Service concepts from future - weak signals from different branches

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In order for facilities management (FM) to proactively support organisations and distinguish their service requirements a deep understanding of future is needed. This paper introduces five branch-specific (retail, senior housing, industry, well-being and well-being, and knowledge work) scenarios in order to predict future challenges for FM. The results suggest that FM should consider: (1) FM in virtual worlds; (2) responsibility, wellbeing and sustainability factors as business drivers; (3) new ways of conducting daily activities, which require new ways of supporting clients; and (4) mixed and multi-use space segments in order to act proactively. These findings might be useful for FM service providers in Nordics and globally.

1. Background

Facilities management (FM) aims to support the core business of an organization in a rapidly changing operating environment. FM should be perceived as a set of strategic proactive actions that support the future of the organization instead of a set of reactive technical and operational services. Deep understanding of the changes in the core businesses of clients in the future is essential in order to understand the future service requirements.

The megatrends in demographic changes, ICT-development and well-being are affecting rehabilitation by changing the customers, products, processes and places for the future. The services provided by FM need to shift from facilities-centric to client-centric throughout (Hinks, 2002) in order to meet ever-changing requirements of businesses. The current socio-demographic changes are creating an enlarging customer group of elderly people. The rapid development of information and communication technologies (ICT) runs parallel to these societal changes and offers possibilities to cope with the above-mentioned challenges.

These megatrends affect resources directly related to FM services in organisations — management of people, business, property and knowledge (Nutt, 2000). People and human resources (HR) are facing the most radical changes, among others, new ways of working, organisational changes, and IT development. Flexible work environments that allow working independent of time, place, and location, require strategic approaches to HR as well as better management of the supporting facilities. Physical resources are the least changing because of slow nature of changes in built environment.

One of the biggest challenges for the future is managing the existing properties by i.e. improving utilization, disposing and facilitating alternative mixture of tenancies (Nutt, 2000). Facilities businesses tend to perceive designs as standardized for single purposes — be it re-
tail, senior housing, industry, wellness, wellbeing or knowledge work, every branch has its own standards and rules of the game. However, due to digitalization, barriers between the branches blur in terms of facilities, as the activities taken in physical environments become increasingly varied.

In order to understand how these changes will affect FM industry, a systematic and more innovative approach to real estate must be taken. Traditionally, real estate research was empirical and retrospective and many times physical properties were considered separately from wider economic, social, environmental and cultural aspects which many times led to oversight of significant connections thus ineffective strategy development (Saurin; Ratcliffe 2011). Latest research (i.e. Jensen et al., 2014, Ratcliffe, 2002, Saurin; Ratcliffe, 2011) suggests that futures studies can provide opportunity for FM professionals to explore the future in a more structural way and strategically prepare for changes by positioning different expected developments through scenario creation (Jensen, 2014). Futures thinking is different from long-term planning in a way that it recognizes that the future is not an extension of the past, there might be different possible scenarios due to a various relationship between factors and it is led by innovation (Saurin; Ratcliffe, 2011).

This paper introduces five facility branch-specific scenarios in order to predict future challenges for facilities management. The branches in question are retail, senior housing, industry, wellness and well-being and knowledge work. The scenarios have been constructed based on research projects which investigated the futures of a variety of space segments that are relevant to the selected branches. Facilities under investigation are shopping centres, residential buildings, offices, wellness centres and industrial production facilities.

2. Trends affecting the FM industry

To understand the development of FM as an industry in more detail, this section explores the megatrends that affect FM the most. It combines industry and academic aspects in an attempt to find interlinkages between the forecasts of ISS (2014), Bev Nutt (2000) and John Hinks (2002).

Hinks (2002) states that IT development combined with the management of knowledge has a huge impact to organisations’ core operations, their supply chains, business support and their customers. IT development and virtualisation of operations affects the location of workforce, their usage of facilities as well as the management of knowledge in organisations. Organisations and FM service providers need to acknowledge the interdependency between core business processes and the business support role. Dispersed locations mean that the support functions that previously were provided in one building now have to be duplicated for each individual or delivered at a distance. It brings flexibility to organisations, hence, improving their competitiveness although it might not be economically efficient. Global sources of expertise and increasing need of collaboration and communication leads FM towards a broader resource management role and change from facilities-centric business to a communications-centric virtual business. Successful linking of the right knowledge with the right people at the right time becomes a challenge that FM industry needs to deal with.

