

New Thinking to Escape the Crisis

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While many enterprises have been all but crippled by the current recession and are sending out loud distress calls, one major German car manufacturer sees it as an opportunity for change. Instead of relying on a handful of experts when developing new vehicles, the company plans to make use of the knowledge and creativity of the entire workforce. The project was initiated by in-GmbH, which is supporting it with its specialized expertise in the analysis of challenges and the provision of solutions to tasks by means of process-oriented applications.

Periods of recession and prosperity alternate with monotonous regularity. Now is a time of recession and many people in top positions are responding by doing exactly what they have always done in such situations: Close their eyes and hope for the best.

A large German automotive group did not simply want to wait for better times but instead decided to mobilize the creativity, innovative skills and organizational talents of its employees. It was well aware that globalization and the ongoing transformation of industrial societies into collaborative, knowledge-based societies confer a decisive competitive advantage on manufacturers who make the best use of knowledge as a factor of productivity.

Innovative fresh start despite the obstacles

The company wanted an approach that would spawn a variety of approaches at an early stage of product development.

This is because the conventional method, which consists of developing a product through to market-readiness on the basis of a single idea, ties up considerable resources while at the same time involving uncertainties and high costs. In the current situation, however, hardly anyone is able to predict how the market will develop.

Expert systems and knowledge management systems were installed in a number of departments in order to tap into the employees' knowledge potential. The results were similar to those achieved by other manufacturers who had launched similar projects: The employees only made very limited use of the new capabilities.

This problem was raised during a project discussion conducted between the automotive manufacturer's representatives and specialists from in-GmbH and was then further debated internally at in-GmbH, which soon identified an approach that would permit the successful

process-oriented integration of the employees' expertise in the development process.

Making knowledge a valid work component

Robin Babel, a consultant at in-GmbH, first of all worked with his team to identify the difficulties associated with the existing systems. "Employees are people who are paid to work together in an enterprise – at the moment, they are generally only paid for their labor. However, what industry needs is collaborative thinkers and innovators. The idea that knowledge is a resource must become rooted in the everyday work of management and employees alike. Only once this modern conception of the workplace has been comprehended is it possible for a knowledge culture to develop in an enterprise. This culture can then be stimulated using proven management techniques as well as formal methods and information technologies."

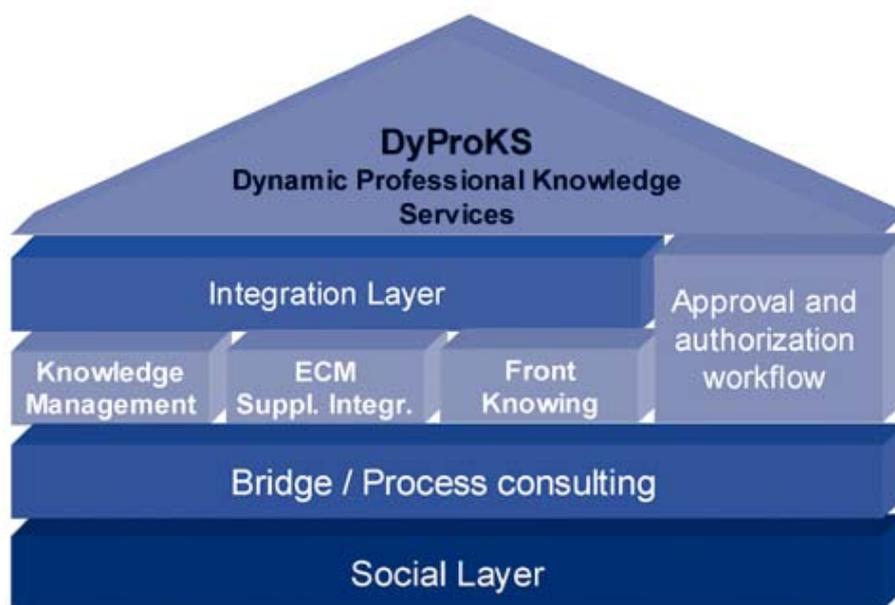


Figure 1: Creativity as a structured process in the enterprise: From the enterprise knowledge culture through to the idea release process, the Common Solution Framework DyProKS covers all process steps

This forward-looking philosophy represents the basis for the development of DyProKS – the Dynamic Professional Knowledge Services, a common solution framework which makes it possible to collate all the processes and methods necessary to be able to systematically use of the knowledge of the people who work for a business.

