



SUSTAINABLE BUILDING INFORMATION WORKSHOP

12. NOVEMBER 2014 - COPENHAGEN

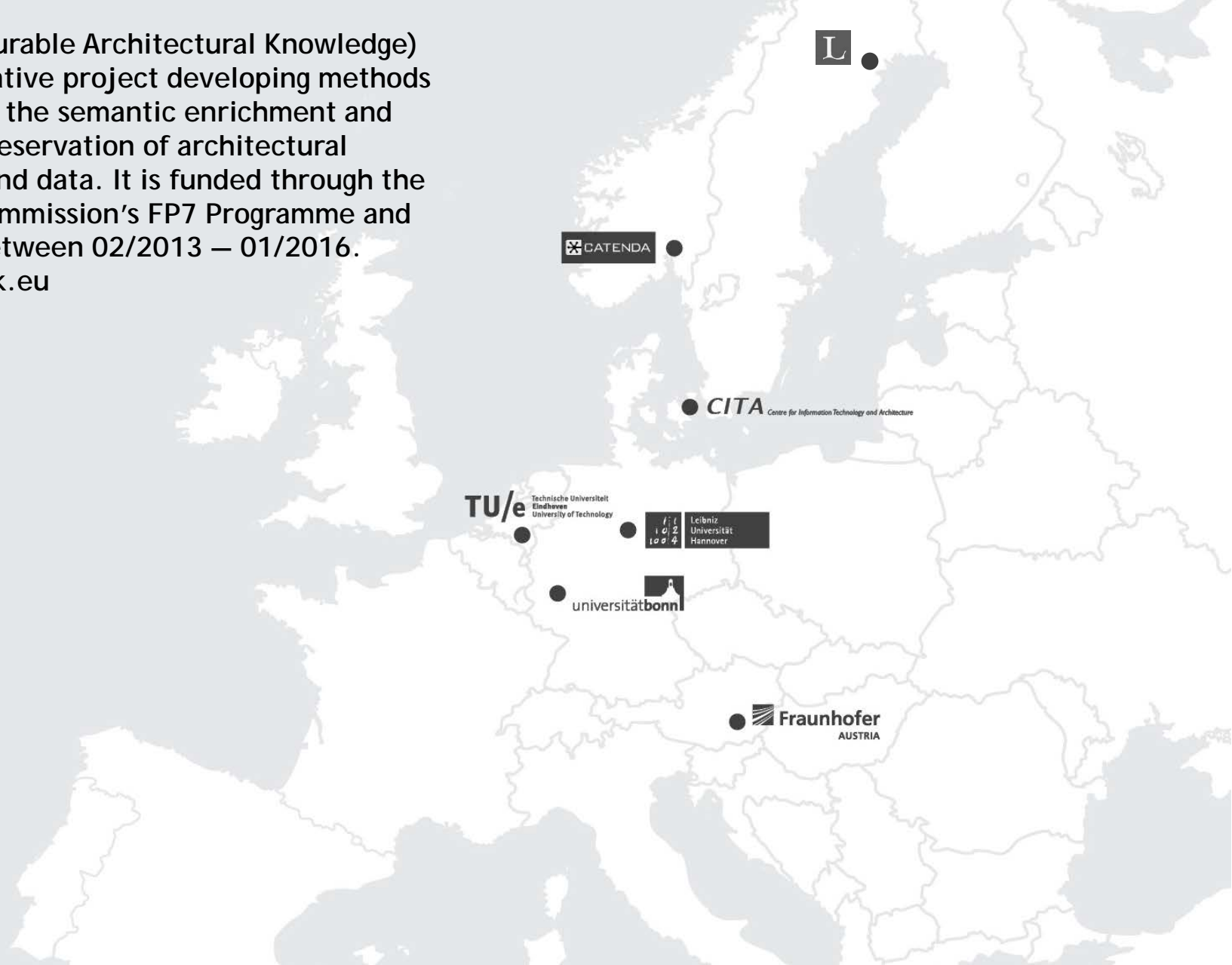
CITA - Centre for Information Technology and Architecture // Copenhagen