Nutt discusses ideas presented in the conference “Futures in Property and Facility Management II” (2004) which again points out the belief that FM services can no longer be consid-
ered as secondary functions but need to take an active and central role by connecting FM, IT and HR together to support people who are driven by a “work is where you are” culture.

The megatrends that will have an effect on FM industry in the upcoming 20 years were identified by Hamish (Nutt, 2004) and they included demographical changes, technological development, social attitudes, ethical pressures and regulations. Ten years later, ISS forecasted nine largest megatrends that will affect the FM industry the most and they were highly corresponding with the previous forecast: economic growth, globalization, demographic trends, and sustainability, technological development, growth of knowledge society, individualization, focus on health and wellbeing and commercialization (ISS, 2014). The main points of the megatrends are summarized in Table 1.

Table 1: Summary of megatrends and their implications to FM industry

<table>
<thead>
<tr>
<th>Megatrend</th>
<th>Implications to FM industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth</td>
<td>Shift towards emerging markets (ISS)</td>
</tr>
<tr>
<td>Globalization</td>
<td>Localization (ISS, Nutt); Duplicated, virtual services (Hinks)</td>
</tr>
<tr>
<td>Demographic trends</td>
<td>Variety of global workforce needs (ISS, Nutt)</td>
</tr>
<tr>
<td>Sustainability or ethical pressures</td>
<td>Supply and value chain, systemic design (ISS, Nutt)</td>
</tr>
<tr>
<td>Technological development</td>
<td>Automation and intelligent ways of working (ISS, Nutt); Big data in built environment (ISS)</td>
</tr>
<tr>
<td>Growth of knowledge society</td>
<td>Communications-centric virtual business (Hinks)</td>
</tr>
<tr>
<td>Individualization</td>
<td>Tailor-made solutions (ISS)</td>
</tr>
<tr>
<td>Change in social attitudes and focus on health and wellbeing</td>
<td>Promoting active, healthy and productive lifestyles (ISS, Nutt)</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Agile specialization, differentiation and innovation (ISS)</td>
</tr>
<tr>
<td>Regulation</td>
<td>Building use strategies, versatility, re-differentiation, flexible tenures (ISS)</td>
</tr>
</tbody>
</table>

These megatrends influence changes in all FM functions: management of finance, HR, properties, and knowledge. Due to properties’ inertia to change (according to Nutt (2000), only 4% of national building stock changes each year), built environment is the most predictable segment of FM industry and can be used as a basis for exploring future scenarios for FM industry in five branches where facilities are in diverse use.
3. Methods and sample

In order to explore the empirical field of FM, five research projects were conducted during 2006-2014. The data consists of a set of five clusters of future scenarios collected during five research projects around usability and productivity of built environment in Aalto University. These projects are shortly described in Table 2.

Table 2: Five research projects analysing FM service future scenarios

<table>
<thead>
<tr>
<th>Project name</th>
<th>Project focus</th>
<th>More information and reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indusp</td>
<td>Usability of Industrial places</td>
<td><a href="http://www.ttl.fi/fi/tutkimus/hankkeet/induspace/Sivut/default.aspx">http://www.ttl.fi/fi/tutkimus/hankkeet/induspace/Sivut/default.aspx</a></td>
</tr>
<tr>
<td>Prowork</td>
<td>Productivity of Knowledge workplace</td>
<td><a href="http://www.proworkproject.com">www.proworkproject.com</a></td>
</tr>
<tr>
<td>SELMA</td>
<td>Senior housing</td>
<td>No published work</td>
</tr>
</tbody>
</table>

All five projects had two common aims. First, each aimed to develop tools and methods to assess the usability of the built environment in different use-specific space segments. Second, each aimed to develop future scenarios in order to understand the role of the spaces and FM in the future. The scenarios were created according to the space type in project focus as follows: Industrial places, Knowledge workplaces, Shopping centres, Rehabilitation centres, and Senior housing.

Futures approach is a structural way for different actors to proactively prepare for possible future pathways (Jensen, 2014) and deal with uncertainty (Saurin et al, 2008). Futures approach is trans-disciplinary in nature (Saurin, Ratcliffe, 2011) and considers interactions between technological, social, economic, political and cultural variables and focuses on information and knowledge flow instead of money and goods (Jensen, 2014).

