

# Using an Intellectual Capital Statement to Deploy Knowledge Management: The Example of an Austrian Chamber of Agriculture

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**Abstract:** The paper reports on the impact of building an intellectual capital statement for the Chamber of Agriculture in Styria, Austria (Landeskammer Steiermark, "LK Styria"), and with the subsequent issues of organizational development. LK Styria is a knowledge-based organization where intellectual capital accounts for a large share of the entity's value. Building on the activities of LK Styria and their outcomes, a knowledge-based intellectual capital inventory was set up for the human, structural and relationship resources based on the method "Wissensbilanz made in Germany". The strengths of the intellectual capital of Styria LK lie primarily in its core competencies of promotion, training and consulting. The contexts of LK Styria that produce value are its working conditions and the relationships with their members, customers, the public at large, and with public functionaries. It was found that the establishment of an of the Intellectual Capital (IC) Statement not only enhances the performance of LK Styria but also increases the resilience of the LK Styria when unexpected changes arise on the EU-level and on the national level, and thus expands the sustainability of the organization. Consequential to this IC Statement, measures were introduced to improve processes and outputs: a central lever was to be a new framework for process orientation; enhanced quality management was to be introduced as well as newly structured information handling inside and outside the organization.

**Keywords:** Intellectual capital, knowledge management, public institutions, agriculture, service and consulting

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## 1. Introduction

In order to be competitive in a global market, farming businesses of varying size must employ a mix of state-of-the art technology and non-technical methodologies. These technologies and methods must be applicable on the respective environment of the farms, with small farmers significantly relying on knowledge support. The knowledge that is needed for these is predominately provided by various types of supportive institutions. In Africa, for example, the Regional Strategic Analysis and Knowledge Support System (ReSAKSS, <http://www.resakss.org>) provides accessible, high-quality analysis, data, and tools to agricultural practitioners, researchers, policymakers, and development professionals to promote evidence-based decision making, close knowledge gaps and facilitate the review and adoption of best practices. In many European countries the support system of land use is established in Chambers of Agriculture, which are led by the European Association of Chambers of Agriculture (in Germany: <http://www.vlk-agrar.de>). The primary role of the European Association of Chambers of Agriculture is to facilitate the exchange of knowledge, expertise and good practice to generate new insights, ideas and innovative solutions that can be quicker put into practice. On the EU-level, a working interface between the relevant stakeholders is furnished by the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI; <http://ec.europa.eu/eip/agriculture>), where farmers, forest owners, advisors, businesses, researchers, environmental groups, NGOs and other actors within agriculture and forestry can identify, develop and test innovative solutions in order to bring innovative approaches to farming practice.

## 2. Intellectual Capital and Knowledge Management in Public Institutions: A Brief Survey

Presenting "intellectual capital", as the key resource of a public authority has become a key feature among municipalities, counties and larger government entities (see, e.g. <http://www.fortworthchamber.com/education>). One widely known example is Denmark, where 26 public sector institutions in Denmark sought to develop intellectual capital statements (ICSs) about ten years ago. Another example is from Great Britain which has a long-standing tradition of measuring the contribution of intellectual capital. But, as even insiders admit, the use of frameworks still appears to be a "little chaotic" (Wall 2005). One other case is reported from Italy, is the Chamber of Commerce of Verbania Cusio Ossola in Italy. This Chamber regularly issues an intellectual capital report on which it bases the enhancement of value-creation to its constituency (Bronzett and Sicoli 2011).

Overall, research in, and reports on, implementation of intellectual capital in the public sector are scarce (see Da Conceição Marques 2005). A few sources are on university management (e.g. Giżienė and Barkauskas 2010) and on non-monetary performance indicators of intellectual capital practices (Dumay and Rooney 2011). More findings are around on knowledge management in public institutions, like the seminal work of McNabb (2006) which, however, is mainly concerned with US-government; there are several comprehensive overviews, like Arora (2011), Ciobanasi and Iliescu (2008) and Haynes (2005), and there are elaborations on specifics, like productivity assessment (e.g. Jääskeläinen 2010), learning in organizations (e.g. Chawla and Himanshu 2011), cross-sector cooperation (e.g. Tarn 2006, Lindemann, Schäfer, and Koch 2011), and balanced scorecard implementation (Welch and Alhamoudi 2008). Also, there is the noted case of implementing knowledge management in the World Bank (Harvard Kennedy School, 2003). Several studies have been made with regard to educational institutions (Jones and Sallis 2013, Brewer and Brewer 2010, Petrides and Nodine 2003) and the health sector (Bate and Robert 2002, Bose 2003 and Van Beveren 2003). In a few cases, the emphasis rather is on information (technology) management (e.g. Milner 2002, Brown and Brudney 2003). Some country-specific studies emphasize cultural effects, like in China (Cong, Li-Hua and Stonehouse 2007; Yao, Kam and Chan 2007) or India (Chawla and Joshi 2010) or impacts from governmental initiatives like the British "New Public Management" program (e.g. Boyne 2002, Cong and Pandya 2003).

