Making use of spatial information in BUILDING INFORMATION MODELING (BIM)

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Agenda

- BIM stages and its needs
  - Idea & Planning stage
  - Construction & Maintenance stage
- Managing the process
- Techniques & Technologies
- Conclusions
- Quality and type of the soil
- Groundwater levels
- Permits
- Urban spatial planning
- Traffic volumes
- Location of archaeological objects
- Location of ammunition
- Location of cables and pipes
Quality and type of soil

www.nationaalgeoregister.nl
Natural susceptibility to compaction

- No soil
- Low
- Medium
- High
- Very high
- No evaluation

http://eusoils.jrc.ec.europa.eu
www.cultureelerfgoed.nl
Explosives

Risk area
Possible risk
No risk (checked)
Current topo

Incomplete
Permits

www.vergunningen.nl
www.bodegraven-reeuwijk.nl
Location of cables & pipes

www.geodan.nl
3D approach according to Geodan
3D approach

www.geodan.nl
From 2D to 3D
3D approach

www.geodan.nl
3D approach
3D approach

www.geodan.nl
3D approach

Network Arc Attributes

Telecom - FID: 439

Real-time Capacity

70

Historical Capacity

www.geodan.nl
Construction & Maintenance stage

- Ecological maps
- Laser scans
- Location of machinery/objects
- Location of colleagues
Ecological maps

http://nieuwsinkaart.nl/pdok/
Laser scan resulting in 3d point cloud

www.ahn.nl
Location of objects and colleagues

www.geodan.nl

www.geodan.com
Managing the process

- Budget
- Planning
Portals

- Nationaalgeoregister.nl
- Nieuwsinkaart.nl/pdok/
- Bodemloket.nl
- Vergunningen.nl
- Public authorities with their own portals
> Mapping Services
> Mobile computers/devices
> Creating derivates
> Cloud computing
Creating derivates

Laserscan of heights (XYZ points)

Overlay with aerial picture for further analysis

Calculate roof surfaces from point cloud

Create extraction of points using (BAG) layer with outline of buildings

Determine suitable surface for solar energy
Data scattered available
Need for completion of data coverage
Need for extended standards (BIM Omgeving)
Let the available information work for you
Think in combinations of 2 & 3 D
Make use of experts in the Geo-field (like Geodan)
We offer for more than 25 years:

- Consultancy and project management
- Application development
- GIS software
- Global data products
- LBS products
- Geo-services for the internet
- Training

- Documentation available for the audience at the end of this session
- Presentation available on: [www.geodan.nl/construction](http://www.geodan.nl/construction)
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