In the opinion of Robin Babel and in-GmbH, Web 2.0 revealed the underlying problem involved in handling knowledge. According to Robin Babel, “although specialization and the division of labor are undoubtedly two important components in the organization of our society, they have led to creative thinking becoming a special task entrusted to a few experts. Web 2.0 permitted the development of knowledge communities in which members make their knowledge available to others. One example is Wikipedia, which has developed into one of the world’s most important information portals in just a few years. Society has therefore already begun to

rethink – and perhaps the current crisis is also an opportunity for enterprises to start rethinking as well.”

It is, of course, difficult to capture creativity within a rigid process. However, structured processes help create both the space and conditions necessary for creativity to flourish. That is the basic idea behind DyProKS.

Unlike conventional approaches, the DyProKS process model covers every aspect of innovative imagination. The basis is the social component – the motivation of employees and their integration in the process of generating ideas. This forms the basis for the process consulting task itself – the free flow of ideas is converted into a structured form. This conversion permits the seamless integration of the processes involved in creativity and innovation in the enterprise’s existing processes: knowledge management, supplier integration, approval and authorization workflows. Thanks to the dynamic integration of the front-ends

in the workflow, all the interfaces can be flexibly adapted to meet the customer’s requirements.

A new enterprise knowledge culture

The first step, i.e. the creation of the social layer, demands that enterprises rethink the way they handle knowledge and ideas. Enterprises need to understand that their employees’ knowledge is a valuable resource and should be formalized in the contract of employment – with clearly defined rights and obligations for both parties.

Only when this step has been taken can this resource become a part of the core process and then be made use of, like other resources present in the enterprise, on the basis of proven management techniques.

DyProKS then provides support for the processes and methods necessary to make optimum use of the “knowledge”



Figure 2: Innovation becomes more innovative, the more people there are contributing ideas

component in the product development process. It is built on a threefold foundation: structure, documentation, transparency.

Structure

Thanks to the structured acquisition of information in the different areas of an enterprise, it is possible to collate the knowledge distributed throughout the employees' brains in one central location. Here, one important element of the creative process is crucial: pioneering ideas and innovations that prove to be successful usually emerge from an inspiring social environment in which many small steps turn the initial idea into a success.

If all the ideas are recorded in a structured way, each individual idea can form the basis for a subsequent proposed improvement – a little like the case of brainstorming. In the same way that one stone in a pyramid is rested on another until the pinnacle is reached, in this case in the shape of a solution.

Unlike the conventional approach, which consists of implementing a single underlying idea, this approach makes it possible to start with a number of basic ideas at a low cost and then further develop these individual ideas until the most promising approaches are taken over into the

subsequent project steps. Precisely at times such as this when budgets are tight, this approach permits the effective use of existing financial resources.

Documentation

Documentation of all the development steps is an important component. It is often thought of as a necessary evil and the result produced is correspondingly primitive.

In the case of DyProKS, documentation is an integral component of the processes designed to capture creativity. Thanks to the structured recording and evaluation of suggestions, coupled with the process-driven elaboration of ideas, the prerequisites for comprehensive documentation are already satisfied. DyProKS records all the processing steps and thus creates the necessary foundation for evaluations and reporting requirements. Even at a later date, it is possible to trace the underlying process steps, verify these and replicate them independently of the individuals involved.

Transparency

For a long time, many people still believed the slogan: "Knowledge is power." Some experts demand large sums for their specialist knowledge or use it as the

basis for acquiring positions of power. Anyone going it alone is no match for a well-organized network of thinkers.

