

# Business Process Management Study 2023

Analysis of the 2022 status quo and developments  
over the last 11 years in the context of BPM

A study by the Institute of Information Systems in  
cooperation with BOC Group

Tim Geppert, Björn Scheppler, Felix Meentken, Sandro Gerussi &  
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Study partner



# Foreword of the Editor



**Dr. Tim Geppert**

Lecturer, Process Management Unit  
ZHAW School of Management and Law



**Björn Scheppler**

Head of CAS Process Digitization ZHAW  
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We are very pleased to present you the study on the status of Process Management, conducted in 2022 together with BOC Group. The Institute of Information Systems has been carrying out research on Process Management for more than 10 years now, and in this edition of the study, thanks to the participation of more than 300 respondents, we are able to share a detailed insight into the status quo of Process Management and its development over the past years.

In 2011, the foreword of the first BPM study still referred to Process Management as a "new-age management discipline", something that's certainly not an accurate introduction a decade later. On the contrary, the present study shows that this management discipline has highly developed over the years and is now well-established in most companies.

As business informatics specialists, one thing we are particularly noticing is the increasing software support for Process Management. And this not only, as one would expect, in the execution of processes through digitalization and automation, but also in other aspects of Process Management, such as analysis and optimization.

As lecturers at a university of applied sciences, we also observe that participants in the study consider the lack of resources and qualified personnel to be one of the greatest obstacles on their way to advanced Process Management practices. Even if we can't rule out the demographic factors in this, we're nevertheless encouraged to keep the topic of Process Management as an important component in our Bachelor's and Master's programmes, as well as an important part of our CAS Process Digitization Bachelor and Master education.

We wish you an exciting read ahead and would be very pleased to welcome you at this year's [WINsights Symposium](#) on 13th of September 2023, where we will present, discuss and expand on the results of the study with you. If you have any questions about the symposium or the study, please don't hesitate to contact us via email or LinkedIn.

Kind regards,

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# Foreword by the study partner



**Dr. Christian Lichka**

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**Dr. Felix Meentken**

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We are very pleased to present you with the study on the status of Process Management conducted in 2022 together with the Zurich University of Applied Sciences (ZHAW). With over 300 respondents from companies across various sizes and industries, the 2023 Business Process Management Study provides a great insight into the status quo and current challenges in the Process Management domain. Thanks to the targeted selection of participants and their professional proximity to one or the other dimension of Process Management, we are confident that the study offers profound and very qualitative findings for everyone to consider.

With that in mind, we would like to extend a big thank you to everyone who participated in the research. Your answers play a central role in the significance of this study. We would also like to thank the ZHAW, especially Dr Tim Geppert and Dr Björn Scheppler, for their energy and knowledge that they brought to this study. Thank you very much!

From BOC Group's perspective - on one hand as the provider of one of the world's leading BPM tools, ADONIS - and on the other as an IT company founded more than 25 years ago as a spin-off of the University of Vienna, Process Management is of central importance to us - it's in our "DNA", so to speak.

In the last 20 years, Process Management has experienced a few "hype" cycles - be it through topics such as Quality Management, Standardization, Lean, or Automation, Mining and Digitalization. At an operational level, Process Management has truly become an indispensable part of every successful small, medium-sized company or large organization. A proper understanding of your business processes really is the basis for efficiently and effectively fulfilling all voluntary or regulatory efforts. The results of the study confirm that, in addition to the traditional Process Management goals such as optimization (73%), approximately half of all participants also associate other scenarios with Process Management (e.g., Quality Management 54%, Digitalization 49%) and already more than 48% with the regulatory scenario ICS. In this respect, over 68% of participants see Process Management as an important topic for the future, with a strong relevance for their companies!

From our countless conversations with customers, interested parties, students and experts, we want to finish off by sharing a few insights to take away with you on your journey:

Implementing and anchoring Process Management in a company does involve a lot of effort, but it will be far easier if you view your Process Management as a building block to an integrated management system consisting of processes, IT and compliance. This results in a common goal for these three crucial areas of the company, to ensure optimal quality and efficiency of your business processes.

### **Top five tips for successful implementation of Process Management:**

1. Bring your processes across the organization with simple Process Management portals that give employees access to all the tools, descriptions and other resources they need. Integrate your processes with tools and applications your employees use on a daily basis - for example, with your intranet portals, Confluence, workflow environments and more.
2. Anchor your processes with process owners and set up control rounds that take into account both the processes themselves as well as your organizational structure.
3. Prioritize your process management activities according to your company's strategic objectives and show concretely how much more efficient and effective an integrated management system of processes, IT and compliance is.
4. Embed your process management at an early stage with complementary management systems such as IT management (work instructions, the integrated control system and data protection).
5. Leverage a process management platform that manages content from various management systems in a centralized, uniform and versioned way and is easily understandable and accessible for all colleagues.

We hope you will discover many interesting insights while exploring the study, and we remain at your disposal for a personal reflection anytime. Please feel free to contact us via email or LinkedIn.

