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Standardisation in Knowledge Management – Towards a Common KM Framework in Europe

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Abstract. The paper will present results from investigations, consultations and workshops from the European KM Forum which is aiming to identify and support commonality in KM terminology, application and implementation in Europe. The paper discuss the *relevance of standardisation* for a soft and holistic subject like KM by synthesising the major opinions from the KM community about the pros and cons. The paper will present an overview of *existing and emerging standards and standardisation initiatives.* The sensible *degree of standardisation* in KM and the *most relevant areas* for standardisation will be discussed. It will be proposed to start with the definition of a KM framework and a draft concept will be presented for discussion. The paper will conclude with an invitation for *contributing* to these activities.

1. Introduction

The European Knowledge Management Forum aims to build up a *KM community* in Europe and support commonality in KM terminology, application and implementation. In particular, the European KM Forum intends to bring together a critical mass of KM experts in order to share the latest developments in the KM domain and stimulate the definition of *open standards and common approaches* for KM for making it known and applicable to a broad European business public.

The paper will present results from investigations, consultations and workshops from the European KM Forum which have been carried out within the last year and which aimed to define the direction for a standardisation initiative. Section 2 will discuss the relevance of standardisation for KM. Section 3 will present an overview of existing and emerging standards and standardisation initiatives. The most relevant areas for standardisation will be discussed in Section 4. Section 5 will propose a draft concept for a common Europan KM framework. The paper will conclude with an invitation for contributing to these activities.

2. The Relevance of Standardisation – Pros and Cons

Standardisation does not provide benefit on its own, but must be based on needs. The overall aim is to facilitate the international exchange of goods and services, and to develop cooperation in the spheres of intellectual, scientific, technological and economic activity [ISO 2001]. However, standardisation in general is a complex venture. It is discussed most intensely and a number of arguments speak against and several in its favour.

Taking the analogy from other sectors like information technology or automotive industry, we can acknowledge that method or process standardisation has lead to large benefits from all kinds of perspectives (e.g. organisation, financial, production, etc.). Compared to these relatively hard driven subjects however, the domain of KM consists more of soft objects to be considered in a holistic way. In fact, the relevance of standardisation of KM, which is a relatively young discipline, can be discussed from a number of interesting perspectives. Aspects that speak against a standardised KM approach are mainly the following:

- A sound process of standardisation takes a long time. This has to do with the compromising nature of standardisation and the challenge and potential to reach a critical mass and a broad level of consensus. Only if this broad agreement between all involved bodies (most importantly the users and stakeholders of the standardised objects) is reached, any standardisation process can be successful.
- Due to the duration of the process and the necessary preparation phases, standards are always in danger to lag behind the requirements in everyday practice.
- Furthermore, one of the most critical points concerning standardisation is the question: "what is a sensible degree of standardisation of a soft subject like knowledge management in a detailed and structured, but still useful, manner?"
- Last but not least, standards are mostly seen as a barrier for human development in terms of creativity and flexibility. People consider standards as a frame, that does not allow them to create own and new solutions outside the given conditions. And not only in the context of creativity, but also in the meaning of peoples' flexibility, standards are seen to block these specific aspects of freedom.

On the other hand, there is a diverse number of aspects speaking in favour of standardising KM:

- The activity itself will lead to transparency, bringing all involved institutions and bodies together and thereby achieve a common understanding and common terminology through the process itself.
- 'Standardised' KM aspects (like common approaches to KM processes, knowledge technologies, knowledge based human resources, KM strategies, etc.) will bring the benefits of KM development to a broader circle of users.
- Moreover, from a KM expert point of view, standardised KM approaches will allow the experts to use a validated European-wide (or even world-wide) common terminology. According to this, communication in this field will be easier and can start from a higher common platform.
- If some of the main components of KM are standardised, this will leave more energy and space for creativity in case of (customised) specifications for dedicated and individual solutions.
- And finally, standardised KM elements like a common KM framework will be used in further research and education environments. An existing KM framework will allow future work in the KM domain to start from a higher level.

Summarising the line of reasoning from various discussions and workshops, it can be concluded that most arguments which are brought forward against standardisation of KM can be classified as general concern against standardisation, i.e. as not KM specific.

3. Overview on Existing and Emerging Standards and Standardisation Activities

Another important indicator for the relevance of standardisation in the area of KM is the fact that different independent initiatives have been started to develop standards for KM. Some of them have already resulted in concrete results, while others are in progress or at their starting point. Also, there are some standards from other areas that are relevant to discuss as they can serve as models for learning about important issues in standardisation or can be applied within a KM context. The following section will give a broad overview about different types of activities.

