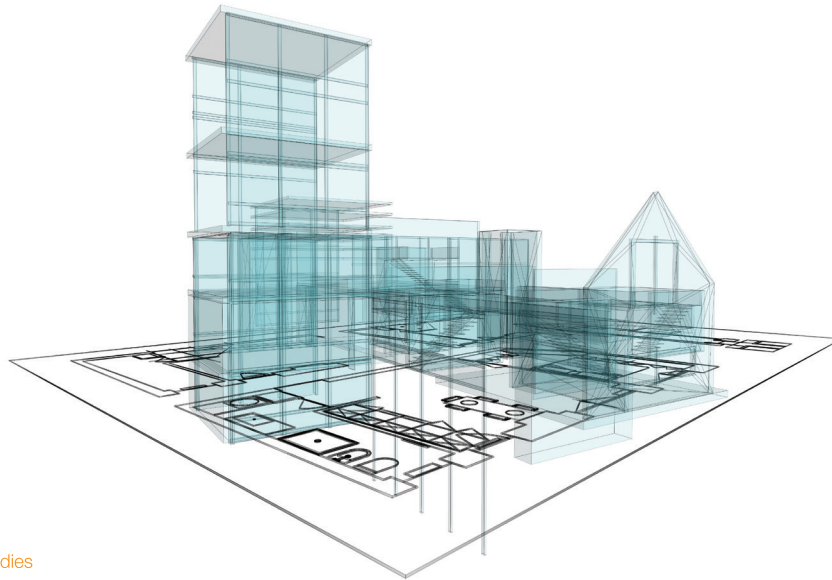


ISS 2020 Vision

New Ways of Working - the workplace of the future

Facility Management can align workplaces with the organizations' increasing pace of change. To do so, the future role of FM will need to include new innovative service concepts that go beyond solely looking at the workspace as an opportunity for reducing operating cost.

The ISS 2020 Vision report: New Ways of Working – the workplace of the future analyzes the strategic themes shaping the future workplace strategies. It also provides a framework for identifying the role of Facility Management in helping develop an organization's workplace strategy given the competitive context, strategy, brand, culture, and existing workplaces.



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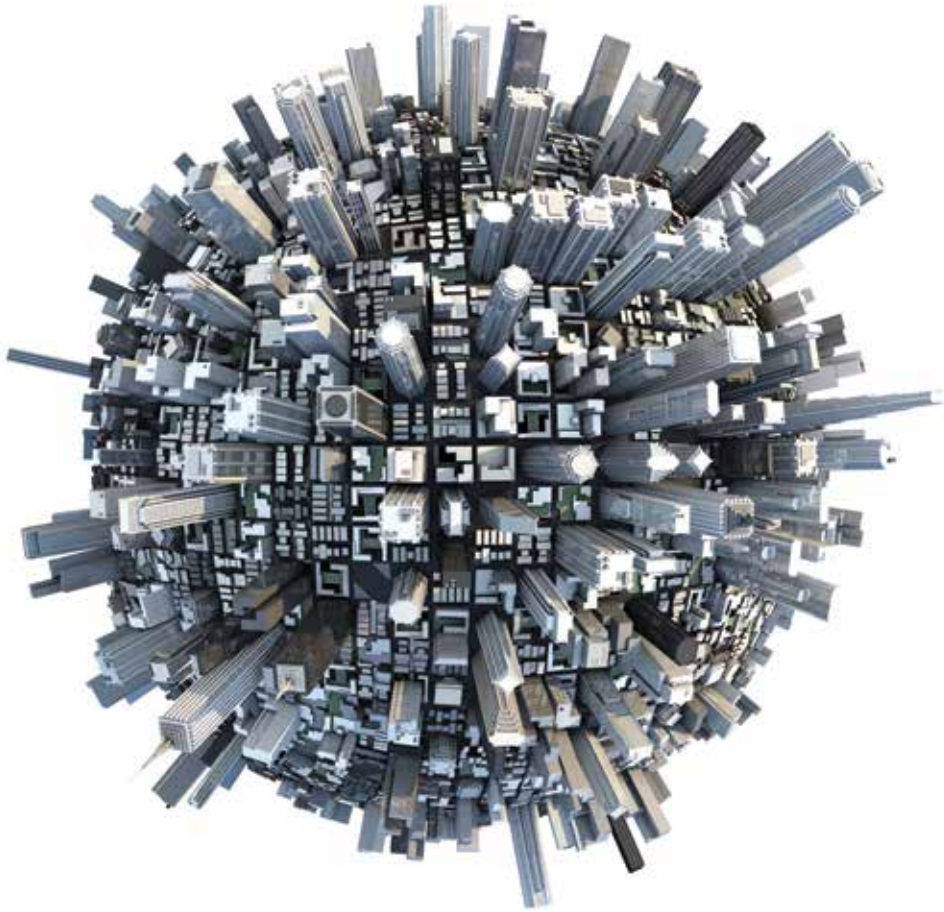
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New Ways of Working - the workplace of the future

“The future is not
something we enter.

The future is
something we create.”

Leonard I. Sweet, writer, teacher & preacher.





CEO Jeff Gravenhorst at the new ISS head office, which has been designed according to "New Ways of Working" principles.

1. Foreword

Increasingly, global competition, the war for talents, the introduction of new technologies, and the greater focus on sustainability – among other factors – are changing how companies plan for and develop their workplace strategies and how our industry develops services to support them.

The boundaries that define traditional workspaces and organizations have long been changing: Employees work from the office, home and third workspaces; they work in private offices and open offices as well as from hot desks and touchdown points. Meanwhile, mobile devices are overtaking the laptop and the PC as our primary interfaces to the digital world.

By definition, people are essential to workplaces. Without people, workplaces are simply places. The primary purpose of a workplace is to support the people in it. Designing smart and cost effective workplaces, which will accommodate more collaboration and increase efficiency, is a major opportunity for most organizations. Many organizations are already well into this process, and there is no doubt that the workplace as we know it is undergoing dramatic change as it will increasingly become a place where people meet, socialize, builds relations and have fun. The future workplace will play a decisive role in building a strong corporate culture.

As organizational boundaries expand beyond the physical space, the boundaries of our industry must also evolve. Designing new and more flexible service concepts is critical in supporting our customers' physical and virtual workspaces.

As a decisive and vigilant actor, ISS will remain a market leader in developing new workplace concepts, tools, technologies and solutions for these challenges in collaboration with our customers and partners. In order to continue to provide world-class service through 2020 and beyond, ISS will work with customers to help ensure that their workplaces continue to support their organizational goals, brands and cultures, given their particular competitive contexts.

The ISS 2020 Vision report: *New Ways of Working – the workplace of the future* analyzes the strategic themes shaping how organizations will plan for and develop their future workplace strategies. It also provides a framework for identifying the role of Facility Management in helping develop an organization's workplace strategy given the organization's competitive context, strategy, brand, culture, and existing workplaces.

This report builds upon the findings from the *ISS 2020 Vision: Scenarios for the future of the global Facility Management industry*, which concluded that future workplaces will change significantly over the coming decade. The findings of *New Ways of Working* were developed through surveys in partnership with IFMA, subject matter expert interviews, and multiple workshops with customers. The study also presents external expert assessments from the Copenhagen Institute for Futures Studies of the strategic themes shaping the future work, the workforce and the workplace towards 2020.

It is my sincere hope that this study will serve as an inspiration for creating your organization's own visions, strategies, plans and concrete actions for creating your workplace of the future.



Jeff Gravenhorst
Group CEO



“Developing business is all about understanding people”

Wilhelm Douglas, Business Development Manager - Corporate Clients EMEA, ISS

2. Table of Contents

1.	Foreword	5
2.	Acknowledgements	8
3.	Executive Summary	11
4.	Introduction	17
5.	The ISS 2020 Vision	29
	Part I Strategic themes affecting work towards 2020	32
	Theme 1: Paradigm shift towards innovation society increases the need for continuous adaptation	36
	Theme 2: Technology as the enabler of increased collaboration and change in the workplace	44
	Theme 3: Urban areas allow workers and companies to better leverage their surroundings	52
	Theme 4: Polarization of the labor force leads to polarization of workplace amenities	60
	Theme 5: Workforce diversity means that the workplace will have to be more amenable to an increasing number of workers' needs	66
	Theme 6: Growing need to focus on employee health and well-being	74
	Theme 7: Workspace personalization will continue to create workplace tensions	78
	Theme 8: Sustainability and the workplace of the future	86
	Part II Defining the FM industry's role in the future workplace	90
6.	The workplace toward 2020	96
7.	Subject matter experts' view	114
	Appendix 1 - ISS 2020 Vision survey results, 2013	118
	Appendix 2 - Survey findings	122
	Bibliography	134

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At ISS, we are delighted by the close collaboration with the Copenhagen Institute for Future Studies (CIFS) and especially **Director Jeffrey Scott Saunders** and **Researcher Simona Arminaitė**, who have been instrumental in conducting this study.

We wish to acknowledge the support and collaboration with **IFMA, EuroFM, Facility One** and the **IFMA Foundation**. We appreciate the access to the members of these organizations for the distribution of questionnaires. Especially, we wish to express our appreciation to the 613 FM Specialists who took the time and effort to answer the questionnaire in 2013.

Based on the input from the extensive research, we conducted three workshops in London, Vienna and Oslo, to qualify and assess research findings. At these workshops, we invited key customers and partners to discuss the field research and how it will influence the workplace of the future. We would like to thank all the workshop participants for their time, dedication, openness and willingness to engage in futuristic discussions - see Table 1.

Apart from the workshop sessions, we also conducted in-depth interviews with **17 subject matter experts**, who were kind enough to engage in fruitful discussions through telephone and web-meetings. The input we received was of a very high quality, and we are very grateful for the co-operation and interest from the subject matter experts shown in Table 2.

Finally, we wish to thank the internal **ISS Advisory Board** for their participation in numerous meetings, lengthy discussions and various interpretations about the future outlook of the workplace but also in terms of adapting the conclusions of the research into an ISS strategy context. The members of the ISS Advisory Board are shown in Table 3.

Thank you!



Peter Ankerstjerne
Head of Group Marketing
ISS 2020 Vision – Project Responsible

Table 1 - Workshops

London	Oslo	Vienna
- Dave Watson	- Marko Tulokas	- Joep Bovens
- Michael Kerridge	- Juha Olkinuora	- Axel Ziehmer
- Philip Sugden	- Jan Erik Moe	- Andreas Gnesda
- Ross Reeves	- Katri Kallio-Koski	- Harald Posch
- Darren Farmer	- Dario Aganovic	- Franz Mundigler
- Mike Shanahan	- John-Ole Soløy	- Patricia Mader
- Jonathan Jones	- Dan Frode Skjelberg	- Thomas Rebernig-Auersperg
	- Mika Martola	- Klaus Stadlbauer

Table 2 - Subject Matter Interviews

- Alexander Redlein	- Frank Elter	- Pat Turnbull
- Andrew Lewkowicz	- Jon Seller	- Rakesh Kishan
- Diane Coles	- Katia Gimenes Picciolli	- Ryan Anderson
- Duncan Waddell	- Lori Gee	- Scott McMillan
- Gitte Andersen	- Magnus Kuchler	- Thomas Mitchell
	- Maryln Walton	- Tony Keane

Table 3 - ISS Advisory Board

- Anders Borggren	- Joseph Nazareth	- Sean Boyle
- Andrew Price	- Nico Lemmens	- Shaun Eddleston
- Andy Chappell	- Peter Ankerstjerne (Chair)	- Signe Adamsen
- Brian Borup (layout)	- Reinhard Poglitsch	- Trond Smogeli

Work | Workforce | Workplace

3. Executive summary

Workplaces towards 2020 will be qualitatively different from what they are today. Driven by the introduction of disruptive technologies, pitched battle for talents, fierce global competition, and a greater focus on sustainability, CEOs, workplace designers, and architects are changing the way they plan for and develop workplace strategies. Workplaces will be increasingly global, smart, collaborative and sustainable.

Workplaces have long since ceased being just physical places where people perform work tasks. Their boundaries extend beyond physical walls and include workspaces at home and at third places. Facilitated by mobile broadband enabled laptops, tablets, smartphones and other devices, workers can now work from anywhere at any time, without experiencing a decrease in performance.

Increasingly, workplace strategies need to respond to the core organizations' ever-changing competitive requirements, increasing the organizations' attractiveness to talents, reflecting their brands and cultures, and reducing their environmental impacts. As a result, workplace strategies include disruptive business models that are becoming increasingly asset-light, mobile, and flexible.

Most workplaces, however, are not designed to efficiently or effectively evolve as the dynamics of core organizations' businesses change. Many managers are struggling to develop the right workplace strategy for their organizations.

The ISS 2020 Vision report: New Ways of Working (NWOW) – the workplace of the future (2013) aims to help customers, aided by FM providers and managers (in-house or external), to create workplace strategies that:

- Fit their strategic needs and reflect their brands
- Empower their organizational cultures
- Enable the types of work that is important in order to deliver upon brand promises
- Champion better working lives for employees
- Reflect local requirements and cultural contexts
- Reduce their workplaces' overall environmental impact.

Facility Management (FM) providers have an opportunity and should aspire to align workplaces with core organizations' changing needs. To do so, FM providers need to develop new innovative service concepts that go beyond looking at the workspace as a built environment for increasing efficiency and reducing costs.¹

FM providers must perceive the workplaces they support as manifestations of organizations' "total value" eco-system. These eco-systems include virtual and physical settings that should be seamlessly integrated. Physical settings range from traditional office settings with private offices and assigned desks to completely networked arrangements consisting of hot desks, touchdown points and third working spaces. These areas are where organizations can shape the experiences that customers and employees have when interacting with companies.

¹ Coenen, Christian; von Felten, Daniel (2012). *Service-centric logic of FM*. In: Alexander, Keith; Price, Ilfryn (Hg.). *Managing Organizational Ecologies. Space, Management and Organizations*. New York: Routledge.

To maximize the total value eco-system, FM providers must deliver better management of FM processes, experiences, personnel and relationships with customers and end-users. They need to offer proactive, service-centric approaches that reflect, support and improve the core organizations' strategic objectives, brand, culture, and workplace productivity at the right price point across the entire range of potential workspaces and workspace strategies.

Developing these workplace strategies will require new approaches that not only include an understanding of where and how people work and communicate and of the supporting technologies required, but also contain new tactics for increasing the utilization of physical workplace assets through such collaborative workplace arrangements as co-working, co-housing, and fractional ownership.

Supporting these solutions will expand the boundaries of the traditional FM function into other support functions and industries and require new partnerships and alliances.

The ISS 2020 Vision: NWOW report builds upon the previous *ISS 2020 Vision study: Scenarios for the future of the global Facility Management (FM) industry* (2011) and is designed to facilitate discussions on how best to develop future workplace strategies between customers and FM providers. It is also designed to help customers and FM providers understand and exploit the collaborative, value creating networks that could emerge given the core organizations':

- Need for strategic agility
- Organizational culture
- Approach to competition
- Inwards or outwards orientation (i.e. willingness to partner)
- Risk willingness.

This report is divided into two parts: Part I describes the context in which future organizations will operate and provides a framework for discussing and understanding the challenges posed by eight strategic themes and their consequences for core organizations' and the FM industry. These themes are sorted according to the nature of work, the workforce, and the workplace.

The themes were derived from the Copenhagen Institute for Futures Studies' megatrends (selected megatrends were presented in the report *ISS 2020 Vision: Scenarios for the Future of the Global Facility Management Industry*), survey of 613 FM specialists, desk research and interviews with 17 subject matter experts. Pages 22 to 25 of the report contain summary tables that outline Part I. The eight strategic themes were then tested and refined via three workshops with ISS customers in Vienna, London and Oslo.

Part II focuses on providing a structure through which customers and FM providers can define the role that FM – in collaboration with other support functions (HR, IT, FM, finance, and corporate real estate) – should play in shaping the workplace towards 2020.

Strategic themes and the nature of work towards 2020	Strategic themes and the workforce towards 2020	Strategic themes and the future workplace towards 2020
1. Paradigm shift increases the need for continuous adaptation 2. Technology as the enabler of increased collaboration and change in the workplace 3. Urban areas allow for workers and companies to better leverage their surroundings	4. Polarization of the labor market 5. Increasing labor market diversity a. Increasing number of virtual workers b. Women's increasing participation c. Four-generation labor-force d. Global work teams 6. Growing need to focus on employee health and well-being	7. Personalization of the workspace via IT platforms and devices 8. Sustainability and the future workplace

Regardless of whether FM is in the lead or in support, customers and FM providers need to develop an approach that creates and services a productive workplace/workspace that frames the development of a culture and brand that fulfills an organizations' strategy, while reducing the organization's environmental footprint and maximizing the utilization of its physical assets.

FM providers need to understand the competitive requirements of the core organization's industry and strategy to play a central role in developing future workplace strategies. The need for strategic agility in the core organization, however, is dependent on the pace of change occurring within an industry, and on a core organization's ability to shape a given industry – both of which vary greatly.

To help customers and FM providers to assess FM's role in future workplace strategies, four future workplace archetypes have been developed. The matrix combines the Competing Values with strategic agility and collaborative consumption frameworks and includes the following dimensions:

- The vertical dimension positions the tenets of centralization, stability, order and control at one end of the spectrum, with decentralization, flexibility, discretion and dynamism on the other.
- The horizontal dimension focuses on external orientation and willingness to enter into partnerships with differentiation and rivalry at one end of the spectrum, and internal orientation, low willingness to enter into partnerships on the other.

Centralized Stability
order control

The four workplace archetypes are as follows:

Hierarchy's "ability to solve": The workplace environment is very formalized and structured. The workplace leader is a manager who focuses on how efficiently their unit runs. Risk willingness is relatively low, and there must be a well-defined business case prior to taking major initiatives. The manager seeks tried and tested solutions. Success is measured in terms of: dependable delivery, smooth structured scheduling, and low cost.

The FM providers' role in the Hierarchy's ability to solve will be to:

- Remain attuned to the strategic considerations of the core organization via leadership interviews
- Participate in the organizational workplace analysis of existing units
- Participate in space analyses and develop goals and objectives... and more

Market place's cluster node: The workplace in the "cluster node" is highly competitive, led by a leader who is result-oriented. The leader is a person willing to take risks, establish goals and measures, and who is willing to take decisive action if the organization is falling short. The organization is driven by developing its reputation and success, and it is constantly looking for competitive advantages. The organization seeks to locate itself in areas that are most attractive to talents. They seek locations that have a good combination of amenities and where there are other, equally talented, organizations.

The FM providers' role in the cluster node will be to:

- Assist the core organization in controlling who has access to resources among an increasingly complex network of full-time and part-time workers, suppliers, customers, etc.
- Manage access to co-working, co-housing, and collaborative infrastructures including shared workspaces, cars, canteens and health facilities
- Manage the smart building's inputs to smart neighborhood concepts... and more

Adhocracy's distributed office: The organization that operates in this very unpredictable strategic environment values flexibility, adaptability, and thrives in chaos. This organization will be more likely to make a tradeoff between operational efficiency in favor of maximum strategic flexibility. The workplace in an adhocracy organization is dynamic, entrepreneurial, and creative. Profit lies in finding opportunities to develop new products, services, and relationships. There is little expectation that these advantages will last.

The FM providers' role in the distributed office will be to:

- Assist the core organization in rapidly adjusting its physical footprint as competitive demands require
- Manage space optimization tools of all leased or rented resources, including office hotels
- Provide service concepts that assist employees as they move between offices and third workspaces... and more

Hierarchy's "Ability to solve in-house"



Internally oriented
Low willingness to
partner



Clan's "village" rules

Market's "Cluster mode"



Externally oriented
High willingness to partner



Adhocracy's "Distributed office"

Flexibility
Decentralized
Dynamic

Clan "village" rule: The organization is highly adaptive, and the office environment is friendly and family-like. Employees are mentored by the workplace manager who acts as parental-figure. The workplace values commitment, loyalty, flexibility and sacrifice. The organization also strives to build strong relationship based on trust with suppliers, customers and the local community. Relationships with suppliers are not entered into lightly. They are built up over a long period of time and often include ethical codes of conduct.

The FM providers' role in the Clan's village rules will be to:

- Remain attuned to the strategic considerations of the core organization
- Develop formalized structures for employee input and participation into workplace design and maintenance
- Develop and maintain office designs that enhance employee collaboration and enhance opportunities for meetings with other units (clans) in the organization... and more


The FM industry's role is qualitatively different in each of the four archetypes. Despite these differences, the FM providers will have to provide anticipatory customer services to be successful beyond 2020.

They will have to begin managing the workplace as an experience and not just as a facility. This will require that FM providers become proactively engaged with their customers so that the FM provider can be attuned to core organization's strategy and can develop the services necessary to support the types of work modes needed to fulfill the strategy and brand promises.

To fulfill this role, FM providers need to be extroverted and actively engage with customers and increasingly seek alliances with other organizations – sometimes including competitors – that will help maximize the utilization of their assets, reduce overall risk and exposure, and increase the core organization's flexibility.

The next decade will introduce a great deal of change to the FM industry. FM providers will be at the forefront of helping businesses and industries reconfigure. To do this, FM providers must be resourceful, creative and innovative and maintain simultaneous focus on the customer, the building and the employee. FM providers will need to provide flexible, networked infrastructures that allow users from different companies to utilize networks and peripherals. FM contracts will have to be renegotiated to bring companies together in new ways. In order to be strategic partners in this transformation, FM providers must deliver new service concepts, insightful information and good data analysis that place people at the heart of the workplace experience.

We hope that document will inspire you to consider what the FM function's role in your workplace strategy should be.

A man with dark hair and a beard, wearing a dark suit jacket over a light-colored shirt, is smiling and looking towards the camera. He is holding two large, stylized blue cloud cutouts. One cloud is in the foreground, partially obscuring his lower body, and the other is behind him, held in his right hand.

“First to mind when asked what ‘the cloud’ is, a majority respond it’s either an actual cloud, the sky, or something related to weather.”

Citrix Cloud Survey Guide, 2012

4. Introduction

The Facility Management (FM) industry is evolving from bundling services towards an industry that provides workplace management solutions. Recent research shows that management within FM industry needs to better center its activities to providing more customer-oriented approaches towards service delivery.² As service-centered workplace managers of the future, FM providers must understand the opportunities and challenges facing their core organizations. This is needed so that they can better identify, develop and deliver “value-adding services that support and improve the effectiveness of core business”.³

In order to assist this transition to a more service-centric approach to Facility Management, the *ISS 2020 Vision: New Ways of Working (NWOW) – the workplace of the future* (2013) report aims to help FM providers and managers create better workplaces for their customers and champion better working lives for their customers’ employees by helping them understand the forces shaping the future of work, future workforce, and future workplaces.

For example, an increasing number of work tasks can be completed from anywhere, not just at the office. An increasing number of employers offer the ability to telecommute. In the United Kingdom, 59 per cent of employers who responded to a 2011 survey offer possibilities for teleworking, up from 13 per cent in 2006. In the United States, 24 per cent of employees work at least part of their working week from home.⁴

This report builds upon the previous ISS 2020 Vision study, *Scenarios for the Future of the Global Facility Management (FM) Industry* (2011) that identified that the future workplace will change significantly over the coming decade. Trends are driven by digitization, automation, sustainability, and evolving demographics among other factors.

Service-centric logic that promotes core organizations’ brands and cultures

The workspace represents both the outward – brand – and inward – organizational culture – manifestations of a company’s DNA.⁵ Brand is a known identity of a company not only in terms of what products and services it offers, but also the essence of what the company stands for in terms of service and other emotional, non-tangible consumer perceptions. Organizational culture is a complex topic, but in this study it includes all of an organization’s shared values, attitudes, beliefs, assumptions, behaviors, etc.⁶

FM providers’ service concepts need to go beyond looking at the workspace as a built environment for increasing efficiency and reducing costs;⁷ they need to offer service-centric approaches that reflect, support and improve core organizations’ strategic objectives, brand,

2 Coenen, Christian; von Felten, Daniel (2012). *Service-centric logic of FM*. In: Alexander, Keith; Price, Ilfryn (Hg.). *Managing Organizational Ecologies. Space, Management and Organizations*. New York: Routledge.

3 European Committee for Standardization. (2006). *EN 15221-1: European standard in Facility Management – part 1: Terms and Definitions*. Brussels: CEN quoted from Christian Coenen, et al. “Managing effectiveness and efficiency through FM blueprinting” *Facilities*. Vol 29. No. 9/10, 2011, 422.

4 “Teleworking: The myth of working from home”, <http://www.bbc.co.uk/news/magazine-21588760>, 27 February 2013

5 Steelcase, “Brand, culture and the workplace” *Steelcase WorkSpace Futures* (2010)

6 Bruce Tharp, *Four Organizational Types*. Haworth (2009)

7 “Teleworking: The myth of working from home”, <http://www.bbc.co.uk/news/magazine-21588760>, 27 February 2013

organizational culture, and workplace productivity at the right price point across the entire range of potential workspace and workspace strategies.

To do this, the FM industry is evolving towards providing a range of workplace management solutions (see figure below). The challenge for FM providers is that these solutions are becoming increasingly intangible and rely on customers' subjective judgments of how well the solutions support the core organizations' goals and values.⁸ The most service-minded FM providers are those who are attuned to the strategic challenges facing their core organizations and can anticipate or adapt rapidly to evolving circumstances.

Workplaces are both physical and virtual. They include office, home and third workspaces (cafés or office hotels). At the office, workspaces range from assigned private offices and desks in open offices to temporary hot desks, touchdown points, and project seating. At the same time, mobile devices are overtaking the laptop and the PC as our primary interfaces to the digital world, where virtual work and telecommuting are redefining work practices. These interfaces are evolving rapidly.

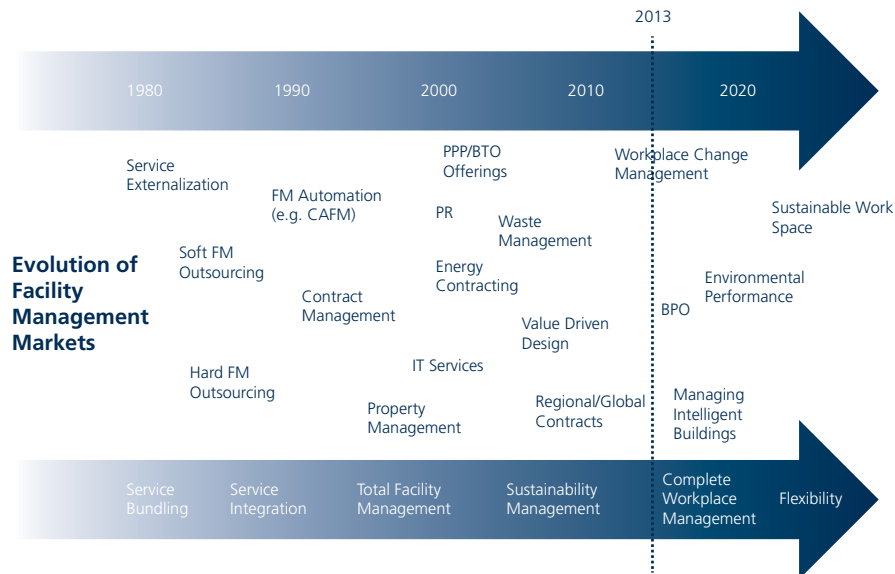


Figure: Facility Management: Technology and Growth Roadmap

Source: Frost & Sullivan (2013), modified by CIFS

⁸ Coenen, Christian; von Felten, Daniel (2012). Service-centric logic of FM. In: Alexander, Keith; Price, Ilfryn (Hg.). Managing Organizational Ecologies. Space, Management and Organizations. New York: Routledge.

Workplaces are part of a “total value” eco-system where organizations can shape the experience that customers and employees have when interacting with companies.⁹ This covers the entire workplace experience – from traditional, hierarchical office designs (private cubicles and offices with regular seating), to more mobile solutions (remote work, hot desks, and project-related seating).

Ensuring that the workplace continues to contribute to core organizations’ strategic objectives in the fast-changing, increasingly competitive, globalized economy will be at the forefront of how core organizations determine the quality of FM providers’ service offering towards 2020. FM providers need to become experience managers to ensure that workspaces express the essence of what their organizations are and the values they convey. This includes storytelling and providing the thoughts behind the building. The workspace must be true to both the experience and the message.¹⁰

For example, Amazon spends very little on traditional marketing and branding. They focus instead on developing a user experience that exemplifies their brand: technology, distribution capabilities, etc. It is the totality of the user- experience that sells the brand.¹¹

Recent studies of the FM industry envisage that over the coming decade the FM industry will add a number of new services to its offerings to support the workplace. These services will include sustainability management, complete workplace management, and increasing flexible and scalable solutions.¹² The bundling of these and other services means that FM will be responsible for:

- Support service operations – including provision of working spaces, catering, cleaning, etc.
- An organization’s resources – including materials, equipment, staff, technology, and facilities
- New internal customer segments and items belonging to them.¹³

The transition towards service-centric delivery in workplace management requires that FM providers focus on three elements: intangibility, customer integration, and the heterogeneity of services. Towards 2020, FM providers will have to create and communicate a sense of trust in their abilities to build productive, innovative workplaces that fully supports core organizations’ strategic ambitions. These three areas will continue to pose opportunities and challenges for FM providers towards 2020 and beyond.

- **Intangibility** – FM services are customer experiences and cannot be judged according to the same criteria as normal tangible goods.

⁹ Ormbo, Jens; Sneppen, Claus; Würtz, Peter Franklin (2008).. *Experienced-based communication*. Berlin: Springer.

¹⁰ Ormbo, Jens; Sneppen, Claus; Würtz, Peter Franklin (2008).. *Experienced-based communication*. Berlin: Springer.

¹¹ Steelcase, (2010) *Brand, culture and the workplace*.

