



SMARTCAR

SPOOKFILE A58

SIOUX



SOURCE OF YOUR TECHNOLOGY



**PRIME
DATA**

We bring sense to data



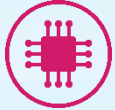
SIoux: WHAT WE DO

- International technology company with >450 employees
- R&D and manufacturing of (sub)systems and equipment (one-stop shop)





SIoux: WHAT WE KNOW



Semicon & Solar



Life Science & Health



Automotive



Traffic, Transport & Infrastructure



Consumer Electronics & Telecom



Image & Printing

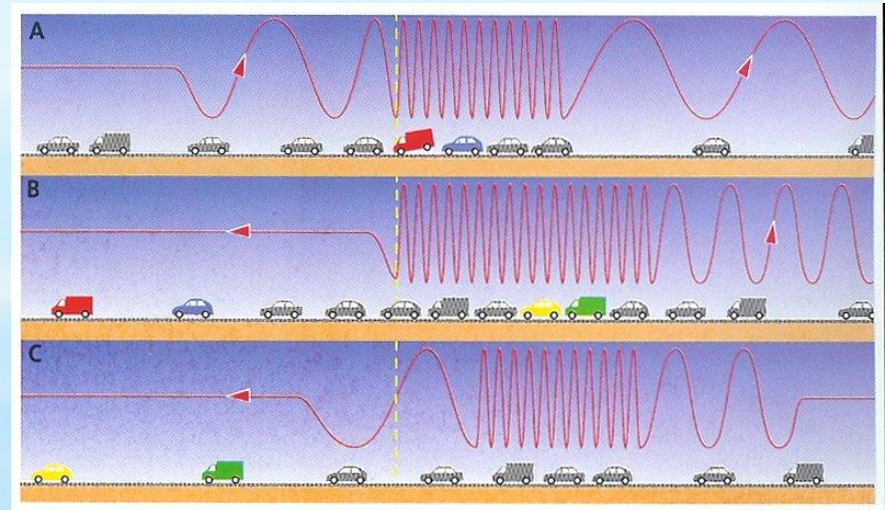


Agro & Food



WHAT ARE SPOOKFILES?

- Drivers brake or change driving lanes
- 30% to 40% of the A58 traffic jams are shock wave traffic jams, at other roads ~20%

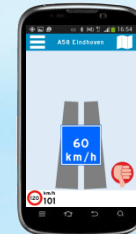


- Project goal is to reduce the lost hours due to traffic jams



WHAT IS THE SERVICE?

