



XIII
INTERNATIONAL
WINTER ROAD
CONGRESS

QUÉBEC, FEBRUARY 8 TO 11, 2010



Québec 

SUSTAINABLE WINTER SERVICE FOR ROAD USERS

Methods to generate Information on
Weather- and Road Condition in Terms
of specific road sections online as well
as in the Vehicle for Driver and Traveler

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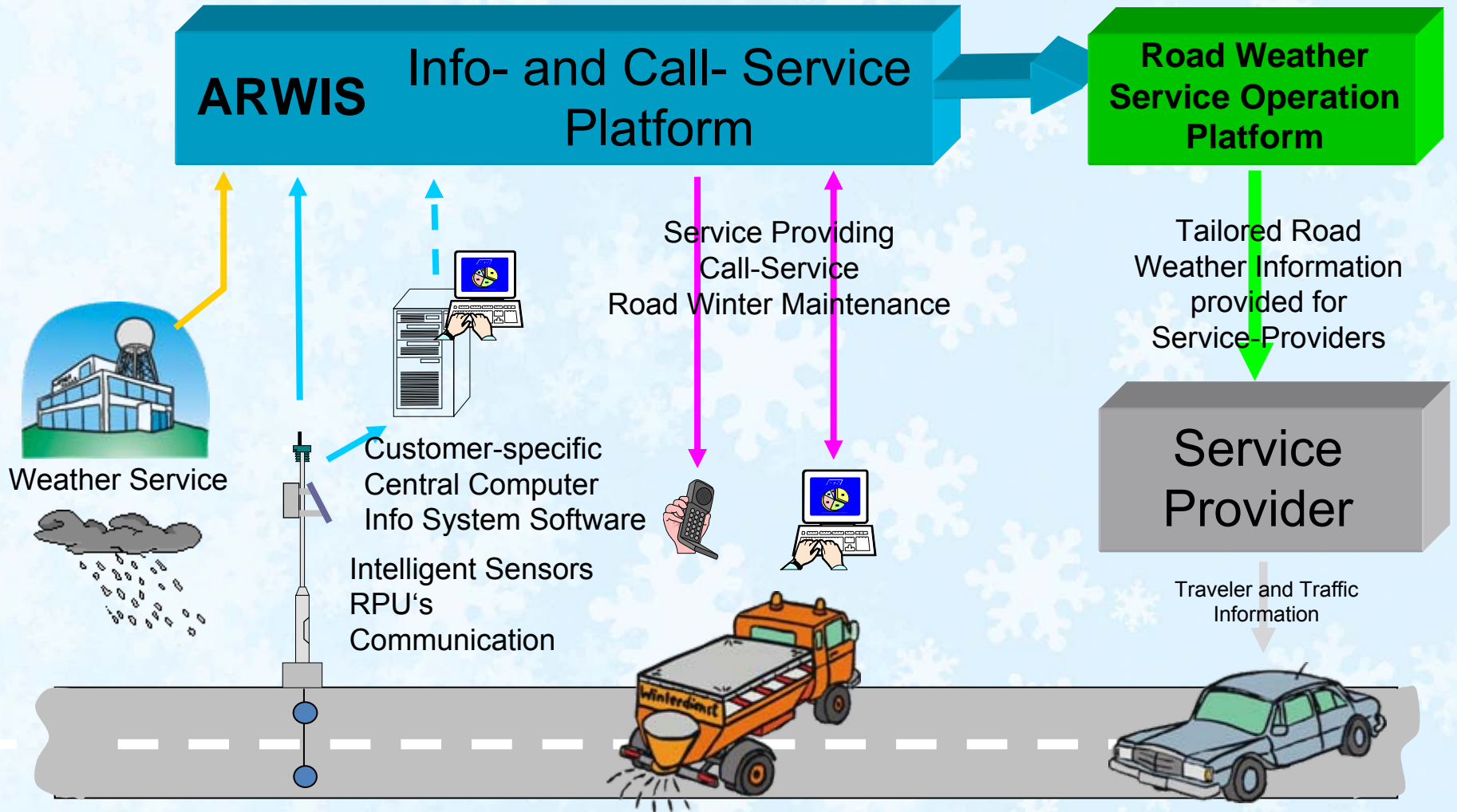
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The Road Weather Information Policy

