

# COB NETWORK CABLES AND PIPELINES

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platform kabels & leidingen

## CONTENTS OF THIS PRESENTATION

1. Cables and pipelines: trends & policy development
1. The knowledge network Cables and Pipelines
1. Future perspective: network and projects

## TRENDS (1)

- Fast growing networks:
  - > Sustainable energy systems
  - > Sustainable sewage systems
  - > Trade liberalisation telecom and energy markets

## TRENDS (2)

- Increasing dependence on energy and utilities

## TRENDS (3)

### Increasing use of underground

## TRENDS (4)

- Increasing resistance against disturbance and hindrance
  - > Quality of urban life
  - > Quality of public space

## DUTCH POLICY (1)

- Growing awareness of the importance of utilities for society



- Growing concern about risks and interruptions of delivery (water, gas, electricity)



Apache crash



## DUTCH POLICY (2)

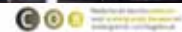
- Growing awareness: the underground is the "next western frontier"
  - > The underground is worth 'gold'
  - > Rules are needed



## DUTCH POLICY (3)

- Increase of policy regulations:

- > "Diggers regulation"
- > Safety Regulations
- > Underground spatial planning



## WHERE DO WE STAND NOW ?

- Growing use of underground space
- Increasing regulation in the recent years
- More awareness needed
- More knowledge needed



## COB-KNOWLEDGE NETWORK

- Knowledge network on research regarding C&P
- Bridge between traditionally opposing parties
- Pre-competitive research
- Combined research projects



## NETWORK: 37 PARTICIPANTS

Branches	Name
Utilities	Energied, GPKL, Bouwend NL, RIONED, Kiwa/Velin
Knowledge institutes	Kiwa, KiwaGastech, TUD, TNO, Geodelft
Network owners / operators	Continuon, Tennet, Gasunie, UPC, DZH, HH Delfland, Essent
Constructors / consultants	VSHanab / Lievense, Grontmij, Tebodin, IFTechn, Tablin
Municipalities / communities	Utrecht, Den Haag, A'dam, R'dam, Arnhem
State departments	EZ, V&W, VROM
Remaining	Port of Rotterdam, Prorail, St. Pipeliner, St. Buisleidingenstr. Kadaster



## COB PROJECTS: NEW WAYS

1. Completed projects
  - > Risks of combined utilities
  - > Economic analysis combined utilities
  - > Masterplanning Underground Space
2. In production:
  - > Innovative exploration techniques
  - > Educational book: introduction C&P
  - > Future needs / developments underground transportation
3. New initiatives
  - > Underground High Voltagelines
  - > Underground space use regulations
  - > Implementation safety management combined utilities



## FUTURE PERSPECTIVE (1)

- Making the connections between the networks: facilitate profs



## FUTURE PERSPECTIVE (2)

- Results of projects: *more knowledge*



## FUTURE PERSPECTIVE (3)

- Results of projects: *more efficient use of space*



## FUTURE PERSPECTIVE (4)

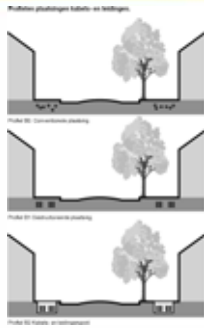
- Results of projects: *more efficient use of space*



Utrecht, below motorway A2



## FUTURE PERSPECTIVE (5)



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