

# FROM FUNCTIONAL TO THEMATIC ORGANISATION: KNOWLEDGE NETWORKS AS DRIVERS FOR CHANGE AT THE AUDIT COMMISSION

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## ABSTRACT

*This paper presents our experiences of a 14 months participatory action research project in the Audit Commission, a major governmental body, responsible for auditing, inspecting and researching public service quality and efficiency throughout the territories of England and Wales. Its workforce, geographically widely dispersed, must operate in strict observance of legal regulations and policy guidelines. Since the introduction of competition into public services, professional practices are compelled to change at accelerating pace in accordance with continuously evolving government policy and law. Under these conditions, the capability for organisation-wide learning, knowledge sharing and good practice transfer had become paramount for fast and effective practice change. The aim of the intervention was to introduce greater collaborative capability through a thematic organisation of the workforce, using knowledge networks, otherwise known as communities of practice, as a driving force. We present the design and execution of the intervention and outline its organisational impact. The design components included an intervention framework for launching business focused knowledge networks, a governance system for linking knowledge networks into the functional structure; a co-operative behaviours framework for knowledge network participants; and a process for evaluating the progress and performance of knowledge networks. The knowledge network initiative has been a tremendous success. Knowledge networking, the evaluation has shown, has increased staff's operational efficiency and improved service quality. Yet, most importantly, the impetus that the KNs have generated for thematic integration of the workforce, has been taken up at strategic level and resulted in a major restructuring of the Audit Commission around its knowledge domains and integration of the fragmented workforce into the new, 'one organisation'. This paper makes an important empirical contribution by documenting a real-world example of effecting structural change through the community of practice concept.*

## **1. INTRODUCTION**

This paper presents the empirical findings from the final stage of a longitudinal research project into Knowledge Networks (KNs), otherwise known as ‘communities of practice’, that proceeded, in total, over a period of 32 months. The project covered two phases. Phase one (18 months) undertook case study analyses of informal collaboration and knowledge sharing in naturally grown communities of practice at the Audit Commission and four other large-sized organisations from diverse industry sectors. Results from other phase one cases were reported at the OKLC conference in 2002 and elsewhere (Breu and Hemingway, 2002a; Breu and Hemingway, 2002b; Breu and Hemingway, 2002c).

Phase two (14 months) extended from November 2001 to December 2002. It took a participatory action research approach and, building on the findings from phase one, was designed to assist the Audit Commission, a major governmental body in the United Kingdom (UK), in developing collaboration and knowledge sharing, through KNs, more strategically. This paper reports on phase two of the project and is written by two academics, who have undertaken the entire project, and two practitioners from the Audit Commission who are the key collaborators in this research.

## **2. LITERATURE AND RESEARCH OBJECTIVES**

The study was conceptualised using the original literature on legitimate peripheral participation (Lave and Wenger, 1991), communities-of-practice (Brown et al., 1989; Brown and Duguid, 1991, 2001; Boland and Tenkasi, 1995; Wenger, 1998; Cook and Brown, 1999; Wenger and Snyder, 2000; Wenger et al., 2002; Hutchins, 1991; Krackhardt and Hanson, 1993) and the associated empirical research (Orr, 1987, 1990; Lave and Wenger, 1991; Barley, 1996; Almeida and Kogut, 1999).

### **2.1 Communities of Practice**

The concept of the community of practice derives from a social theory of learning (Brown et al., 1989; Lave and Wenger, 1991) that critiques traditional notions holding that “all learning takes place inside individual human heads” (Simon, 1991, p. 125) and that knowledge resides in individuals alone (Grant, 1996; Liebeskind, 1996). Contrary to the idea of knowledge as an individual property, proponents of a social theory of learning insist that “a great deal of knowledge is both produced and held collectively” (Brown and Duguid, 1998, p. 91). Learning, accordingly, is not entirely an isolated activity, it is also a situated process which occurs within social contexts of activity (Brown et al., 1989). As a sociological concept, “communities of practice” are proposed as an embodiment of those contexts and described as informal, self-organising networks of people dedicated to joint learning and the sharing of knowledge in an area of common interest or expertise (Lave and Wenger, 1991). In organisations, communities of practice have been used as a knowledge management strategy and are defined to assemble practitioners who have worked together over a period of time and, through extensive communication and interaction, have developed a common sense of purpose and a desire to share work-related knowledge and experience (Wenger and Snyder, 2000).

