KUNTATEKNIIKAN PÄIVÄT
DIGITAL MANAGEMENT OF WORK SITE INFORMATION

Juha Äijö
Ramboll RST

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DIGITAL MANAGEMENT OF WORK SITE INFORMATION IN MAINTENANCE

- Pavements
- Road Markings
- Green areas
- Bicycle paths
- Squares
- City Asset

- Daily(Routine) maintenance
- Rehabilitation
- Reconstruction

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DIGITAL MANAGEMENT OF WORK SITE INFORMATION
COMMON FEATURES FOR WORK SITES

- Location
- Work Status and Phases
  - Planned
  - Contracted
  - Under work
  - Finished
- Roles
  - Owner, Client
  - Contractor
  - Stakeholders – Citizens - Politicians

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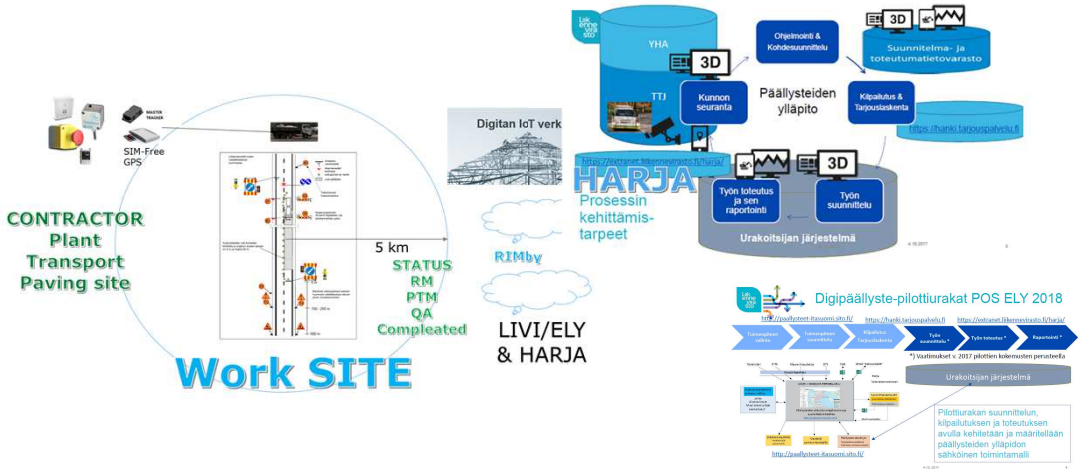
DIGITAL MANAGEMENT OF WORK SITE INFORMATION
SYSTEMS BASED ON PROCESSES



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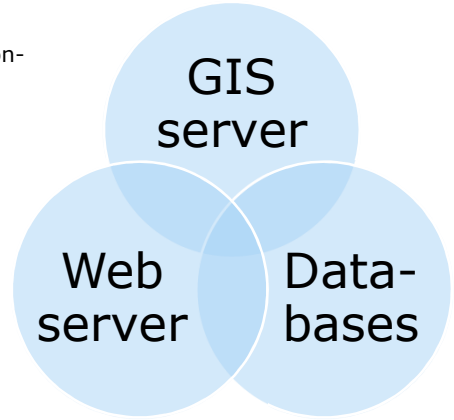
DIGITAL MANAGEMENT OF WORK SITE INFORMATION VS BACK-END CAPABILITIES

- Scalability, Location
  - Country-Region-Municipality-Contract-Area-Section-Point
- Multilingual - languages used:
  - Finnish, Swedish, English, Germany, Arabic
- Geometries
  - Point – Line – Area
- User roles
  - View, Limited access, Edit, Admin
- COTS - Tailored
- Online – Mobile - Offline



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DIGITAL MANAGEMENT OF WORK SITE INFORMATION VS PEOPLE

- Easy to use
- My Need
- Harsh environment
- Colourful
- Nice

- Communication
- Transparency
- Cost savings

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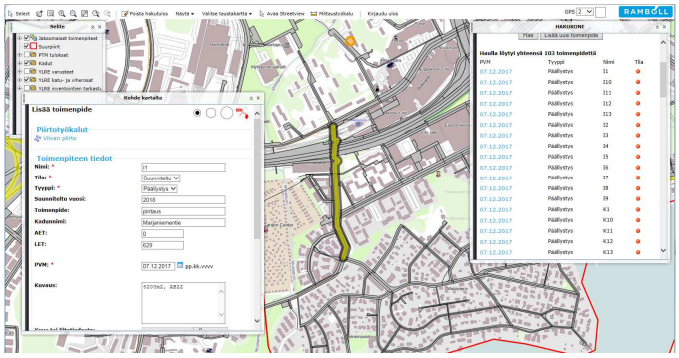
DIGITAL MANAGEMENT OF WORK SITE INFORMATION
BASIC SERVICE

- General Site Information
  - procurement phase
  - detailed on site info
- Contractor informs
  - Work progress
  - Deviations
  - Materials
  - Qualitys
- Tool for meetings
- Raporting



