



# Traffic Control

# We Bring Streets into Action

## REFERENCE

### Traffic Centres NRW

Regional Authority for Road Construction in  
North-Rhine Westphalia



## SAMPLE PROJECT

→ Traffic control in all its facets:  
29 active traffic management systems with approx. 600 VMS gantries,  
85 ramp metering facilities,  
60 variable rerouting signs

Two traffic control centres (TCC) perform supervisory control tasks in NRW. The TCC for the Rhineland region is located in Leverkusen. The TCC for the Westphalia region is in Recklinghausen.

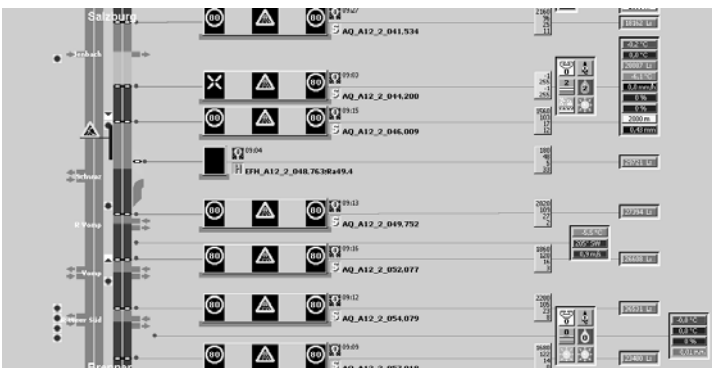
All of the information from the nine Rhineland, the ten Westphalian subcentres and one cross-border subcentre is fused in the two control centres. Besides being used for the original tasks of the TCCs (i.e. preparation of all data for visualisation and control of each management system), this information is used to generate NRW-wide traffic reports for the Regional Police Information Centre.

As central collection point for all traffic data in NRW, the control centres also act as data sources for service providers.

The systems have been in operation since the early 90s and have been continually expanded since then. Active traffic management systems are deployed to coordinate traffic and issue traffic jam warnings. Rerouting systems are provided to redirect traffic streams. Variable lane allocation facilities are employed for several highway interchanges. Ramp metering systems manage traffic entering the motorway and traffic jam alert systems warn motorists at known problem points.

# Dynamic Traffic Signs for Optimised Traffic Flows

- **Increase throughput**  
by coordinating traffic with active traffic management
- **Avoid overload**  
by traffic flow regulation at junctions and interchanges, temporary use of the hard shoulder
- **Increase safety**  
decrease the number of accidents by reducing critical traffic situations
- **Use most suitable alternatives**  
recommend alternative routes and inform motorist



## CHARACTERISTICS

### Active traffic management system

- automatic control, e.g. speed harmonisation, lorry overtaking ban (large lorry / car speed differences impede critical braking maneuvers)
- manual sign settings by the operator

### Ramp metering

- regulates motorway access at junctions and prevents entering vehicle clusters
- decreases negative impact on highly utilised main highways

### Temporary use of hard shoulder

- temporary use of the hard shoulder with attention to traffic safety during high utilisation periods
- cost benefits: IT-S deployment vs. road extensions
- graphical user interface with CCTV monitoring for quick response to incidents

### Variable lane allocation in intersections

- opening lanes in response to demand
- "Temposplit"

### Alternate route recommendation

- evaluation and signage of optimal routes in the network via additive and substitutive rerouting signs
- alternative:  
computation of travel times in the network and signage via variable message signs; motorist decide themselves