

DTU Management



FOU – som forskningen ser på FM udviklingen -**Fremtidsvisioner for FM**

Per Anker Jensen Professor Center for Facilities Management – Realdania Forskning 27. januar 2012



 $f(x + \Delta x) = \sum_{i=0}^{\infty} \frac{(\Delta x)}{i!}$ 182818284 Institut for Planlægning, Innovation og Ledelse





The perfect FM organisation in 5 years time!

- DFM's 20 years anniversary conference January 2011
 - 16 work groups
 - 48 statements
- Relationships (1/3)
 - FM and top management (7)
 - FM and core business (7)
 - FM and other staff functions (3)
- Development (2/3)
 - The organisation (16)
 - Competences and tasks (8)
 - Mindset (7)







EuroFM Market Data Report 2011

The first official step to collect and share European facility management market data

Nordic workshops

- Purpose
 - EuroFM's FM Market Data project
 - CFM's Nordic FM Futures project
- Workshops in each of the Nordic countries
 - About FM Market and FM Futures in Denmark, Norway, Sweden and Finland, October 2010 – May 2011
 - Joint Nordic workshop during CFM's Nordic Conference, August 2011













The Nordic FM market in 2004

(CapGemini Norway, 2005)

Country	Building area (excl. housing)	Potential FM market (excl. housing)
Denmark	125 million m ²	€ 8,3 billion
Norway	115 million m ²	€ 8,9 billion
Sweden	235 million m ²	€ 23,4 billion
Finland	175 million m ²	€ 11,7 billion
Iceland	10 million m ²	€ 0,7 billion
Total	385 million m ²	€ 52,9 billion

Degree of outsourcing: 25% for all Nordic countries

Increase: 8% pr. year

Market maturity: Sweden > Finland > Denmark > Norway > Iceland





The market for FM in Europe (Teichman, 2009)

Share of GDP in UK, Germany, France, Italy and Spain

- Potential:
- Actual market:

Market typeDegree of outsourcingGrowth ratePioneer markets56,3 %6,0 %Developed markets43,6 %8,0 %Emerging markets32,5 %12,3 %Pre-emerging markets17,5 %21,5%

4,92%

2,48%

Nordic countries

- Developed market: Denmark
- Emerging market: Norway, Sweden, Finland and Iceland





The Nordic FM market in 2008 (Teichman, 2009)

Billion Euro	FM market volume in 2008					
	Denmark	Norway	Finland	Sweden	Iceland	Sum
GDP in 2005	218,5	249,5	163,1	302,0	13,4	946,5
Total	10,8	12,3	8,0	14,9	0,7	46,6
Actual	5,1	4,5	2,9	5,4	0,2	18,1
Degree of outsourcing	47%	36%	37%	36%	36%	39%





Taxonomy of standardised facility products (prEN15221-4)

Standardised facility products	Proposal for Danish terms
Space & Infrastructure	Ejendomsdrift
•Space	•Bygninger og lokaler
•Outdoors	•Terræn
•Cleaning	•Renhold
•Workplace	 Arbejdsplads
•Industry sector specific	Branchespecifik
People & Organisation	Services
 Health, safety and security 	 Sundhed, sikkerhed og sikring
 Hospitality 	•Catering
	 Reception, kontaktcenter og mødelokaler
•ICT	•IKT
•Logistics	•Logistik
•Business support	 Virksomhedssupport
 Organisation specific 	 Organisationsspecifik





CFM's study of the Danish FM market i 2008

Based on telephone interviews Provider survey, June 2008: 103 Client survey, November 2008: 272 Private service: 76 Public service: 74 Industry: 88 Housing associations:

• Results compared with CapGemini and Techmann

Billion Euro	CapGemini 2004	Teichmann 2008	CFM 2008
Potential market	8,3	10,8	7,9
Actual market	2,1	5,1	4,9
Outsourcing	25%	47%	62%





Factors that have influenced the amount of total FM activities

Country	2004-2008	2008-2010
General Nordic	 Increased globaliza Increased profession Focus on sustainab 	onalism
	 Economic growth Development of knowledge and service society New providers and services 	 Financial crisis Increased competition and focus on cost reductions Maturing markets





