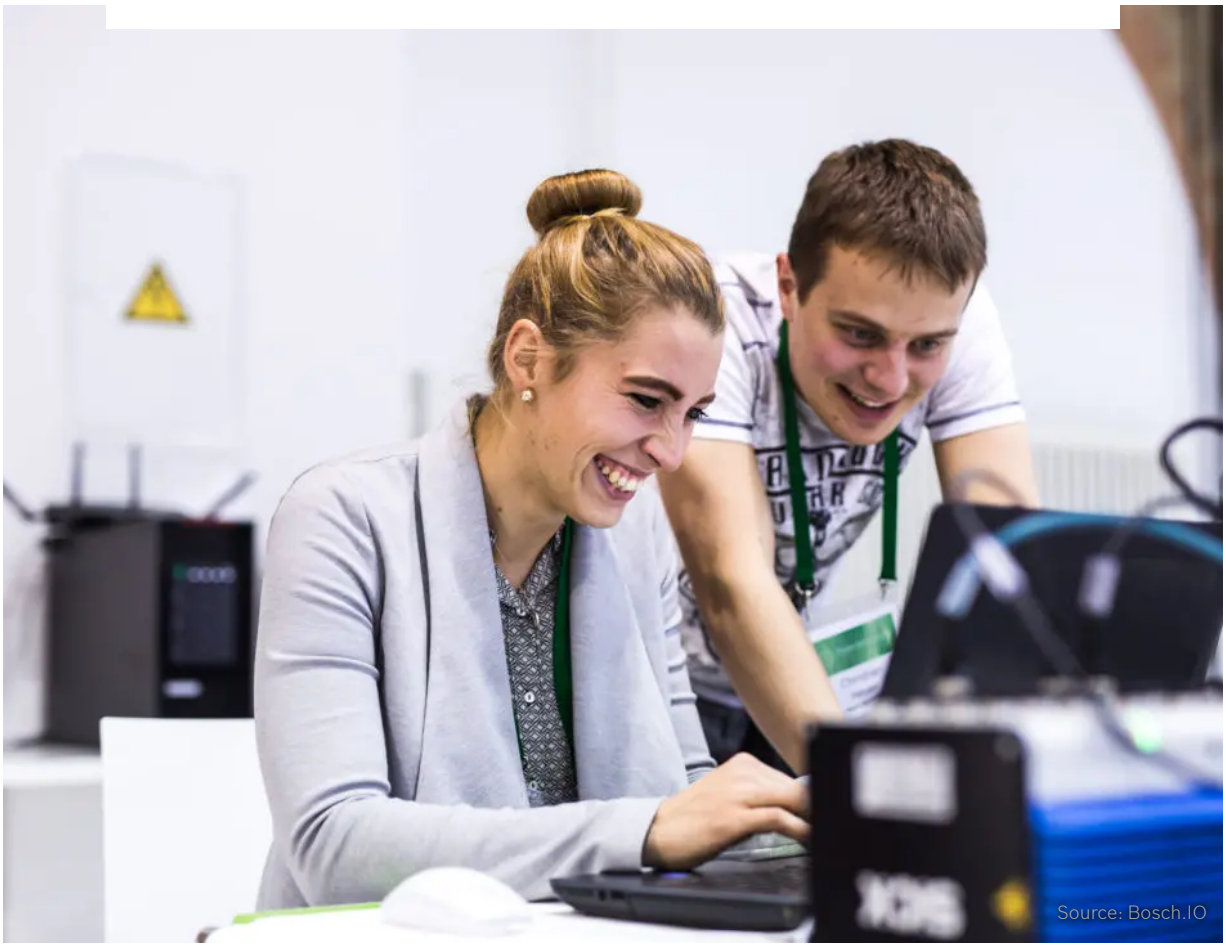
#BUSINESS MODELS

BizDevOps for digital services

DOMINIK STRUBE 4 MIN



Nowadays, innovations rarely arise within a single area of expertise. Instead, these now emerge at the interface between different professional roles, technologies, and sectors. As a horizontal technology, the Internet of Things (IoT) connects products and services from different industries. This paradigm shift not only challenges engineers and developers; it also shatters the logic of established company structures that emphasize clear demarcation. “A separation into functions helps to maintain the boundaries between departments at traditional companies. But greater priority should now be placed on enabling different departments to interact at interfaces. That is as much a matter of corporate structure as it is corporate culture,” says Hans-Jürgen Kugler, chief scientist at the consulting company Kugler Maag Cie.

