

Working Paper of the Institute of Facility Management

LemoS 3.0 – Service Allocation Model for non-medical Support Services in Hospitals adapted to new findings

(Translation of the German original)

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The Institute of Facility Management

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The Author

The Author is a Senior Research Associate of the Institute of Facility Management (IFM) at the Zurich University of Applied Sciences (ZHAW) and is responsible for various research and development projects, primarily in the area of Healthcare (HC). The main topics are the conceptual connections of non-medical support services in the overall strategic-tactical-operational context and the interface between FM and IT in HC. The author has published several papers in this field, inter alia the 1.0 version of the Service Catalogue for non-medical support services in hospitals (LekaS) and the Service Allocation Model for non-medical Support Services in Hospitals (LemoS). In the latter two topics, the author is actively involved in ongoing research and further development.

Abstract

In 2014, the Service Allocation Model for non-medical Support Services in Hospitals was presented for the first time. By applying the model in science and practice according to the principles of consortium research, it became clear that several adaptations were necessary. The area of the non-medical support services or Facility Management in Healthcare (FM in HC) is therefore rearranged in four main areas Logistics, Infrastructure, FM Services and Hotel Services. Tactical Resource Management continues to be described as important for coordination between individual areas. IT Services was identified as the key interface between FM in HC and Management Support Services of the hospitals next to Marketing and Finance & Controlling, and was thus presented accordingly. In this working paper, the findings are portrayed visually and are presented as an updated basis for further developments.

Keywords:

Facility Management in Healthcare, FM in HC, LemoS, LekaS

Glossary:

FM in HC	Facility Management in Healthcare
IFM	Institute of Facility Management
LekaS	Service Catalogue for non-medical Support Services in Hospitals [German: Leistungskatalog für nicht-medizinische Supportleistungen in Spitälern]
LemoS	Service Allocation Model for non-medical Support Services in Hopstials [German: Leistungszuordnungsmodell für nicht-medizinische Leistungen in Spitälern]
SLA	Service Level Agreement

Translation by Nicole Gerber and John Bennett

1. Introduction

In the period 2013 – 2015, the Service Allocation Model for non-medical Support Services in Hospitals [LemoS] (Hofer & Gerber, 2013; Gerber & Läubli, 2014a; Gerber & Läubli, 2014b; Gerber, 2015) was developed in collaboration with the fmpro association, hospital and business partners, and the Institute of Facility Management [IFM] within the scope of the ThinkTank “FM in Healthcare”. The model shows the understanding of FM in hospitals with the different service levels (cf. Figure 1 and Figure 2).



Figure 1: Service Allocation Model for non-medical Supporting Services in hospitals – LemoS, Version 2.0 (Gerber & Läubli, 2014b, p. 70)

