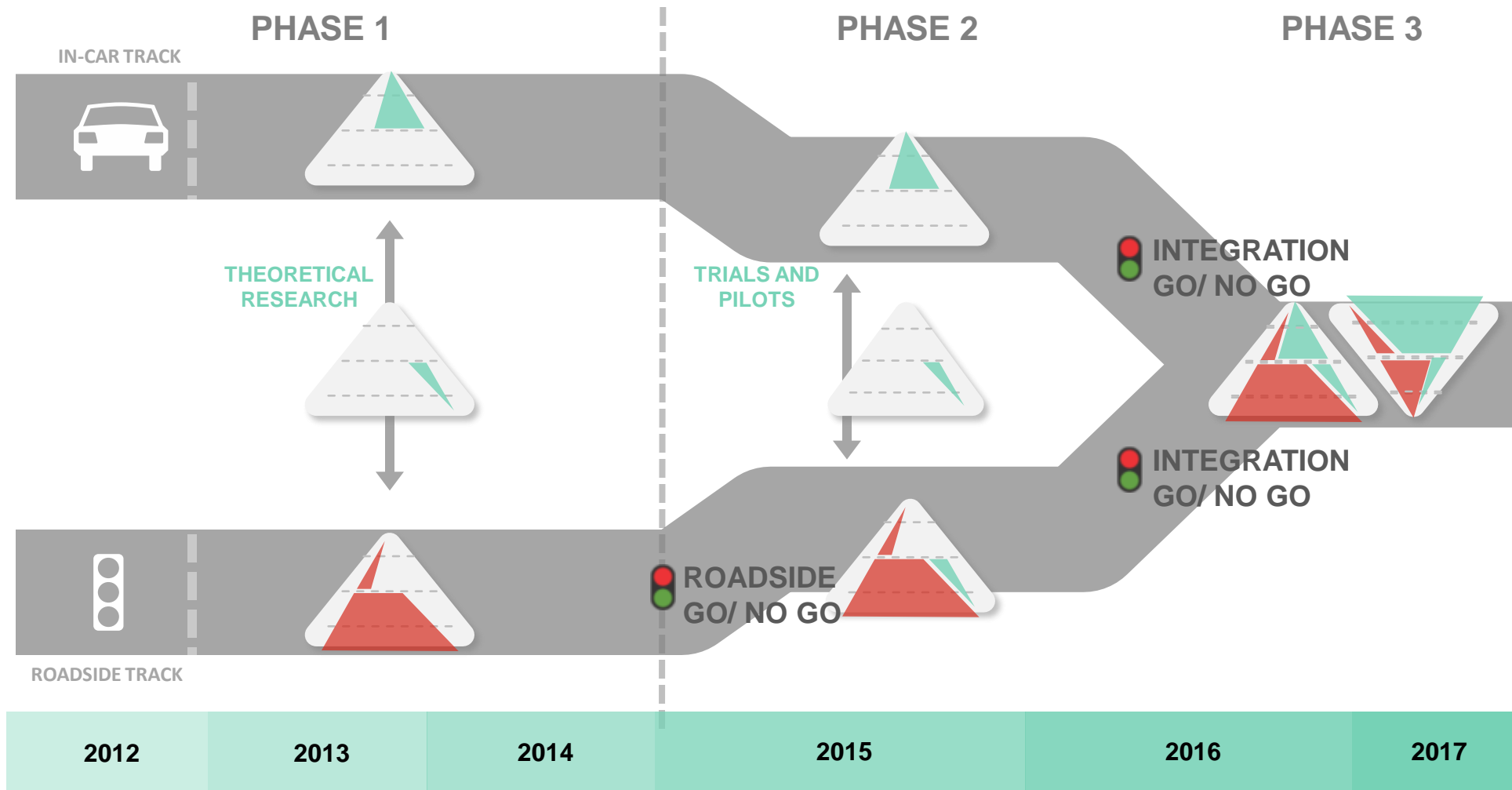




- The Amsterdam Practical Trial is testing innovative ways of reducing traffic jams in daily operational traffic in the Amsterdam region.
- Notably, these are large-scale trials involving the use of new technologies both in the car and on the road.
- In the Amsterdam Practical Trial public, private and scientific partners work together to create innovative solutions for urban mobility challenges

