



Digital Effectiveness

From Factory IT
to Right-Speed IT

Consulting ●

Executive Summary	05
Digital Strategy	06
From Factory IT to Right-Speed IT	10
Organization of Right-Speed IT	12
DevOps as a Basis for Right-Speed IT	14
Open API as the Basis of Business Success	16
Contact	18



Executive Summary

Digital Effectiveness – From Factory IT to Right-Speed IT

The megatrend of digital transformation requires a radical reconceptualization of enterprise IT, where Right-Speed IT often is reached after having established a Two-Speed IT – the bimodal IT approach.

This IT approach is based on an efficiency-driven Factory IT and an innovation-driven Fast IT.



Business
Perspective

CIOs will fail to set up Fast IT as an IT Project

Fast IT is not only a matter of IT organization – it is a topic of digital transformation requiring an integrated business-IT approach. Factory IT and Fast IT projects following a common digital strategy, where business and IT merge into Business Relationship Management and digital projects.



Organizations
Operations

Factory IT & Fast IT comprise distinct approaches and roles


The bimodal organization provides the right balance between efficiency-driven and innovation-driven approaches and roles. There is no universal organizational setup for Fast IT. Instead, the right structure has to be chosen on a case-by-case basis and will range from project organization to spin-off incubators or start-ups.



DevOps
Governance

A functioning Fast IT is dependent on DevOps

Ops in DevOps are not just Factory IT Operations as we have known it for decades. Advanced approaches for 1st and 2nd level support are needed. DevOps is enabled by technology but also implies an organizational change to Factory IT.



Open API
Enabler

Open APIs are the next evolution in 3rd Party integration

An effective implementation of Open APIs can boost sales and revenues. IT Organizations must pass through an API maturity path following a defined strategic program. Open API Governance keeps track of the API lifecycle and the related contracts and SLAs.

Deloitte has established methods and practical experience from a wide range of projects in the field of Digital Effectiveness.

We support your organization in the course of transformation, showing you how Right-Speed IT succeeds.