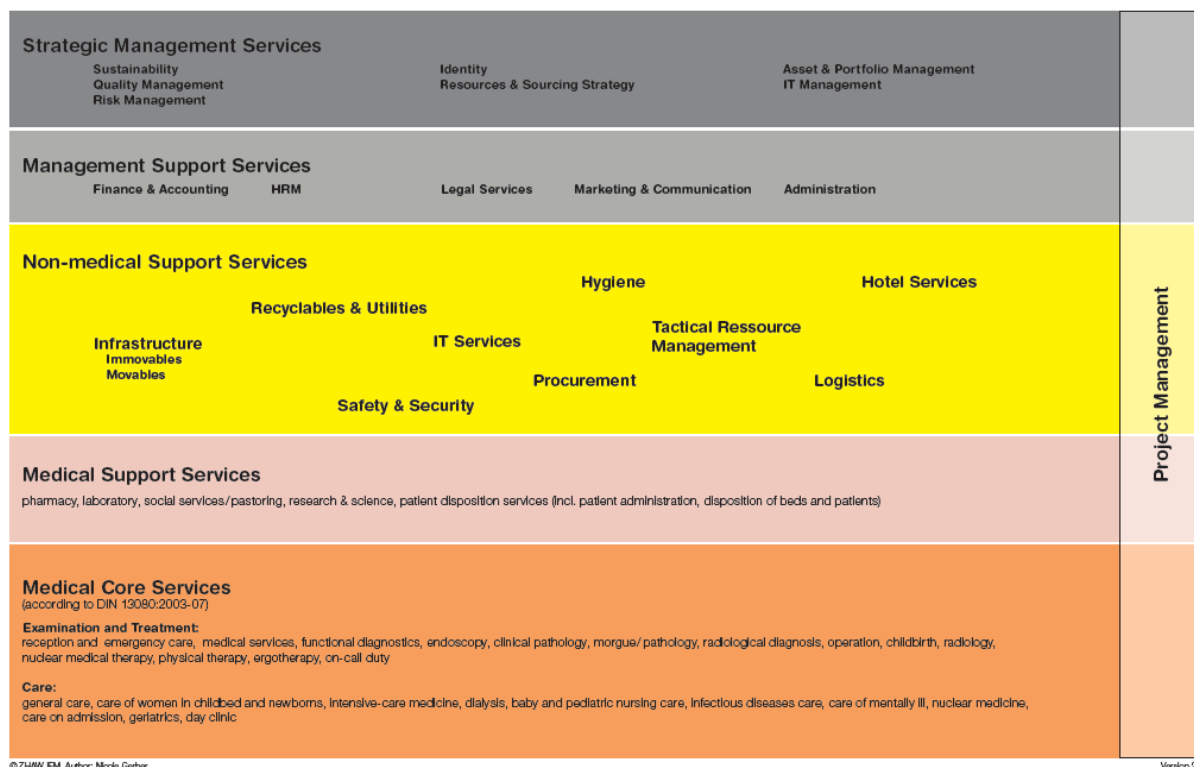


Figure 2: Overall Layout of Service Levels in Hospitals, Version 2.1 (Gerber & Läubli, 2014b, p. 69)

In the “Service Catalogue for non-medical Support Services in Hospitals” [LekaS] which is based on the European norm *SN EN 15221-4 Taxonomy, Classification and Structures in Facility Management*, the individual result-oriented services of the non-medical support services were defined in detail (Gerber & Läubli, 2015a, 2015b, 2015c). It was explained that the catalogue and the model are the basis for the further development of additional areas. In the meantime, several projects were carried out on the basis of LemoS and LekaS and several (interim) results could be gained. These findings now facilitate the adjustment of LemoS with regard to the further development, thus helping it to become clearer and more systematic in the context of FM in Healthcare [FM in HC].

2. Approach / Methodology

The findings gained pertained to several parallel ongoing projects in the area of FM in HC. Whereas the context became clearer while developing a reference model for non-medical support services in hospitals including key performance indicator models and process models for FM in HC, an awareness of structural adjustment arose during the development of mapping FM in HC costs and accounts. At the same time, the development of Good Practice standards for Service Level Agreements [SLA] and projects within the

context of strategic-tactical-operational interconnections within FM in hospitals (Läuppi, 2016) contributed to conceptual findings.

With all projects, the approach of consortium research according to Otto und Österle (2009; 2010a, 2010b, 2010c) was applied. The method of consortium research describes the occurrence of new knowledge by the iterative exchange between practice and science. The approach is illustrated in Figure 3.

