

Trends in FM practice and academic research from a Dutch perspective

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Overview of the presentation

- Introduction
- Wageningen University FM and CFM
- FM; paradigm for governance of FM
- FM value chain
- Trends in Dutch FM practise
- Trends in research
 - Results in fm innovation research
- Conclusions and final remarks

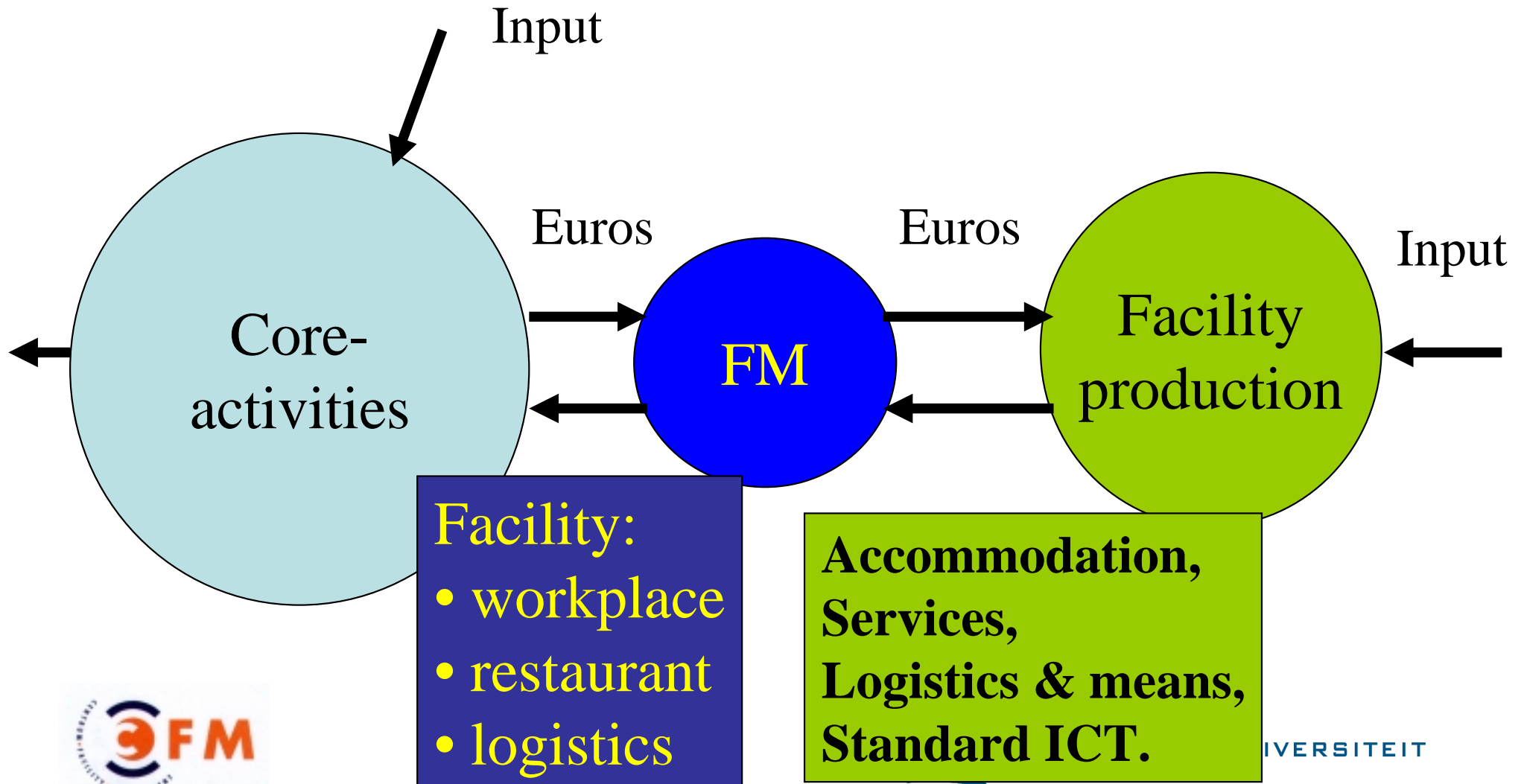


Wageningen University and CFM

- University for agriculture, food industry and the natural environment
- Combination of University and research centre
- FM is part of social sciences department
- CFM independent research foundation
- Location of W.U.



