



**Interagency Coordination: The Largest ITS Deployment in Europe
(supporting SMART grant success)**

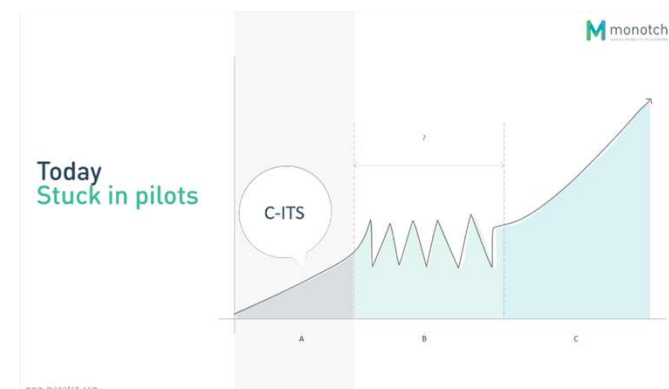
ITS Texas Annual Meeting
Thursday November 16, 2023

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Today

Digital infrastructure
Connected mobility

Lack impact



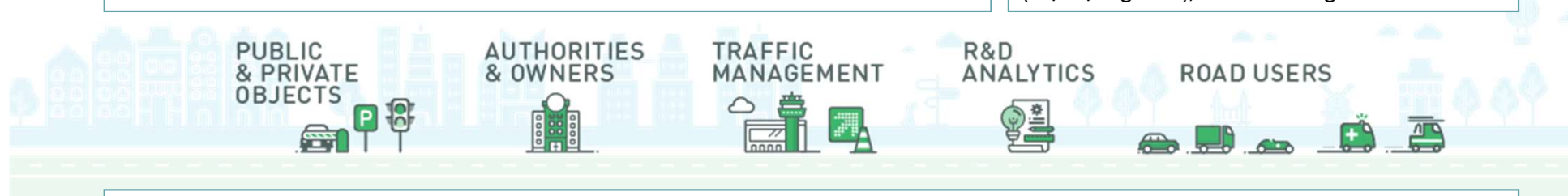
The Ecosystem

Multi stakeholder eco-system:

authorities, industry, traffic management, OEM's, R&D etc

Many data providers and consumers:

e.g. roadside systems, road users and fleets (PT/EV/Logistics), traffic management centers



Use-cases are now standardized, tested and proven:

e.g. Signalized intersections, In-vehicle signage, Probe vehicle data, Hazardous Location Notification, Road works warnings

Technical obstacles:

e.g. identification, security, data quality, latency

GOVERNANCE



C-ITS APPLICATIONS

Organizational obstacles:

e.g. governance, privacy, standardization

These challenges require a platform, capable of handling real-time data in a multi-stakeholder eco-system

Monotch Makes Traffic Talk

Monotch realizes societal benefits and cost effectiveness for cities and authorities by connecting mobility and digital infrastructure