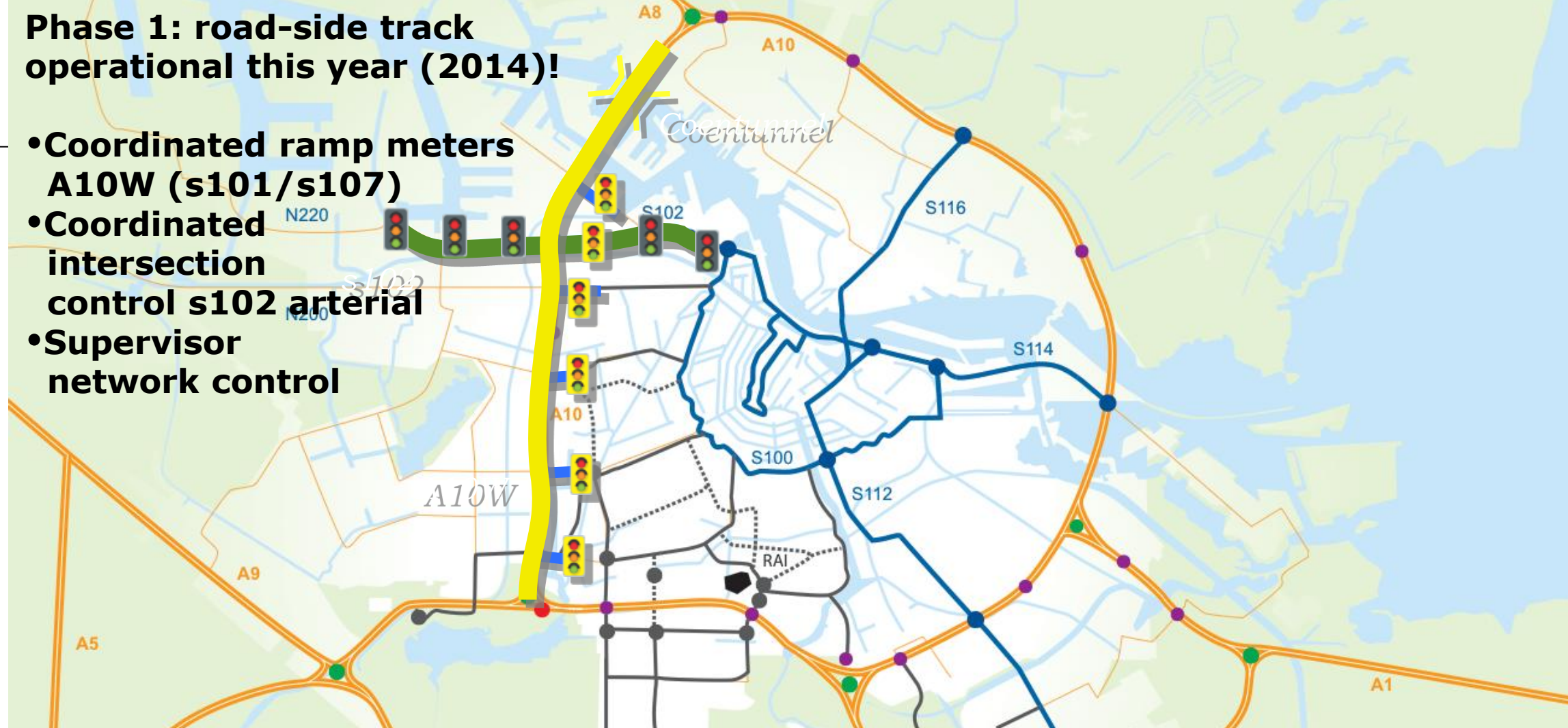


The three phases of Amsterdam Practical Trial



Phase 1: road-side track operational this year (2014)!

- Coordinated ramp meters A10W (s101/s107)
- Coordinated intersection control s102 arterial
- Supervisor network control



- Phase 2: draft project plans in discussion with partners
- Phase 3: integration road side/in car
- Stepwise development and realization of flexible, generic approach