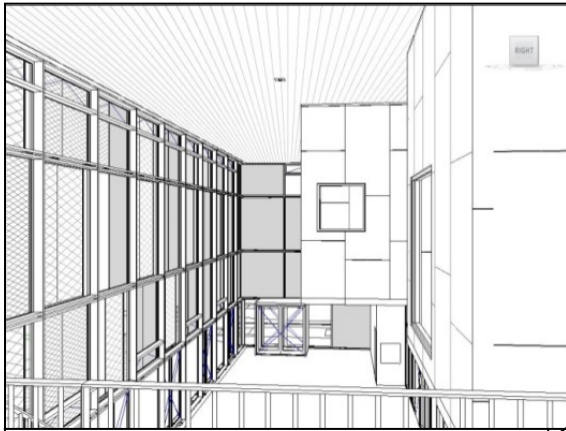


DURAARK
DURABLE
ARCHITECTURAL
KNOWLEDGE



DURAARK (Durable Architectural Knowledge) is a collaborative project developing methods and tools for the semantic enrichment and long-term preservation of architectural knowledge and data. It is funded through the European Commission's FP7 Programme and is running between 02/2013 – 01/2016. www.duraark.eu





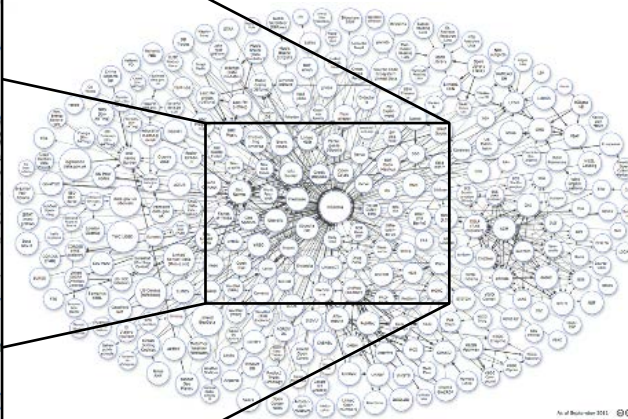
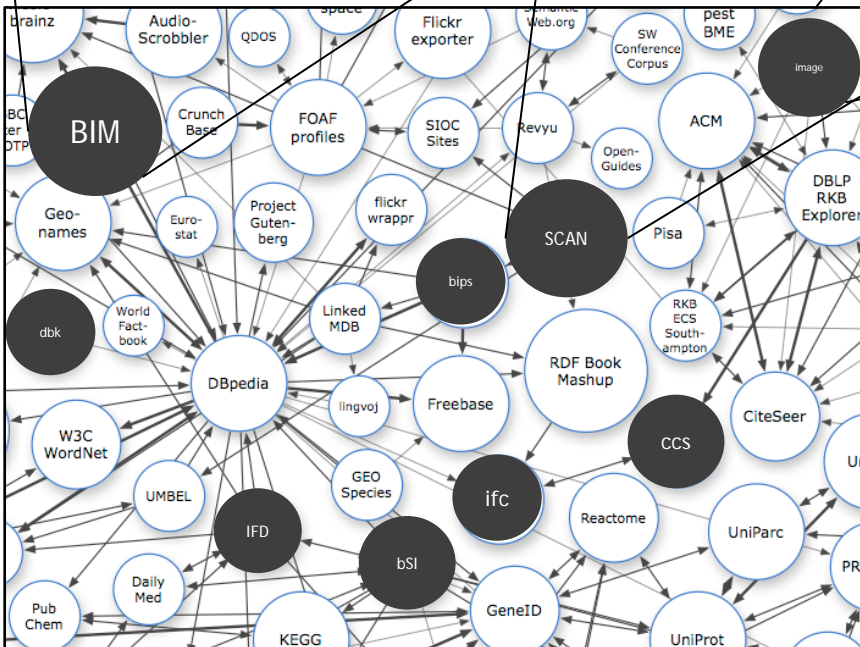
BIM



Scan



Foto



Semantic Web - Means to Connect and Compare



Extended DURAARK Partnership with Stakeholders

3XN
 ATS
 Autodesk Research
 Autodesk Training
 Bane Danmark
 Bentley
 CITA
 Erik Møller Architects
 ICD
 Karlsruhe Institute of Technology
 Københavns Ejendomme
 LandmaalerGarden
 LE34
 National Institute of Building Sciences
 NCC
 Nemetschek VectorWorks
 PLAN3D
 Scanlab
 Selvaag Gruppen / DDS Data Design System
 Statsbygg
 Studio ATP
 Studio Christensen & Co Architects / CCO
 Studio PLH Architects
 TIB
 ...