The essential characteristics of communities of practice are: they are not defined by organisational mandate but by the unique practices that they evolve through engaging deeply in a shared task, job, or profession (Brown and Duguid, 2001); they convene members from diverse professional roles, cutting across functional, hierarchical and organisational boundaries (Wenger, 1998); they experience an ongoing flux of membership, with people entering the community from the periphery, gaining status as knowledgeable members through participation in the community's practices and disengaging as their interests unfold (Lave and Wenger, 1991); and they are "resistant to supervision and interference" (Wenger and Snyder, 2000, p. 140).

## **2.2 Social Practice and Epistemic Worlds**

The notion of practice in a social theory of learning is not used in terms of the classic distinction between 'practice' and 'theory' (Wenger, 1998). A fundamental tenet of a practice view of human action is that doing and knowing, practice and theory, are inseparable (Brown et al., 1989; Wenger, 1998; Cook and Brown, 1999; Brown and Duguid, 2001). When people engage in joint activity, they create collective knowledge and, over time, practices evolve that reflect their activities and social relations (Brown and Duguid, 1998). Practices are the distinct property of a community and not of the individual members (Brown et al., 1989; Brown and Duguid, 2001). In that sense, all practice is social practice (Wenger, 1998).

As the knowledge a community of practice grows reflects the accumulated insight particular to that community, people who participate in collective practice evolve shared epistemic worlds (Brown and Duguid, 1998). Once people join a community and begin to use its concepts, a process is under way that "entails both changing the user's view of the world and adopting the belief systems of the culture in which they are used" (Brown et al., 1989: 33). Shared epistemic worlds reflect members' communal ways of perceiving and interpreting the world (Fish, 1980; Barnes, 1983; Brown and Duguid, 1991; Boland and Tenkasi, 1995); a claim that has been empirically supported by several studies (for example, Orr, 1987; Hutchins, 1991; Barley, 1996). The idiosyncrasy of community knowledge and practice constitutes an epistemic barrier to those who are external to the community (Boland and Tenkasi, 1995; Knorr-Cetina, 1999). The sharing of knowledge between communities is inevitably limited, for it is at divisions created through practice that knowledge sticks (Brown and Duguid, 2001).

## **2.3 Community Culture and Identity**

Humans assimilate and influence the beliefs and behaviours of the social groups in which they participate (Brown et al., 1989). Likewise, communities of practice evolve distinct cultures that shape, and are shaped by, the values, beliefs and behaviours of their members (Lave and Wenger, 1991). Shared cultures become manifest in communal ways of thinking and acting and are expressed in language, jargon, narratives, symbols, tools, artefacts, and routines. Narratives and discourse are especially essential components of a culture, as they provide access to much of the tacit and distributed knowledge of a community (Orr, 1987; Brown et al., 1989). The cultural forces that bind the members together are unique to their community of practice, as is documented by empirical studies of, for example, technicians (Barley, 1996; Orr, 1990), managers (Spender, 1989), engineers (Almeida and Kogut, 1999), midwives, tailors and quartermasters (Lave and Wenger, 1991), and claims processors (Wenger, 1998).