The perceptions of private and public sector organizations in regard to knowledge management have the common purpose to improve overall understanding and to develop sector-specific learning. But while the private sector actively connects acquiring, creating and disseminating knowledge to strategies for innovation and competitive advantage (Massaro, Bardy and Zanin 2013), knowledge management in the public sector is mainly caused by the continual pressure for increased efficiency, reduced resources and improved quality (McAdam and Reid 2000). A topic that has been considered in this context is interagency fragmentation (Ardichvili, Page and Wentling 2003, Temple-Smith 2004). Another issue is that in public institutions, especially those with a wide range of branches, there is an increased demand for knowledge sharing within the organization (Pollonetsky 2002, Taylor and Wright 2004, Willem and Buelens 2007). However, a shared thread is about achieving organizational efficiency, and key to achieving efficiency in knowledge management organizations is intellectual capital. Stewart (1997, p. 77) equates knowledge management with "finding and growing intellectual capital, storing it, selling it, sharing it". Here, the mission of public institutions is to serve a wide constituency. So, external contingencies have a considerable effect on knowledge management (Van de Ven 2004).

### 3. The Intellectual Capital Statement (ICS) of LK Styria

Section (2) is the translation of an excerpt of a Diploma-Thesis "Between public authorities and the private sector: An intellectual capital report regarding the impact and development of the intangible assets of the Chamber of Agriculture of Styria" written by G. Pelzmann of LK Styria for the Eisenstadt University of Applied Sciences Course on Knowledge Management in 2009 (Pelzmann 2009).

The key mission of LK Styria is to serve a broad variety of requirements and tasks for its constituencies and for the general public. Thus, the primary focus for LK Styria was on relational capital together with the other types of human and organizational capital on the processes delivering the service. In order to achieve this, a modified version of the methodology "Intellectual Capital Report Made in Germany" (*Wissensbilanz Made in Germany*®; Alwert, Bornemann, and Kivikas, 2006) was employed. The modification was due to the complexity of LK Styria's business, for which the focus was primarily laid on business areas rather than on business processes. Six business areas were defined within the Chamber's activities: interest representation, consulting, tasks transferred from government entities, promotion of economic development, training and information (see section 2.2.2 below). A major feature is posed by the interrelatedness between all components of intangible assets, the time-relevance of the services and the diverse choices of handling them. It was found that the most relevant determinants for service delivery are social competencies of the staff, information technology and explicit knowledge, staff motivation and leadership expertise. At the end, eleven organizational and knowledge management measures were recommended for implementation.

In a knowledge-based organization like LK Styria, the intellectual capital accounts for a large share of the institution's value. However, its components are "soft" factors which only reveal their true value when viewed in context with each other. In essence, this is the ultimate purpose of an intellectual capital report and what it is attempting to accomplish. The strengths of the LK Styria's intellectual capital were found to be its core competencies in the business fields of economic development support, training, and consulting, as well as the organization's IT-structure, the working conditions and the positive relationships with its customers, board members, and the public.

Quintessential potentials that need special attention are secure financing, the employees' overall competencies and their motivation.

### 3.1 Motivation for the ICS

LK Styria is part of the Chamber system in Austria, bundling the interests of all social partnerships with the respective public bodies. Chambers have to pursue macroeconomic objectives and legal and technical support for their members in all matters, as well as providing information to the public and consumers, with the Chambers of Agriculture's field relating to agriculture and forestry (this also applies to the LK in the province state of Styria). The idea was that these challenges can best be met by enhancing knowledge management, for which a suitable intellectual capital report would be the fundament.

### 3.2 Assessing the knowledge foundation of LK Styria

#### 3.2.1 Approaches to assess knowledge

Assessment of knowledge can be pursued by either a deductible-summarizing approach or an inductive-analytical approach (North, Probst and Romhardt 1998). Deductible-summarizing methods infer from the general to the particular (Mang 2007) and quantify the relationship between market value and book value. Their main objective is a monetary evaluation of the intangible assets of an institution. Conversely, inductive-analytical methods set out from particular findings and infer to general assumptions; they aim at identifying, describing and assessing individual elements of an organization's knowledge base.

