



New traffic management and information system for the TMC service in Norway

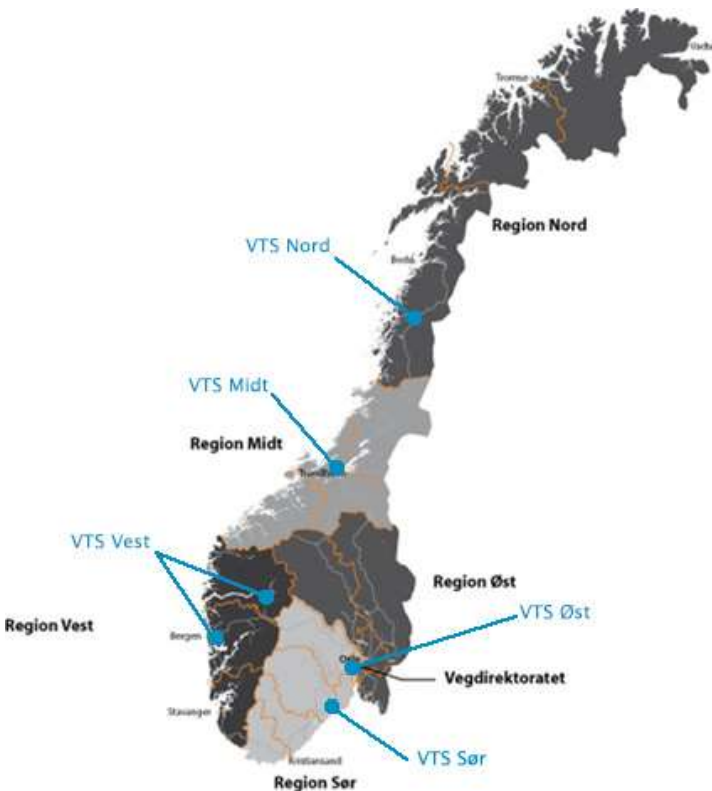
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The Traffic Management Centres i Norway:



- The NPRA has 5 Traffic Management Centres
- A national service, with regional organization
 - Traffic and incident management
 - Traffic information
- 24/365 operation
- 140 traffic operators (3 shifts)

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Definition of the word «Incident»

- *«An incident or a situation on, or by, the road, that might have negative impact on the traffic, and can lead to traffic jams or delays, or elevated risk for accidents»*

Handle
technical
malfunctions

Handle
unforeseen
incidents on
the road

Handle
deviations
in ferry
traffic

Handle
planned road
work

Handle
traffic
incidents

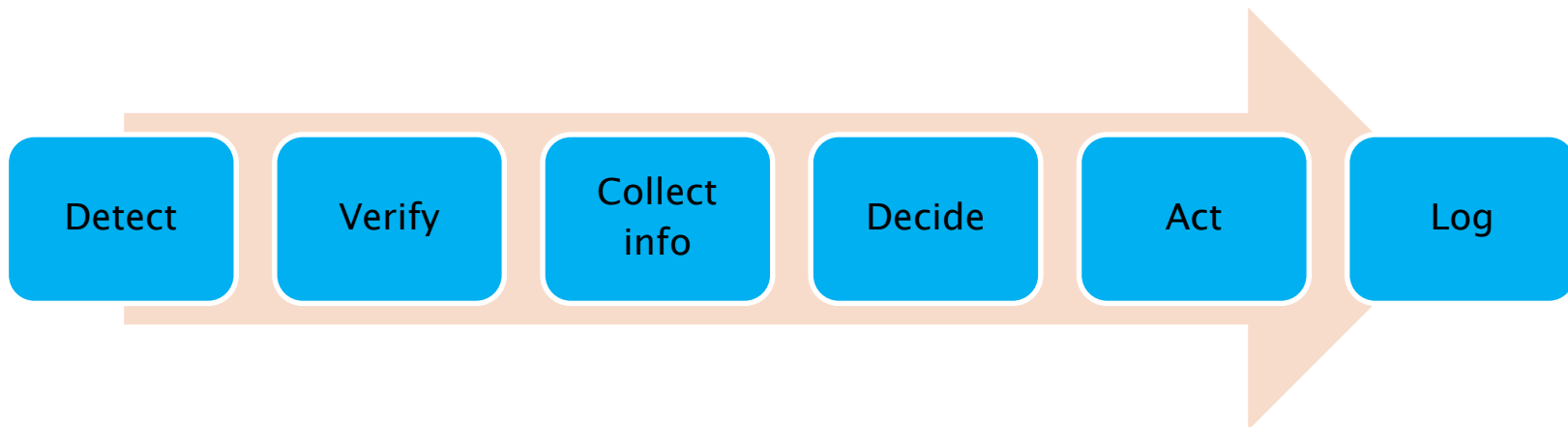
Handle
deviations
in driving
conditions

- This categorization is according to international standard
- (DATEX II –The standard for ITS on European Roads)



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The incident management value chain, from the time an incident is detected until the normal status is reestablished



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More about the «Act» activities

- Notification to Police etc.