What’s more, the IoT poses an additional challenge for manufacturers of products. “Innovative strength is shifting more and more to digital services. This adds far more value for customers than the use of the physical product alone,” explains Horst Hientz, innovation expert at Kugler Maag Cie. Digital services constitute an entirely new solution that would not be possible without the interaction between digital and physical components. For this reason, joint efforts will be needed to develop both types of components.

Software Drives. Digital Capabilities for Automotive Innovators 2030

In its management study Software Drives. Digital Capabilities for Automotive Innovators 2030, Kugler Maag Cie examines the fundamental things a company must be capable of to provide digital services in the Internet of Things. The report on Software Drives 2030 reflects a good 40 in-depth interviews with management decision-makers in the automotive industry and others. Kugler Maag Cie conducted the study in cooperation with Bosch and BMW as well as the Institute of Technology Management at the University of St. Gallen and the Bosch IoT Lab in St. Gallen.

Download the full report →

Core characteristics of digital services

To help you better understand what makes digital services different, we have selected three characteristics that manufacturers must address:

1. Horizontal technologies succeed on account of their **unconditional focus on customer benefits.** Providers of digital services begin at the end by making the customer's value proposition their starting point. They then contemplate which workflows and interactions are utterly necessary for customer satisfaction. In doing so, they disregard traditional approaches and their industry's conventional wisdom.
2. These providers instead interact directly with end consumers. In addition, their digital services are automated and operate in real time. Customers expect a **friction-free UX** at all times – no matter what services, technologies, and third-party providers a process involves at any given time. Content provided by the service must always be up to date. The service itself and the entire service chain must likewise be up to date and robust. This is important, as no single point of control exists for the subsystems involved.
3. Real-world services can be up to date, available, and robust without interruption only if a company correspondingly observes these principles: **Digital services require resolute organization.** Members of the organizational unit must create, further develop, and maintain a digital service throughout its use cycle. This is new territory for a traditional R&D department, whose job usually ends with the successful ramp-up of production. These specialists have typically moved on to the next project before production even begins.

This creates a tough high-wire act for product manufacturers. Top managers must namely pay equal attention to digital services and established technologies, which compete for scarce resources.

Infographic illustrating BizDevOps for digital services Source: Kugler Maag Cie

With IoT business, there is a logical shift from vertical segregated industries and technologies to horizontalization to provide a unique friction-free UX.

BizDevOps bring customer benefits into greater focus

If you strive for a friction-free UX, then you must change your mental perspective by making the customer benefit your starting point. Doing so has consequences as straightforward as they are ambitious: manufacturers of products require both new business models and a new organizational structure.

In contrast to a product manufacturer with clearly defined departments in a classic vertical structure, digital services call for workflows that prioritize speedy and interdisciplinary communication and decision-making. These workflows must always focus on supplying services that provide customers with the benefits they want. In addition, development engineers and software developers must transition away from completing different project tasks on a tight schedule towards working collaboratively to maintain and further develop a service for its entire use cycle. A suitable solution in this regard are BizDevOps capabilities. This concept adds a business angle to the DevOps approach to software development. The term BizDevOps refers to three core tasks: consideration of customer and business aspects (Biz) during the economical and targeted development (Dev) of a service that operatively maintains its appeal (Ops).

Dominik Strube

Dominik Strube is project leader of the Software Drives 2030 series of studies at Kugler Maag Cie, a consulting company specialized in process optimizations in the development of electronics. Dominik Strube is a guest author for the Bosch ConnectedWorld Blog.

Teams that are task-oriented and work end to end are precisely the opposite of a traditional corporate hierarchy, where the division of labor results in narrowly defined tasks and responsibilities. A service team with BizDevOps capabilities, by contrast, does its work in a comprehensive, independent, and accountable way. Such a team is a microcompany, so to speak, within the larger corporate structure. An interdisciplinary team is as diverse as its responsibilities, comprising IT experts, developers, analysts, and business consultants, for instance. Team members are distinguished by their sharp focus on customers, as they perceive in real time the extent to which customers accept a service and what market opportunities arise. Feedback from customers prompts BizDevOps specialists to take action. They can decide on their own, for example, to improve a service at short notice, make modifications by region, or develop a new feature.

Infographic illustrating BizDevOps for digital services Source: Kugler Maag Cie

By aligning cross-functional needs BizDevOps principles support the creation of a friction-free UX for digital services.

Conclusion

It must be emphasized, however, that companies will continue to employ product development specialists and people in other established roles. What's more, there will also be departments that conduct traditional business operations in order to generate the revenue needed to set up experimental approaches. Suitable forms of organization must be designed to meet these varying requirements. As a result, the company of tomorrow will be a hybrid – comprising a varied blend of vertical, horizontal, or matrix elements.