*Wissensbilanz Made in Germany*<sup>®</sup> is built on the methods portrayed above, but it postulates to have the following properties (Alwert 2005, pp. 44-52):

- Clear distinction between the intangible determinants of intellectual capital and the indicators or metrics which relate to them;
- Transparent method and standardized process with a detailed description;
- Modular structure of the procedure;
- Strict connection to business processes and strategic intent;
- Applying appropriate analytical methods (e.g., sensitivity analysis) when dealing with complex process and strategy context;
- Using an assessment tool to build a strengths/weaknesses-profile with clearly defined gauging.

LK Styria has followed a careful and prudent approach with sufficient feed-backs and feed-forwards in order to avoid delays from misunderstandings.

#### 3.2.2 Building the input for LK Styria's ICS

LK Styria is a multi-faceted, complex organization. It performs both governmental and private sector activities for the many agricultural and forestry businesses of the state, within a framework of natural, technical, legal and social structures and with various competitors offering some of its services. This list of objectives leads a straight path to the components of the LK-intellectual capital report. In a first step the core-competencies were to meet the below listed objectives: (LK Styria, 2006, p. 9)

- Qualified, non-proprietary guidance and professional training of the members,
- Objective and committed enforcement and regulatory work which has been entrusted to the chamber by government entities,
- Strong representation of the interests of the farmers and foresters,
- Introduction and monitoring of environmental and agricultural initiatives,

In addition, these objectives had to be connected to human, organizational and relational capital. To set this up, a project team was established involving 14 staff, and various workshops of the team with the LK Styria management were held between January and April of 2009. Assessments were undertaken by self-appraisal,

among others, by employees representing the various departments. Another source was an inventory of the future challenges for the LK which had been assembled half a year before. They were:

- Maintain comprehensive advice for the members,
- Achieve better quality of advice,
- Develop new structures of the LK,
- Overcome the tense financial situation of the LK,
- Deploy stronger orientation towards the customer,
- Improve positioning of the LK in the market with a non-profit organization profile,
- Maintain the individual freedom of the employees,
- Deal with the problem that even if the customer is knowledgeable and may know what he wants, he does not know the way.

These challenges were attached to the six business areas and to three success factors. Business success was defined as: “reaching desired business results through the use of resources (staff, money, materials) in the various business areas.” The types of business success that were outlined were: satisfaction of members, secure funding for the LK, and positive image in the eyes of the public.

Objectives, challenges and success factors may be viewed as a contextual guideline which governs how the determinants of intellectual capital relate to the business. The ICS of LK Styria therefore discloses

- (a) four determinants for human capital:

*Technical competency of the employees, social competency of the employees, employee motivation and leadership,*

- (b) five determinants for structural capital:

*Corporate culture, cooperation and knowledge transfer, information technology, explicit knowledge, management processes and working conditions, and*

- (c) four determinants of relational capital:

*customer relationships, public relations, connecting to board members and to cooperation partners.*

Together with the 6 business areas and the 3 success factors they form the components of LK Styria's ICS.

#### **4. Knowledge management objectives derived from the ICS**

The portfolio of determinants and success factors enables intervention, i.e. organizational measures and change management, to be derived quickly. It was deduced that activities in the area of information technology and explicit knowledge, social competency of the employees, employee motivation, leadership and professional competency of the employees, measures would be most effective and should be initiated early on. Consequently, the task force was commissioned to develop recommendations for these issues. Figure 1 below shows the activities recommended for a strategy of change:

#### **5. Implementing the knowledge management program**

Critical to the success of all measures is embedding a “culture of knowledge management” into the corporate culture of LK. This is facilitated by each employee having an intrinsic interest and a willingness to participate and to share, to develop and use knowledge. These values and attitudes affect thought and action. This can be enhanced by giving training and positive experiences in an employee's own work. Thus the measures, particularly in the field of IT, will be constantly applied and lived. Parallel to this bottom-up slant, a top-down approach was needed by integrating knowledge management into the strategic objectives of LK:

No	Proposed Measures	*Type	*Priority
1	Specification of the business segments of the LK – Quality Management	OD	1
2	Seek feedback from members	KM	2
3	Develop barns for cattle projects	KM	2
4	Establish response system for telephone enquiries	KM	3
5	Create folder structure on the intranet	KM	2
6	Preparation LK Handbook	KM	3
7	Information Days for Branch Office Managers	KM	1
8	Improve Communications	KM	1
9	Networking of magazine and <u>Agranet</u>	KM	2
10	Introduction of a Customer Relationship Management System	KM	2
11	Appointment of an experienced project manager	OD	1

\*OD: Organizational Development; KM: Knowledge Management  
 +Priority 1 = very urgent, priority 2 = urgent, priority 3 = less urgent

(Source: Adapted from Pelzmann 2009).

