

# PILOTS AND LIVING LABS IN ZEN

Thomas Berker & Ruth Woods

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**WHY?**

# WHY PILOTS?

- Forced to collaborate across disciplines
- Learning by doing for all involved parties
- Demonstrate feasibility

# LIVING LABS

- Going (far) beyond the state of the art
- Being allowed to miss and fail
- End-user involvement

# FOR YOU

- Privileged access to a scarce resource: actual development projects, but also living labs
- Up-to-date information about basically everything that happens in ambitious neighbourhood development in Norway

# ORGANISATION IN ZEN

- WP6: Pilots and Living labs, Inger Andresen
- Pilots: One researcher in ZEN main contact per pilot, targeted support to stakeholders
- Living labs: Post-doc Ruth Woods + Sintef resources

# **EXPERIENCES FROM ZEB**

# THE ENGINEER'S/ARCHITECT'S QUANDARY

*To be tasked to solve problems that are  
systemic without being able to  
build/control the system.*



# DEALING WITH THE QUANDARY

*Taking responsibility for a specific physical object outside the laboratory - supported by laboratory-like conditions*

# IN MORE THEORETICAL TERMS

- From primary instrumentalisation (decontextualisation, reduction) to secondary instrumentalisation (embedding, interaction) (Farmer 2017 referring to Feenberg)
- Pilots as boundary objects (Star and Griesemer 1989; Berker and Kvellheim 2017)
  - Between researchers and construction industry: “skin in the game”
  - Between different disciplines: “robust solutions”

# THE PILOTS

# IN GENERAL

- 2 campus developments (Trondheim, Evenstad)
- 4 residential areas + kindergarten/school (Steinkjer Lø, Trondheim Sluppen, Zero Village Bergen, Elverum Ydalir)
- 2 mixed mode (Oslo, Bodø)

# INITIATIVES

- Statsbygg (2 campuses)
- Private developer (Zero Village Bergen)
- Municipalities and their climate ambitions and plans

# SMALL-BIG

- Small
  - Steinkjer Lø (450 occupants)
  - Campus Evenstad (470)
  - Trondheim Sluppen
- Medium
  - Gløshaugen
  - Elverum Ydalir (1000 flats)
  - Zero Village Bergen (1600)
- Large
  - Bodø (8250)
  - Oslo Furuset (9000)

# CLEAN SLATE?

- Elverum Ydalir (gravel pit)
- Zero Village Bergen (outside the city)
- Bodø (airport redevelopment)

# MATURITY

- Evenstad
- Elverum Ydalir
- Steinkjer Lø
- Trondheim Gløshaugen
- Trondheim Sluppen
- Oslo Furuset
- Bodø
- In limbo: Zero Village Bergen



# GENERAL OBSERVATIONS SO FAR

- Dependence on political processes (e.g. Zero Village Bergen)
- Dependence on market/developers (e.g. Elverum Ydalir, Oslo Furuset)
- Reuse or new development (e.g. Steinkjer Lø)
- Incremental development vs holistic plan for the area (all larger developments)

# LIVING LABS

# IN GENERAL

- Pop-up living labs at campus Gløshaugen
- Evenstad
- Sluppen

# REFERENCES

# **GROUP WORK**

# ASSIGNMENT

- Develop a grant application: 60 min
- Pitch this application: 4x10 min

# CALL TOPIC

Large neighbourhood development (> 5000 prospective occupants) only rarely happens from scratch and within a short time frame. In this call for proposals we elicit applications that will develop research based solutions enabling planners and developers to proceed incrementally without losing sight of ambitious environmental goals for the whole neighbourhood. These solutions may be purely technical, they may be organisational or they may combine technical and non-technical elements.

# FORMAL REQUIREMENTS

Refer to RCN's general requirements for researcher projects,  
in addition proposals should:

- not last longer than 36 months
- involve more than one discipline
- be connected to at least one of the pilots within the ZEN centre
- typically cost 5-8 mio NOK (= 1 postdoc, 1 PhD, some months for you)



# PITCH

- 10 minutes for each group
- Will be evaluated by an interdisciplinary panel
- Make the project idea stand out
- “What you want, what you can, what ‘they’ want”

# GROUPS

- Group 1: Ruslan, Kristian, Lillian
- Group 2: Jakub, Maria, Eirik
- Group 3: Carine, Shabnam, Dimitri
- Group 4: Biljana, Elena, Stian

## RESOURCES (SENT BY EMAIL)

- This presentation (sent to you by email)
- ZEN memo on the pilots' status (sent to you by email)
- RCN's researcher projects:  
[https://www.forskningsradet.no/en/Researcher\\_project/1195592882768](https://www.forskningsradet.no/en/Researcher_project/1195592882768)