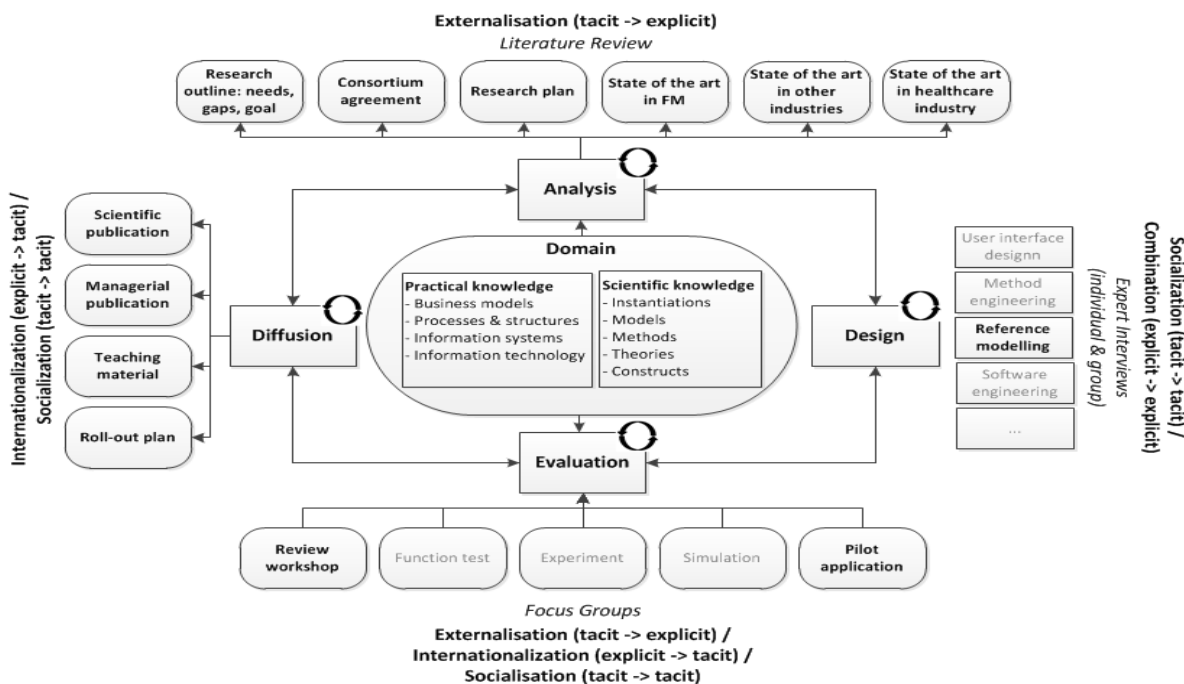


Figure 3: Overview on Consortium Research (Österle & Otto, 2010c, p. 278)

3. Finding in Relation to LemoS

By means of the developments mentioned above, it became clear that firstly, FM in HC can or should be separated into four different main areas, secondly, that Tactical Resource Management within non-medical support services is important and thirdly, that there are at least three key interfaces to Management Support Services.

3.1 FM in HC – Four Main Areas

With regard to manageability and thoughts about organisational and financial allocation, the division of the vast topic of FM in HC in four areas makes sense:

- Logistics
- Infrastructure

- Facility Services
- Hotel Services

3.1.1 Logistics

Logistics covers:

- Procurement
- Inventory Management
- Transport & Distribution
- Disposal & Recycling

3.1.2 Infrastructure

Infrastructure comprises

- Maintenance
- Space Management
- Energy

3.1.3 Facility Services

Facility Services includes:

- Safety
- Security
- Cleaning
- Sterilisation

3.1.4 Hotel Services

Hotel Services is made up of the following:

- Catering
- Textiles
- Accommodation Administration & Operation of Properties
- Hotel Various

3.2 Tactical Resource Management

In order to coordinate all the areas mentioned and to take systematic measures with respect to process improvement and resource optimization, the function of Tactical Resource Management is propagated (cf.

Gerber, 2014). The more precise definition of this area is currently being investigated in another context and the findings will be published separately.

3.3 Key Interfaces to the Management Support Services

In LemoS 2.0, IT Services was depicted as being in the non-medical support services. However, it became clear that IT services have to be treated like other established disciplines such as Marketing or Human Resources and placed among Management Support Services – mainly also because of the organizational aspect. It would be wrong, however, to conclude that IT would be less important for FM in HC by doing so. Lääppi (2016) shows that the interface IT and FM has great potential for improvement, as much as the collaboration between Marketing and FM in terms of Identity Management. Developing FM in HC accounts and cost center systematics have revealed that it is essential for FM to also work more closely with Finance and Controlling. Thus, it can be said that in hospitals, FM and the interfaces with the Management Support Services

- IT
- Finance & Controlling
- Marketing

should be investigated and that further systematically developed steps should be taken.