Ready to use

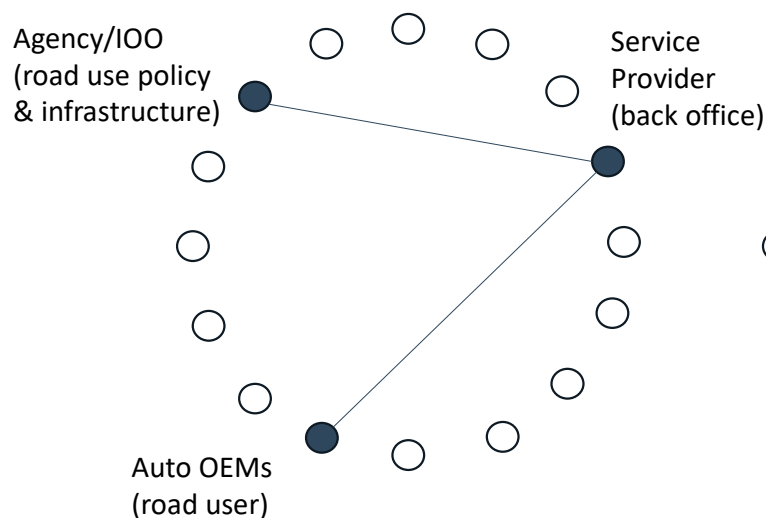


Always available

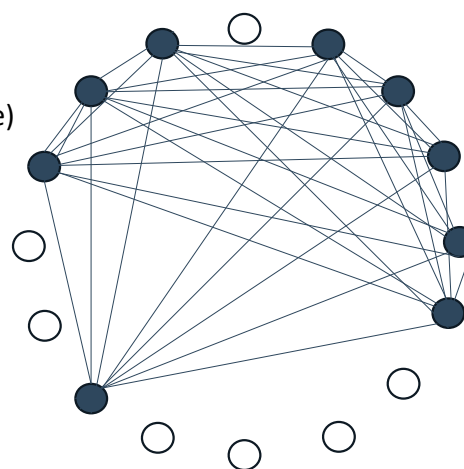


Secure

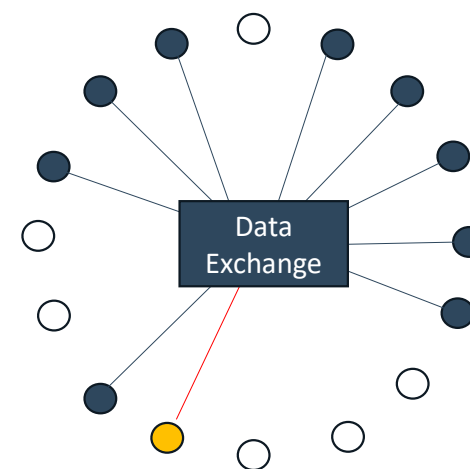
Bi-directional Sharing = Interagency Success



- One agency, one service, one fleet**
- Approaching Emergency Vehicle



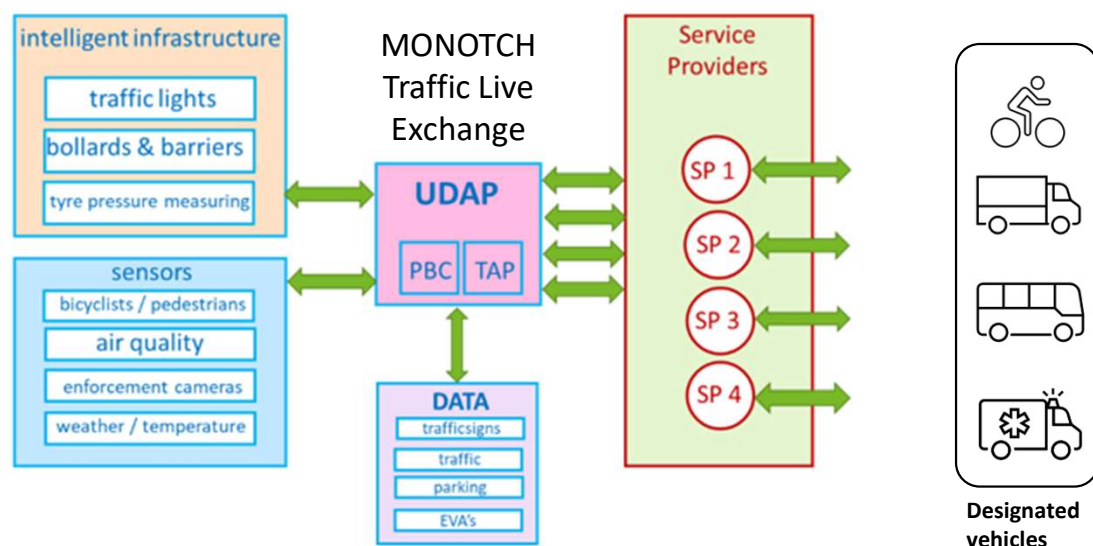
- Three agencies, five services, one fleet**
- Approaching emergency vehicle
 - Work zone warning
 - Emergency vehicle preemption
 - Wrong way driving
 - Accessible pedestrian warning



- n agencies, n fleets**
- Same use cases
- Add stakeholder w/ a single connection & permission settings**

Monotch in Production

Traffic Live Exchange – The Netherlands



TODAY'S SERVICES (* at launch)

