

Quality of on-line Traffic Information

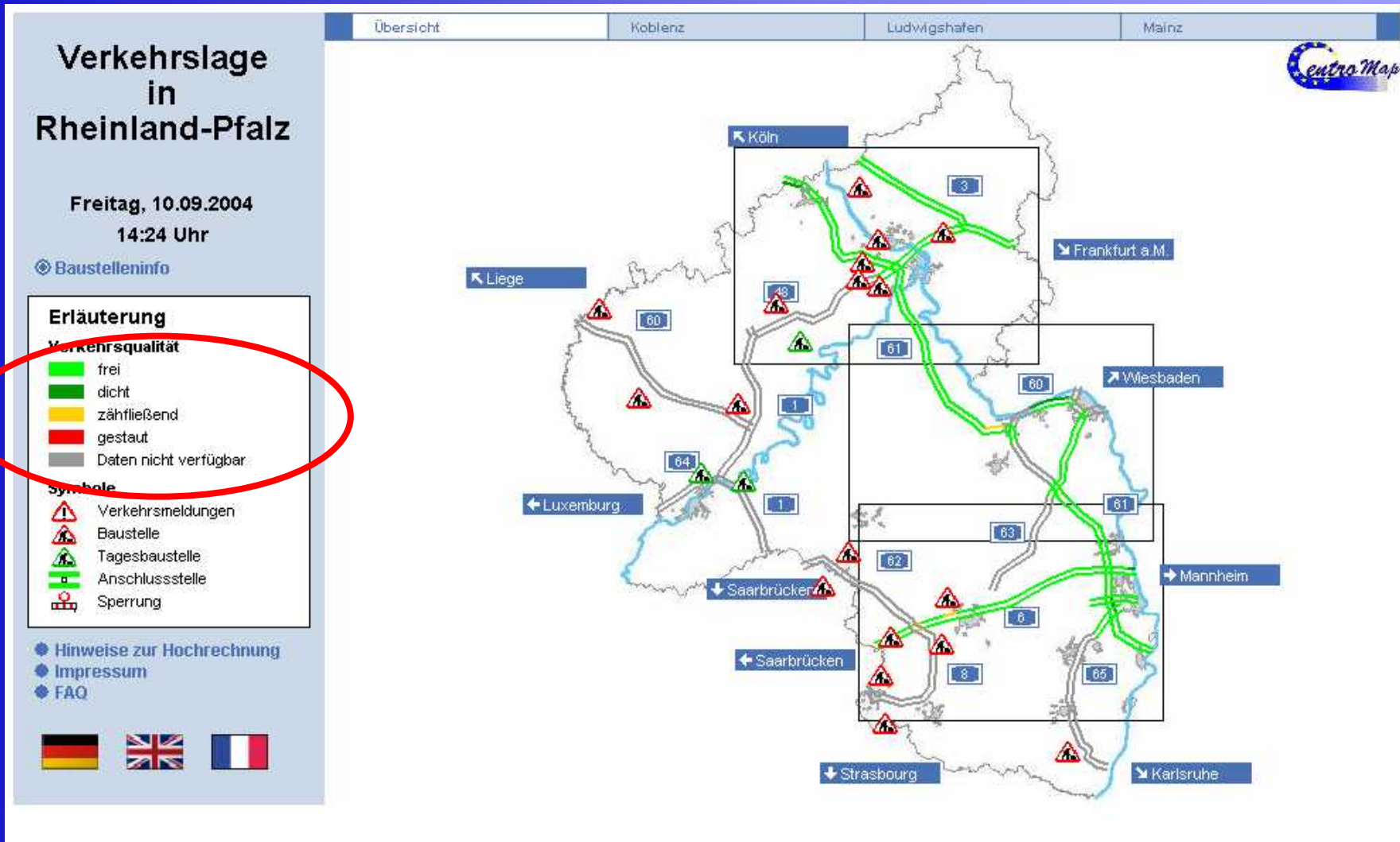
by Guido Schuster, Dr.-Ing.