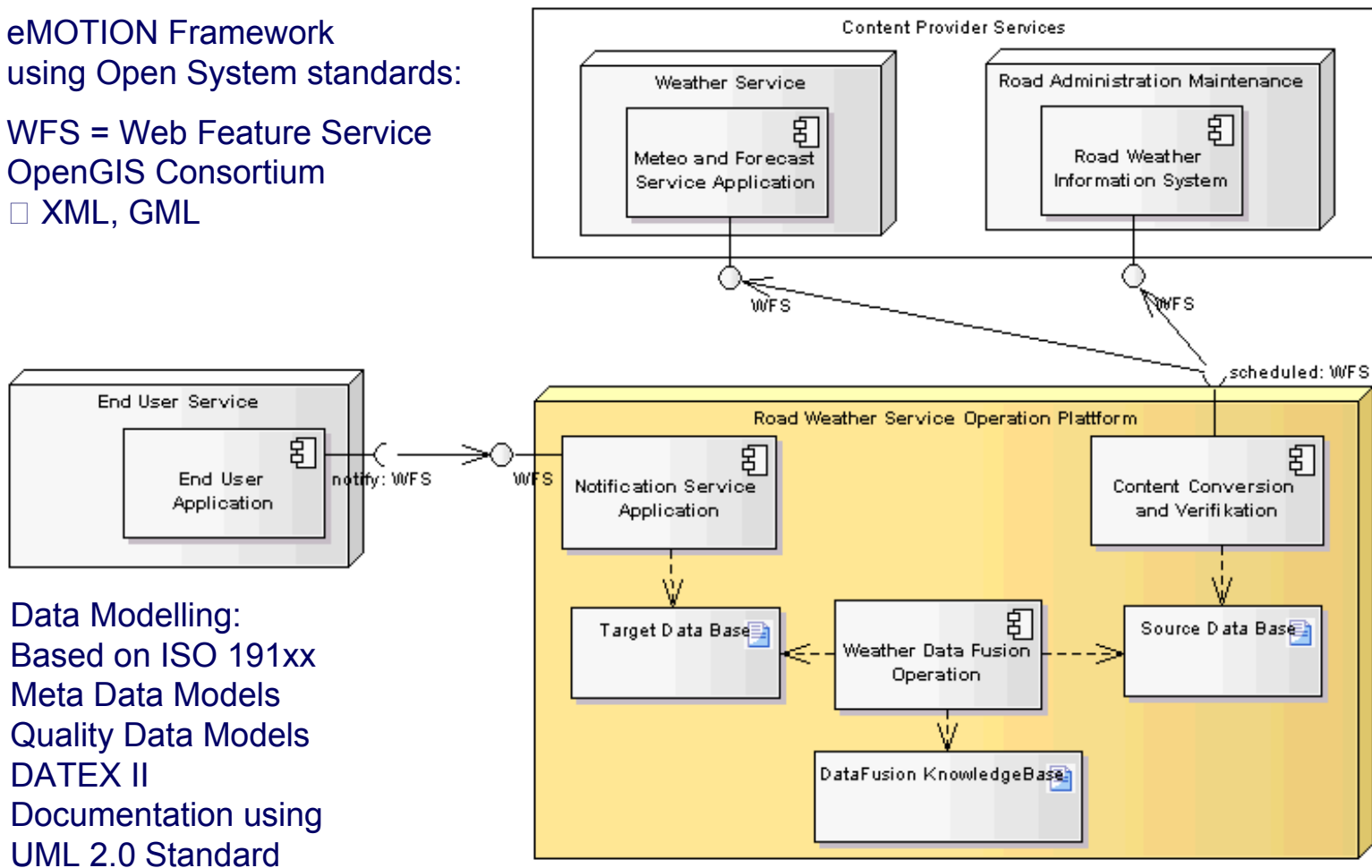


RWS-TTI Road Weather Service Operation Platform for Traveler and Traffic Information

emotion

eMOTION Framework
using Open System standards:

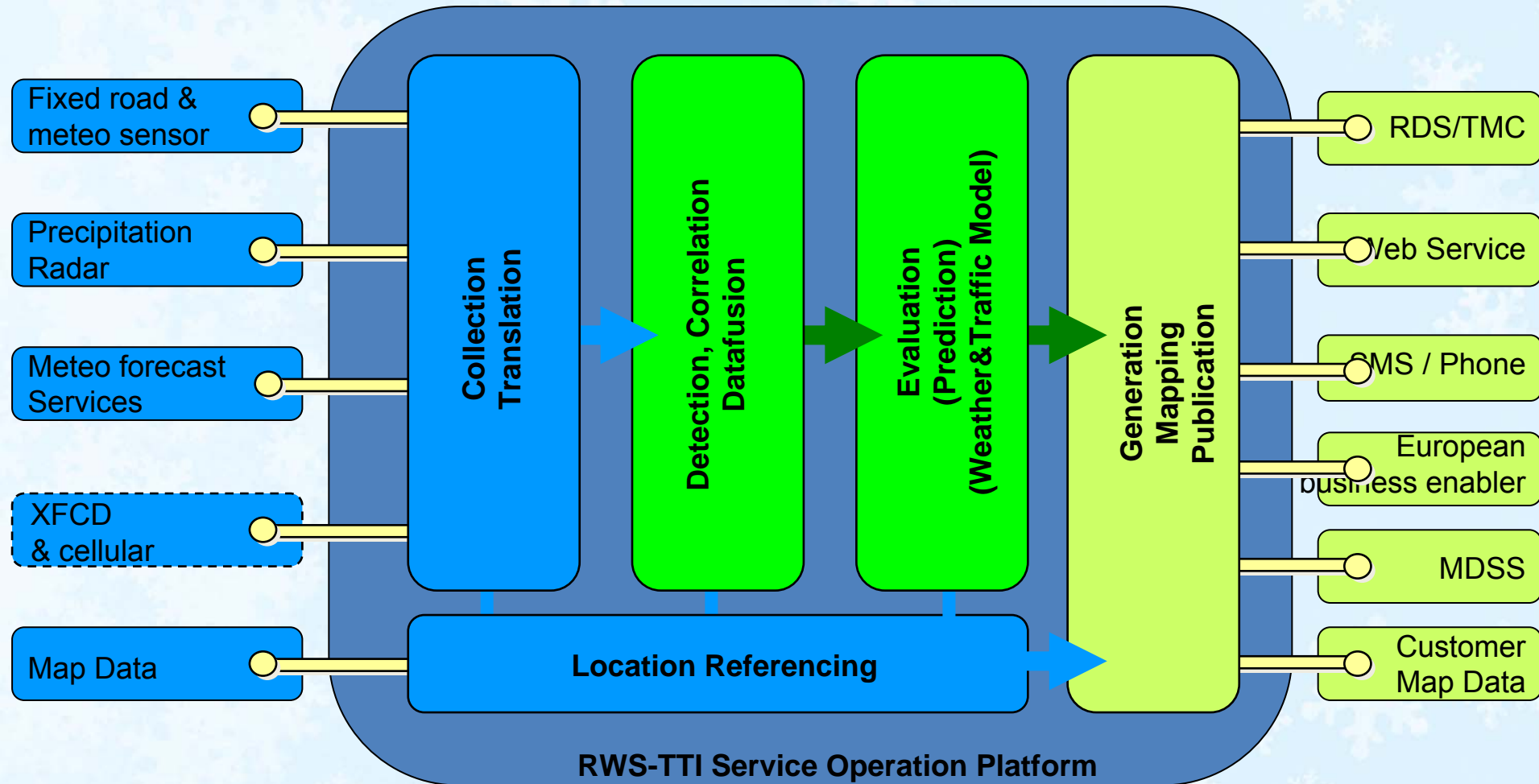
WFS = Web Feature Service
OpenGIS Consortium
□ XML, GML



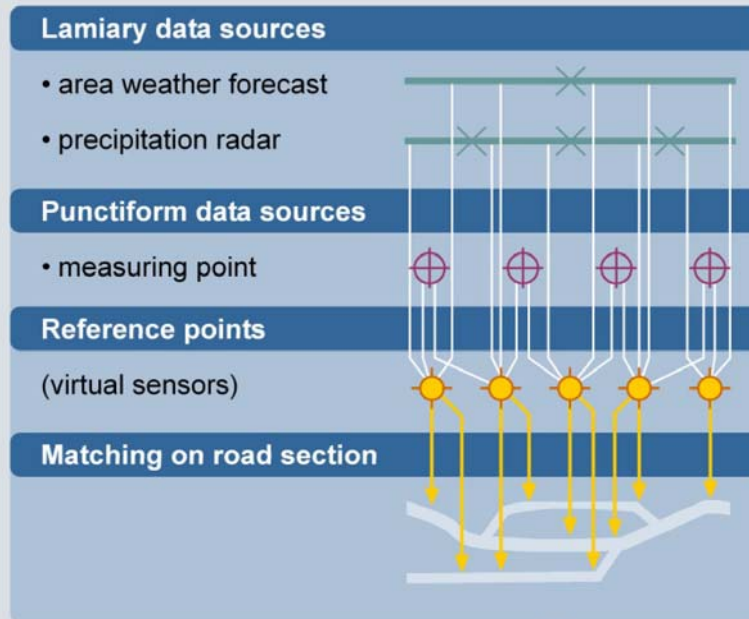
Data Modelling:
Based on ISO 191xx
Meta Data Models
Quality Data Models
DATEX II
Documentation using
UML 2.0 Standard