Note: These eleven measures were to be implemented through a knowledge management program.

Figure 1: Recommended activities for a strategy of change

### 5.1 Integrating knowledge management into LK’s Strategies

The following three KM objectives were to be integrated into LK Styria’s strategies (Figure 2):

KM Objectives	Description
Objective 1	<p>KM culture is part of the LK corporate culture.</p> <p>All lived values and attitudes of all employees can be used to enhance and augment existing knowledge, and to share and generate new knowledge.</p> <p>A positive mindset of the employees towards KM culture influences the patterns of thought and action in the day-to-day work, it motivates and contributes significantly to performance.</p>
Objective 2	<p>Existing relevant knowledge is documented.</p> <p>The knowledge and know-how of a specific person is becoming transparent, structured, and available to a greater number of employees. Thus, relevant knowledge is not lost and and redundancies are avoided.</p>
Objective 3	<p>Existing information technology is used more efficiently.</p> <p>Thus knowledge becomes available faster and easier.</p> <p>Synergy effects can be used and thus communication is enhanced.</p>

Figure 2: KM objectives to be integrated into LK Styria’s overall strategies

These objectives also increase the quality of providing technical expertise, training for customers’ employees, and the quality of economic development programs, as well as of enforcement of administrative ordinances and regulations. From the measures that were recommended, it was to be expected that a more systematic approach would take place in the workflows and that more use is made of the already existing IT-applications. In the process, management would have to make sure that the systematic approach is as well lived by the employees and feedback is demanded to reflected the outcome

## **5.2 From strategy to action**

Since all the recommendations were deemed to be feasible as a quick-win and they would easily increase the intellectual capital of the LK, the original idea was to deploy a comprehensive change program. The approaches toward better use of IT were to combine with training, so that the new IT applications got live in due course in day-to-day work. Activities in knowledge management, as denoted by Heisig (2002, p. 254) are best employed where knowledge is to be used, i.e., in the daily business processes at the workplaces. Then, the argument "Neither myself nor my employees do have the time for knowledge management" will be ruled out.

However, this argument is not the only one to be found when knowledge management is to be introduced in an organization. Knowledge management implementation typically encounters a series of obstacles. Each of the factors that are identified in the literature to be beneficial for knowledge management may have a shortcoming: Ryan and Prybutok (2001) propose five success factors such as (1) an open organizational culture; (2) senior management leadership and commitment; (3) employee involvement; (4) teamwork and (5) information systems infrastructure..

### *5.2.1 Overcoming the obstacles*

Insufficient employee involvement would be the most notable hindrance. So when employee involvement is defined to be an "array of techniques aimed at sharing information, knowledge, rewards and authority" (Steinecke, 1993, p. 26), unwillingness to share what one knows must be surmounted in the first place in order to create an open and trustworthy spirit of teamwork. Sharing rewards and authority may be less difficult to attain, because in any workplace leadership should be able produce returns on active involvement of employees.

Those returns would rather be social rewards, like personal attraction, acceptance, approval and respect / prestige. If employees become motivated to develop a sense of shared ownership of a problem, they will be more inclined to give up their knowledge to a central repository and to pass on their tacit knowledge to co-workers. Another strategy would be to build rewards in terms of future training and development in return for sharing what the employees hold already (Choy and Suk 2005). In countries where labor law prescribes co-determination by employee representatives in change management activities, like, in Europe, Austria and Germany and the Nordic states, but also in Australia, the cooperation of employee representatives committees must be sought. Mueller (1999) gives an account of cases in Germany where early involvement of works councils and unions in change management programs has proven successful. In the case of LK Styria, the collective agreement between the management and the employee representation concerns, among other issues, the use of the IT-system and the secure handling of data. A second agreement is in place which defines the handling of the job performance documentation for every employee. All that is relevant in these agreements for the execution of the IC project was carefully considered. This would guarantee that there were no objections from the employee representation that would have impeded implementation.

At the individual level, knowledge management may face barriers of diverse character. Riege (2005) reports a long list:

- General lack of time to share knowledge, and time to identify colleagues needing specific knowledge;
- Apprehension of fear that sharing may reduce or jeopardize job security;
- Low awareness of the value and benefit of possessed knowledge to others;
- Dominance in sharing explicit over tacit knowledge such as know-how and experience that requires hands-on learning, observation, dialogue and interactive problem solving;
- Use of strong hierarchy, position-based status, and formal power ("pull rank");
- Insufficient capture, evaluation, feedback, communication, and tolerance of past mistakes that would enhance individual and organizational learning effects;
- Differences in experience levels;
- Lack of contact time and interaction between knowledge sources and recipients;
- Poor verbal/written communication and interpersonal skills;
- Age differences;
- Gender differences;
- Lack of social network;
- Differences in education levels;

- Taking ownership of intellectual property due to fear of not receiving just recognition and accreditation from managers and colleagues;
- Lack of trust in people because they may misuse knowledge or take unjust credit for it;
- Lack of trust in the accuracy and credibility of knowledge due to the source; and Differences in national culture or ethnic background; and values and beliefs.