In car field test – set up

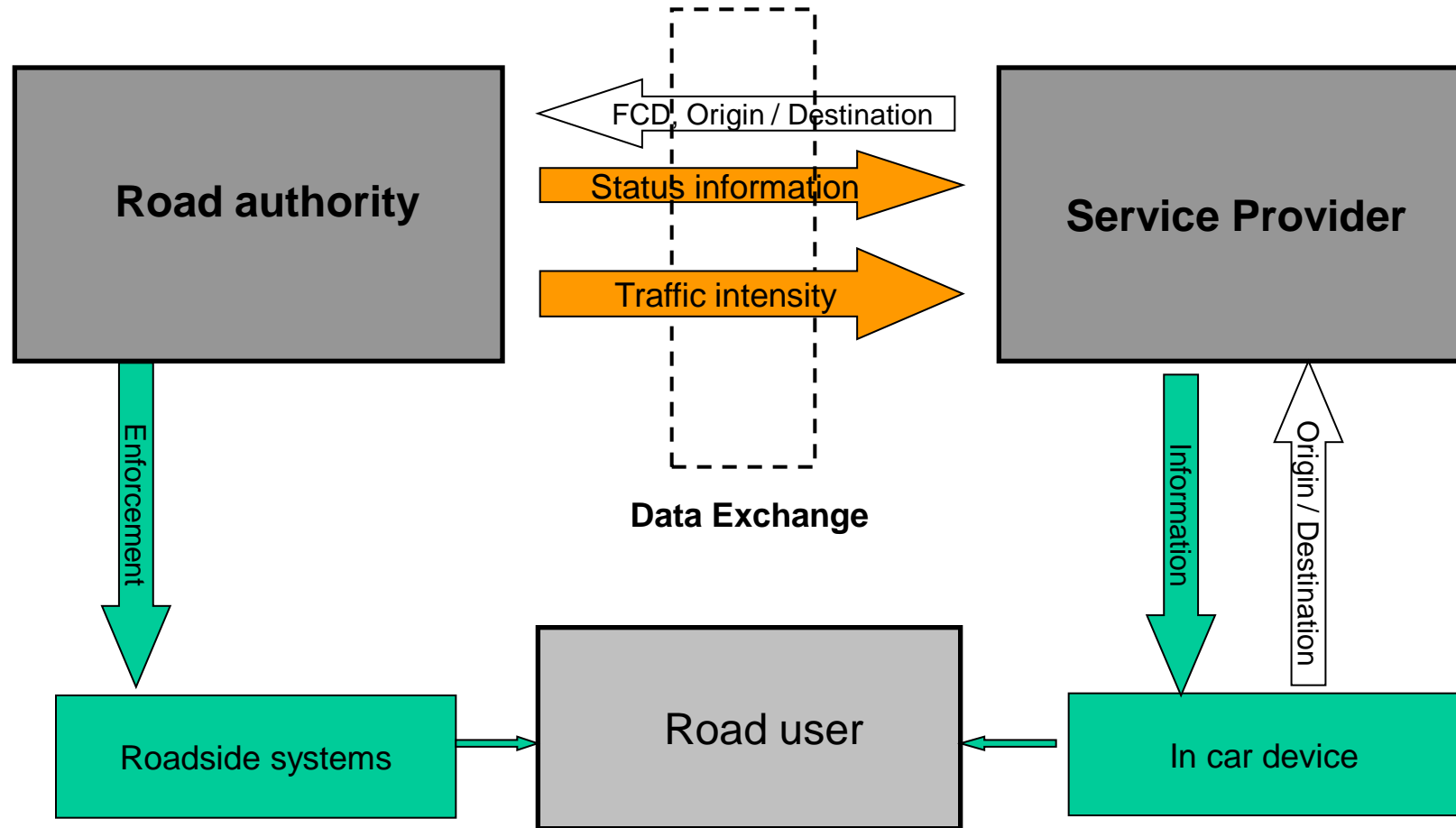
Commuter traffic
6 months test with
20.000+ drivers
2 consortia



