

Retrofit - CARE project

The needs

A need to improve the aging built environment with small actions and to make the impact of the actions greater.

A need to manage and share resources and thereby increasing the user-efficiency and filling spaces with actors.

A need for an answer to structural changes.

Societal needs for built environment –

Nordic Built Campus Retrofit – project
develops solutions through the application of campus
demonstrations.

Retrofit - CARE definition

Defining Retrofitting processes

Retrofitting processes are the additions of new technologies, features and functions to existing built environment systems.

In the CARE-project the criteria for the retrofitting processes are need-driven, user-involving, agile, scalable and transferable.

Retrofitting processes can be illustrated as urban acupuncture actions that improve the complex systems of the campus by retrofitting interventions.

The addition of
new technology.



Usability retrofit
by applications.



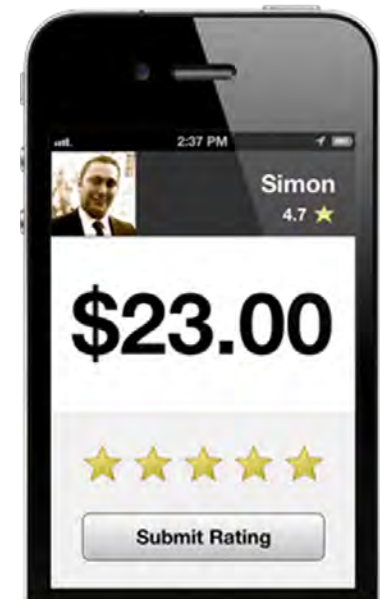
**Request A Pick-Up
Anywhere, Any Time!**

Just text or set your pickup
location on the app.



Ride in Style!

Uber dispatches a fancy black
vehicle to pick you up.



Leave the cash at home!

Uber automatically charges
your credit card (including tip).

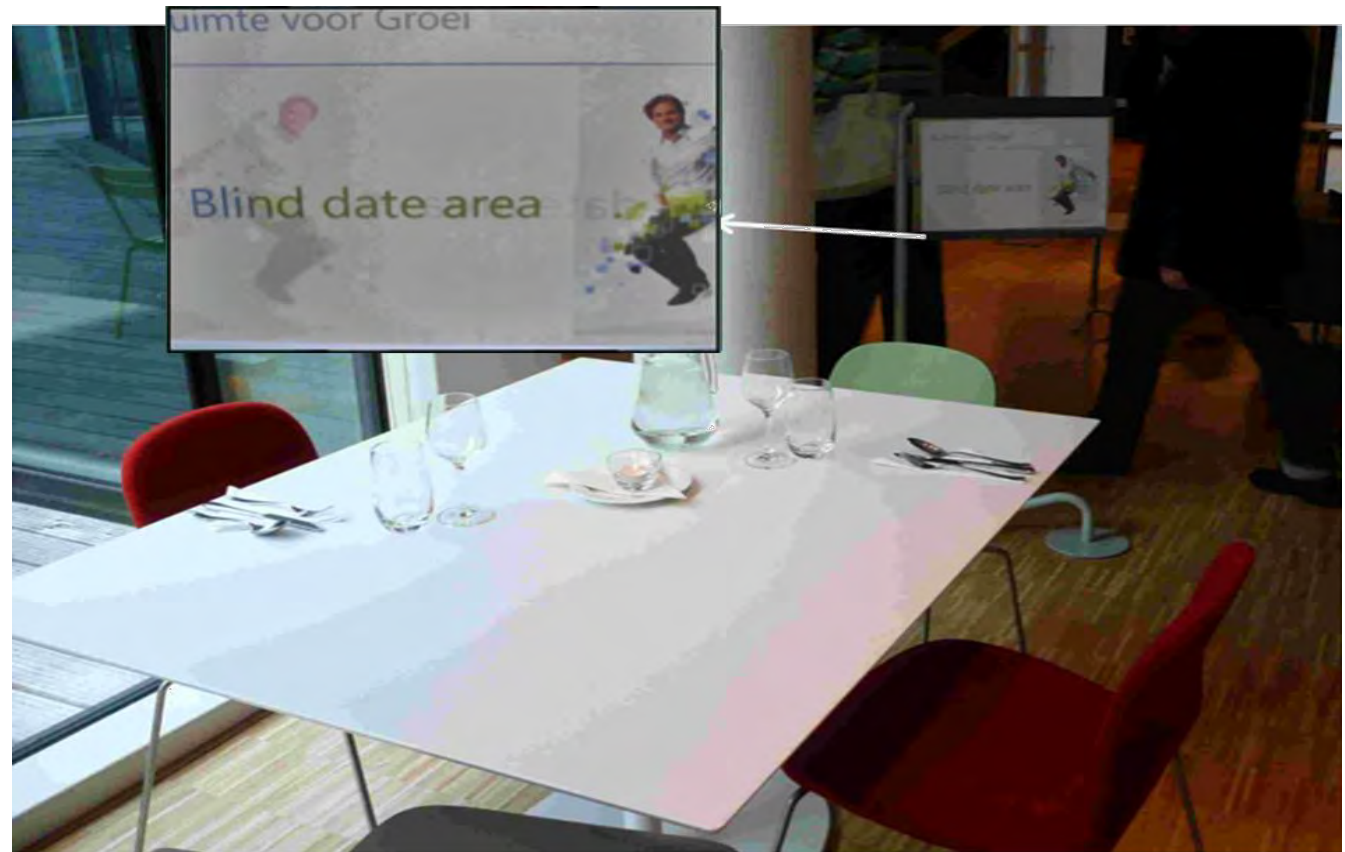
The addition
of new
functional
features.