In view of these hindrances, a first step to overcome the difficulties was to identify which of them are around in LK Styria and to examine the gap between the projected and the current state of knowledge- sharing practices and between the values that are theoretically in place and actually practiced. This has proven to be a valuable help to eliminate impediments for implementation.

### 5.2.2 Implementation

In order to control the change management measures, 32 sub-projects were defined and their expected effects on the IC-determinants were identified as per the list given in the annex. They were further conjoined with performance indicators for each of the IC-determinants.

Of these projects, those who dealt with organizational issues were pursued, at least, in part. However, due to new leadership in the Chamber, the knowledge management issues were not explicitly taken up for a while. But since public funding for the business segment of consulting by the EU and by the federal government was to be conditional on a quality management being established in LK Styria, a quality manager was appointed. The new quality management program resulted in first achievements on the level of organizational development, which indirectly affected knowledge management as well. This was pursuant to what was recommended through measure # 11 of the catalogue that had been set up. In consequence, LK Styria, amongst the other Austrian Chambers of Agriculture received an ISO 9001:2008 certificate for the areas of professionalization in Dec. 2014 (see <https://noe.lko.at>). In this context, LK Styria's business segment of training was the first one to be given concrete content as per *measure # 1*. Standardized procedures were set up for the consulting offers, using the format of product master sheets, in which 139 standard products were defined. Product managers were appointed who would be responsible for these products and who would provide key professionals with documents, techniques and other forms of supports, would establish descriptions for the pertinent processes and create a consulting catalog. This was based on a specially elaborated IT-tool (see:

[https://stmk.lko.at/?id=2500%2C%2C1348378%2C3206&npf\\_cache=no&fulltext\\_search=Beratungskatalog](https://stmk.lko.at/?id=2500%2C%2C1348378%2C3206&npf_cache=no&fulltext_search=Beratungskatalog)).

*Measure # 2* was implemented in May 2014 by conducting a customer satisfaction analysis. Up on this, in December 2014 a dialogue process was initiated between members, employees and the general public about "Farming and Forestry in 2030" ([http://youtu.be/SD9\\_Onp5me4](http://youtu.be/SD9_Onp5me4))

Before that, a quick win had been achieved in 2009 already with offering the consulting product "Cattle Stall" to the members. This encompassed a multi-stage approach on investment advice regarding dairy cattle stables (in accordance with *measure # 3* in the list of recommendations). The full offer was incorporated into LK Styria's product catalogue of 2013.

The ticket system for telephone enquiries (*measure # 4*) has not been installed yet. As of April 2015, the "electronic file per agricultural entity" is under construction. This is a part of *measure #10* and would serve as a customer relationship tool, bundling all evidence on a member on record as well as all data on services that LK Styria has rendered to this member. The relatable data bank will be a retraceable source of information on all activities delivered to a specific member/customer. On the whole, however, the Intranet-based filing system (*measure # 4*) is merely being conceptualized, but implementation has not been planned yet as the project has received a low priority; the only exception is documents that are connected to the "electronic file per agricultural entity".

With regard to the other measures of the list, a revision of the LK-Styria-Handbook (*measure # 6*) has been started and a first draft has been presented to the management; release is still pending. *Measures # 7 through #10* (Information days for the Chamber Secretaries, improvement of opportunities to communicate, amalgamation of information services, fully enhanced customer relationship system) have been implicitly been introduced at least partly, but without defining centrally focused projects.

But even though an all-inclusive knowledge management program has not been accomplished, both the intellectual statement analysis as well as the conclusions derived from this exercise have produced additional effects (with some

external effects that proved to be beneficial): The corporate vision and the mission statement (“What are we? “What are we doing?” “What is our stance?”) underwent a scrupulous revision, their content was condensed and re-issued, and the new formats were communicated.

With reference to the quality management handbook, this was incorporated into a guideline for organization released on the federal level for all chambers of agriculture. It describes and defines quality policies, goals and objectives referring to implementation of quality management by:

- predetermined activities and procedures;
- distribution of responsibilities,
- target setting and monitoring,
- picturing continuous improvement processes.