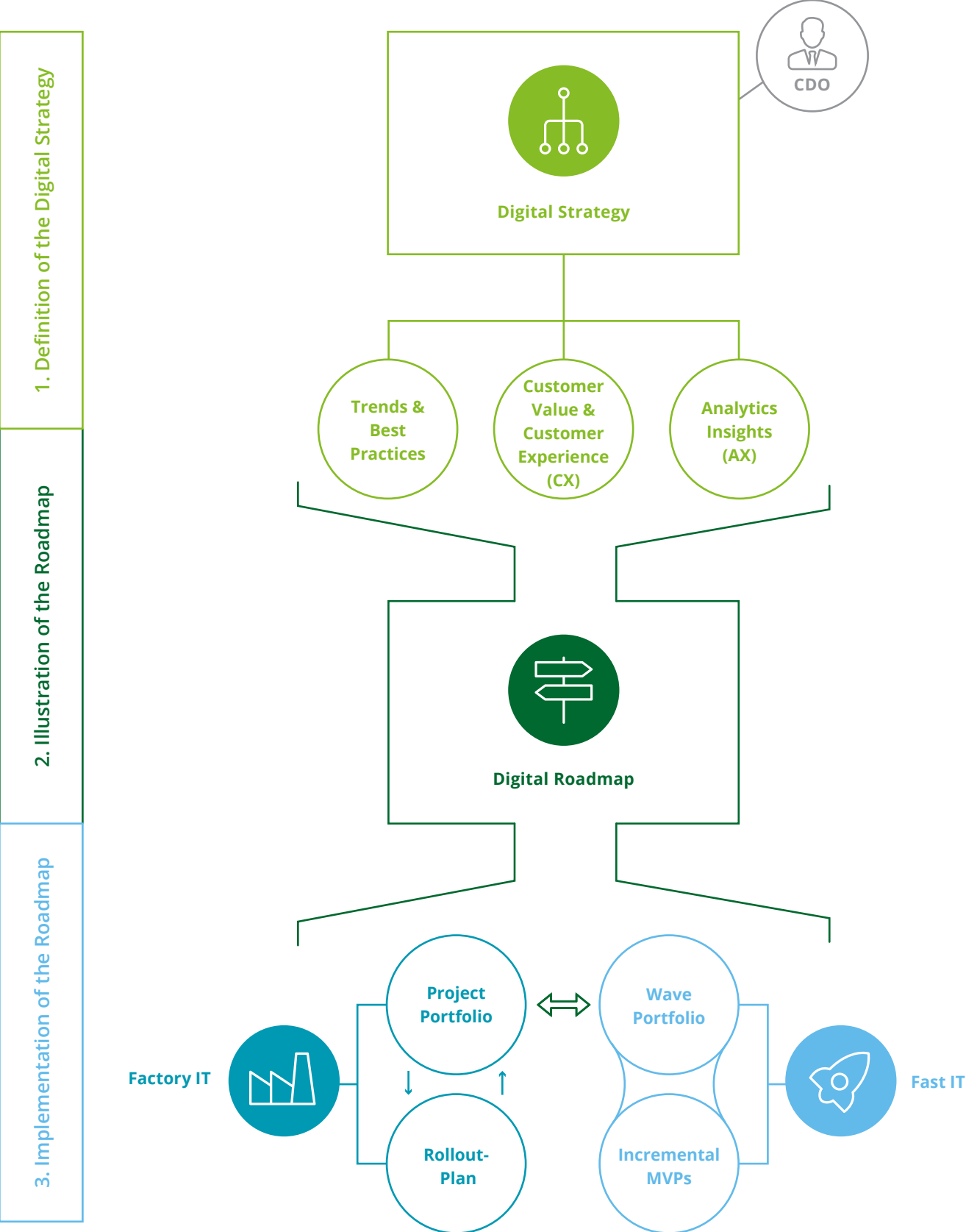
Digital Strategy

The IT Strategy Framework combines the business and IT requirements into a common digital strategy.

The digital strategy is the common starting point of the target definition for Factory IT and Fast IT.

- Unlike the traditional top-down definition of an IT strategy on the basis of business objectives, the approach for the digital strategy is derived jointly by the IT management and the business management, where the leadership role may be assumed by a Chief Digital Officer (CDO).
 - The fundamental starting point of the digital strategy is the “Customer Value and Customer Experience” perspective. In addition to trends and best practices from the market, insights from the corporate analytics are also incorporated into the strategy. A key finding from analytics could for instance be a detailed segmentation of the customer groups, which often is much more differentiated than anticipated.
 - The digital strategy is operationalized in a common roadmap for Factory IT and Fast IT, which both work together in achieving the ambitious targets. Figure 1 illustrates how to derive initiatives from the roadmap, where these initiatives can then be implemented with either Factory IT or Fast IT taking the leading role. The central point is a variety of interdependencies that arise between Fast IT and Factory IT.
- In the “wave portfolio” of Fast IT, digital applications are developed as Minimal Viable Products (MVPs) in incremental sprints. The requirements are continuously prioritized via a backlog. An overall budget is used for the dynamic fulfillment of the requirements. Digital applications often need to be connected to the back-end logic and back-end data, which is provided by the Factory IT.
 - Factory IT plans the expenditure from Fast IT within its own project portfolio and tracks the implementation of the measures adopted. Budgets translated into initiatives are followed up in rolling forecast and may be reallocated, where resources are not fully exhausted. Requirements that cannot be met are assigned to future releases.

Fig. 1 – Digital Strategy as the Target Definition for Factory IT and Fast IT



The Chief Digital Officer (CDO) is responsible for the digitalization strategy, pushing the digital transformation from the business perspective. The tasks of the CDO include, in addition to the realignment of the digital skills, the creation of a “digital” culture within the entire organization.

The CDO is neither a substitute nor an evolution of the CIO, but rather a business-driven digital leader with cross-functional skills. Accordingly, a successful digital transformation requires a close collaboration between CDO and CIO, with respective responsibilities to be clearly defined.

Ultimately, the tasks of a CDO may also be performed by another role in the company, which often is the preferred model in German companies.