Factors that have influenced the amount of actual FM activities (outsourced)

Country	Long term	Short term
General Nordic	Economical situationPolitics	
	 Increased globalisation Increased professionalism Market maturity 	 Competition Availability of labour force Availability of competences





Estimated growth rates for the potential and actual FM market in the Nordic countries

Changes in potential market

Period	Denmark	Norway	Finland	Sweden	Average
2008-2009	0.2%	0.6%	-	8.0%	2.9%
2009-2010	0.3%	1.5%	-	10.0%	3.9%

Changes in actual market

Period	Denmark	Norway	Finland	Sweden	Average
2008-2009	-0.7%	0.4%	0.0%	7.5%	1.8%
2009-2010	4.9%	1.6%	5.0%	7.5%	4.8%





Ranking of main markets

Potential market

Period	Denmark	Norway	Finland	Sweden	Average
Industry	3	3	3	3	3.00
Privat service	2	2	2	1	1.75
Public service	1	1	1	2	1.25
Housing associations	4	4	4	4	4.00

Actual market

Period	Denmark	Norway	Finland	Sweden	Average
Industry	3	2	3	3	2.75
Privat service	1	1	1	1	1.00
Public service	2	3	2	2	2.25
Housing associations	4	4	4	4	4.00





Distribution on main activities (Space & Infrastructure vs. People & Organisation)

Potential market

Period	Denmark	Norway	Finland	Sweden	Average
S&I	62%	60%	40%	36%	49.5%
P&O	38%	40%	60%	64%	50.5%

Actual market

Period	Denmark	Norway	Finland	Sweden	Average
S&I	53%	64%	40%	36%	48,3%
P&O	47%	36%	60%	64%	51,7%





The size of the FM market in the Nordic countries in 2010

Billion Euro	FM market volume in 2010					
Country	Denmark	Norway	Sweden	Finland	Iceland	Sum
Total FM turnover (in-house + outsourcet)	7,9	9,3	38,8 (14,0-70,0)	10,0	0,7	66,7
Actual outsourcet FM turnover	5,1	2,2	15,0 (4,0-35,0)	3,9	0,3	26,5
Degree of outsourcing	64%	24%	39%	39%	39%	40%



CFM's FM Futures Project

SECTOR **FUTURE TRENDS** RESEARCH & & & **CHALLENGES EDUCATION** MARKET A) Desk study Review Review Review Denmark Norway B) Workshops Sweden Finland C) Reporting Findings **Findings Findings** D) Conference Presentation and August 2011 refinement of findings D) Delphi-like Linking trends and challenges to need questionnaire for future competences and knowledge F) Research Futures of FM in the Nordic Countries strategy Nordic FM Research Strategy

Three sessions during workshops
 Megatrends in the strategic

- environment of the FM sector in Denmark
- 2. Current trends and challenges for the FM sector in Denmark
- 3. Future need for new competences and new knowledge

Facilitators:

Per Dannemand Andersen and Birgitte Rasmussen

DTU Management Engineering

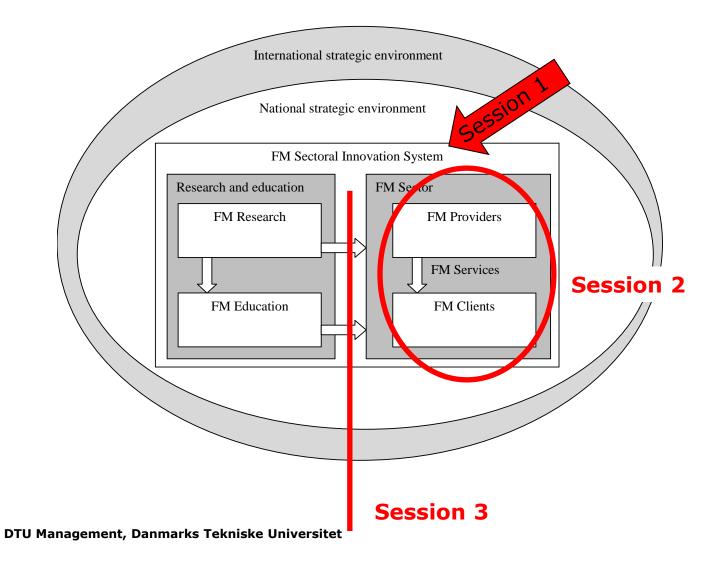
Innovation Systems and Technological Foresight