FM in the chain of activities model



Four areas of service

- Products/services and process
 - Workplace
 - Restaurant and employee services
 - Facility logistical services
- Process and service
 - Facility management



10 themes assessment

FM cost/quality (according to NEN 2748)

1. **Accommodation management**
 - Providing in building, terrain and parking
 - Insurance of real estate
 - Maintenance of buildings and installations
 - Change/renovation of building; installation
 - Use of utilities
 - Management
2. **Providing of restaurant and employee service**
 - Restaurant,
 - workplace and additional catering service
 - Coffee and soft drink apparatus
 - catering for tradeshow, parties, etc.
3. **Risk management**
 - Guarding and security
 - Prevention and remedying of calamities
 - Reception services
4. **Cleaning**
5. **Moving**
6. **Document managing**
 - Document creation
 - Document logistics (postal services, etc.)
 - Document reproduction (copying)
 - Document archiving
7. **Managing of garbage; rest materials**
8. **Provision of workspaces with furniture and other decorations and materials**
9. **Telephone services**
10. **Facility Management**
 - FM policy and operational management
 - Policy for procurement and implementation
 - Facility helpdesk activities



Trends in Dutch FM practice

- More and more outsourcing of services
- Growth of outsourcing facility management
- Introduction of assessment of quality
- Assessment of cost/quality
- Integration of (corporate) real estate management and facility management
- First Public-private partnerships; governmental buildings