Figure 1 shows a rough map of the various standards and initiatives in the area (without claiming to be orthogonal or complete). We can distinguish three different levels of KM standards: 1st level standards are developed from a particular KM perspective, as e.g. the Australian KM framework. They aim to describe the overall concept of KM. Second level standards aim to elaborate a certain element in KM which is of particular relevance for KM, as e.g. topic maps or KM certificates. Third level standards are those standards which have not been developed from a particular KM perspective, but which can be applied for supporting a particular KM element, as e.g. certain enterprise models or XML standards.

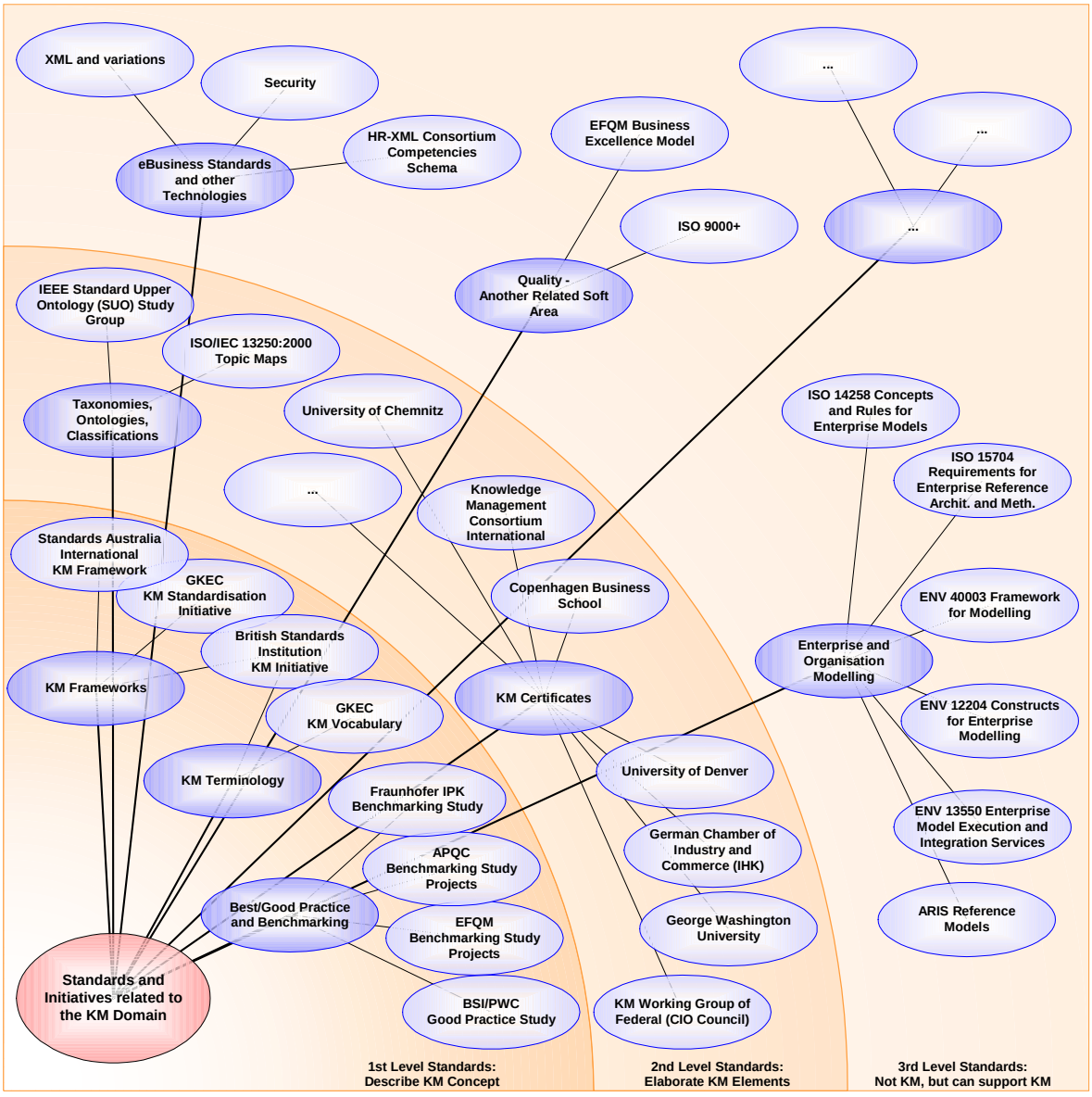

Figure 1: Map of standards and standardisation initiatives

It must be noted that most of the named standards have been influenced by a specific perspective: When differentiating the KM world in two branches of theory, namely on one side a *technology centred KM thinking* which is mechanistic, productivity driven and based on systems implementation, and on the other side, a *human centred KM thinking* which is based on constructivism, cognitive principles, and interaction approaches [Gaßen, 1999]. The standards represent up to now mainly the technology centred KM world. Only the proposed frameworks start to open up for the human centred KM thinking – though this area has usually been the one on which the KM thought leaders concentrated. However, it must be recognised, that constructivism and standardisation might be contradictory concepts, which perhaps cannot be brought together. This needs to be investigated.