ERIK MOLLER ARKITEKTER CCO
 SEARCH
 NEWS ARCHITECTURE
THE BLUE PLANET - AN IN THE WORLD ELITE
 The Blue Planet opens on March
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 Erik Møller Arkitekter Flæsketorvet 75 Den Hvide Koedeb

banedanmark
 Links Publikationer Nyheder
 NYHEDER PROJEKTER
 TRAFIKINFORMATION BANEARBEJDE ERHVERV PRESSERUM JOBB
 Nordvestbanen 2013 - sporarbejde - 2 nye stationer - nye broer - ekstra
 se video
 Trafikken lige nu
 23.06, 21:33
i Der kan være ændringer på din rejse med Lokalbansen.
 Søg på dit tog fra din station herunder eller læs mere om situationen på: Lokalbansen <http://lokalbanen.dk>
 Læs trafikmeldingen fra 23.06, 21:33
 Se trafikken på din station
 Sletiv stationens navn Søg Vælg fra liste
 København H

Tid	Mod	Status
23:17	Roskilde	
23:21	Helsingør	
23:25	Kbh. Lufthavn	

 Tog til tiden
 Nyt om banearbejde
 24.06 Aften- og natarbejde byggepladsen
 24.06 Stor baneordre til B
 20.06 Bro over Ganer Å re
 20.06 Broarbejde i skovop

