The Dutch approach

DATEX II deployment in the Netherlands by NDW

Agenda

- Introduction NDW Organisation
    - Structure, aim, goals

- Data provided by NDW
    - Data, data usage, data collection, new developments

- DATEX II for NDW
    -Use, experiences, Governance

- OpenLR

Me

Tommy Delissen

IT Architect at NDW since February

What do I do:

- System architecture
- DATEX II
- New developments

NDW Organisation

Collaborative venture between 24 authorities

Organisation of approximately 18 people

NDW Aim

- Develop and maintain a joint database for traffic data
- Stimulate effective use of this data for traffic management and traffic information
- Create efficiency by working together and sharing information

NDW - Aim

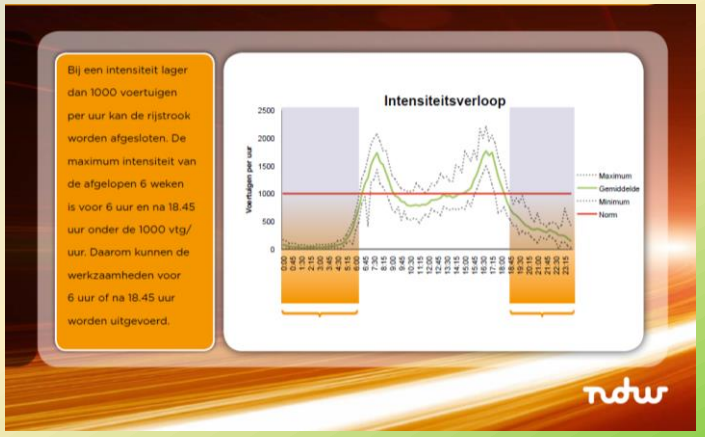
Traffic Information

"Up-to-date, complete and unambiguous"

Traffic Management

"Central source for all road authorities"

Traffic Policy & Research



"Central source for all road authorities"

NDW Goals

- Less traffic jams

- Safer roads

- Less emission

- More collaboration

Real Time Traffic and Status Information

- Every minute, data from more than 20,000 measuring sites is collected, processed and within 75 seconds distributed to the users.

- On occurrence, status information is processed and immediately distributed to the users.

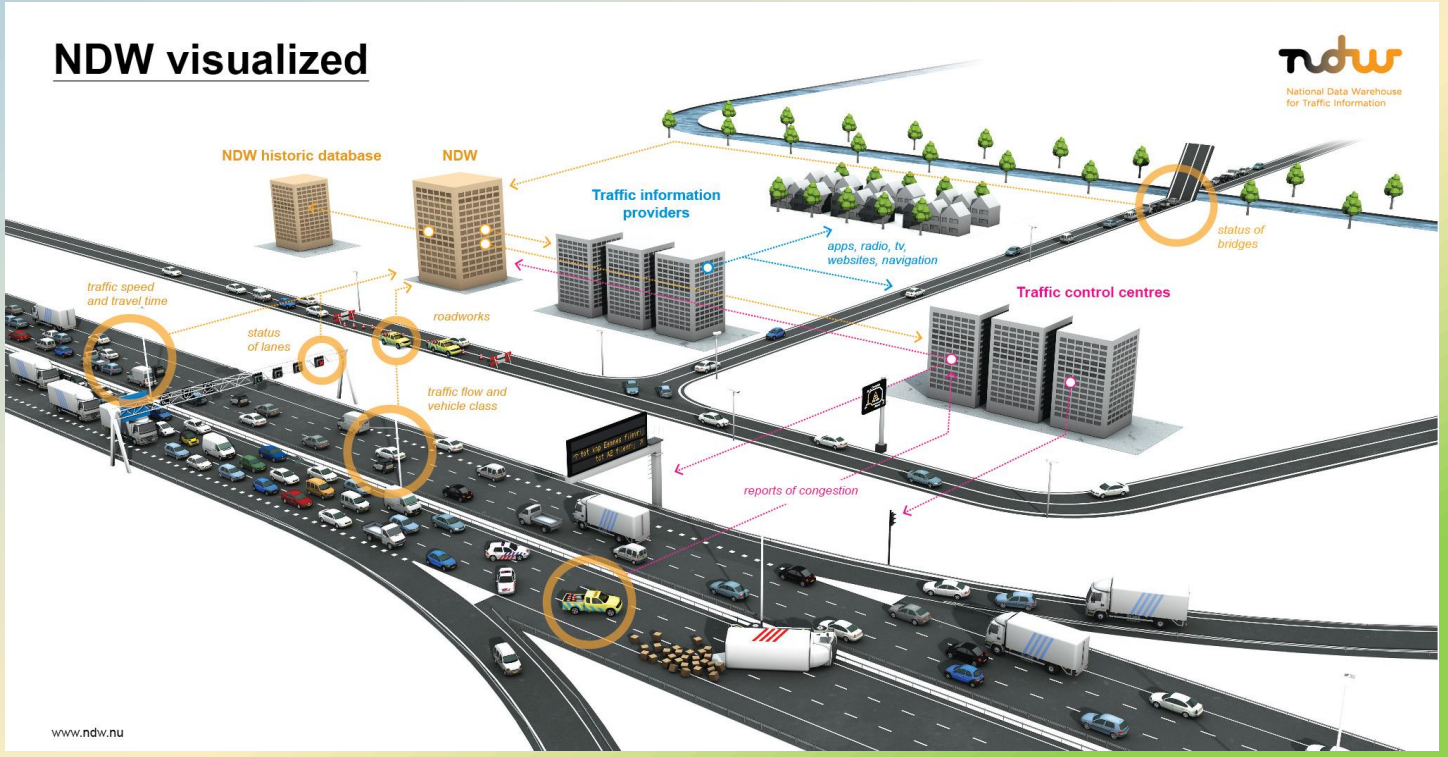
Real Time Traffic and Status Information