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An innovation systems model of the FM sector







Megatrends in the strategic environment of the FM sector (10-15 years)

- Increased focus on sustainability
 - High ranking and quite certain in all 4 countries, but least in SE



- Globalisation
 - High ranking and quite certain in DK and SE, but not in NO and FI



- Demographic change labour shortage
 - High ranking and quite certain in DK and NO, but less in FI and not in SE



- ICT (Information and CommunicationTechnology)
 - High ranking and quite certain in NO and SE, but less in DK and not in FI







Most significant current trends and challenges for the FM sector

• DK: 📒

- Short term: Sustainability energy, environment, branding.
- Long term: Sustainability energy, environment, branding.

• NO: 💾

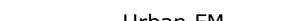
- Short term: FM is not clearly defined. Spread out a common terminology.
- Long term: Political development

• SE:

- Short: Technology & new way to work meet needs
- Long term: How to balance the demand on standardised services and at the same time deliver a tailor-made FM operation in international solutions.

• FI: 🛨

- Short term: Energy saving in FM (active energy management, incentives for service providers)
- Long term: Housing FM



Future need for new competences and new knowledge for the FM professionals

• DK:

CENTER FOR FACTLITTES MANAGEMENT

- Understanding clients needs

• NO:

 – KPI (key performance indicators) + New ways of working – consequences for FM

• SE:

- Social ability and personal competences

• FI:

– Urban FM













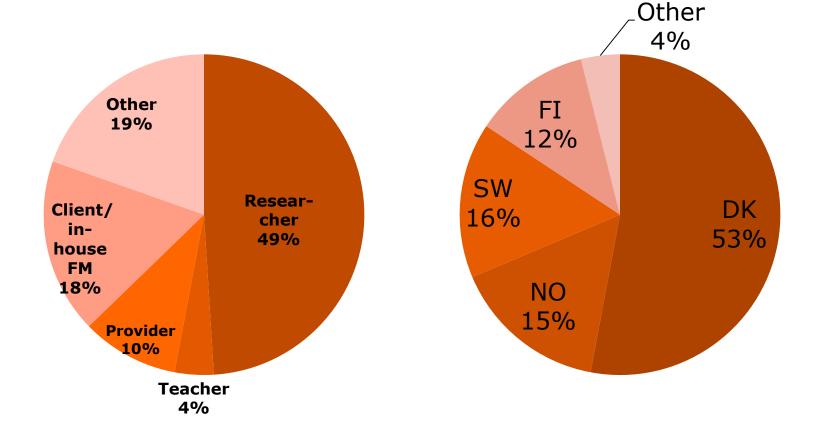
CFM's present research profile







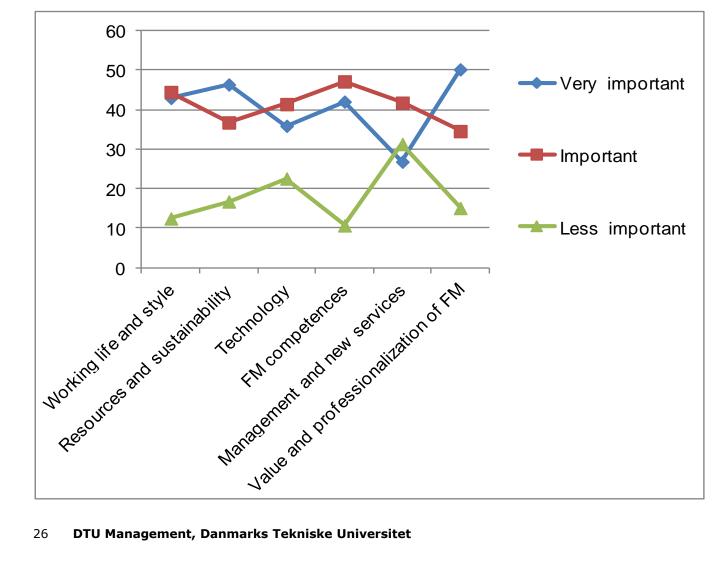
On-line survey autumn – respondents 51 replies – 46% response rate