Fig. 2 – Worldwide Members in the CDO Club

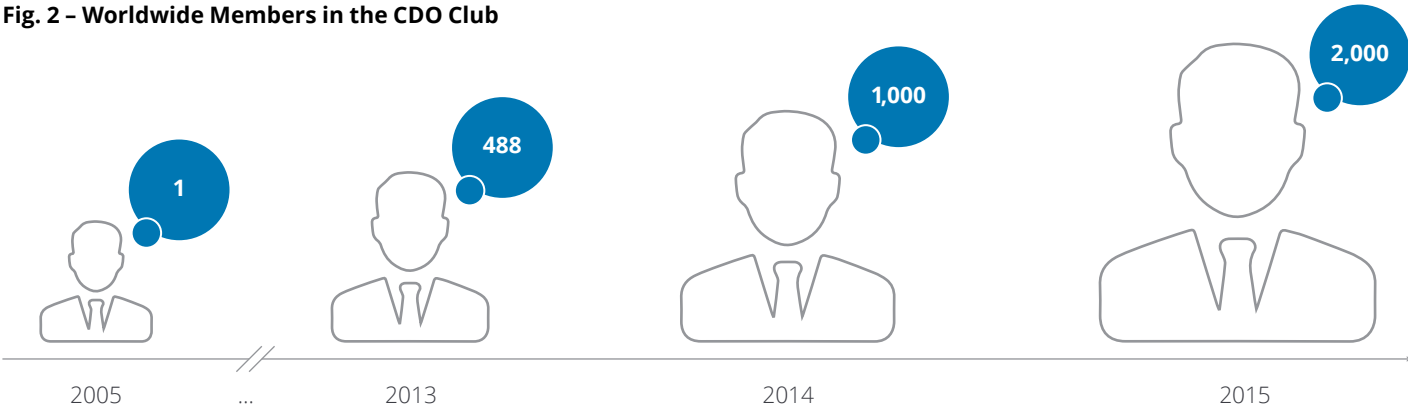


Fig. 3 – Distribution of Chief Digital Officers in companies



¹ Flipping to Digital Leadership, Gartner CIO Agenda Report 2015.

² Biktom survey (2016): Was ist ein Chief Digital Officer? (n = 1108)

From Factory IT to Right-Speed IT

Bimodal IT as step towards Right-Speed IT

Factory IT describes the full control over classical IT, where for example a safe and stable IT architecture and an effective IT support function fully assists the business.

A bimodal IT provides the right balance between efficiency-driven and innovation-driven approaches and roles. Whereas

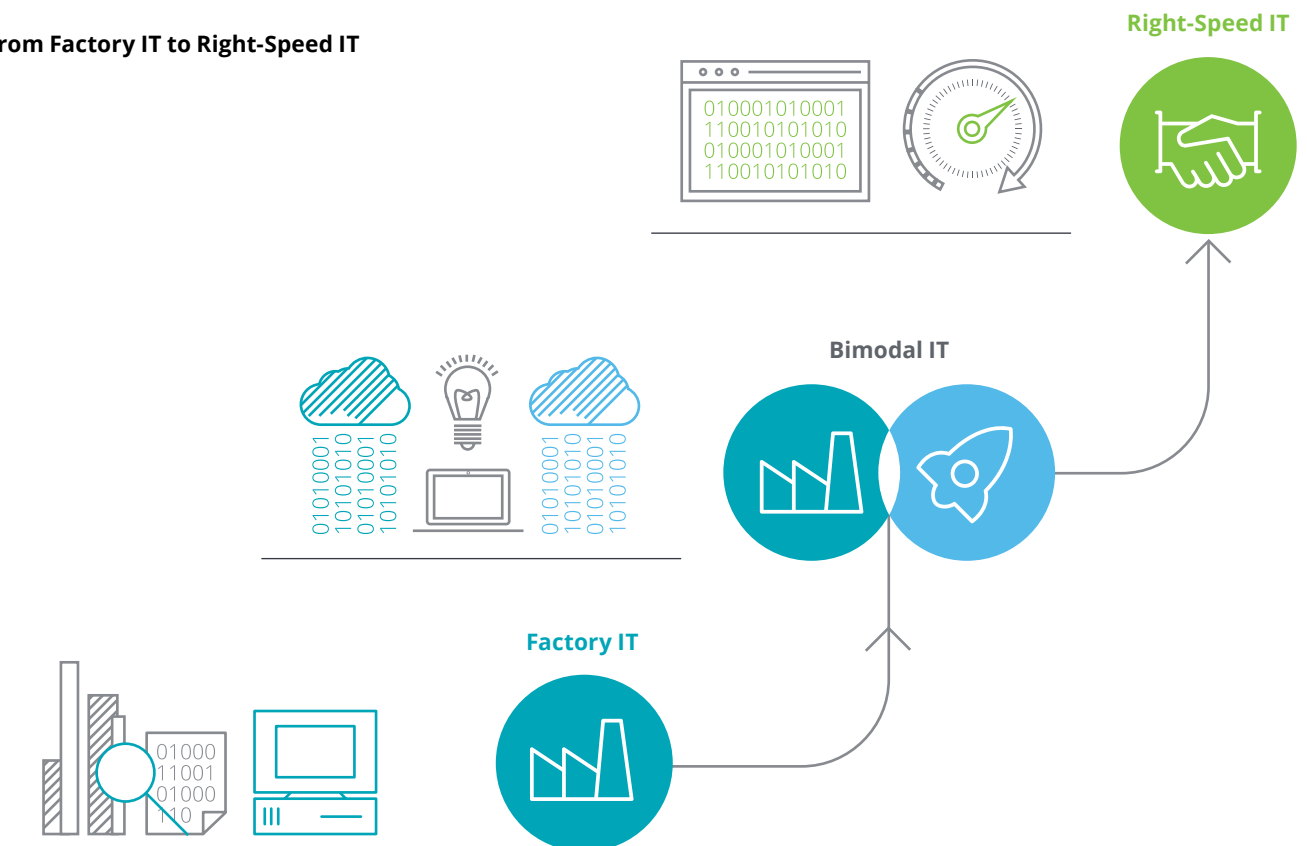
Factory IT focuses more on the business-critical back-end, Fast IT focuses on the front-end with faster life-cycles.