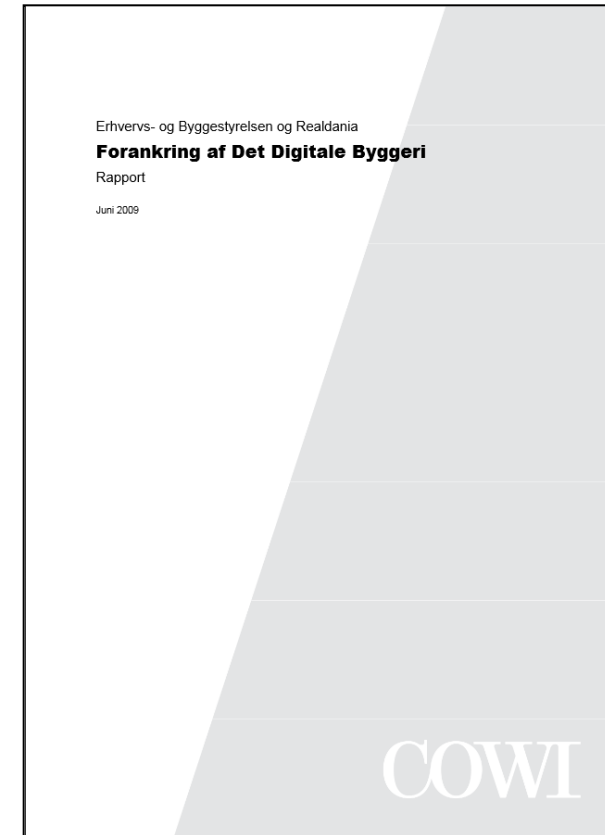
Findings

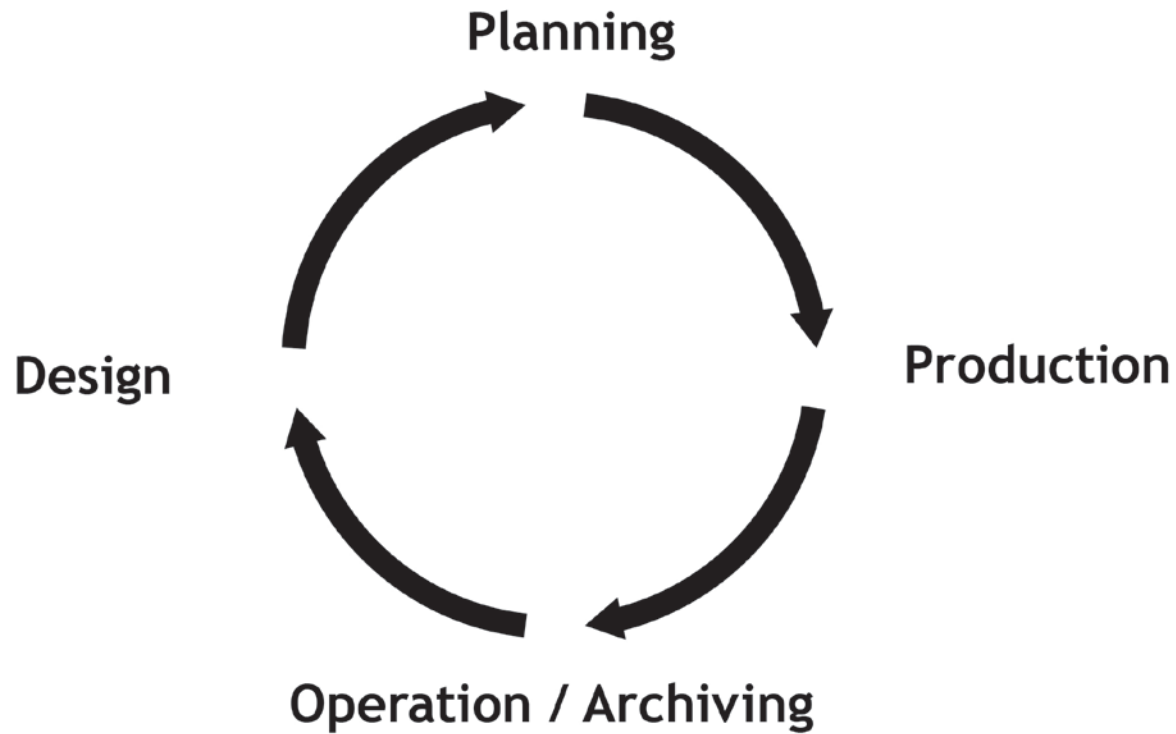
DENMARK

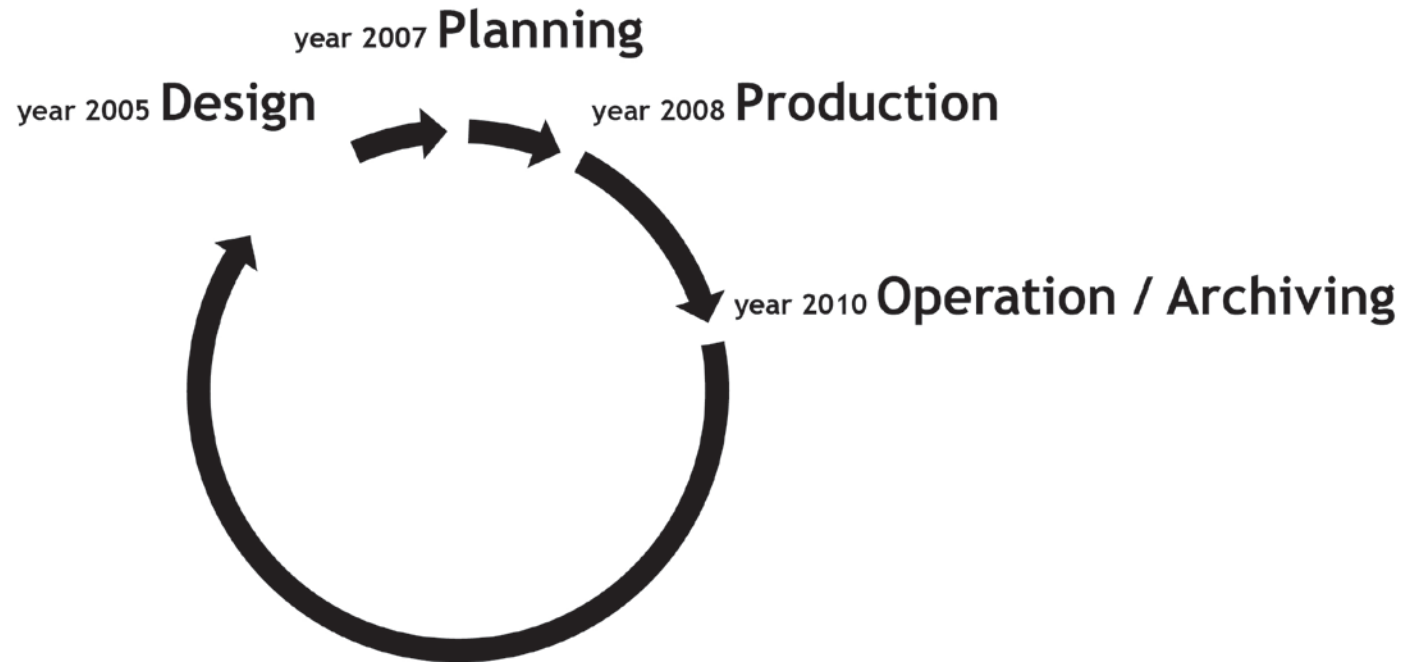
SINCE 2007: BIM DEMANDED FOR PUBLIC BUILDINGS