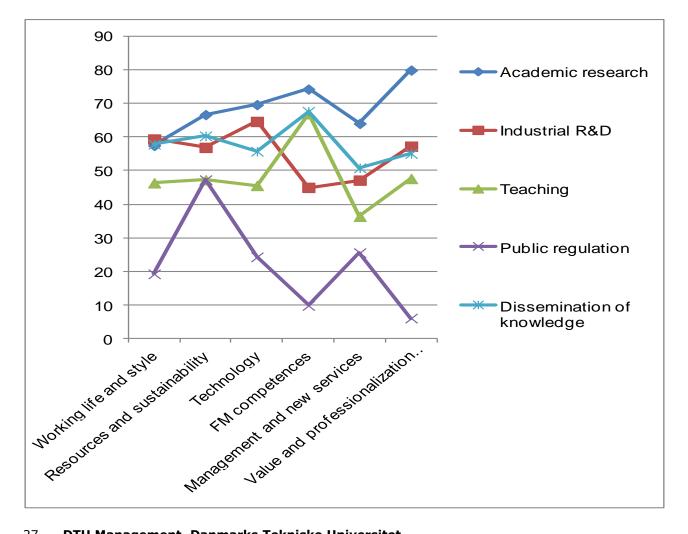
Importance of six themes







Most important activities







Top 10 list out of 40 statements - combination of overall importance and the role of academic research

Rank	Theme	Statement
1	Value and professionalization of FM	 Introduction of methodologies for FM becoming a critical strategic management tool linking the role of facilities to the organisation's core business strategy
2	Value and professionalization of FM	32. Introduction of a set of principles for measurement and documentation of the added value by FM services
3	Technology	16. Development of cross disciplinary, life-cycle oriented and holistic FM services for building development, delivery and operation
4	Resources and sustainability	8. Sustainability as a fundamental requirement in FM services across most client groups
5	Value and professionalization of FM	33. Introduction of a methodology to highlight and ascertain return of investment for the organisation of the FM costs spent in-house
6	Resources and sustainability	Introduction of methodologies for energy saving management in FM services
7	FM competences	23. Development of new strategic skills to identify and manage uncertainties and expectations in FM services
8	FM competences	20. Widespread use of knowledge transfer from scientific communities to FM providers and FM clients related to FM services
9	Value and professionalization of FM	37. Development of a common conceptual FM terminology applied within a professional FM management framework
10	Value and professionalization of FM	34. Introduction of FM services providing strategic value for FM clients with continuously changing functionality, technology and staff/customer demands





Suggestions for a common Nordic FM research agenda

- •Two main headlines
 - -Value and professionalization:
 - Introduction of methodologies for FM becoming a critical strategic management tool linking the role of facilities to the organisation's core business strategy
 - A set of principles for measurement and documentation of the added value and return of investments of FM services
 - Sustainability in facility management services:
 - Sustainability as a fundamental requirement in FM services across most client groups
 - Methodologies for energy saving management in FM services

Recommendations

- Tight cooperation between researchers and industrial partners
- Transfer of knowledge between researchers and practitioners



IFMA Forecast 2011 – 10 trends

- Externally-driven trends
 - Sustainability
 - Complex building systems
 - Aging building stock
 - Emergency preparedness and business continuity planning
- Internally-driven trends
 - Quantity and complexity of data
 - Finding top talent
 - Elevate facility management
- Organizationally-driven trends
 - The need for an evolving skill set
 - Efficiency, productivity and profitability
 - Changing work styles



Empowering Facility Professionals Worldwide

Learn. Connect. Advance."