The Architecture of the Platform



Geographical and Meteorological Data Fusion Knowledge Base



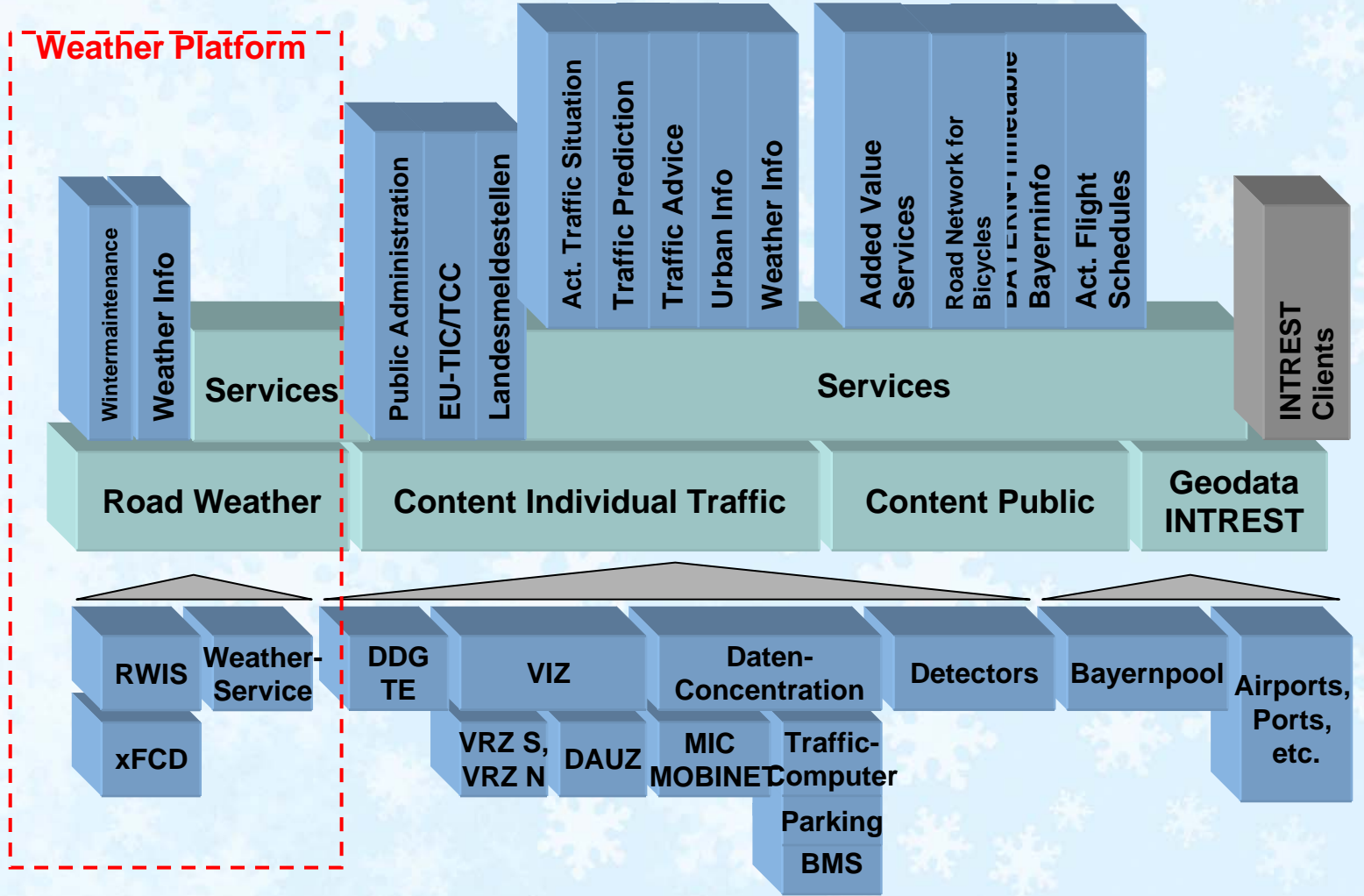
Different geographical referenced (laminary, punctiform, etc) Weather and Road Condition Data Sources with different actualization time schedules as well as event driven Data are processed to generate accurate high resolution Road Weather Information by means of a Data Fusion Matrix = Knowledge Base