Real time Traffic data:

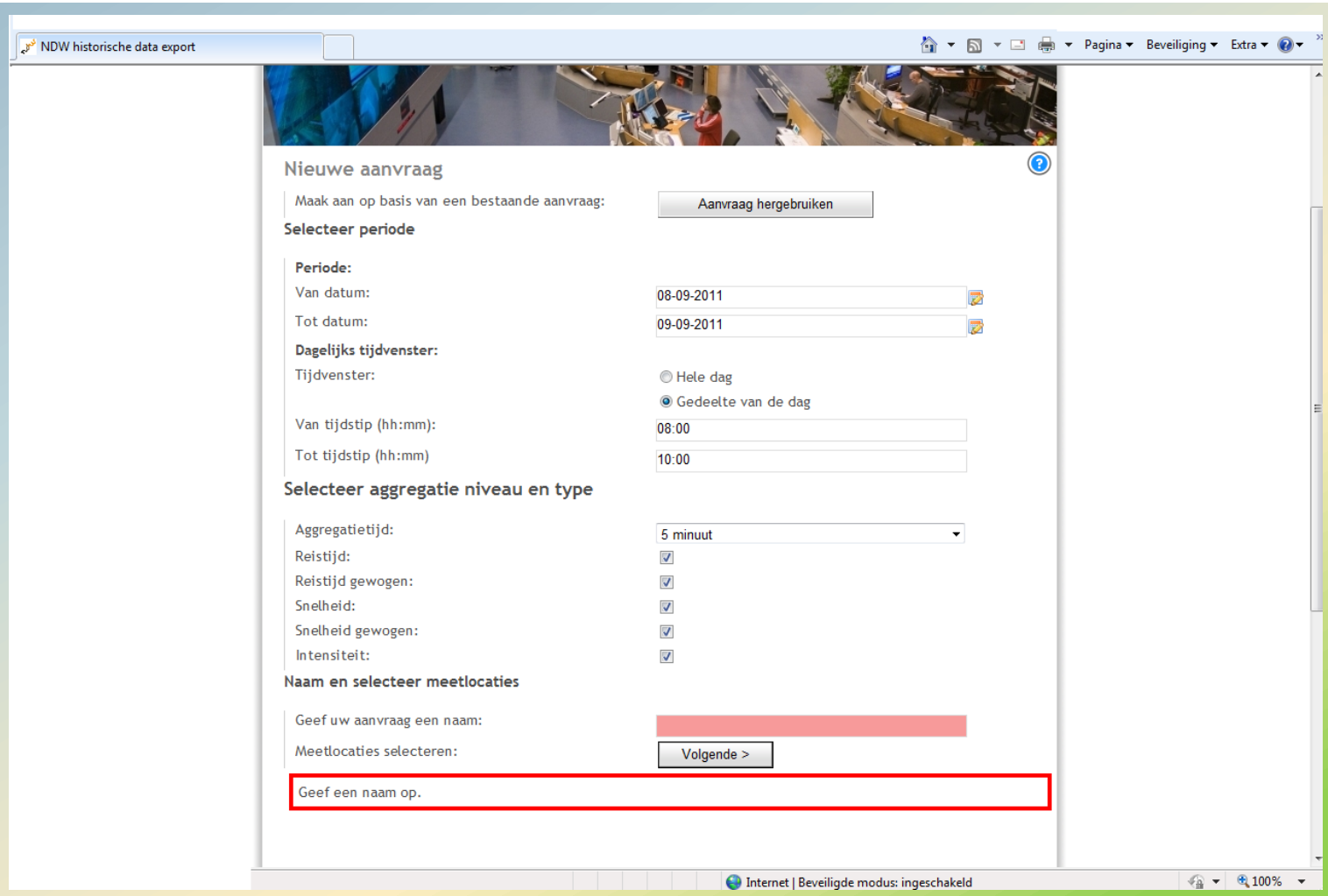
- Traffic flow
- Travel time (realised and estimated)
- Traffic speed
- Vehicle classes

