

## Abstract

The focus of our research is the design of work structures and its influence on efficient knowledge management. The poster presents empirical results of a qualitative survey in regional SME-networks. It represents statements of 14 chairmen, employees and network-moderators of networks from different industrial sectors.

The results show, that the current mode of co-operation is mostly hierarchical. In most cases, the components of co-operation – operation, communication, coordination – are delegated to different hierarchical levels: **operation to the shop-floor level** and the **inter-organizational communication and coordination to the management level**. So at the beginning the cooperation only takes place on the chairmen level without participation of the employees. But the results show also, that a participation is urgently necessary because synergies at the operative level of the workflow are not possible otherwise. The delegation of coordination tasks on the operative level made processes much more efficient.

The poster evidences the results for the two focuses. Finally the results are discussed in the context of new, flexible, cooperative work structures and necessary demands from the view of efficient knowledge management. The collaborative research center 457 „Non Hierarchical Regional Production Networks“ at Chemnitz University of Technology forms the background of this research.

### From Data to Knowledge

From data information derives, if a specific situation or problem is addressed, i.e. the information is seen in the light of a certain problem. Subsequently knowledge develops from the networking of information. It therefore depends upon information about relations of single information and about the ways how it can be networked (cp. Habermann, 1999, pg. 6f.).

### Knowledge

Knowledge is manifold. It consists of different elements as information, experience and findings, that are influenced by consciousness and learning ability. Results are different too, appearing within know-how, intelligence and competence. Thus all definitions of „knowledge“ depend upon the context of investigation (cp. Habermann, 1999, pg. 4).

### Knowledge Management

Knowledge management deals with the identification of the structural organisation of intellectual goods, with the creation of new knowledge and with access to all information outside the organisation. It is related to the application of best-practice-models and especially with the design of a central IT system as the necessary basis for all those tasks (cp. Habermann, 1999, pg. 17).

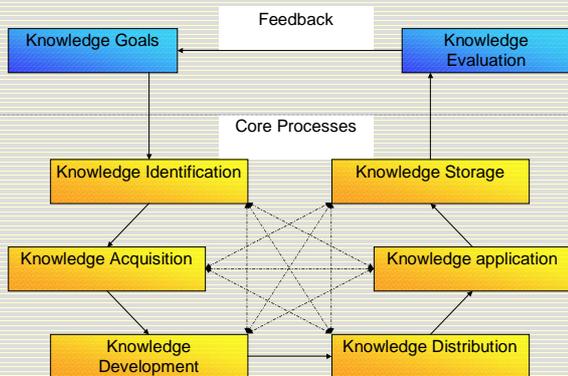


Fig. 1: Elements of knowledge management (cp. Romhardt 1998, pg. 51, Habermann, 1999, pg. 21; Held / Maslo / Lindenthal, 2001, pg. 29; Höbig, 2002, pg. 62)

### Method

Our research has been conducted by two methods: the analysis of case studies reported in newspapers and internet and by expert interviews with representatives of SME networks. After a first telephone contact semi-structured interviews of appr. 45-90 minutes had been realised, completely transformed and analysed with QSR Nvivo 1.2.

### Results

Role holder	Internal moderator	External moderator	some moderators
Financing	Self financed		others finance / grant based
Role duration	Stable		dynamic – different moderators for single process steps
Task elements	"classic" moderation		operative tasks

**Early Tasks for Cooperation:** partner search / completion of the networks; motivation of (potentially) members; analysis of cooperation needs; set up of network structure; initiation of operative work; development of strategy; goal setting; goal conflict moderation; bundling of interests.

**Tasks for ongoing Cooperation:** negotiation with public bodies, PR, adaptation of strategy; "business process engineering" for network organisation; management of information and communication between partners; creation of ICT systems; moderation; identification of joint projects; acquisition of grants; moderation of joint task groups; initiation of project groups; moderation of goal conflicts; bundling of interests; controlling and support for self organisation.

### Sample

**Engineering Network:** Association founded 1992, appr. 60 members, to bundle interests of engineering industry in the Chemnitz area and to develop further initiatives as a buyers pool.

**Regional Network:** Based on the joint localisation and history of its 12 members. Heterogeneous structure: from joint services to integrated production. There is no joint enterprise.

**Construction Network:** Cooperation initiated 1996 by a single entrepreneur to offer complex construction services to improve the market position of the 8 SMEs.

**Network Metal production:** Founded by its 6 members 1996 with the goal to develop new products jointly and to acquire R&D funding. There is no joint enterprise.

**Network Art craft production:** Historically grown cooperation with predecessors since 1919 and currently appr. 150 members. Primary intention is the international marketing. Further on a number of member services as buy, personnel development and information management had been established.

**Networking Initiative of a border near area:** The border crossing initiative brings together members from Germany and Czech Republic since 3 years.

**Counselling Network:** Since 3 years the appr. 25 members combine there experience as engineers, economists and technicians to work successfully on integrated interdisciplinary projects within the association.

### Synopsis of Networked Organisations

	virtual team	virtual project	temporary virtual organisation	permanent virtual organisation	meta-network	cluster
range of involvement	internal to an organisational function or department unit	across functions and organisations	across organisations	across organisations	across organisations	across organisations
membership	small, local	intermediate	typically large	smaller, but scaleable	large, vague	typically large, scaleable
mission	teams on specific, ongoing tasks	multiple organisational representatives working on specific projects	multiple functions responding to a market opportunity	all functions and full functionality as a working organisation	multiple functions in advance of a market opportunity	multiple functions in advance of a market opportunity
length of project	membership varies, but form is permanent	temporary	temporary	permanent	permanent	permanent
uses of IT	connectivity, sharing embedded knowledge (e-mail, groupware)	repository of shared data (databases, groupware)	shared infrastructure (groupware, WANS, remote computing)	channel for marketing and distribution, replacing physical infrastructure	platform for knowledge management (not obligatory)	platform for knowledge management (not obligatory)

Fig. 2: Cooperation forms and characteristics (cp. Palmer & Speier 1997, Okkonen 2002, Köhler & Schilde 2003).

### Summary

The results presented deliver first evidences of mechanisms of work structuration and moderation in networks. Such experience is currently used for the development of a catalogue of quantitative methods for cooperation processes. In a new project we are defining demands toward the network moderation and subsequent needs of competence development. Finally we will test our instruments for network – moderation („toolbox for innovative Networkers“).

### References

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