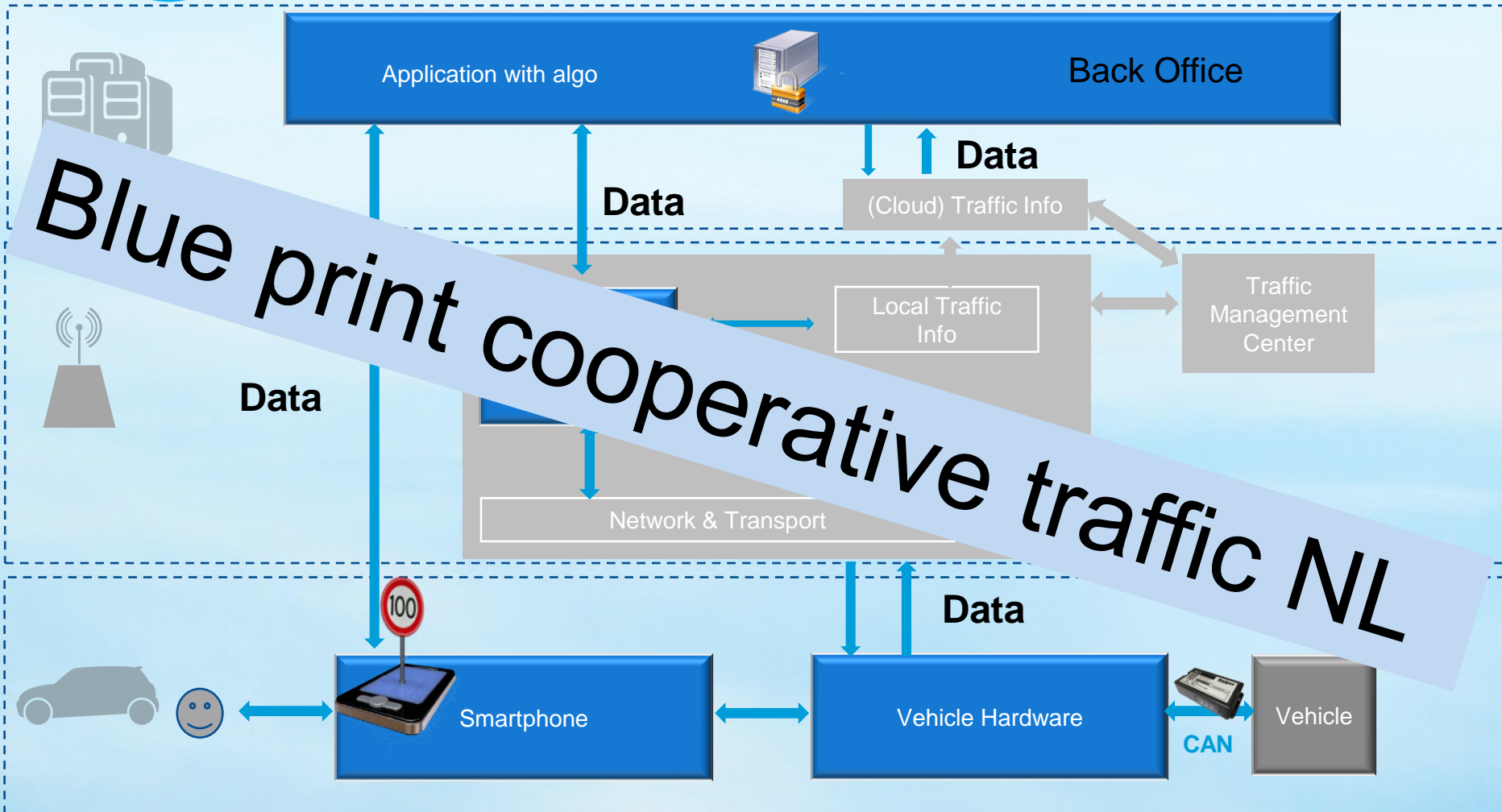
- Optimal speeds are calculated based on traffic
- Driver receives the advice speed on Smartphone
- Driver is alerted upfront for traffic jam



- Currently via 3G after summer also via roadside



SYSTEM ARCHITECTURE



Blue print cooperative traffic NL



PRIME DATA: INTRODUCTION

TNO & Prime Vision established Prime Data

- 24/7 hosting of mathematical models
- Reliable/ enriched data & information feeds
- Inside knowledge models of TNO
- From concept to managed business service