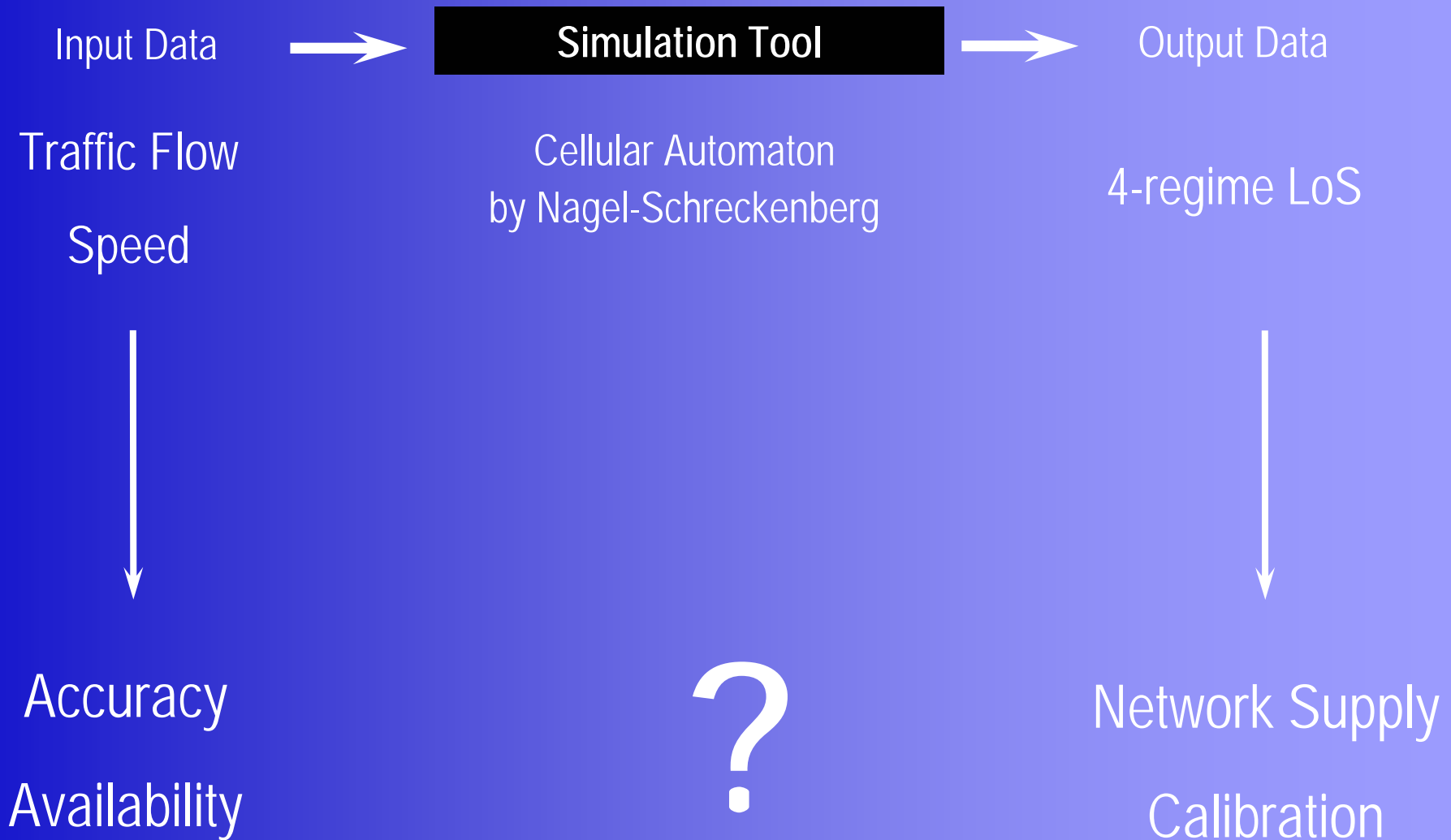


Outline

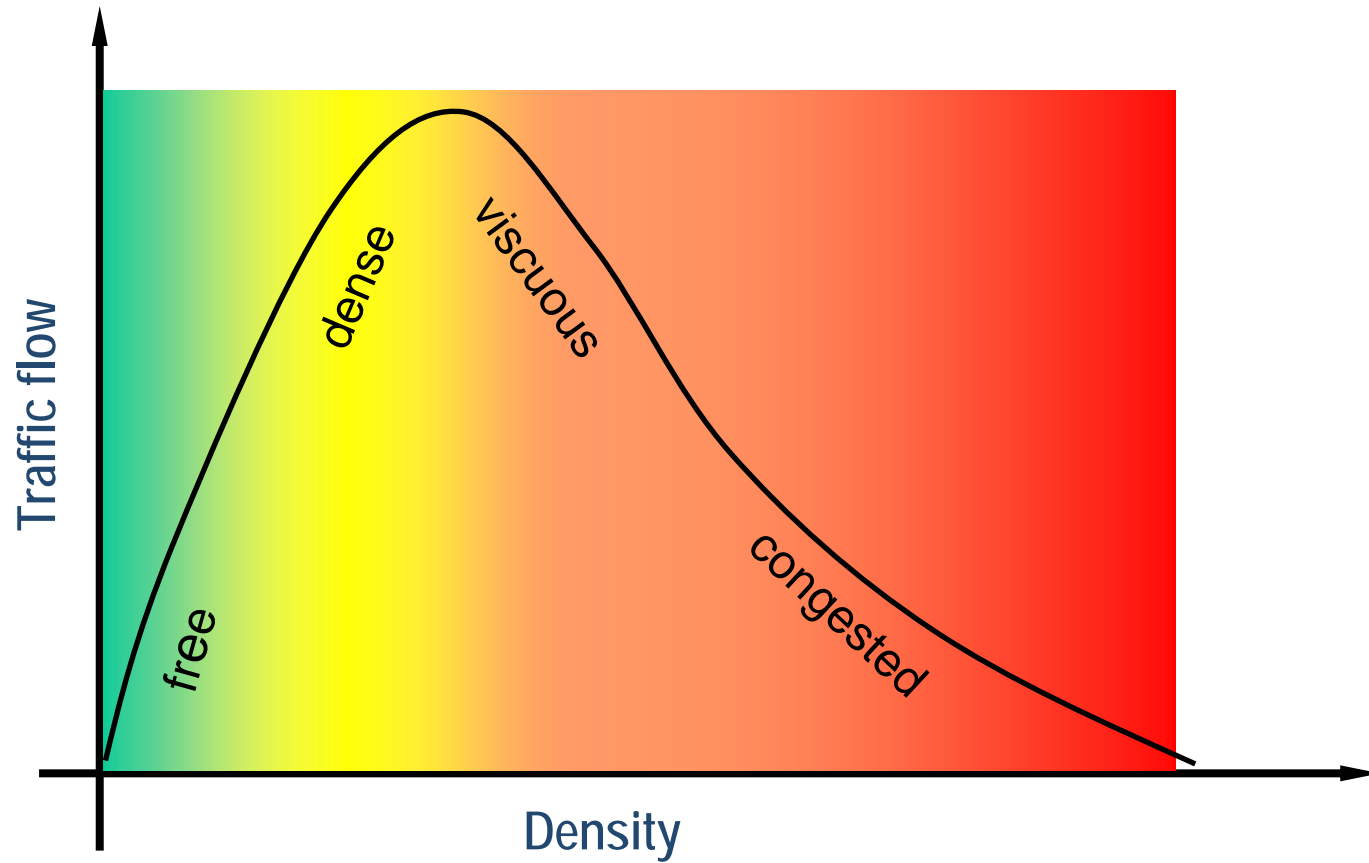
- State of the Art
- Handling of Accuracy and Availability
- Procedures to improve Quality
- Feedback after Taking into Operation
- Outlook