LemoS 3.0

Due to the observations mentioned above, an adjustment within the visualisation of LemoS and the overall service levels is clear:

- Grouping of the four main areas Logistics, Infrastructure, FM Services and Hotel Services, as well as Tactical Resource Management
- Moving IT-Services to the service level Management Support Services

These adjustments have been implemented and are shown in Figure 4 and Figure 5.

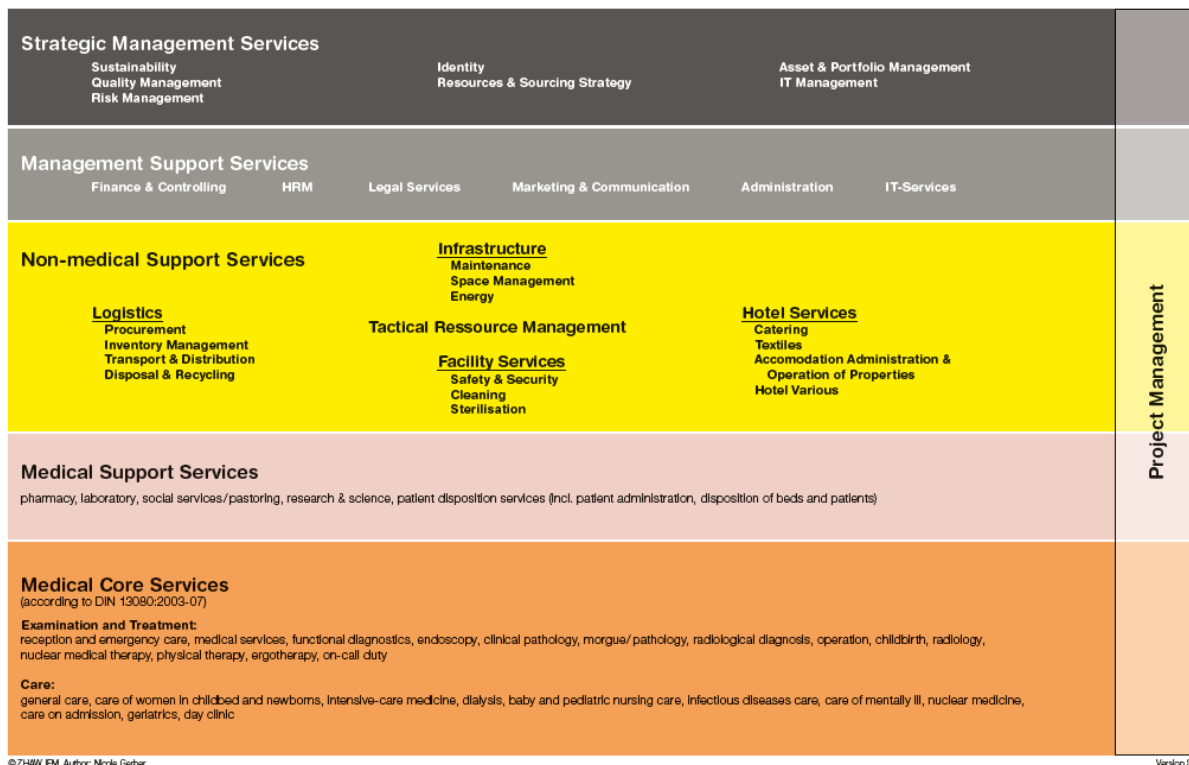


Figure 4: Overall Layout of Service Levels in Hospitals Version 3.0



Figure 5: Service Allocation Model for non-medical Supporting Services in hospitals – LemoS, Version 3.0

With the new illustrations, it can be ensured that further FM in HC projects are able to work with a consistently updated basis and thus with a common wording and understanding.

