Boschung’s MDSS solution

Human factors / interface issues

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Key issues

- Modular approach
- Provide an ergonomic display
- Define pertinent informations that have to be displayed
- Leave the user a possibility to « dig in » for details
Modular approach

- Let the customer get into the MDSS step-by-step
  
  - Module for RWIS management
  - Module for AVL / reporting
  - Module for Nowcasting / Forecasting
  - Module for Treatment recommendations
Ergonomic display

- Dynamic map (geographical background and dynamic data layers)
- User-specific views
- GPS-driven
- Allows for various layouts depending on monitored area
- Combines the display of fixed and mobile equipment

integration of all ressources

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Pertinent informations

- Alarms from RWIS ➔ react to danger
- Alerts from Nowcasting/forecasting ➔ anticipate dangers, plan and take decisions
- Status and location of resources in operation ➔ « Dynamic » management
- Other measurements and information (analysis, statistics, operation reports, etc.)
Boschung’s RWIS alarm concept (based on active freezing point measurement technology)

**Alarm 1**: entering potentially dangerous conditions

**Alarm 2**: icy conditions within 3.2°F from current pavement temperature

**Alarm 3**: icy pavement
Alerts from Nowcasting / Forecasting

- Winter road segments are colored against 4 levels of danger
- Warnings about oncoming dangerous events are issued (escalation at -12h, -6h, -2h, -1h)
- Information is broken down into 4 areas (weather, pavement, snow drift, bridges)
- Information is summarized over 72 hours

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Status and location of resources

- Display of vehicles
  - Current location (GPS)
  - Currently carried-out operation
  - Current dosage / tool information
  - Knowledge basis for future recommendations

- « by-product »: complete reporting of carried-out operations
  - Events list
  - Complete mileage, duration, consumption report
  - User specific breakdowns of reports
Other measurements and information

- Detailed RWIS measurements
- Detailed Weather forecast
- Weather alarms
- Satellite pictures, etc.
- Operation reports, statistics, invoicing, etc.
Borschung’s MDSS solution

Thank you!