Dissemination of Level of Service

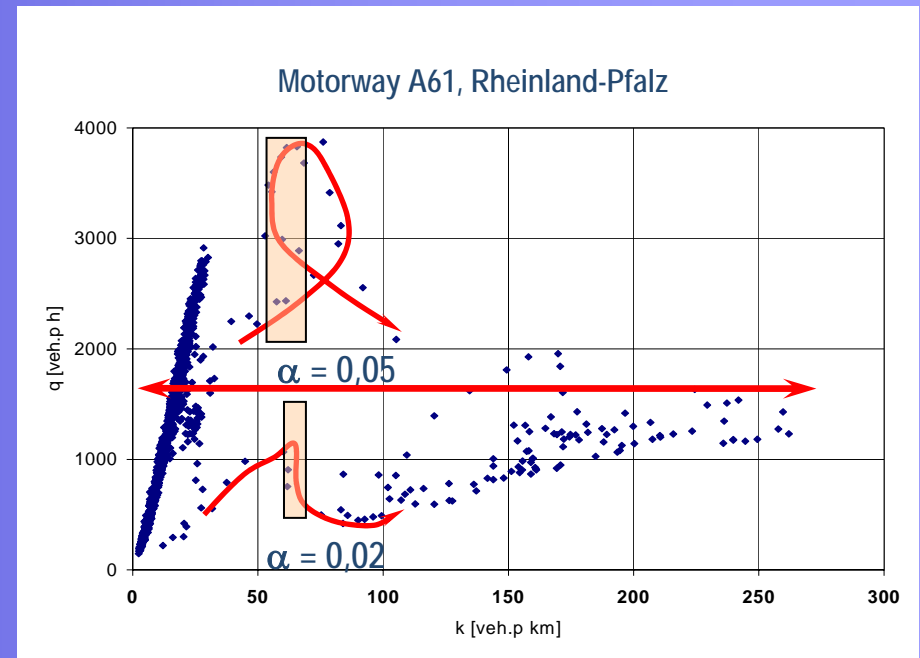
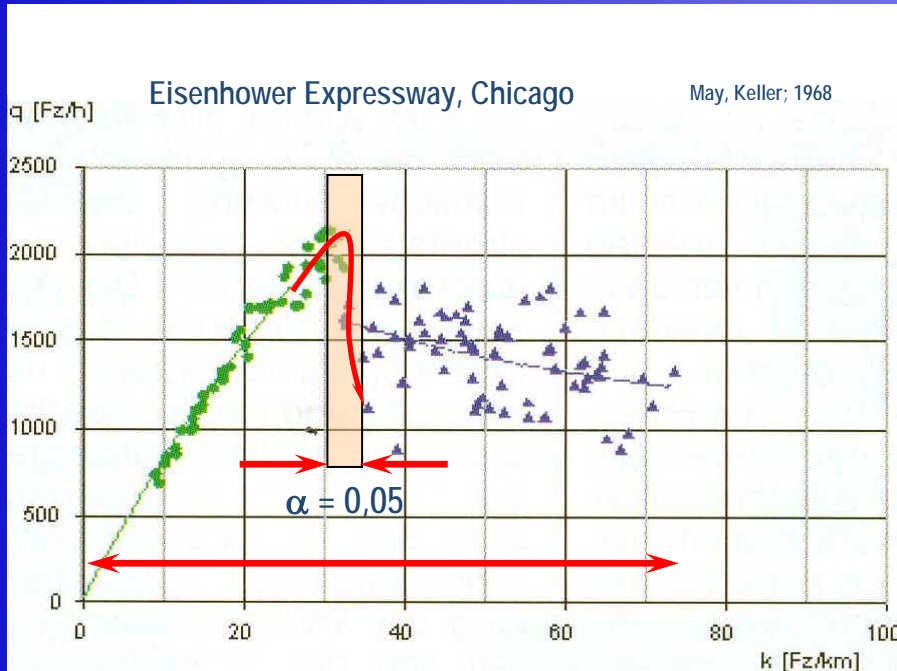