VIB The Bavarian Traffic Information Agency

The Weather Platform



VIB Traffic Information Agency



VIB www.bayernInfo.de Front End

Road link referenced TMC Weather Warnings

BayernInfo Ihr aktuelles Infoportal rund um Reise und Verkehr

Oberste Baubehörde im Bayerischen Staatsministerium des Innern

Deutsch | English | Kontakt | Direktlink

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Name: Passwort: [Anmelden](#) [Registrieren](#)

Flächendeckende Verkehrslage und Prognose

Aktuell **Prognose**

Karte:

[Aktualisieren](#)

Meldungen im gewählten Bereich

E52	Schneematsch	19:58 Uhr
A8 E45 E52	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
A995 E54	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
A8 E45 E52	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
A99 E52	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
A995 E54	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
A9	Stellenweise Gefahr von Schneematsch	bis 23.02.2009 19:58 Uhr
	Stellenweise Gefahr von	bis 23.02.2009

[weitere Verkehrsinformationen](#)

23.02.2009 19:43

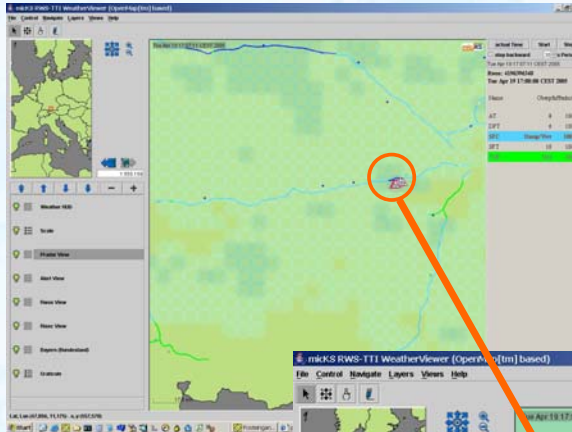
München

Legende

- frei
- dicht
- stockend
- gestaut
- Meldung

© PTWINAVTEQ/ANDYINFREEST

Example of an authentic situation



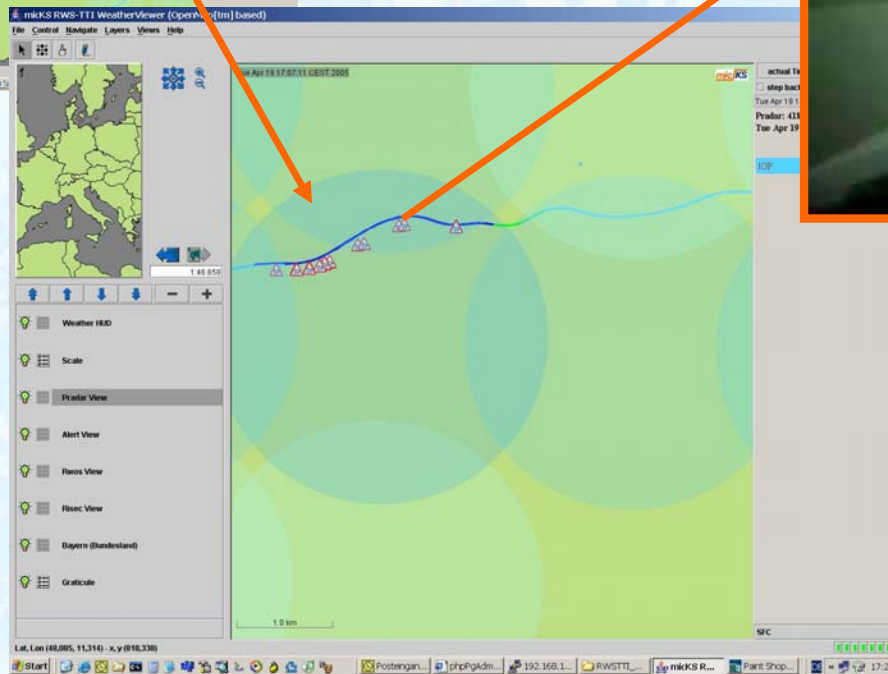
ALERT-C Message:



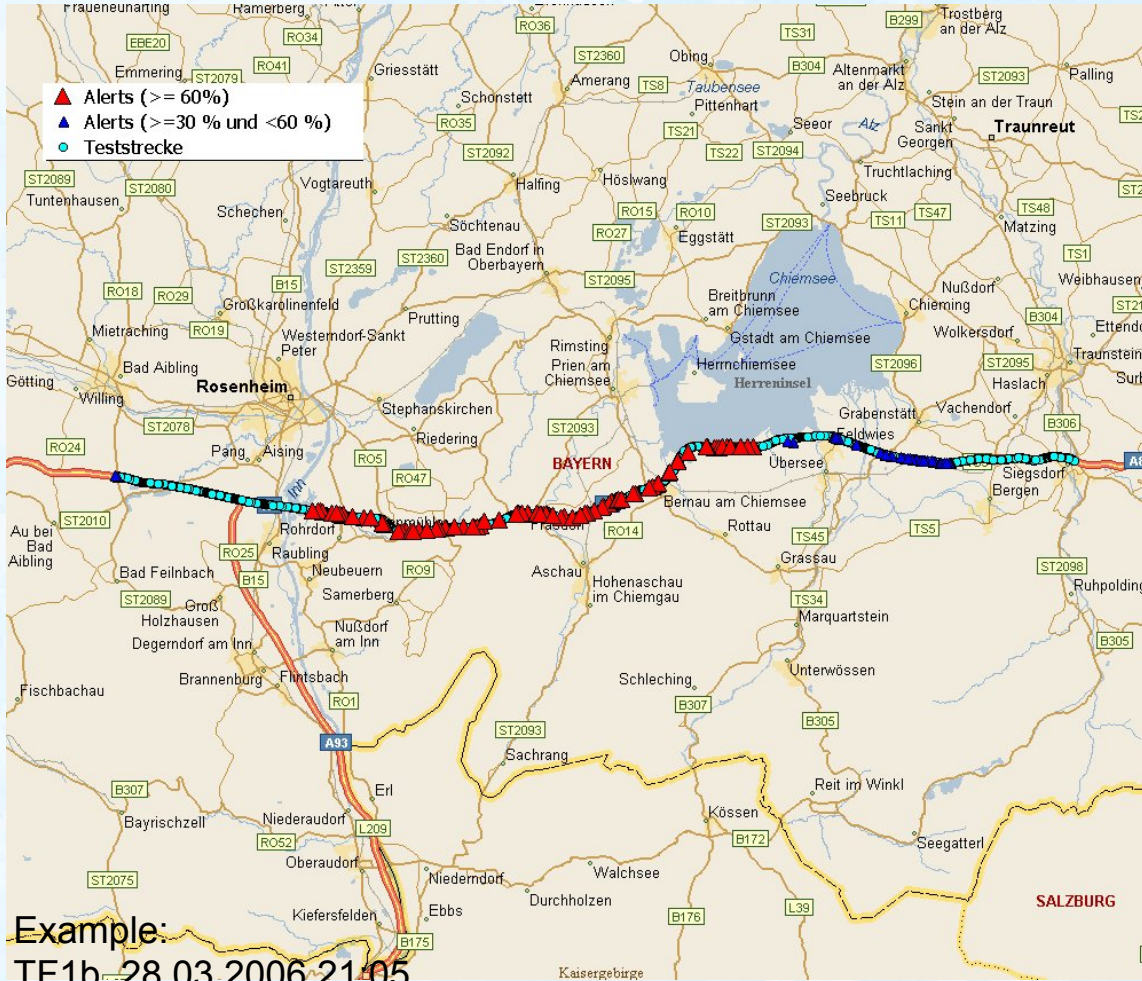
Precipitation



2005 April 19. 17:00
A96 / Oberpfaffenhofen



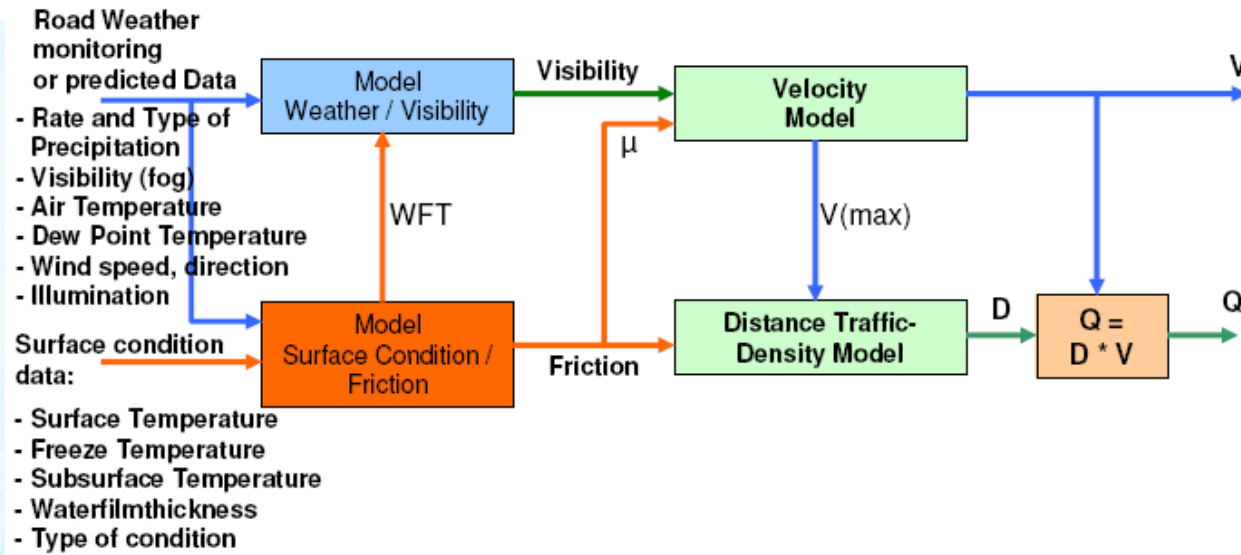