Providing new services.



Introducing
ground-
breaking use.



Redefining the use
of space.



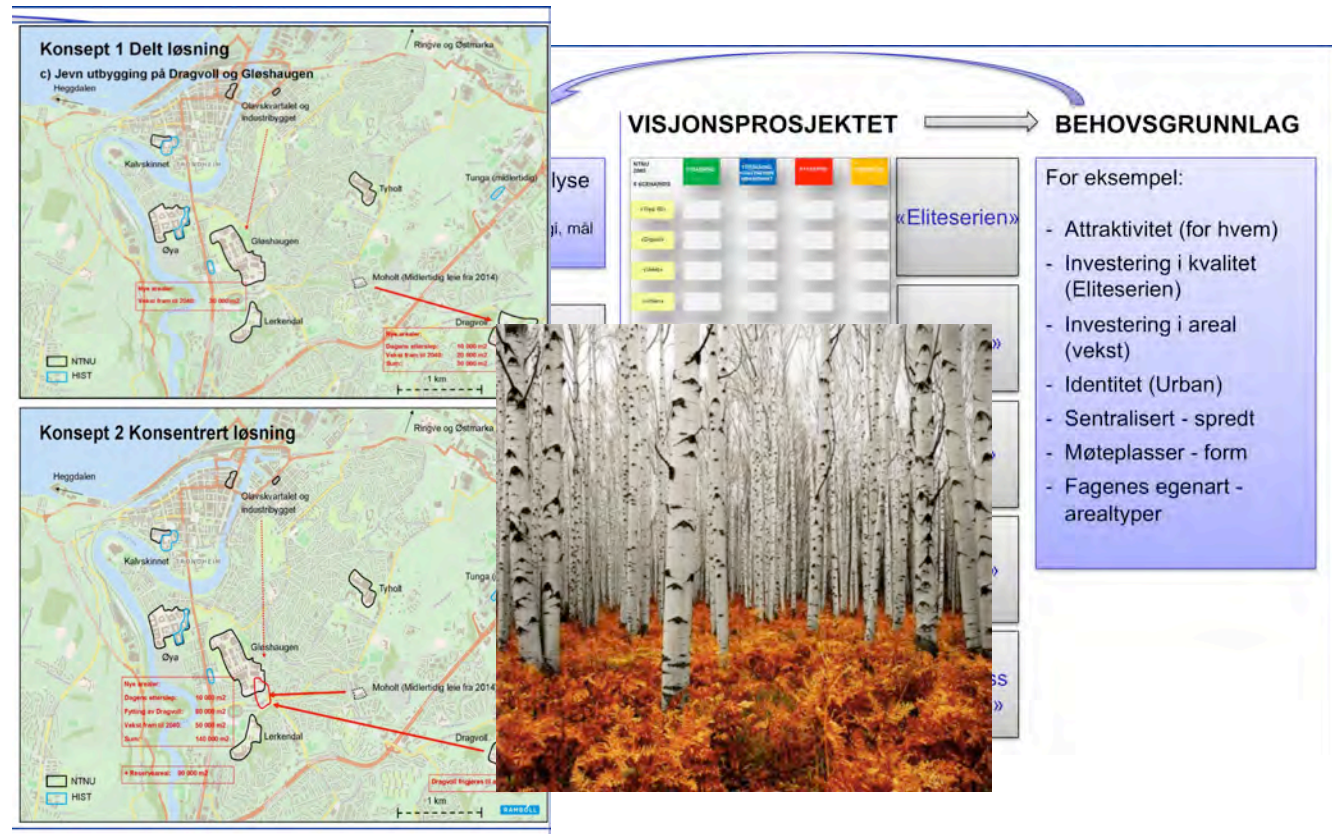
New buildings
retrofitting areas.