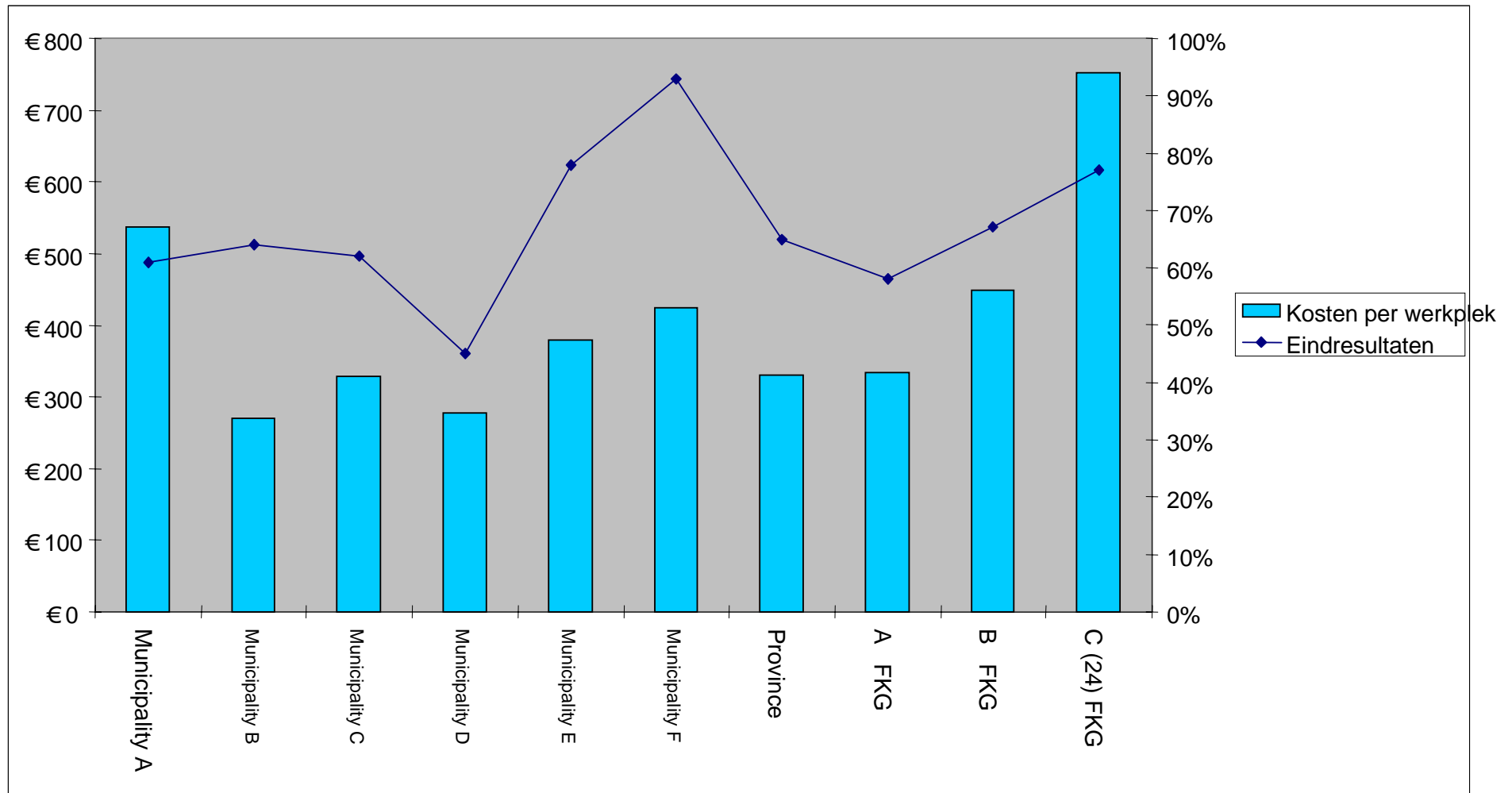


Trends in Dutch research

- Workplace
 - Product/service
 1. Costs and benefits of office innovation (literature survey CFM with T.U. of Delft 2004)
 2. Design of the workplace for knowledge workers (research of W.U. with T.U. of Helsinki 2005-06)
 3. Healthy hospital environments (Ph.D. W.U with TU Eindhoven 2004)
 4. Health Boulevard project (W.U. 2006)
 - Process
 1. Cost/quality assessment of the 'workplace service'(research NEN 2748 CFM/Capgemini 2004-05-06)
 2. Perceived quality of outsourced risk management (M.Sc. W.U. 2005)
 3. Innovativeness of cleaning companies (M.Sc. W.U. 2004)



