

# Cross-industry innovation

**Christoph Dürmüller, Partner & Head of Management Consulting; and David Levin, Managing Director; both of Zühlke Engineering Ltd, London; discuss the benefits of looking beyond your own backyard**

Everyone today is talking about innovation as a driving force for growth and profitability, however, incremental improvements are not enough to achieve genuine competitive advantages; radical innovation is what's really required.

Major innovations are becoming increasingly difficult because most industries are quite mature. Today's products, services and business models are nevertheless largely shaped by the mindset of their respective industry. Drawing analogies beyond the borders of one's own industry can therefore open up interesting new perspectives and be a significant source of major innovative steps.

## Cross-industry innovation

The term 'cross-industry innovations' refers to innovations that come about by applying cross-industry analogies or by transferring approaches from one industry to another. Analogies can be drawn at a variety of levels ranging from technology to business model.

There are a multitude of examples of cross-industry innovations: The new iDrive Controller from BMW is one example. It is based on the tried-and-tested technology of the joystick. Another example is Geberit, a major name in the plumbing supply sector, which recently achieved cost reductions in the six-digit range. It plans its plumbing installations with a tool Zühlke originally developed for power plant construction and then adapted in short order to the special needs of Geberit. A third example is a sensor in the presser foot of Bernina sewing machines. It controls the needle in such a way that the stitch lengths are always constant regardless of the direction and speed of the fabric being fed in. Zühlke engineers opted for existing technologies and conducted a search in other industries. Today, Bernina uses a standard sensor from an optical mouse to measure fabric speed, a simple solution involving little development effort, low costs, and assessable risks.

## Where does the potential lie?

Most companies find that their innovation activities are strongly limited by the guardrails of their own economic sector. The probability of arriving at new solutions using cross-industry approaches is therefore quite high. Breaking through the barriers specific to your own industry has further advantages:

- The degree of innovation and the edge it gives a company over the competition are usually greater. That leads to a stronger differentiation of the product and service range and higher growth rates and margins.
- Expertise from another industry can generally be utilised without competitive conflicts.
- Making broader use of advances helps a company to lower costs and generate additional revenue from its own investments in development.
- Project risks and development time can also be reduced by using expertise from another industry.
- Opening up different types of skills and combining them across industries can help a company to improve its own powers of innovation.
- A company gains a new perspective on its own range from focusing on essential factors for success and analogies.

## Own industry as restrictive factor

In practice, most companies are strongly geared to their own economic sector. This behaviour is easy to understand; after all, the same business logic and challenges prevail. Moreover, the key staff in the industry forms a tight-knit network and staff recruitment is heavily based on experience specific to the industry. Against this backdrop, it is no wonder that efforts at cross-industry innovation are rare and unsystematic.

## Strategic focus

A clear strategic focus lays the foundation for

### About Zühlke

Zühlke is a leading independent technology and consultancy company focussed on providing bespoke software solutions and product innovation. Our multidisciplinary teams enable our customers to successfully implement their ideas for new products, services and processes. With over 4000 projects to our credit we have learnt how to bring customer ideas to life by combining our flair for innovation with our industry experience and engineering discipline. From our offices in Bern, Frankfurt, Hannover, London, Munich and Zurich we like to stay close to our customers.

a strong market position and a high level of competence in technologies, products and solutions. A company has to focus its limited resources but doing so poses a risk which should not be underestimated. The effective and efficient use of resources is often what inhibits a company from casting the proverbial glance beyond its own backyard.

### Abstraction as a success factor

In searching for cross-industry analogies, it is important for a company to depart deliberately from its view of today's product and today's solution. Instead it must consider the way its product is used in the customer process in a highly abstract way. That is a fundamentally different perspective and poses problems for many developers. However, a high level of abstraction is pivotal to the search for analogies.

### Risk management as a success factor

Risk management is highly significant for cross-industry innovations for two reasons. Firstly, radical innovations open up bigger opportunities for differentiation but also always entail greater risks. Secondly, the required sets of skills vary with each project phase. While experience in another economic sector is crucial for discovering analogies, profound knowledge of one's own industry is what is called for when it comes time to assess the possibility of transferring a solution to that industry and define the actual requirements to be met by a marketable product.

As a company that intentionally employs cross-industry approaches to innovation, BMW cooperates with highly innovative partners from outside the automotive industry in early phases of a project. Later on, it transfers the project and the expertise from its own business to system suppliers within its own industry.

### Partnerships as a success factor

It is important to have the right partnerships from the standpoint of risks and also with an eye to fully utilising one's own potential for innovation. Collaboration with knowledge brokers is an especially interesting aspect of partnership activities. These companies work with a wide variety of industries and offer valuable insights into different applications. In terms of sector affiliation, knowledge brokers are typically diversified development partners, suppliers of cross-technologies or universities. Cooperating with these companies has a leveraging effect in cross-industry innovation. It allows project knowledge and experience to be used efficiently in other economic sectors. At the same time, knowledge brokers also help to bring together interesting partners from different industries (acting as catalysts).

### Culture as a success factor

A corporate culture open to innovation, a

### Utilising cross-industry analogies



Recognise and utilise analogies ranging beyond the natural borders and mindsets of specific economic sector, for example technologies, patents, solution concepts, technical solutions, specialised knowledge and skills, new applications and markets, business processes, business models.

### Using a computer mouse in a sewing machine




The optical mouse sensor is used to monitor the fabric in sewing machines.

willingness and ability to cooperate with other companies and interdisciplinary thinkers are fertile ground for successful cross-industry innovations. Management must make a special effort to promote the use of differences and help employees break out of the dogma that 'industry knowledge is superior to all other knowledge'. Highly qualified development departments strong in technology sometimes tend to narrow their scope and overestimate their own abilities to a certain extent.

### Process and organisation

Cross-industry innovation is not a product of spontaneous generation nor can it simply be ordered from on high. It is something that has to be arranged and organised. If a company wants to tap into the potential of cross-industry innovation then it has to develop new skills. New employees with experience in other industries can give fresh impetus to this process. Usually, however, a company has to collaborate, at least initially, with partners outside its own sector.

In the search for analogies, a sensible combination and balance has to be achieved between strictly systematic approaches and creative approaches with less structure. Radical innovations often raise the issue of whether the project should be integrated into the original

organisational structure or be spun off to create a new business unit. There is no generalised answer to this question. Organisational structures will differ according to corporate culture, the size of the business, the project phase, the distribution of the required skills and personnel resources, degree of novelty of the project, etc. If innovation projects are spun off, it is especially important to secure the necessary domain expertise. Close attention also has to be paid to integration and the transfer of expertise in the industrialisation phase and during the launch. Effective steps have to be taken to avoid rejection responses from the main organisation. 

**For further information please contact:**

**David Levin**  
**Managing Director**  
**Zuhlke Engineering Ltd**  
**Marble Arch Tower**  
**55 Bryanston Street**  
**London**  
**W1H 7AJ**  
**Tel: +44 (0) 870 777 2337**  
**Email: info@zuhlke.com**