Fast IT requires new roles, methods and working models. After a successful implementation of Fast IT, Factory IT and Fast IT have to form one integrated unit.

Every employee as well as the executive management plays a significant role in the successful implementation.

The organization should understand that both modes have advantages and disadvantages. Right-Speed IT means adjusting the speed of IT to the individual requirements of the service or application.

Fig. 4 - From Factory IT to Right-Speed IT



Factory IT

- Fully control frontend and backend systems
- Manage release cycles and guarantee continuity
- Ensure integrity and security of business IT
- Provide effective IT support from Level 1 to 3

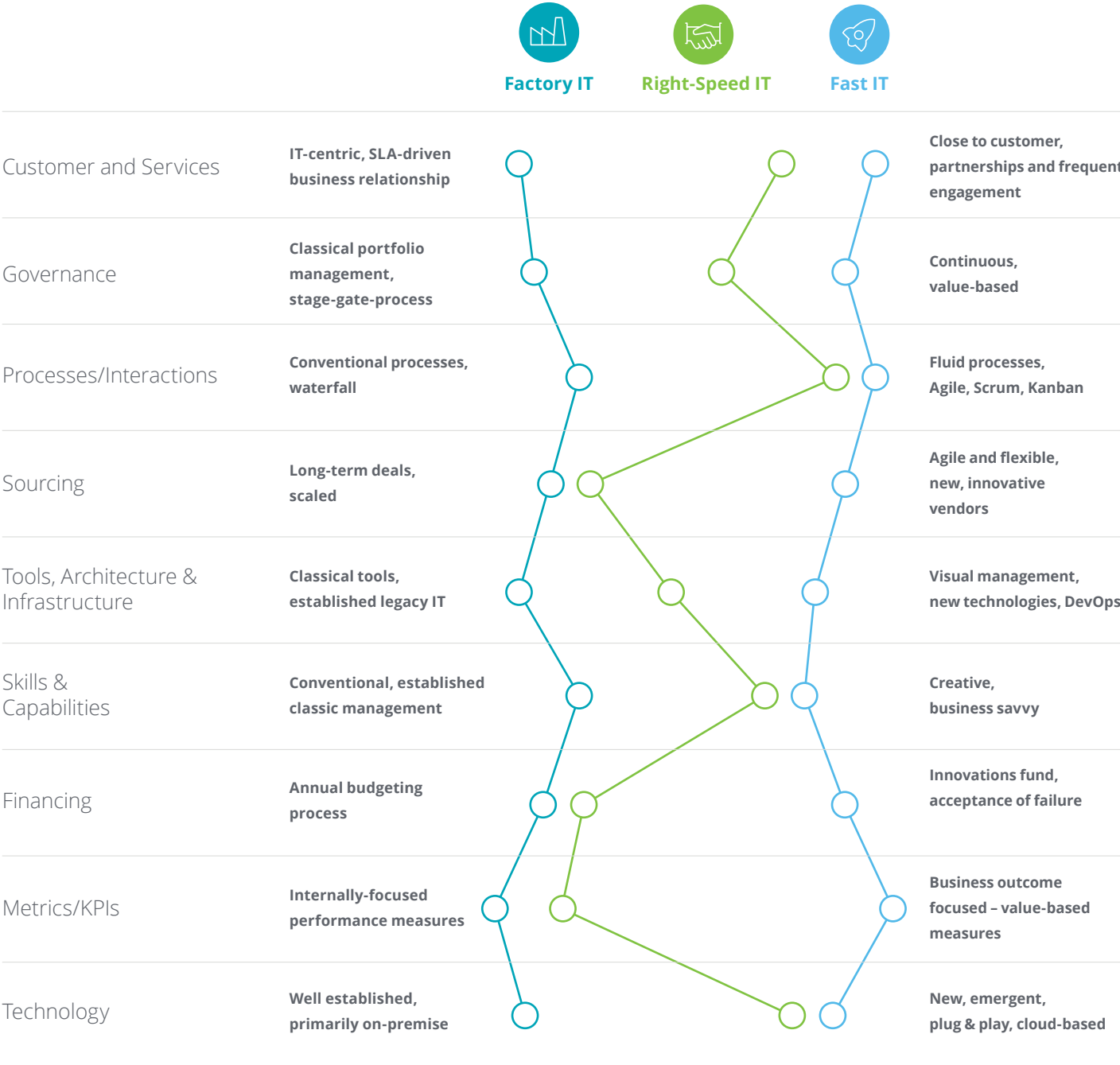
Bimodal IT

- Acknowledge that Fast IT is a new way of working
- Address digital agenda leveraging your Fast IT
- Implement Trial & Error as new working principle
- Keep backend up and running and future proof

Right-Speed IT

- Pick and choose the right approach for each project
- Dissolve two-mode thinking into one mode