Large scale events
20 test with
1000-2000 drivers
2 consortia

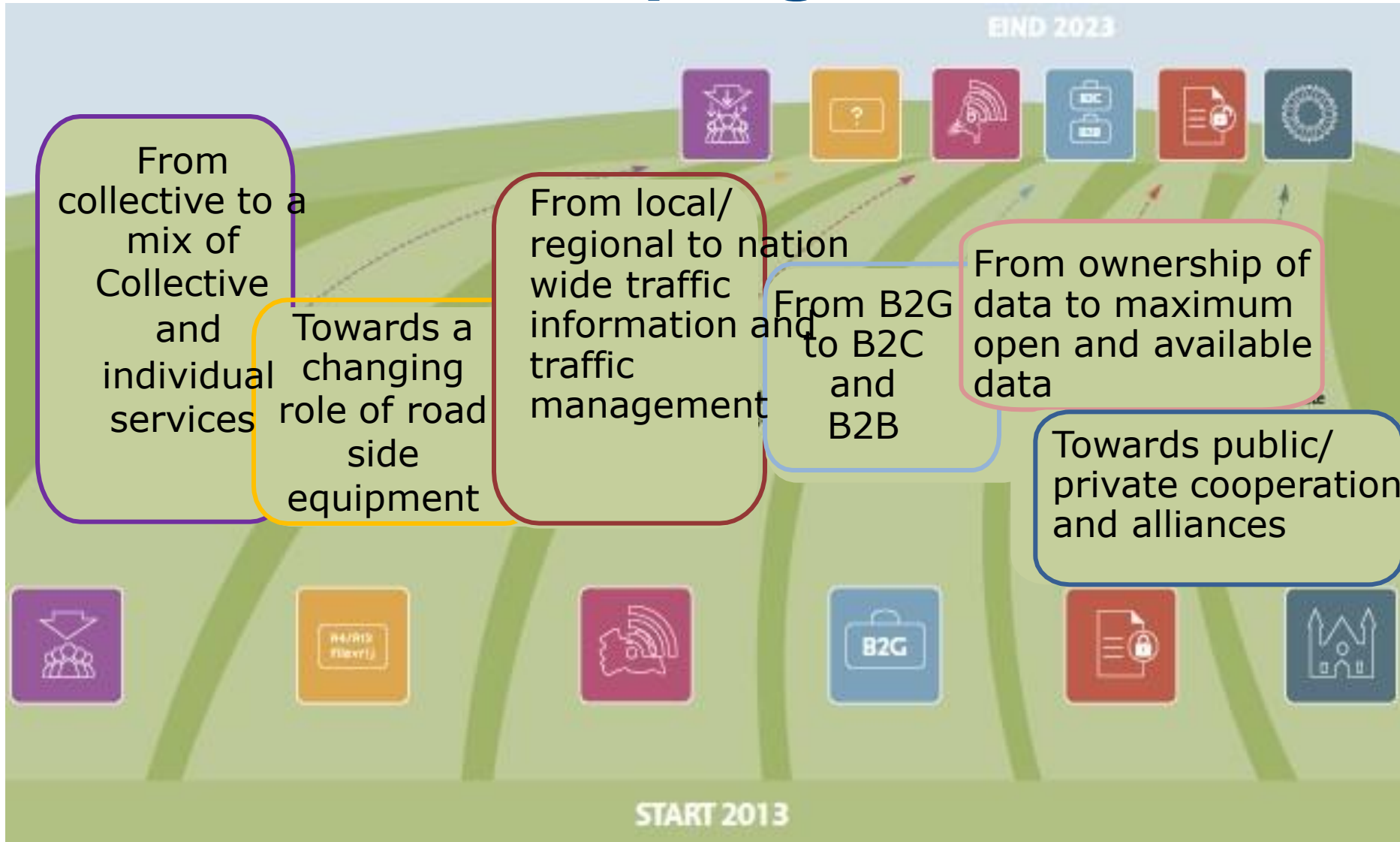
In car operational in 2014/2015!