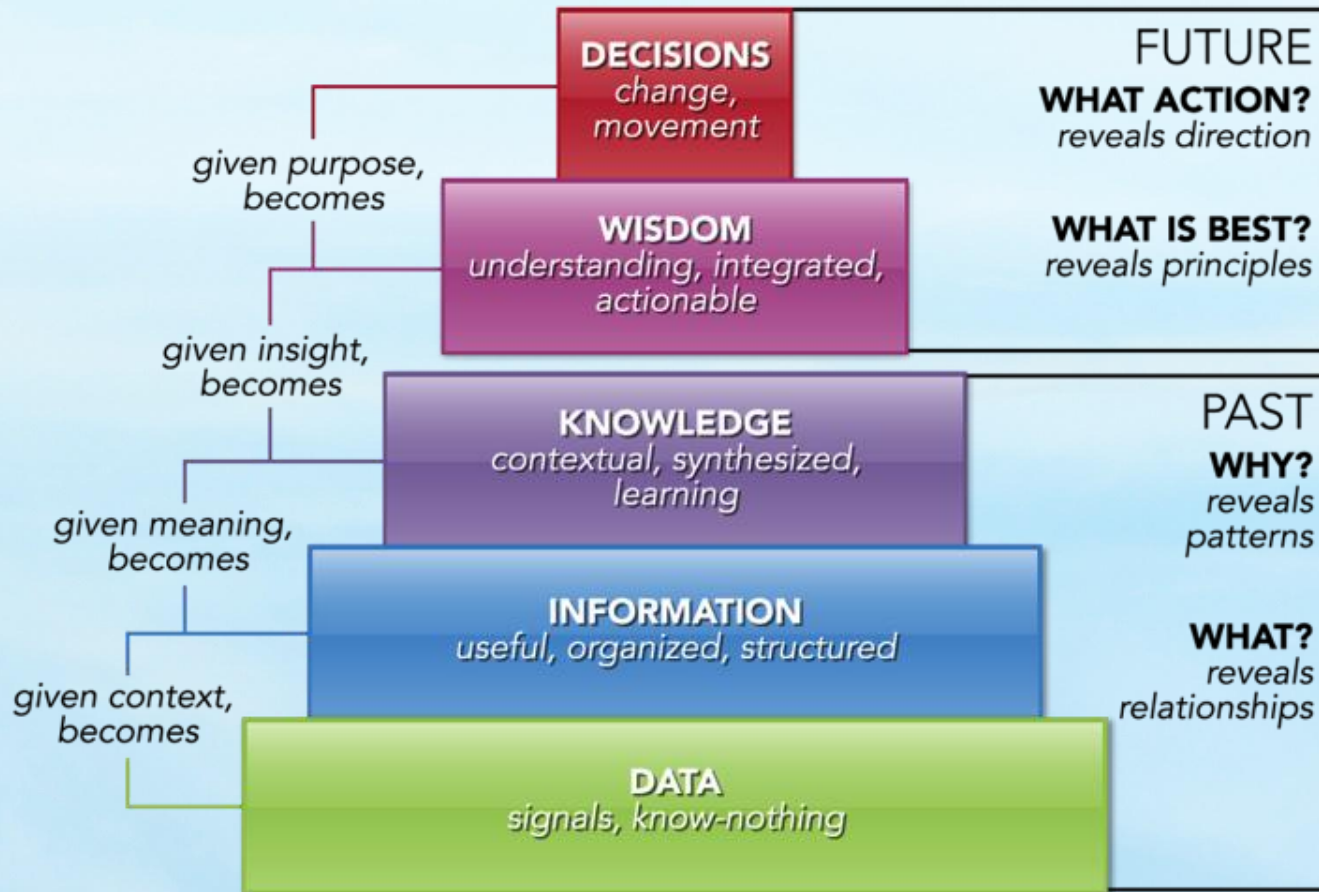


PRIME DATA: GOALS

- Delivery of High quality decision making information
- Enterprise middleware platform / datafeeds, middleware apps
- Unburden the companies which want to provide services to third parties