¹² Frost & Sullivan (2013). *Frost & Sullivan Value Proposition Prepared For ISS World Services AIS*

¹³ Coenen, Christian; von Felten, Daniel (2012). *Service-centric logic of FM*. In: Alexander, Keith; Price, Ilfryn (Hg.). *Managing Organizational Ecologies. Space, Management and Organizations*. New York: Routledge.

- **Customer integration** – FM services in the future cannot be provided without extensive customer integration and even co-creation, where customers co-create and co-provide services. The issue for FM providers is to balance varying levels of customer integration, which can vary greatly across different FM segments and by the types of services being offered. Some services require little customer involvement, while others are highly customer-centric.
- **Heterogeneity** – Ensuring consistent service quality in the face of service heterogeneity remains a key challenge for FM providers. Services become heterogeneous because they are performed by humans (performance can vary daily), and because customers' requirements can change over time in a hyper-competitive, global economy.¹⁴

To be on the leading edge of providing customer-centric services, FM providers must be aware of the challenges that core organizations face. FM providers must be cognizant of how they could choose to plan their office environments in response to these new challenges. This understanding will permit FM providers to deliver better management of FM processes, experiences, personnel, and relationships with customers and end-users. This report serves as an inspiration to assist corporations in selecting FM partners who understands the evolving context that core organizations will face in planning workspaces for 2020 and beyond.

Project objectives

The main objectives of the ISS 2020 Vision: New Ways of Working (NWOW) report are to:

- Identify key drivers and strategic issues that are shaping:
 - (i) the nature of **work**, (ii) the **workforce**, and (iii) the **workplace**, over the coming decade
- Identify key, research driven-areas of opportunity for the FM industry, either as in-house or service providers, open to development as new areas of expertise
- Engage customers in a dialogue about how to create and maintain productive workplaces towards 2020
- Envision service concepts in the areas of opportunities for FM companies to support client needs.

Process

During the winter and spring of 2013, CIFS and ISS identified the key drivers and strategic issues shaping the future of work and the workplace of the future. Findings were accomplished through:

- A global survey of external FM experts conducted in February and March 2013
- Workshops with ISS customers in Vienna, Austria, London, United Kingdom, and Oslo, Norway, conducted in April and May 2013

¹⁴ Coenen, Christian; von Felten, Daniel (2012). *Service-centric logic of FM*. In: Alexander, Keith; Price, Ilfryn (Hg.). *Managing Organizational Ecologies. Space, Management and Organizations*. New York: Routledge.

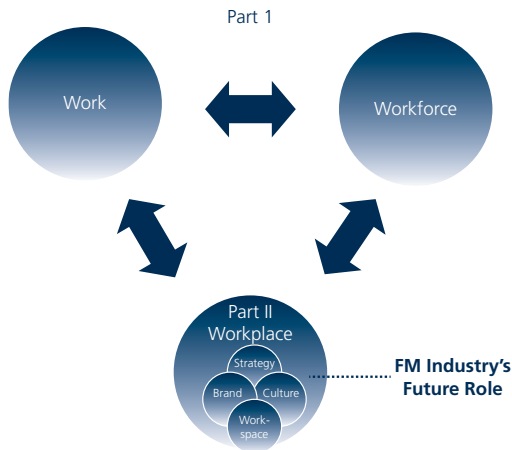


Figure: ISS 2020 Vision: NWOW's conceptual model
 Source: CIFS (2013) model derived from CIDP and Steelcase

- Seventeen in-depth interviews with subject matter experts from nine countries within the fields of outsourcing, office design, furniture design, communications technology, and FM, conducted in March and April 2013 (See acknowledgements for list of interviewed subject matter experts)
- A meta-study of trends shaping the new ways of working and the workplace of the future.

ISS 2020 Vision: NWOW report's format

The report itself is divided into two parts: Part I describes the context in which future organizations will operate, determined by how the nature of **work**, the **workforce**, and the **workplace** will develop. Part II focuses on the FM industry's role in shaping the workplace towards 2020. Future workplace managers will have to identify the FM industry's role in servicing a productive **workplace/workspace** that frames the development of a **culture** and **brand** that fulfills an organizations' **strategy**. The following strategic themes will be analyzed for their implications on the future workplace.

Part I: Strategic themes affecting work toward 2020

Strategic themes and the nature of work towards 2020

1. Paradigm shift towards innovation society increases the need for continuous adaptation
2. Technology is the enabler of increased collaboration and change in the workplace
3. Urban areas allow workers and companies to better leverage their surroundings

Strategic themes and the workforce towards 2020

4. Polarization of the labor force leads to polarization of workplace amenities
5. Increasing labor market diversity
 - a. Increasing number of virtual workers
 - b. Women's increasing participation
 - c. Four-generation labor-force
 - d. Global work teams
6. Growing need to focus on employee health and well-being

Strategic themes and the future workplace towards 2020

7. Workplace personalization will continue to create workplace tensions
8. Sustainability and the workplace of the future

Part II: Defining the FM industry's role in the future workplace

- Strategic agility and the future workplace
- Outwards and inwards manifestations of organizational DNA – the cultural dimension
- Strategic agility, workplace culture and sustainability.

Work towards 2020

Themes	Consequences	Implications for FM industry
<p>1) Paradigm shift towards innovation society increases the need for continuous adaptation</p>	<ul style="list-style-type: none"> • Companies focus on improving knowledge workers' productivity • Companies are seeking to reduce their exposures by transferring as many fixed costs as possible • Companies leverage value networks instead of value chains • Companies are changing their understanding of the role that the workplace plays in creating value 	<ul style="list-style-type: none"> • Service concepts need to look beyond the workspace to the surrounding environment for efficiencies and reduced costs • Offer service-centric approaches that reflect and support the core organization's strategic objectives, brand, and culture • Develop more efficient, cost-efficient and less disruptive workplace reconfigurations • Quickly form, reconfigure and dissolve networked teams and third workplaces on an as needed basis
<p>2) Technology as the enabler of increased collaboration and change in the workplace</p>	<ul style="list-style-type: none"> • Allows employees to work smarter and more innovatively • Ubiquitous mobile technology will expand organizational boundaries and lead to the reconfiguration of many industries • It will also lead to intra-organizational "turf" battles and will challenge organizations' abilities to manage and analyze data flows 	<ul style="list-style-type: none"> • Need to create seamless organizations that provide similar workplace experiences virtually and physically. • Need to work with customers to assess how introduction of new technologies will affect workplace and service offerings • FM and corporate IT providers need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual intra-organizational conflicts • Need for robust security and secure work environments will grow • Stay attuned to workers' needs and organizational requirements for strategic agility and flexibility • Manage workspaces and global projects virtually through cloud technologies • Ensure that all workspaces – whether onsite or at a third space – can, and are, working together
<p>3) Urban areas allow for workers and companies to better leverage their surroundings</p>	<ul style="list-style-type: none"> • Offices will remain the physical manifestation of the organization towards 2020 • Cities are where creativity, innovation and growth occur in the economy. • Urban areas are evolving into smart cities, which will influence office designs and the offices' roles in the local community • Smarter cities and networked organizations create a number of business outsourcing opportunities as well as fostering service symbiosis 	<ul style="list-style-type: none"> • Look beyond the industry's borders, the core organization, and areas of expertise • Leverage the capabilities of increasingly larger value-generating networks • Integrate geographic and building information systems into workplace management systems and in the selection of new workspaces • Develop sustainability programs that utilize collaborative consumption systems and can coordinate and manage among different energy, water and environmental stewardship systems

Workforce towards 2020

Themes	Consequences	Implications for FM industry
<p>4) Polarization of the labor force leads to polarization of workplace amenities</p>	<ul style="list-style-type: none"> • Automation and globalization are polarizing the labor market • Talents have the chance to self-actualize and hyper-specialize while non-talents engage in a struggle to find the next contract • The workplace is polarizing just like the labor market • The workplace is a strategic tool to attract and retain talents. • Companies must balance the ability to attract workers while contending with downward pressures on office amenities for the majority of its workers 	<ul style="list-style-type: none"> • Must create and maintain employee engagement at work • Workplace amenities must reflect organizations' strategic ambitions and culture • Non-Fortune 500 companies will have to develop creative solutions to offer the best amenities they can at reduced costs • Companies will make use of distributed office and work environments to reduce travel demands and travel costs
<p>5) Workforce diversity means that companies and the office have to be more amenable to an increasing number of workers' needs</p>	<ul style="list-style-type: none"> • Virtual work will have the greatest influence on office design according to survey respondents • Most managers are ill-prepared to manage virtual workers • Organizations and future offices will have to balance the needs and requirements of four generations • Women appear to be better prepared for the skill sets required in the future workplace • Developing increasingly diverse teams that possess different cultural and work skills will become a strategic goal for more organizations 	<ul style="list-style-type: none"> • Strategic choices will have to be made in workplace design as younger and older workers tend to be attracted to different working environments • Transform and diversify to better serve their core organizations' needs toward 2020 • Depending on the country and region, FM providers may need to do more to assist young parents • Help organizations attract, retain and motivate a more diverse employee base in core organizations • Help core organizations differentiate themselves from their competitors via their office amenities • Help global organizations create, adapt and implement workplace strategies adjusting them to different local needs and cultural requirements

Workforce towards 2020 (continued)

Themes	Consequences	Implications for FM industry
<p>6) Growing need to focus on employee health and well-being</p>	<ul style="list-style-type: none"> • As companies adopt more flexible work arrangements, people are adopting a number of improper postures that will negatively impact their health and well-being in the future • Identifying where the onus for better workplace ergonomics lie -- the company or the individual employee • Employees believe that the employer has a role to play in reducing the amount of stress in their lives, and the workplace can help reduce stress levels that employees are facing 	<ul style="list-style-type: none"> • Have to balance (i) demands for controlling/ cutting costs coming from management, with (ii) ensuring the productivity and well-being of office workers • Use benchmarks to ensure that costs are in line with industry standards, but be willing to challenge standard practice to make sure that cost cutting does not lead to a significant decline in worker productivity • Develop training programs and recommendations that remind workers about correct ergonomic postures when they are working away from the office • Develop services that set up workspaces in private spaces or in fixed third workspaces (a workspace at a client's office or a work hotel, for example) • Establish / optimize collaborative partnerships with chain providers who are known for providing third working spaces (e.g. Starbucks) and work hotels (e.g. Regus) • Assess whether it is cost effective to provide amenities that improve employee well-being themselves, if they should collaboratively source these services with nearby companies, or if they should arrange service arrangements with other providers

Workplace towards 2020

Themes	Consequences	Implications for FM industry
<p>7) Workspace personalization will continue to create workplace tensions</p>	<ul style="list-style-type: none"> • The ability for individuals to personalize the physical workplace environment will decline towards 2020 • Virtual workspaces, personally procured computing devices and the developments in technologies, such as the building as a computer (BaaC), may offer the possibility to personalize the workspace at little additional cost to the employer • Current work places are ill-prepared for these developments 	<ul style="list-style-type: none"> • Create greater workplace efficiencies to satisfy senior managers without damaging employee engagement • Need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual conflicts • Reach out to massive multiplayer online gaming operators to understand how workspaces could be developed to create immersive, cocooned work experiences for workers • Seek collaborative relationships, e.g. like those Starbucks is creating with Google
<p>8) Sustainability and the office of the future</p>	<ul style="list-style-type: none"> • Sustainability is a growing requirement from businesses and governments • The need to reduce the environmental footprint of offices is a recognized opportunity for FM providers to introduce new workplace strategies 	<ul style="list-style-type: none"> • Look to collaboration with other organizations and even with competing organizations • Analyze sustainability challenges' consequences on supply and value chains as well as location building design, management and maintenance • Use information from building information modelling to improve building designs and the inputs into models by analyzing how people actually move through and use workspaces • Assess sustainability challenges according to regional conditions and challenges • Look beyond the confines of the core organization and see how employees and other companies, including competitors, could help develop sustainable workplace solutions

Workforce towards 2020

Vision / Strategy

Organizational archetypes	Classical	Leader
Characteristics	<ul style="list-style-type: none"> • Industry is predictable but hard to change • An organization's strategic needs are to set a goal, target a favorable market position, and then build and defend its position • Quantitative and predictive planning works well, as do classical approaches to workplace planning 	<ul style="list-style-type: none"> • Core organizations can shape their industries, future visions, and paths towards realizing their goals • Core organizations place major bets, but these bets are clear and deliberate • Execution is the priority, not strategic agility • Support functions need to assure that core organizations can marshal resources, plan thoroughly, and implement strategies correctly
Need for strategic agility	Low	Medium
Per cent of Boston Consulting Group surveyed organizations facing this situation	35 per cent	40 per cent
Willingness to outsource	Medium	High
Willingness to participate in collaborative consumption	Low to Medium	Low-Medium

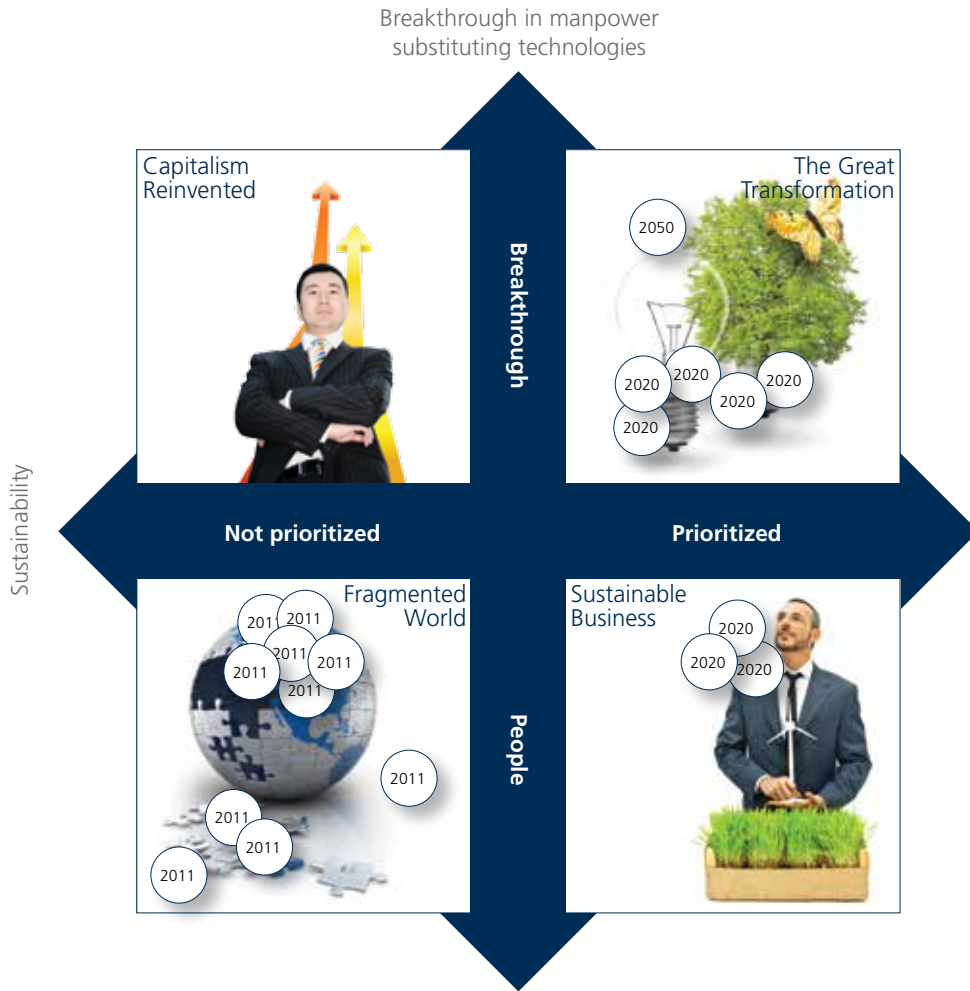
Culture / Brand

Cultural archetype	Control (Hierarchy)	Compete (Market)
Type of leader	Strong managers and hierarchy	Strong leader, who is driven and demanding
Type of organization	Formal, structured, bureaucratic	Teams compete against each other internally and externally. They want to be "best in class"

Workplace strategies

Type of workplace archetype	"Ability to solve"	"Cluster node"
Willingness to take risks	Low-medium	High
Level of workplace trust	Medium	Medium
Type of work culture	Hierarchical	Hierarchical, but flexible
Approach to the workspace	Analytical, policy-based	Analytical, performance-based collaboration, acquisitional
Remote work	Degree: High Controlled by policy	Degree: High Controlled by performance
Sustainability	Analytical opportunity seeking Focus on risk mitigation	Analytical opportunity seeking Brand enhancement, desire to be best in class
Role of FM industry	<ul style="list-style-type: none"> • Integrated Facility Services • Focus on efficiency and need for standardization (high compliance levels, etc.) • Client interested in how FM is done 	<ul style="list-style-type: none"> • Network relationship with end-user focus (B2C vs. B2B). FM is organized under "HR" • Client is primarily interested in the output and FM becomes central entity for coordination

Adaptive	Visionary
<ul style="list-style-type: none"> • Industry is dynamic, unpredictable strategic environment • The core organization needs to constantly refine goals and tactics • Organizations are unable to make long-term strategic plans • Organizations need to shift, acquire, or divest resources smoothly and promptly 	<ul style="list-style-type: none"> • Industries are very unpredictable, with low barriers to entry or with high-growth rates • Core organizations are met with high innovation rates across the board, but they have just as much opportunity to drive innovation in their industries • These organizations need flexibility • These visionary organizations rely greatly on their partner organizations • Core organizations rally and leverage eco-systems of customers, suppliers, and “complementators” to their cause
High	High
16 per cent	9 per cent
Medium	High
Medium-High	High
Collaborate (Clan)	Create (Adhocracy)
Mentor/parental	Innovative risk takers
Team-oriented, almost family-like	A collection of entrepreneurial risk-takers seeking to gain advantage in the market
“Village”	“Distributed office”
Medium	High
High	Medium
Collaborative	Collaborative and open to outsiders
Employee engagement, promote internal collaboration and well-being	Testing, willing to try new working arrangements, strong openness to external involvement
Degree: High Controlled by organizations’ social and cultural needs	Degree: High Controlled by collaborative and innovation needs
Employee involvement Top-down initiatives meet bottom-up engagement	Partner involvement via social media platforms Focus on untested, groundbreaking solutions.
<ul style="list-style-type: none"> • Integrated Facility Services • FM as support to employee engagement (leverage HR priorities) • Client and ‘user’ interested in how FM is done 	<ul style="list-style-type: none"> • “Hoteling” model becomes prevalent and FM acts as the coordinator of infrastructures. • Partnering is the prevailing model and FM acts as a facilitator/ information exchange



Source: ISS 2020 Vision: Future of global facility management industry (2011)

5. The ISS 2020 Vision

Revisiting the ISS 2020 Vision: Scenarios for the Future of the Global FM Industry ('11)

The *ISS 2020 Vision: New Ways of Working – the workplace of the future* (2013) study builds upon the four scenarios developed in the *ISS 2020 Vision: Scenarios for the Future of the Global FM Industry* (2011). ISS experts and clients selected the “Great Transformation” scenario – maintaining a strong focus on sustainability and on a high degree of automation of service work – as the most likely one to shape the future of services industries and the Facility Management (FM) industry in particular (see figure below). This scenario will serve as the basis for the report *ISS 2020 Vision: New Ways of Working*.

The report *Scenarios for the Future of the Global FM Industry* assessed the potential consequences on the service and FM industries of four future scenarios. The four scenarios were constructed using two axes: (i) technology development and (ii) sustainability. The technology axis focused on the degree of penetration of manpower substituting technologies, while the sustainability axis concentrated on four challenges related to energy, water, waste, and indoor ecology management.



The Great Transformation¹⁵

In this world, environmental, social and economic challenges are solved through technological solutions and resource efficiency. Focus is on optimizing the use of resources through automation. There are many public and private partnerships with the purpose of developing sustainable solutions. Distinct advantages exist for private enterprises to develop sustainable solutions. These include retraining affected employees to find alternative employment, and sustainable development projects facilitated through R&D clusters.

Since the publication of the 2011 report, recent trends point towards a world where service industries are becoming increasingly automated, and sustainability is becoming a priority for organizations and a critical component of FM service contracts. These developments will have impact on new ways of working beyond 2020 and will influence how organizations will plan for and shape future office development.

For example, the economic downturn has led to a focus on efficiency and cost optimization. Companies are focusing on core activities, and they are accelerating their outsourcing activities.¹⁶ They are also turning to new technology solutions, such as cloud IT services. New technologies, along with the aforementioned bundled services, are allowing companies to automate. Automation is rapidly spreading across increasingly complex “white collar” work functions in medicine, the legal, actuarial, and the other professions: “If you look at the top 500 American companies, corporate profits are near an all-time high, yet unemployment levels are higher than average as well. Many companies have not hired back the workers

¹⁵ CIFS and ISS, (2011). *ISS 2020 Vision: Scenarios for the future of the Global FM industry*

¹⁶ *ISS 2020 Vision: NWOW Interviews*

they laid off, but have instead managed to increase productivity through software and automation.”¹⁷

Throughout the ISS 2020 Vision report series, technology development will focus on the following areas:

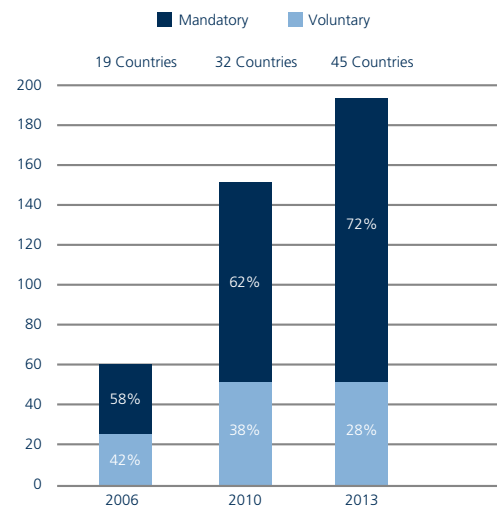
- 1) Labor-saving technologies
- 2) Communication and mobility technologies
- 3) Knowledge-based advisory services
- 4) Knowledge services.

Despite not yet becoming a linchpin in global governance, sustainability is increasingly an important focus in businesses’ decision processes. In the FM industry, it is becoming a critical part of current and future decisions on new office designs and locations.¹⁸ According to the Global Reporting Initiative, which monitors the development of sustainability regulations in over 180 countries, “an increasing number of organizations are reporting their sustainability performance.” Reasons for this development include “stakeholder and peer pressure, crises, growing awareness of the strategic importance of sustainability and, of course, new reporting requirements – especially from governments and stock exchanges.” The following figures show the developments in sustainability reporting and regulation since the release of the report *ISS 2020 Vision: Future of the Global Facility Management Industry*:

Sustainability will cover the following dimensions in the ISS 2020 Vision: NWOV report:

- 1) **People:**
Health issues: Environmental and workplace health hazards
Social issues: Unemployment, marginalization, inequality
- 2) **Planet:**
Natural resource preservation, climate change (energy efficiency), and pollution
- 3) **Profit:**
Sound and ethical business and regulation practices.

Trends in mandatory and voluntary sustainability reporting



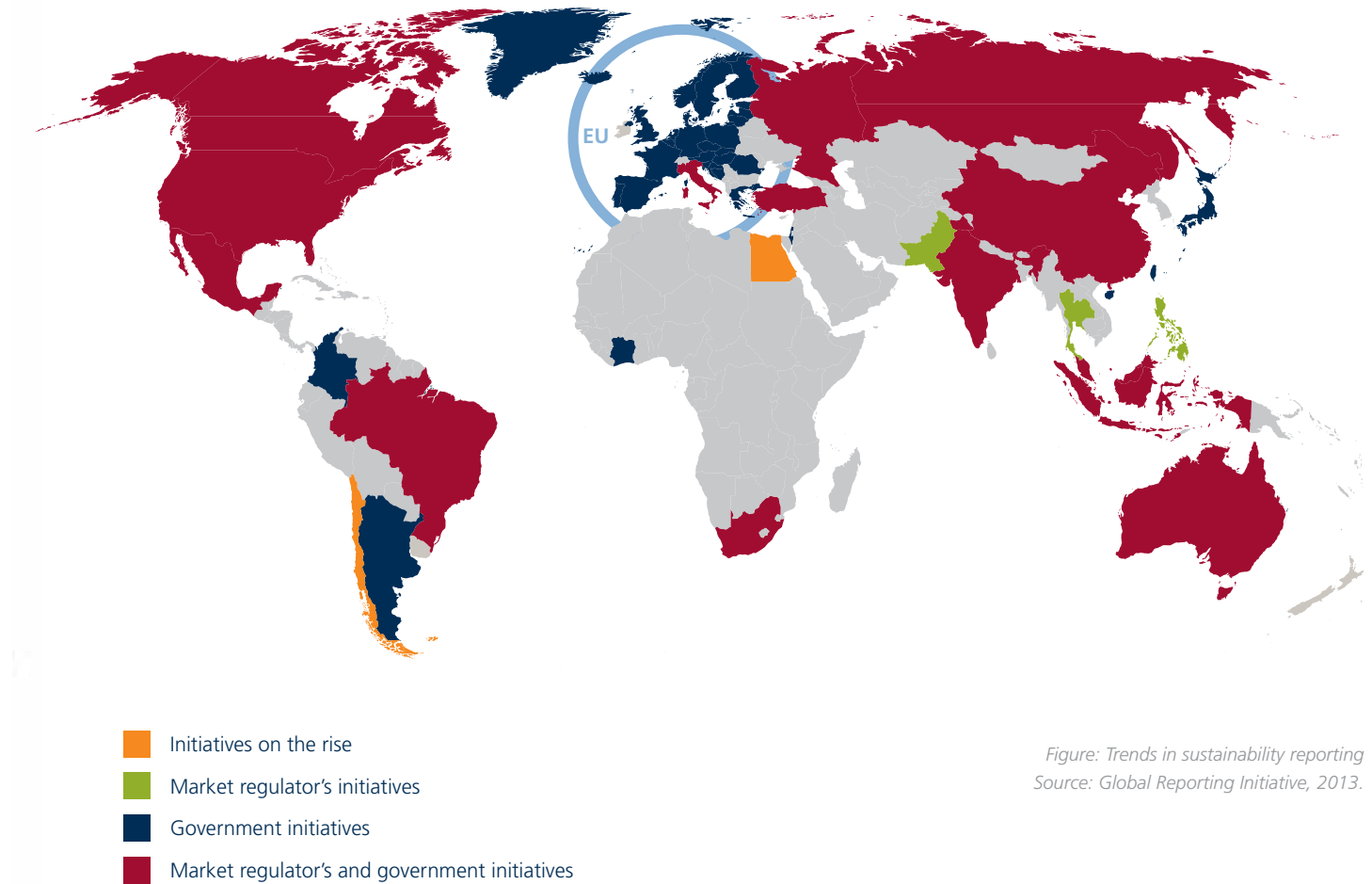
		Carrots and sticks Publications					
		2006		2010		2013	
Initiatives	Mandatory	35	58%	94	62%	134	72%
	Voluntary	25	42%	57	38%	53	28%
	Total	60		151		180	
Countries and regions		19		32		45	

Figure: Trends in sustainability reporting
Source: Global Reporting Initiative, 2013.

¹⁷ Christopher Steiner quoted in “Innovation is a Social Issue”, *The European*, 26 July 2013.

¹⁸ CIFS and ISS, (2011). *ISS 2020 Vision: Scenarios for the future of the global facility management industry*

Worldwide Initiatives



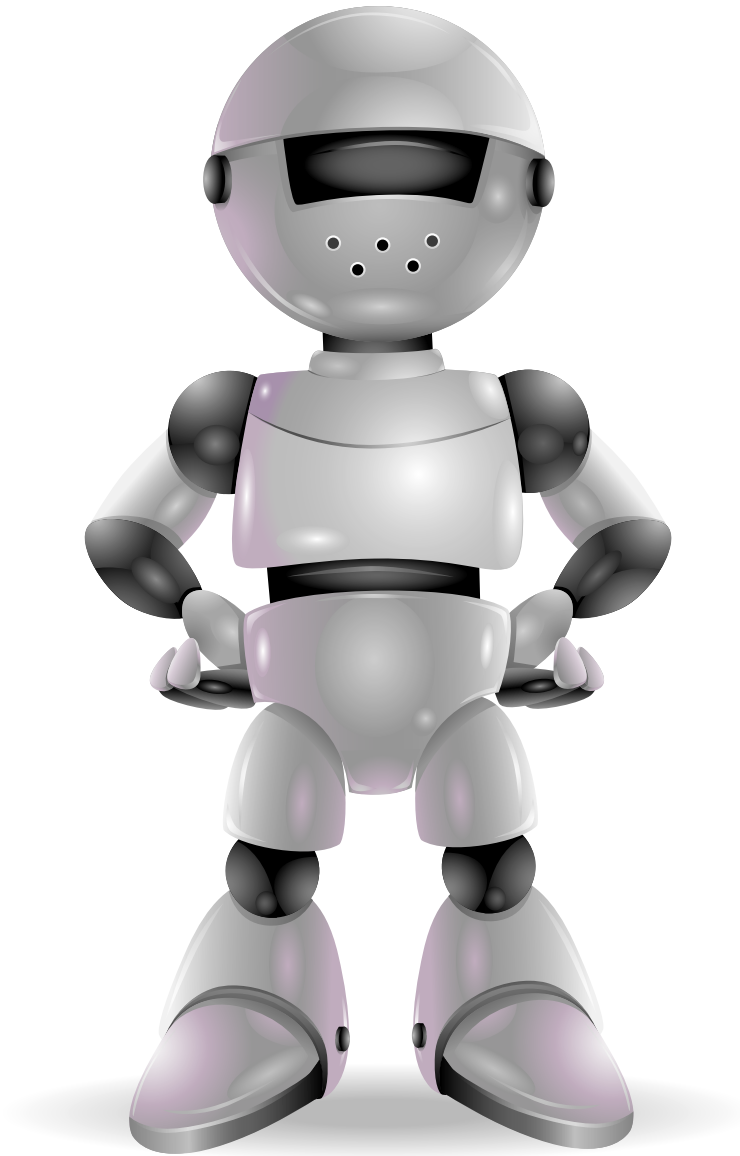
*Figure: Trends in sustainability reporting
Source: Global Reporting Initiative, 2013.*

Part I

Strategic themes affecting work towards 2020

“The AI [Artificial Intelligence] revolution is doing to white collar jobs what robotics did to blue collar jobs.”