Information flow in-car and roadside: data as key element





Dutch transition program 2013-2023





Unique Selling Points APT

- Innovative and unique algorithms enabling automated, proactive/predictive networkmanagement
- Concrete, large scale testing in daily traffic in Amsterdam Region
- Intensive public-private cooperation (roadauthorities, private companies, science)
- Integration road-side/in car and data fusion
- Cornerstone for innovation of dutch traffic management strategy
- Chance for international cooperation





1974 : Amsterdam the “White car” sharing project (40 Years ago)

2014 : Young people want a transportation service not a car



• **Amsterdam** WANTS IT FOR THE FUTURE.



• **How?**

• **The world is becoming INSTRUMENTED**



- Smart sensors on road, in cars, Connected cars everywhere

• **The world is becoming INTERCONNECTED**



- Linking information on road, in cars and railways, throughout the supply chain – *“the internet of things”*

• **The world is becoming INTELLIGENT**



- Cars talking to each other, sensors talking to each other, we can predict where traffic jams are, before and while you drive
- Cars avoiding accidents, Preventive maintenance, interaction with the environment, schools, signs, events, cars and POI info.

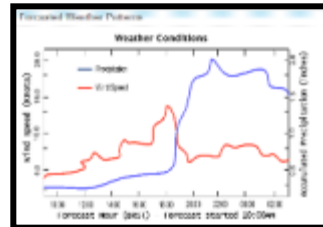


Intelligent Operations – Leveraging Multiple Data Sources

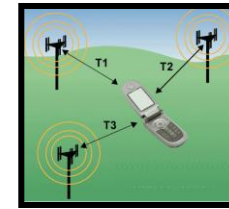
Evolution of Data Sources



Video



Prediction



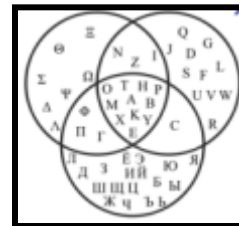
Mobil Phone Tracking



The car



Sensors



Correlation

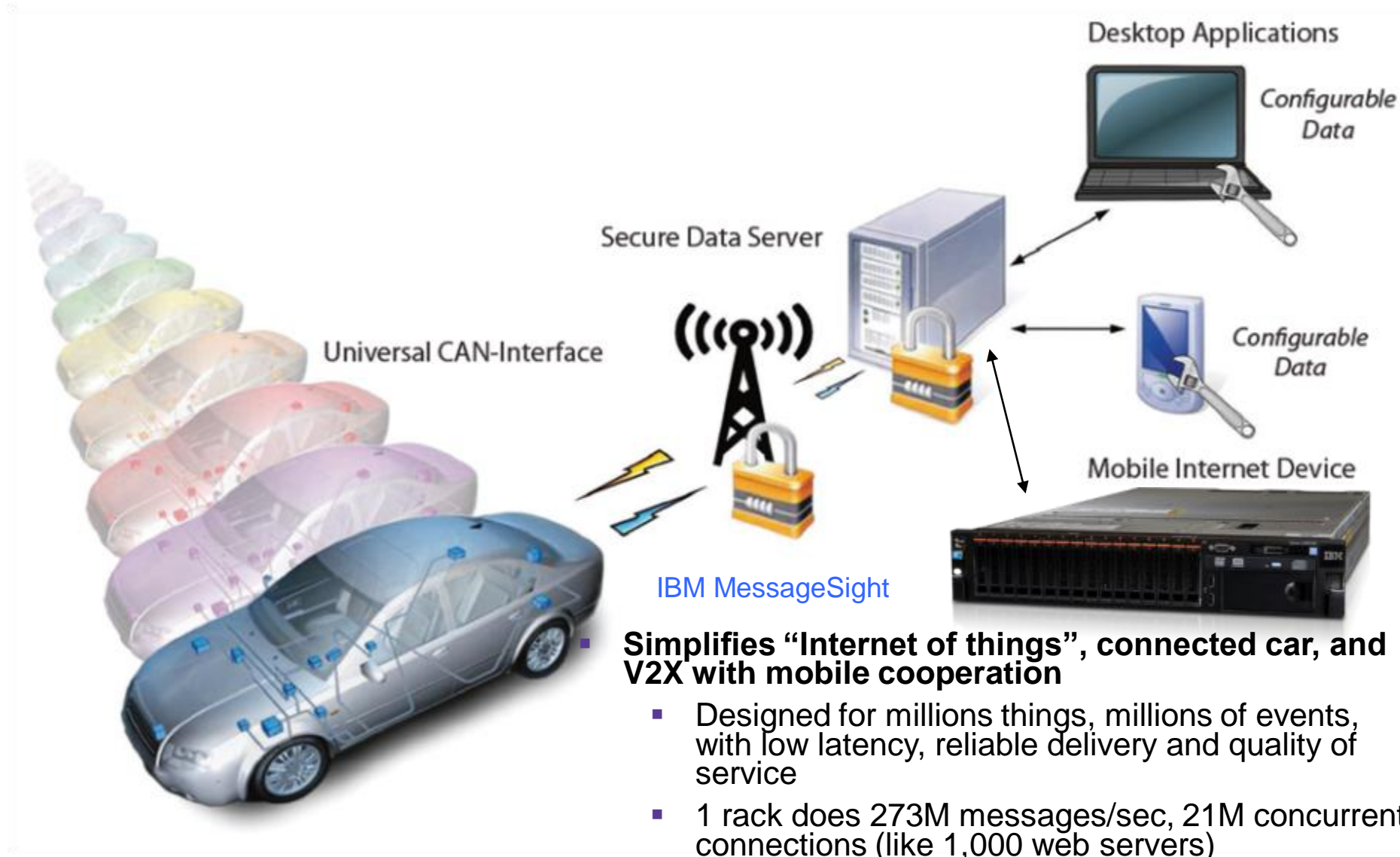


Factual **Mathematical**





We Connect the Car... with partners

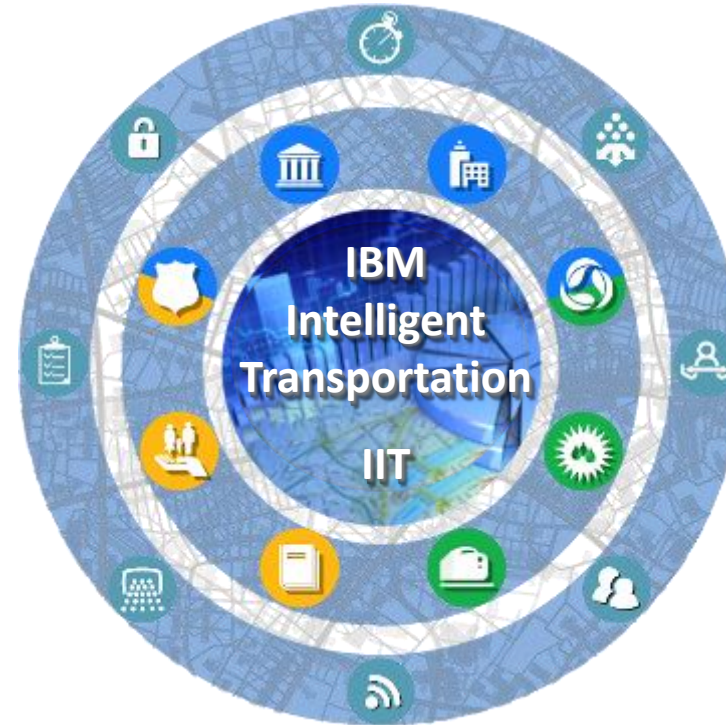




We create opportunities to unlock new benefits In Transportation

Challenges

Reduced Budgets
Increase Delivery
Expectations
Aging Infrastructure
Increased Threats