Scenario development allows to learn about the future by understanding the nature and impact of the most uncertain and important driving forces affecting our world. It is a group process that encourages knowledge exchange and development of a deeper mutual under-
standing of central issues important to the future of business. The goal is to craft a number of diverging stories by extrapolating uncertain and heavily influencing driving forces. The stories together with the work process have a dual purpose of increasing the knowledge of the business environment and widen both the receiver's and participant's perception of possible future events (Schoemaker, 1995).

The development of scenarios is based on Future workshops which consist of different methods which structure the imagination of participants (Jungk and Müllert, 1987) such as: Future Wheel, ACTVOD, PESTE, and Delphi survey.

In the project of Usability of Rehabilitation centres in Finland, the future workshop aimed to investigate the future by creating an understanding of the nature and impact of the most uncertain and important driving forces affecting the physical wellness centres. In Prowork project, three sets of workshops were conducted in order to understand the change of work and physical and virtual workplaces.

Future wheel was used in workshops of Usability of Rehabilitation centres and Senior housing. The participants worked with the Future wheel in order to capture the past, present and future phenomena in connection with the rehabilitation/senior housing. Future wheel is a structured brainstorming method used to organize thinking about future events, issues, trends, and strategy and visualising interrelationships between variables (Jackson, 2013).

Additionally, the Futures table exercise was conducted based on differing systematics, e.g. questions like to whom, what, how, where, what are the enablers, what are the hindrances and so called ACTVOD table was used. The acronym comes from first letters of the six variables: Actors, Customers, Transformation process, Values, Obstacles, and Drivers. This is a tool that allows creating network operating models for structuring and development and is based on CATWOD methodology (Hietanen, 2009). The futures table was used in the USAB (Usability of the shopping centres) and Induspace projects.

Induspace project also included PESTE (otherwise known as STEEP) analysis which consists of five aspects: P for Political, E for Economic, S for Social, T for Technological, and E for Environmental. It gives a bird’s eye view of the whole environment from many different angles that one wants to check and keep a track of while contemplating on a certain idea/plan (Laihonen, 2005).

The Delphi study was performed in the project of Usability of Rehabilitation centres in Finland. It included two rounds of surveys which aimed to clarify the well-being services of the future. The Delphi survey was structured according to four themes: 1. Rehabilitation of working life in the future, 2. Rehabilitation of the ageing people in the future, 3. Rehabilitation for self-paying customers in the future and 4. The facilities of the rehabilitation and wellbeing services in the future (Rasila et al., 2013). The Delphi method is usually used for producing different views, ideas and justifications on which one can base planning and decision making. The method is relevant when the object of research and the problem are open. With help of the Delphi technique, one can start contemplating and choosing between the future alternatives (Pill, 1971; Jackson, 2013).

Table 3 summarises the methods used in different projects. It also includes information about the participants of the workshops.
Table 3: Methods used in Future workshops and participants in five projects

<table>
<thead>
<tr>
<th>Method</th>
<th>Industrial places</th>
<th>Knowledge workplace</th>
<th>Shopping centres</th>
<th>Rehabiliation centres</th>
<th>Senior housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future wheel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTVOD</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PESTE</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delphi survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

| Participants     | Users (employees) | Users (global-     | Users (different | Users (visitors,     | Users (habitants |
|                  | Facility managers, | ly), ICT man-     | age groups) Ex-  | different age groups), | of senior houses) |
|                  | Architects, Re-   |agers, Human       | perts, Shop-     | Experts (e.g. health- | Facility manag- |
|                  | searchers         | resource man-      | ping centre man- |care experts, repre-   | ers, architects, |
|                  |                   | agers, Facility    | agers,          | resentatives of     | architects,     |
|                  |                   | managers,          | Researchers      | different associ-    | researchers     |
|                  |                   | researchers        |                  | ation), researchers  |                |
|                  | N=15              | N=20                | N=40             | N=70                  | N=15           |

In each project, the participants were selected based on their role – the aim was to take different perspectives into account. Participants can be divided to five core roles: users, experts, facility managers, architects and researchers. The main priority was to have users involved in each workshop. Experts were engaged to get insights on the knowledge from the field from past to the future. Facility managers were invited to represent the supply side of the services. Researchers were facilitating the workshops and summarizing the reports. All scenarios despite the Senior housing scenario are published.

The last phase of the Future workshops included the future narratives which summarized the outcomes of the results produced by different methods (Table 4). Each analysed branch had four scenarios drawn except the Industrial Places which had five scenarios in total.