- Be one with business in your digital initiatives
- Keep operations up-and-running

Fig. 5 – Right-Speed IT supports more flexible project steering



Organization of Right-Speed IT

The organizational challenge is to provide for a balance between Factory IT and Fast IT.

The implementation of Right-Speed IT is reflected in various organizational dimensions, where the orientation towards Factory IT or Fast IT is not a “black or white” decision, but has to be adapted individually, depending on the dimension and situation.

Fast IT projects, such as the integration of wearable devices into working procedures, require – as they are driven by innovation – rapid implementation cycles. These projects act largely detached from Factory IT dimensions and for instance take alternative sourcing approaches such as crowd sourcing into account to bypass the long-lasting and formal RfP process.

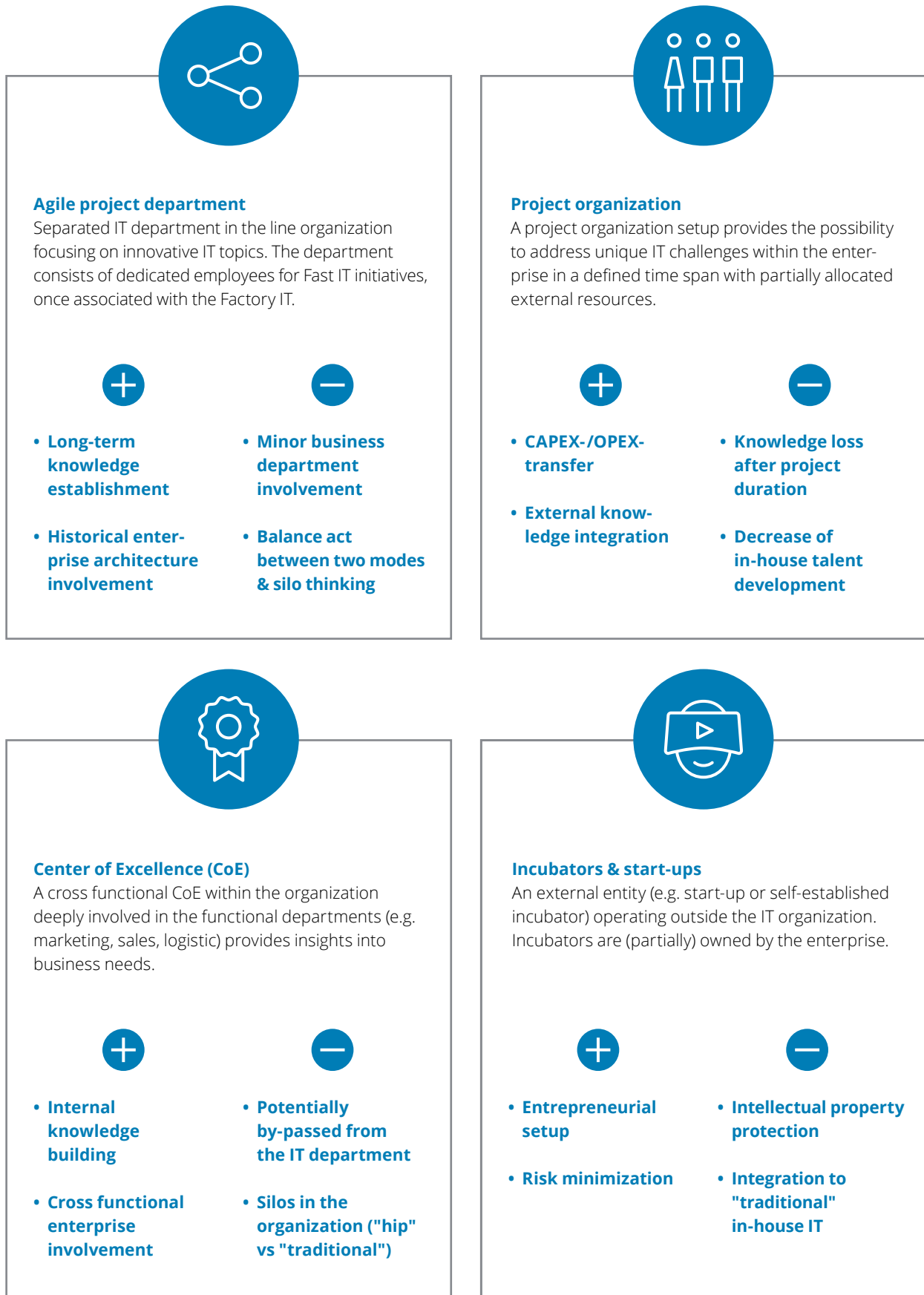
Factory IT projects, such as the upgrade of a highly integrated ERP system, are – driven by safety aspects – and majorly focus on Factory IT dimensions with some minor Fast IT impacts.