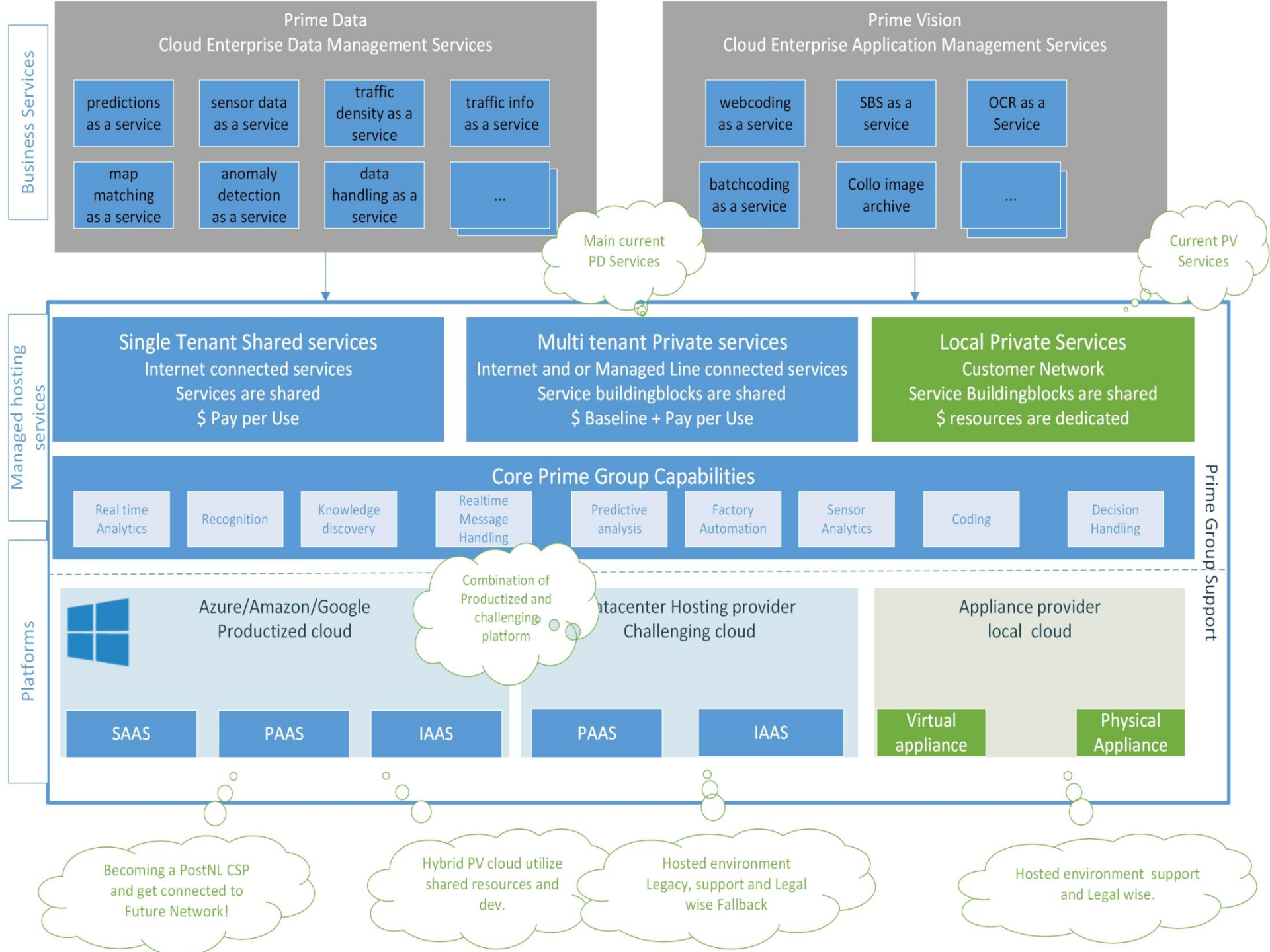
FROM DATA TO DECISIONS





TECHNICAL DEVELOPMENTS

- TimeAlyze (= traffic models)
 - Traffic jam detection on highway and secondary road networks
 - Algorithms in the cloud
 - Application to consumers and logistics
 - Decision making information
- LocAlyze (= acquisition of FCD)
 - Privacy sensitive data acquisition
 - Anonymized input for TimeAlyze
- AnySense
 - Manufacturer - independent sensor data acquisition
 - Anomaly detection