4. Relevant Areas for Standardisation

4.1 The Sensible Degree of Standardisation

The level of 'standardisation' instruments may range among, e.g., best practice, common approach, guideline, reference framework, or finally a real standard. When reasoning about the standardisation of KM, we must not talk about standardisation only, but talk about *common approaches and standards* in order to relect the soft character of the domainas well and not to set off interest groups who focus mainly on the constructivistic side of KM[1].

The European KM Forum has carried out several workshops and interviews in order to collect the opinion of European KM experts about the most relevant issues for standardisation in KM. It was identified that a common *KM framework*, a common *KM terminology* and a common *KM implementation approaches* were considered as the most pertinent elements (cf. Figure 2 which shows the priorities named in one workshop [Weber, Kemp 2001a]). It is interesting to note that a workshop with SMEs has brought up similar results [Weber, Kemp 2001b]. Besides the actual 'objects' to be standardised, it was felt important that the process of standardisation is evolutionary and driven by user problems.

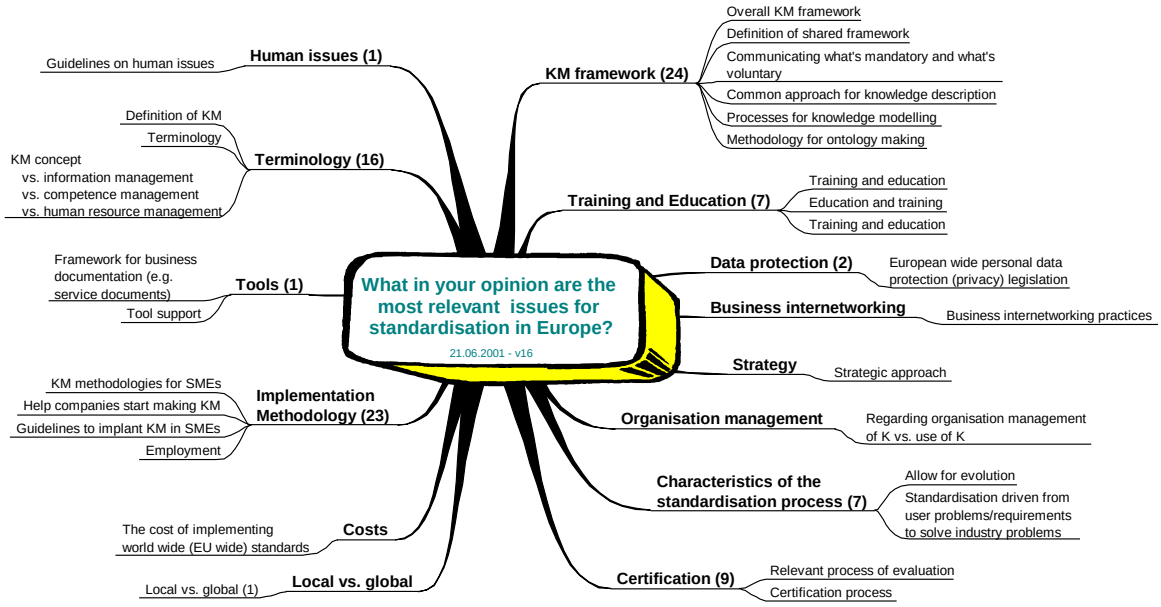

Figure 2: The most relevant issues for standardisation
(1st level priorities as rated from a workshop with European KM experts)

[1] Though for ease of reading, we often skip the term common approach in this paper and use the term standardisation as a synonym for both terms instead if not otherwise stated.