Eric Brynjolfsson & Andrew McAfee, 2013



Strategic themes affecting work towards 2020



Theme 1

Paradigm shift towards innovation society increases the need for continuous adaptation



Theme 2

Technology as the enabler of increased collaboration and change in the workplace



Theme 5

Workforce diversity means that the workplace will have to be more amenable to an increasing number of workers' needs



Theme 6

Growing need to focus on employee health and well-being



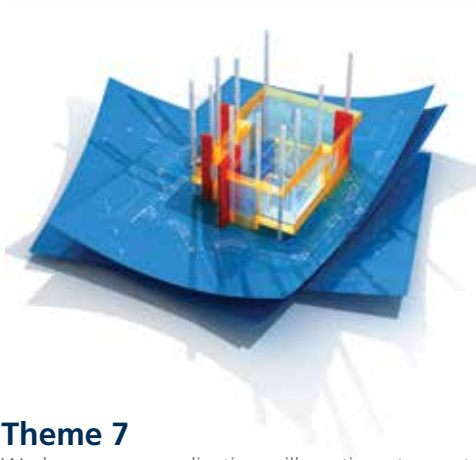
Theme 3

Urban areas allow workers and companies to better leverage their surroundings



Theme 4

Polarization of the labor force leads to polarization of workplace amenities



Theme 7

Workspace personalization will continue to create workplace tensions



Theme 8

Sustainability and the workplace of the future

Theme 1



Paradigm shift towards innovation society increases the need for continuous adaptation

Society is undergoing a paradigm shift from the industrial to the innovation society. The demands of innovation society force leaders to “ask for permanent adaptations, continuous future-oriented revisions as well as pluralistic discussion of [organizations’] missions. This holds for companies, for regions, for national economies and ... supranational entities[ies].”¹⁹

Competition is frenetic in the innovation society. The rate of replacement of Fortune 1000 companies has doubled over the last 40 years. Between 1973 and 1983, only 35 per cent of Fortune 1000 companies were replaced. From 2003 to 2013, the number increased to 70 per cent.²⁰ CEOs are feeling the pressure,²¹ and it is outpacing their thinking about organizations’ strategies, their offices and office design, as well as the regulations that impact investments in office furniture and design: “The decisions made about the workspace are vital to the company’s future. CEOs last three to five years. They are replaced as the company’s needs change, while a workspace is expected to last 10-20 years.”²²

The struggle for organizations and their FM providers over the next decade will be to balance the needs for organizational flexibility, while, at the same time, developing new means for enabling, enhancing and measuring workers’ productivity. Progress “has been so rapid and so surprising that many present-day organizations, institutions, policies, and mindsets are not keeping up.”²³ Today’s organizations are geared to maximize value generation in an industrial society.²⁴

There are significant challenges in FM responsiveness to the transition towards the innovation society.

First, FM managers are caught in an industrial society mindset with a “Taylorist approach to the workplace. They are focused on cost, increasing efficiencies, and reducing the investments in the workplace. FM managers “are all hung up on cutting costs in the workplace and cramming people into workspaces and then are surprised when it does not work.”²⁵

When companies do make investments into new working arrangements, managers seek “permanent” workplace solutions. One subject matter expert interviewed, who works with workplace design, notes that the customer’s mindset still seeks “timelessness” when seeking to build new offices or buy new office furniture. “Timelessness is what people are looking for. The recent significant clients we work with were looking for an approach that would last for twenty years.”²⁶

19 *The Business Panel on future EU innovation policy (2009), Reinvent Europe through innovation: From a knowledge society to an innovation society.* Brussels: DG Innovation.

20 Nathan Furr, “Big Business ... The end is near: Why 70% of Fortune 1000 companies will be replaced in a few years.” *Forbes* (21 April 2011).

21 Thomas, Ron. “So Long and Farewell, Lon – You’re Simply Part of the CEO Trend” *TLNT.com* (28 July 2010) <<http://www.tlnt.com/2010/07/28/so-long-and-farewell-lon-youre-simply-part-of-the-ceo-trend/>>

22 ISS, *NWOW Interview*, 18 March 2013

23 Brynjolfsson, Eric and McAfee, Andrew. (2013). *The race against the machine.* Lexington: Digital Frontier Press

24 Chan, Jeffrey et. al. “Workplace design: a new managerial imperative” *California Management Review* Vol. 49 No.2 (Winter 2007).

25 Saurin, Ruth *Workplace Futures: A case study of an adaptive scenarios approach to establish strategies for tomorrow’s workplace* (2012)

26 ISS 2020 Vision: *NWOW Interviews*

Second, FM managers are caught too far down the managerial “food chain”. FM managers are typically not part of the strategic decision making process. Workplace decisions are discussed at board level, and FMs are often forced to wait for senior management to buy into new ideas.²⁷ An academic analysis found three reasons for this:

1. Individuals’ and organizations’ perception and understanding of the FM function is often prejudiced
2. The workplace is often considered a secondary issue by the [core] organization
3. Some FM providers do not understand the value they generate from assets and subsequently fail to manage the workplace in a way that adds value to the organization.²⁸

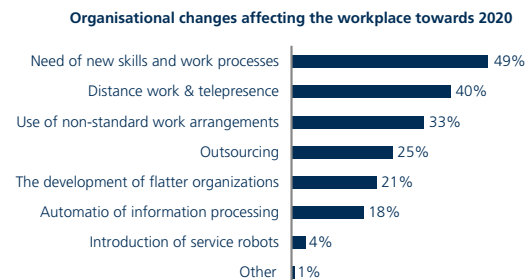
In order to be a participant in senior management’s decision-making about the future workplace, ISS 2020 Vision: NWOW, workshop participants argued that “FM managers need to demonstrate their ability to handle business-sensitive, confidential information before senior management will allow them to enter the inner-circle.”

Third, FM providers’ ability to invest in the workplace is limited by financial considerations, affecting how companies can write off investments in new office infrastructure and furnishings. Even if the FM provider and the company want to increase the flexibility of investments, they are limited by financial and other regulations. Buildings can only be written off on a 40-year timeframe, infrastructure investments are written off on 10-20-year timeframe, furniture on a 7-year timeframe, etc.

New office designs need to take new skills and work processes into account

The innovation society utilizes the best of the industrial society, automation and specialization of work tasks, while demanding more knowledge-work and collaborative mixing and matching of different specializations.²⁹ Knowledge work is increasingly cognitively complex, dependent upon social skills and technical skills, time-pressured, and thus demands new work processes and patterns.³⁰ ISS 2020 Vision: NWOW, survey respondents identify this development by recognizing the importance of new skills and what impacts work processes will have on office design towards 2020 (see figure below).

Companies are responding to the paradigm shift by improving knowledge workers’ productivity, transferring fixed-to-variable costs, establishing and leveraging value networks, and focusing on the workplace’s role in creating value. These four responses will continue through 2020. FM providers have an ideal opportunity to be at the leading edge of ensuring



Source: ISS 2020 Vision: NWOW Survey, 2013

²⁷ Saurin, Ruth *Workplace Futures: A case study of an adaptive scenarios approach to establish strategies for tomorrow's workplace* (2012)

²⁸ Saurin, Ruth *Workplace Futures: A case study of an adaptive scenarios approach to establish strategies for tomorrow's workplace* (2012)

²⁹ Sanjeev Sanyal, “The Detroit Syndrom” *ProjectSyndicate.org* 26 July 2013.

³⁰ Chan, Jeffrey et. al. “Workplace design: a new managerial imperative” *California Management Review* Vol. 49 No.2 (Winter 2007).

that the core organizations' strategic objectives are realized. This can be accomplished by developing innovative workplace strategies that can be dynamically reconfigured according to the demands of organizations' changing strategic objectives.³¹

First, companies focus on improving knowledge workers' productivity. This focus is especially targeted towards complex knowledge work and high-skill interaction jobs, "a category that includes professionals such as doctors, lawyers, and engineers, as well as managers and salespeople." Even though it's been 50 years since Peter Drucker identified the challenge of measuring knowledge workers' productivity, most companies still need help managing this challenge. "In general, organizations have not truly come to grips with how to think about productivity in the knowledge economy, let alone how best to manage it."³² In many cases, this is the "first effort by employers to apply efficiency measures to the work of their most highly paid employees."³³ Companies are doing this by automating or re-assigning as many routine tasks as possible that do not require high-skills, such as conducting Google searches, to specialist workers.³⁴

Second, companies are seeking to reduce their exposures by transferring many fixed costs – including employees – to variable costs.³⁵ In order to reduce fixed costs, companies are: reworking their business models and technology deployment strategies, rethinking the human resources strategy (increasing usage of outsourcing, offshoring, partnering, and shifting an increasing number of workers from permanent contracts to short-term), reducing their investment in IT platforms and peripherals (by allowing employees to bring your own devices (BYOD)), and are reducing their exposure to real estate costs. The accelerating pace of change and increasingly competitive nature of globalized work means that organizations can no longer afford to demand conformity and offer lifelong employment. In the innovation society, organizations are "leaner and more agile, more focused on identifying value from the customer's perspective, more tuned to dynamic competitive requirements and strategy, less hierarchical in structure and decision authority, less likely to provide lifelong careers and job security, and are continually reorganizing to maintain or gain competitive advantage."³⁶

Third, companies leverage value networks instead of value chains. Work in the innovation society is no longer bound to the organization, to a single location or to clearly defined value chains. Value is generated in networks, including customers, suppliers, partners, competitors, volunteers and freelancers, and more companies than ever are investing in building good relationships.³⁷ These complementing interests form competitive eco-systems that span organizations, industries, distance, and time.³⁸

31 McGee, John et. Al. "Projected impacts on the FM profession" *Work on the Move*. 2011 IFMA Foundation

32 Price, Andrew. "Automation insurance: Robots are replacing middle class jobs" *Good*. 13 October 2010

33 *Help wanted: The future of work in advanced economies*. The McKinsey Global Institute (March 2012)

34 *NWOW working Interview on outsourcing*

35 *Help wanted: The future of work in advanced economies*. The McKinsey Global Institute (March 2012)

36 Chan, Jeffrey et. al. "Workplace design: a new managerial imperative" *California Management Review* Vol. 49 No.2 (Winter 2007).

37 Verhoef, P.C. "Understanding the effect of customer relationship management efforts on customer retention and customer share development" *Journal of Marketing*, 67, 4, 30-45

38 IBM, *A new way of working* (2010)

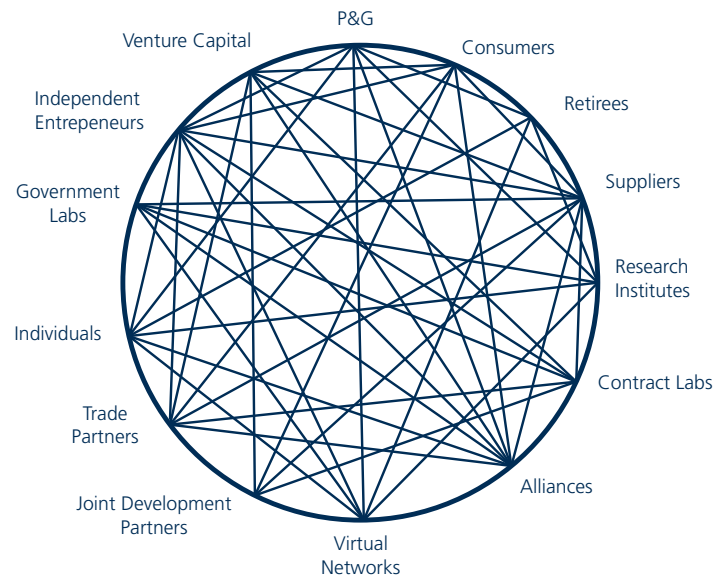
“ Approaches towards new ways of working and office amenities are driven by geography and market maturity.

FM providers need to remain attuned to local requirements and cultural context.”

Jon Seller, Chairman of IFMA Board of Directors and General Manager Optegy Group

The competitive challenges for companies for the next decade are to:

- Create relationships of higher value that produce more benefits or reduce the number of sacrifices for customers
- Define where value is being created
- Identify who is capturing it.



*Figure: Value networks replace value chains: P&G Connect & Develop approach to innovation
Source: P&G Open Innovation. What is Connect + Develop?*

For instance, P&G developed an open innovation strategy “Connect + Develop”, recognizing that internal capabilities are not competitive enough to generate value anymore, as “times have changed, and the world is more connected.”³⁹

Fourth, companies are changing their understanding of the role that the workplace plays in creating value. While workers can increasingly work from anywhere, the workplace represents both the outward – brand – and inward – organizational culture – manifestations of a company’s DNA.⁴⁰ In 2013, Yahoo’s CEO, Marissa Meyers, ordered all telecommuting employees back to the office, citing the need to revitalize Yahoo’s culture: “Some of the best decisions and insights come from hallway and cafeteria discussions, meeting new people, and impromptu team meetings. Speed and quality are often sacrificed when we work from home. We need to be one Yahoo!, and that starts with physically being together.”⁴¹ Google’s CFO, Patrick Pichette, agrees with this sentiment. When asked about how many workers should be permitted to work from home, he responded: “as few as possible.”

Implications for FM

- FM providers’ service concepts need to go beyond looking at the workspace as a built environment for increasing efficiency and reducing costs;⁴² FM providers need to offer service-centric approaches that reflect and support the core organization’s strategic objectives, brand, and culture at the right price point
- FM providers need to develop flexible service blueprints that create more valuable relationships with customers
- FM providers will not gain a seat at senior management’s table until they begin to think anticipatorily and focus on increasing their responsiveness to changes in the workplace. They need to ensure that the workplace continues to remain aligned with the core organizations’ strategy
- FM providers must become better storytellers and help management understand the connection between the workplace and performance. FM providers cannot assume that what is “intuitively obvious to them is as obvious to the [customer]”⁴³
- FM providers need to engage with architects and office designers earlier in the project planning of buildings
- FM providers should expand the use of contingency and scenario planning from technical service issues – such as maintaining services during a power outage – to non-technical events that could impact customer demands on the workplace. Such

39 P&G, (2013) *P&G Open Innovation. What is Connect + Develop?*
www.pgconnectdevelop.com/home/pg_open_innovation.html

40 Steelcase, *Brand, culture and the workplace*. (2010).

41 Swisher, Kara “Physically Together”: Here’s the Internal Yahoo No-Work-From-Home Memo for Remote Workers and Maybe More Allthingsdigital <http://allthingsd.com/20130222/physically-together-heres-the-internal-yahoo-no-work-from-home-memo-which-extends-beyond-remote-workers/>

42 Coenen, Christian; von Felten, Daniel (2012). *Service-centric logic of FM*. In: Alexander, Keith; Price, Ilfryn (Hg.). *Managing Organizational Ecologies. Space, Management and Organizations*. New York: Routledge

43 Saurin, Ruth (2012). *Workplace Futures: A case study of an adaptive scenarios approach to establish strategies for tomorrow’s workplace*

planning would justify having too much or too little space and would allow quicker response to changing needs. Non-technical events could include:

- Core organization wins a new multi-year contract
- Addition of several contract workers
- Product recall
- Travel difficulties due to transportation problems⁴⁴
- FM providers need to understand that FM services are intangible and that they need to engage with their customers to ensure that workplace strategies remain in-line, particularly as core organizations' strategies change and as FM services need to be modified to fit the new requirements
- FM providers should continue to develop more services that shift less productive activities from highly skilled to less-skilled labor or to automated solutions. This includes activities at employees' homes, where many employees work part of their time
- FM providers are in the ideal position to assess if the current workspace is having detrimental effects on worker productivity and satisfaction
- FM providers need to collaborate with HR and IT functions to ensure that the workplace continues to serve core organizations' shifting strategies and day-to-day needs
- FM providers need to develop more efficient, cost-efficient, and less disruptive workplace reconfigurations
- FM providers, suppliers, and customers need to develop stronger relationships to identify potential workplace reconfiguration opportunities.

44 Bowen, Marcus; et al. (2011) "Implementing a mobile workplace strategy" *Work on the Move*

Theme 2

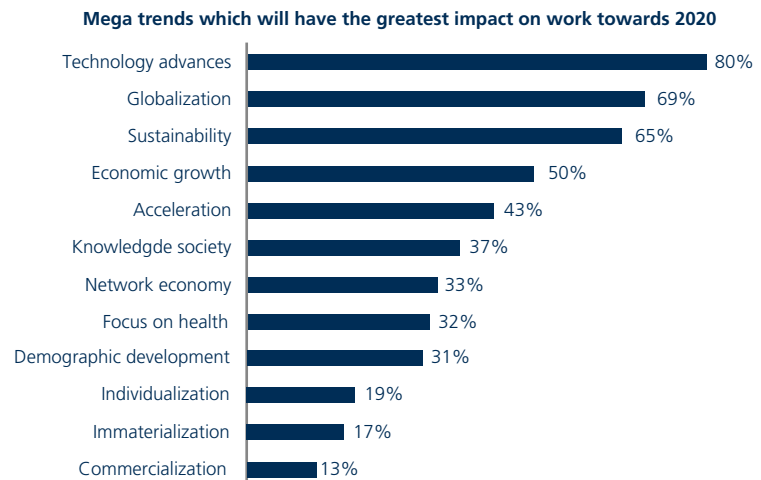


Technology as the enabler of increased collaboration and change in the workplace

Technology removes obstacles for collaboration among organizations, enables change and creates an opportunity for FM to help reorganize workplaces and make them more effective

Technology development is changing the nature of work, by allowing us to work smarter and more innovatively. It is removing the obstacles for collaboration within and among organizations, enabling the reconfiguration of businesses and industries driven by ubiquitous mobile technologies.⁴⁵ To take advantage of this, FM providers must be resourceful, creative and innovative and maintain simultaneous focus on the customer, the building and the employee. FM providers will need to provide flexible, networked infrastructures that allow users from different companies to utilize networks and peripherals. FM contracts will have to be renegotiated to bring companies together in new ways. These developments could also lead to intra-organizational “turf” battles, as it challenges organizations’ abilities to manage and analyze data flows.

Technology development is seen by ISS 2020 Vision: NWOW survey respondents as the most important megatrend influencing the way people will work towards 2020 (see figure below). The exponential development of information and communication technologies (ICT) means that, just five years from now, collaborative technologies will be at least 10 times better than they are today, and 100 times better ten years from now. Technology development enables new work practices, greater mobility, and virtual working, to name just a few examples. It increases the automation of knowledge work in areas such as translation, data analysis, research, and decision-making.⁴⁶ ISS 2020 Vision: NWOW subject matter experts expect more video conferencing, real-time translators, smart glasses and other wearable computers in the office towards 2020.



Source: ISS 2020 Vision, NWOW Survey, 2013

⁴⁵ Interview with Frank Elter, ISS 2020 Vision: NWOW interview

⁴⁶ Brynjolfsson, Eric and McAfee, Andrew. (2013). *The race against the machine*. Lexington: Digital Frontier Press

Ubiquitous mobility and mobile broadband

Mobile ICT “is a combination of mobile computing devices, high-speed wireless connectivity, and applications.”⁴⁷ Mobile devices include: smartphones, tablets, and wearable computers (Google glasses, Apples iWatch, etc). High-speed wireless connectivity is exploding with broadband Wi-Fi and the introduction of 4G (around 8-12 megabits per second), and even potential “5G” services (upwards of 1,000 megabits) wireless connectivity by 2020. Mobile data traffic is expected to grow 33 times larger by 2020.⁴⁸ McKinsey’s Global Institute estimates the yearly economic impact of ubiquitous mobility to be \$3.7 trillion to \$10.8 trillion by 2025. Half of this value would be generated from developing countries where 3.5 billion persons are expected to access the Internet; more than sixty per cent of these persons are expected to access the Internet via mobile services.⁴⁹

Ubiquitous mobility removes many of the frustrations of working remotely, including slow connections, and dropped video and tele-conferencing connections. This changes the notion of the workplace as a traditional “bricks and mortar” office to a “clicks and mortar” experience, where the focus is on developing standardized, seamless experiences of their organizations.⁵⁰

As the office experience becomes more about a network of people and places, and less about one or two central locations, the FM provider’s role changes to become the manager of integrated workplace services for more networked, distributed, and global organizations.⁵¹

Cloud technologies break down barriers within and among organizations

Cloud technologies will break down barriers within and among organizations over the long-term by delivering internet-based services and applications that can be accessed from any device. Cloud technologies allow more productive and flexible ways for companies to manage their IT, disrupting entire business models, giving rise to new approaches that are asset-light, highly mobile, and flexible.⁵² Companies like Microsoft, Google, Amazon, Adobe, HP, and Rackspace are all offering cloud solutions. Companies are attracted by cloud computing’s potential to:

- Reduce costs by allowing companies to cut ICT-related labor costs by as much as 50 per cent
- Allow access to information anytime, anywhere and from any device, and providing companies with better management and control over their data

47 McKinsey Global Institute(2013), *Disruptive Technologies*. Aznavoorian, Laurie; et al. (2011) “Forces Driving Change” *Work on the Move*.

48 Gartner. (28 February 2013) “Gartner Says Worldwide Public Cloud Services Market to Total \$131 Billion” <<http://www.gartner.com/newsroom/id/2352816>>

49 McKinsey Global Institute(2013), *Disruptive Technologies*

50 Aznavoorian, Laurie; et al. (2011) “Forces Driving Change” *Work on the Move*.

51 John McGee, John. et al. (2011) “Projected Impacts on the FM profession.” *Work on the Move*.

52 Interview with Frank Elter, Telenor. MGI, *Disruptive Technologies*, 2013.

“ Cloud computing and robust security will remove barriers, and it will permit the reconfiguration of organizations and industries. This is beginning to happen in organizations. Cloud computing will remove many of the back-end integration issues within and among companies.”

*Frank Elter,
Vice President Research Strategy,
Telenor Group*



- Ease collaboration internally and externally by getting rid of back-end integration issues
- Scalable and elastic computing
- Improve efficiency by removing power costs, need for dedicated spaces for ICT infrastructure, and need for software updates, etc.⁵³

Technology development and cloud technologies are enabling the further convergence of support units – IT, FM, and HR – enabling greater interoperability and transparency. The next wave of convergence, called 5D, links data/files to timelines and objects all in real time. These technologies provide the opportunity to use tools and solutions built for their expert processes and workflows, but have the ability to share discrete pieces of data/workflows that affect other business in real-time. The final wave of convergence will allow the organization to merge both financial and physical data from HR; IT, and FM units to act more holistically.⁵⁴

Attracted by these benefits, major companies to small and medium sized enterprises (SME) are all spending more on cloud computing. According to Richard Moore, a Gartner analyst, spending on the cloud services globally is expected to rise from \$91 billion in 2012 to \$109 billion in 2013, and cloud spending could nearly double to \$207 billion by 2016.⁵⁵ McKinsey's Global Institute estimates that companies and organizations could increase productivity by up to \$1.7 trillion by 2025.

While cloud services could provide all of the aforementioned benefits, there are still several challenges that FM companies could assist companies in solving towards 2020. According to studies of the Danish market for cloud computing, the barriers concerning cloud technology has less to do with technology and economics, and more to do with the fear of losing control and lack of clarity surrounding their actual capabilities. Many respondents in the Danish study do not think that the technology is ready to take on strategic enterprises' critical functions. As a result, cloud technology solutions are disconnected from organizational strategies: "The analysis shows that there is currently not a meaningful connection between companies' business strategies and cloud technology."⁵⁶

As the challenges related to cloud computing are overcome and more companies adopt cloud solutions, many integration challenges that have developed among departments and business units both within companies and between companies over the last thirty years, due to the development of proprietary systems, will be overcome. This will permit the development of more openness and sharing between companies.

53 "A cloud service for every need," Cloudtweeks (2013)

54 Aznavoorian, Laurie et al. (2011) "Forces Driving Change" Work on the Move.

55 Gartner. (28 February 2013) "Gartner Says Worldwide Public Cloud Services Market to Total \$131 Billion" <<http://www.gartner.com/newsroom/id/2352816>>

56 KMD WHITE PAPER - CLOUD-TEKNOLOGIENS FREMTIDSVILKÅR Analyse: Fremtiden for Cloud-teknologi på det danske marked



Figure: ISS 2020 Vision: NWOV Survey, 2013

Data collection is overwhelming organizations

FM providers are already collecting vast amounts of data. The number of data collection objects that will form the Internet of things is expected to grow exponentially towards 2020. Cicso's foresights expect that the number of connected objects will jump from 8.7 billion objects to 50 billion by 2020. Others place that figure much higher, reaching 2.8 trillion devices by 2019. ISS 2020 Vision: NWOW survey respondents continue to see the value of intelligent buildings for future development in the FM industry (see figures).

Participants at all three ISS 2020 Vision: NWOW workshops qualified this assessment by stating that data collection is not the challenge: Instead, identifying the right data to collect and developing actionable decision-ready analysis are the challenges encountered. Companies are buried in data. McKinsey Global Institute notes that most companies do not have a data analytics strategy.⁵⁷ "Accenture says only 22 per cent of companies are very satisfied with their analytics programs, 35 per cent are quite satisfied, and 34 per cent are dissatisfied. Only 39 per cent say the data they have are 'relevant to the business strategy'."⁵⁸

FM providers should expect a number of data management and analysis tools to make data easier to use. Such tools include: data visualization, expansion of dashboard interfaces, and a proliferation of augmented reality devices, to cite just a few.⁵⁹

Technology development leads to intra-organizational "turf" battles

During ISS 2020 Vision: NWOW workshops in Vienna and London, participants emphasized organizations' inability to quickly adapt to the pace of technology change, citing conflicts with IT departments and their policies related to ICT expenditures on devices or security. As cloud-based applications become more standardized, FM departments and external FM providers have begun to circumvent corporate IT departments when deploying new, standardized tools and solutions. FM providers argue that waiting for corporate IT approval often takes too long when simple solutions are needed in tight timeframes. FM providers need to develop streamlined processes and business-cases for approving new technologies.⁶⁰

For example, employees – especially younger ones – are adopting new technologies much faster than the companies for which they are working. Younger employees are becoming frustrated that they cannot use their personal and, at times, more sophisticated devices at work. As Pat Turnbull, President & COO of Kayhan International, tells us about her organization: "I have to buy new computers and software programs for my people every two years: equipment is becoming faster, smaller, more comprehensive... If my company is not up-to-date with technology tools, we are not going to get the best people in terms of the

57 Biesdorf, Stepehn, et. al. (March 2013) "Big data: What's your plan? Many companies don't have one. Here's how to get started." *McKinsey Quarterly*. <http://www.mckinsey.com/insights/business_technology/big_data_whats_your_plan>

58 Michael Skapinker "Companies must cut through big data hype" *Financial Times* (8 May 2013)<<http://www.ft.com/cms/s/0/8165ac90-b6ff-11e2-a249-00144feabdc0.html#axzz2UhB0Wm3k>>

59 Aznavoorian, Laurie et al. (2011) "Forces Driving Change" *Work on the Move*..

60 Aznavoorian, Laurie et al. (2011) "Forces Driving Change" *Work on the Move*.. Greenberg, Andy. (August 2013) "MIT

workforce.” This need, along with the increase of freelance and other short-term workers, is driving the need for “Bring Your Own Device” (BYOD) policies and expenditures. The flexible workforce, BYOD, and the personalization of the work place will be developed in subsequent chapters of this report.

Implications for FM industry

- The life-cycle management of the built environment supported by digital technology requires a fundamental change in how the construction (Architects, Contractors, Engineers) and Facility Management (Owners, Service Providers, Building Product Manufacturers, Oversight Groups, and Building Users) sectors operate on a day-to-day basis
- FM, construction, and oversight groups need to develop collaborative and transparent business processes and practices that use and display accurate and current information via common terminology. This includes the development and collection of relevant workplace productivity measures to ensure that the workplace is operating as effectively as possible
- FM providers need to develop an active approach and methodology for collecting data and conducting analysis as client organizations do not have sufficient knowledge as to how their facilities are used
- FM, marketing, HR, and IT units need to identify ways to create seamless organizations that provide similar workplace experiences, virtually and physically, whether or not the worker finds themselves at the office or not
- FM providers need to work with customers to examine how the introduction of new technologies will affect workplace and service offerings
- FM providers need to extend their capacity to execute by providing supplemental resources, supporting internal skills upgrade to increase and improve workplace quality, and concentrating on innovation
- FM and corporate IT providers need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual conflicts. This could include the fast tracking of standard IT solutions or aligning conflicting messages from senior executives. For example, senior executives could call for the reduction of office space by having more employees work from home, while cutting IT budgets at the same time
- FM and corporate IT providers will be challenged to develop robust security solutions for the future office. At the 2013 Defcon hacker conference, students from the Massachusetts Institute of Technology announced that they can make duplicates of the most secure keys from companies like Schlage with impunity⁶¹
- The challenge for FM providers will be to identify their role in the collection, management and analysis of data. In order to be part of the team defining how the core organization promotes productivity and efficiency in the future workspace, FM providers need to be attuned to workers’ needs and organizational requirements for strategic agility and flexibility.