Anyone who has ever asked a question in a Web 2.0 knowledge community knows this phenomenon: Even if a single answer does not lead to the desired solution then a useful starting point for a solution can often be found by combining a number of different answers. The individual answers are combined like the parts of a jigsaw puzzle to form the overall picture.

This is only possible if the path to the solution is transparent – everyone involved must be able to see the answers, carry ideas forward and improve on what has already been proposed.

Generating innovative ideas in an enterprise is not comparable in all respects with the exchange of information on a public Web platform. In an enterprise, transparency has its limits. DyProKS ensures that business secrets are only available to authorized members of the information exchange group: As much freedom as possible, as much protection as necessary.

Recombining proven approaches

From the very outset, DyProKS was designed as a framework. It uses existing

Processes as building blocks

How can social considerations be reconciled with technical processes? Only by combining all the factors is it possible to arrive at an overall solution that can be integrated in the enterprise's own processes.

To achieve this objective, DyProKS has a completely modular structure. The basic framework is task-oriented. The new perception of knowledge as a resource as well as the necessary process consulting are, in just the same way as the elements in the software itself, modules forming part of an overall solution. Each module is subject to clear requirements regarding what tasks it has to cover within the framework of the overall solution and the results of any given module form the input for the other elements.

Thanks to in-GmbH's proven philosophy of constructing its software to be as

modular as possible, existing components could be swiftly adapted to meet the new requirements – for example, the "approval and authorization workflow" module.

At the same time, the clear structure means that DyProKS can be seamlessly integrated in an enterprise's existing components: Since all the individual tasks are clearly separated from one another, existing processes can be integrated or adapted without this having any impact on the other modules.

Thus the social layer, process consulting, knowledge management, supplier integration, front knowing, the approval and authorization workflow and an integration layer create a four-level foundation which enables DyProKS to operate as a Dynamic Professional Knowledge Service.

subprocesses, adds missing components to the overall model and permits the flexible modeling of processes. As practical experience has shown often enough, most enterprises are already developing this new approach to handling knowledge. However, in most cases, this results in isolated solutions – there are as yet no examples of an end-to-end overall concept that works.

DyProKS now provides a framework which has been tested in practice and which makes it possible to combine the existing individual processes to form a comprehensive solution. Versatile, creative and efficient. In only five steps:

1. Making knowledge a valid work component: Integrating the use of knowledge in employees' tasks makes it possible to stimulate knowledge management using proven management methods.
2. Front knowing: The structured integration of distributed intelligence and management during the early phases of the product development process promotes the development of a common, formal understanding of the product while the organizational, communications, product and function structure are networked.
3. Integration: The newly created knowledge culture is integrated in the enterprise's core processes

4. Guided change management: The newly created structure encourages discussion and makes it possible to improve the common product model in a controlled way
5. Security: The approval and authorization workflow provides security and forms the basis for a certified release process.

Obstacles and solutions

The completely free exchange of information and ideas is utopian. This is again made clear by the knowledge communities: If no rules are defined and monitored to govern the exchanges then chaos quickly triumphs.

Professional moderation of contributions is an effective way of combating excess; however, in this case it is necessary to maintain a balance between supervision and the necessary freedom of ideas.

The best basis for a genuine exchange of ideas is to introduce a knowledge culture into the enterprise. Employees who want to contribute their thoughts generally identify strongly with the enterprise – they are proud to work for "their" company. Studies have repeatedly shown that money is not the most important motivation: For many employees, attention and recognition are rated much more highly.

Thanks to DyProKS, employees are more able to contribute their ideas and have the feeling of doing something for "their" company.

Maybe the current crisis is a good opportunity to look at the concept of "human resources" from a new perspective. Because if taken literally, this concept degrades employees to simple human labor. Integrating employees as contributors of ideas is a sensible way of replacing a part of the resource-based approach with a feeling of inclusion.

DyProKS is an ideal way of going about this. ■

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