

# *Managing Workplaces Towards Sustainability*

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# RYM Oy



- **RYM Oy – Built Environment Innovations**
  - RYM Oy is the Strategic Centre for Science, Technology and Innovation of the built environment in Finland.

- **RYM Oy has three programs**

- PRE – Built Environment Process Re-Engineering
- EUE – Energizing Urban Ecosystems
- IE – Indoor Environment



*PRE Program's aim is to create totally new procedures and business models for the real estate, construction and infra sectors.*

# The six thematic work packages in PRE

1. *Model Nova* – Use of BIM during property's life cycle from the owner's perspective
2. *NewWOW* – Changing nature and requirements of knowledge work and their impact on management of an organization and spaces
3. *BIMCON* – BIM-based product data management in the delivery chain of industrialized building
4. *DRUM* - Entity data models and standards
5. Infra FINBIM – Future innovation-based delivery chain of the infra sector
6. *BIMCity* – Platform for dissemination, evaluation and development of community-level built environment digital models



The goal of NewWoW research is

- the creation of concepts,
- implementation management models, and
- key metrics for high-performance and sustainable new ways of working.



# *Motivation* of the paper

- Many ways to assess the sustainability of built environment.
  - However, from the workplace management perspective, the systems do not offer good enough guidance for managing the workplaces in a sustainable manner in daily activities.
- A need to create a framework for assessing the sustainability of workplace management not from the building perspective, but from the perspective of using the workplaces.



# *Aims* of the paper

*1<sup>st</sup> aim:* To construct a practically oriented framework for describing the sustainable elements of workplace management.

*2<sup>nd</sup> aim:* To utilize the framework to describe the sustainable solutions made in Finnish governmental workplace concepts.

→ Focus on workplace management and Finnish governmental workplace concepts



# Research methods

*1<sup>st</sup> aim:* To construct a practically oriented *framework* for describing the sustainable elements of workplace management.

## *Framework*

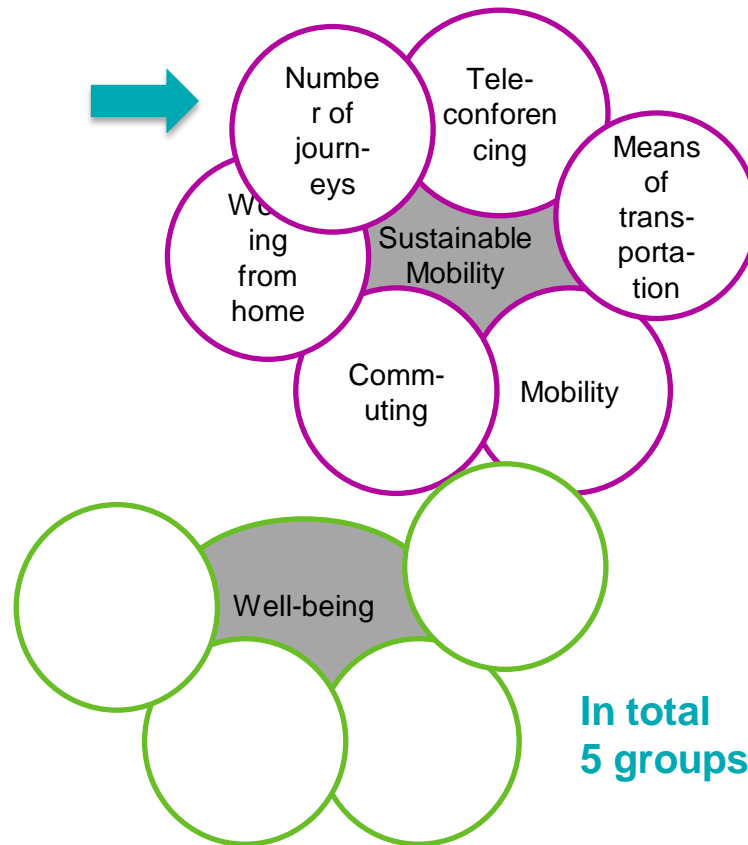
- was created in workshops
- was validated with interviews and small-scale workshop
- 68 sustainability-related words were identified and grouped into 5 categories