Traffic Flow and Level of Service



Probability of Error and Level of Service



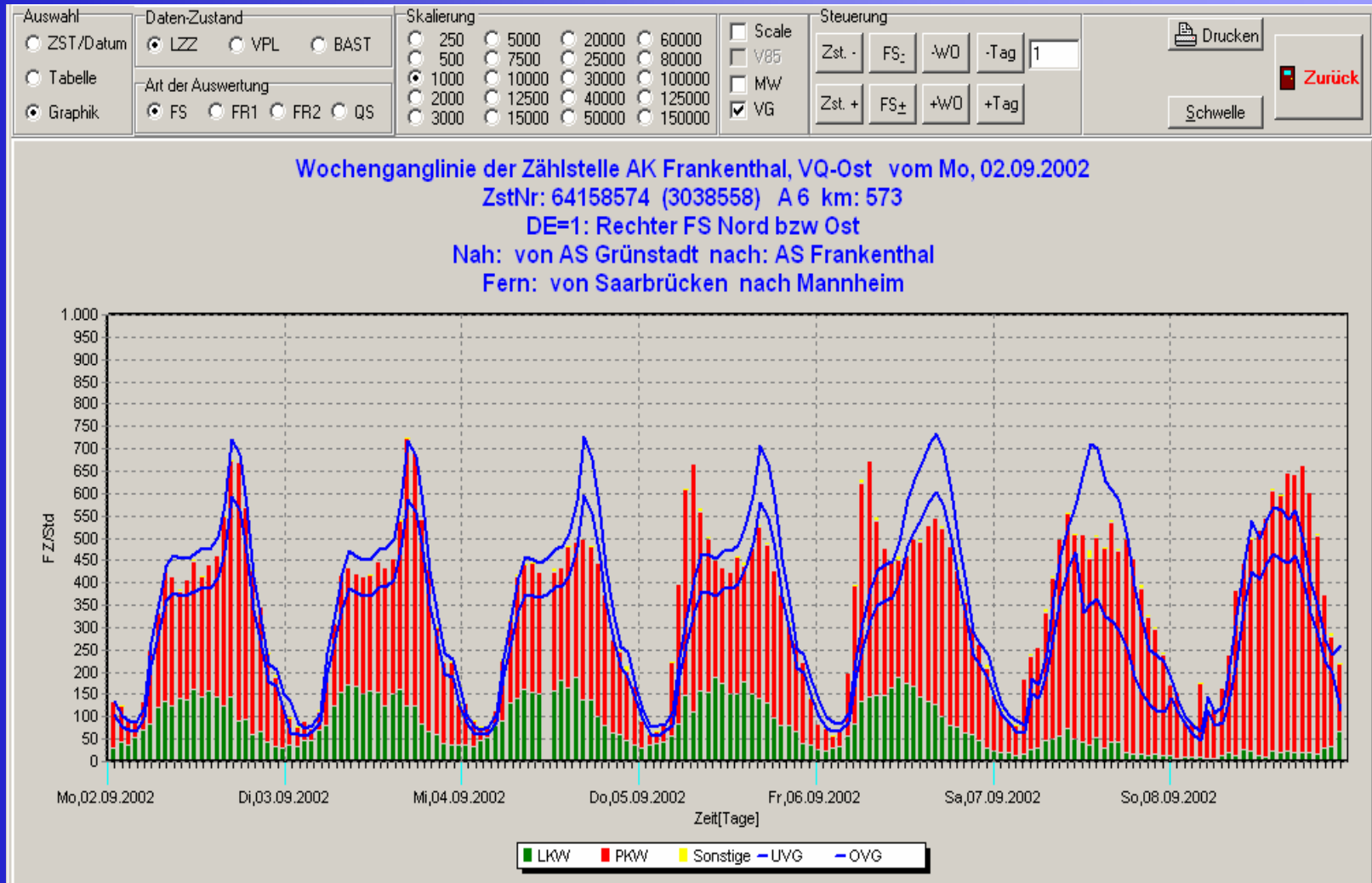
Accuracy

- speed: absolute error of ± 2 km/h
- traffic flow: detection rate > 99 %

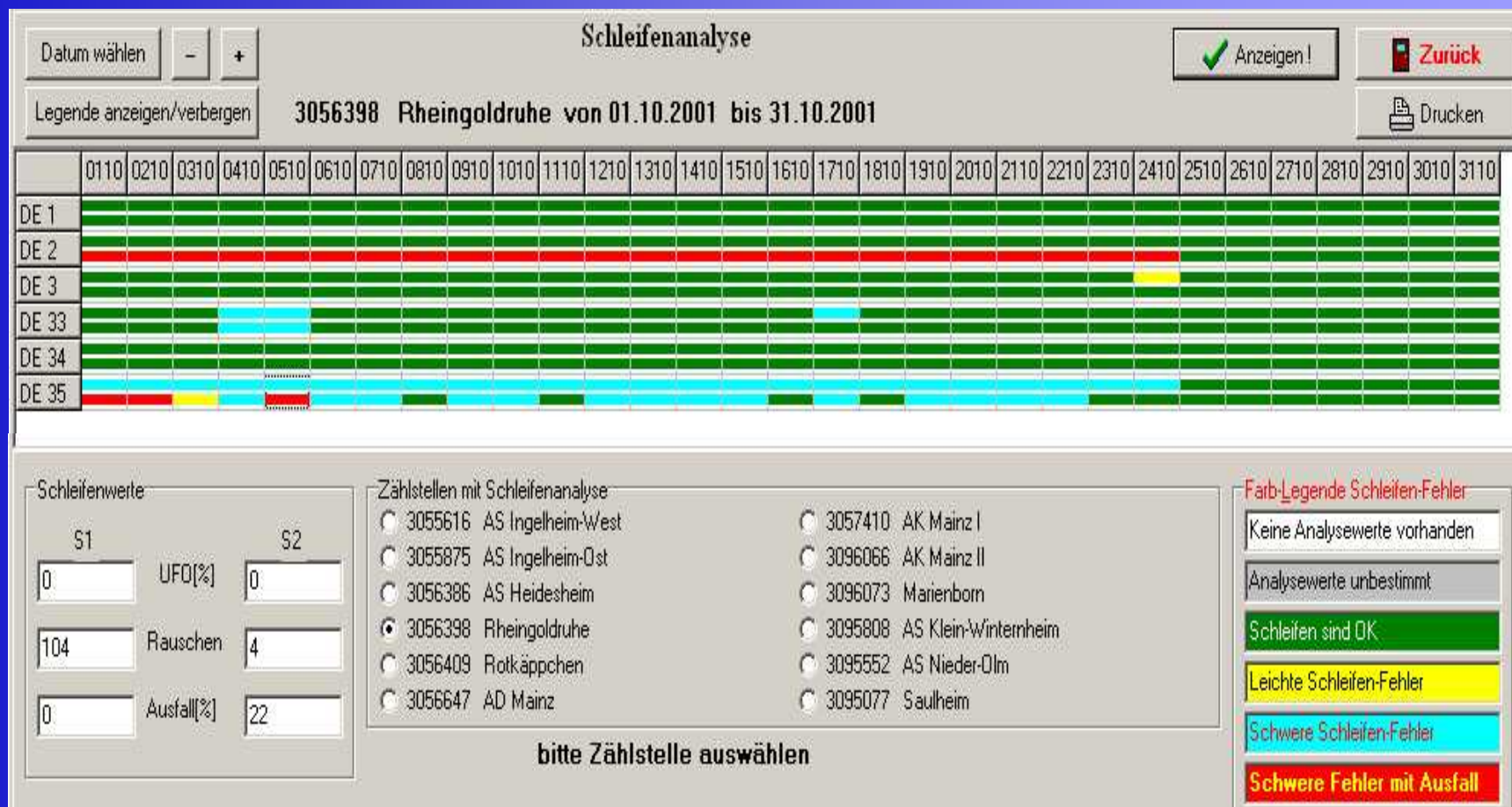
Quality Assurance to increase Availability

- Administrative and Procedural Measures
 - better Exchange of Information between Departments
 - Use of Visualisation Tool for an overall consistent Data Pool
 - Manual Plausibility Check of measured Data
 - Definition of Virtual Counting Cross-Sections
- Technical Measures
 - Continuous on-line Information about implausible Data
 - Evaluation of Traffic Time Series
 - Analysis of Loop Detectors
 - Checking of Input-/ Output Traffic Flow