ISS 2020 Vision – 10 megatrends

Factor megatrends

- · Economic growth
- · Globalization
- Demographic trends
- Sustainability

Knowledge megatrends

- Technological development
- Increased knowledge



Social megatrends

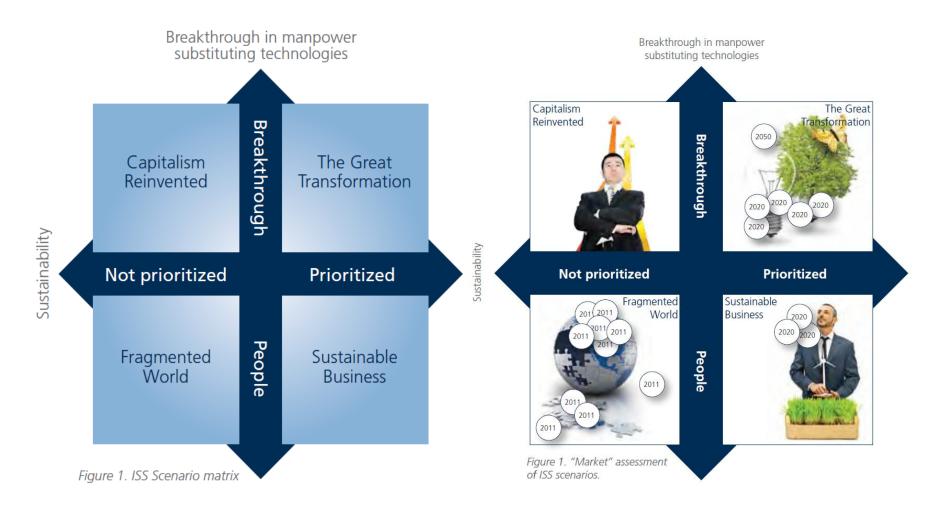
- Individualization
- Commercialization
- Growing focus on health

Copenhagen Institute for Futures Studies Instituttet for Fremtidsforskning Trends and tendencies of consequence for the industry

- Natural catastrophes in densely populated urban areas
- New ways of working



ISS 2020 Vision – Scenarios





ECONOMY IN NORTHERN EUROPE

My personal proposal for future Nordic FM scenarios

Scenario 4

New growth New knowledge based industries

Scenario 1

Scenario 5

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Uncontrolled rise in sea level Breakdown in international collaboration More natural disasters and new diseases Regional war over resources Stronger national and regional political control

Scenario 3

Controlled rise in sea level New natural energy sources International collaboration

GLOBAL CLIMATE

+

Scenario 2

Crisis with negative growth Increasing unemployment and social problems



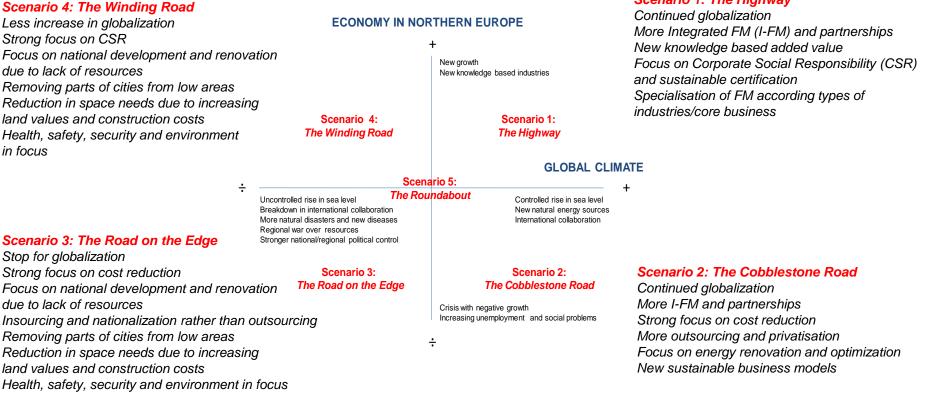


Scenario 1: The Highway

Possible scenarios for Nordic FM until year 2025

Scenario 5: The Roundabout

Less increase in globalization Focus on CSR and a combination of cost reduction and added value Focus on regional development in Europe Focus on energy renovation and optimization Health, safety, security and environment in focus



34 DTU Management, Danmarks Tekniske Universitet





This is the end, my friend! (Jim Morrison)