# Development of the framework

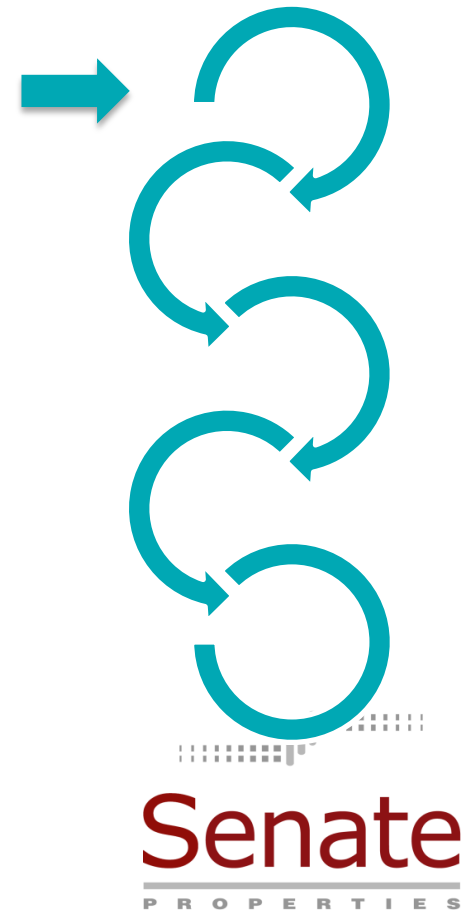
68 sustainability-related words

Health  
Energy efficiency  
Materials  
Accessibility  
Renewable energy  
Waste management  
Space efficiency  
Working from home  
n \* 68

Grouping and regrouping



Synthesis



# Research methods

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## *Framework*

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*2<sup>nd</sup> aim:* To *utilize the framework* to describe the sustainable solutions made in Finnish governmental workplace concepts.

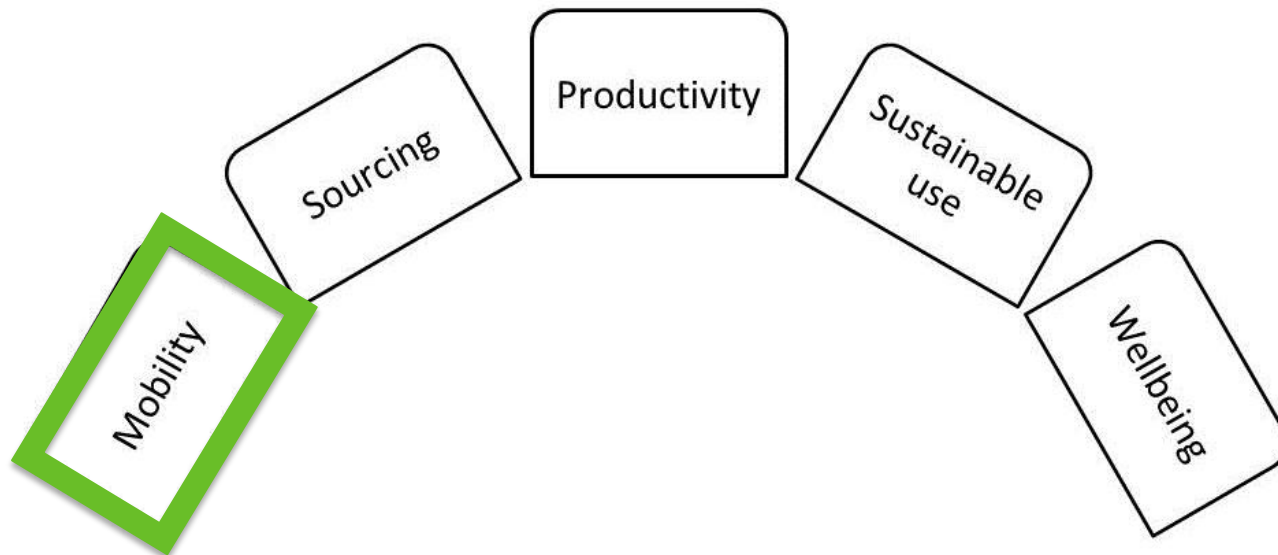
## *Utilization of the framework*

- a content analysis
- material: workplace concepts from five sectors of Finnish public administration



# Results - *Sustainable Workplace Management Framework*

1<sup>st</sup>  
aim



- Reduction of moves in the worker and customer processes
- Transportation
- Carrying out the work and customer processes virtually wherever and whenever
  - Telecommuting and video-conferencing
  - *Multi-channel processes* that allow the employees to carry out a great deal of work or service related processes virtually.