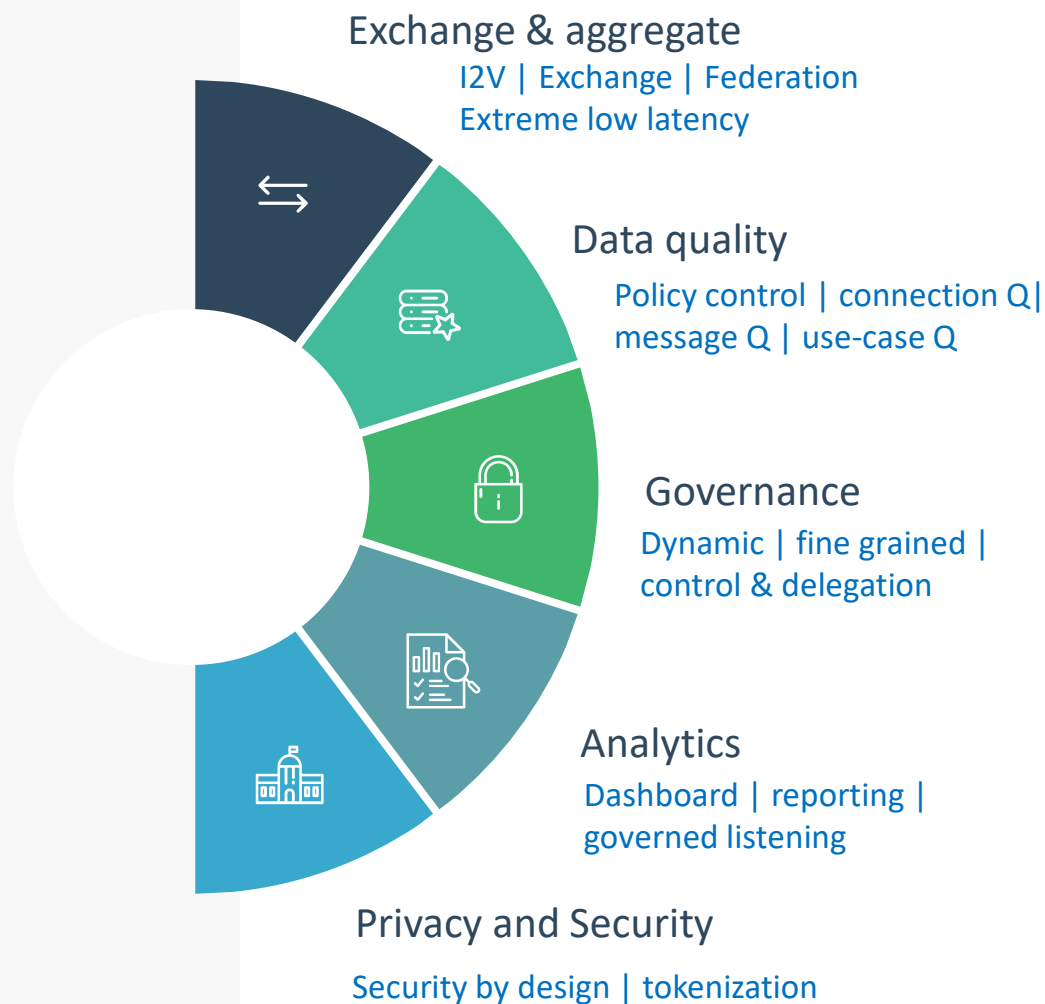
- TLC Status*
- Emergency Vehicle Preemption*
- In-vehicle display speed limits
- Traffic Flow Optimization*
- Safety messaging "Approaching"
- Cyclist (VRU) Awareness
- TLC Priority for Designated Fleets
- City Center Access Control
- Variable Message Signs
- Bridge Status (up/down)

- 60 agencies + private companies, accelerating deployment
 - Exchanging 1.4Bn messages per day (July 2023)
- All parties have the ability to consume and share data
 - 30% controllers nationwide sharing topology, status, processing priority requests
 - 25%(2.2M of 8.6M) vehicles
 - 75% (600 of 800) ambulances; 20% (400 of 2500) fire trucks