Table 4: Future scenarios developed for five different branches

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Industrial places</td>
<td></td>
</tr>
<tr>
<td>1.1. Monumental industrial space</td>
<td>The old industrial piece of architecture has been taken into new use or the new industrial building is retrofitted to a monumental wow-architecture object.</td>
</tr>
<tr>
<td>1.2. Modular container factory</td>
<td>The number of modules can be adapted based on production volume.</td>
</tr>
<tr>
<td>1.3. Multiuse pro-</td>
<td>Loft is used as a factory for production only for certain phase of time and</td>
</tr>
</tbody>
</table>
duction loft can be transformed to other uses easily

1.4. Mobile virtual production space  
Fully automatized and controlled from a remote white-collar control centre mobile virtual production space

1.5. Mountain top production space  
Space which is based on consideration of all the issues connected to sustainability, energy-use and environmental care.

2. Knowledge workplaces

2.1. Safety box  
It is based on a decreasing role of physical place.

Environment is highly polluted and the mankind has not succeeded in decreasing the carbon footprint. Virtual world is the most functional reality and social connections take place mainly in the second and third life. Physical space exists only to protect people.

2.2. First life  
It is based on a decreasing role of virtual place.

Physical spaces are in full use. Ecocatastrophe has taken place in digital reality and the information and communication infrastructure did not overcome the climate changes. Real estate platforms for living and working and different generations struggle to relearn old ways of working. There are lots of trainings for writing letters and new kinds of time management trainings are famous. Social places are important in order to transfer old ways of working to younger generations who have never seen mobile phones.

2.3. Care and love  
It is based on an increasing need of social place.

Knowledge intensive society has caused a variety of symptoms for knowledge workers and they gather to workplaces in order to be retreated. The driving force for working is sharing the work to achieve the goals. Individual performance is rewarded only as part of a collective outcome. Physical and virtual places are designed to enforce a variety of social activities and to provide all possible support for well-being of knowledge workers.

2.4. Network nomad  
It is based on a decreasing role of organizations as infrastructure.

Working takes place in networks and individuals manage themselves. Physical places are providing platforms for different networking activities, while virtual place is an office base for individual entrepreneurs. Social places occur in both realities.

3. Shopping Centres

3.1. Wellness circus with user zip  
User profile is in zip and the user is identified by smart and responsive environment in shopping centres. After arriving to a shopping centre, instructions for the recommended user journey is made for the customer – the proposal is based on the status of wellbeing of the individual and the services are tailored according to the profile.

3.2. Virtual interface in the living  
No one visits shopping centres but shopping is an individual or social amusement through simulations and haptic experiences in ubiquitous
3.3. Community
Community is developed around a shopping centre – shopping centre is a new form of old village with all the services in the near distance.

3.4. Tradition centre
A place to go when disappeared tradition of going to shop needs to be experienced. It is a nostalgic environment, where one can try how it feels to push shopping trolley or to encounter a real shop keeper.

4. Rehabilitation centres

4.1. Experience centre
The experience centre for sustainable well-being. The centre provides experiences with all spices provided through local resources.

4.2. Balancing training
Balancing training for the veterans of work life. The disseminated service network for free choice – customers will collect their own training program from different modules.

4.3. Special expertise centre
The provided service focus on high expertise in one or two narrow fields and is recognized internationally.

4.4. Delivery centre
The local well-being services are delivered to the places where the customers and needs are.

5. Senior housing

5.1. Living as a world citizen
The climate change has changed the globe so that it is impossible to identify one’s own roots anymore as they are scattered around the world because of high levels of mobility and travelling.

5.2. Social entity
The network is your family – family is constantly recreated within the community in which an individual is involved.

5.3. Virtual entity
Seniors can be active even though there are physical restrictions. Social digital network is an essential part of daily life.

5.4. Long life
Senior citizens live longer and need longer term places because the medical science has successfully lengthened our lives dramatically.

4. Analysis of the scenarios and results

After the analysis of the content of scenarios, four scenario clusters were identified: ICT-driven, New practices to conduct work processes, Sustainability-driven, Well-being–driven, and the New use of spaces. Table 5 indicates how the different scenarios are allocated to different clusters. The number presents the number of scenario from earlier descriptive illustrations.