Result: Cost/quality of cleaning

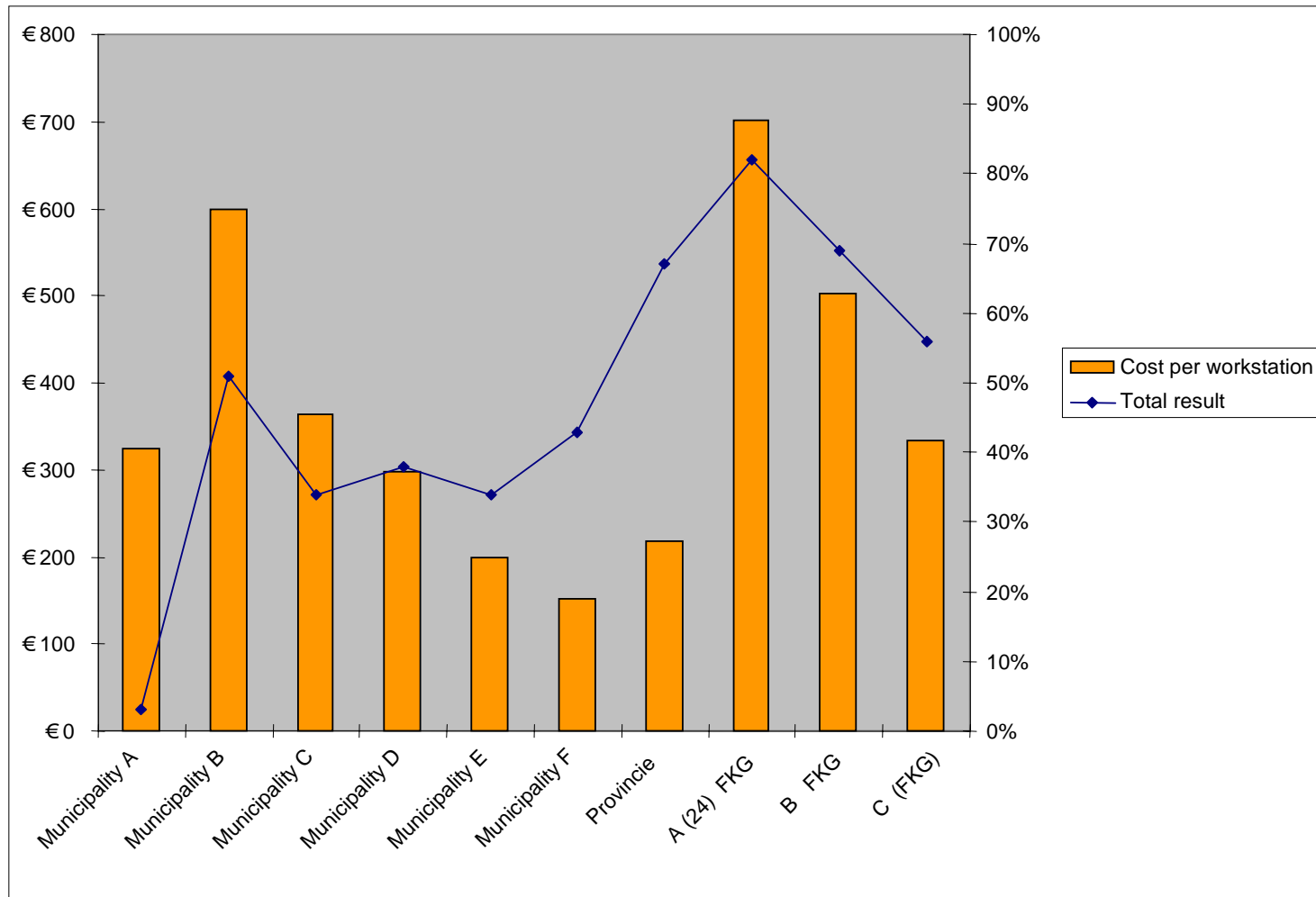


Trends in Dutch research

- Restaurant and employee services
 - Product/services
 - Process
 1. Contract Compliance for restaurant services (M.Sc. project W.U. 2004)
 2. Costs/quality of 'Restaurant and employee services' (research CFM/Capgemini NEN 2748 2004-05-06)



Result: Cost/quality of restaurant



Trends in Dutch research

- Facility logistical services
 - Product/service
 1. Design of a digital process for production and distribution of university course readers (MSc student study project W.U. 2004)
 - Process
 1. Radio Frequency Identification for FM (Idea for PhD project W.U. 2006)
 2. Costs/quality of 'facility logistical services' (research CFM/Capgemini NEN 2748 2004-05-06)



Trends in Dutch research

- Facility Management_service
 - Process
 1. Innovation within facility management (Ph.D. (running) and several M.Sc. projects W.U. 2003-04-05-06)
 2. Knowledge management within FM (BSc project CFM 2005)
 3. Case study of a consortium for Public-Private Partnership for the Ministry of Finance (M.Sc. project W.U. 2006)
 4. Managing a Multinationals Facility Management organization across borders (several M.Sc. projects W.U. & T.U. Delft 2004-05)
 5. Managing the client-provider relationship within commercial FM organisations (M.Sc. project W.U. 2005)



Trends in Dutch research

- Facility Management

- Process (continued)

6. Costs/quality of facility management (research CFM/Capgemini NEN 2748 2004-05-06)
7. Validity and reliability of the CFM/Capgemini facility Management quality assessment method based on NEN 2748 (several M.Sc. projects W.U. 2004-2005)
8. Policy of quality assessment (performance measurement) of facility services in Dutch municipalities (M.Sc. student project W.U.2005)
9. Facility-Estate concept (research CFM/Twynstra-Gudde 2006)



Trends in Dutch research

- Facility Management

- Process (continued)

10. Shared service centres as a model for the internal facility management organization (M.Sc. project W.U. 2004)
11. The role of unions in outsourcing projects of facility services in the Netherlands (MSc project W.U. 2004)
12. Automation of the generation of facility cost indicators' (Ph.D. W.U. with T.U. Vienna 2004-06)



Trends in Dutch research

- Facility Management
 - Services
 - 13. Market Analysis Outsourcing Facility Management Services in The Netherlands (M.Sc. project W.U. 2004)
 - 14. Facility-Estate Concept (research CFM/Twynstra-Gudde in progress 2006)



Conclusions

- Distinction of 4 different services better
- Most research in FM processes some
- New theme in research is integration of FM & CREM (corporate real estate management) innovation of product/service and process
 - Public-private partnerships (sub class)

For all articles etc. see:

<http://www.mst.wur.nl/uk/staff/dries+van+Wagenberg/>



FM research theories

- Workplace (team-process/behaviour; workplace)
 - Environmental-design theory (van Wagenberg et al.)
 - Space planning theory (van Wagenberg in progress)
 - Activity based costing theory (adapted bij van Wagenberg)
 - Healthy workplace model (Many + van Wagenberg)
 - Activity based costing
- Restaurant and employee services (employee/guest; decision behaviour)
 - Consumer behaviour theory (Antonides)
 - Activity based costing



FM research theories

- Facility logistical services
 - Operations research theory (van der Vorst et al.)
 - Chains and network theory (Trienekes et al.)
 - Way finding theory (Passini)
- FM
 - Innovation framework (Omta; Trienekes; Tidd, Beset and Pavitt)
 - FM governance model (NEN 2748; van Wagenberg, in progress)
 - Transaction cost theory (Williamson et al.)
 - European quality assessment model (adaptation for FM)
 - Servqual model for organisational entities (adaptation)
 - Activity based costing theory
 - FM organisational theory (Becker et al.; Minsberg; Porter)
 - Self-efficay theory (Bandura, Slangen)



FM research methodologies

- Case study
- Scenario analysis model
- Survey and interview
- Financial analysis
- Surface measurement protocol (NEN 2580)
- Participant observation
- Behaviour observation