⁶¹ *Students Release Program To 3D-Print High Security Keys” Forbes* <<http://www.forbes.com/sites/andygreenberg/2013/08/03/mit-students-release-program-to-3d-print-high-security-keys/>>



Bring Your Own Device



Theme 3



Urban areas allow workers and companies to better leverage their surroundings

Place matters. The office as the physical manifestation of the organization matters, and will continue to do so towards 2020. The physical office also affects individuals' identities. We develop "place identities" to the locations we inhabit and use. The office, as a space, and its setting as part of a broader community, matters.⁶² FM providers have much to gain from taking the office's location into consideration. The urban environment is playing a critical role in knowledge creation and in the innovation society towards 2020. Urban areas enable workers, companies, architects, workplace strategists and FM providers to leverage their surroundings. Companies can offer more amenities than they otherwise could alone. They allow FM providers to scale workspaces more rapidly to new needs, to control environmental footprints, and to develop the core businesses' attractiveness. Employees can maximize the quality of their lives by utilizing hard and soft amenities to maximum benefit.

Following the flight from the urban centers in the latter half of the 20th century, cities are reasserting themselves as central drivers of creativity in our economy.⁶³ However, not all urban areas are created equally. Some urban areas will be more attractive than others, and urban areas' attractiveness for companies seeking locations for their offices will depend on factors such as the type of city, the condition of existing infrastructure, and the degree of implementation of smart technologies. In Asia, more infrastructure and office buildings will be built over the next two decades than have ever been constructed before. In Europe and North America, the focus will be on retrofitting existing offices and infrastructure.

Smart cities and the future of work

Urban areas are evolving into smart cities, which will influence office designs and the offices' role in the local community. "Smart cities are defined as cities that use information and communication technologies (ICT) to be more intelligent and efficient in the use of resources, resulting in cost and energy savings, improved service delivery and quality of life, and reduced environmental footprint – all supporting innovation and the low-carbon economy."⁶⁴ Towards 2020, offices will integrate with the local community, sharing resources and amenities with their surroundings, as cities become increasingly smart. The smart cities will link government, utilities, businesses and local populations into tighter more collaborative networks that will increasingly share inputs and outputs, services, and people.

According to the ISS 2020 Vision NWOW survey, respondents opined that the cities that will influence the development of the office design the most towards 2020 will be Asian (see table below), an idea supported by McKinsey Global Institute⁶⁵ and the World Bank. The Asian market will be particularly interesting because according to the World Bank by 2030 "half the global stock of capital, totaling \$158 trillion (in 2010 dollars), will reside in the developing world, compared to fewer than one-third today, with countries in East Asia and Latin America accounting for the largest shares of this stock."⁶⁶

62 Sanquist, Nancy Johnson, et al.(2011) "Moving forward" Work on the move .

63 "Beyond Marissa Mayer: The Future Will Blend Work and Home in New Hybrid Places" Forbes <<http://www.forbes.com/sites/forbesleadershipforum/2013/03/08/beyond-marissa-mayer-the-future-will-blend-work-and-home-in-new-hybrid-places/>>

64 "Stoklund, Ch. K. Cities 3.0: Moving towards the next generation of cities Global Trends, 08 April 2013

65 The Most Dynamic Cities of 2025. Foreign Policy, 13 August 2012

66 World Bank, "Developing World Share of global investments to triple by 2030" <<http://www.worldbank.org/en/news/press-release/2013/05/16/developing-world-share-of-global-investment-to-triple-by-2030-says-new-world-bank-report>>

ISS Vision 2020: New Ways of Working Survey	Most Dynamic Cities of 2025, McKinsey	World's Top 10 Smart Cities, Smart city index, 2010
New York, US (42%)	Shanghai, CN	Vienna, AU
London, UK (31%)	Beijing, CN	Toronto, CA
Beijing, CN (28%)	Tianjin, CN	Paris, FR
Hong Kong, CN (20%)	São Paulo, BR	New York, US
Shanghai, CN (16%)	Guangzhou, CN	London, UK
San Francisco, US (15%)	Shenzhen, CN	Tokyo, JP
Singapore, SG (14%)	New York, US	Berlin, DE
Tokyo, JP (13%)	Chongqing, CN	Copenhagen, DK
Dubai, UAE (11%)	Moscow, RU	Hong Kong, CN
Los Angeles, US (9%)	Tokyo, JP	Barcelona, ES

Figure: Comparison of ISS 2020 Vision NWOW survey to other city indexes

In emerging markets, office designers and FM providers will have to approach office design, construction and management differently. Due to the rapid pace of growth, accelerated pace of change, relatively low levels of building sophistication, and growing urban populations, emerging market economies will have to build new offices quickly and cheaply. These offices will have to be easy to manage and more sustainable, in particular be as easy to build as they are to dismantle. One such solution has been developed by the Broad Sustainable Building group, which has developed prefabricated modular technologies. The Broad group has built tall buildings in Asia and the United States, including a 30 story building which was built in 15 days in Hackensack, New Jersey, USA.

The new ways of working solutions developed for Asian cities could be applied in well-established markets in Europe and North America. According to Vijay Govindarajan, the co-author of "Reverse innovation", conducting business according to what works in high-income markets works only for "the 10 per cent of customers in India who are similar to customers in the United States. However, it doesn't work for the remaining 90 per cent because the affordability is different or the infrastructure might not exist."⁶⁷

The most disruptive and cost-efficient innovations are expected to come from emerging markets. As Jonathan Woetzel emphasizes, innovation in emerging markets will "have global implications. The solutions that China develops in its megacities will have scale, and ultimately, global rollouts. China now has a historic chance to reinvent not only its cities but the very idea of a city. The choices that its city leaders make will shape not only its buildings but also its society, and indeed the world."⁶⁸

Europe might provide the best practice examples for cities and office environments, which are "creating a functional infrastructure while reducing the environmental footprint of every

⁶⁷ Woodrooffe, S. "Reverse innovation" in emerging markets: Q&A with Vijay Govindarajan", Sparksheet, 4 June 2012

⁶⁸ Woetzel, J. China's cities in the sky. Voices on Society, McKinsey & Company



Figure: Average commuting times to locations can decrease due to technology innovations.

Source: CIFS, 2013

single citizen”.⁶⁹ In the global ranking of smart cities⁷⁰, developed by climate strategist Boyd Cohen, the cities in the top ten leading the way in smart city development includes six European cities (See table above).

In progressively smarter cities, FM providers need to look beyond the industry’s borders, the core organization, and areas of expertise, and leverage the capabilities of an increasingly larger value-generating network to create and capture value for customers: “While the field of battle is wider and wider, with the fall of industry boundaries, the need for focus and integration in the deployment of one’s efforts is greater and greater.”⁷¹

To maximize the benefits to the core organization and to qualify for increasingly rigorous Leadership in Energy & Environmental Design (LEED) certifications, FM providers in collaboration with HR and Corporate Real Estate (CRE) will have to make greater use of geographic information systems (GIS) tools. Currently, 22 per cent of CRE teams use GIS tools, meaning that 78 per cent do not. GIS tools help FM and CRE teams develop holistic views of the buildings, the surrounding landscape, and the building’s integration into the local community. For example, to achieve LEED certification, workers’ ability to access the workplace must be taken into consideration. They also allow for assessment of potential risks, such as rain profiles and risk of flooding, as well as earthquake history.⁷²

Smarter cities and networked organizations create a number of business opportunities, including service symbiosis

As developed in the first strategic theme, companies are reorganizing themselves as part of value networks that exist physically and virtually. These value networks are developing into collaborative consumption systems. These concepts will be developed in chapter 6 “The workplace towards 2020” of this report. According to the Danish architectural company, Signal Architects, companies can share between 17 and 29 per cent of their corporate real estate. These collaborative consumption systems include: the conversion of products into services, the redistribution of assets from those who have and do not want them to those who do, and collaborative lifestyles. FM providers can develop business cases and models around each of these systems:

Product as services: This system is based on users paying for the benefit of using a product without needing to own the product outright. Cloud computing is an example of this development. In the physical world, some companies are developing products as service concepts. Zipcar is an example of this phenomenon. Companies are increasingly using car-sharing services, like Zipcar, instead of owning a fleet of corporate vehicles themselves.

69 Stoklund, Ch. K. *Cities 3.0: Moving towards the next generation of cities Global Trends*, 08 April 2013

70 “Smart cities are defined as cities that use information and communication technologies (ICT) to be more intelligent and efficient in the use of resources, resulting in cost and energy savings, improved service delivery and quality of life, and reduced environmental footprint – all supporting innovation and the low-carbon economy.” Stoklund, Ch. K. *Cities 3.0: Moving towards the next generation of cities Global Trends*, 08 April 2013

71 Doz, Y. & Kosonen M. *Fast Strategy: How Strategic agility will help you stay ahead of the game*. Wharton School Publishing

72 Jaspers, Erik, et al. “Technology and the future of facilities.” *Work on the Move* (2011).

“The accelerating pace of change is driving a wedge between managements’ vision of the workplace and the reality experienced by workers. Most workplaces are not designed to efficiently or effectively evolve as the dynamics of business change. Facility Management professionals will have a key role to play in ensuring that workplaces are continuously aligned with core organizations’ changing needs.”⁷⁴

*Jeffrey Saunders, Director
Copenhagen Institute for Future Studies*

Companies that own their own fleet of cars can choose to offer Zipcar as a solution to their local communities to increase usage rates and defray costs. Towards 2020, companies could share employees in order to balance the competing needs for security and flexibility.⁷³

Redistribution markets: Redistribution takes pre-owned goods and passes them on from (i) an organization that does not want them, and (ii) instead sources them to someone who does want them. While this option does not lead to monetary gain, it reduces the waste and CO2 profiles of organizations. This option would most likely be used in the removal of office furniture and equipment.

Collaborative business/seeking symbiotic relationships: Currently, companies, utilities and governments are at that first stage of development towards establishing more symbiotic relationships in smarter cities. They “exhibit a network of mutually beneficial relationships between companies that turns their respective industrial bi-products into valuable resources for other partner companies.”⁷⁵ For example, the Kalundborg Eco-Industrial Park is one of the world’s first examples of successful industrial symbiosis. In Kalundborg, public and private enterprises buy and sell industrial waste products in a closed cycle. The residual products traded can include steam, dust, gases, heat, slurry or any other waste product that can be physically transported from one enterprise to another.⁷⁶

Towards 2020 and beyond, companies will increasingly move beyond this first stage and begin “sharing” real estate, services and employees to improve their triple bottom-lines (people, planet, profit).

Table: examples of collaborative services that impact the FM industry

<ul style="list-style-type: none"> • Bike sharing • Carpooling / Ridesharing • Collaborative workspaces • Co-housing 	<ul style="list-style-type: none"> • Co-working • Crowd funding • Outdoor recreation • Fractional ownership 	<ul style="list-style-type: none"> • Outdoor recreation • Peer-to-peer lending • Peer-to-peer renting • Taxi share programs
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The application of these concepts in strategic contexts will be developed further in Part II of this report. The FM providers’ role in the smart city will extend from (i) single service solutions to (ii) the bundling of services to (iii) integrated workplace management solutions.⁷⁷

⁷³ ISS 2020 Vision, NWOW Interview with Frank Elter, VP, Telenor

⁷⁴ CIFS Meeting with ISS World Services AIS, August 2013

⁷⁵ Suarez, Robert. (2012). *Biomimicry Case Study: Industrial Symbiosis In Kalundborg Offers A Blueprint For The Structuring Of Both Current And Emerging Industrial Parks And Ecosystems.*

⁷⁶ Symbiosis.dk

⁷⁷ Frost & Sullivan (2013). *Frost & Sullivan Value Proposition Prepared For ISS World Services AIS*

Kalundborg Symbiosis

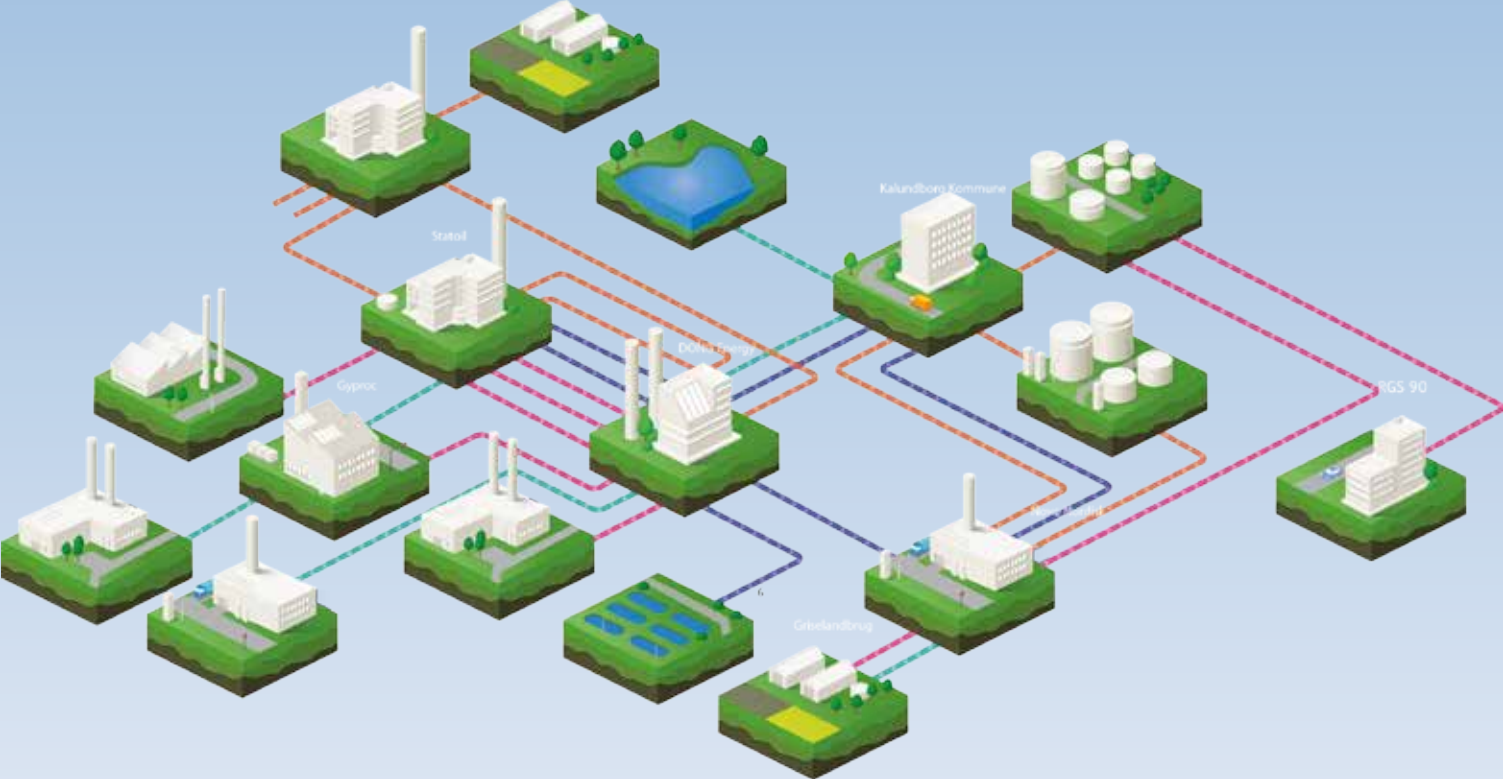


Figure: Kalundborg Symbiosis
Source: <http://www.symbiosis.dk/en/presse>

Implications for FM

FM providers will need to:

- Integrate geographic information systems, as well as building information systems, into their workplace management systems and in the selection of new workspaces
- Improve product development processes through providing a combination of lean transformation and skilled teams
- Manage an increasingly distributed footprint of commercial, industrial, campus, suburban, and residential spaces
- Ensure that each location or workspace is effective and efficient – even those that are not in the central office workspace. This will include the management of:
 - Contracts and relationships with external vendors, whether they are monetarily based or barter based
 - Secure virtual and physical environments
 - Virtual reservation systems
 - Team spaces
 - Conference areas
 - Virtual assistants
- Manage environmental systems' complexity and their interactions
- Minimize business risks while implementing new tools and processes

Furthermore, FM providers will need to:

- Ensure that their workspaces, whether onsite or at a third space, can and are working together
- Quickly form, reconfigure and dissolve networked teams on an as-needed basis
- Manage workspaces and global projects virtually through cloud technologies
- Develop sustainability programs that utilize collaborative consumption systems, and that can coordinate and manage among different energy, water, and environmental stewardship systems.

Theme 4



Polarization of the labor force leads to polarization of workplace amenities

The labor market is polarizing as automation and globalization squeeze middle-skilled jobs, and as companies transfer an increasing number of employees from fixed to variable employment contracts. Among talents, this gives workers the chance to self-actualize and hyper-specialize. Among the rest, it constitutes a struggle to find the next contract. Developing the workplace as a strategic tool to attract and retain talents will be a challenge for the workplace of the future. Technology development and globalization is placing a downward pressure on employee benefits as well as on employee wages. Companies must balance the ability to attract workers while contending with downward pressures on office amenities for the majority of its workers. The relative strength of labor unions and national regulations, however, could affect the degree to which polarization impacts local labor markets towards 2020.

“In a global economy...businesses and workers can't earn a premium if they don't have greater productivity than their counterparts in other nations.”

Eric Brynjolfsson, Andrew McAfee, 2011

The growth of temporary workers

Temporary employment growth has outpaced, and will continue to outpace, regular employment growth towards 2020. Since the 1990s, the number of temporary positions has grown faster than the number of regular positions. Among OECD countries, temporary job growth has been 1.5-2 times faster than total employment since the 1990s. From 2000 to 2010 in France, the number of temporary jobs grew by 66 per cent while regular job growth increased by 7 per cent. In a McKinsey survey among US employers, more than one-third plan to increase use of contingent labor and part-time workers in the years ahead. McKinsey also see a range of new intermediaries emerging to supply high-skill and low-skill talent for short-term assignments.⁷⁸ Many of these assignments are sourced virtually.

78 Help wanted: The future of work in advanced economies. The McKinsey Global Institute (March 2012)

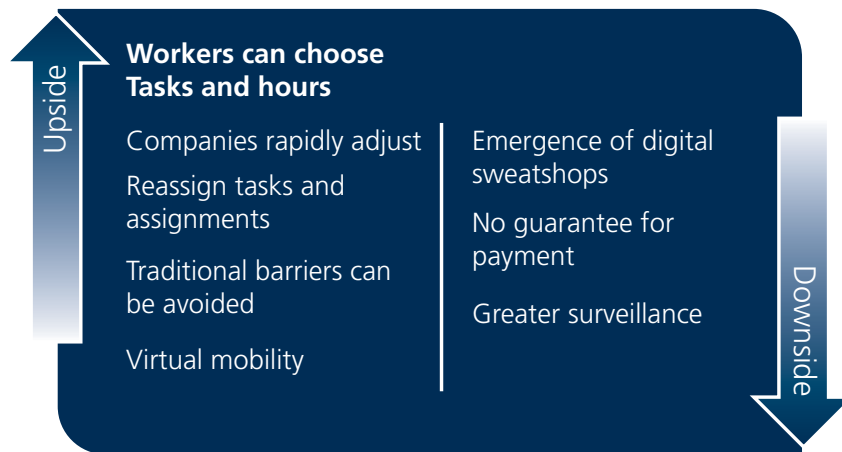


Figure: Upsides and downsides of hyper-specialization and increased virtual work

Source: McKinsey, HBR (2012)

The growth of temporary workers has both positive and negative consequences (see figure above). Many companies and workers benefit from increased flexibility. Organizations gain agility and the ability to control costs. Many workers – including those aged 60+ and those with young children – tend to want to have flexible working arrangements.⁷⁹ ISS 2020 Vision NWOW survey respondents identify that increased flexibility will be the most important benefit that employees will demand from their employers.

According to Duncan Waddell, “the workforce is becoming more mobile and flexible. People are increasingly going to where the work is. Companies are also transitioning towards project-based systems and employment with clear sunrises and sunsets, including business plans, and funding. For each project, companies will grab people from all over the world. The degree of flexibility is dependent on unions and labor law.”⁸⁰

For the squeezed middle-skilled knowledge worker, security is becoming an important psychological factor, and economic security, with more stable and secure jobs, is increasingly important for many in the workplace. In a recent global workforce survey, four-out-of-ten employees were willing to accept reduced wages in return for a defined retirement package.⁸¹ Just under half of the respondents agree that their organization’s senior leaders have a sincere interest in employee wellbeing.⁸²

79 Aznavoorian, Laurie. et al. (2011) “the Forces driving change” *Work on the Move*

80 Duncan Waddell, *ISS 2020 Vision: New Ways of Working Interview* (2013)

81 Towers Watson, *Global Workforce Study, 2012*

82 Towers Watson, *Global Workforce Study, 2012*

Most important expectations concerning work towards 2020

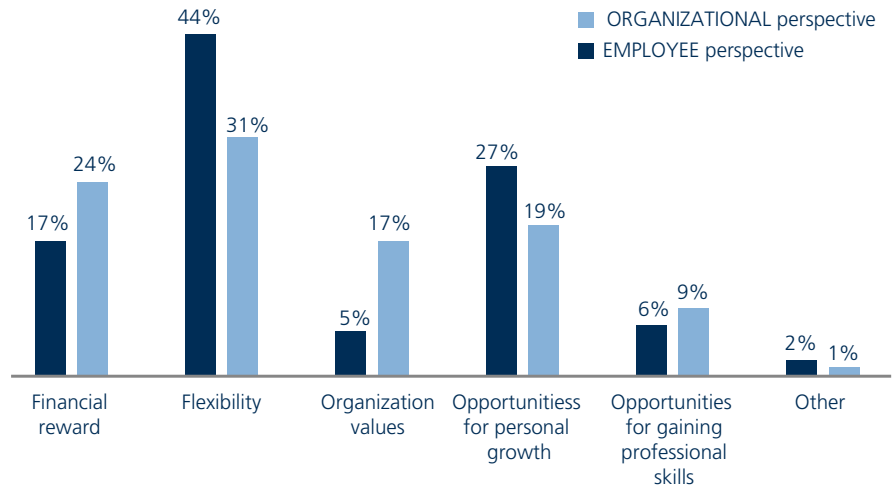


Figure: ISS 2020 Vision: NWOW Survey, 2013

Balancing between managing talent and motivating the disengaged

The polarizing labor market will pose challenges as well as present opportunities for office designers and FM providers: Office designers and FM providers need to be innovative to develop new ways to provide inspiring and motivating workspaces that promote productivity and save money.

Some companies will enter into a sellers' market in order to provide the best workplace amenities and benefits to attract the best talent. Studies by BCG and IBM show that sourcing talent (or the war for talent), managing talent, improving leadership development, and strategically enhancing the current capabilities of workforces, are the areas of greatest future importance and are areas where companies have the lowest current capabilities.⁸³ FM industry experts expect steep increases in users' expectations for design quality and up-to-date technology to continue, with focus on providing the absolute best workplace amenities for the best talents towards 2020.⁸⁴

Creating the most indulgent workplaces is not a guarantee that employees will stay at their workplaces for the long-term. Google – an organization renowned for their workplace amenities – has the fourth fastest rate of employee turnover among Fortune 500 companies. The average employee only stays 1.1 years with the company. The workplace amenities offered by Google may make it an attractive workplace for new or returning employees.⁸⁵

⁸³ BCG/WFPMA, (2012). *Realizing the Value of People Management: From Capability to Profitability*

⁸⁴ Aznavoorian, Laurie et al. (2011) "the Forces driving change" *Work on the Move*

⁸⁵ "Companies with the most and least loyal employees" (2013) *Payscale.com* <<http://www.payscale.com/data-packages/employee-loyalty/>>

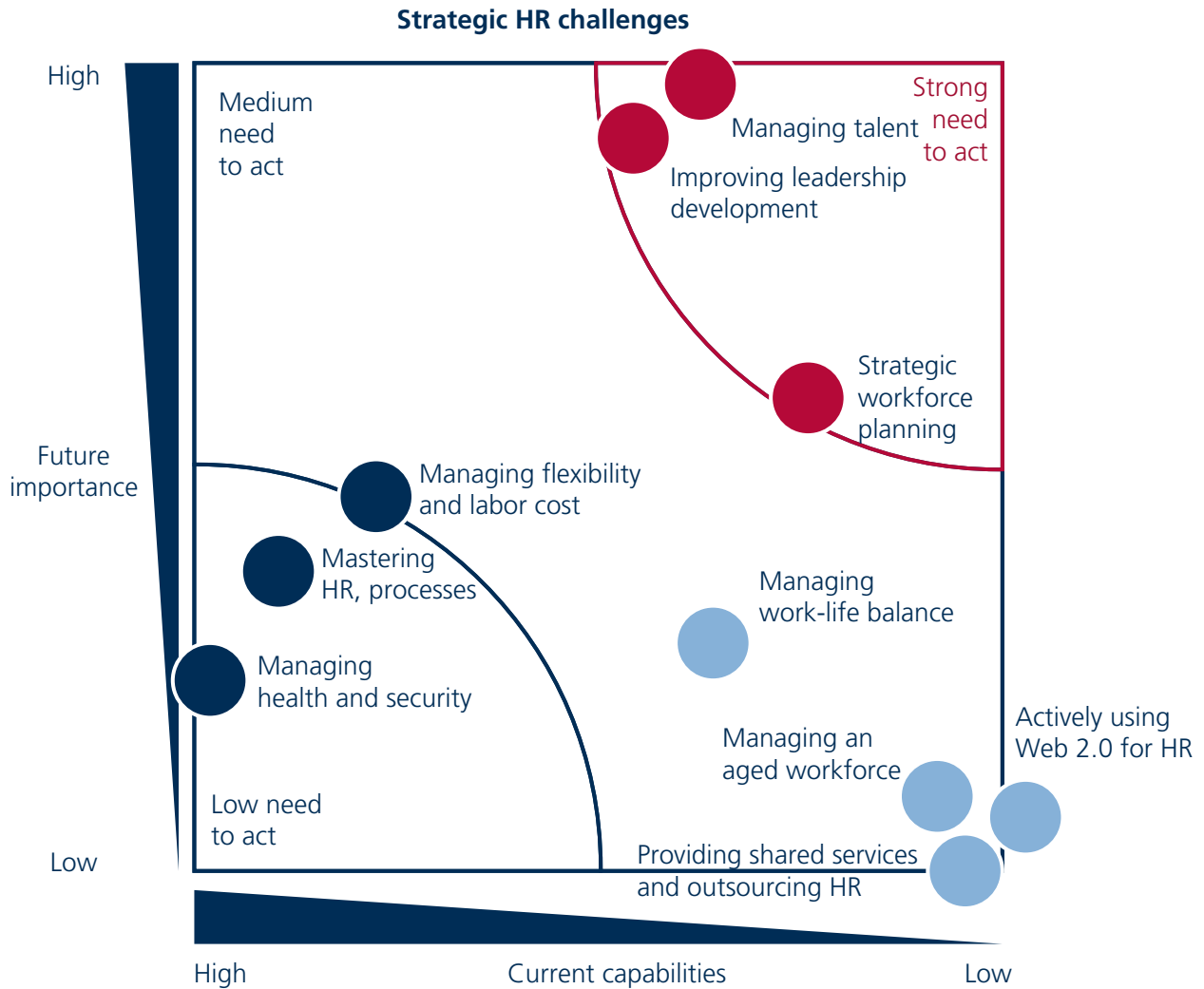


Figure: How HR Directors prioritize strategic HR challenges
 Source: BCG/WFPMA, 2012

There are also opportunities at the opposite end of the cost spectrum among the “mediocre” knowledge workers. Office designers and FM providers need to be innovative to offer motivating solutions at reduced cost. FM providers will have to balance between the quantity of office environment (m2 per employee) and the quality of the experience. Companies and their FM providers need to think of new ways to empower employees to influence the design of their workplaces.

Companies have been squeezing workplace amenities for more than five years. This has reduced workplace motivation at many workplaces. “Employees have been doing more with less — and for less — for over half a decade, and that reality doesn’t seem likely to change anytime soon.”⁸⁶ This has affected knowledge workers’ motivation, where 65 per cent of surveyed workers report various degrees of disengagement.⁸⁷

Implications for FM

- FM providers must create and maintain the workspace as a critical element in helping employees feel engaged at work, as workplace engagement entices workers to work harder. FM needs to provide more differentiated service offerings
- FM providers need to identify the correct balance between standardization and individualization in the workplace. Once it is identified, FM providers need to facilitate the desired level of individualization
- Moving from purely B2B to more B2C type of relations – the facility as a hub where employees can get services (laundry etc.)
- Catering for diversity – easier to mass customize
- FM providers must put employers words into action when they create engaging work environments in the physical workspace
- Employers, architects, workplace strategists and FM providers need to balance the amenities they offer with the organizations’ strategic ambitions and culture. A balance will have to be struck between the quantity (m2 per employee) and the quality of the workplace experience
- Polarization of work and workplaces will polarize the FM market. The Fortune 500 companies will be able to use the workplace as a strategic asset in attracting the best, most talented workers they can. Those outside will have to develop creative solutions to offer the best amenities they can at reduced costs
- Companies and their FM providers need to think of new ways to empower employees to influence the design of their workplaces
- The FM industry needs to engage with architects, office designers and the construction industry to a much higher degree to ensure that office designs enable flexible and productive workspaces that are easy to maintain
- In order to help core organizations in the war for talents, FM providers could provide B2C solutions, including private house cleaning, gardening, laundry, etc.
- Companies will increasingly make use of distributed office and work environments to reduce travel costs.