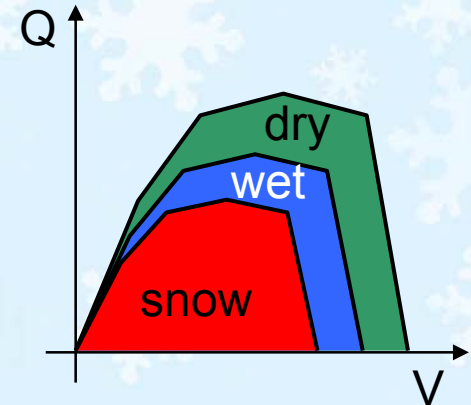
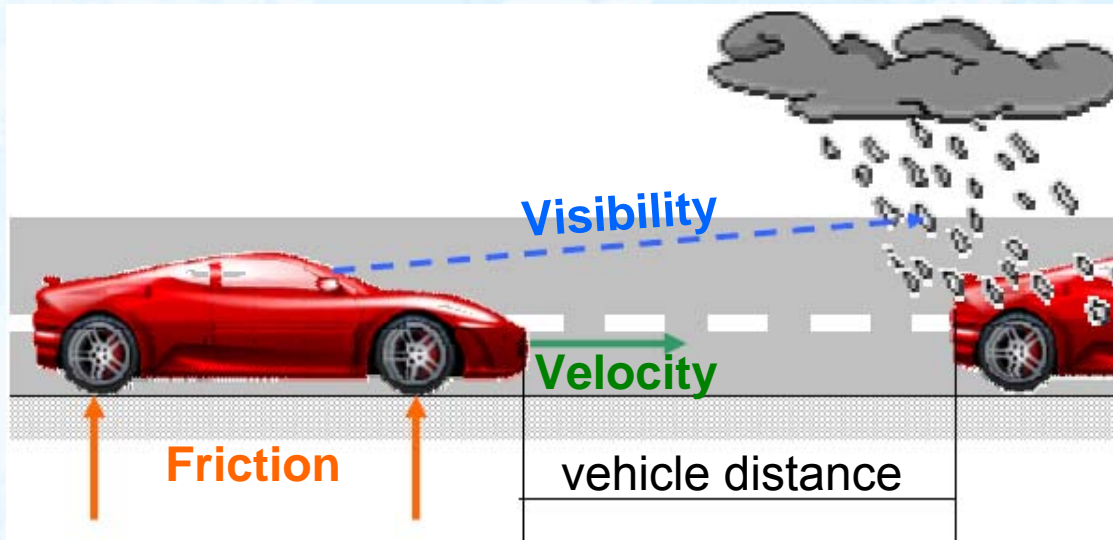
Quality management by means of XFCD observation tours