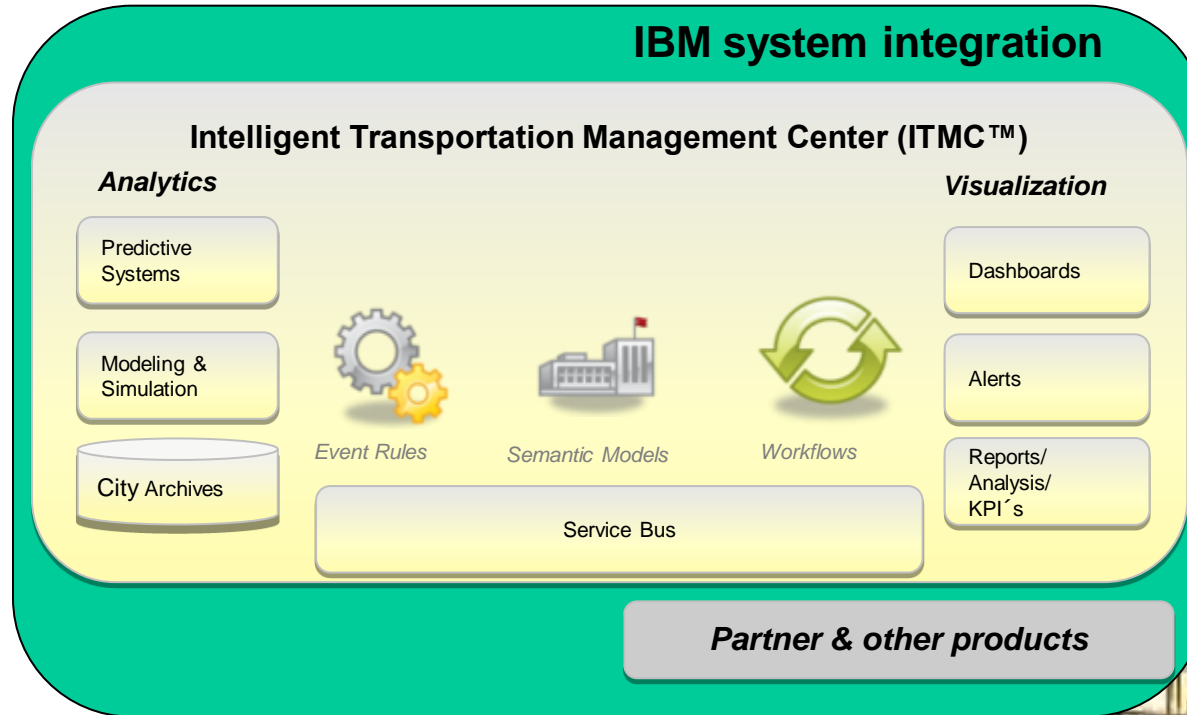
Benefits

Increased Revenue
Operational efficiencies
Reduced Costs
Economic Vitality

- **Awareness:** Leverage real-time visibility across city data sources
- **Anticipate:** Proactively identify problems to mitigate impact to services
- **Act:** Coordinate cross-agency operations to drive better business outcomes



Intelligent Transportation Management Center (ITMC™) connects & displays all sensor Data