The guideline is binding for the nine Austrian states and serves as the basis to execute ISO-9001 audits. State by state, the rules of the guideline are regulated through complementary documents.

Quality commissioners on the local level (“missionaries”) were appointed and trained for the purpose; they are the interface in their offices between quality managers and employees, emphasizing the need to broaden the fundament for quality management and to motivate the highest possible number of people to support the concept.

In regard to registering the activities performed and the services provided in consultancy, the standardization of the chamber’s consulting offers was used to record what had been done, and when, and by whom. In addition, the new customer relation management system will exhibit those services in an electronic customer file in order to secure quality and to ensure traceability and reproducibility.

Another effect relates to electronically supported job-planning and connecting the job-plans to quality targets: The service departments set up their work plans through job-assignment to business fields on an hourly basis, which is now assisted by information technology, including a representation of quality targets throughout all regions of the state. This provides answers to questions on the area/business segment in which an employee deploys his or her capacities and how he or she contributes to achieving the overall targets. This type of questions is as well communicated within employee assessments. Employee assessment is conducted through a standardized interview; topics are communal definition of targets, monitoring of targets and the employee’s ideas on professionalization. The requests for training are inventoried and enter into the annual planning for training activities.

Further on, the progress of the program required that clarifications were made regarding duties, commitments and responsibilities for the main areas of the system, and job descriptions and task descriptions had to be established.

A consulting tool was developed for woodland owners ([www.waldbauberater.at](http://www.waldbauberater.at)). Silviculture is the central issue of forestry; it is about maintaining the existing woodlands and creating new ones, producing logs and secure that the manifold facilities provided by forestry can be upheld. This requires knowledge, which, as of now, is available from the Chamber: Extensive silvicultural know-how is can be obtained for free on the Internet as an Android-app for mobile phones. The application is based on the Forestry Handbook of the Austrian Federal Forests Inc. and builds on the consultancy document “Ecological Silviculture” edited by the Chamber of Agriculture together with the Austrian Institute for Further Education in Rural Affairs. The content was devised in a way that guides the users through the various options and directly relates them to the choices that are relevant in their area. This provides assistance for orientation for members involved in silviculture and offers a base for decision-making. This was supported by grants from the federal and the state levels and the European Union.

The outcome and present status of the program illuminates what may be called the communicative aspects of quality management: According to LK Styria’s quality manager Regina Formeier, these aspects are the primary success factors for quality management. Executives at all levels not only have to support and encourage and sustain the issue in the long run, way beyond a few short-term actions. They must be aware that the first introductory phases commit resources and that this will produce resistance from the employees. In this, they have to adopt a model role and display this firmly. One other perspective is clarity of vision and of the rules of the game..

With about 400 employees in LK Styria, 200 of which are immediately affected by quality management (and by the collateral measures as from the knowledge management program), time to implementation towards the level of certification is estimated to be 1,5 years; this cannot be reached without dedicated resource assignment and tenacious persistence. Full implementation will take longer, and it will require training, monitoring and control as well



as full involvement of those who are affected. Another requirement is the close nexus to information technology, for instance, in document-channeling, review of document versions, etc. The better LK Styria handles automation of processes, the easier the whole system becomes live.

Continuous information is a prerequisite, and employees must be included into the decisions regarding the design of procedures; when procedures have less interface and are of a more general nature, pragmatic approaches may be chosen. Within LK-Styria, some of the core-processes are comprehensive and do not implicate a great number of employees; so this pragmatism may be applied. However, as soon as creating a business process affects the daily routine of employees and their primary tasks, as is the case with designing consultancy services based on the product master sheets, they must be involved early on. This also relates to concepts on the content of training. For this, process-screening and detection of failure modes is essential, and this includes participation of everyone affected by a process. Some issues need to be communicated ten times and more as they will otherwise not reach the work-level. If rules are not enforced, they become weak. We have made good progress with avoiding over-regulation, restricting regulation to the indispensable, but monitoring fulfillment closely.

## 6. Conclusion

The use of an intellectual capital statement (ICS) for introducing knowledge management, even though this is a very logical undertaking, has not been widely propagated in praxis.

One reason may be that an ICS is still greatly viewed as a theoretical issue; one other reason may be that the need for setting up knowledge management in an organization often is too pressing, so paving the way by yet another venture like building an ICS is deemed to be a loss of time.

In many instances, no distinction is made between technologies for knowledge management and technologies for information management. According to Duffy (Duffy (2001), information management primarily focuses on finding work-related objects and moving them around, while knowledge management concerns itself with finding and moving work objects as well as with how they are created and used. The other key-distinction is that the means of creating, capturing, and communicating in knowledge management systems are very broad while the focus in information management tools tends to be on electronic and paper-based information.