Culture retrofit
by creating
new rules and
behaviour.



Commitment
retrofit
by joint
strategies.



The main results

Scalable built environment solutions through campus demonstrations towards urban area development.

Nordic campus development models and strategies for joint market creation.

Built environment process development achieving multi- and transdisciplinary retrofiting.

The project consists of retrofitting on three levels:

- **strategic**, providing long-term goals and market demand
- **tactic**, creating new process knowledge and management competence
- **operational**, creating service models and increasing user-efficiency

The project consists of retrofitting on three levels:

- Campus Vision benchmarking and analysis, Methods for impact.
- Common challenges and Manuals for design, management and use.
- Evidence of campus retrofitting added value. Measuring and evaluation.

Finland

- University Properties of Finland Ltd, **Olli Niemi** (UPF)
 - University of Turku, University of Eastern Finland and Technical University of Tampere demonstrations
- Aalto university, BES, **Suvi Nenonen** (AU)

Sweden

- Akademiska Hus Properties Ltd, Hans Hofflander (AH)
- Chalmersfastigheter Ltd (CF)
- Johanneberg Science Park Ltd, Maria Ådahl (JSP)
- Chalmers University of Technology, **Göran Lindahl** (CUT)

Norway

- Norwegian University of Science and Technology, Achitecture and Fine Art, Antje Junghans (NTNU)
- The Research Centre on Zero Emission Buildings, **Tore Haugen** (ZEB)

Denmark

- Danish University of Technology, Centre for Facilities Management, **Susanne B. Nielsen** (DTU-CFM)
- Danish University of Technology, Campus Service, Jacob Steen Møller (DTU-CS)

Iceland

- University of Iceland Department of Architecture, **Ævar Harðarsson** (HI-AR)
- University of Iceland Division of Operations and Resources, Gudmundur R.Jonsson (HI-OR)

Project workshops will be carried out in collaboration and in combination with Nordic network events.

Partner Networks

- CREON
- Nordic Sustainable Campus Network, NSCN
- Det nordiska universitetsadministratörssamarbetet, NUAS
- N5T
- CIB
- EuroFM
- OECD, Centre for Effective Learning Environments, CELE

CARE – work session in Helsinki 18.-19.11.2014



Retrofitting challenges – Manual for Design, Use and Management

9. - 10.4.2015 work session, Chalmers in Gothenburg

8th Nordic Conference on
Construction Economics and Organization, Tampere

- 2 Paper Presentations

EFMC15 Glasgow

- Paper Presentation and Invited work session

Campus development training sessions in Finnish campuses

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