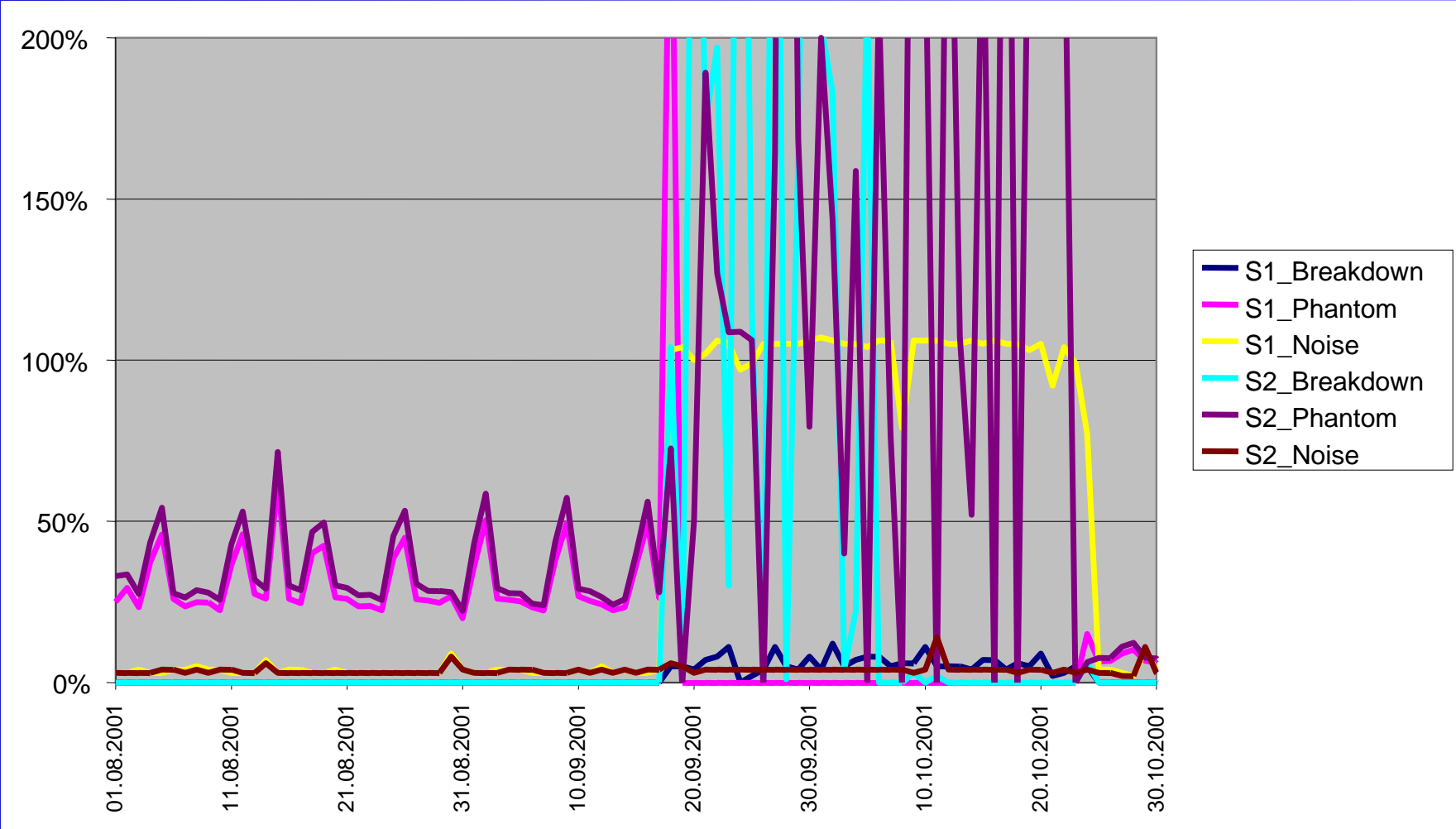
Traffic Time Series with Estimated Intervals