A social perspective of learning further implies that people do not simply learn *about*, they also learn *to be* (Bruner, 1996). Learning shapes people's sense of identity, as it not only entails gaining knowledge, "it also involves acquiring the ability to act in the world in socially recognized ways" (Brown and Duguid, 2001, p. 200). For instance, people are seen to become managers or engineers not just by acquiring the technical expertise of the profession but by winning the recognition of their professional peers (Orr, 1990; Ibarra, 1999). This view suggests "that what individuals learn always and inevitably reflects the social context in which they learn it and in which they put it into practice" (Brown and Duguid, 2001, p.201). Once people are socialised into a community, they assimilate the communal, local view of the profession and what it means to be a member of this practice (Lave and Wenger, 1991; Brown and Duguid 1991).

The review of the literature revealed that existing writings are preoccupied with describing communities of practice as a sociological category and with proposing their benefits to organisations as mechanisms for fostering informal knowledge sharing and best practice transfer. Very little guidance is available on how to help organisations identify naturally occurring community of practice activities and purposefully implement the concept organisation-wide as a way for managing knowledge through people, as opposed to technology-driven, strategies (Wenger et al. 2002; Collison and Parcell, 2001). Taking a participatory action research approach, the aim of this research was to effect in the Audit Commission a structural change towards greater thematic organisation of the workforce, using KNs as a driving force.

### **3. CASE STUDY CONTEXT AND ORGANISATION**

The Audit Commission describes its purpose and mission as that of "... an independent body responsible for ensuring that public money is used economically, efficiently and effectively. Our aim is to be a driving force in the improvement of public services; we will promote proper stewardship and governance and we will help those responsible for public services to achieve effective outcomes for users and the public" (<http://www.audit-commission.gov.uk>). The organisation employs around 2,500 staff who oversee public services, such as healthcare, education, local government, police, fire, criminal justice, housing and social services.

The knowledge needed by the Audit Commission to deliver its services is provided by three key professions: auditors, inspectors, and researchers. Auditors are appointed to audit public service providers' accounts and financial statements, financial aspects of corporate governance and performance management, and to report the results of audits to the public. Inspectors are tasked to inspect local services, assess their quality and cost effectiveness, and to help local authorities to improve continually. Researchers are responsible for conducting analyses of public services and citizens' needs, based on primary research through surveys, interviews, observations, or secondary research using data produced by auditors and inspectors. Since the work of auditors, inspectors and researchers covers the territory of England and Wales, the Audit Commission's workforce is geographically widely dispersed. Audits and inspections are executed in strict observance of legal regulations and policy guidelines, which change continuously in accordance with developments in government policy and the law.

The nature and conditions of work make it clear that the Audit Commission's outputs are purely knowledge-based and that its workforce represents what are today called knowledge workers (e.g. Drucker, 1999). The quality and speed of knowledge sharing and innovation among the workforce has traditionally been constrained by its geographic dispersion, the sense of disconnection from the organisation, and the limited opportunities for meeting peers face-to-face. The demand for learning particularly follows from the statutory requirement for auditors and inspectors to keep up-to-date with revisions in procedures and legislation. In addition, the Commission is facing increasing public pressure to demonstrate its own cost-effectiveness and has recently been forced to compete with audit and inspection service offerings from private firms. These factors compelled the Audit Commission to define, as a strategic objective, the improvement of knowledge processes by better joining up dispersed expertise and, thereby, accelerating the sharing of good practice across the entire organisation.

#### **4. INTERVENTION DESIGN AND RESEARCH STRATEGY**

##### **4.1 Designing the Action Research Intervention**

The aim of the intervention was to “introduce KNs, otherwise known as communities of practice, which would provide semi-formal structures based around people who recognise that knowledge is more than that which can be captured and codified through technical systems. ... Organisations that aspire to manage their intellectual assets through knowledge strategies recognise the value of the tacit knowledge that its employees acquire, and try to create mechanisms, such as KNs, through which that knowledge can be harnessed. ... The advantages of KNs are that they allow sharing of experience, cross-fertilisation of ideas, exchange of intelligence in particular business areas, and facilitate professional development” (Excerpt from the KN business case endorsed by the Audit Commission's Board).

