# HOW FM MAY CONTRIBUTE TO HAPPINESS – THE OSCAR APPROACH

CFM Second Nordic Conference 29. -30. august 2016



Svein Bjørberg, Professor Norwegian University of Science and Technology / Multiconsult



#### **AUTHORS OF THIS PAPER**



- Svein Bjørberg
  - Professor, Norwegian University of Science and Technology, Trondheim, Norway svein.bjoerberg@multiconsult.no
- Alenka Temeljotov Salaj
  - Professor, Oslo and Akershus University of Applied Sciences, Oslo, Norway alenka-temeljotov.salaj@hioa.no
- Anne Kathrine Larssen
  - Phd, senior consultant, Multiconsult ASA, Oslo, Norway <u>anne.kathrine.larssen@multiconsult.no</u>
- Knut Boge
  - Associate Professor, Oslo and Akershus University College of Applied Sciences, Norway <a href="mailto:knut.boge@hioa.no">knut.boge@hioa.no</a>





## **AGENDA**



- Oscar what and why?
- Some findings
- What does it mean for....

# .....happiness?

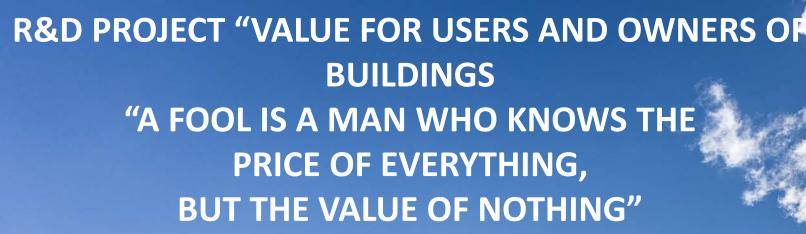






# **OSCAR**

What and why?



- OSCAR WILDE



www.oscarvalue.no



# OSCAR (2014-2017) - MAIN GOAL

To develop competences, methods and analysis tools for optimizing building design in a way to contribute to value creation for owner and enduser throughout its life time

Buildings which function well for core business demands over time, to lowest possible use of resources





### OSCAR – THATS US!



























**■** STATSBYGG

















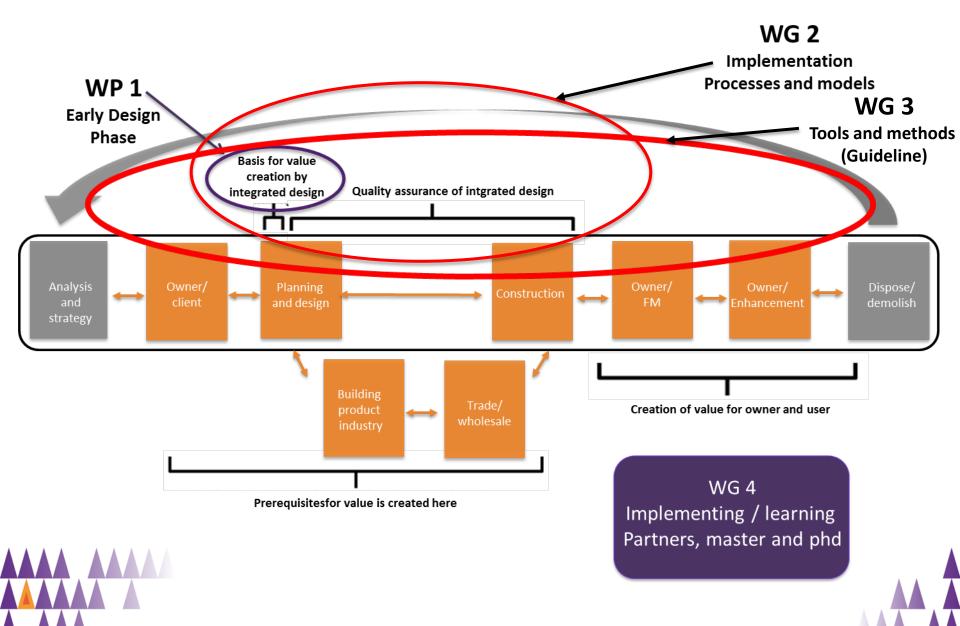
Long term owners, user organisations, developers, technical contractors, contractors, architects, consulting engineers, research institutes, universities, FM software developer