- State >2,5 mio Euro => BIM
- Municipalities >0,7 mio Euro => BIM

- Competition phase demands 3D model (IFC)
- Digital exchange of information via project web
- Quantity take-off from IFC model
- Digital handover of facility management information

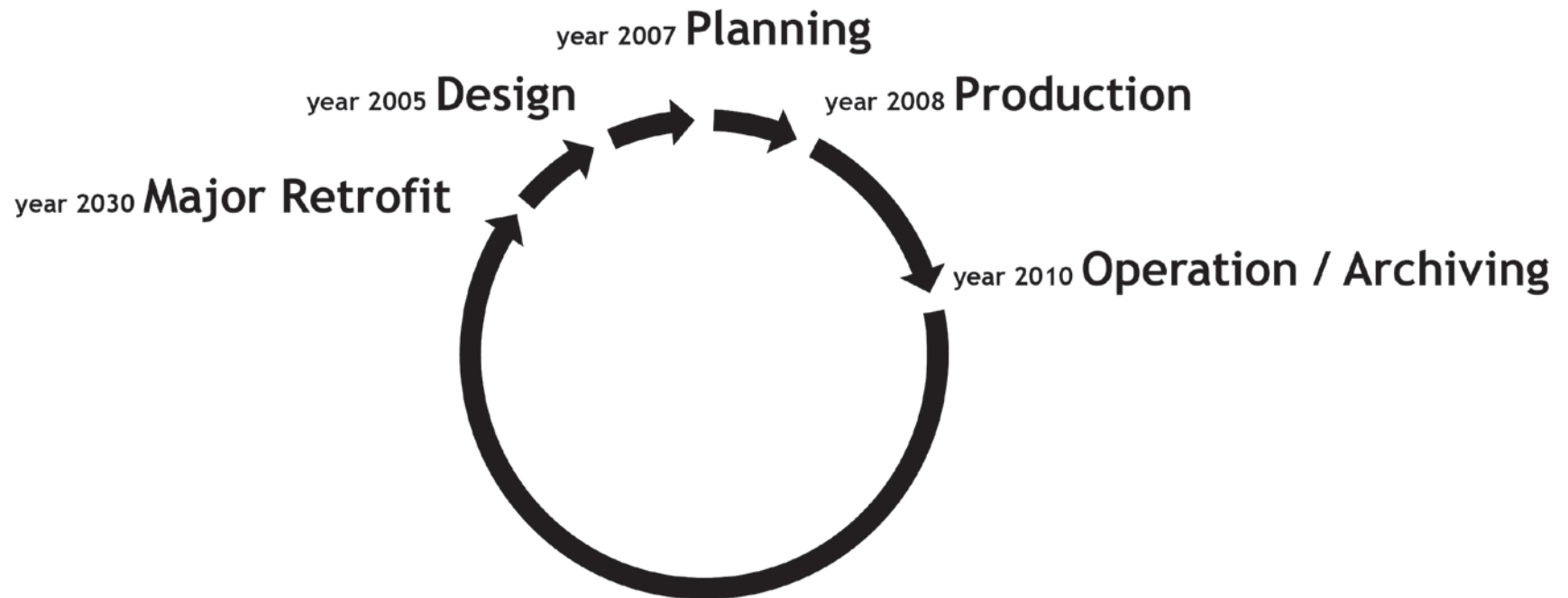






Life-cycle of BIM models in relation to lifetime





Life-cycle of BIM models in relation to lifetime



Stakeholder: Building Owners and Real Estate Managers

KØBENHAVNS KOMMUNE
København
KØBENHAVNS EJENDOMME

Kontakt | Min ejendomsportal | Søgning

Projekter | Indkøb & udbud | Ledige lejemål | Ejendomsportal | Om KEJD

Investeringspakke 13'
giver nye byggeopgaver til Københavns Ejendomme.

Nyheder

Forpagtningen af Øksnehallen udbydes
12/08 2013
Københavns Ejendomme udbyder nu forpagtningen af Øksnehallen for perioden 1. januar 2015 til og med 31. december 2024.