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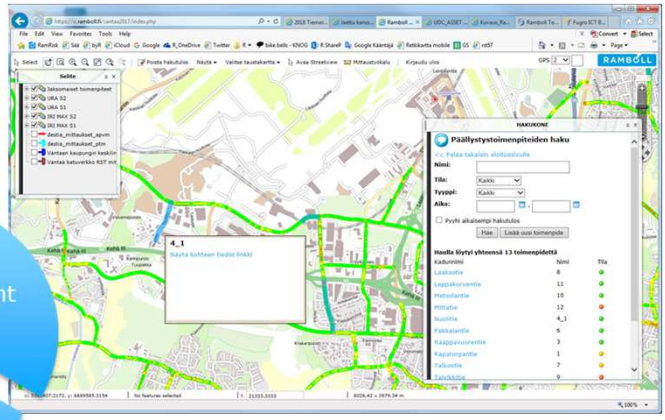
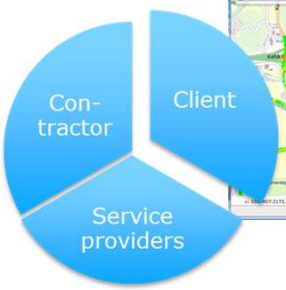
DIGITAL MANAGEMENT OF WORK SITE INFORMATION
CURRENT PRACTICE

- Online information
  - Location of trucks, machines
  - Traffic arrangements
- Tracking each load on site
  - Temperatures
  - Weather
  - Paving speed (length of stops)





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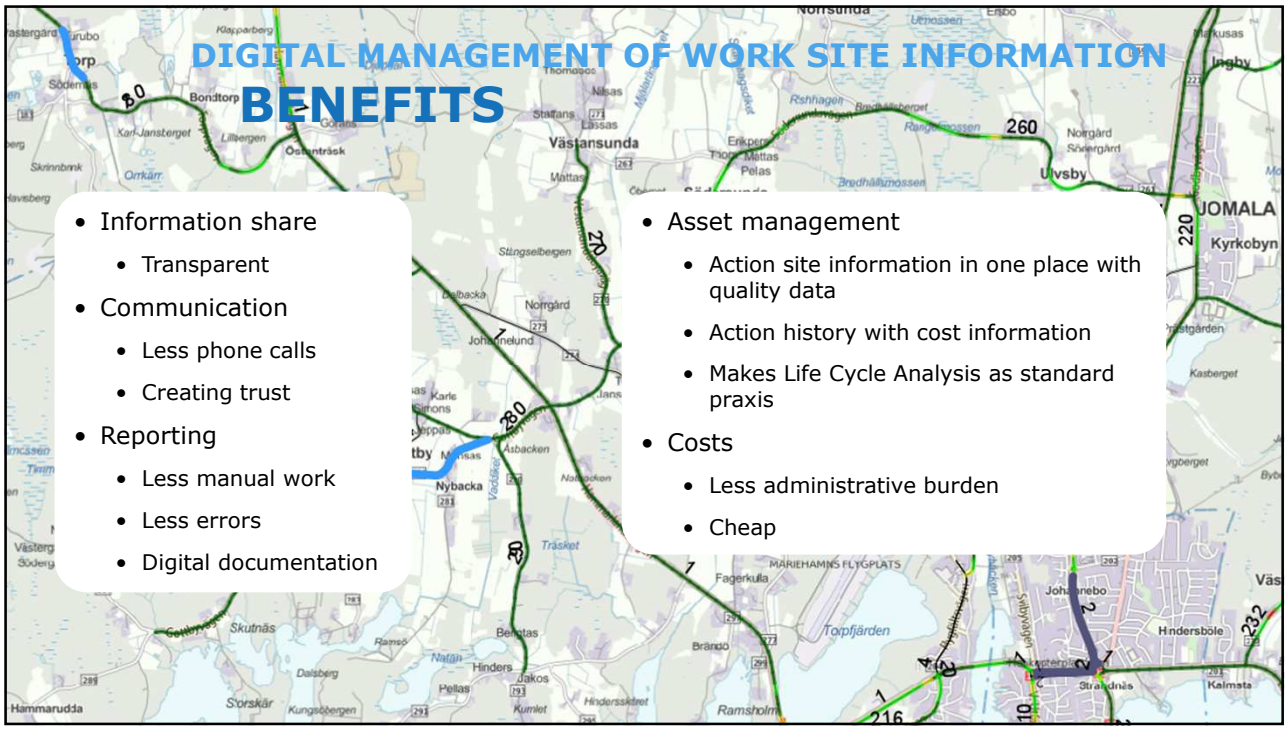
DIGITAL MANAGEMENT OF WORK SITE INFORMATION

BENEFITS



- Information share
  - Transparent
- Communication
  - Less phone calls
  - Creating trust
- Reporting
  - Less manual work
  - Less errors
  - Digital documentation

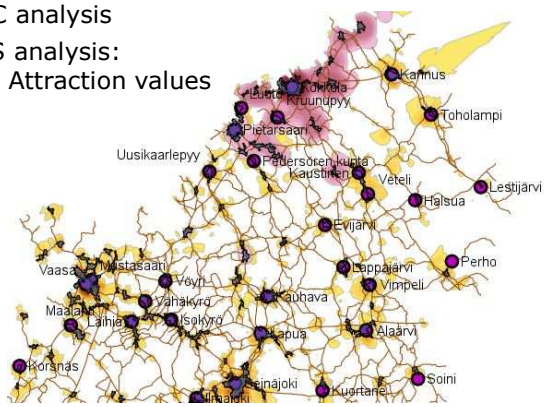
- Asset management
  - Action site information in one place with quality data
  - Action history with cost information
  - Makes Life Cycle Analysis as standard praxis
- Costs
  - Less administrative burden
  - Cheap

DIGITAL MANAGEMENT OF WORK SITE INFORMATION POSSIBILITIES

- Data – Information – Knowledge
  - Present, Classify, Analyse, Decide
- Time line
  - History-Current-Future
  - Experiences – Facts
  - Expertise, Development, Learning
- Goals
  - Customer value
  - Efficiency
  - Multi disciplinary

LCC analysis

GIS analysis:
Attraction values



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WEB SERVICE AS A TOOL BY RAMBOLL

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