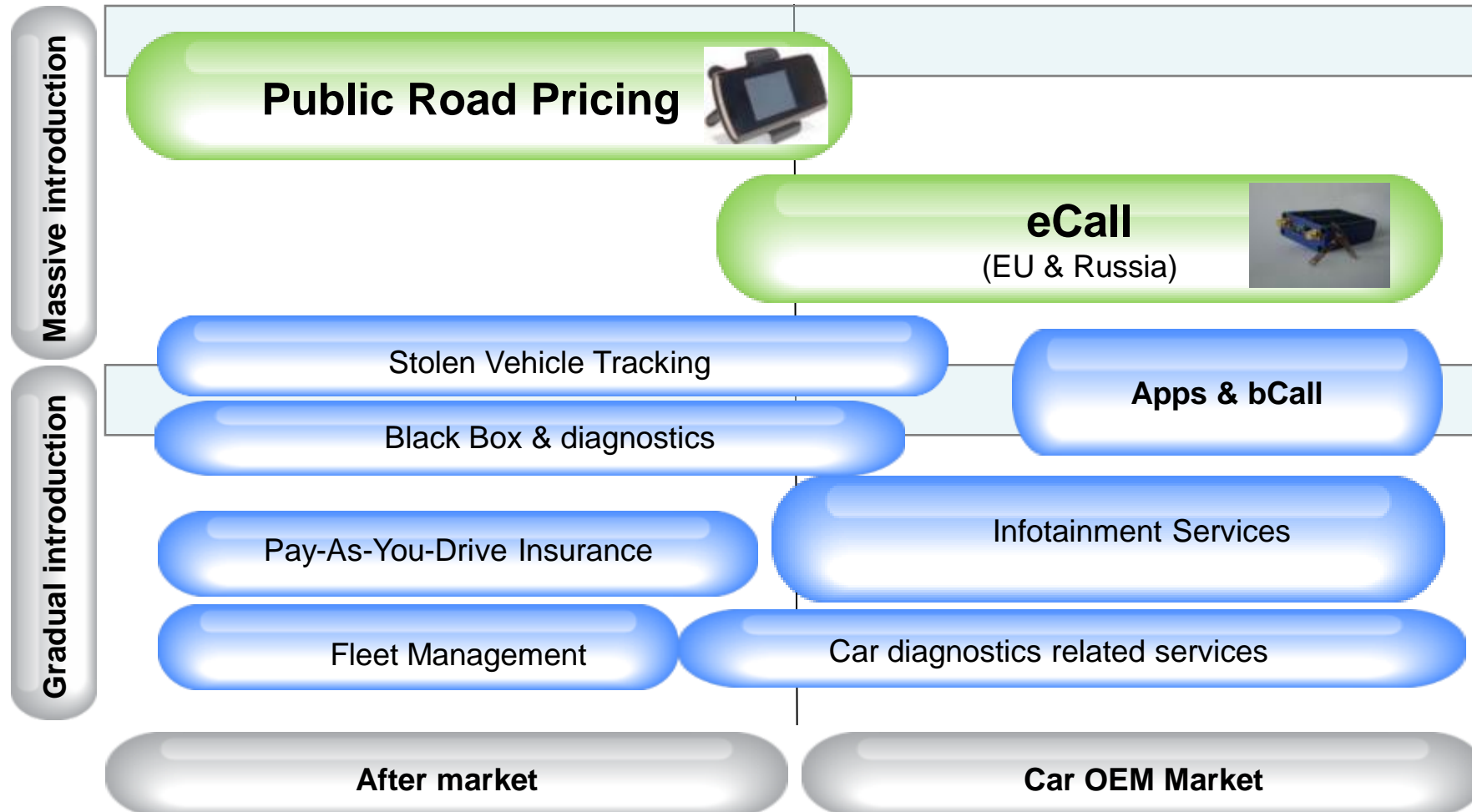


- Open Standards based (Interfaces)
- Component based architecture
- Open Data Integration
- Cross-Agency/domain Collaboration
- Domain & Cross Domain Analytics
- Visualization