⁸⁶ Towers Watson, *Global Workforce Study, 2012*

⁸⁷ BCG/WFPMA, (2012). *Realizing the Value of People Management: From Capability to Profitability*

Theme 5



Workforce diversity means that the workplace will have to be more amenable to an increasing number of workers' needs

Organizations will have to balance the needs of more diverse and individual-oriented, workforces. There will be more mobile workers, older employees, educated women, and more globally oriented and sourced personnel. Generation Y will represent the largest new talent pool that companies will recruit from, but older workers could prove the most useful. Recruiting from Generation Y will present difficulties as they are entering the labor force facing a number of structural challenges. When creating attractive and motivating workplaces, workplace strategies will have to take a wider range of cultural, generational, and gender factors into consideration. FM providers will be faced with competing priorities from below – workers demanding customized and personalized solutions – and from above – CEOs demanding standardized solutions to reduce costs. FM providers will have to transform and become more diverse to better understand the needs of workers and global, multicultural organizations.

Virtual workers' challenges

Towards 2020, more employees will demand “flexibility” in where they work, how long they work, and how they work. ISS 2020 Vision: NWOW survey respondents see virtual work as having the greatest influence on office design. Virtual work offers the potential for employers to allow their employees to customize their work lives towards 2020, but it also tests managers’ leadership abilities and companies’ reward structures. Maintaining visibility at the workplace will remain important for all employees’ careers. The flexible, virtual workers of the future still need to socialize with colleagues in a physical setting, whether it is at the office or a third location.⁸⁸

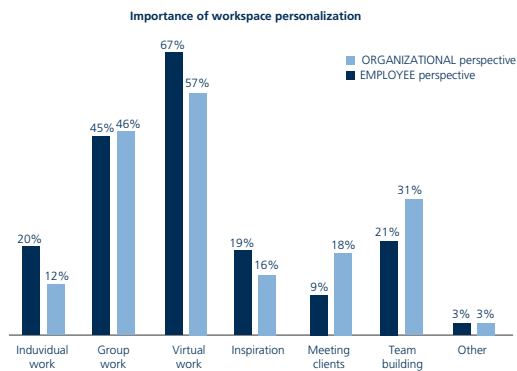


Figure: ISS 2020 Vision: NWOW Survey, 2013

Most managers are ill-prepared to manage virtual workers. As a result, organizations will continue to struggle with managing and coordinating remote employees. Virtual work tends to expose managers’ poor communication skills, as virtual work requires much more open and consistent communication with employees than face-to-face communication does.⁸⁹

Marginalization of remote workers is another obstacle to overcome. Research by the London Business School and the University of California Davis shows that virtual workers are typically passed over for promotion, receive lower employee evaluations, and receive fewer and smaller wage increases.⁹⁰

FM providers need to ensure that the overall workspace will be attractive and can house virtual workers when, and if, they feel the need to come into the office. In addition, managers at FM providers need to develop their own leadership competencies for managing more virtual workers.

⁸⁸ Gratton, Lynda. *The third wave of virtual work*, HBR webinar (2013)

⁸⁹ Gratton, Lynda. (2013) *The third wave of virtual work*, HBR webinar

⁹⁰ Gratton, Lynda. (2013) *The third wave of virtual work*, HBR webinar

Organizations with four generations

Organizations and future offices will have to balance the needs and requirements of four generations -- not just focus on the needs of Generation Y. Organizations need to develop strategies for recruiting new workers over the age of 45, as these workers will represent as much as 85 per cent of potential new hires towards 2025.⁹¹ Identifying and implementing the right workplace amenities strategy will challenge FM providers and workplace strategists, as different generations bring different values, degrees of familiarity with technology, and expectations to the workplace.

More workers will work past the age of 65. In the United States, AARP reports that 40 per cent of baby boomers expect to work until they die. According to McKinsey Global Institute, the proportion of older workers (over 55 years old) in the global labor force is expected to reach 22 per cent by 2030.⁹²

FM providers and workplace strategists will have to make strategic choices in workplace design, as young and older workers tend to be attracted to different working environments. Older workers typically require more flexible working arrangements, including part-time work. As workers grow older, their senses and motor skills become increasingly affected. Older workers are more sensitive to heat, cold, light, and acoustic changes. The furnishings that are attractive in many popular office designs with hard surfaces, open offices, and lounge furniture may not be stable or conducive to older workers. FM providers may attempt a balance by offering work areas that are tailored to older workers' needs.⁹³

More women in the office

Although women already constitute the majority of the workforce in Europe and North America,⁹⁴ they remain an underutilized talent pool globally. Over the next decade, demographers expect that up to one billion more women will enter global the workplace.⁹⁵ Currently 48.4 per cent of the productive potential of the female population remains unutilized (compared to 22.3 per cent for men).⁹⁶ Women constitute 42.7 per cent of senior management in the United States compared to much lower figures (ranging from 22-35 per cent of senior managements) in Nordic countries.⁹⁷

In many OECD countries, more women than men earn university degrees (see figure below). Around the world, women's purchasing power is increasing at a faster rate than men's.⁹⁸ This

91 Aznavoorian, Laurie et al. (2011) "the Forces driving change" *Work on the Move*

92 McKinsey Global Institute "Help wanted: The future of work in advanced economies" Discussion paper, March 2012

93 Aznavoorian, Laurie et al. (2011) "the Forces driving change" *Work on the Move*

94 *people@work/2020* (2010)

95 DeAnne A., Hoteit L., Rupp Ch., Sabbagh K. *Empowering the Third Billion: Women and the World of Work in 2012*. Booz & Company Inc., (2012)

96 *Women in labour markets : measuring progress and identifying challenges / International Labour Office*. – Geneva: ILO, 2010

97 Hymowitz, Kay. (July/August 2013). *Think Again: Working Women*. *Foreign Policy* <http://www.foreignpolicy.com/articles/2013/06/24/think_again_working_women?page=0,1>

98 DDC, BCG, 2012

Educational Attainment of women

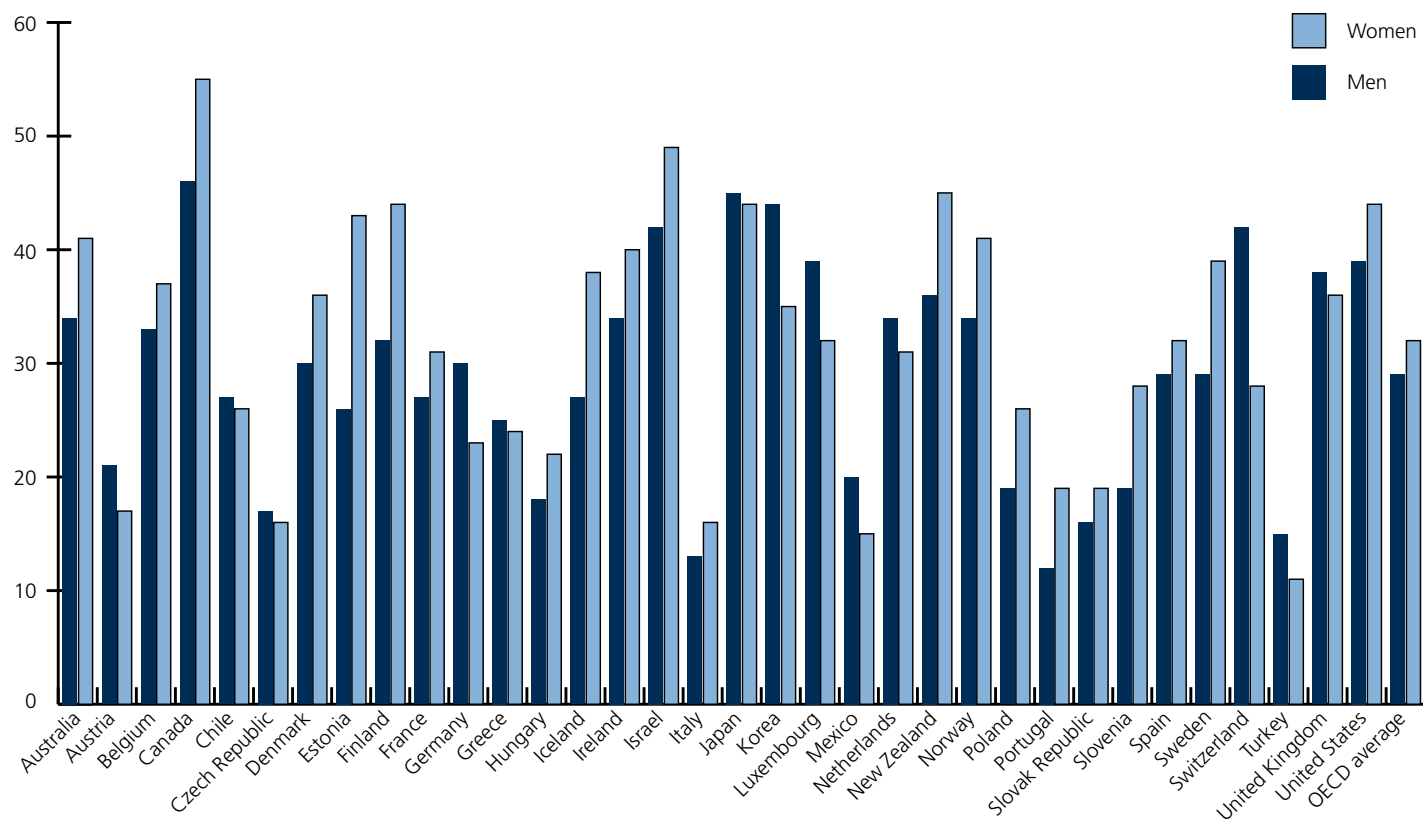


Figure: Women in general have higher educational attainment

Source: OECD, 2012

increase is due to women's higher educational attainment and is not due to closing the wage gap between equally qualified men and women: Women who have the same qualifications as men still earn on average 75 per cent of what their male counterparts earn, and little has changed over the past two decades.⁹⁹

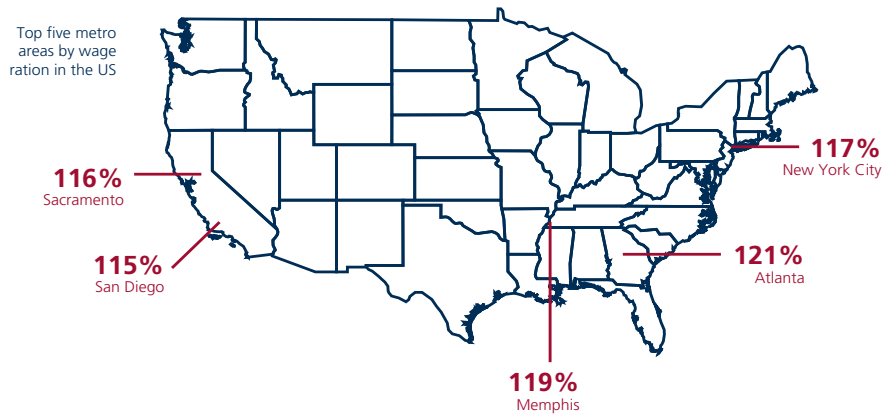


Figure: In US metro areas, single, childless women in their 20s make more money than their male peers
Source: Time, 2012

Women appear to be better prepared for the skill sets required at the future workplace. Research shows that women typically outperform men in team-building, displaying emotional intelligence, setting clear expectations, and exhibiting other traits often associated with effective knowledge work.¹⁰⁰

Organizations must become more "gender-bilingual" to attract women and their skills.¹⁰¹ ISS 2020 Vision survey respondents expect that more companies will offer services that help women solve daycare challenges to attract this talent pool.

Global workforce

Developing increasingly diverse teams that possess different cultural and work skills will become a strategic goal for more organizations. An increasingly global workforce will require that companies apply holistic approaches to HR strategy that include FM, HR, and the IT functions. Due to growing global mobility, the emergence of new pools of global talent in low and middle income countries, and the development of progressively more wealthy marketplaces in low and middle income countries, many organizations will use ethnic diversity

⁹⁹ OECD, Education at a glance, 2012

¹⁰⁰ Wartzman R., (February 19, 2010) "Women and the Knowledge-Work Trend", Bloomberg BusinessWeek

¹⁰¹ Wartzman R., (February 19, 2010) "Women and the Knowledge-Work Trend", Bloomberg BusinessWeek

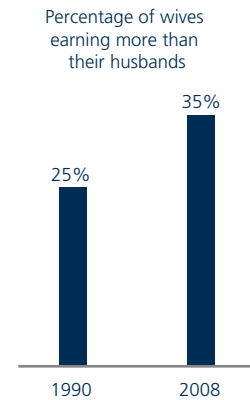


Figure: Development in wives earnings compared to husbands income
Source: Time, 2012

Supply and demand of talent towards 2020

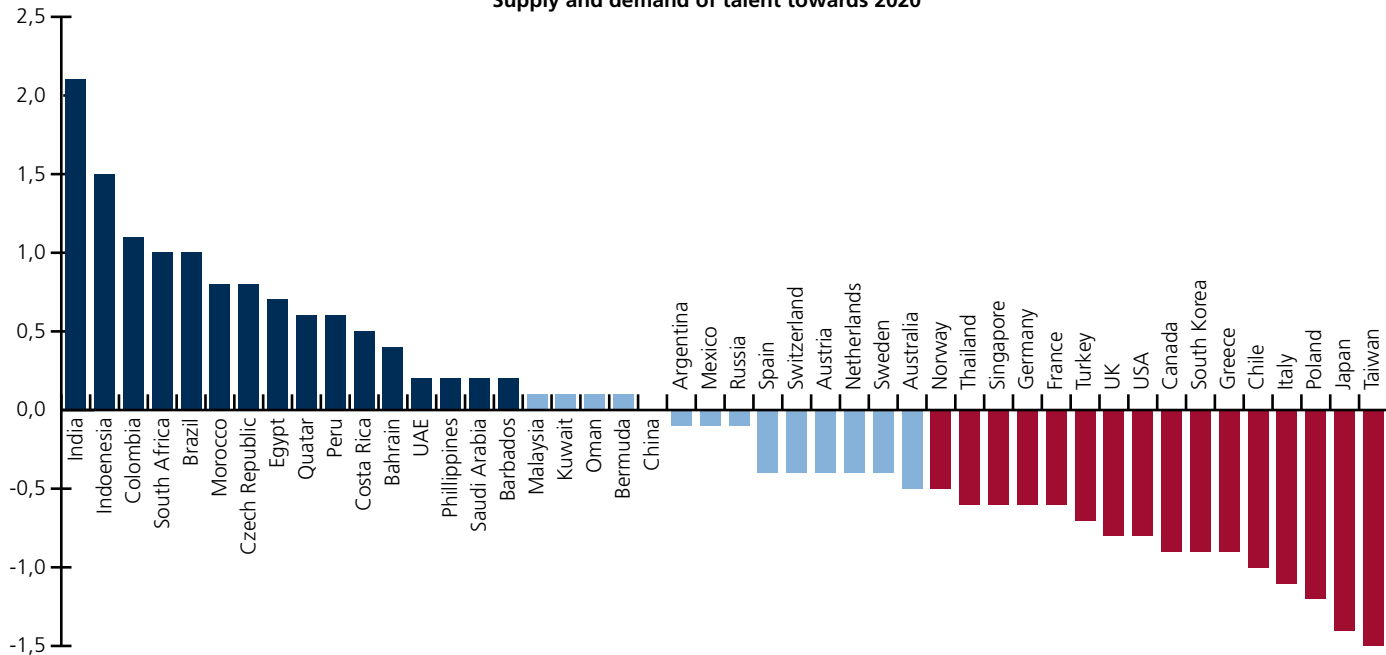


Figure: The mismatch between supply and demand for talent in 2021

Source: TowersWatson, 2013

to gain a competitive advantage and to compensate for local talent shortages. They will use their more diverse workforces to understand local markets are to gain a better understanding of their customers' needs. Companies will be challenged to provide workspaces that help customers and employees identify with the business, but which are amenable to local workplace practices.

According to PwC, towards 2020 mobility is expected to grow by 50 per cent, but "not as we know it".¹⁰² Growth of virtual work, global nomads, and one-way relocations will challenge organizations on how to attract, motivate and communicate to their employees with different cultural backgrounds and expectations.

As Steelcase's 2013 cultural study reveals, a country's culture influences workplace behaviors, the work environment and, ultimately, workplace design.¹⁰³ To create a motivating and engaging workplace for more globally connected, but still culturally diverse employees, FM providers will be called upon to help facilitate the creation of customized workplaces that balance the needs of the worker and local workplace behaviors and customs, while supporting core business strategies and maintaining a common corporate identity.

¹⁰² Modern mobility: The next decade in a globally connected world. (2012) PwC.

¹⁰³ "An exploration of eleven countries". Culture Code: Leveraging the workplace to meet today's global challenges. Steelcase, 360 Magazine, Issue 65, 2013

Implications for FM Industry

- FM providers need to transform and diversify to better serve their core organizations' needs toward 2020. The changing social composition of workforce will transform the FM industry as well. As Diane Coles, Director, Workplace Solutions at SCAN Health Plan states, "the average of FM in US is a white male in the mid-fifties. They all are going to be retiring in the next five years, creating a gap that we need to fill."
- Depending on the country and region, FM providers may need to do more to assist young parents. Several workplaces could offer a collaborative solution by pooling their resources to provide collaborative daycare centers where workers can bring their children. Others could choose to negotiate favorable rates with private, local daycare providers
- More diverse FM providers could help organizations attract, retain and motivate a more diverse employee base in core organizations
- Workplace strategists and FM providers can help core organizations differentiate themselves from their competitors via their office amenities
- FM providers can do this for global organizations by helping create, adapt and implement workplace strategies to different local needs and cultural requirements, because FM providers:
 - Have an insight into the daily performance of their clients' businesses
 - Provide benchmarks and best practices for infrastructure development
 - Can provide expertise in local social structures
- FM providers need to innovate to identify where it is possible to develop mass customization solutions in the workplace. Catering could be one such area for innovation
- FM providers need to move from being purely focused on business-to-business solutions towards a business-to-consumer relationship, where the facility can act as a hub where employees can get services (laundry etc.)
- In order to assist core organizations align workplace strategies, FM providers can:
 - Monitor a company's performance requirements, employee profile, and organizational culture in order to select the most relevant amenities for employees
 - Amplify companies' strategic agility by differentiating between office in-house amenities and the ones provided by external partners and the local community
 - Differentiate office amenities depending on local context and infrastructure needs. For example, office-provided daycare is important in Germany, but not important across the border in Denmark, where government-provided daycare is the norm.





Theme 6



Growing need to focus on employee health
and well-being

Introduction of new technologies, and the ability to work from anywhere, is introducing new ergonomic challenges that FM providers must take into account, particularly when designing workplace strategies, as well as ensuring the employee wellbeing. Increasing polarization, use of workers' own spaces and technologies, and the use of more part-time and freelance workers will lead to a redefinition of employer-employee roles, and to different responsibilities in creating healthy work environments.

Introduction of new devices introduces new ergonomic challenges

Tablets, wearable computers and other mobile devices will become ubiquitous in the office alongside the two most important tools for office workers: smartphones and laptops. These devices are changing the way we communicate with other people and the way we physically interact with our surroundings.¹⁰⁴ As companies adopt more flexible work arrangements, including third working spaces and temporary war rooms (such as the Facebook war room depicted below), people are adopting a number of improper postures that will negatively impact their health and wellbeing in the future.¹⁰⁵

The introduction of new technology leads to poor posture, increasing the risk of musculoskeletal disorders and carpal tunnel syndrome. In a study of 2000 office workers in 11 countries, the office design company Steelcase identified nine postures that people adopt when interacting with mobile technologies. These postures "are not adequately supported, workers are uncomfortable, in pain and are doing long-term harm to their bodies."¹⁰⁶

The challenge towards 2020 is deciding where the onus for better workplace ergonomics lies – the company or the employee – particularly as the relationship between employee-employers evolve towards shorter, more flexible arrangements, especially as people work less from the office and more often from home and third working places. This dilemma creates an opportunity for FM providers to offer training programs for better workplace ergonomics at the office, home, and third working places to companies and their employees. If companies are not interested, insurance companies and government health care providers instead could be interested in reducing social costs related to improper working conditions.

The introduction of wearable computers will introduce new risks for injury in the workplace. The challenge is that that these devices overload our cognitive capabilities to process visual



Figure: How technology affects workplace ergonomics
Source & illustration: Steelcase, 2013

104 Garber, Megan. (February 2013) 9 New Ways to Sit in the Office, Thanks to Smartphones and Tablets, The Atlantic.com <http://www.theatlantic.com/technology/archive/2013/02/9-new-ways-to-sit-in-the-office-thanks-to-smartphones-and-tablets/273467/>

105 Garber, Megan. (February 2013) 9 New Ways to Sit in the Office, Thanks to Smartphones and Tablets, The Atlantic.com <http://www.theatlantic.com/technology/archive/2013/02/9-new-ways-to-sit-in-the-office-thanks-to-smartphones-and-tablets/273467/>

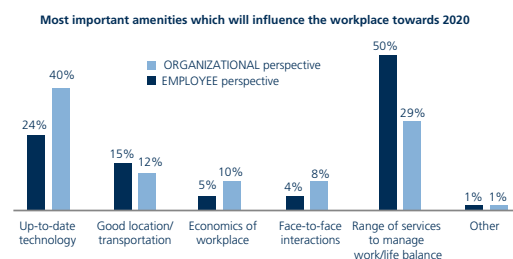
106 Garber, Megan. (February 2013) 9 New Ways to Sit in the Office, Thanks to Smartphones and Tablets, The Atlantic.com <http://www.theatlantic.com/technology/archive/2013/02/9-new-ways-to-sit-in-the-office-thanks-to-smartphones-and-tablets/273467/>

information “to the point where wearers miss things which are ‘utterly obvious’.”¹⁰⁷ Humans have already been shown to be incapable of operating mobile phones, and other imbedded electronic devices, while driving. People who attempt to operate hands-free devices have demonstrated comparable levels of impairment as drunk drivers. The latest wave of wearable devices – Google Glasses, iWatch, and eventually computers in contact lenses – pose a number of workplace risks that FM providers will have to plan and compensate for.

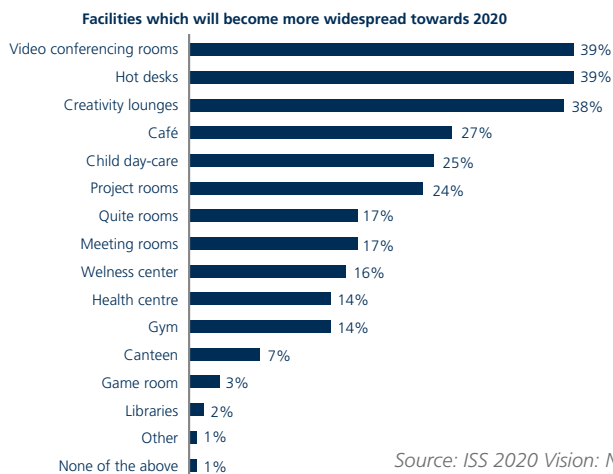
Work-life balance and stress

There are few places left where the knowledge worker is beyond the reach of the office. People experience difficulties in balancing work and private life, leading to increased stress, decreased life satisfaction, and more instances of illness. Respondents of the ISS 2020 Vision NWOV survey opine helping employees manage their work and private life will be the most vital workplace amenity for employees towards 2020 (see figure below).¹⁰⁸

The work-life balance is manifested in stress and stress-related economic costs. Overload and burnout are conditions with which many knowledge workers are familiar. Ninety per cent of EU citizens consider stress and associated problems a major cause of disease.¹⁰⁹ Their effects cost societies dearly. As different sources estimate, the annual economic costs related to stress reached Euro 20 billion in EU-15, AU\$30 billion a year in Australia, CA\$12 billion in Canada, and \$300 billion in the US.¹¹⁰ As Towers Watson’s Global Workforce study notes,



Source: ISS 2020 Vision: NWOV Survey, 2013



Source: ISS 2020 Vision: NWOV Survey, 2013

107 Amanda Williams, (27 May 2013) Google Glass ‘eye wear’ is ‘potentially dangerous’ as it may stop users from seeing something ‘utterly obvious’ Daily Mail <http://www.dailymail.co.uk/sciencetech/article-2331231/Google-Glass-eye-wear-potentially-dangerous-stop-users-seeing-utterly-obvious> and Simons, Daniel J. et al. “Is google glass dangerous” New York Times (2013). <http://www.nytimes.com/2013/05/26/opinion/sunday/google-glass-may-be-hands-free-but-not-brain-free.html>

108 “Beyond Marissa Mayer: The Future Will Blend Work and Home in New Hybrid Places” Forbes <http://www.forbes.com/sites/forbesleadershipforum/2013/03/08/beyond-marissa-mayer-the-future-will-blend-work-and-home-in-new-hybrid-places/>

109 Aznavoorian, Laurie et al. (2011) “the Forces driving change” Work on the Move

110 WHO, European Agency for Safety and Health at Work (2012), Safe Work Australia (2012), Canadian Mental Health Association (2007), the American Institute for Stress (2012)

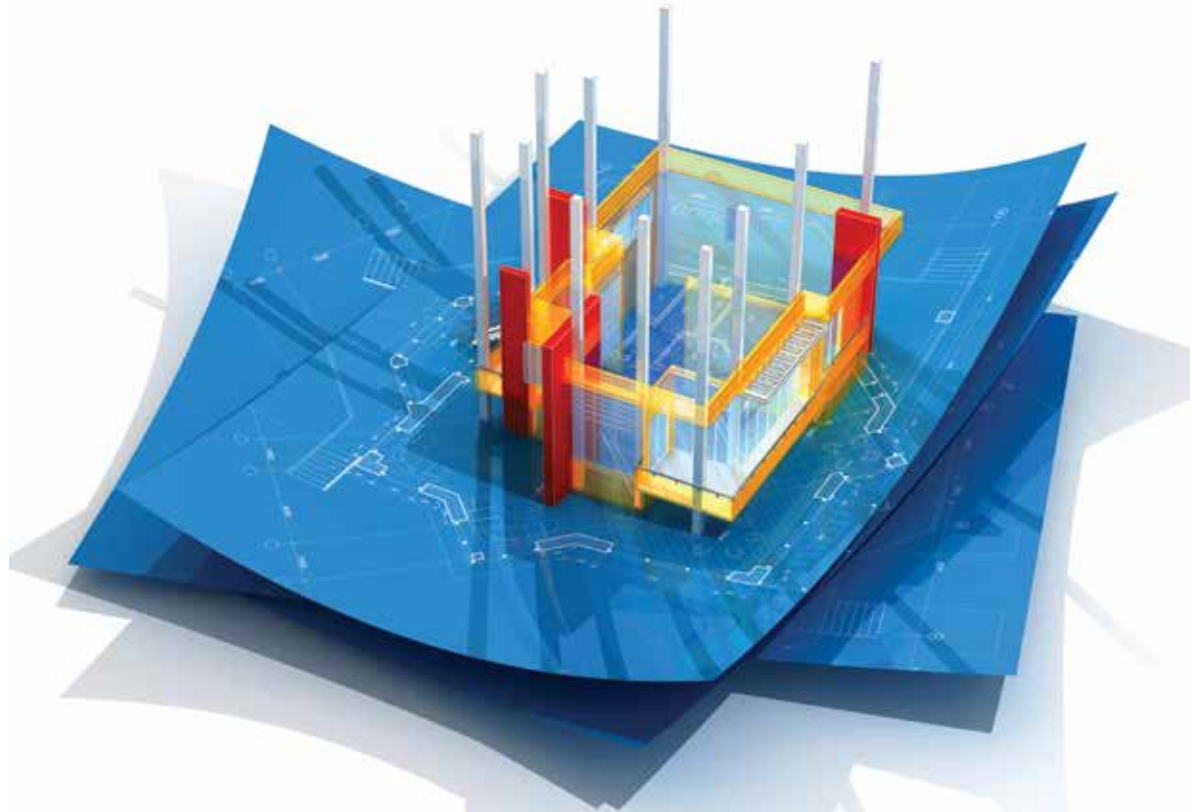
“companies are running 21st century business with 20th century workplace practices and programs.” This discrepancy leaves only 35% of the fulltime employees around the world fully engaged, and companies less profitable.

More and more employees believe that the employer has a role to play in reducing the amount of stress in their lives and that the workplace can help reduce stress levels that employees are facing. Possible solutions where FM providers may affect workers’ work-life balance include: introducing more flexible working hours, being more accommodating as to where employees may conduct their work assignments, focusing on the quality of the work environment (focusing on reducing noise levels, designing and implementing more private areas), the introduction of other amenities such as fitness rooms, daycare centers, etc. These findings are supported by the ISS 2020 Vision survey findings, where respondents listed the following amenities for improving employee well-being in workplaces: child daycare centers, quiet rooms, healthcare centers, wellness centers, and gyms.

Implications for FM industry

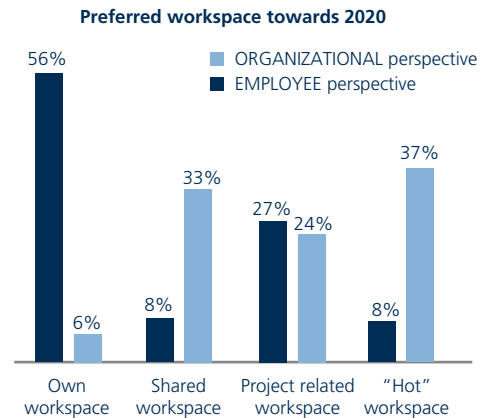
- FM providers should change their focus towards providing hospitality service instead of cleaning services in order to take care of their clients’ individual workforce needs
- FM providers need to convey to customer CEOs the importance of investing in the workplace as well as in the building space
- FM providers need to develop personalized communication with end users
- FM providers will increasingly have to balance (i) demands for controlling/cutting costs coming from management with (ii) ensuring the productivity and wellbeing of office workers
- FM providers should use benchmarks to ensure that their costs are inline with industry standards, but they should also be willing to challenge standard practices to make sure that cost-cutting does not lead to a significant decline in worker productivity
- FM providers should develop training programs and recommendations that remind workers about correct ergonomic postures when they are working away from the office
- FM providers could develop workplace healthcare concepts as a product line
- FM providers should develop services that setup workspaces in private spaces or in fixed third workspaces (a workspace at a client’s office or a work hotel, for example)
- FM providers could correct collaborative partnerships with chain providers who are known for providing third working spaces (e.g. Starbucks) and work hotels (e.g. Regus)
- FM providers will have to assess whether (i) it is cost effective to provide amenities that improve employee wellbeing themselves, (ii) if they should collaboratively source these services with nearby companies, or (iii) if they should arrange service arrangements with other providers.