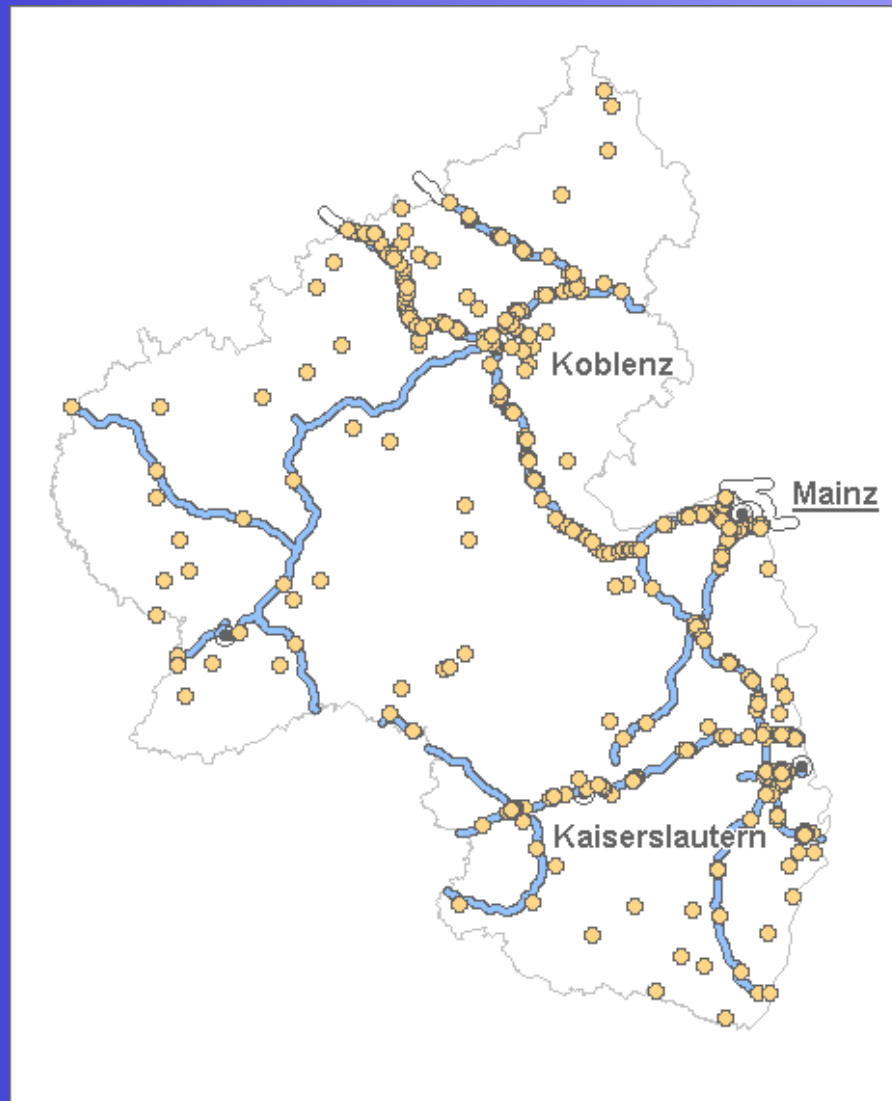
Loop Detector Analysis



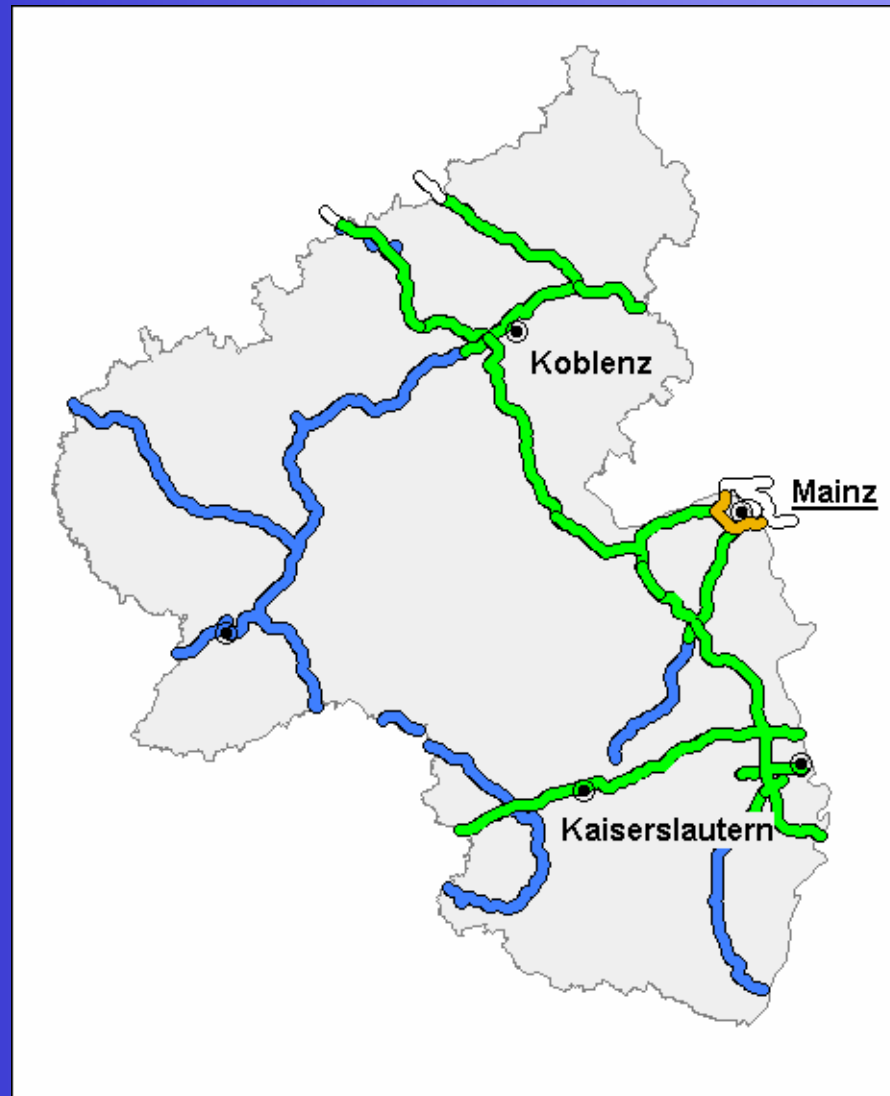
Loop Detector Analysis





Location of Counting Sections

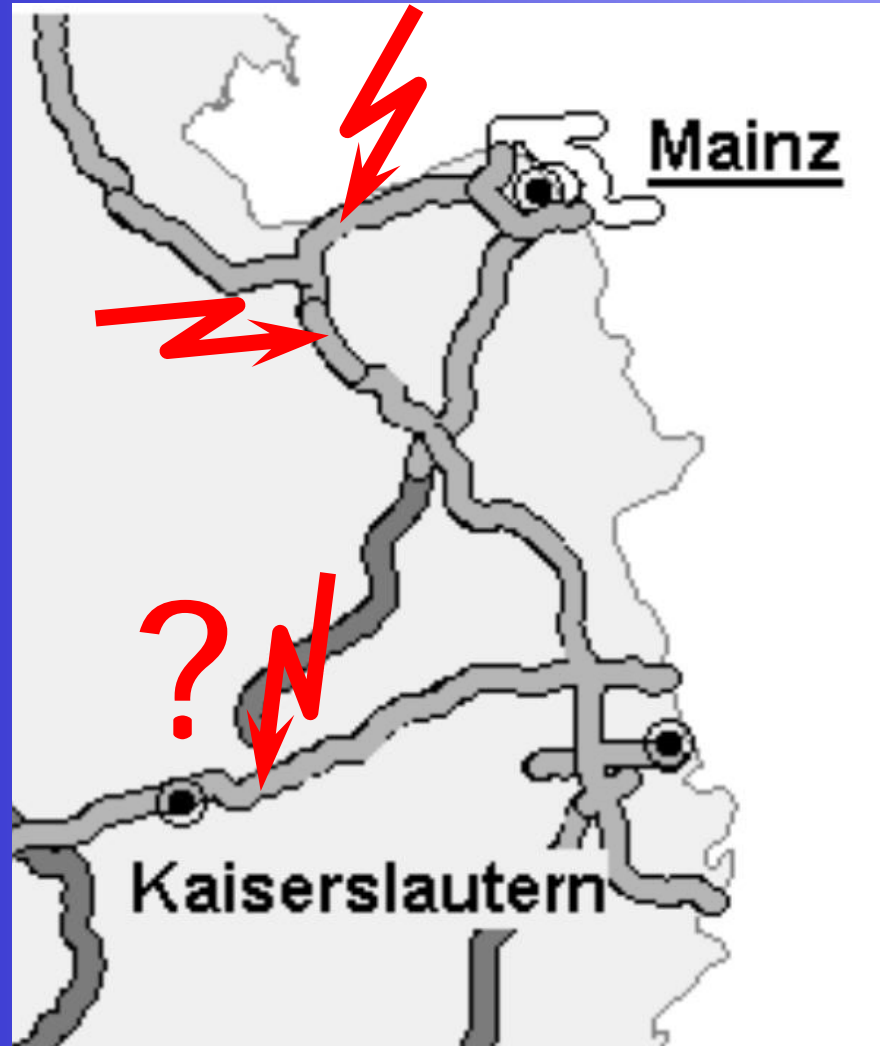


Supply with on-line LoS in the 1st step



-  Actual Supply with on-line LoS
-  Future Supply by Merging Information

Areas of inaccurate LoS-Generation



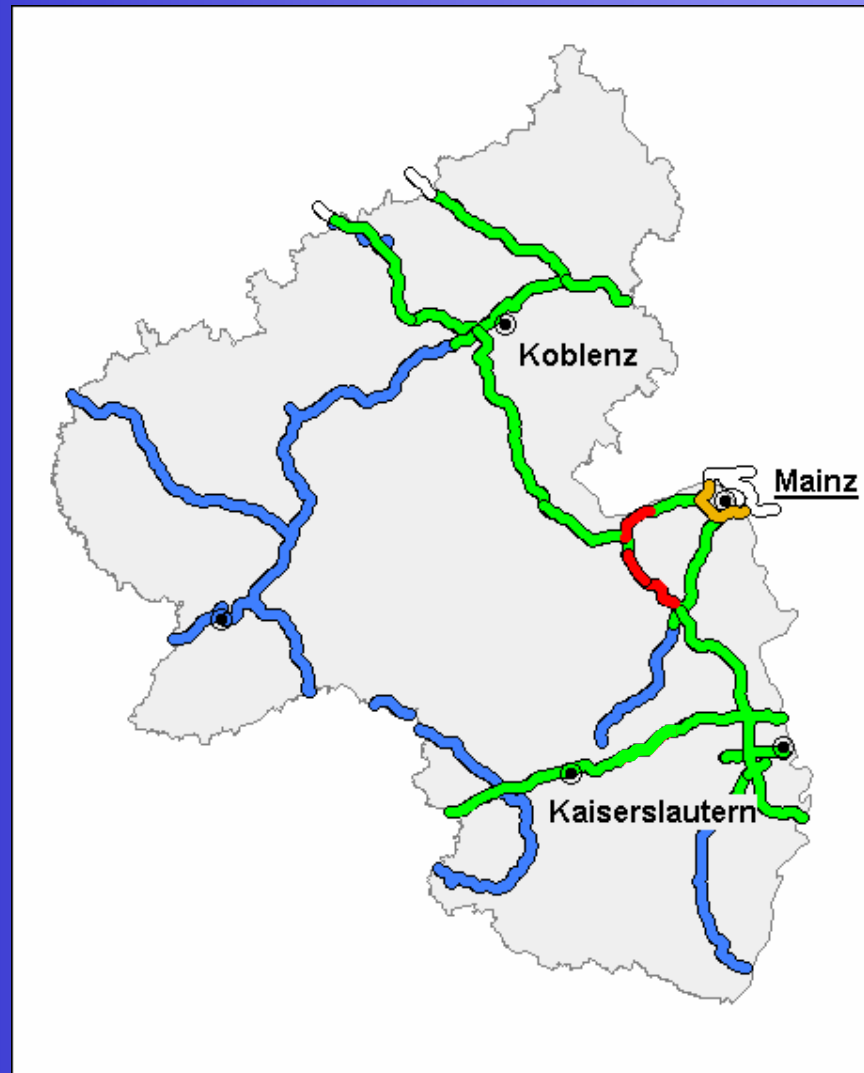
Principle:

better NO DATA than INCORRECT DATA



It is necessary to give information "Data not available"

Supply with on-line LoS in the 2nd step



Information Sources for Creating Traffic Information

On-line LoS
Simulation

Construction Site
Information System

Traffic Information
about the LoS

Road Condition and Weather
Information System

LoS by Police Department of
Traffic Information

Outlook

- Identifying and Quantifying the Contribution of Different Measures with most Efficiency
- Software Extension for improved Data Check
 - Road Condition and Weather Information System
 - Construction Site Information System
 - Taking into account of Motorway Meshes
- Merging of different Information Sources
- Intensivation of Activities for 30/ 60 min- LoS-Forecast