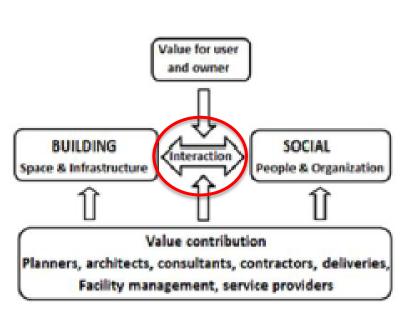


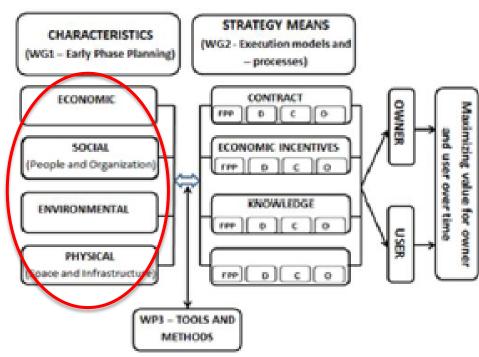
### **VALUE CHAIN AND OSCAR FOCUS**





# OSCAR MODEL: VALUE CREATION MODEL AND BASIC MIND MAP









## **APPROACH**



Literature

Interviews

Questionnaire surveys

Workshops

Case studies

#### **PRODUCTS**

- Dictionnaire OSCAR
- Interactive guideline
- Best practice cases, examples
- Teaching materials
- Papers and articles



### STUDENTS ARE AN ENORMOUS RESOURCE

- So far:
  - Project tehsis:
    - NTNU: 6 thesis with 6 studens
  - Bachelor thesis:
    - HiOA: 8 thesis with 12 students
  - Master thesis:
    - NTNU: 10 thesis with 11 students
    - UiA: 2 thesis with 3 students
  - PHD thesis
    - NTNU: 1 student (follows OSCAR all time)
    - Slovenia: 2 students (4 months)

Estimated value (250,- NOK pr hour): app 13 – 14 million NOK

- Most of them has literature- and questionairre:
  - Huge amount of references
  - Over 3000 respondents
- Respondents:
  - Users are dominant
    - hospitals
    - offices
    - schools
    - universities
  - owners, architects, consultans, contsruction companies and suppliers









# **SOME FINDINGS**

# LITERATURE REVIEW – HIGHLIGHTS ON HAPPINES Sourceasing value

- Coherence between
  - how we design, operate, maintain and enhance our buildings and
  - what values the building creates for those useing, maintaining and owning the space
- Happiness is entirely personal subjective feeling of weel-being
  - positive emotions and absence of negative emotions (Andrew, 2011)
  - includes many «work» factors: enjoyment, enrichment, relationships, variety, teams, recognition etc (Andrew, 2011)
- Happier people are both healthier and more productive
  - happiness **improve productivity** app 10-12% (Oswald et al, 2012)
  - increase sale by 37%, productivity 31%, accurancy of tasks 19% (Anchor, 2010)
- Physical surroundings have impact on satisfaction and hence happiness









- Increasing focus of users and owners on
  - how buildings affect the core business due to changing demands
  - adaptability more in focus to upkeep usability and sustainability (economy, social and environmental aspects)
- Totaly affects negative on all value aspects when
  - lack of adaptability when demand of change occurs
  - FM does not upkeep the building (Norwegian White Paper Stm 28, 2011-2012)
- Elaborating more proffesional and strategic FM
  - need to develop new understanding of roles for FM
  - more emphasis on **strategic perspectives than only on costs** (Valence, 2005, Jensen et al, 2008, Jensen, 2009)

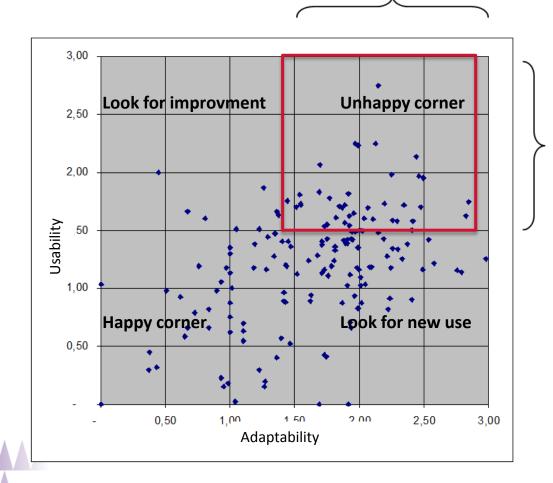




# **EXAMPLE CASE**



Low adaptability and usability > short lifetime > reduced economic value of the building



Low usability > productivity loss > rent reduction



# MAIN FINDINGS FROM QUESTIONNAIRE

| Aspects     | Highest importance                                     | Lowest importance   |
|-------------|--|---|
| Economy     | Investment costs                                       | Market value in case of sale                                |
|             | Effect on core business                                | Cost efficient services (soft FM)                           |
|             | Energy cost  | Yield   |
|             | Cashflow (NPV) incl LCC                                | Workplace cost in us  |
| Environment | Indoor climate / comfort                               | Recycled / recyclable materials                             |
|             | Energy efficiency                                      | Environmental certification                                 |
|             | <ul> <li>Long life materials / components</li> </ul>   | Greenhouse gas emissions                                    |
|             | Renewable energy resources                             | Efficient waste handling facilities                         |
| Social      | User involvement                                       | Facilities for physical activities                          |
|             | Security and safety                                    | <ul> <li>Individual operation (sun, temp, light)</li> </ul> |
|             | Architectural qualities                                | <ul> <li>Promoting pride (org. cultural value)</li> </ul>   |
|             | Owner governance                                       | Orientable (intuitive signs)                                |
| Physical    | <ul> <li>Accessibility and universal design</li> </ul> | Generality (possibility change function)                    |
|             | <ul> <li>Area use (logistics, movements)</li> </ul>    | Innovation  |
|             | <ul> <li>Suitable materials with life span</li> </ul>  | Life cycle planning / intergrated design                    |
|             | • Technical condition / Texibility                     | Parking facilities  |
| Obstacles   | Adequate / clear project order                         | Dominant technical professions                              |
|             | Competence on user phase / need                        | Too much emphasis on technic and cost                       |
|             | Multidisciplinary understanding                        | Insufficient use of digital decision tools                  |
|             | Sufficient project organization                        | Dominant role of architect                                  |