From the envisaged scope of the project that we had agreed with our partners at the Audit Commission, it became clear that we could base the design of the intervention to some extent on existing models and frameworks (Wenger et al., 2002). However, in the absence of models for designing a governance structure, for developing collaborative behaviours in KN participants and for evaluating progress and performance of KNs, we recognised that it was necessary to develop those collaboratively in a participatory action research inquiry. Within the participatory action research strategy, academics and practitioners engage in the dual roles of co-researchers and co-practitioners (Heron and Reason, 1997). The participating practitioners worked in the roles of Organisational Developers, Human Resources, Knowledge Managers, and members of the Knowledge Network Governance Structure, such as the KNSG, Knowledge Network Managers, Knowledge Network Chairs (KNCs), and Board Members.

In terms of the KNs themselves it was clear from the outset that they would have to serve two principally distinct purposes: improving the performance of the organisation's five service areas (Social Care, Primary Care, Community Safety & Criminal Justice, Education & Lifelong Learning, Housing, Environment); and responding to external governmental pressure and legal obligations for modernising existing ways of working (Diversity, User Focus, Community Leadership). The former were termed “service-specific KNs” and the latter, being of organisation-wide, universal concern, were referred to as “cross-cutting KNs”.

The design of the intervention itself started by developing a process for selecting, building and implementing the KNs (see Table 1).

The implementation of the KNs was designed to commence by establishing their mandate in terms of their impact on the organisation’s strategic objectives and their operational contribution to the workforce. We then advised to establish appropriate membership for each KN by identifying a common purpose and leaders who were enthusiastic about the KN project and had, at the same time, the credibility and influence within the organisation that would signal the strategic significance of the KN initiative. KN members were then invited to jointly develop initial KN’s objectives, plans, and actions, which were subsequently to be submitted for review to the Knowledge Network Steering Group (KNSG). The initial KN meetings were to be facilitated by helping the members to negotiate and pilot effective ways of working and interacting (e.g. communications, co-ordination of activity, capturing and sharing learning) and identifying resource needs, such as budget, time, travel, meeting facilities, rewards, and electronic facilities to support collaboration at a distance. Finally, it was to be made clear to the KNs that their progress and performance would periodically be evaluated by external researchers.

<b>Processes</b>	<b>Intended outcomes</b>
1. Establishing the mandate	Connecting KN purpose to strategic objectives
2. Establishing appropriate membership	Identifying people who share a common purpose
3. Assigning leadership responsibilities	Identifying credible, influential and enthusiastic KN leaders
4. Identifying KN objectives	Inviting members to define KN objectives, plans and actions
5. Supporting KN start-up	Facilitating early meetings, helping KNs negotiate effective ways of working and identifying resource needs
6. Evaluating the intervention	Assessing KN progress and performance

Table 1: Knowledge Networks implementation plan.

We then designed the governance arrangements to establish a mechanism whereby KNs would become linked into the formal organisation structure. Care was taken not to emulate conventional systems for the distribution of power, authority and accountability, as these would run counter to the spirit of the community idea. Instead, we devised what the Audit Commission calls ‘light touch’ governance. The arrangements we defined included a range of roles and responsibilities. Each KN was assigned a Board member as sponsor to express the strategic significance of the initiative. A KNSG, convening HR and Knowledge Management Directors, Functional Heads, Service Heads, Line of Business Heads, and Board Members, was established to present an external challenge to the KNs and ensure that their activities deliver to corporate objectives. The KNSG was also made responsible for championing the initiative at management boards across the organisation and was tasked to ensure that the KNs would be linked into the wider organisational development work. KNCs, as leaders of the networks, were expected to direct KN activity and ensure that the KNs developed in line with the larger organisation strategy. A KN Management Group, convening the core members and enthusiasts of a network, was to be created for each KN to provide a mechanism for driving the KNs forward.