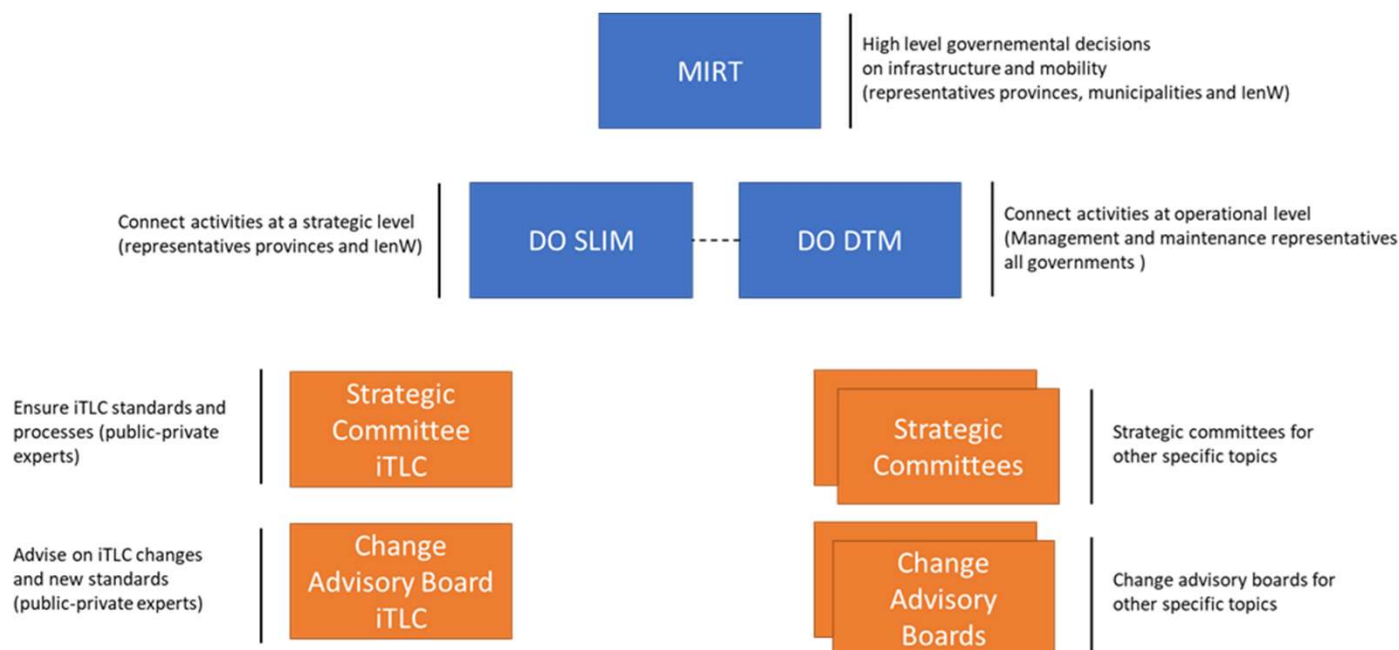
Interagency Enablement: Technology

- Modular software
- Based on open standards and interoperability
- SaaS, private cloud or on-premise

The proven foundation for connected mobility and digital infrastructure



Interagency Enablement: Governance



Guiding: strategy, public/private engagement, standards, change control

Prepare infrastructure for connected and autonomous mobility

Regulate city access

Decarbonize transport

Protect vulnerable road users

Reduce installation and maintenance costs

Get (real-time) insight in actual traffic

Inform road users about hazardous situations

Improve traffic flow urban areas

Ensure timeliness emergency services and public transport

TLEX supported Agency challenges

Where to find us



The Netherlands: UDAP

Large scale production grade environment / deployment. Procured by Ministry of Transport for all road authorities (cities, regions, highways)

Copenhagen and Trondheim:

Successful C-ITS Traffic Light pilots with cities and OEM's.



Finland: TLEX

Pilot environment. Procured by Finntraffic and Tampere for C-ITS traffic light use-cases

Sweden: Nordic Way 3

Pilot environment. Used by Trafikverket and cities for broad set of C-ITS traffic use-cases (RWW, IVS, TLC, EVA)



Flanders, Belgium: Mobilidata

Large scale production grade environment / deployment. Procured by AWW, used on highways and in cities



Partners / build-up

UK, DACH region and US



TLEX impact

- Reduce integrations and technical complexity
- Break open silos so data can be used for multiple purposes
- Automated data quality control leads to reliable and valuable data for service providers and car OEMs
- Facilitates both pilots as well as large scale deployment; proven and affordable
- Comes with an eco-system of vendors and service providers, built on interoperability

More Information

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Webinar

Thursday Dec 7

10PT/12CT/1ET



<https://www.monotch.com/webinar-december-7-2023/>