We are arguing that in order to have a solid starting point for a possible standardisation of KM, it is necessary to define a comprehensive framework which describes and covers all major aspects of knowledge management as it is understood by academics and practitioners.

5. Towards a European KM Framework

We understand a *framework* as a holistic and concise description of the major elements, concepts and principles of a domain. It aims to explain a domain and define a standardised schema of its core content as a reference for future design implementations. A *KM framework* explains the world of KM by naming the major KM elements, their relationships and the principles of how these elements interact. It provides the reference for decisions about the implementation and application of KM.

In a *practical sense,* a framework is a common agreement within a group of stakeholders about 'how things shall be done'. It is on one side an introduction for beginners and self explanatory, and on the other side a reference for the experienced when decisions about the 'how' need to be made. Figure 3 shows the envisioned stakeholders.

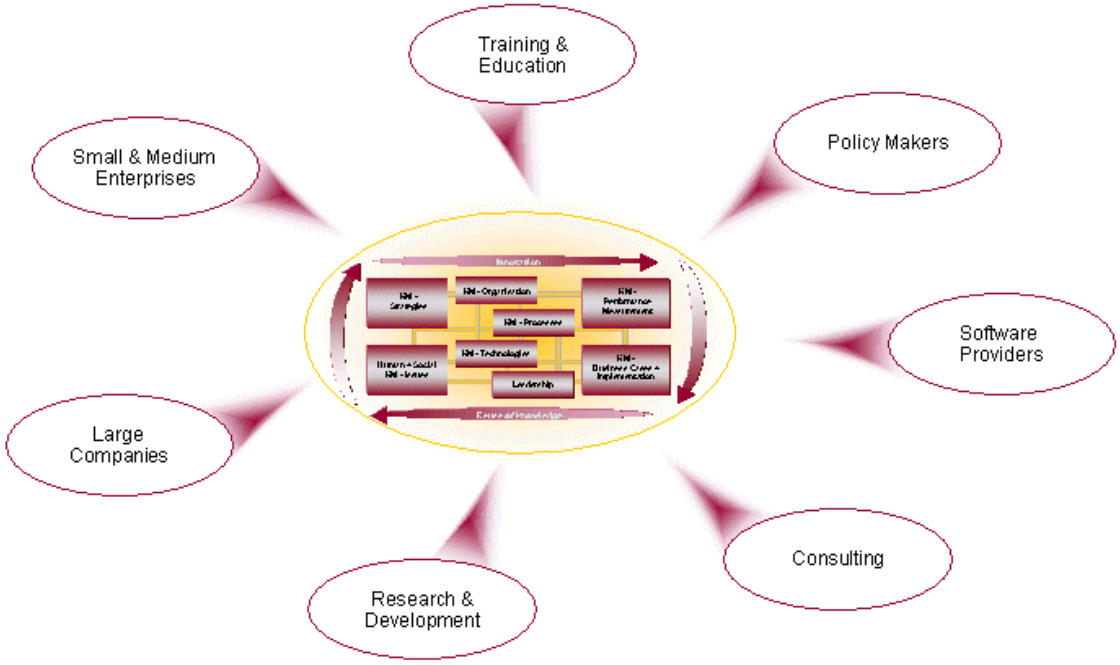

Figure 3: Potential beneficiaries of the envisioned KM standard

Analysing the various perspectives on KM presented by a range of authors in different KM frameworks (for example [Weggeman 1997], [Menon et al 1998], [Bukowitz, William 2000], [Nonaka, Takeuchi 1995] and [APQC 1997]), it is possible to develop a synthesis which describes the major elements and thinking which the different perspectives have in common. Figure 2 shows a first draft for a common KM framework. The core 'modules' (which might be subject to diverse degrees of standardisation) are described below. Work on the framework is still in progress and it needs to be discussed intensely in the European KM community in order to achieve consensus and further develop and improve it.