Table 5: Clusters of the scenarios of different space segments
The analysis of scenarios in accordance with four identified clusters show that the New practices in work processes seem to be the main driver of the scenarios of future work and living environments. Change of work practices was driving future development in all spaces and one to three scenarios in each space. However, the quantitative grounding can be used only as a weak signal. From content analysis, the following propositions can be drawn:

New practices in work processes cluster suggests that the part of work processes and practices are shifted towards digital environment. This affects both the behaviour and the environments where we act: virtual shopping in living room with simulations and haptic possibilities (Scenario 3.2.) has widened the traditional uses of living rooms to uses of cinemas, amusement centres or adventure parks. Will these actions take place at home in the future? Or are we going to do our shopping in science centres with the latest technology? Also, due to the new practices in work processes service concepts of spaces have evolved and are still evolving exponentially. The service offer for Network nomad (Scenario 2.4.) provides aspects of fully different service provision than traditional office concepts were able to offer in 2006 when the workshops were conducted.

ICT-driven cluster of scenarios indicates that there are two implications of the use of technological possibilities: development of smart environment which guides our activities or transformation of ways to conduct processes and it is partly interlinked with the cluster of new ways to conduct work processes. ICT-technologies and Internet of Things (IoT) affects how actors communicate with one another and enables better quality of both service delivery and operational management of built environments (Scenario 2.1). Scenario 5.3 in Senior housing takes a similar approach in stating that, i.e. social needs can be fulfilled with virtual interface. However, because of vulnerability of ICT-technology, old practices can be adapted to new uses, which is proposed in Scenario 2.2 of Knowledge workplaces.

Sustainability-driven cluster indicates that the environmental crisis can affect the global level and the climate change possibly resulting in dramatic changes in different continents and districts. This was discussed greatly in the Scenario 5.1. Living as a world citizen in Senior housing and in Scenario 1.5. Mountain top production space in Industrial spaces. The other aspect is related to energy-efficient and environmentally friendly behaviour and solutions and emphasized the significance of local resources. This was highlighted in scenarios in Re-

<table>
<thead>
<tr>
<th>Industrial place scenarios</th>
<th>1.4</th>
<th>1.4</th>
<th>1.5</th>
<th>1.1, 1.2, 1.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge workplace scenarios</td>
<td>2.2, 2.4</td>
<td>2.1, 2.2</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Shopping centre scenarios</td>
<td>3.2</td>
<td>3.1, 3.2</td>
<td>3.3</td>
<td>3.1, 3.3</td>
</tr>
<tr>
<td>Rehabilitation scenarios</td>
<td>4.2, 4.3, 4.4</td>
<td>4.1, 4.4</td>
<td>4.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Senior housing scenarios</td>
<td>5.2, 5.4</td>
<td>5.3</td>
<td>5.1</td>
<td>5.2</td>
</tr>
</tbody>
</table>
habilitation centres (Scenario 4.1. Experience centre and Scenario 4.4. Delivery centre) and in Shopping centre’s Scenario 3.3. Community.

Well-being driven cluster covers different perspectives of the well-being of the user of spaces. It is a primary service offer in Shopping centre Scenario 3.1. Wellness circus, Knowledge workplace Scenario 2.3. Care and love and in Scenario 4.2. Balancing training (Rehabilitation centre.). The significance of another aspect of well-being – community - has increased in scenarios in Shopping centres (Scenario 3.3. Community) and Senior housing (Scenario 5.2. Social entity) as well as in Knowledge workplaces (Scenario 2.3. Care and love).

The New use of spaces cluster is highly important in Industrial place scenarios (Scenario 1.1. Monumental industrial space, Scenario 1.2. Modular container factory, and Scenario 1.3. Multiuse production loft). It indicates the need for spaces to be adjusted and used for different purposes, designed with different principles than traditionally or designed based on the principle that one actor, function or purpose takes place in a space for only a certain amount of time. The traditional value of the former use can be a new product as is indicated in Scenario 3.4. Tradition centre in Shopping centres. The New use of spaces is connected also to a Scenario 4.4. Delivery centre in Rehabilitation centres.

5. Discussion

In order for FM to proactively support organisations’ core business and develop their services, a deep understanding of changing organisational environment is needed. Megatrends discussed by ISS (2014), Hinks (2002) and Nutt (2000) such as technological development, globalization, sustainability, demographical change and others affect the future of organisations, thus different needs for FM services arise.