- Control (of the road-side traffic installations)



- Information to the public





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Some objectives of the VTS 2020 project:

- Deliver the new TMC system.
- The new TMC system will manage an incident throughout the complete value chain, integrated with related systems, like SCADA.
- Standardized management of events (e.g. alarms, failures, incidents) and visualization of status information.
- Contribution to better and more standardized education and training of the traffic operators
- The result of the project will contribute to higher efficiency and increased quality of the TMC services
- – which will improve the traffic safety and emergency preparedness at the national level

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Some features of the new solution:

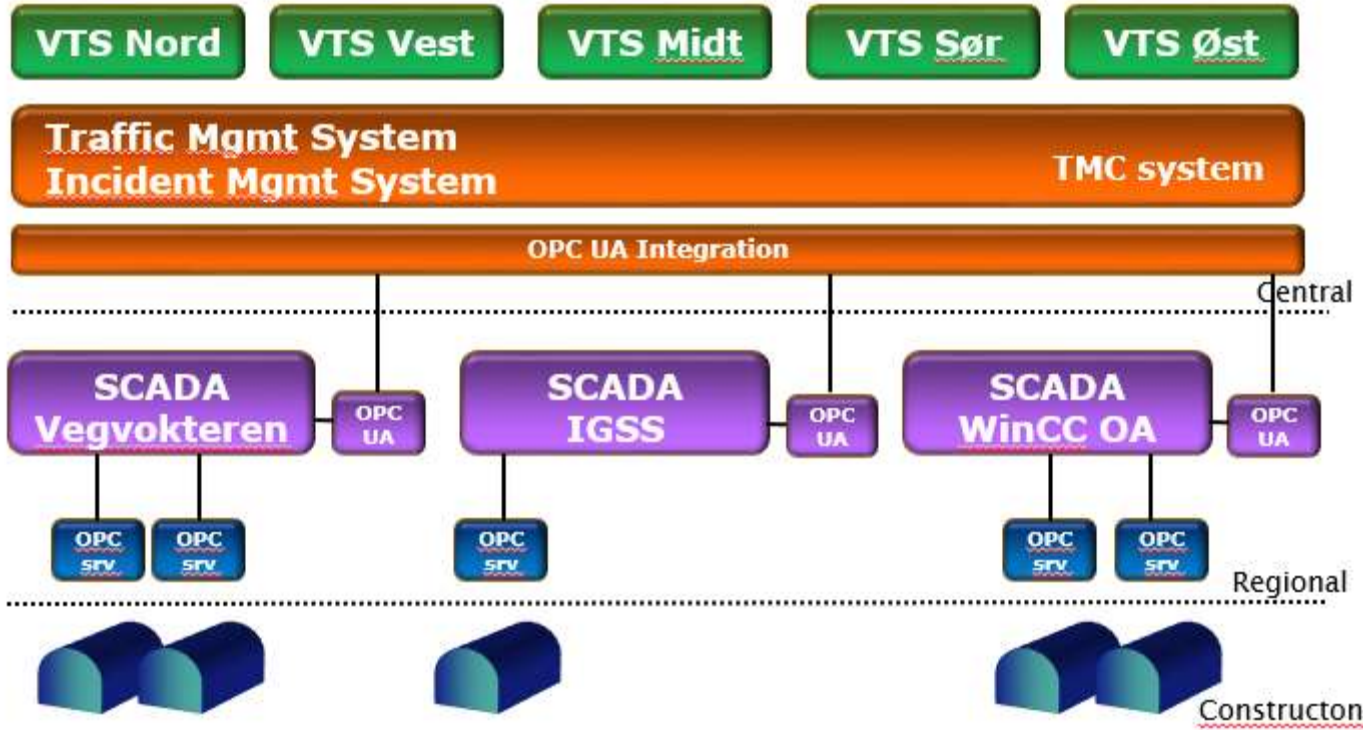
- Information about the incident and the incident site is collected automatically by the system.
 - The information is being used both by the Traffic Control Service and by the Traffic Information Service (via DATEX).
 - GIS module. Visualization of position etc. in maps.
- The system offers correct contact information about the relevant collaborators to the traffic operator, according to the type and site of the incident.
 - Integration with the Telephone system, including SOS-phones
 - Integration with IP-based video management system
- The system guides the traffic operators in their decision making throughout the incident management.