We were aware that creating KNs alone would not deliver knowledge sharing. To avoid that KNs would become just another structural arrangement, they needed to be supported by collaborative behaviours among their members. In its 150 year history, the Audit Commission had evolved a formal, functional and professional culture, where individualistic and independent behaviours were sought and rewarded. The KN idea, in contrast, would require members also to espouse collective and interdependent behaviours in order to deliver to the organisation through informal ways of knowledge sharing and collaboration. To stimulate these new behaviours among the participants of the KNs, we co-designed with the practitioners the “Collaborative Behaviours Framework” (CBF) that was to be used to help KN participants envisage ways for working more collaboratively. In order to develop a meaningful CBF, we needed to gain a view of how staff perceived the existing organisation culture. To elicit those perceptions, we analysed the organisation’s staff attitude framework that is administered biannually in survey format to measure staff views of the organisation as a working environment, perceived values, behaviours and practices, need for change, and ideas for improving work conditions. In view of espoused behaviours, we identified a overemphasis on formal ways of working, task focus, control, and directive leadership. These behaviours represented the four core areas for developing the new collaborative behaviours (see Table 2).

<b>Traditional behaviour</b>	<b>Knowledge-based behaviour</b>
Formal working	Informal working
Task focus	People focus
Control	Creativity
Directive leadership	Facilitating leadership

Table 2: Behavioural development continuum.

The framework representing the areas of behavioural development had no prescriptive intent, as the imposition of cultural change is known to be ineffective. Instead, it was designed to be used by KN members to identify their own development needs and to evolve the new behaviours accordingly.

An important aspect of the KN project was to monitor the progress and performance of the KNs. To that end we developed the KN Evaluation Framework (KNEF). The KNEF covered ten areas of review (see Table 3) and was used to design the four data collection instruments that we employed to execute the evaluation: 1) template for non-participant observation of KN activity; 2) individual interview schedule; 3) focus group schedule; and 4) survey instrument.

<b>Evaluation area</b>	<b>Description</b>
1. Alignment of KN and corporate objectives	Demonstrating that the KN had developed a clear set of objectives, strategies, action plans, and internal progress reviews; Verifying that KN objectives delivered towards corporate objectives.
2. Membership and affiliation	Demands imposed on KN members in terms of skills, time, contributions; Degree to which KN members identify with the KN's purpose and activities; Access mechanisms to the KN for new members.
3. Processes and behaviours	Processes used for within and across-KN communications, co-ordination of activity, and collaboration; Practices for documenting output and activity; Effectiveness of ways of working; Collaborative behaviours.
4. Production and dissemination of KN knowledge	Degree to which KNs capture their knowledge and disseminate it within the KN, to other KNs and across the organisation; Forms of knowledge capture used; Efforts undertaken to raise awareness of the KN, its knowledge and expertise.
5. KN leadership	Scope to which the KN Chair supports the performance of the KN by having and communicating a clear vision for the KN, by making efforts to enable the KN to acquire and disseminate knowledge; Extent to which KN Chair drives the alignment of KN and corporate objectives.
6. Achievements and impacts (internal)	Degree to which the KN delivers to mandate of nurturing knowledge, contribute to organisation development through collaboration, help create the new, 'one organisation'; plus any other achievements and impacts.
7. External contributions	KN contribution to local client services and national policy.
8. Members' development needs	Extent to which KN is an environment for staff development; Development needs arising from participation in KN activities.
9. Governance, resources and rewards	KN sponsorship, its link into the wider organisation structure; Support from line management; Appropriateness of external challenge from KNSG; Information management needs; IT resources and needs; Adequacy of rewards for KN contribution.
10. KN future	Members' and leaders' views of their KNs' development over the next twelve months.

Table 3: Areas of KN evaluation.

We completed the design stage of the intervention project by developing an overall time plan for the execution of the project (see Table 4).