However, if projects are set up at the interface between Factory and Fast IT, they make use of both characteristics. This adjustment of the speed is called Right-Speed IT.

The key success factor for the introduction of Fast IT is the adaptation to the correct organizational setup. The four most promising organizational forms include an agile project department, a project organization, a Center of Excellence (CoE), and external incubators or start-ups.



Fig. 6 – Organizational forms of Fast IT



DevOps as a Basis for Right-Speed IT

The collaboration between IT Development and IT Operations must be fundamentally changed.

DevOps facilitate a close collaboration between IT Development and IT Operations. Both share the same objective: Assuring high quality from the beginning of the software development lifecycle.

In the past, Factory IT focused on application stability and cost efficiency. Digital developments require an agile way of working which focuses on customer satisfaction.

Methods and technologies of DevOps, such as Continuous Deployment or Continuous Monitoring also enables the Automation and Continuous Improvement of processes within the Factory IT. On the contrary, it is necessary to raise awareness in Fast IT that the approaches in Factory IT (e.g. standardization and harmonization) are no obstacles. Instead, they are prerequisites for a high-speed environment.

Within DevOps, business departments and IT will work closely together to make an integral and service-oriented Development and Operation possible. Especially development is frequently driven by business departments – therefore DevOps finally brings together what belongs together.

The common objective can only be achieved via a close collaboration between IT Development and IT Operations in functioning DevOps teams. The DevOps culture disrupts the silos within the traditional software development life cycle. This definitely requires a mind shift of the two departments.