Status information:

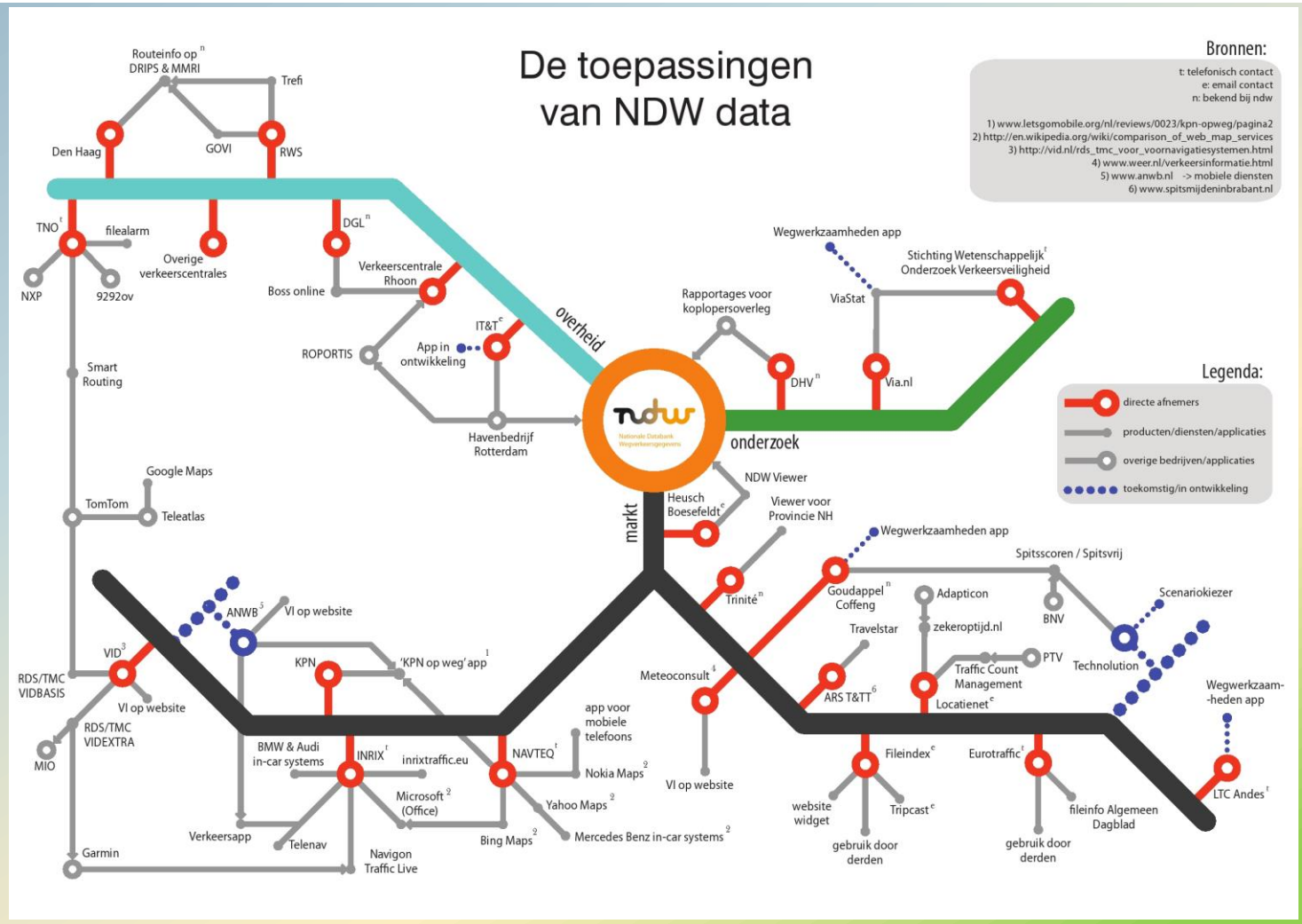
- Road works
- Congestions
- Accidents
- Bridge status
- Rush hour lane status