<b>Action</b>	<b>Duration</b>	<b>Date</b>
Intervention design	1 month	November 2001
Pilot project	3 months	December 2001 – February 2002
Main roll-out	8 months	March – October 2002
Evaluation	2 months	November – December 2002
<b>Total of Phase 2</b>	<b>14 months</b>	<b>November 2001 – December 2002</b>

Table 4: Outline intervention time plan.

For the design of the intervention we allocated one month, three months to undertake the pilot phase of the project, eight months for the main roll-out of the KNs and two months for evaluating the initiative.

## 5. EXECUTING THE INTERVENTION

From phase one of the project we had identified that the organisation had already a variety of KNs in a number of subject areas, with varying degrees of maturity and reach. These informally evolved KNs had operated until then largely at local level and were confined to isolated pockets. Over time, this had created, along with the strictly functional organisation structure, a fragmentation of people and expertise. We were conscious that the realisation of organisation-wide benefits from KN activity would require a national-level roll out.

The intervention plan foresaw to initiate the KN implementation through a three-months pilot project. We selected three of the pre-existing KNs to serve as pilot cases. We introduced the participants of these KNs to the project in a workshop and shared the documentation and frameworks we had by then developed. The initiative was received with great enthusiasm by the KN members. Having so far operated only at local levels, they immediately recognised the opportunities that national-level knowledge networking could provide. The participants of the KNs were then invited to select a leader (KNC). To help them scale up KN membership to a national-level coverage, we jointly designed a communications plan, championed by the Board, to make staff within the wider organisation aware of the existence of the KNs and invite those to whom membership might be of value to express their interest. Within the pilot, we tested the KN implementation plan (see Table 1) together with the specifically developed frameworks. The pilot phase was completed through review workshops with the members of the three KNs where we captured the learning from the experience and identified improvements to the implementation design and intervention tools.

As soon as we had jointly revised the frameworks and tools, we began the larger, national level roll-out. In this stage, a further six national-level KNs were created, which resulted in nine KNs overall that represented a total of 267 KN members or, in other words, just over ten percent of the workforce (see Table 5).

<b>Service-specific KNs</b>	<b>Cross-cutting KNs</b>
Social Care	Diversity
Primary Care	User Focus
Community Safety & Criminal Justice	Community Leadership
Education & Lifelong Learning	
Housing	
Environment	

Table 5: Knowledge Network types.

Throughout the main phase of the intervention, which lasted for a further eight months, we, the action research team, and the governance bodies helped the KNs to get started. We

facilitated the initial set-up of the KNs, were present at KN meetings for discussion and to offer advice, collected and documented observational and informal interview data with KN members and leaders, and fed our observations and learning back to the KNSG. The KNSG convened monthly to review the progress of the KNs and agree actions for resolving any organisational and resource constraints that the KNs encountered.

## 6. EVALUATION AND RESULTS OF THE KN IMPLEMENTATION PROJECT

### 6.1 Data Collection, Analysis and Sample

Data collection for evaluating the development and performance of the KNs relied on a combination of observational, individual interview, focus group interview, and survey tools that we developed from the KNEF. The qualitative data were analysed using grounded theory methodology and the survey data were subjected to statistical analysis using SPSS.

Data were collected on KN activities through twelve days of non-participant observation of KN events, such as meetings, away-days, and conferences. Seven focus groups were run with KN members only. To enable a comparative analysis of similarities and differences in experiences and perceptions across KN contexts, the focus groups were composed of members either from single or multiple KNs. Three focus group interviews were undertaken with the KNSG, the Knowledge Network Managers and KNCs. Twelve individual interviews were conducted with KN members, Chairs, and KNSG members. In addition, three Board members, who are sponsors of the KNs, were interviewed individually to obtain a strategic-level view of the initiative. Finally, an electronic survey was administered to all 267 staff affiliated with KN activity with the aim of eliciting data, which would allow us to assess the wider relevance of the qualitative findings. 68 completed survey forms were received, giving a 25% response rate. All of the data were analysed and used to produce an evaluation report. It presented the findings on the progress and performance of the nine KNs, elicited the learning from the eleven months of KN activity, and identified the development areas for the next stage of the intervention. This report was posted on the intranet and, thereby, made available organisation-wide.