In a public service organization, where the key mission is to provide solutions to the members and the general public for a broad variety of requirements, the primary focus for both an ICS and knowledge management is on relational capital; second are the processes delivering the service, and the organizational and human capital of the institution. LK Styria initiated a state-of-the-art ICS first, which included the three types of intellectual capital, and then followed up with a project to further develop the organization.

More often than not, the trigger to realize an ICS or to introduce other management tools comes from outside the organization. For example, in Austria universities have to report annual ICSs to the ministry of science and research (Wissensbilanz-Verordnung (2010) to receive public money. This also happened in the case which is reported here, where the implementation of knowledge management measures derived from the ICS coincided with a quality management project driven from outside the organization. In consequence, the projects that were launched jointly in both quality and knowledge management encompassed quite a few of the measures that had been drawn up in the ICS statement. Due to the broad analysis which the ICS had set up, a solid basis was in place that paved the way to introduce the measures quicker with a better understanding of the internal structures of LK Styria. The outcomes were even wider than expected: E.g., in one instance, i.e. standardized consulting, the introduction of a fully grown consulting tool for woodland owners even surpassed what had been envisaged by the author of the ICS.

In all, the substantial efforts which were made to set up the ICS and the consequential program for management knowledge proved to be highly beneficial for the Chamber, and they have resulted in a broad range of future-oriented developments.

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## Appendix: The 32 sub-projects for the change program

### **Measure # 1: Itemizing the content of LK Styria's business segments**

*Objectives/Expected Results:* Improving the systematization of procedures

Using the outcome to introduce a quality management system and to schematize the structure of annual reports, timesheets (using Navision®), archives and filing

*Actions:*

- 1 Using the quality management system to properly identify business processes
- 2 Drawing process maps with descriptions of processes and activities throughout the calendar year
- 3 Appointing process managers for each process (heads of groups)  
Evaluating LK's consulting services per process/product by assessing customer satisfaction, timeliness,
- 4 cost/benefit  
(Open issue: Format of documentation)
- 5 Describing, modeling and documenting each process (starting with a pilot process)

*Estimated effect:* Higher systematicity of LK's work and of the factors influencing Intellectual Capital

*The following success factors will be affected:*

- Secure financing
- Employee motivation
- Leadership competency
- Information technology and explicit knowledge

### **Measure # 2: Feedback from customers**

*Objectives/Expected Results:* Customers can rate their satisfaction with LK's services in a systematic way; office holders become more closely related to LK

*Actions:*

- 6 Renewing the program “Farmers visit farmers”, or Making members answer a questionnaire when being contacted for multiple reasons, and surveying customer satisfaction continuously
- 7

*Estimated effect:* Inputs regarding the concerns of members/customers will enable custom-tailored services, based on a systematic registration of the feedbacks. Involving the office-holders will foster their identification with LK Styria

*The following success factors will be affected:*

- Customer satisfaction
- Secure financing
- Employee motivation
- Corporate Culture
- Customer relations
- Relations to office-holders
- Relations to partnering organizations
- Cooperation and knowledge transfer

**Measure # 3: Establishing an offer for the product “Cattle Stall”**

*Objectives/Expected Results:* Intensifying interrelatedness and networking between the office and the outposts s both organization-wise and topic-wise

*Action:*

- 8 Elaborate Procedure

*Estimated effect:* Will proliferate to product offers of all kind

*The following success factors will be affected:*

- Quality of consulting
- Customer satisfaction
- Employee competencies
- Corporate Culture
- Cooperation and knowledge transfer

**Measure # 4: Introducing a ticket-service for telephone requests**

*Objectives/Expected Results:* Quick and timely response to telephone requests from customers, eliminating multiple connections to office personnel; liberating consultants from standard requests

*Actions:*

- 9 Setting an adequate organization (personnel, location)
- 10 Acquiring the pertinent technical equipment (hardware, like suitable telephones)
- 11 Acquiring the software (service center program, data bank, customer information system)

*Estimated effect:* This scheme provides a base for the leadership of LK to decide on the project “Live consultancy services of LK Styria”

Since more than 50% of the consultancy services ae delivered on the telephone, customer satisfaction will be a notably increased. Also, consulting over the telephone is by far the most efficient form of consulting, with an average duration of the phone call of 9 minutes. Service personnel will be relieved from extra work

*The following success factors will be affected:*

- Quality of consulting
- Promotion of economic development
- Customer satisfaction