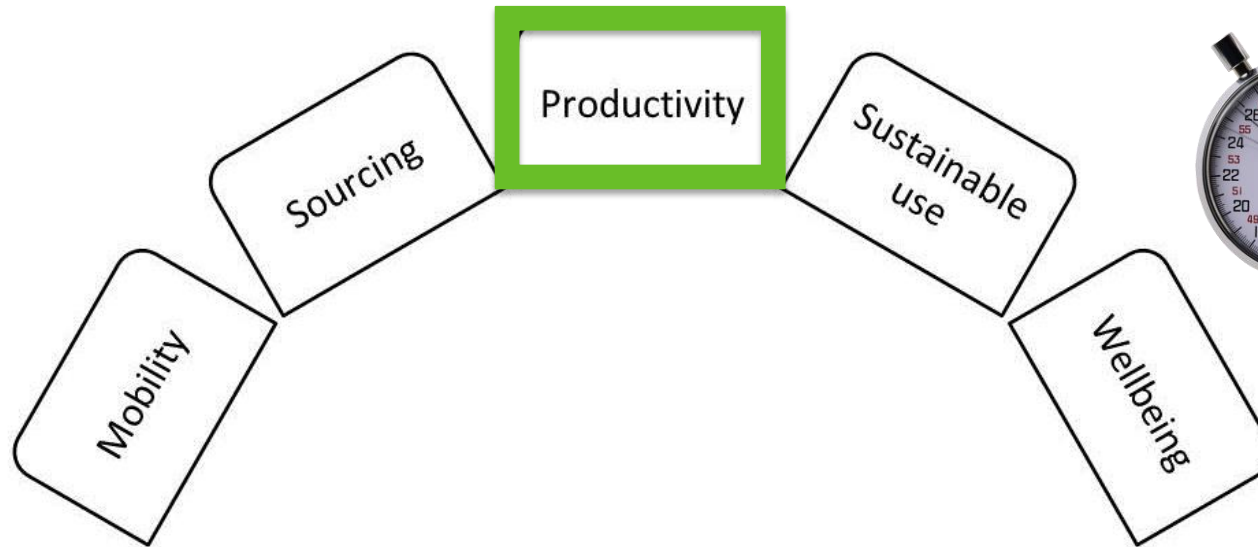
# Results - *Sustainable Workplace Management Framework*



- Responsible acquisition of furniture, equipment, software and materials
- Identified criteria for responsible acquisition:
  - Recycling and/or re-use of products
  - Expected life-span of the products
  - Eco-certificates and other certificates
  - Sustainable production methods (e.g., local suppliers)
  - Not supporting the black economy, trafficking of human beings, child labor or other procedures that are socially irresponsible.