Theme 7



Workspace personalization will
continue to create workplace tensions

Although research points towards the positive productivity benefits that personalizing one's workspace provides, the ability for individuals to personalize the physical workplace environment will continue to decline towards 2020, driven by the need to reduce costs and increase workspace flexibility. This challenge is the fundamental tension for FM providers: they have to create greater workplace efficiency (cut costs) to satisfy senior managers without damaging what makes an effective workspace – happy and engaged employees. Virtual workspaces, personally procured computing devices, and advances in technologies like building as a computer (BaaC) may offer the possibility to personalize the workspace at little additional cost to the employer. The challenge for FM providers is that current workplaces are ill prepared for these developments.



Source: ISS 2020 Vision: NWOW Survey, 2013

The workspace is declining in size and becoming less personal

A number of studies show that the number of private offices is declining; the height of cubicle walls is becoming lower or disappearing; and that office densities (number of workers in a given work area) are increasing.¹¹¹ According to a global study by Gensler, office density has increased, as the m² per employee fell from 20.9–16.1 m² during 2007-2012. If the current trend holds, the average m² per employee globally will be 9.29m² by 2017.¹¹² In markets like China, Japan, and the United Kingdom, the available building space per person in commercial square meters can range as low as 4.65 -7.00 m².

In highly competitive real estate markets, in cities like Hong Kong, London, New York, actual office densities are higher.¹¹³

ISS 2020 Vision NWOW survey respondents identified personalization of the workspace as critical or very important for almost 70 per cent of employees (see figure below). There are

¹¹¹ Keable, Ellen Bruce et al. (2011) "Evolution of the Workplace" Work on the move.

¹¹² What we've learned about the future of work, Gensler, 2012

¹¹³ What we've learned about the future of work, Gensler, 2012

also benefits stemming from allowing employees to personalize the workspace: Corporations that allow groups of workers to shape their office environment, for example by selecting the art work or the type and amount of plants, report greater productivity increases.¹¹⁴

Virtual workspace personalization via IT platforms and devices, including employees' self-procured technology, could be one of the ways that FM providers may create a sense of personal control over workers' workspace. These devices will allow future workers to develop local immersive work experiences regardless of where they find themselves. These developments are some of the greatest disruptive forces shaping the workspace towards 2020, according to Ryan Anderson, Director of Future Technology, Herman Miller.

Some examples of virtual workspace personalization include:

- Automatic language translators
- Wearable technology – iWatch, Google Contacts (the next stage of Google Glasses)
- Systems that are personalized to individual work styles
- Systems that provide recommendations for self-learning
- Persistent virtual desktops that are always the same regardless of device
- Built-in table touchscreen computers with 3D interfaces
- Smart wall panels enabled with anticipatory computer services, which control access to information depending on level of authorization and adjust local light, sound, temperature settings according to mood and stress levels¹¹⁵
- BaaC monitoring employee health and wellbeing, and providing diet and workout recommendations
- Wireless charging of all mobile devices
- Seamless integration of all peripherals.

Virtual workspace personalization – especially the BYOD phenomenon – will drive expenditures and introduce new security challenges, as companies have to manage and secure devices across platforms and manufacturers. This challenges FM and IT providers, as the movement flies in the face of what FM providers are supposed to do: remove variance.¹¹⁶

The BYOD phenomenon is already mainstream. According to Forbes magazine, 75 per cent of companies currently allow employees to use personal devices. Ninety per cent of companies will allow companies to use personal devices at work by 2014.¹¹⁷ Workers already use the input devices with which they are most comfortable, be it on Mac, PC, or Android-based systems, or through tablet, laptop, mobile, wearable or hybrid interfaces. Eighty-nine per cent of over 1000 surveyed workers in the United States use their private devices for work – day



Source: ISS 2020 Vision: NWOW Survey (2013)

114 Knight, Craig et al. "The Relative Merits of Lean, Enriched, and Empowered Offices: An Experimental Examination of the Impact of Workspace Management Strategies on Well-Being and Productivity" *Journal of Experimental Psychology*: 2010, Vol. 16, No. 2, 158–172

115 <http://www.expectlabs.com/about>

116 ISS 2020 Vision: NWOW interview with Ryan Anderson, Director of Future Technology, Herman Miller

117 Fidelman, Mark. "The Latest Infographics: Mobile Business Statistics For 2012." *Forbes* <<http://www.forbes.com/sites/markfidelman/2012/05/02/the-latest-infographics-mobile-business-statistics-for-2012/>>

“ In our organization we have number of people on tablets; some people are working on their own equipment. Smartphone technology is pushing BYOD practices even more: who knows what will be available on smartphone, with a battery life of 24 hours, so you could be completely self-sufficient? Speed of computing, need of immediate access to data and information, video conferencing, AV facilities are more and more important. ”

Scott McMillan, Division Chief: Facilities, Real Estate and Capital Project at IMF

“Technology is driving change. Digitalization is an ongoing process. Physical devices are interfaces to the digital world. The interfaces are evolving rapidly. Mobile devices will be the PC in 2020. The limitation with mobile is that they need larger physical interfaces such as monitors/screens, keyboards and writing devices. Some peripherals will be provided by companies; others will be provided by employees themselves. Most offices are not designed or flexible enough to fully utilize these developments.”

Frank Elter, VP Research Strategy, Telenor Research and Future Studies



Picture: Today's mobile worker

and night.¹¹⁸ Companies need to develop policies as to when, and how, they are permitted to monitor employees' activities, and implement risk-mitigation procedures when employees lose their devices with sensitive materials on them (see below for more information).

According to several ISS 2020 Vision NWOV interviewees, the majority of current workspaces are ill-prepared for the personalization revolution. These ill-prepared workspaces create "headaches" for workers. Examples of such headaches include:

- Not having the right AV connections to hook up one's personal device to office peripherals (will probably always be a challenge)
- Not having enough outlets for charging devices: "Workers are tethered like dogs to power outlets" (see image below)
- Not being able to find a private space for phone or other conversations.
- Having to wear ear-phones and buds in open office environments as a "do not disturb" signal to colleagues
- Not having ergonomic setups that help them use their devices for longer periods of time. Examples of more ergonomic arrangements would be to develop setups that:
 - Help them use tablets one-handed
 - Allow for the proper head height when using video teleconference devices
 - Reduce the amount of glare on the flat screen devices.

These headaches cause many workers to avoid coming to the office and seek alternative working arrangements elsewhere. FM providers need to "eliminate" the workspace headaches by adopting a new approach to thinking about how technology is being integrated into the new workspace.

The BYOD revolution poses security challenges for both IT and FM departments due to the technology itself and the user. The level of security on BYOD devices – especially on smartphones and tablets – is low. For example, ninety per cent (Android) to one hundred per cent (iOS) of free apps send data unencrypted. Ninety per cent of vulnerabilities common in desktops were also present in mobiles (both Android and iOS). Eighty-eight per cent of mobile applications tested had one or more security flaws, such as transmitting sensitive data.¹¹⁹

Users tend not to upgrade their operating systems and have a tendency to leave their devices at airports, coffee shops, bars, etc. Over half have sent work emails to their personal phones. Almost half of all users allow others to borrow their devices and have logged onto unsecured wireless servers.¹²⁰

118 Fidelman, Mark. "The Latest Infographics: Mobile Business Statistics For 2012." *Forbes* <http://www.forbes.com/sites/markfidelman/2012/05/02/the-latest-infographics-mobile-business-statistics-for-2012/>

119 "The High Cost of BYOD," *Trustwave* (2013).

120 "The High Cost of BYOD," *Trustwave* (2013).

Implications for FM

- FM and corporate IT providers need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual conflicts. This could include the fast tracking of standard IT solutions or align conflicting messages from senior examples. For example, senior executives could call for the reduction of office space by having more employees work from home or third workspaces, while cutting IT budgets at the same time
- FM and corporate IT providers will be challenged to deliver robust security solutions for the future office
- FM providers should invest in understanding the people and their needs at the workplace, including developing methodologies and key performance indicators for ongoing data collection, to be able to advise CEOs as to why one workplace solution is better than another – FM providers need to “do more for people and do less for buildings”
- FM providers should reach out to massive multiplayer online gaming operators to understand how workspaces could be developed to create immersive, cocooned work experiences for future workers
- FM providers should seek collaborative relationships like those Starbucks is creating with Google
- FM providers should work with peripheral manufacturers and office furniture designers to remove typical office headaches.

“Gen Y employees have grown up with the thought that IT just works. The next generation of employees (Gen Z) will be even more advanced and there will perhaps be a time when Gen Y will face the same challenges their peers are experiencing today.”

HR Magazine, Neil Pickering, 2013



Theme 8



Sustainability and the workplace of the future

Sustainability is a growing requirement from businesses and governments. The need for reducing the environmental footprint of offices is a recognized opportunity for FM providers to introduce new workplace strategies. To reduce the environmental footprint of the workplace of the future, FM providers will have to look beyond the confines of their organization. To achieve sustainability goals, FM providers will have to look to how they can work in collaboration with other organizations, and even with competing organizations.

Sustainable office

Sustainability presents a number of opportunities for core organizations supported by FM providers. In the United States, office buildings currently consume 19 per cent of energy, 19 per cent of cement for new building construction, and 34 billion liters of water.¹²¹ Current approaches to sustainability are focused predominantly on the physical confines of the building. In high-income markets, the focus is on retrofitting. According to Doug Gatlin, in “the U.S. Green Building Council [USGBC] view, green retrofits are any kind of upgrade at an existing building that is wholly or partially occupied to improve energy and environmental performance, reduce water use, and improve the comfort and quality of the space in terms of natural light, air quality, and noise - all done in a way that it is financially beneficial to the owner. On high-rise office buildings, the focus is on common areas and not energy use in tenant spaces.”¹²²

Towards 2020, FM providers will have to look beyond the confines of the organization to improve sustainability profiles. To gain LEED certification for buildings, FM providers and CRE teams already have to take employees’ transportation access to and from the workplace into account. In buildings with several tenants, 60 per cent of energy consumption comes from tenant use and not from common areas. To truly make sustainable workplaces, organizations must collaborate.

For many companies, the sustainable workplace towards 2020 will be a tool to attract talents who are becoming more focused on their values and who wish to contribute to the world. According to the Bain & Company survey results, almost two thirds of respondents said they care about sustainability more than three years ago. Moreover, the biggest expectations in taking the lead on sustainability were expressed towards employers, rather than being taken by consumers, employees, governments, or all equally.¹²³ As a result, companies are increasingly integrating their responsibility to the community and the environment, in order to better brand themselves and to attract more consumers and employees.

121 “Commercial Sector” *Buildings Energy Data Book, US Department of Energy 2012* <<http://buildingsdatabook.eren.doe.gov/ChapterIntro3.aspx>>

122 Lockwood, Charles (2009) *Building retrofit* <http://www.esbnyc.com/documents/sustainability/uli_building_retro_fits.pdf> and *Empire State Building retrofit case, EFMC, 2013*

123 Davis-Peccoud J., Allen J., Artabane M. “The big green talent machine: How sustainability can help hone your talent agenda” *Bain & Company, 2013*

Due to a greater focus on environmental sustainability in the office and the workspace, office designers and FM providers will focus on:

- Improving the use of natural light
- Increasing the energy efficiency of operations and buildings
- Ensuring that they use recyclable and reclaimed material in their buildings, and that, in turn, their buildings and its fixtures can be recycled or reclaimed
- Reviewing meeting and travel policies to ensure more efficient use of resources
- Reducing office environmental footprints towards 2020
- Developing symbiotic relationships with other companies and organizations in local communities to collectively reduce footprints. This includes increased collaboration among tenants within buildings and between several buildings in neighborhoods.

Currently, the adoption of these practices is being slowed by a number of barriers. To accelerate the adoption of new practices several barriers need to be overcome towards 2020. These include:

- Financial considerations that create better linkages between costs and benefits
- Training a more knowledgeable and experienced workforce
- Ignoring potential small opportunities from energy (and other forms of conservation) due to perceived low reward-to-risk ratios¹²⁴
- Low willingness to invest in depressed assets -- a challenge in the United States and Europe.

“ Companies need to think sustainability into their processes including having a recyclability plan for each stage of building plan, and governments need to play a positive role in eliciting this development. ”

Duncan Waddell, Managing Director, FM Intelligence Pty Ltd

124 Tobias L. et al. "Retrofitting Office Buildings to Be Green and Energy-Efficient: Optimizing Building Performance, Tenant Satisfaction, and Financial Return." Washington DC: Urban Land Institute, 2009

According to Magnus Kuchler, Head of Outsourcing Advisory Nordics, EY, when it comes to future workspaces, there is still so much value to be derived from cost reductions that it still has the highest priority, followed by supporting core functions (increasing productivity), and making employees happier.¹²⁵ For organizations, the biggest issue for implementing sustainable practices is a difficulty to recognize that sustainable ways of working can be less expensive, but it requires “a willingness to buck conventional financial wisdom by focusing not on reducing the cost of each part but on increasing the efficiency as a whole.”¹²⁶

Organizations need to take a strategic approach towards sustainability due to a lack of systematic information on how this investment ends up on their business bottom-line. To become proactive in sustainable ways of working, FM providers have an opportunity to expand the niche of their expertise and to become an advisor on how sustainability pays off in the workplace strategy in every individual case of their clients.

Implications for FM industry

- FM providers will have to analyze sustainability challenges and consequences on supply and value chains, as well as on building design, management and maintenance
- FM providers will have to conduct systemic design, including employing building information modeling (BIM) techniques
- FM providers should use information from BIM to improve building designs and inputs to their models by analyzing how people actually move through and use workspaces
- FM providers should assess sustainability challenges according to regional conditions and challenges
- FM providers should look beyond the confines of the core organization and see how employees and other companies, including competitors, could help develop sustainable workplace solutions.

Part II of this report analyzes: how corporations could bring together trends affecting the nature of work, the workforce, and the workplace. All of this is done to develop a workplace strategy that is supported by their brand, and in order to foster a beneficial workplace culture to implement their core organizations’ strategies.

¹²⁵ ISS, *NWOW Interview*, 20 March 2013

¹²⁶ Haanaes, K., Michael, D., Jurgens, J., Rangan, S. “Making sustainability profitable” *Harvard Business Review*. March 2013, Vol. 91 Issue 3.

Part II

Defining the FM industry's role in the future workplace

“The workplace revolution that transformed the lives of blue-collar workers in the 1970s and 1980s is finally reaching the offices and cubicles of the white-collar workers.”

Tom Peters, Marketing Guru



RESPECT

Work towards 2020

Themes	Consequences	Implications for FM industry
<p>1) Paradigm shift towards innovation society increases the need for continuous adaptation</p>	<ul style="list-style-type: none"> • Companies focus on improving knowledge workers' productivity • Companies seek to reduce their exposures by transferring as many fixed costs as possible • Companies leverage value networks instead of value chains • Companies change their understanding of the role that the workplace plays in creating value 	<ul style="list-style-type: none"> • Service concepts need to look beyond the workspace to the surrounding built environment for efficiencies and reduced costs • Offer service-centric approaches that reflect and support the core organization's strategic objectives, brand, and culture • Develop more efficient, cost-efficient and less disruptive reconfigurations • Quickly form, reconfigure and dissolve networked teams and third workplaces on an as-needed basis
<p>2) Technology as the enabler of increased collaboration and change in the workplace</p>	<ul style="list-style-type: none"> • Allows us to work smarter and more innovatively • Ubiquitous mobile technology will expand organizational boundaries and lead to the reconfiguration of many industries • It will also lead to intra-organizational "turf" battles and will challenge organizations' abilities to manage and analyze data flows 	<ul style="list-style-type: none"> • Need to create seamless organizations that provide similar workplace experiences, both virtually and physically. • Need to work with customers to assess how introduction of new technologies will affect workplace and service offerings • FM and corporate IT providers need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual conflicts • Need for robust security and secure work environments will grow • FM providers need to be attuned to workers' needs and organizational requirements for strategic agility and flexibility • Manage workspaces and global projects virtually through cloud technologies • Ensure that all workspaces, whether onsite or at a third space, can, and are, working together
<p>3) Urban areas allow for workers and companies to better leverage their surroundings</p>	<ul style="list-style-type: none"> • Offices will remain the physical manifestation of the organization towards 2020 • Cities are where creativity, innovation, and growth occur in our economy • Urban areas are evolving into smart cities, which will influence office designs and the offices' role in the local community • Smarter cities and networked organizations create a number of business outsourcing opportunities, as well as service symbiosis 	<ul style="list-style-type: none"> • Look beyond the industry's borders, the core organization, and areas of expertise • Leverage the capabilities of increasingly larger value-generating networks • Integrate geographic and building information systems into their workplace management systems, and in the selection of new workspaces • Develop sustainability programs that utilize collaborative consumption systems and that can coordinate and manage among different energy, water, and environmental stewardship systems

Workforce towards 2020

Themes	Consequences	Implications for FM industry
<p>4) Polarization of the labor force leads to polarization of workplace amenities</p>	<ul style="list-style-type: none"> • Automation and globalization are polarizing the labor market • Talents have the chance to self-actualize and hyper-specialize, and non-talents are engaged in a struggle to find the next contract • The workplace is polarizing, just as the labor market is • The workplace is a strategic tool to attract and retain talents • Companies must balance the ability to attract workers while contending with downward pressures on office amenities for the majority of its workers 	<ul style="list-style-type: none"> • Must create and maintain employee engagement at work • Workplace amenities must reflect organizations' strategic ambitions and culture • Non-Fortune 500 companies will have to develop creative solutions to offer the best amenities they can at reduced costs • Companies will make use of distributed office and work environments to reduce travel demands and travel costs
<p>5) Workforce diversity means that companies and the office have to be more amenable to an increasing number of workers' needs</p>	<ul style="list-style-type: none"> • Virtual work will have the greatest influence on office design according to survey respondents • Most managers are ill-prepared to manage virtual workers • Organizations and future offices will have to balance the needs and requirements of four generations • Women appear to be better prepared for the skill sets required in the future workplace • Developing increasingly diverse teams that possess different cultural and work skills will become a strategic goal for more organizations 	<ul style="list-style-type: none"> • Strategic choices will have to be made in workplace design as younger and older workers tend to be attracted to different working environments • Transform and diversify to better serve their core organizations' needs toward 2020 • Depending on the country and region, FM providers may need to do more to assist young parents • Help organizations attract, retain and motivate a more diverse employee base in core organizations • Help core organizations differentiate themselves from their competitors via their office amenities • Help global organizations create, adapt and implement workplace strategies adjusting them to different local needs and cultural requirements

Workforce towards 2020 (continued)

Themes	Consequences	Implications for FM industry
<p>6) Growing need to focus on employee health and well-being</p>	<ul style="list-style-type: none"> • As companies adopt more flexible work arrangements, people are adopting a number of improper postures that will negatively impact their health and wellbeing in the future • Identifying where the onus for better workplace ergonomics lie – with the company or the employee • Employees believe that the employer has a role to play in reducing the amount of stress in their lives, and the workplace can help reduce stress levels that employees are facing 	<ul style="list-style-type: none"> • FM providers will increasingly have to balance demands for controlling/cutting costs coming from management with ensuring the productivity and wellbeing of office workers • FM providers should use benchmarks to ensure that their costs are inline with industry standards, but they should also be willing to challenge standard practices to make sure that cost cutting does not lead to a significant decline in worker productivity • FM providers should develop training programs and recommendations that remind workers about correct ergonomic postures when they are working away from the office • FM providers should develop services that setup workspaces in private spaces or in fixed third workspaces (a workspace at a client's office or a work hotel, for example) • FM providers could establish / optimize collaborative partnerships with chain providers that are known for providing third working spaces (e.g. Starbucks) and work hotels (e.g. Regus) • FM providers will have to assess whether it is cost effective to provide amenities that improve employee wellbeing themselves, if they should collaboratively source these services with nearby companies, or if they should arrange service arrangements with other providers

Workplace towards 2020

Themes	Consequences	Implications for FM industry
7) Workspace personalization will continue to create workplace tensions	<ul style="list-style-type: none"> • The ability for individuals to personalize the physical workplace environment will continue to decline towards 2020 • Virtual workspaces, personally procured computing devices, and developments in technologies, such as building as a computer (BaaC), may offer the possibility to personalize the workspace at little additional cost to the employer • Current workplaces are ill prepared for these developments 	<ul style="list-style-type: none"> • FM providers have to create greater workplace efficiencies to satisfy senior managers without damaging employee engagement • FM and corporate IT providers need to find ways to collaborate and develop mutually supportive workplace strategies to avoid eventual conflicts • FM providers should reach out to massive multiplayer online gaming operators to understand how workspaces could be developed to create immersive, cocooned work experiences for workers • FM providers should seek collaborative relationships like those Starbucks is creating with Google
8) Sustainability and the workplace of the future	<ul style="list-style-type: none"> • Sustainability is a growing requirement from businesses and governments • The need for reducing the environmental footprint of offices is a recognized opportunity for FM providers to introduce new workplace strategies • To reduce environmental footprint, FM providers will have to look beyond the confines of their organization 	<ul style="list-style-type: none"> • To achieve sustainability goals, FM providers will have to look to how they can work in collaboration with other organizations, and, even, with competing organizations • FM providers will have to analyze sustainability challenges and consequences regarding supply and value chains, as well as concerning location, building design, management and maintenance • FM providers should use information from BIM to improve building designs and inputs to their models by analyzing how people actually move through, and use, workspaces • FM providers should assess sustainability challenges according to regional conditions and challenges • FM providers should look beyond the confines of the core organization and see how employees and other companies, including competitors, could help develop sustainable workplace solutions.

6. The workplace towards 2020

The workplace towards 2020 will be qualitatively different from what it is today. The eight aforementioned strategic themes affecting the nature of work, the workforce, and the future workplace, will create workplaces that are increasingly global, smart, collaborative, and sustainable. And, while Part I identified a number of implications for the industry, FM providers' role in managing the future office will also be dependent upon a number of internal and organizational factors that will now be developed in Part II of this report. The office/workplace, and the functions that shape and maintain it, should reflect and support three critical, intimately entwined elements of its core organization:

- The strategy
- The brand
- The culture

This part of the report (Part II) is divided into three sections:

The first section is designed to help FM providers understand their core organization's strategies, strategic requirements, and need for strategic agility. The need for strategic agility in the core organization, however, is dependent on the pace of change occurring within an industry, and on a core organization's ability to shape a given industry – both of which vary greatly.

The second section describes how culture and brand influence, and is influenced by, strategy, and how organizations could use this interplay to shape the future workspace.

The third section describes workplace archetypes that organizations could use to encourage more sustainable future workspaces that maximize the urban environment.

Strategic agility and the future workplace

FM providers need to understand the agility needs of the organizations' core business in order to play a central role in developing future workplace strategies. These strategies need to create productive office environments that promote both fixed and temporary workers' well-being. In order to align strategic agility with brand and culture in the workplace strategy, companies will need closer cooperation among support functions: HR, IT, FM, finance, and real estate. The right combination of functions will be dependent on the approach towards the future workspace that companies take.

Currently, companies are choosing the reduction of office space as their primary workplace strategy. Open offices are becoming the norm, as companies seek to drive down costs and increase the collaborative work mode in the office. According to a CoreNet survey from 2012, the global average of square meters per employee fell from 20.9-16.1m² (2007-2012). If this

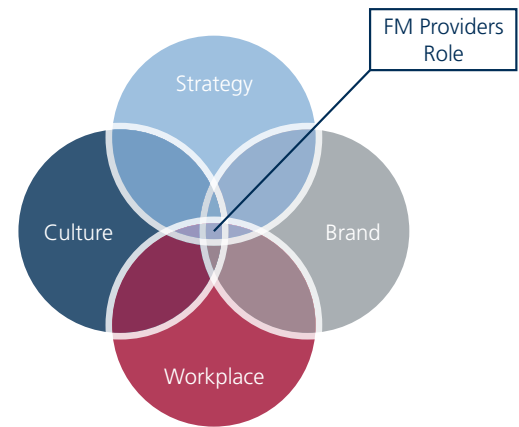


Figure: Defining FM's role in managing the workplace of the future

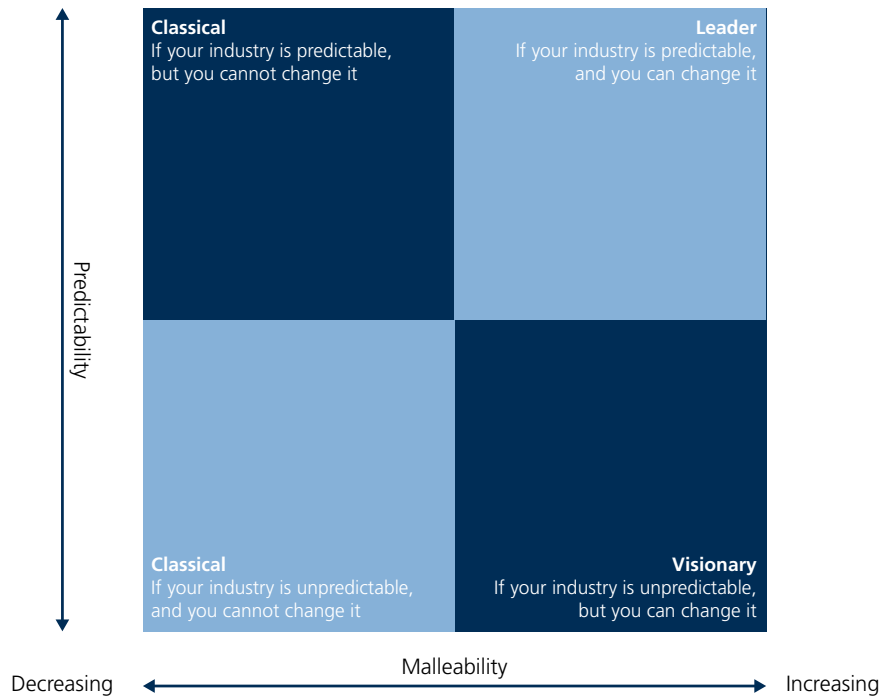
Source: Steelcase

“The benefits of new ways of working are that companies are developing a more holistic approach towards their workplaces, while companies are able to standardize practices, drive down costs, increase productivity per m², while improving the methods by which they provision services.”

Magnus Kuchler, Head of Outsourcing Advisory Nordics, EY

trend holds, the global average of square meters per employee could fall to 9.29 by 2017.¹²⁷ In markets like China, Japan, and the United Kingdom, the available building space-per-person in commercial square meters already ranges as low as 4.65 -7.00.¹²⁸

Towards 2020 and beyond, office designers and FM providers will need to adjust their workplace strategies according to their core organizations’ needs for strategic agility. The challenge for core organizations, and for the FM providers who have to support them, is that despite knowing that core organizations’ strategies and the strategy-making processes need to match the demands of their core organizations’ competitive environments, executives still “rely on approaches that are suited to predictable, stable environments, even when their own environments are known to be highly volatile or mutable.”¹²⁹



Source: Harvard Business Review, BCG, 2012.
Modified by CIFS

Using the model for strategic agility developed in 2012 by Martin Reeves, Claire Love, and Philipp Tillmanns, the following section will assess its implications for the future workplace. Core organizations’ needs for strategic agility vary by industry and according to:

¹²⁷ What we've learned about the future of work, Gensler, 2012

¹²⁸ Miller, Norm. "Estimating Office Space per worker" Burnham-Moore Center for Real Estate University of San Diego, 2012.

¹²⁹ Reeves, Martin, et al., "Your Strategy Needs a Strategy" Harvard Business Review. 2012.

- **The predictability** of the core organization's industry (How far and assuredly can executives confidently forecast demand, performance, competitive dynamics and market expectations?)
- **The organization's**, or to the organization's competitors', **ability to mold the industry to its** (their) **ambitions**.

Classical: The core organization's industry is predictable, but hard to change. The strategic needs for this company is to: set a goal, target a favorable market position, and build and defend its position. Once plans are set, they remain in place for several years. Quantitative and predictive planning work well, and classical approaches to workplace planning, outsourcing and FM will be best suited towards these organizations. Moderate adjustments to the workplace strategy should be expected, but radical changes occur relatively infrequently. When they do occur, they are enacted after significant planning.

According to a BCG survey, 35 per cent of surveyed companies employ the Classical approach to strategy. Due to the increasing convergence among industries, the number of industries that will be best suited towards using the Classical approach will decline over the coming decade.

Leader: The core organization can shape its industry, its future vision, and its path towards realizing its goals. The core organization places major bets, but these gambles are clear and deliberate. Entrepreneurs exemplify the thinking and leadership qualities in the Leader archetype. They create entirely new markets (as Edison did for electricity and Martine Rothblatt did for XM satellite radio). A corporate leader can make the same bet when they attempt to revitalize a company with a wholly new vision – such as when Tata introduced the Nano automobile.

In the leader organization, execution is the priority, not agility. Office designers and FM providers need to ensure that the organization can marshal its resources, plan thoroughly, and implement its strategy correctly. The workspace needs to ramp up activities to support these make-or-break projects. FM providers should prepare contingency plans for necessary actions if the projects succeed, succeed better than expected, or fail. According to a BCG survey, 40 per cent of companies employ the Leader approach to strategy.

Adaptive: Due to global competition, technological development, economic uncertainty and social feedback, the core organization faces a dynamic, unpredictable strategic environment. The core organization in such an industry needs to constantly refine goals and tactics. The ability to make long-term strategic plans is not helpful as long-term plans quickly become obsolete. The core organization needs to shift, acquire, or divest activities and resources smoothly and promptly. The core organization needs to transfer as many fixed costs into variable costs as possible.