Bedre vilkår for små og mellemstore virksomheder
03/07 2013
Med de nye rammeaftaler har Københavns Ejendomme fået de bedst mulige priser på mindre håndværksopgaver på kommunens institutioner i Brønshøj/Husum, Nordvest og Nørrebro.

Jan Stockfeldt Olsen fik hjælp til selvhjælp
14/05 2013
Jan Stockfeldt Olsen, teknisk ejendomsleder i Vånerhallen, fik hjælp af en praktikant fra Københavns Ejendomme til at indstille deres ventilationsanlæg. Nu kan Jan Stockfeldt Olsen selv justere anlægget, og hallens aretning er blevet væsentlig mindre.

Driftsforstyrrelser? Kontakt HelpDesk

Strategi 2013

KEJD HelpDesk

Driftsforstyrrelser? Kontakt HelpDesk

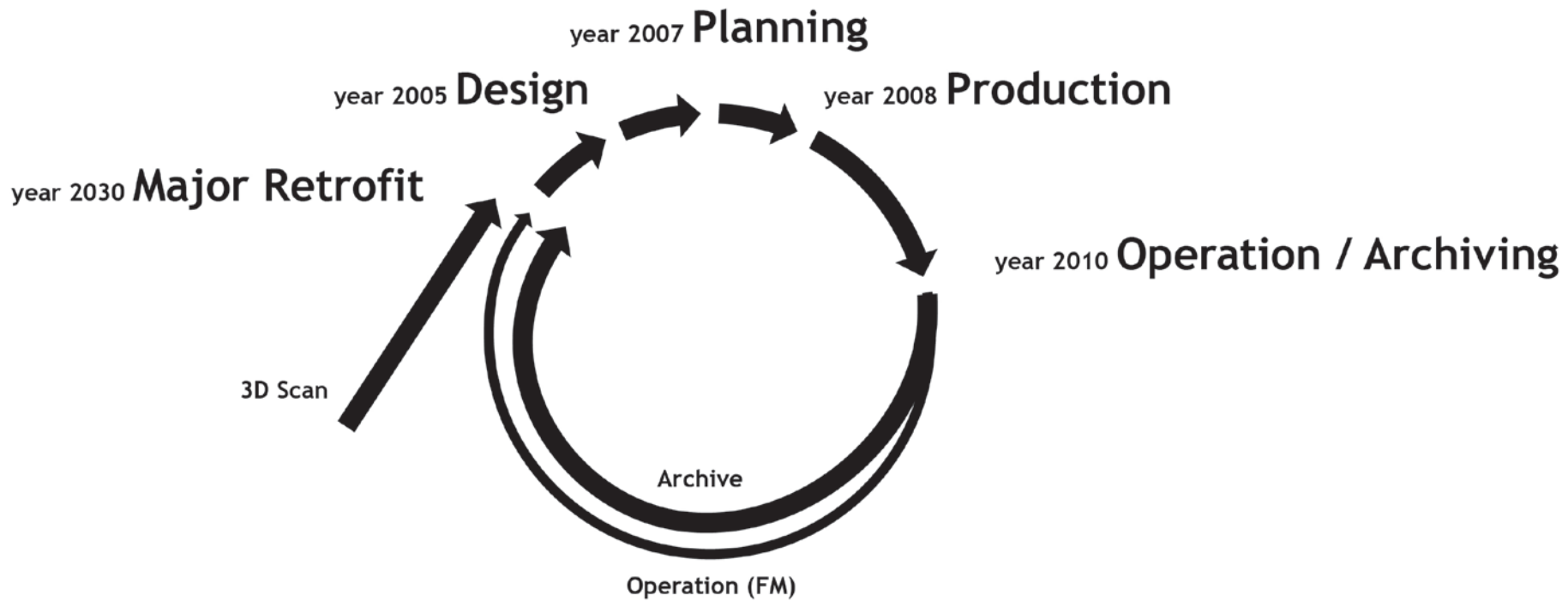
Krav til løn- og arbejdsvilkår

Properties
Schedule
Identity Data
View Name: Room Schedule
Dependency: Independent
Default View: None
Phasing: New Constru...
Other:
Fields: Edit...
Filter: Edit...
Sorting/Grouping: Edit...
Formatting: Edit...
Appearance: Edit...