# Results - *Sustainable Workplace Management Framework*

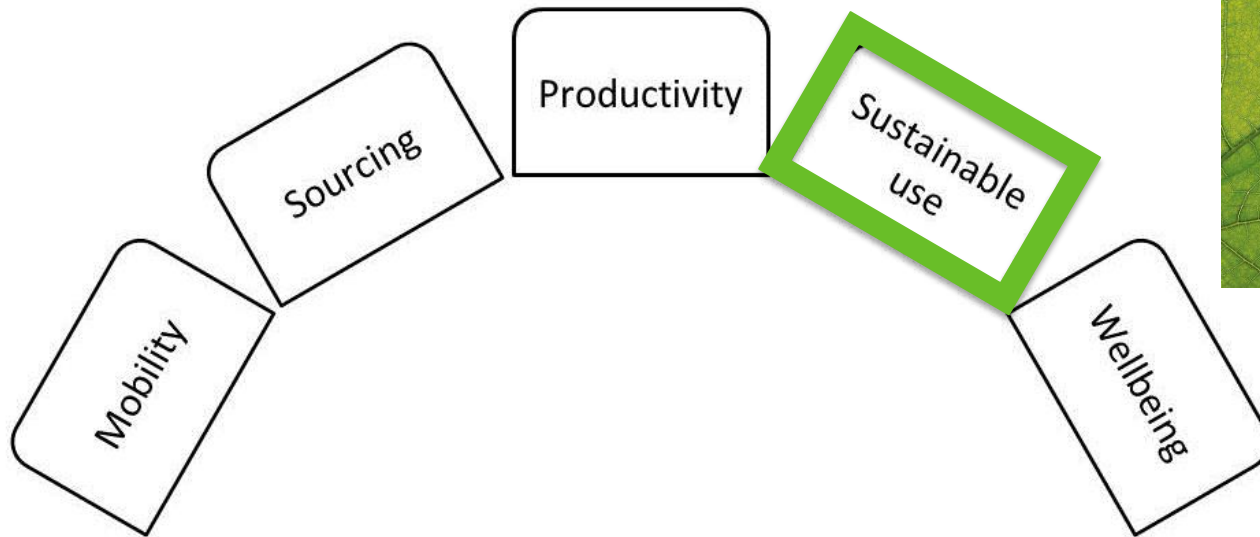
1<sup>st</sup>  
aim



- Work processes and customer processes
- Spatial effectiveness

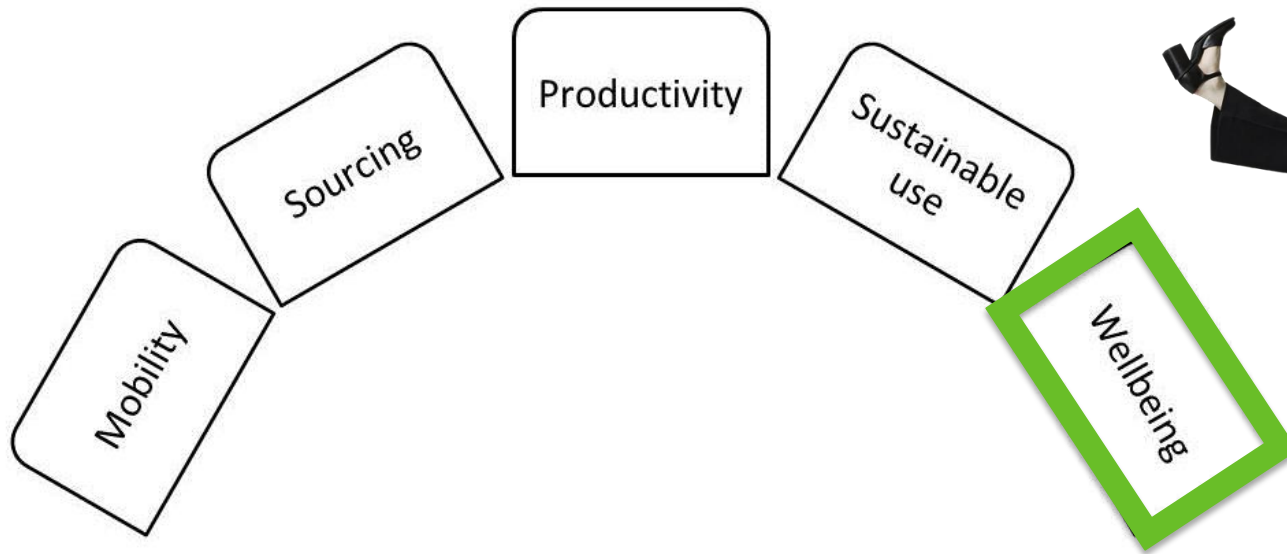


# Results - *Sustainable Workplace Management Framework*



- Limited to issues that may be controlled
- Users adjusting the workplace to their own needs
- Good quality of maintenance operations.
- The users are given information on their performance, e.g., energy consumption
- Workplace allows and engages the users to act in a sustainable manner and hinders unsustainable actions.
- Workplace encourages sustainable actions outside the office.

# Results - *Sustainable Workplace Management Framework*



Environment must be healthy and safe. Further, it should support also other things such as

- productive processes,
- work-life balance,
- feeling of privacy,
- good interpersonal relations,
- job satisfaction and feeling of being in control.

# Results - *Sustainable solutions in governmental work environment concepts*



Table 1. *The coverage of sustainability elements in the concept material.*

	Sustainable use	Mobility	Sourcing	Wellbeing	Productivity
Concept A					
Concept B					
Concept C					
Concept D					
Concept E					



- ➔ Four of the five elements of sustainability were met in the concepts. Sourcing is not forgotten ➔ regulated by other sources (e.g., legislation on public procurement)

Elements of sustainability were met with seven different solutions.

# Results - *Sustainable solutions in governmental work environment concepts*



Table 2. How the sustainable solutions cover different aspects of sustainable workplace management

	Sustainable use	Mobility	Sourcing	Wellbeing	Productivity
Structural solutions					
Spatial solutions					
Sensory solutions and interior design					
ICT solutions					
Rules of conduct					
Change management					
Economic steering					



➔ All elements are covered but solutions are scattered ➔ high demands on sustainable management

# To summarise

- This paper
    - outlines five elements of sustainable workplace management
    - identifies seven solutions that are used to cover the five different elements
- ➔ More solutions are required in order to cover more comprehensively the five elements.





# Thank you!

# Questions!