The strategic goal for office designers and FM providers is to engineer flexibility, internally in the organization, and externally with suppliers and partners. Sixteen per cent of surveyed

companies according to a BCG survey employ Adaptive strategies. Organizations in these industries are likely to adopt FM and office solutions that leverage the sharing economy.

Visionary: In industries with low barriers to entry, with high-growth rates, or ripe for disruptive innovations, the core organization should select a strategy in which the goal is to shape the unpredictable environment to its own advantage before someone else does. Like in the adaptive strategic context, the Visionary organization needs flexibility and experimentation.

The Visionary organization, however, relies more on its external strategic environment. This company rallies and leverages a broad eco-system of customers, suppliers, and “complementators” to their cause. Nine per cent of surveyed companies employ this strategy. Organizations who find themselves in this competitive environment are the most likely to leverage their local physical environment through distributed and shared work solutions.¹³⁰

There is, of course, a fifth strategic choice that all companies must have contingencies prepared for – survival.¹³¹ Survival strategies involve two components. First, companies must act defensively, cut costs, reduce portfolios, and preserve critical capital and resources. Second, executives in firms in survival-mode need to focus on developing new growth strategies.

There are four organizational cultural archetypes that can operate in the aforementioned strategic profiles. These organizational culture archetypes have been developed through the Competing Values Framework.¹³² The four archetypes are:

Control (Hierarchy) The hierarchical organization is a formalized and structured place to work. The hierarchical organization is typically a large, bureaucratic structure where value is placed on smooth-running operations. Managers seek stability, control and dependable delivery. They possess a strong internal focus, and a well-defined authority and decision-making structure. Effective leaders are those that organize, coordinate, and monitor people and processes.

Compete (Market) The “Market” organizational culture is exemplified by a strong competitive nature. Internally, people are competitive and goal-oriented. Leaders in the market organization are tough; they drive their employees hard; and they are extremely competitive. The organization is held together by the desire to win. Market organization is good at building external relationships with suppliers, customers, contractors, and facility managers that help them win. The Market organization is concerned with productivity, competitiveness, partnerships, and positioning.

Collaborate (Clan) The culture exemplified in a “Clan” organization tends to have a strong inward focus that is led by a strong leader. These organizations tend to be friendly places to work, where people share a lot of themselves. The leaders are seen as mentors or parent-like figures. The organization operates almost as a family, and boasts the values of loyalty, cohesion, and humane working environments. Within the organization, teams are semi-autonomous, and they have the ability to hire and fire their own members and employees. Employees are encouraged to participate in how things will get down.

Create (Adhocracy) Adhocracy organizational cultures emphasize flexibility and discretion. They use their external focus for differentiation. These organizations thrive in the uncertain, complex, and fast-paced business environments associated in technology fields. Success is determined in terms of innovation and creativity with future-oriented thinking.

¹³⁰ Martin Reeves, Claire Love, and Philipp Tillmanns, “Your Strategy Needs a Strategy” *Harvard Business Review*. 2012.

¹³¹ Martin Reeves, Claire Love, and Philipp Tillmanns, “Your Strategy Needs a Strategy” *Harvard Business Review*. 2012.

¹³² Steelcase 2010, Havorth, 2009.

Culture, brand, and workplace all need to be aligned with strategy

The strategic needs of a core organization will vary according to which of the four strategic operating environments it finds itself operating in. The organization's brand and culture need to reflect these strategic realities so that the core organization can achieve the greatest success.

The workplace as a reflection of the core organizations' strategic ambition, brand, and culture is often overlooked.¹³³ Companies must make their strategic priorities and non-material values (brand and culture) tangible through all relevant "touch points" – the ranges of places and ways organizations interact with customers and employees. These touch points include:¹³⁴

Permanent touch points	Temporary contact points
<p>Physical:</p> <p>An organization's domicile(s) and architecture (exterior and interior design), including:</p> <ul style="list-style-type: none"> • Reception areas • Work spaces • Support spaces • Auditoriums • Meeting rooms & spaces • Parking lots • etc. <p>Virtual:</p> <ul style="list-style-type: none"> • Phone experience • Website • Social media & blog experience • Collaboration platforms • Time and productivity tools • Information sharing and storage tools 	<ul style="list-style-type: none"> • Receptions and jubilees • Conferences and seminars • Fairs • Sponsorship activities • Events for employees • Team-building • Travel • Meetings¹³⁵

In order to ensure that the brand and culture and that all relevant touch points match the strategic needs of the organization, the FM provider and the workplace strategist should align the workplace strategy with the brand and the organizational culture. To begin, they should compare organizations' strategic needs with the core organizations' brand:¹³⁶

- What are the core organizations' objectives and strategic needs?

¹³³ Steelcase, *Brand, Culture, and the workplace*. 2010

¹³⁴ Ormbo, Jens et al. *Experienced-based communication* (2008).

¹³⁵ Ormbo, Jens et al. *Experienced-based communication* (2008).

¹³⁶ Steelcase, *Brand, Culture, and the workplace*. 2010

- What assurances does the organizations' brand convey to:
 - Customers?
 - Suppliers?
 - Employees?¹³⁷

- What do core organizations need to do in order to deliver on brand promises?
 - What types of work are required to deliver on them?
 - Socialize:** Interactions that create trust, common bonds and values, collective identity, collegiality and productive relationships
 - Learn:** Acquiring knowledge of a subject or skill through education or experience
 - Collaborate:** Working with another person or group—in person, via technology or a combination of both—to achieve a goal
 - Focus:** Individual work involving concentration and attention devoted to a particular task or project.¹³⁸

 - Who has to do deliver on the work?
 - Teams in one geographic location or several?
 - Predominately in-house or a collaborative team of outsourcing partners, suppliers, customers, etc.?
 - What workplace behaviors does the workspace need to develop to support the strategy and the brand promise?

- What workplace behaviors does the workspace need to develop to support the strategy and the brand promise?¹³⁹
 - More areas for collaboration?
 - More areas for displaying finished work?
 - More private booths and individual workplaces for concentration?
 - More flexible work policies?

The next stage is to define the physical space based on the strategy and the brand intent defined above. The workplace strategist and FM providers should reflect on how to create a structured process for translating these goals into the physical space by identifying:

- Key messages the organization would like to convey in the workspace
- When and where people should be conducting certain activities
- The types of feelings the organization would like to promote among its employees.¹⁴⁰

¹³⁷ Steelcase, *Brand, Culture, and the workplace*. 2010

¹³⁸ Gensler, *What we've learned about focus in the workplace* (2013).

¹³⁹ Steelcase, *Brand, Culture, and the workplace*. 2010

¹⁴⁰ Steelcase, *Brand, Culture, and the workplace*. 2010

**Centralized Stability
order control**

Hierarchy's "Ability to solve in-house"



Market's "Cluster mode"



**Internally oriented
Low willingness to
partner**

**Externally oriented
High willingness to
partner**



Clan's "village" rules



Adhocracy's "Distributed office"

**Flexibility
Decentralized
Dynamic**

The organization should then define which areas should reflect the organizations' key messages, such as:

- Corporate history
- Mission/Vision/Values
- Team/project identity
- Personalization
- Brand news

Towards 2020: Strategic agility, workplace culture, and sustainability

The workplace, as a space and its role in the broader community, will matter towards 2020.¹⁴¹ Core organizations and FM providers will have to develop workplace strategies that:

- Reflect the strategic challenges of the core organization's industry
- Exemplify the core organization's brand and culture
- Attract talent to the organization
- Provide the right balance between virtual and physical working arrangements
- Find the right outsourcing partner to solve various workplace challenges
- Help reduce environmental impact by developing more symbiotic relationships with other organizations, including competitors.

The pressures from the strategic themes will drive many organizations towards using the urban environment to achieve the six objectives described above. This is because urban areas let workers, companies, architects, workplace strategists, and FM providers leverage their surroundings to greater effect and allow them to develop collaborative economic relationships with other organizations. Other organizations – whether as a result of culture or due to competitive or regulatory challenges – will have to solve the aforementioned challenges with the assistance of outsourcing partners and subcontractors.

Utilizing the strategic agility and competing values frameworks described in the preceding sections, FM providers could assist core organizations in developing their workplace strategy through the following matrix. Workplace strategies towards 2020 and beyond need to account for the core organization's:

- Strategy and the strategic challenges the core organization faces in its industry
- Brand and culture
- The office's location in relation to employee access and to other partner organizations, etc.
- Sustainability profile and ambitions.

¹⁴¹ Sanquist, Nancy Johnson et al. "Moving forward" *Work on the move* (2011).

The workplace archetype matrix includes the following dimensions. The vertical dimension positions the tenets of centralization, stability, order and control at one end of the spectrum, with decentralization, flexibility, discretion and dynamism on the other. The horizontal dimension focuses on external orientation, willingness to enter into partnerships, differentiation and rivalry at one end of the spectrum, and internal orientation, low willingness to enter into partnerships, integration and unity on the other (see figure below).

Regardless of which quadrant the core organizations primarily finds itself in, there will be: more remote workers, more outsourcing, more office designs that will continue to become more collaborative, greater integration of ICT to promote virtual working arrangements, and more personalized work solutions.

Hierarchy's "ability to solve"

The office environment is very formalized and structured. The workplace leader is a manager who focuses on how efficiently his or her unit runs. Risk willingness is relatively low, and there must be a well-defined business case prior to taking major initiatives. The manager seeks tried and tested solutions. Major initiatives are built upon through successful rounds of planning, analyzed through quantitative predictive analytics. Success is measured in terms of dependable delivery, smooth structured scheduling, and low costs.

The level of trust at the workplace is relatively low between employer and employee, and between customer and supplier. Relationships are governed via well-defined contracts and policies. The workplace strategist and the FM manager define procedures that govern when, where, how, and on what people may work. Examples of such policies include:

- Who has access to the building and where may they go
- Who may work mobile and remotely
- Who may use specific meeting rooms and under what conditions
- The devices with which employees may complete work tasks.

Due to the drive to reduce costs, offices are more open, but the physical office space continues to demonstrate hierarchical relationships. The manager has a private office, while the employees works from bench and or cubicle arrangements. Collaborative and project spaces are on the rise, but managers and employees still covet the office real estate as a sign of their relative power and position.

Workplace policies, designs, and amenities are analyzed and audited for their benefit to workplace efficiency and productivity. Policies are reviewed on a pre-determined schedule for procedural inefficiencies and opportunities. The office and FM offerings continue to evolve along already well-established development pathways, and office reorganizations are enacted after thoughtful analysis and according to pre-defined investment schedules.

The willingness to employ collaborative consumption techniques is low, and this is only done when the business case is clear and when the risk-reward calculation shows a very strong upside to the company itself. If the benefit is mainly in society or another's favor, the willingness disappears. The company wants to ensure that all operations are occurring smoothly and that the risk of disruption is low. The organization employs the product as service solutions, but only when they are shown to provide smooth service and when the risk for business disruption has been reduced to acceptable levels.

The company focus on sustainability is driven by cost savings and by regulatory pressures. The company regularly audits its lifecycle performance to assess the workplace's environmental impact and its regulatory risk exposure. Procedures are reviewed and updated regularly. The company is inclined to look inwards when attempting to develop better sustainability solutions, and is cautious when developing partnerships with others. For example, the FM manager focuses on making its building smarter and more efficient, but shows little interest in participating in smart neighborhood projects unless there is a clear signal from corporate leadership. The organization seeks well-established solutions and develops plans to achieve them.

The FM providers' role in the Hierarchy's ability to solve will be to:

- Focus on efficiency and the need for standardization (high compliance levels, etc.)
- Involve clients in how FM solutions are developed, as clients are interested in how FM is done
- Remain attuned to the strategic considerations of the core organization via leadership interviews
- Participate in the organizational workplace analysis of existing units
- Participate in space analyses, and develop goals and objectives
- Develop workplace standards and guidelines
- Help develop workplace strategy maps, scorecards, and metrics
- Analyze employee costs per m2
- Help develop and continually update mobility strategies
- Help develop and continually update smart building strategies.

The Market's "Cluster node"

The workplace in the "cluster node" is highly competitive, led by a leader who is driven and results-oriented. The leader take risks, establish goals and measurements, and take action if the organization is falling short. The organization is driven by developing its reputation and success and is looking for competitive advantages. The location of the workplace and the amenities on offer matter, and they are perceived as sources of competitive strength when they are benchmarked against what other companies can offer. The organization seeks to locate itself in the areas that are most attractive to talents. They seek locations that have a good combination of amenities, and where there are other, equally talented organizations.

While the cluster node is an organization that seeks stability and control, it gains strength from creating a collaborative value-generating eco-system surrounding it. Adopting this approach is an alternative to focusing inwards, as a hierarchical one does. This eco-system helps create a competitive organization that can better position itself against others. The company sees its eco-system as a cluster of partner organizations, including small and medium-sized suppliers, academic institutions, etc. These organizations serve as sources for information, business ideas, and intellectual property that the core organization can purchase and then leverage.

While the office space may be more open, hierarchical relationships are still manifested in the office environment. Like in hierarchical organizations, managers tend to work from private offices, while the employee works from bench and/or cubicle arrangements. Collaborative and project spaces are on the rise, but managers and employees still covet the office real estate as a sign of their relative power and position.

In the cluster node, the office space is an asset that must be leveraged to increase the core's performance or that – at the very least – be monetized. The company is willing to lease or even share its infrastructure resources with members of its value network, particularly those that it believes will best help it to generate value and execute major projects.

The workplace is judged by its ability to increase workplace effectiveness, not necessarily on its efficiency. The workplace is aligned according to the goals and objectives of the core organization and is benchmarked against competitors. The goal is to have the workplace that has the most productive and effective workers. It is not acceptable to be in the bottom of the list. If the leadership can see that there is a benefit that can be gained from improving the workspace, it will use competitive means for workplace idea-generation. This includes team challenges and individual prizes.

The willingness to employ collaborative consumption techniques is medium-high, and the organization is willing to take risks. The business case, however, must show how the organization will improve its performance or its reputation. The organization is particularly keen on the products as service solutions, as they can help the organization control costs and leverage external experts on an as needed basis. Co-working, co-housing, and collaborative transportation solutions that boost productivity or lower costs are particularly interesting. However, if the supplier doesn't deliver or the employee doesn't perform, they are quickly jettisoned.

The Cluster node organization's approach to sustainability is aligned with its approach to business. Sustainability goals and objectives are aligned with the organization's overall vision. If sustainability is prioritized, the company attacks it as it approaches all other aspects of its business – as a competition. If sustainability is not subject to prioritization, the company will follow established regulations. The node's openness to partnering gives it an advantage if it takes sustainability as the core aspect of their workplace strategy: The company is constantly seeking the best to help it be the best in its field when it comes to environmental solutions.

FM providers' role in the cluster node

The FM providers' role in the cluster node workplace will be to:

- Develop network relationships with end-user focus (B2C vs. B2B) focused on developing outputs. To enable this, FM would likely be organized under "HR"
- Assist the core organization in controlling who does or does not have access to resources
- Become the central entity for coordination and manage access to co-working, co-housing, and collaborative infrastructures, including shared workspaces, cars, bicycles, and scooters
- Manage the smart building's inputs to smart neighborhood and city concepts
- Provide frameworks for openness and sharing in "host" companies that makes other partners feel welcome, while maintaining host company security
- Provide constant monitoring of carbon footprints to ensure equitable measuring and distribution of carbon footprints among collaborators.

Adhocracy's distributed office

The workplace in an adhocracy organization is dynamic, entrepreneurial and creative. The leaders in the adhocracy's workplace are innovative and risk-takers, as also are the employees. To succeed in this workplace, one has to experiment and innovate, and want to be on the cutting-edge. Profit lies in finding opportunities to develop new products, services and relationships. There is little expectation that these advantages will last.

The organization that operates in this very unpredictable strategic environment values flexibility and adaptability and thrives in chaos. This organization will be more likely to make a tradeoff between operational efficiency in favor of maximum strategic flexibility. It does this by utilizing virtual work solutions as much as possible, and by trying to leverage the infrastructure offerings of its local communities.

The organization is able to achieve flexibility by having short-term leases, contract employees, and by leveraging the physical infrastructure of its local communities, in order to offer attractive amenities to its employees and customers without having to "own" them or having long-term contractual obligations with many suppliers.

During the startup phase, the organization (or business unit) has a small central office. If it lands a major project, it will co-locate with the client. If it needs extra single cell offices or project-based war rooms as demand for its products or services increases, it will seek solutions from office hotels or from other companies with surplus capacity. It will offer the level of amenities (coffee, kitchens, dining hall, etc.) which is on a par with its industry and that satisfies core employees. Otherwise, it promotes a more "open" environment that

encourages its employees and partners in the value network to explore local community facilities (parks, coffee shops, yoga studios, fitness centers, libraries, etc).

Company leaders realize that creativity and innovation occur when their employees engage with interesting persons both inside and outside the organization. They promote that their employees use professional matchmaking services to find relevant collaboration partners to solve challenges either virtually or physically. To avoid unnecessary commutes, they use virtual meeting technologies as much as possible.

The organization is interested in promoting collaborative consumption solutions at the workplace. They participate in co-working, co-housing, and collaborative transportations solutions during startup and retooling phases to lower costs and improve morale. If employees need to physically move across the campus or across the town, companies have negotiated deals with bicycle and car-sharing services to provide quick and unexpensive transportation.

FM providers' role distributed office

The FM providers' role in the distributed office will be to:

- Develop "Hoteling" model concepts, where FM acts as the coordinator of infrastructures.
- Act as a facilitator and information exchange for various partner models
- Assist the core organization in rapidly adjusting its physical footprint as competitive demands require
- Manage space optimization tools of all leased or rented resources, including office hotels
- Provide service concepts that assists employees as they move between offices and third workspaces
- Provide seamless integration of BYOD technologies across the range of office peripherals
- Provide mobility aids to help employees commute from one site to another, if necessary
- Provide deals to local eateries, cafes, gyms, etc.
- Provide meal "wagons" to ramp up capacity of canteens on an as-needed basis.

The Clan's "Village" rules

The office environment is friendly and family-like. Employees are mentored by the workplace manager, who acts parental-like. The mentor is concerned about employees' wellbeing, and invests a great deal of effort in developing the employees' skills, workplace ergonomics, and work-life balance. The workplace values commitment, loyalty, flexibility, and sacrifice. Employee and employer place a great deal of confidence in each other. Mid-level workplace

mentors are entrusted to ensure that their “clans” are performing to their maximum.

The organization also strives to build strong relationship based on trust with suppliers, customers, and the local community. Relationships with suppliers are not entered into lightly. They are built up over a long period of time and often include ethical codes of conduct.

The workplace must nurture the organization’s collaborative spirit. Cubicles and private offices are incompatible with the Clan-based organization’s need for socializing and collaboration. Employees want spaces that remind them of a “family room”, where they can easily reconfigure spaces and where it is possible to have meetings whether face-to-face or technology-based. They also want office furnishings that reflect their values, including sustainability.


Promoting sustainability in the clan organization comes organically and with a great deal of involvement and input from employees. Workplace mentors need to engage their employees to improve the organization’s sustainable profile. They do this by facilitating group brainstorm sessions, enacting employee suggestions and feedback systems, and through creating various internal collaboration platforms. Workplace mentors involve employees and educate them on how they can be more environmentally efficient both at home and in the workplace.

The willingness to adopt collaborative consumption approaches figures strongly within the organization, but less powerfully with external partners. The organization promotes collaborative transportation systems, volunteering in the community, and the redistribution of old, no longer needed office furnishings and equipment. For example, the organization develops tools to track employees’ volunteer hours so that the organization can track, recognize, and celebrate employees’ volunteer efforts. Due to the importance of strong, internal cohesion, the clan unit is less likely to share its offices with external partners who are not part of the team.

The FM providers’ role in the Clan’s village rules will be to:

- Remain attuned to the strategic considerations of the core organization
- Develop Integrated Facility Services
- Support employee engagement and leverage HR priorities
- Show client and “user” how FM is done
- Develop formalized structures for employee input and participation into workplace design and maintenance
- Develop and maintain office designs that enhance employee collaboration and enhance opportunities for meetings with other units (clans) in the organization
- Develop training programs that help employees use their work device ergonomically even at home
- Ensure that all workers and partners have workspaces that meet the ideals and values of the core organization

- Help employees activate their passions – this could be by setting aside outdoor or indoor spaces for gardening, or by providing opportunities to learn how to make their homes more sustainable
- Help develop and continually update mobility strategies
- Develop and maintain the office as a great place to socialize and as an attractive place for remote clan workers to come and meet their colleagues
- Help develop and continually update smart building strategies.



“The workplace of the future will be a key differentiator for organizational attractiveness”

*Peter Ankerstjerne, Group Marketing Director,
ISS World Services*

Workforce towards 2020

Vision / Strategy

Organizational archetypes	Classical	Leader
Characteristics	<ul style="list-style-type: none"> • Industry is predictable but hard to change. • Organization's strategic needs are to set a goal, target a favorable market position, and build and defend its position • Quantitative and predictive planning work well, as do classical approaches to workplace planning 	<ul style="list-style-type: none"> • Core organizations can shape their industry, future vision, and path towards realizing their goals • Core organizations place major bets, but these bets are clear and deliberate • Execution is the priority, not strategic agility • Support functions need to ensure that core organizations can marshal resources, plan thoroughly, and implement strategies correctly
Need for strategic agility	Low	Medium
Per cent of BCG surveyed organizations that face this situation	35 per cent	40 per cent
Willingness to outsource	Medium	High
Willingness to participate in collaborative consumption	Low to Medium	Low-Medium

Culture / Brand

Cultural archetype	Control (Hierarchy)	Compete (Market)
Type of leader	Strong managers and hierarchy	Strong leader, who is driven and demanding
Type of organization	Formal, structured, bureaucratic	Teams compete against each other internally and externally. They want to be "best in class"

Workplace strategies

Type of workplace archetype	"Ability to solve"	"Cluster node"
Willingness to take risks	Low-medium	High
Level of workplace trust	Medium	Medium
Type of work culture	Hierarchical	Hierarchical, but flexible
Approach to the workspace	Analytical, policy-based	Analytical, performance-based collaboration, acquisitional
Remote work	Degree: High Controlled by policy	Degree: High Controlled by performance
Sustainability	Analytical opportunity seeking Focus on risk mitigation	Analytical opportunity seeking Brand enhancement, desire to be best in class
Role of FM industry	<ul style="list-style-type: none"> • Integrated Facility Services • Focus on efficiency and need for standardization (high compliance level,s etc.) • Client interested in how FM is done 	<ul style="list-style-type: none"> • Network relationship with end-user focus (B2C vs. B2B). FM is organized under "HR" • Client is primarily interested in the output and FM becomes central entity for coordination

Adaptive	Visionary
<ul style="list-style-type: none"> • Industry is dynamic, unpredictable strategic environment • The core organization needs to constantly refine goals and tactics • Organizations are unable make long-term strategic plans • Organizations need to shift, acquire, or divest resources smoothly and promptly 	<ul style="list-style-type: none"> • Industries are very unpredictable, as there are low barriers to entry or they have high-growth rates • Core organizations are met with high innovation rates, but they have just as much opportunity to drive innovation in their industries • These organizations need flexibility • The visionary organizations rely greatly on their partner organizations • Core organizations rally and leverage eco-systems of customers, suppliers, and “complementators” to their cause
High	High
16 per cent	9 per cent
Medium	High
Medium-High	High
Collaborate (Clan)	Create (Adhocracy)
Mentor/parental	Innovative risktakers
Team-oriented, almost family like	A collection of entrepreneurial risk-takers seeking to gain advantage in the market
“Village”	“Distributed office”
Medium	High
High	Medium
Collaborative	Collaborative and open to outsiders
Employee engagement, promote internal collaboration and well-being	Testing, willing to try new working arrangements, strong openness to external involvement
Degree: High Controlled by organizations’ social and cultural needs	Degree: High Controlled by collaborative and innovation needs
Employee involvement Top-down initiatives meet bottom-up engagement	Partner involvement via social media platforms Focus on untested, groundbreaking solutions
<ul style="list-style-type: none"> • Integrated Facility Services • FM as support to employee engagement (leverage HR priorities) • Client and ‘user’ interested in how FM is done 	<ul style="list-style-type: none"> • “Hoteling” model becomes prevalent and FM acts as the coordinator of infrastructures • Partnering is the prevailing model and FM acts as a facilitator/ information exchange

7. Subject matter experts' view:

During spring 2013, CIFS interviewed seventeen leading subject matter experts on "What is FM's role as an enabler and provider of value". These experts offered their professional assesment of what would shape the industry towards 2020.

At the essence of what we believe, FM future is about innovating and solving for the human needs of people as a first order priority.

Lori Gee

*Vice President, Applied Insight,
Herman Miller*

FM needs to help reconfigure businesses and industries. Vertically-integrated companies used to produce everything. The companies are now switching, as these companies become the apex of ecosystems. This reconfiguration will happen in more industries. Offices will have to reconfigure to match. FM providers need to provide flexible network infrastructures, allowing users from different companies to utilize networks, printers, monitors, etc. FM contracts will have to be renegotiated to bring companies together in new ways.

Frank Elter

*Vice President Research Strategy
Telenor Research and Future Studies,
Telenor Group*

Operations and maintenance will always be key areas behind FM, but the aspect of integrated services and the impact in the workplace will continue to be an area where FM is strategically positioned to help enhance productivity as an organization. The value added by FM service providers and professionals, in terms of an impact of productivity, is huge. That trend will continue to grow, as we look at integrated services and shared model services increasing in their presence, and what impact it will have on profitability and productivity of organization. Thus, the role that FM can play is a huge opportunity.

Tony Keane

President and CEO,
IFMA

I already see that the FM industry has a huge opportunity to serve a strategic, rather than a passive, function.

Scott McMillan

Division Chief in Facilities
Real Estate and Capital Project,
IMF

I think, today FM is where IT was 20 years ago. At least in US, the average provider of FM is a white male in the mid-fifties. They all are going to be retiring in the next five years, there's going to be a shortfall of people to fill their shoes. This is a huge opportunity.

We will see more FM programs and more PhDs in FM, which will make a huge difference. People with education in FM are already achieving impressive results. Moreover, students coming from FM degree programs in US have an average salary of \$55-65,000 USD and for every student graduating, there are nine jobs available. That's kind of unusual; a lot of fields don't have this kind of opportunity. And it's attractive. It is sustainable. It is technology and it is strategic.

Diane Coles

*Director Workplace Solutions,
SCAN Health Plan*

In corporations FM is increasingly being recognized as a major business category. This recognition is driving FM strategy away from local and tactical administration to a more strategic and global plan. In order to be strategic, there is one fundamental requirement for FM and that is insightful information. Without data analytics and insightful information, one cannot be strategic.

Rakesh Kishan

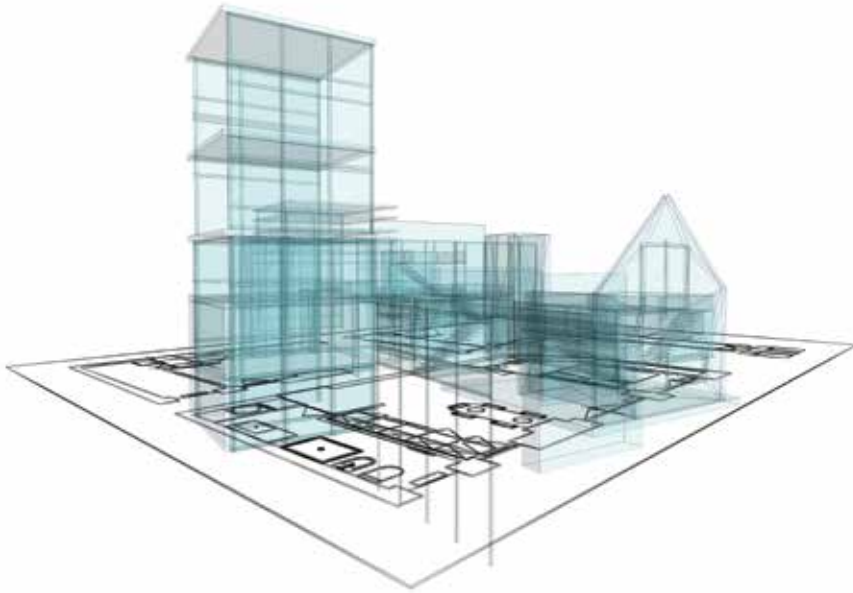
CEO,
UMS Advisory

Following this period of centralization, rationalization and standardization, there will be a greater investment in workspaces and working arrangements. Compared to leaders 15 years ago – who had little or no interest in working arrangements – new leaders have a holistic approach that balances both the revenues and costs. Research is also supporting the need for more balanced approaches to work place management

Magnus Kuchler
Head of Outsourcing Advisory Nordics,
EY

Appendix 1

ISS 2020 Vision survey results - 2013



The future office: According to survey respondents, more virtual work, decreasing office space, increasing demands for flexibility, as well as a focus on cooperation will have an impact on office design towards 2020. Companies will be adapting their workplace strategies to these changes while balancing between costs reduction and the ability to attract talents.

Respondents' demographics: CIFS surveyed 613 respondents from 56 countries during February-March 2013, asking about new ways of working and what they thought about the office of the future. The majority of respondents were from:

- North America (44%)
- Europe (36%)
- Asia (13%).

ISS 2020 Vision survey "New Ways of Working - the workplace of the future" received input from the following decision-makers:

- Directors (26%)
- Managers (36%)

Three-quarters of respondents were men, and the 35-54 age cohort was the largest age grouping (57%).