Highlight Rooms by Department

DURAARK Toolbox - targeted Stakeholders





9.15 - Intro

9.25 - Personal intro of the participants

10.00 **Session 1: Approaches**

11.00 Coffee

11.20 **Session 2: Data Practices**

13.00 Lunch

13.40 **Session 3: System architectures**

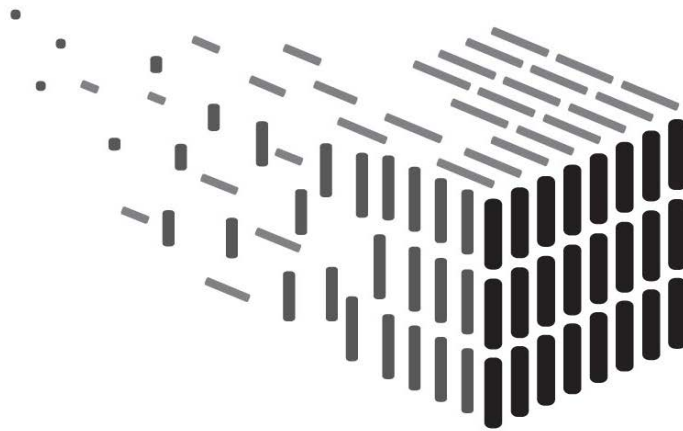
14.45 **Work sessions**

16.30 **Conclusion**

17.30 Expected End

Workshop Agenda and Expected Outcome





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10.00 - **Future challenges**: the shift to external web resources and their consequences for the architectural profession
- The DURAARK approach - (Jacob Beetz, TUE)

10.25 - **Geometric Enrichment of Building Data**
(Martin Tamke, CITA, Richard Vock, UBO)

10.30 - **Sustainable data practices** - state of research in long-term archiving of Building Information Data (Michelle Lindlar, TIB)

10.40 Question and Answers/Discussion



11.20 - Mapping the building stock of Copenhagen

(Emil Bisgaard Mortensen, Københavns Ejendomme)

11.45 - Managing the Building stock on University scale

(Markus Lampe, Danish Technical University)

12.00 - Q+A Discussion



13.40 - **Systems to manage building data**
Bent Dalgaard Larsen/ Denmark (DaLux)

13.55 - **Systems to manage building data**
Ole Kristian Kvarsvik / Norway (dRofus)

14.10 - **Systems to Collaborate- bimsync**
Dag Fjeld Edvardsen / Norway (Catenda)

14.20 - **Approaches to long-term archiving systems** - The DURAARK approach
Thomas Krijnen (TUE)



SESSION 3: SYSTEM ARCHITECTURES



Group 1

Bent Dalgaard Larsen
Jesus Montilla
Michael Ørsted
Gita Monshizadeh
Martin Tamke
Marco Fisichella
Michael Panitz

Dalux (DaluxFM)
Statens fastighetsverk (The National Property Board of Sweden)
Lufthavn København
Bane Danmark
CITA Copenhagen
L3s Hannover
TIB Hannover

Group 2

Ole Kristian Kvarsvik
Erik Aaberg
Markus Lampe
Jacob Beetz
Hamid Rofoogaran
Thomas Krijnen
Lena Lindbäck

dRofus
Arkivverket (Norwegian National Archives)
Danish Technical University
TU Eindhoven
LTU Lulea
TU Eindhoven
LTU Lulea

Group 3

Anders Engstrom
Morten Steffensen
Dag Fjeld Petersen
Riksarkivet
Michelle Lindlar
Henrik Leander Evers
Frode Randers
Richard Vock

Falun Kommun
Copenhagen Properties
Catenda
Johan Gásste / Johan Ekdahl
TIB Hannover
CITA Copenhagen
LTU Lulea
UBO Hannover



Reflection past

- where did IT systems work/ not work in respect to lifecycle and Longterm Archiving
- why did it not work / why did it work?

Current practice

- what data would you use / reuse in an emerging building lifecycle?
- How much effort is set into archiving of building related data?
- What is your current/typical landscape of IT-system? (diagramming)

Outcome: Map of current IT systems in practice
Current processes with Building Information

Future Practice

- what are the challenge and potentials from what was heard today for your future practice (i.e. through linked data, enrichment)?
- where does your / the professions practice need to change and with what requirements
- who is implementing this processes into systems and workflows for users? Is this a question of responsibility?
- How can adaptable systems look like?
- how could your system/ process be using a longtime archive functionality? (diagramming)

Outcome: A map of a future process and system of yours?
Diagram steps towards





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