The company as a whole will shift even more towards portfolio management: Bonifaz Maag, managing partner of Kugler Maag Cie, puts it this way: "Digital services depend on self-determination; these specialists need the freedom to act independently. This requires companies to be courageous and level-headed, because self-determination can work only if the parameters are clear. Management is responsible for governance and needs to provide guidance. This, in turn, calls for transparency in terms of expectations and targets."

Digital business models necessitate, first and foremost, new and decidedly experimental approaches. For this to become a reality, the corporate culture must embrace a focus on customers and 360-degree decision-making. It is in this context crucial that the company defines its target as the foundation of its system architecture. The company must then develop workflows and structures tailored to the task at hand – ideally by observing BizDevOps principles.

More on business models and DevOps

Take a look at the 4E-Framework which includes four clusters of enablers towards digital transformation.

How to approach digital transformation

Adopting the DevOps mindset for the enterprise business: James Kirkland of RedHat provides insights.

Watch James Kirkland's session from BCW 2018

Open Source for DevOps: Find out how kubernetes is used in the context of the Bosch IoT Hub.

Watch this DevOps session from BCW 2018

Recommended for you

#BOSCH IOT SUITE

If Bosch can do

#DIGITAL TRANSFORMATION

How

#BUSINESS MODELS

A guide to data

it, you can do it

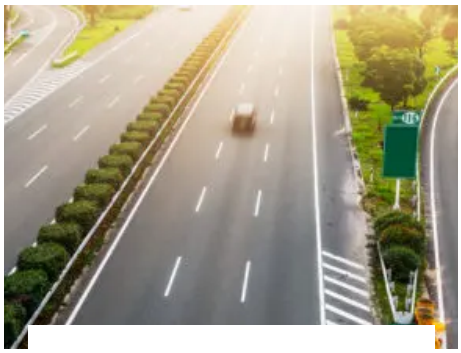
5 MIN ©BOSCH.IO

established brands collaborate

VERONIKA BRANDT 4 MIN
©ISTOCK/PEOPLEIMAGES

monetization

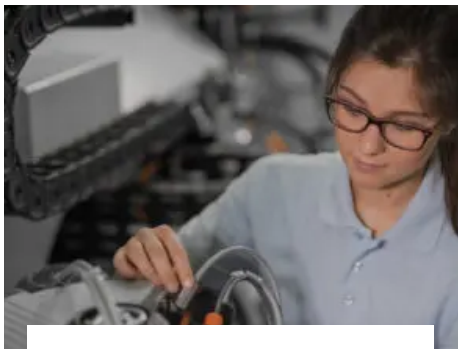
PHILIPP RICHERT 4 MIN
©UNSPLASH/JIMI FILIPOVSKI



#MOBILITY

How the Bosch IoT Lab is making driving more

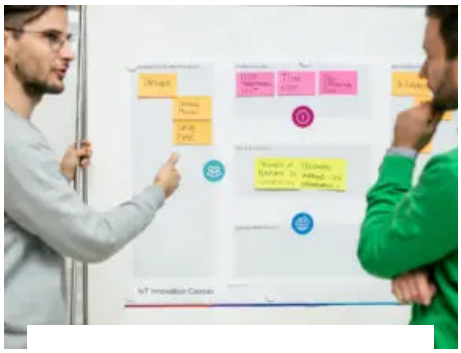
STEFANIE KOWALLICK
6 MIN
© ISTOCK / SHANSEKALA



#BUSINESS MODELS

5 tips for marketing a minimal viable product

STEFANIE PEITZKER 2 MIN
©BOSCH REXROTH AG



#BUSINESS MODELS

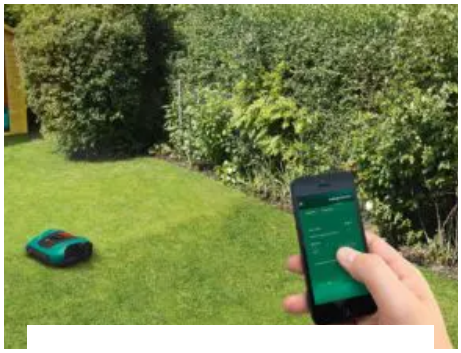
Lessons learned from validating IoT business models

PHILIPP RICHERT 1 MIN
©BOSCH.IO

#BUSINESS MODELS

How to make any IoT business model work – or not?!

PHILIPP RICHERT 3 MIN
©BOSCH.IO



#INTERNET OF THINGS

Why leveraging IoT data from connected products is key

LENA DORSCH 2 MIN
©BOSCH

#BUSINESS MODELS

How to approach digital transformation

VERONIKA BRANDT 3 MIN
©BOSCH.IO