Future research methods that are used in this paper represent how they can support the future orientation and proactive approach of facilities management. Futures approach promotes forward-thinking, widens perspectives which then increase the number of options available for decision-makers to prepare and manage the upcoming change (Saurin; Ratcliffe, 2008). The short response time to future events is important for organisations and FM service providers in order to stay competitive in global and fast-changing markets.

This paper analyses different future scenarios in five different spaces – Industrial Place, Knowledge Workplace, Shopping centre, Rehabilitation, and Senior housing. Based on the main drivers for future change, these scenarios are then clustered into five different categories: ICT development, New practices in work processes, Sustainability, Well-being and New use of spaces. These driver categories, recognized in this study, are consistent with the trends identified by Hinks (2002), Nutt (2004) and ISS (2014) and have an effect on all different spaces, thus all FM industry.

The development of ICT and Internet of Things (IoT) has influenced not only how built environment is treated but especially it changed and continues to change the ways how work is done. It empowers employees to work from any place and any time, thus changing the demand and usage of buildings. Remote and virtual work means more individualization and creates the need for tailor-made solutions (ISS, 2014). Diminished demand for industrial spaces and office buildings creates the need to reconsider and create new building use
strategies, thus, in many cases, change regulations in very conservative construction sectors. Overall focus towards sustainability and well-being leads towards system re-design and creates the need for services promoting active and healthy lifestyles.

Based on the literature and results of this study, we suggest that there are four topics for proactive facilities management to be taken into account. They are:

1. **FM in virtual worlds**

   FM service providers can support this by e.g. studying the virtual paradigm and its opportunities and implications for the FM applications. Managing knowledge sharing within users on a global scale easily and quickly becomes strategically important for FM. Virtual communications and document sharing is exponentially increasing which might also cause some ethical and security issues like: which data belongs to who? Who is responsible for securing the data transfer? And similar. Ability to provide services remotely and fast becomes a competitive advantage for FM service providers and geographical location of customers has less effect on service delivery.

2. **Dissemination of activities and new ways of doing daily activities, which require new ways of supporting clients**

   Facility managers can take a user-centric approach to developing services that support the tasks-to-be-done of the users instead of supporting each branch as we know it. Personalisation of FM services to support each user according to ones needs should become a main priority for FM service providers. The Internet of Things will bring opportunities to automate more activities for FM as well as to better understand the users and provide more productive spaces.

3. **Responsibility and wellbeing factors as business drivers**

   FM service providers can support well-being by emphasizing individual user and his/her personal well-being in service offerings. Highly flexible spaces, better designs and new maintenance approaches are becoming more and more available due to a better understanding of the users and the building itself. FM has to get even closer to their customers and their core businesses in order to provider user-oriented services. Flexibility of work (time and location-independent work) creates challenge for FM and requires a new approach for FM to their own operations and service delivery.

4. **Mixed and multi-use space segments**

   It is important for FM to break free from the standards and seek for synergies between different branches. The buildings are not anymore single-use buildings but the mixed-use spaces and it creates challenges for FM providers as their services are too segmented and traditional. Synergies between different services, service providers as well as ways of providing a service are needed in order to fully support client organisation. Facility managers should experiment with contemporary solutions and rethink the fixed physical construction paradigm in order to go hand in hand with the changing organisations and their needs.

The research is based on futures studies and scenarios are developed by the limited amount of participants. In order to receive different perspectives on developed futures, various ac-
tors (from users to researchers) were invited to future workshops. Still, the number of participants was small (15 people) and the results might be debatable. Even though the findings are limited to the Finnish business environment and context, the future scenarios of different branches and the future of FM may offer some insights to global level too. These results closely correspond to the trends and implications identified in previous literature, therefore it is possible to state that they are valid.

6. Conclusion

More and more facility managers understand the need of changes in FM field. A new, proactive and more strategic approach towards FM needs to be taken in order to meet ever-changing needs of their services’ users. In order to plan, design and manage facilities strategically, a deep understanding of future trends and users’ requirements is needed. To provide a dynamic view and help planning future FM strategies, future scenarios are created based on identified trends. These different future scenarios help organisations to prepare for possible changes and avoid the situation when “probable” future does not appear. Few megatrends, such as ICT development and globalisation, are affecting the FM industry in every branch and every scenario, and they need to be closely looked at to understand what it will mean not only for FM but also for other businesses and all society.

7. References


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