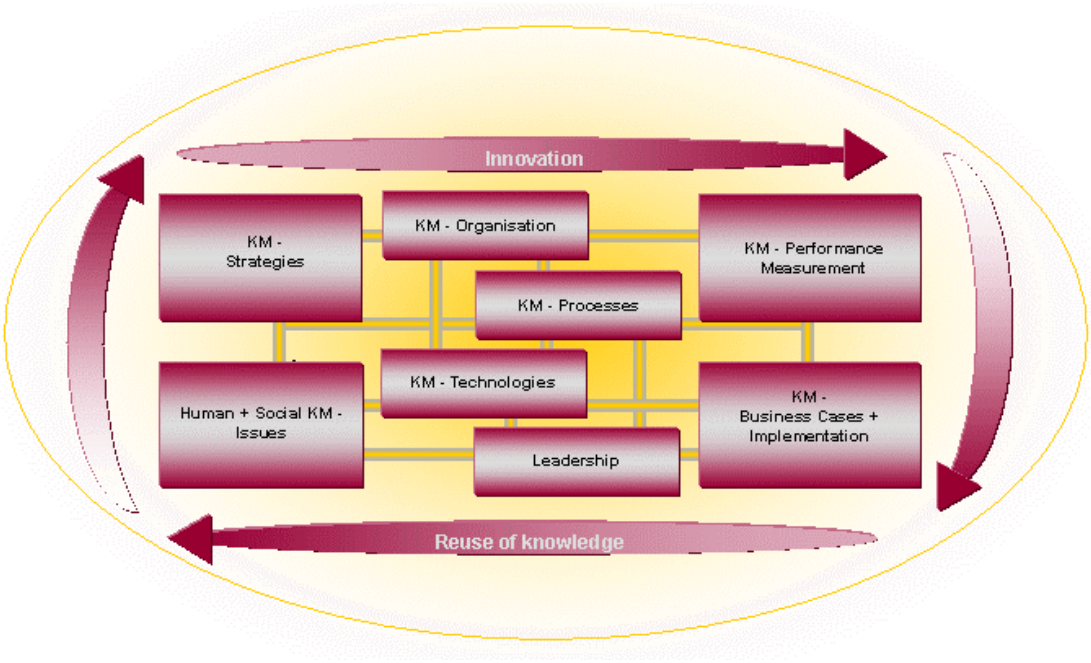

Figure 4: First draft of European KM framework

KM strategies

Before starting any kind of activity, we have to have a sense of direction, i.e. which way to go and what goals to pursue. Supporting business goals, the goals have to be clearly defined, also the direction and the means for reaching these goals. This leads to the point, to declare a strategy especially with regards to KM.

Human and social KM issues

This module considers especially the fact that knowledge is bound to humans and exchanged in a social setting. It defines the role of human beings, cultural issues, trust, etc. for sharing knowledge.

KM organisation

The KM framework will provide guidance for how to create, run and maintain a knowledge friendly organisation. This will include the structure of a 'KM organisation' as well as the roles within such an organisation. It has to be seen as a guideline to align existing organisational structures towards KM.

KM processes

This module will explain the business processes and their adoption to KM. It will also cover the general processes of activities in organisations and will be helpful for the whole target group to be more efficient in acquiring, sharing and maintaining knowledge.

KM technologies

Which technology for which purpose? This fundamental question will be answered with the KM framework module 'KM technologies'. It gives an overview of existing and future technologies for KM and will be helpful for organisations to make the right decision in this 'hard' issue of KM.

KM leadership

What will be the critical success factors in introducing a KM leader within the organisation? Which characteristics are desirable or presupposed? Which activities should the leader

focus on? The KM framework module ‘leadership’ is all about leadership and the surroundings.

KM performance measurement

A KM system cannot be improved, if its performance cannot be measured. This module also provides metrics for assessing the maturity of a KM system and measures for pushing a KM system forward.

KM business cases and implementation

This module provides good and best practices in the different areas of KM, and a general roadmap. It will help organisations on their way to install and establish their KM system, as well as support organisations in making the business case for KM. Due to the general orientation of this implementation methodology, it will be possible to customise it to specific business requirements and needs.

6. Conclusion

As KM is currently receiving high attention in both industry and academia, common approaches and standards for KM are being subject to discussion in the KM community at the moment. A variety of common approaches, standards and standardisation initiatives is existing and emerging and it has been argued that the development of a common KM framework (including a core terminology) should be the common baseline for standardisation activities.

A draft for a KM framework has been presented and we suggest to work on such a framework within the structure of a CEN Workshop (CEN: European Committee for Standardization) in order to produce a CEN Workshop Agreement (CEN CWA). This pre-standard has the advantage that it can be developed within a reasonable timeframe (approx. 1-1½ year) and upgraded to a formal European standard (EN) afterwards. This would allow to achieve industrial impact within a short lead time.

We invite all stakeholders and interested parties to join the discussion at the KnowledgeBoard, the portal of the European KM community (www.knowledgeboard.com) and to contribute actively to the development of common approaches and standards for KM.

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