Employee competencies  
Employee motivation  
Cooperation and knowledge transfer  
Information technology and explicit knowledge  
Customer relations

#### **Measure # 5: Creating an Intranet-based filing system**

*Objectives/Expected Results:* Intensifying the use of the Intranet by employing a pre-determined filing system and by archiving documents that are relevant for building structured information and for securing explicit knowledge

*Actions:*

- 12 Implementing and using the features of MS Sharepoint® Server.
- 13 Building a mandatory filing system; new content to be reported automatically.
- 14 Safeguarding employee knowledge.
- 15 Creating a data Bank including the filing of presentations, e.g. in the Intranet
- 16 Reassessing the filing system from a general viewpoint

*Estimated effect:* Less exertion with searching for documents; better orientation for new employees

*The following success factors will be affected:*

Corporate culture  
Information technology and explicit knowledge  
Management processes

#### **Measure # 6: Re-designing the LK-Styria-Handbook**

*Objectives/Expected Results:* Reappraisal of formal knowledge/delivery of knowledge for new employees

*Actions:*

- 17 Creating the content and placing it on the Intranet

*Estimated effect:* Continuous up-to-date information on all documents (“living paper”)

*The following success factors will be affected:*

Employee motivation

#### **Measure # 7: Information days for the Chamber Secretaries**

*Objectives/Expected Results:* Knowledge exchange through workgroup meetings for Chamber Secretaries 1-2 times per year will produce reassessment of issues with complex content, like Regional Planning/Building Codes/Taxes/Pensions etc.

The meetings would solely concentrate on topical issues; contributions would be derived from the regular meetings of chamber secretaries and Office holders

*Actions:*

- 18 Chamber secretaries collect topical issues and provide issue assessment
- 19 Specialty departments prepare technical input for the meetings
- 20 Meetings will be held by chamber secretaries only

Schedule: Winter-meeting (Jan./Feb.) and Fall-meeting (Sept./Oct.)

*Estimated effect:* Capacitation of chamber secretaries

*The following success factors will be affected:*

Quality of Consulting  
Employee motivation

Corporate culture

**Measure # 8: Improve opportunities to communicate**

*Objectives/Expected Results:* Increase in efficiency of dealing with e-mails and other data for exchanging information more appropriately on the level of employees and between employees and management

*Actions:*

- Enhancing the usage of information technology that is installed already, like MS Outlook® and Microsoft Share Point Server®, based on commonly established user rules which facilitate better communication and cooperation between employees
- 21 cooperation between employees
  - 22 Employ MS Outlook® for communicating internally and externally
  - 23 Exchange time schedules/weekly planning
  - 24 Employ more features of the Microsoft Share Point® Server
  - 25 Structuring the categories for archiving; new content to be inserted automatically

*Estimated effect:* Streamlined cooperation between employees, utilizing the effects of trainings required for proper application, integrated into daily routines

*The following success factors will be affected:*

- Social competencies of employees
- Employee motivation

**Measure # 9: Amalgamate the information services rendered through Agricultural Announcements and Agrarnet**

*Objectives/Expected Results:* Safeguarding and transmittance of relevant knowledge

*Actions:*

- 26 Each article published in the Announcements will be/should be available as a de-luxe version in the Agrarnet
- 27 Creating a link to Agrarnet in the print-version

*Estimated effect:* Improved information for our members by suing the advantages of both media(Print journal and Internet)

*The following success factors will be affected:*

- Cooperation and knowledge transfer
- Information technology and explicit knowledge
- Public relations

**Measure # 10: Establishing a Customer Relationship Management System**

*Objectives/Expected Results:* Close-fitting processes and less double-work, with the ultimate goal being an "electronic file per agricultural entity"

*Actions:*

- 28 Internet-based registering and maintaining of names-/contact-lists per department and region
  - 29 Internet-based registering of honorary members/guests and office holders
  - 30 Sharing the registration for seminars and excursions etc. in the Intranet
- Estimated effect:* Better information on member and customer activities

*The following success factors will be affected:*

- Customer satisfaction
- Secure financing Employee motivation

Management processes

Customer relations

**Measure # 11: Appointing an overall project manager for the knowledge management program who is given authority to proceed with measures # 1 through # 10**

*Objectives/Expected Results:* Project-based systematic organizational development

*Actions:*

Project manager coordinates actions relating to the measures, organizes project development, watches over developments concluded over the program and secures implementation

Creating a Department for Organization

*Estimated effects:*

Stability of the organization rises,

Predictability and controllability of success factors is improved,

Long-term perspectives become more visible,

Procedures can be more actively employed,

Value added becomes higher, knowledge resources can be employed more effectively.