The COST SUB-URBAN Toolbox: products and good practices that connect subsurface specialists with urban planners and decision makers

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Exploration geophysicist - Urban geologist - 

“Subsurface Broker” selling the subsurface to urban planners and decision makers

Avoiding costs, delays and exploiting opportunities
Hoekse Lijn pas eind 2018 klaar en tientallen

2007 – 2018

Dat blijkt uit onderzoek van RTV Rijnmond en de NOS.

Voor het project was een kleine 400 miljoen euro beschikbaar. Wie voor de extra kosten gaat opdraaien, is nog onduidelijk.

De Rotterdamse gemeenteraad wordt woensdagavond vertrouwelijk over het debacle geïnformeerd. Het nieuwe uitstel gaat vele tientallen miljoenen euro extra kosten.

Sinds april wordt er gewerkt aan de ombouw van de spoorlijn tot metroverbinding. Aanvankelijk werd gemeld dat de verbouwing in september dit jaar klaar zou zijn, maar dat bleek al snel veel te optimistisch.

Er waren onder meer problemen met de software voor de spoorwegbeveiliging. Ook werden er op onverwachte plaatsen kabels en leidingen aangetroffen en was er sprake van bodemvervuiling.

De opening werd daarom met vijf maanden uitgesteld tot februari volgend jaar. Maar ook dat tijdschema is onhaalbaar, blijkt nu.

Volgens verschillende bronnen wordt de lijn pas eind volgend jaar in gebruik genomen. Dat betekent dat reizigers langer gebruik moeten blijven maken van bussen.
Partners across 31 European Countries and Beyond

Bringing together experts who develop Urban Subsurface knowledge ...

...and those who can benefit most from it

expertise and knowledge in the field of integrated urban planning has been gathered and exchanged.
COST Sub_Urban Deliveries 2013-2017

City reports

city setting, planning issues with underground, economic aspects, quality of life, governance, state of infrastructure, the state of urban planning, legal framework

Working Group reports on topics

Subsurface urban planning, Data mgnt., 3D modelling, groundwater, geothermal, geotechnical, geochemistry, cultural heritage

STSM reports

(Short term visits, exchange of skills and methodologies on above topics)
Deliveries 2013-2017 cont’d

Publications

Workshops

Contributions to conferences, events, final conference
Website

“how we produced the information”
• COST Sub-Urban brought together a lot of knowledge
• but equally important: we brought together the people with this knowledge, we have established a community:
  • with professionals from various disciplines and
  • with various professional organisations
Sub-Urban Toolbox

• webbased
• users: subsurface specialists, urban planners, decision makers
  
  state-of-the-art **products**: “what”, videos, viewing facilities without need for sophisticated software,
• but also **processes**: workflows, “how” and “when”
  
  **community**, names, addresses, video introductions,
• **networking platform** “join us”,
  
  **is a training tool**

  “serving as inspiration for your city, helping you with your process in moving upwards”
Toolbox:
“how users will look for the information”

Entrance via Topics

Geographical entrance

Search

COST SUB-URBAN

3D GEOLOGICAL SUBSURFACE MODELLING

Key Topics:
Subsurface modelling, modelling man-made ground, model integration, model maintenance
return to Backwheel

Seen in the urban context
Today, in more and more countries geological subsurface modelling is gradually replacing traditional mapping. Most often however, the information needed to create a reliable and useful urban subsurface model is not available within a GSO, let alone a single database. Different data types have to be combined to construct the model, data density is typically very variable and the data come in an array of different formats and are therefore not easily interoperable. Due to the dynamic nature of the urban subsurface, after model delivery regular maintenance is required to prevent the model from quickly being outdated. Typically, 3D geological subsurface modelling output is not used directly in the urban planning process, but forms the basis for applied
Navigating through the Toolbox

Translating into decision-making

Translating Knowledge into Workflows

Knowledge ‘Subsurface’

Knowledge ‘Urban Planning’
Underground Topics

Archaeologists
Geohydrologists
Cables+Pipelines
Geologists
City planners

No Integrated subsurface model

Subsurface is unknown territory, equates to costs and delays; opportunities not appreciated
Subsurface specialists

Working in different depts,
Lacking insight with respect to
the world of urban planning
State of the art in urban geoscience research, sharing geoscience knowledge across the disciplines within the geoscience community, *good practices, gaps, common models*

Giving urban planners the opportunity to familiarize themselves with the subsurface

**Underground Topics**
Giving insight in the world of urban planning
Subsurface specialists and Urban Planners Pro-actively working together

- Translation into workflows
- Bridging the gap between the communities
Inform and Empower policy- and decision makers

safeguarding subsurface ecosystem services,
managing georisks, making a difference to our big
cities... in Europe and beyond

Translating into decision-making

Translating into workflows

Underground Topics

Urban Planning Topics
Navigating through the Toolbox

Translating into decision-making

Translating Knowledge into Workflows

Knowledge ‘Subsurface’

Knowledge ‘Urban Planning’
Our audience:

- 3D modeller Engineering company in Kiev
- Geohydrologist Geological Survey in Bangladesh
- Urban Planner from the City of Singapore
- Professor on urban planning University of Bogota
- City Economist Prague
- Resilient City Officer in Karachi
- Member of City Council in Rome
- .....  
- .....  

Giving the users a feel for what can be achieved in their own organisation

Helping them to address issues with a fraction of the costs
Sub-Urban Next:

- with our **knowledge** and our **community** we want to connect with other cities in Europe and beyond, with other cities around the world
- we want to work together **with new partners around the world**, learning from their experiences and good practices
- together filling the knowledge gaps, **making the community grow**
- together transferring these experiences to the **NEXT generation**
The Toolbox comprise a fit-for-purpose suite of recommended methodologies, good practice, guidance, and case studies to enable the free flow of key subsurface data and knowledge.

The toolbox is now accessible [here](http://example.com).