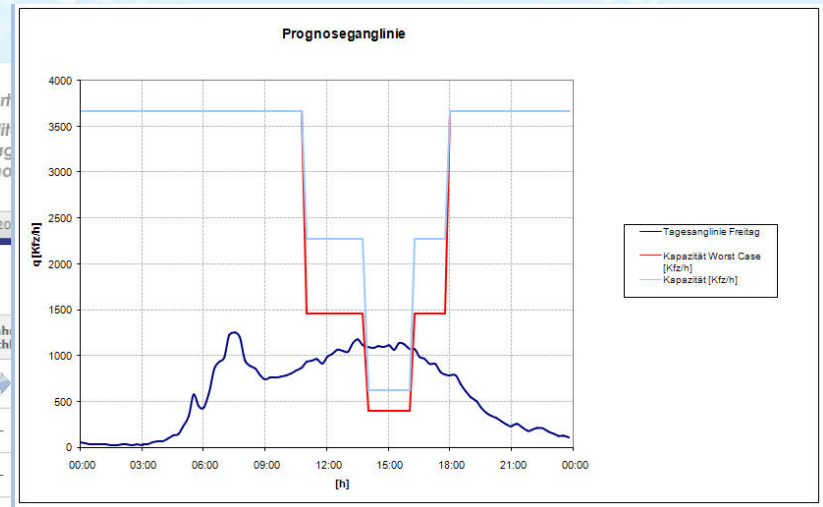
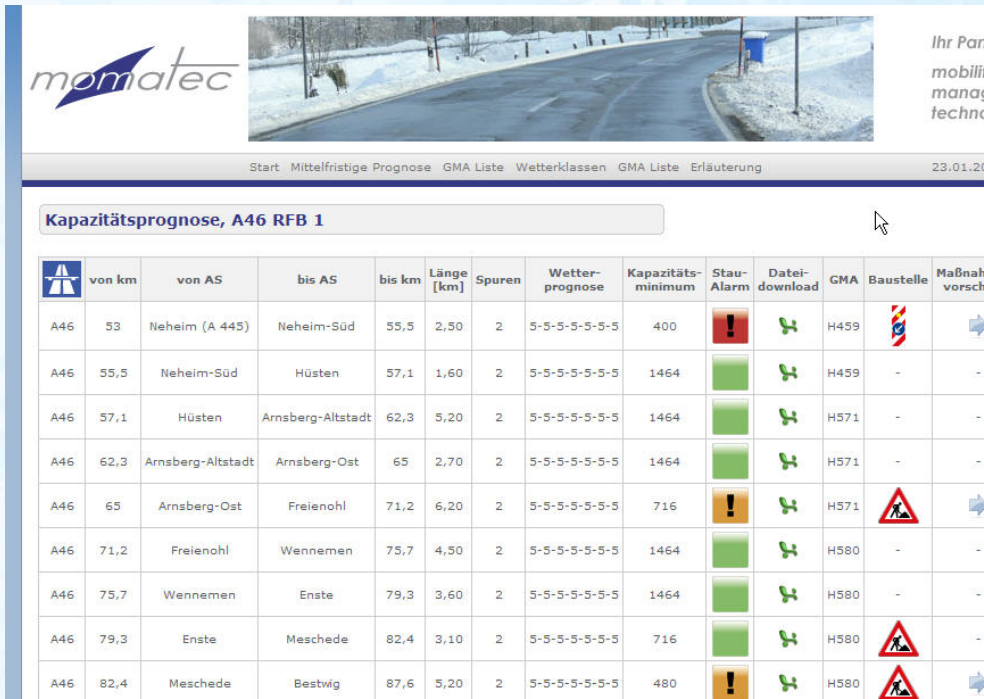
To meet the high requirements of a premium service, a constant, automatic quality measurement and evaluation takes place which is based on defined quality scores for message and service quality. For that purpose, data from surveying and probe collecting tours by XFCD vehicles from BMW are summoned.

	Q-Kennzahlen		
	Idealwert	30%	30%
		Aquaplaning	Regen
K	100%	99%	83%
KE	100%	100%	83%
KF	0%	0%	17%

Modeling Road Weather impact on Traffic Flow



Maintenance Decision Support Application congestion prevention at winter maintenance





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Thank you for your attention

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 **Lufft**  **micKS**