Historic Data



Use of our data



Data Collection

Technical methods:

- Loops
- Camera's
- Bluetooth
- Roadside systems
- Human input

Partners:

- Rijkswaterstaat
- Local road authorities
- Local governments
- 3rd party contractors

New developments

- New central system
  - Flexibility
  - Data quality
  - Single point of access

- Data Warehouse
  - History for all our data
  - Data quality
  - Reports and analyses for our partners

- Data Fusion
- Scheduled and real time road works

All data in DATEX II

Pro's

- Standardized
  - System integration
  - Structured information
- International usage
- XML Structure
  - Readable
  - Widely used

Con's

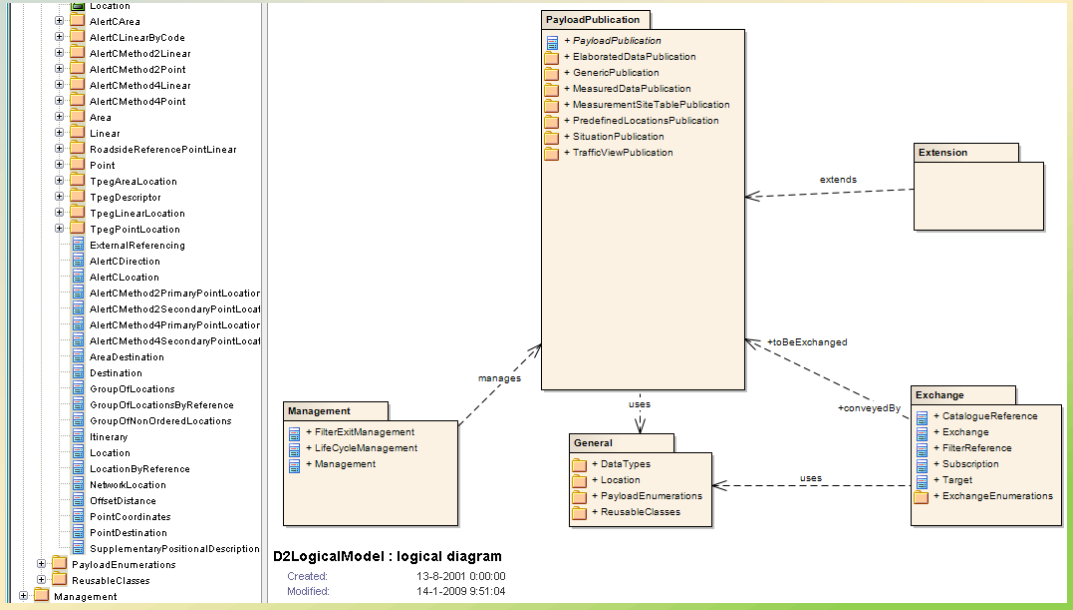
- Complexity
  - Different Interpretations
  - Limited descriptions of elements
  - One large model
  - Difficult for some app builders
- Large amounts of data to process
- NDW: Location Referencing

MOGIN "A governance structure for the Dutch DATEX II profile"

- Involve all parties
  - Minimize different interpretations

- Maintain Dutch profile
  - Extending number of data streams
  - Extending the data model
  - Agreements outside the DATEX II data model

- Provide documentation
- Change requests for Europe



OpenLR

Problem:

- Misfit with current location referencing

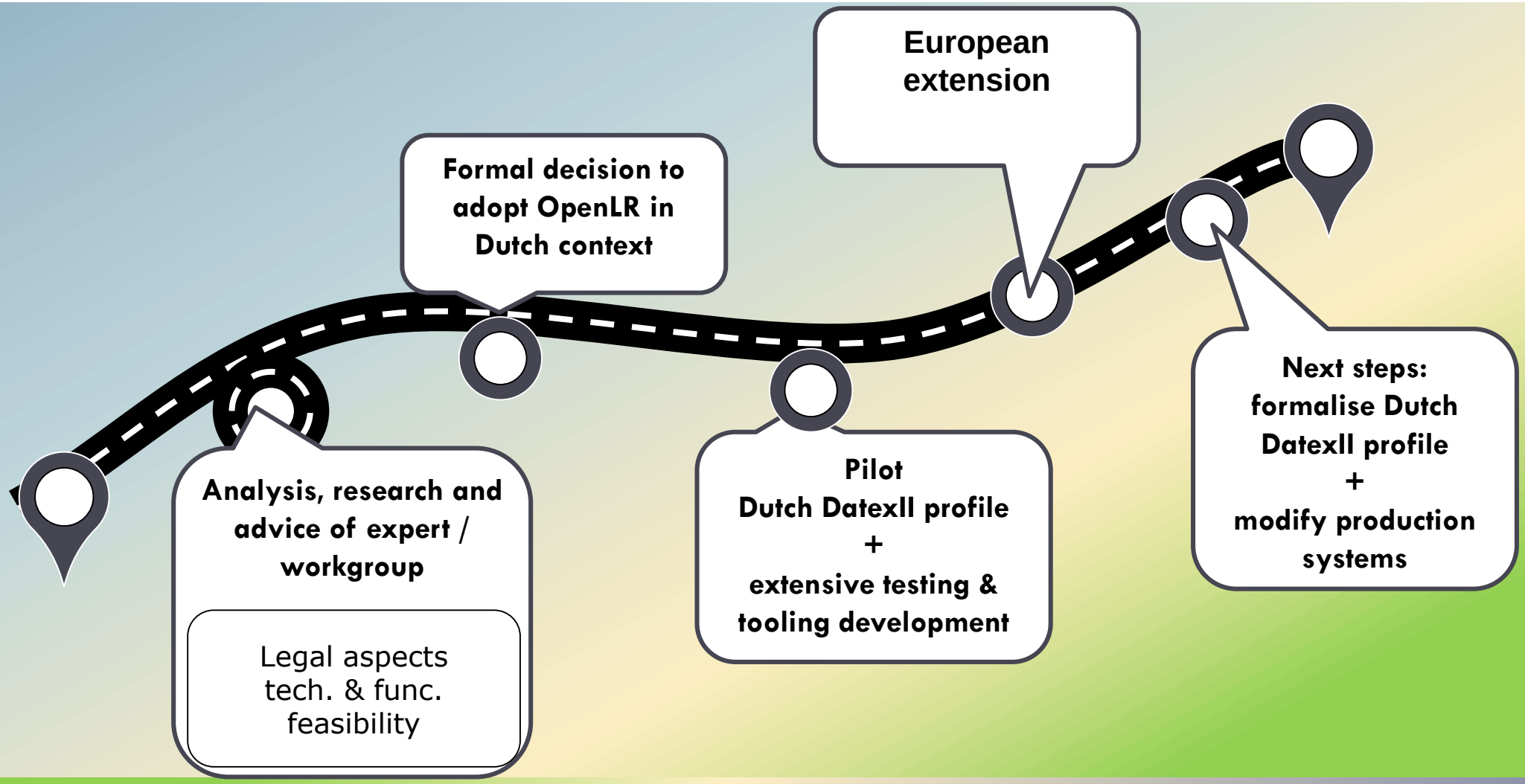
Solution:

- Extending DATEX II model with OpenLR

Advantages:

- Ability to add more locations
- Easier to visualize on map

OpenLR


European extension
Formal decision to adopt OpenLR in Dutch context
Analysis, research and advice of expert / workgroup
Legal aspects tech. & func. feasibility
Pilot
Dutch DatexII profile
+
extensive testing & tooling development
Next steps:
formalise Dutch DatexII profile
+
modify production systems

Thank You