### 6.2 Evolution of a Thematic Structure through KNs

Given the comprehensive scale of the evaluation (see Table 3) and our obligations to retain confidentiality in certain areas, we can only report the more general, higher-level findings. A core result of the intervention concerned the evolution of a thematic structure that underlies the traditional functional organisation structure (see Figure 1).

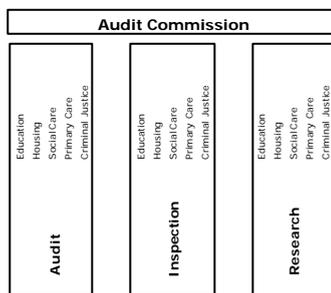


Figure 1: The traditional functional organisation structure.

When the project commenced, the Audit Commission was organised into three functions: audit, inspection and research. Each function had its local experts in the five service areas of Education, Housing, Social Care, Primary Care and Criminal Justice. The new structure, in contrast, pools expertise from across the three functions into thematic groups, such as Housing, Education, Social Care, Primary Care, Criminal Justice, Diversity, User Focus, Environment, and Community Leadership (see Figure 2). Whilst the functional organisation remains the means for delivering through the formal structure, the thematic organisation enables delivery through an informal structure. KN members have no formal roles, responsibilities and accountabilities, as, for instance, members of project teams or work groups would have. In addition, the governance body's mandate is facilitation, rather than control, which is called 'light touch' management by the organisation. The new organisation structure, an overlay of formal and informal elements, should, therefore, not be mistaken for a matrix organisation.

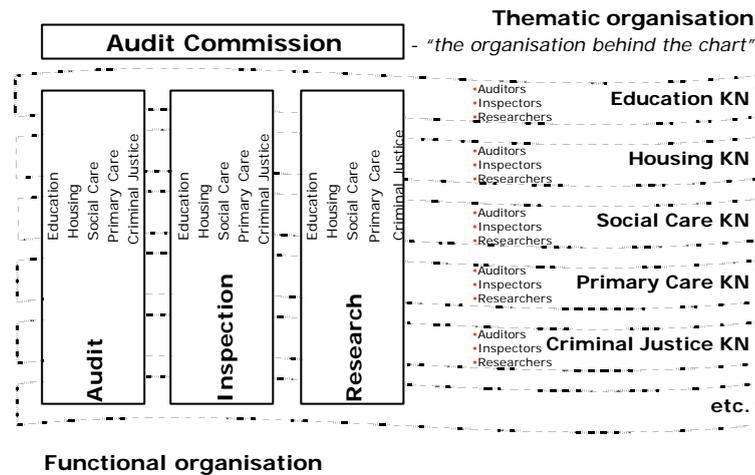


Figure 2: The new, thematic organisation structure.

The new thematic structure connects in new ways knowledge and activities across the Audit Commission's three functions. By stimulating cross-functional and nation-wide knowledge sharing, the thematic structure also delivers more rapid transfer of best practices within the organisation and wider dissemination of local learning. The thematic structure is an additional, informal structure, creating what has been termed 'the organisation behind the chart' (Krackhardt and Hanson, 1993).

### 6.3 Organisational Contributions of KNs

The evaluation established that KN contributions, at this stage, are mainly internal. Governmental policy and legislation form the basis for designing auditing and inspection methodologies, procedures and checklists. These tools are fundamental to the auditing and inspection process, as they implement government policy, and require continuous updating in line with changes instigated at government level. KNs were found to improve internal collaboration on the joint development of auditing and inspection tools significantly. By bringing together three perspectives, those of auditors, inspectors and researchers, and

ensuring the right people are involved in the development of these outputs, their quality and relevance was seen to improve noticeably through knowledge networking.