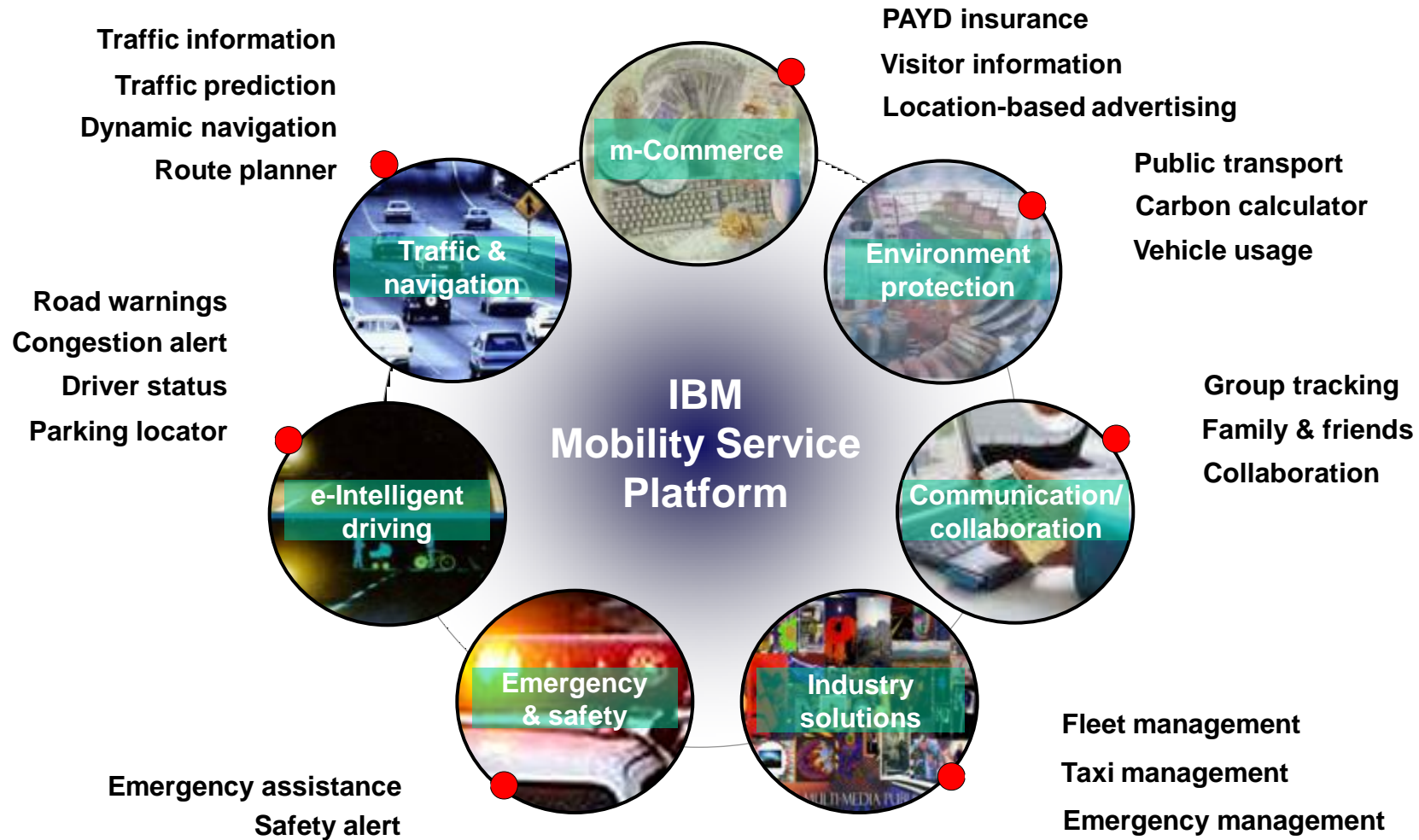


Government enabled markets kick-starts profitable GPS Value Added Services for Transportation & Automotive





New technology's enable many potential value-added services

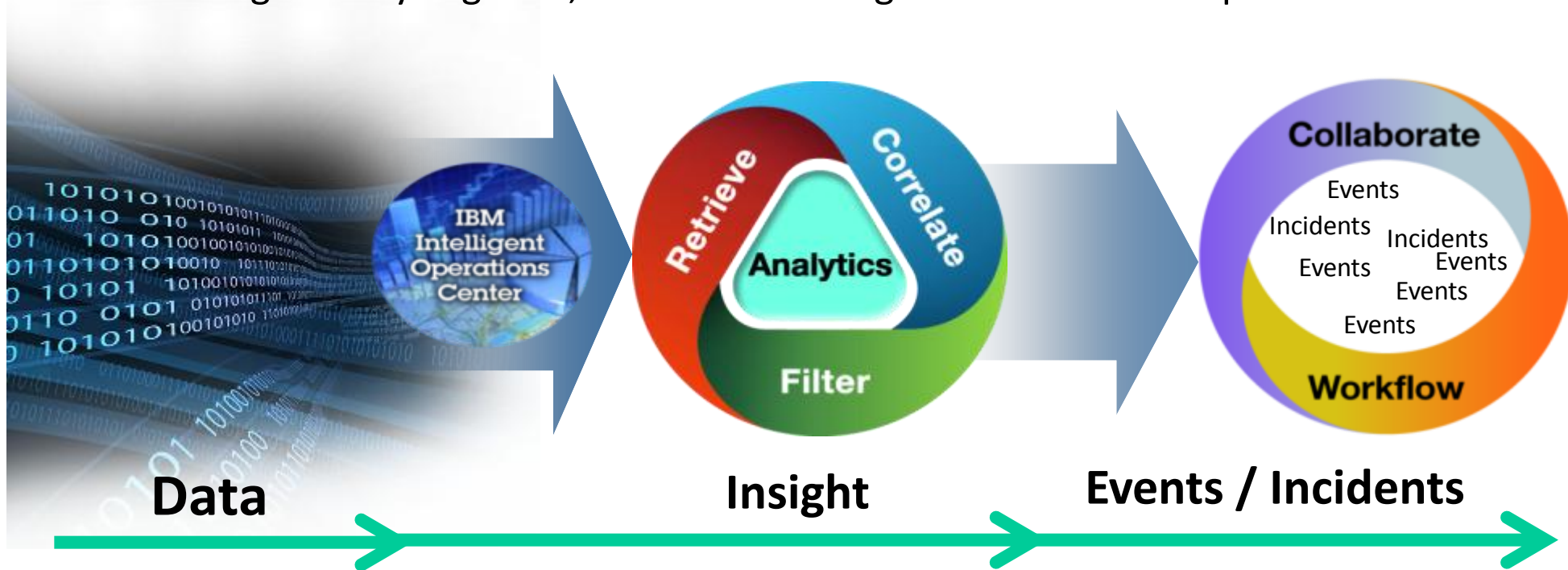




IBM Intelligent Operations Center for Smarter Transport

Based on 2400 engagements with municipalities...

Collecting & analyzing data, while automating a collaborative response



One platform, many use cases:



Transportation



Public safety



Water



**Health &
Social welfare**



Energy & buildings



Stadiums, Airports