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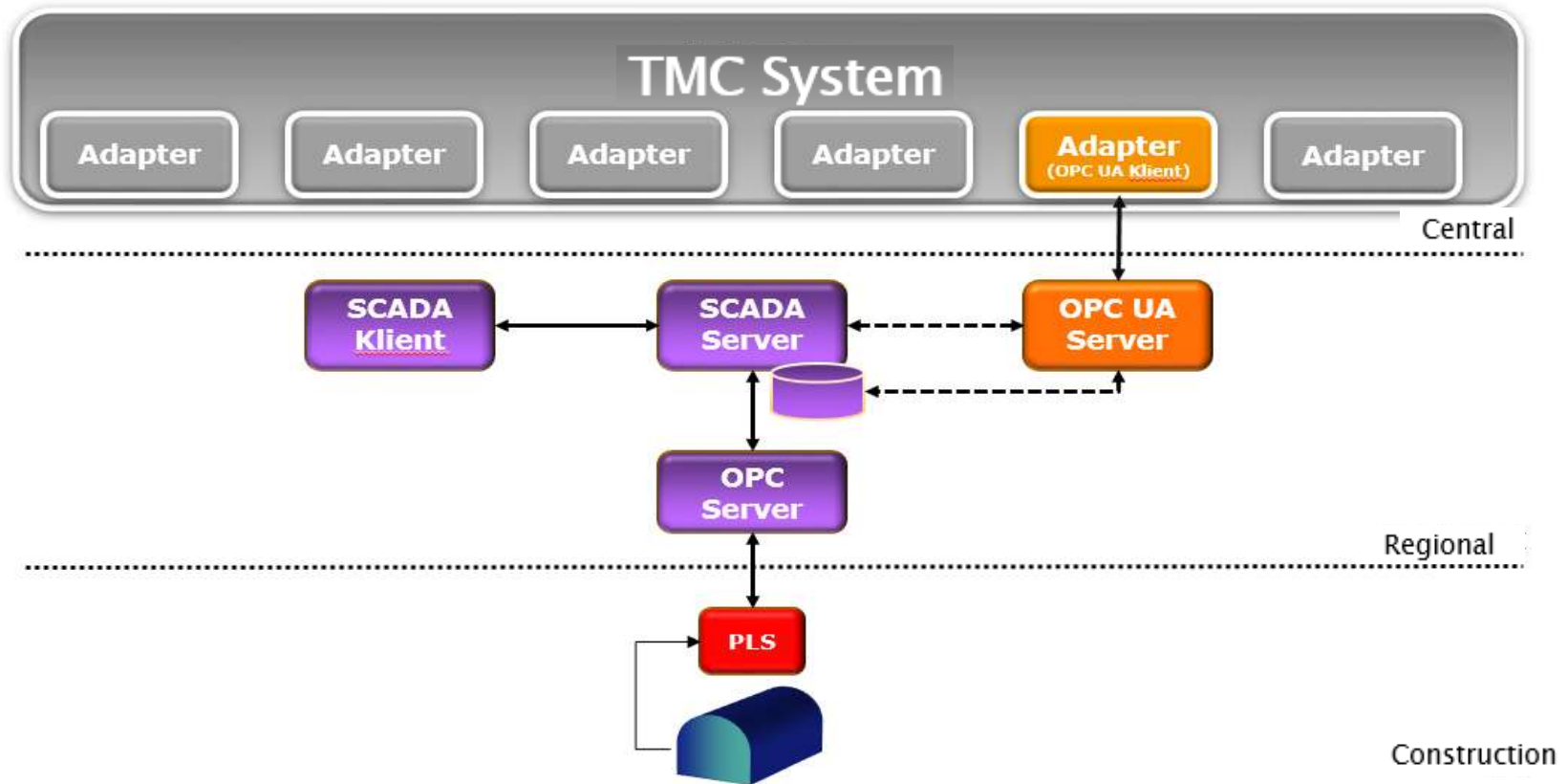
System overview (VTS = TM Centres):





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Solution design, OPC UA:



The solution development:



- The TMC solution is being developed in cooperation with the Swedish Public Roads Administration (Trafikverket).
- The design and development is done «in house», managed by ourselves.
 - This gives a solution that is tailor made to meet the requirements from the swedish and norwegian Traffic Management Centres.
- The solution is designed and prepared for future development, to exploit new and interesting functionality and services, based on future needs, and future results from the «ITS area».
- We are about half way in the delivery of the TMC solution.
- «Go live» planned in 2020.



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The TMC's contribution to safety on the roads:

- The TM Centres and the TMC solution manage every incident that may reduce the availability of, and the safety on the roads (including in the tunnels).
- For the solution to be able to deliver this service “24/7”, the solution must fulfill tough requirements when it comes to:
 - IT security
 - Availability
 - Performance and capacity
 - Robustness
 - Etc, etc





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Statens vegvesen

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