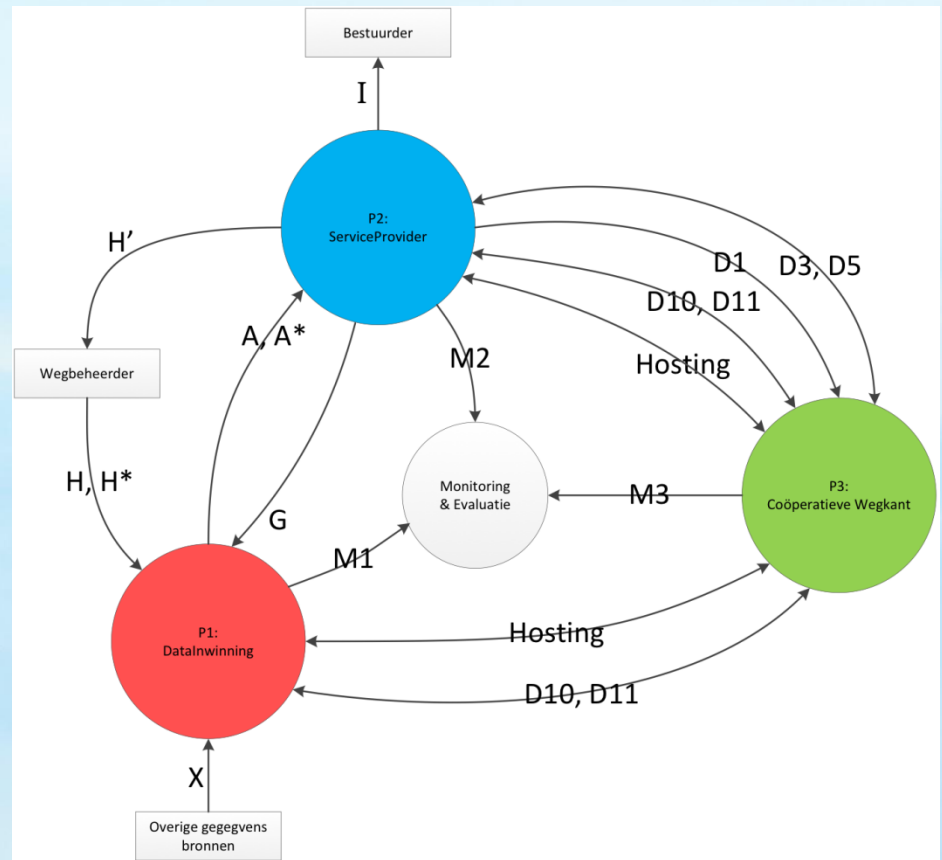
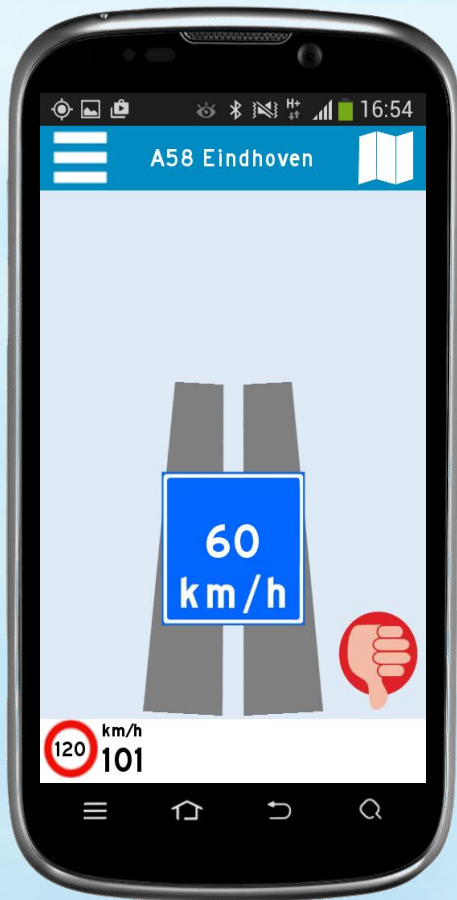


BEHIND THE SCENES

- (traffic) (big) Data acquisition
- Data fusion
- Real-time analytics models
- Routing and informing
- Intervene on disturbances
 - Accidents
 - Weather
 - Road works
 - ...



SPOOKFILES A58





FROM INPUT TO OUTPUT

- Input:
 - Traffic states
 - Segment states
- Shockwave damping:
 - Generating speed advice based on actual and predicted situation on the road
- Output:
 - Speed advice per driving direction



FACTS EN FIGURES ON A58

- ESB messages:
 - 600-800 per second current (connected)
 - 1500-2500 per second near future
- Input data:
 - ± 1 Mbyte per second = ~ 84 GByte per day
- Enriched data:
 - ± 3 Mbyte per second = ~ 253 GByte per day
- Smartphone data
 - ± 360 messages per hour per phone

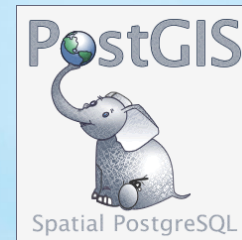
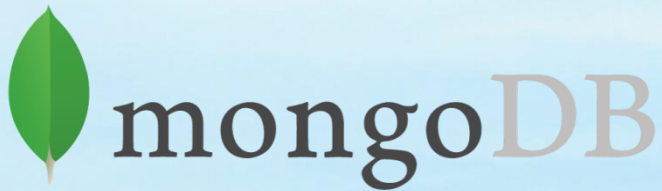


SUMMARY

- Generic platform
- Scalable / cloud based
- Generic observations
- Data structuring in time and space
- Data interpretation
- Linked to real-time analytics logic/models
- Decision making



TECHNOLOGIES





QUESTIONS?