ISS 2020 Vision survey conclusions

FM industry views on new ways of working and the workplace of the future

- Technology development, globalization, and sustainability will have the greatest influence on new ways of working and the workplace of the future
- Virtual work will have the greatest influence on the way people work
- People will work from home as well as from the traditional office environment
- Generation Y will have the biggest influence on office design
- Intelligent buildings will influence how offices will be designed towards 2020
- Employers will provide employees with up-to-date technology as well as range of services to support work-life balance
- Greater flexibility will be the most important “perk”
- Personalization in the workplace will be prioritized more highly by employees
- Regulations regarding sustainability are expected.

Key findings from ISS 2020 Vision NWOW survey

FM experts see differentiation of organizational changes affecting office development among world regions towards 2020. Out of seven choices, the top regional priorities are:

- North America – new skills and work processes (24%) as well as nonstandard work arrangements (24%)
- Western Europe – distance work and telepresence (26%)
- Northern Europe – new skills and work processes (32%)
- Eastern Europe and Central Asia – new skills and work processes (33%)
- East Asia – new skills and work processes (24%) and increased use of outsourcing (24%)
- South Asia – the de-layering of management levels (28%)
- Southeast Asia – new skills and work processes (26%)
- Australasia – the de-layering of management levels (28%), as well as new skills and work processes (28%)
- South America – new skills and work processes (35%)
- Middle East and North Africa – increased use of outsourcing (30%)
- Sub-Saharan Africa – increased use of outsourcing (42%)

According to FM industry, virtual work will have the greatest influence on office design towards 2020.

- Group work is the second most influential work activity on office design, particularly among respondents aged 65+.
- Team-building is the third-most important activity affecting the office design towards 2020.

Up-to-date technology and a range of services to support work-life balance are the most important amenities in the workplace towards 2020.

- Good location/transportation is the third-most important amenity for organizations and employees.

Own vs. “hot” workspace.

- Respondents from FM industry believe that employees will prefer to have their own workspace or a project-related workspace.
- From an organizational perspective, FM see the promotion of “hot” workspaces or shared workspace towards 2020.

Most common office facilities in 2020 are:

- Video-conferencing room
- “Hot desks”
- Creativity lounges
- Cafes, and
- Child daycare.

Administrative/support personnel mostly would like to have child daycare, while senior VPs are more likely to see “hot desks” as common workplace facilities.

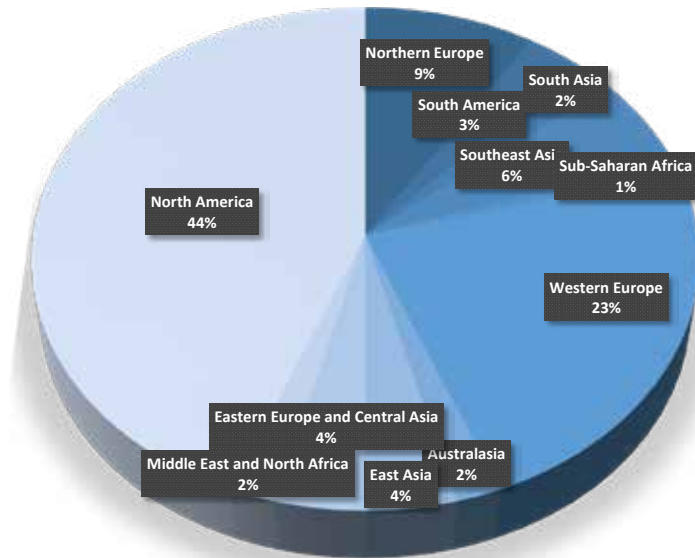
Flexibility will be the biggest reward for employees, followed by opportunities for personal growth and financial reward.

- According to FM employees’ responses, their organizations will focus more on promoting their staff with financial rewards than on opportunities for personal growth.
- Both females and males ranked flexibility as their first priority. Female respondents, however, chose flexibility as their top priority more often than male respondents, while more male respondents placed emphasis on financial rewards.

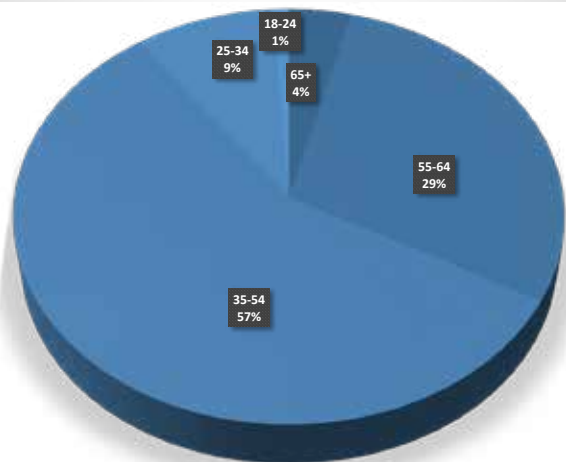
47% per cent of respondents expect regulations regarding environmental sustainability of office building and performance by 2020, regardless of age, position, place of employment, or region of origin.

Appendix 2 Survey findings

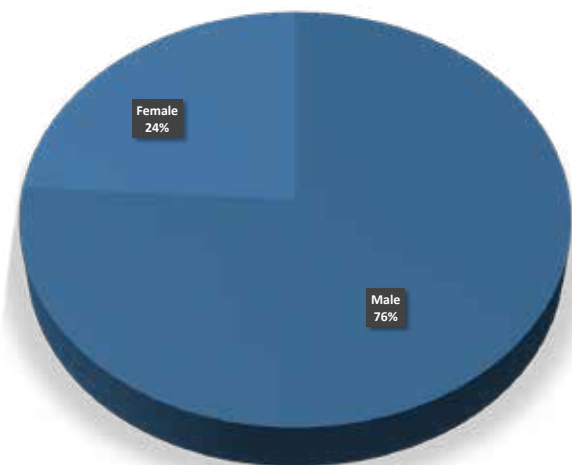
Select the country from where you complete most of your work tasks:



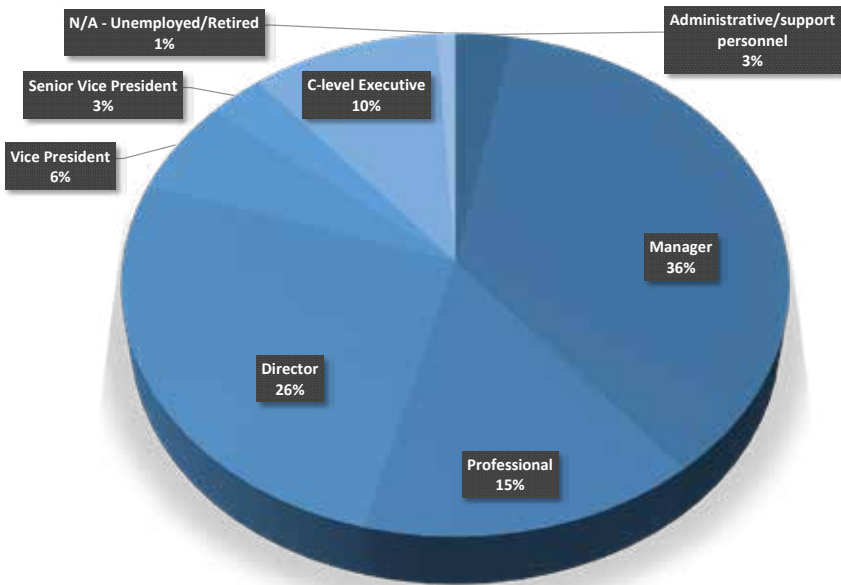
Age



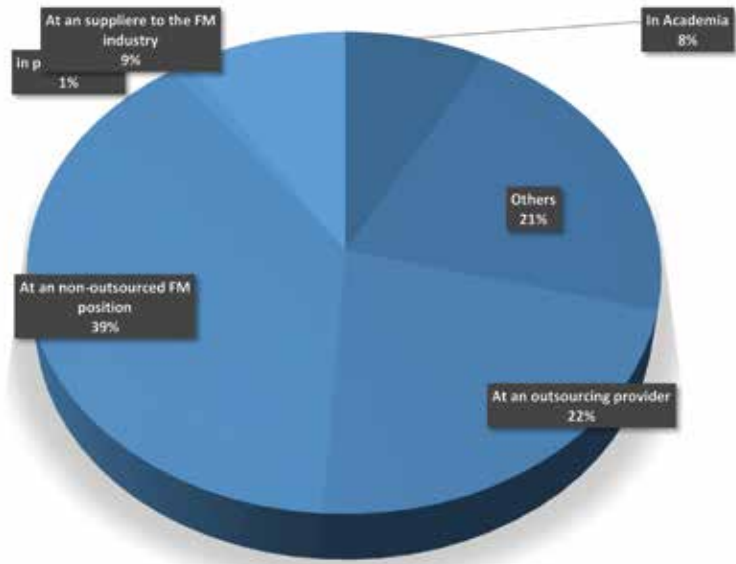
Gender



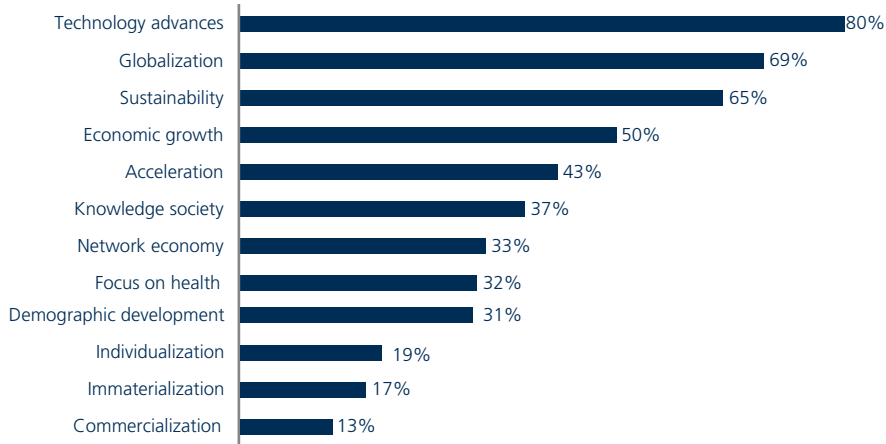
Job title



Where are you employed?

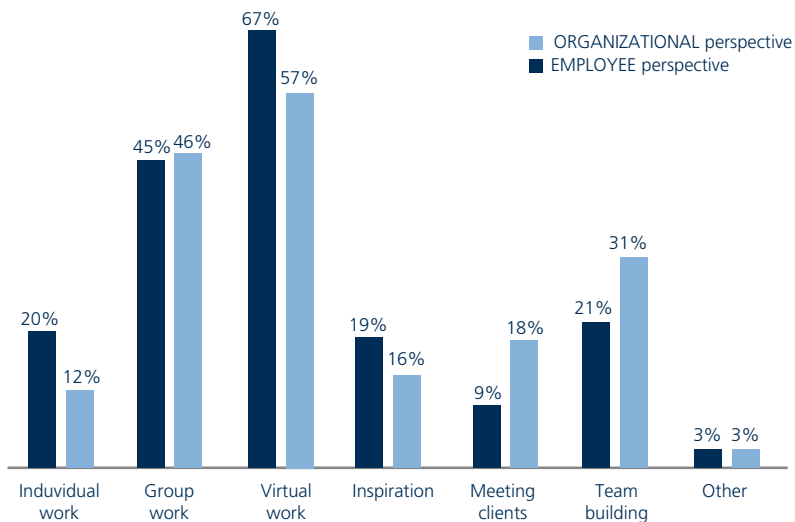


1. Please select the 5 megatrends that you believe will have the greatest impact on the way people will work towards 2020:

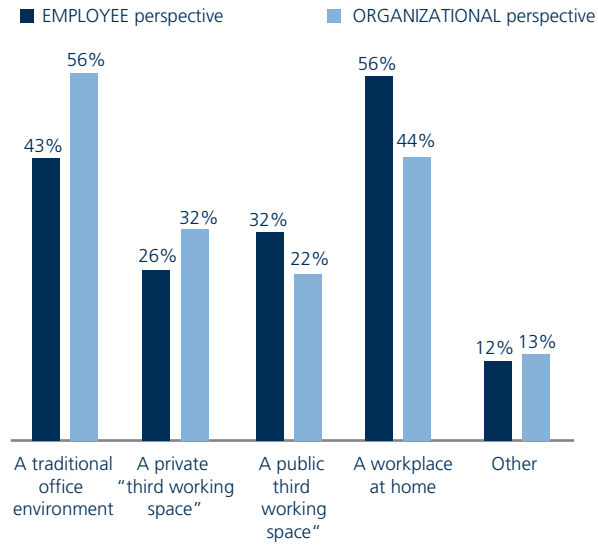


2. From an EMPLOYEE perspective, which of the following work activities will have the greatest influence on office design towards 2020? From an ORGANIZATIONAL perspective, what kind of work activities will have the biggest influence on office design towards 2020?

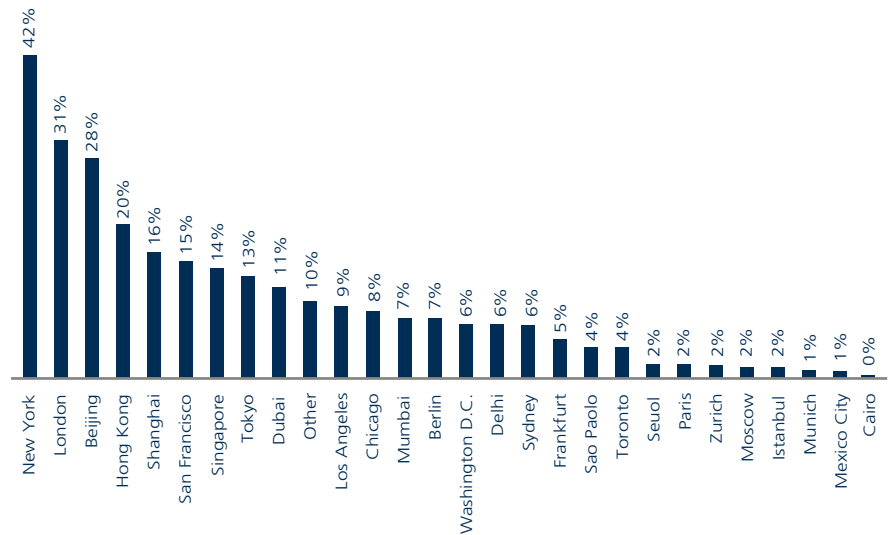
Importance of workspace personalization



**3. From an EMPLOYEE perspective, the “office” in 2020 will be...
From an ORGANIZATIONAL perspective, the “office” in 2020 will be...**

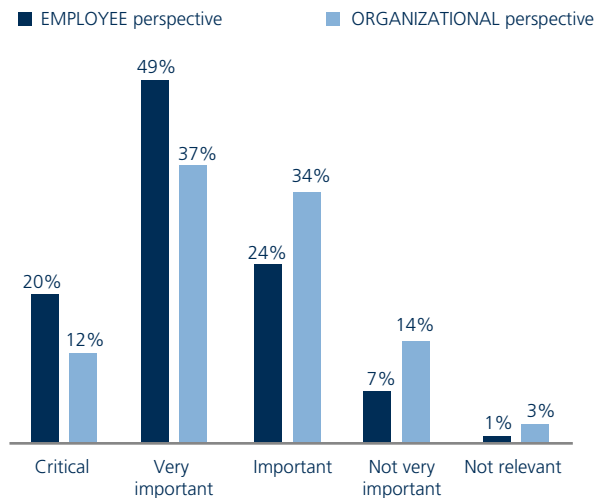


4. Which cities will be the most influential in shaping the development of office design towards 2020?

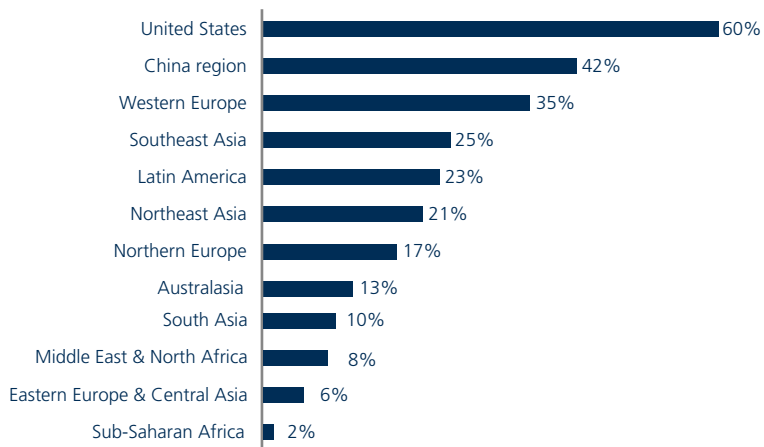


5. From an **EMPLOYEE** perspective, how important will personalization of the workplace (i.e. adjusting the office environment to match an individual's requirements to noise levels, space, temperature, lighting and humidity) be in 2020?

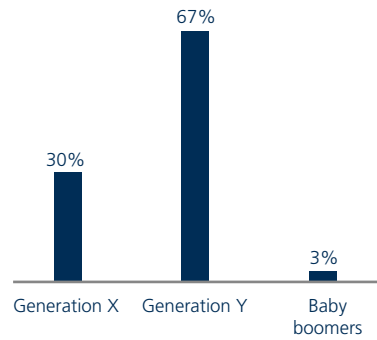
From an **ORGANIZATIONAL** perspective, how important will personalization of the workplace be in 2020?



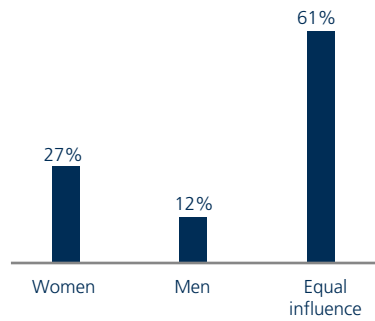
6. Which region will be most attractive for talents to work from in 2020?



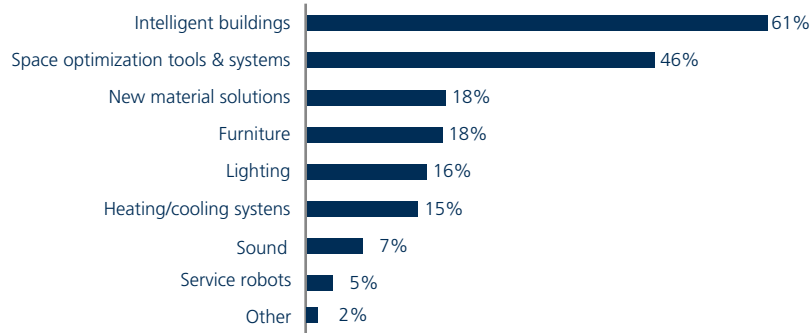
7. Which generation will have the biggest influence on how offices will be designed towards 2020?



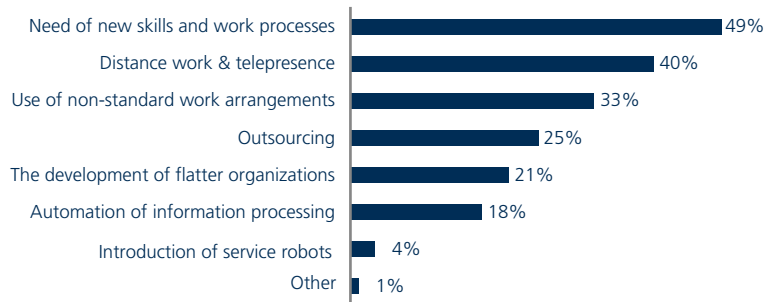
8. Which gender will have the biggest influence on how offices will be designed towards 2020?



9. Which office environment systems will offer the greatest potential for development towards 2020?

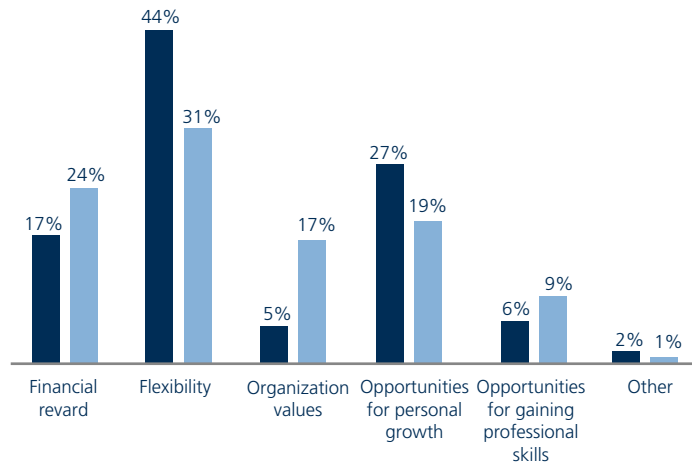


10. Which of these organizational changes will affect the office most towards 2020?



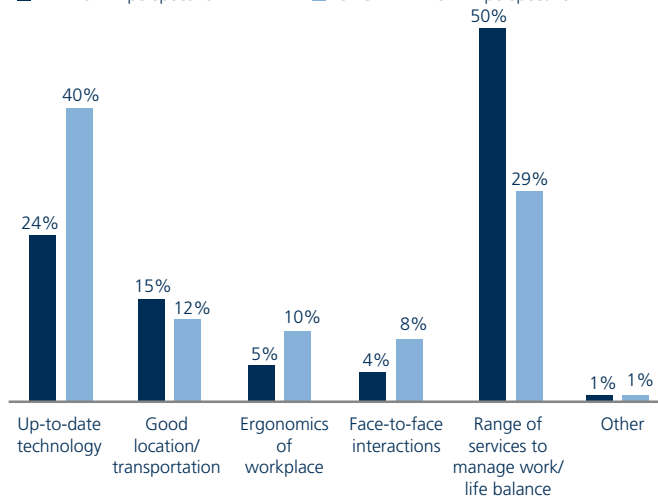
11. From the following list, please choose the most important expectation that EMPLOYEES will demand of their employers towards 2020? From the following list, please select the most important expectation that ORGANIZATIONS believe their employees will demand of them towards 2020?

■ EMPLOYEE perspective ■ ORGANIZATIONAL perspective

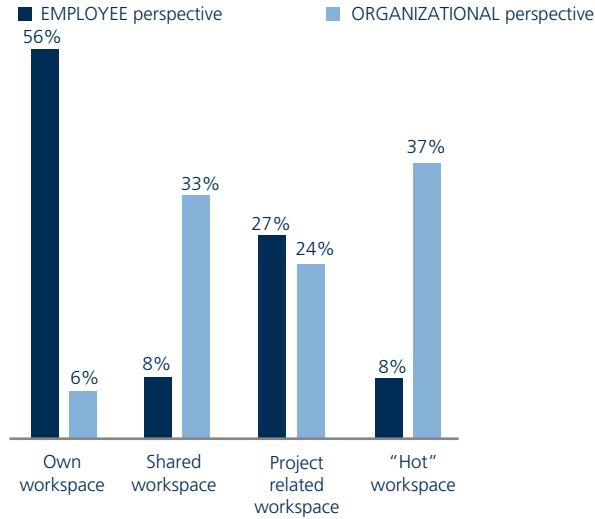


12. From the following list, please choose the most important amenity that EMPLOYEES will expect of their office space in 2020? From the following list, please choose the most important amenity that ORGANIZATIONS will provide to their offices to promote greater value generation?

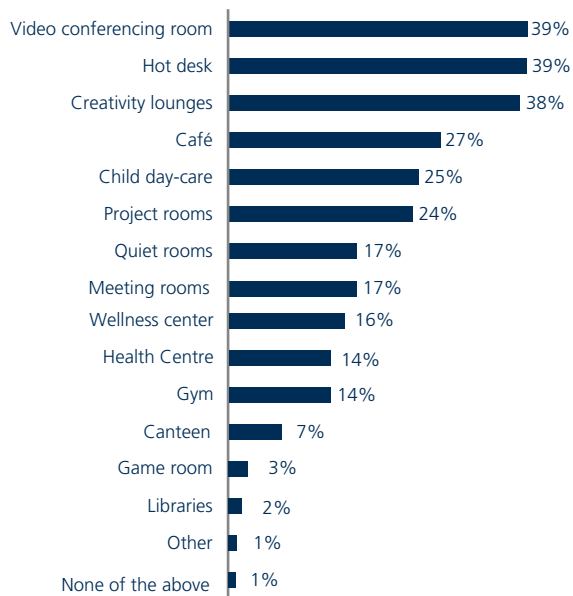
■ EMPLOYEE perspective ■ ORGANIZATIONAL perspective



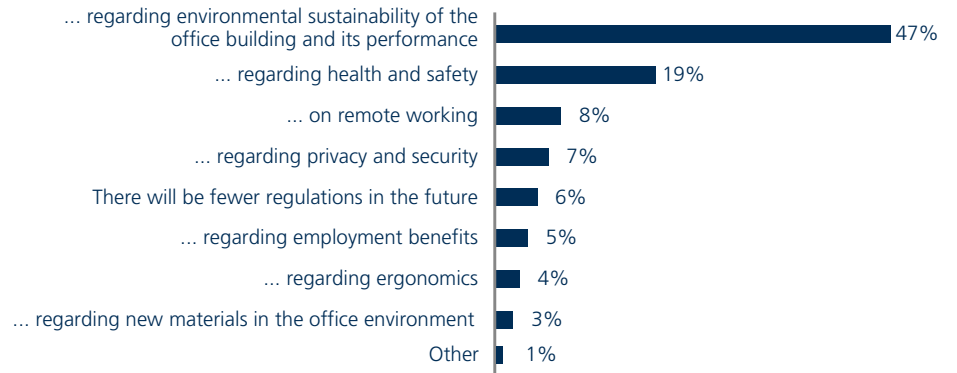
13. From an EMPLOYEE perspective, what would the preferred workspace be in the office space? From an ORGANIZATIONAL perspective, what would the preferred workspace for individuals be in the office space?



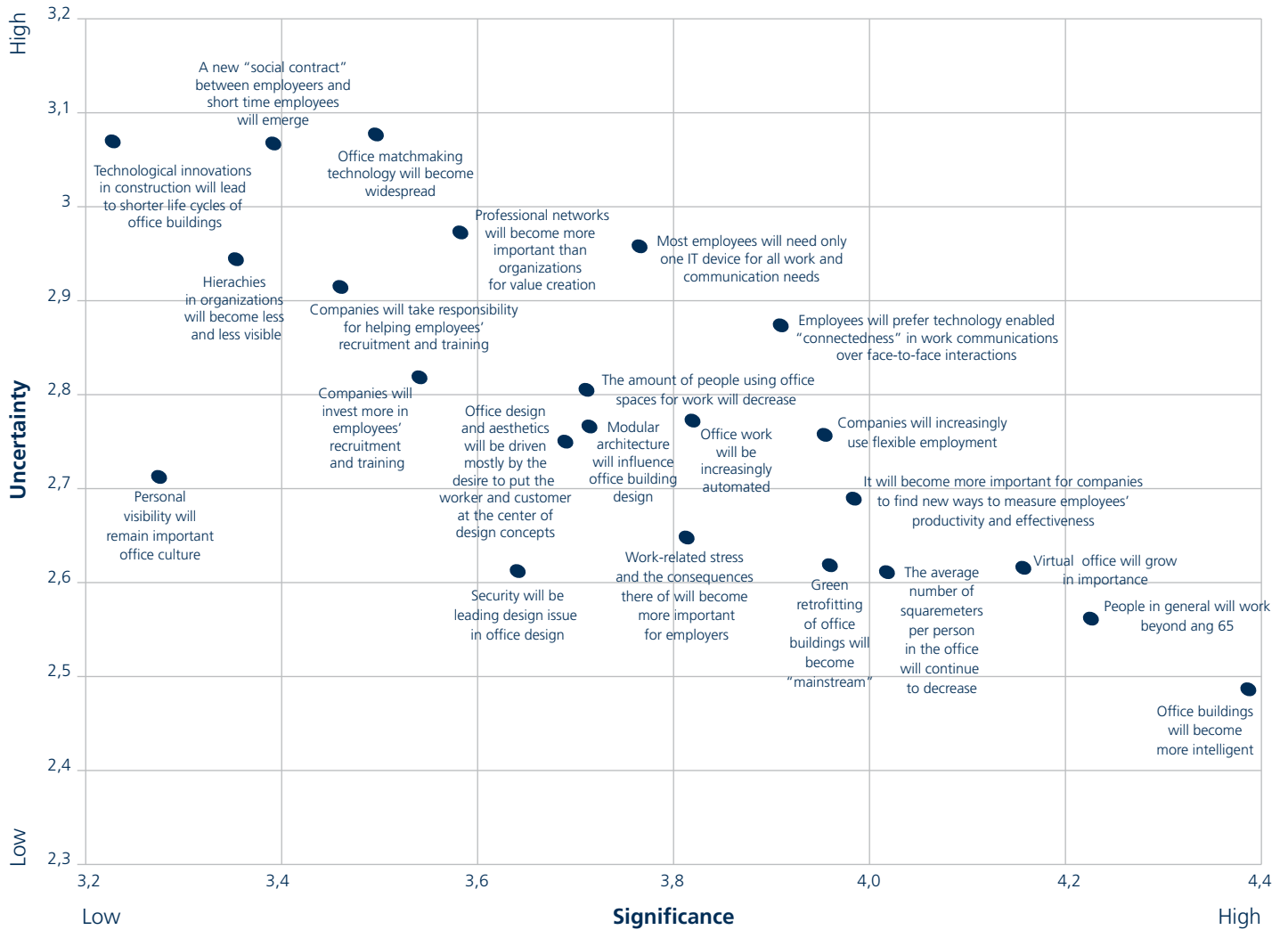
14. Which facilities will become more common at offices in 2020?



15. What kind of regulations will influence the office design the most towards 2020?



13. Please evaluate each of these statements according to TWO criteria: significance and uncertainty. For each criterion, provide a rating from 1 to 5, where 1 is lowest and 5 is highest.



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