KNs had further come to be seen as the custodians of expert knowledge and good practice, which had evolved a discipline for capturing knowledge and making it available through records of activity, discussion papers, tools, good practice guidelines, newsletters and client documents. External contributions, although still in their infancy, were already evident. Examples we found concerned the ability created by KNs for co-ordinating responses to third-party enquiries and, thereby, beginning to influence other external agencies.

#### **6.4 KN Goals and Strategies**

When the KNs were set up, they were advised to develop goals and strategies. The most widely represented goals that KNs had identified for themselves included the dissemination of good practice, acting as a reference group for external enquiries, and providing capability for developing expert products and tools that would not exist otherwise. The evaluation revealed that awareness of KN goals and strategies among KN members was surprisingly low, even though appropriate documents existed.

#### **6.5 KN Behaviours**

In the evaluation, we asked KN members which of the collaborative behaviours set out in the CBF they had observed in one another. The results were overwhelmingly positive. For instance, respondents stated, by majority, that KN members were keen to learn and develop through the KN, were proactive in sharing their knowledge for the benefit of the KN, supportive of colleagues who seek assistance from the KN, and make efforts to raise the profile of the KN within and outside the organisation.

#### **6.6 KN Resource Needs and Rewards**

The evaluation showed that, as interaction and communication patterns among KN members have become more established, they felt they had a more concrete idea of what resources they needed to support KN activity. In view of their ability to capture, store and transfer knowledge, they expressed the need for KN-specific electronic repositories on the corporate intranet. Given the geographic dispersion of the workforce and the heavily document-based working style, KN members further identified the need for electronic collaborative tools to facilitate joint working at a distance. One of the most unambiguous results of the evaluation concerned the KN members views of rewards. Almost without exception they reported that KN membership was a reward in itself and that there was no need for financial rewards.

#### **6.7 KN Leadership**

KN Chairs assume a key role in helping KNs to be successful and maintain momentum. The evaluation revealed that KN members expected their leaders to help the KN to develop a strategy, disseminate knowledge across the organisation, develop a clear set of objectives, and help the KN gain visibility within the organisation. A comparative analysis of leaders' and members' data showed a wide congruence in their views and expectation of KN leadership.

## 7. CONCLUSION AND FUTURE WORK

This paper makes an important empirical contribution on the strategic use of the community of practice concept for driving the adoption of a thematic structure that complements the traditional functional organisation. To date, the communities of practice, as well as the wider knowledge management literature, have documented mainly localised initiatives across a set of departments, product lines, and specific problem solving domains, as in expert groups for oil drilling (Collison and Parcell, 2001), apprenticeship environments (Lave and Wenger, 1991) or groups of repair technicians (e.g. Orr, 1987; 1990).

The paper makes also a practical contribution for professionals implementing people-centric knowledge management strategies. It provides an intervention framework for creating organisation-wide KNs and for directing their activities towards business objectives. It includes a governance model for work organisation based on the community of practice concept; a co-operative behaviours framework; and an evaluation process for knowledge networking. The intervention framework, presented in this paper in outline form only, was developed over the 32 months of research and implemented in the Audit Commission through a participatory action research inquiry.

At this stage of the intervention, slightly over ten percent of the organisation's workforce actively participate in KNs. Given the positive reception of the KN idea by the organisation's professional groups and the contributions that KNs have been making despite their young age, a new phase of the project will commence in Spring 2003. This stage will expand the reach and coverage of the KNs to a larger section of the workforce.

More importantly, a major restructuring initiative of the entire Audit Commission has been launched early 2003 in response to the impetus that the KNs have generated for thematic integration of the workforce. The biggest success of the KNs has indeed been that they preceded and inspired a structure that is now being formally implemented.

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