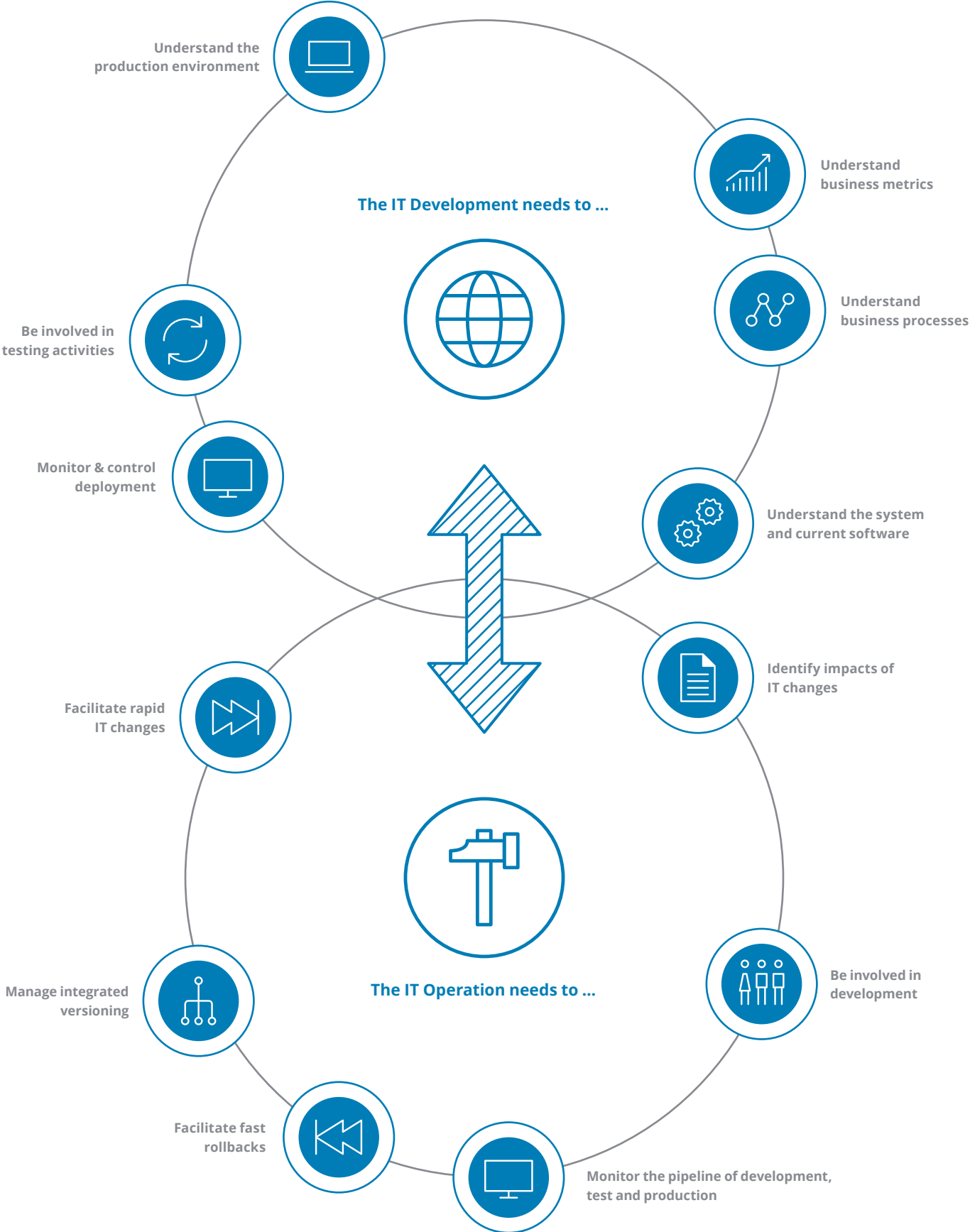
The IT Development needs ...

- ... to know the production environment, enterprise architecture and back-end systems in order to understand the impacts of code changes in the production.
- ... to be involved in test activities for early error identification.
- ... to monitor activities in production to ensure a fast troubleshooting.
- ... to challenge and understand business processes in order to ensure a common understanding between IT and business departments.
- ... to understand KPIs of IT Operations and to support their objectives from the beginning of the software development lifecycle.

The IT Operations needs ...

- ... to adapt the systems in order to facilitate rapid changes in production.
- ... to understand the timeline of changes in order to prepare for any impacts in production.
- ... to integrate a version control and fast rollbacks, so that errors occurring in production will not interrupt the ongoing operation of the software.
- ... to be involved in the development process in order to understand the implemented code and to facilitate simplified error analysis.

Fig. 7 - The Integration of IT Development and IT Operations



Open API as the Basis of Business Success

Open APIs are the next step in the third-party integration – they affect many common business practices and facilitate growth.

Application Programming Interface (API) architectures facilitate the architectural decoupling and integration of functions and data. New applications may be developed on the basis of existing applications – enriching user experiences in a seamless embedded system environment.

Open APIs provide widely available cross-organizational interfaces. These are deployed by automotive manufacturers to utilize the power of high-speed search engines, by insurers to utilize the data from traffic information providers and by travel apps to utilize up-to-date flight information from airlines.