# WHAT DOES IT MEAN....

...for happiness?







### FINDINGS FOR ESTABLISHING HAPPINESS

## OSCARS working hypotheses:

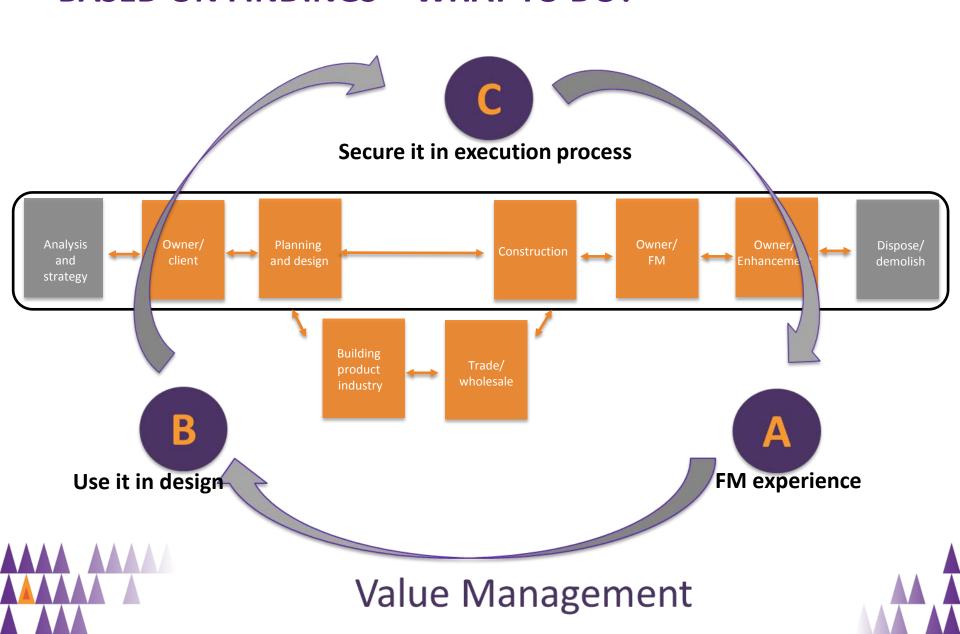
- «Happy users gives happy organizations (core business) and owners»
   Main statements from OSCAR that will contribute to happiness:
- **1. Logistics** for working processes
- Adaptable building to upkeep work efficiency when changes in core business is a demand
- Good indoor climate and individual regulation on temperature, sunscreen and air flow
- Good communication / response time with FM when assistance is needed
- 5. Upkeep quality in workplace surroundings by ppreventive maintenance







# **BASED ON FINDINGS – WHAT TO DO?**





## IN THE PERSPECTIVE OF HAPPINESS FM SHOULD:

- Search for improvements and identify need and potential for changes in existing building portfolio – measuring user satisfaction and regular dialog with users.
- Consider the potential for adaptations and development of existing premises (adaptability, alternative use etc.) so that user satisfaction can be maintained over time.
- Get involved in early phase planning of projects transfer of experience from operational phase.
- Demonstrate the cost/benefit and added value (both quantitative and qualitative methods)

Remember: a lot of decisions in early design phase is irreversible when construction is finished







# OSCAR-PRINCIPLES (A STARTING APPROACH)

10101

#### **OFFENSIVELY:**

To achieve good buildings for a better society, a precondition is to get satisfied users. Satisfied users make satisfied owners.

#### **SMOOTH, SUPPORTIVE:**

Buildings should be usable over time and have to mkeet changing demands from user and owner. Adaptability, life cycle planning and – economy are in front line.

#### **COMPETENT:**

Right composition of competence in early design phase is a prerequisite to see and understand the potensial, possibilities and limitations within owners ide and strategy.

#### **ADDRESSING:**

An «OSCAR-bridge» with clearfied information flow, decision gates and quality assurance must be excecuted between early – and user phase. This delivery of competance will secure transfer base for value creation.

#### **RESPONDING:**

Access to adequate documentation must be understandable and easy available for all stakeholdes in user phase.



# THANK YOU FOR LISTENING

Svein.bjorberg@multiconsult.no