Outlook

Due to (interim) results of the currently ongoing projects within the IFM, it can be expected that – on the basis of LemoS 3.0 – the following basis for the whole FM in HC sector will be available within the current year:

- KPI model, KPI catalogue and categorization
- Process model
- SLA Good Practice
- System of Accounts / Cost centers

In the medium-term, the IFM is working with with partners in hospitals, industry and science with the goal that

- benchmarking will be comprehensively possible in all FM in HC areas
- thanks to Tactical Resource Management, FM in HC can be coordinated even better and by doing so, that more transparency and thus resource optimization will be possible
- communication between the individual FM areas, between FM and the core business and FM and Management Support Services will improve
- the applied FM in HC software applications can be coordinated in a sensible and future-oriented manner.

References

- Gerber, N. (2014). *Umfang und Anforderungen eines IT-gestützten, nicht-medizinischen, operativen Ressourcenmanagements im Spital - Qualitative Vorstudie*. Zürcher Hochschule für Angewandte Wissenschaften (ZHAW) Institut für Wirtschaftsinformatik (IWI), Winterthur.
- Gerber, N. & Läubli, V. (2014a). Leistungszuordnungsmodell für nicht-medizinische Leistungen. *fmpro Service*, 2/14. S. 6-7.
- Gerber, N., & Läubli, V. (2014b). Effizienter und produktiver im Support. Leistungszuordnungsmodell für nicht-medizinische Supportleistungen in Spitälern (LemoS) Version 2.0. *clinicum* 6/14, 68-70. URL: http://www.clinicum.ch/images/getFile?t=ausgabe_artikel&f=dokument&id=946
- Gerber, N. (2015). Leistungszuordnungsmodell für nicht-medizinische Supportleistungen in Spitälern (LemoS). *Tagungsband Kongress Facility Management*, Frankfurt am Main, 24. – 26.3.15, S. 384 - 388
- Gerber, N., & Läubli, V. (2015a). *Leistungskatalog für nicht-medizinische Supportleistungen in Spitälern LekaS - SN EN 15221-4 branchenspezifisch angepasst, erweitert und kommentiert*. Wädenswil: ZHAW Institut für Facility Management. URL: www.zhaw.ch/ifm/fm-healthcare/lekas
- Gerber, N., & Läubli, V. (2015b). *Service Catalogue for non-medical support services in hospitals - SN EN 15221-4 adapted, expanded and commented branchspecifically*. Wädenswil: ZHAW Institut für Facility Management. URL: www.zhaw.ch/ifm/fm-healthcare/lekas-e
- Gerber, N., & Läubli, V. (2015c). *Catalogue de prestations de support non médicales dans les hôpitaux (LekaS) SN EN 15221-4 Adapté, augmenté et commenté pour la branche*. Wädenswil: ZHAW Institut für Facility Management.
- Hofer, S. & Gerber, N. (2013). IFM Allocationmodel for Support Services in Hospitals as a Basis for FM Driven Financing of Healthcare Real Estate. *International Journal of Facility Management*, 4, 3.
- Läubli, V. (2016). *Organizational performance and strategic positioning of Facility Management - A collective case study in Swiss hospitals*. Master Thesis. Zürcher Hochschule für Angewandte Wissenschaften (ZHAW) Institut für Facility Management, Wädenswil.
- Österle, H. & Otto, B. (2009). *A Method For Consortial Research*. University of St. Gallen.
- Österle, H. & Otto, B. (2010a). Consortium Research - A Method for Research-Practitioner Collaboration in Design-Oriented IS Research. *Business and Information Systems Engineering*, 5, S. 283 - 293.
- Otto, B. & Österle, H. (2010b). Relevance through Consortium Research? A Case Study. European Conference on Information Systems. *Proceedings. 18th European Conference on Information Systems*.
- Österle, H. & Otto, B. (2010c). Konsortialforschung - Eine Methode für die Zusammenarbeit von Forschung und Praxis in der gestaltungsorientierten Wirtschaftsinformatikforschung. *Wirtschaftsinformatik*, 5, 2010. S. 273 - 285.