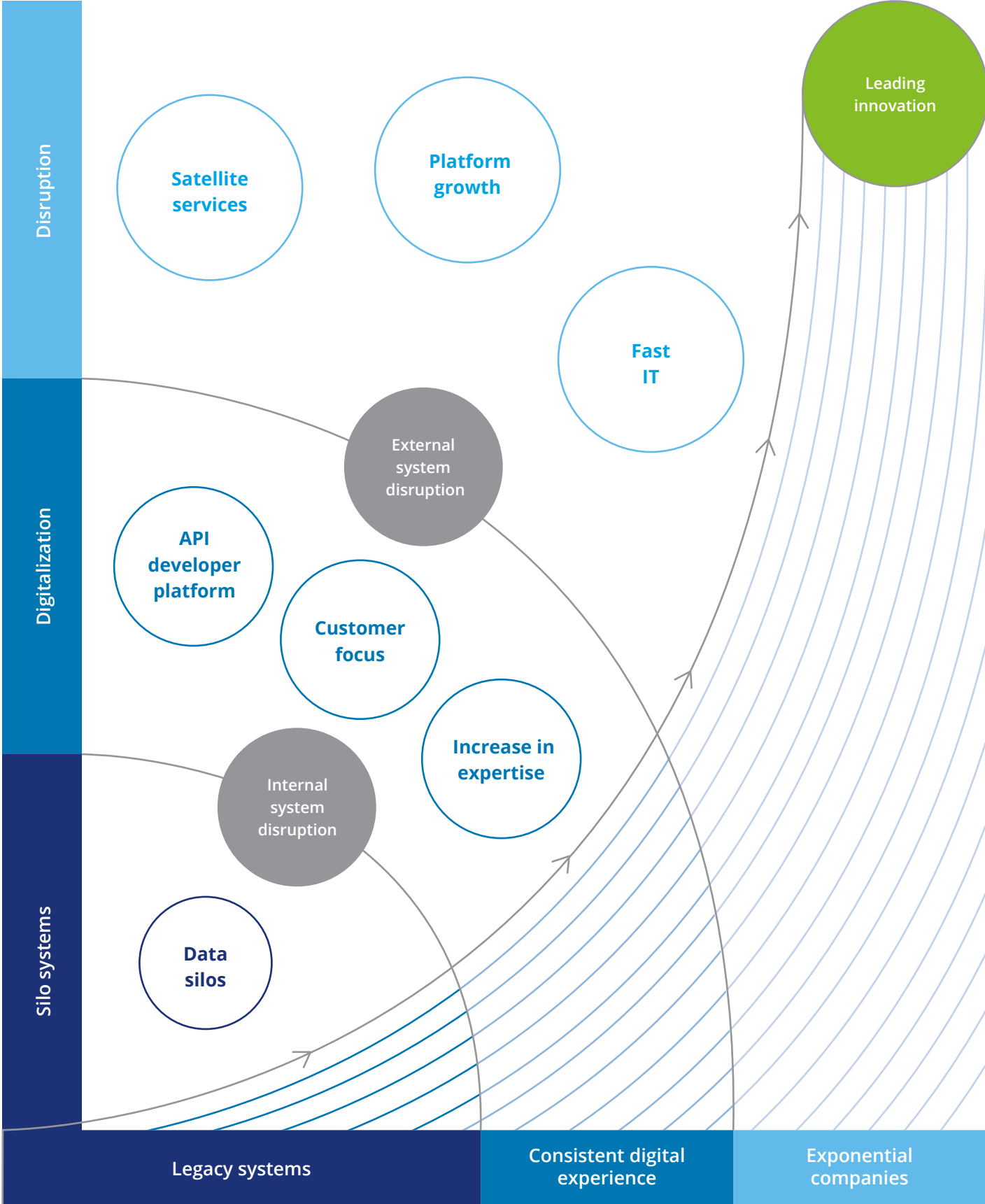
Open APIs allow to dynamically reflect on the capability to dynamically connect to customer data by outsourcing innovation and building sophisticated data provisioning interfaces. The growth of data analytics to gain new market insights allows to go beyond the Business-to-Consumer relationship and offers unprecedented Business-to-Business opportunities.

Fast IT is enabled through the combination of organizational agility and the effective deployment of innovative ideas. Building new products in an open ecosystem is a key differentiator and capability-driver in becoming an innovative market leader.

Platform business

- **API developer platform:** Strategic data provisioning for third party data access requires clear organizational structures, and a defining API community program.
- **Customer focus:** Application interfaces to well-designed services provide new insights to users and consumers. Successful strategies are designed to increase the firm's innovation capacity. Open APIs are an essential step to initiate market-sensitive strategy adjustments and meet customer demand.
- **Increase in expertise:** The disruption of markets requires disciplined processes, techniques and know-how for development, testing and marketing of new services. Open APIs essentially integrate external innovators to serve the rapidly changing market demands and enable streamlining of organizational, IT and ecosystem capabilities alongside the corporate vision.
- **Satellite services:** Introducing new services enables an optimized market adjustment, increases the firm's innovation reach and ability to transform within the new kinetic ecosystems.
- **Platform growth:** Data (provisioning) as a Platform, customer focus and capability growth serve to improve creativity and idea development ultimately growing the business. It is central to strategic platform growth and to build trust and openness for new product ideas. Strong ecosystems synchronize to leverage data.
- **Fast IT:** Dynamic and innovative digital development occurs through an effective combination of new ideas and a professional management of different IT speeds. Digital strategies efficiently initiate a continuous evolution and are cause to frequent revolutions in the organizational alignment. A fast and market-responsive service or data platform then empowers the firm's ability to derive sustainable strategies.

Fig. 8 – Open API as a Driver of Disruption



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