Kind regards

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# Introduction

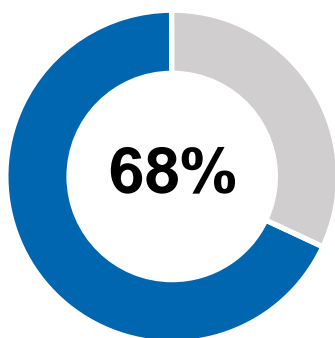
## BUSINESS PROCESS MANAGEMENT

Business Process Management is a central discipline for improving the efficiency and effectiveness of business processes. Well-established Business Process Management helps companies carry out their processes faster, more cost-effectively and in higher quality. The digitalization and automation of processes often minimizes errors, increases efficiency, adherence to deadlines, adds transparency, shortens cycle times and reduces manual workload. Overall, this ideally leads to better compliance, higher value creation and employee satisfaction, and ultimately to higher customer satisfaction too.

With so many potential benefits, it is not surprising that two-thirds of the surveyed experts consider BPM to be an even more important asset for the future. However, companies will only leverage the full potential of BPM if all of the process management lifecycle phases presented on the following page are implemented thoroughly.

The results of this study are showcased from p. 14 onwards, on one hand based on the lifecycle phases, and on the other sectioned into two major blocks. In the first block we take a business perspective on BPM. The focus is on the following questions: What benefits do companies seek with BPM?; How is BPM anchored in the organization?; How, why and with what challenges are processes documented?; What methods are used to monitor process performance and conformity?

The second part of the study looks at BPM primarily from a technological perspective. This is because companies use software to support their BPM initiatives, such as business process management tools. These help to quickly adapt processes to changing requirements and flexibly respond to new business demands. BPM tools create transparency about the interdependencies across assets and thus provide the basis in the company for both strategic decisions and operative action.



68% of surveyed experts estimate that the future relevance of BPM in their companies will "increase" or "significantly increase".

See question on page [22](#)

## PROCESS MANAGEMENT LIFECYCLE

A suitable method for holistic and successful Business Process Management (BPM) is the **PMLC** (Process Management Lifecycle). The PMLC refers to a structured approach for the design, implementation, monitoring and optimization of business processes in an organization.



More in-depth knowledge on the PMLC and Process Management can be found in the book [Process Management for Experts](#) (Springer Verlag).

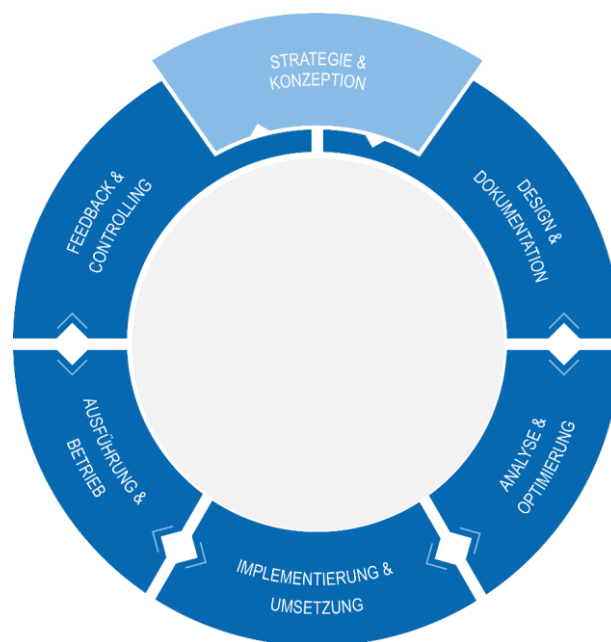


Figure: PMLC from Process Management for Experts, F. Bayer u. H. Kühn, Springer Verlag (2013), p. 386

### Design & Documentation

Process design and documentation deals with the planning, design of new processes and documentation of existing processes within an organization.

### Analysis & Optimization

This phase deals with the assessment of processes in order to identify weak points and recognize and incorporate potential for improvement.

### Implementation & Realization

This involves the professional and technical introduction / anchoring of a newly designed or optimized process.

### Execution & Operation

Process execution and operation refers to the execution of process instructions as well as the ongoing operation.

### Feedback & Controlling

This involves the qualitative and quantitative monitoring and control of processes within a company.

### Strategy & Concept

Here we deal with the strategic concept of how the organization structures and designs its business activities, or its BPM.



# Aims and research design

## Aims of the survey

The main objective of the survey was to assess the status quo of BPM in Swiss companies and gain insights into the BPM methods and technologies that are currently in use.

What's more, a secondary goal was drawing a comparison between the ZHAW studies from 2011, 2014 and 2015 (more on these on the next page).

## Research design

The survey was aimed at Swiss companies in German-speaking countries. The main points from the research design are summarized below.



### Sample

The sample includes companies from various industries in German-speaking Switzerland. Contacts at the ZHAW and the BOC Group were specifically targeted for the survey. Additional participants were recruited through the LinkedIn network.



### Data collection

Participants were informed about the study via email and had two weeks during December 2022 to participate in the study. Responses from all participants who provided the required statistical information were used for the study.



### Questionnaire

The questionnaire was created by the ZHAW in collaboration with the BOC Group. The main focus was on comparability with the studies from 2011, 2014 and 2015, and thus some of the questions were partly taken over and adopted in wording.



### Analysis and evaluation

The results of the survey were presented both holistically as well as broken down by company size or industry for the most relevant questions.

## PREVIOUS STUDIES

In terms of the research design and questions asked, the present study is strongly influenced by the previous Process Management studies done by the Institute of Information Systems. Despite the partly different participants, this structure allows to identify and showcase how Process Management has evolved in companies operating in the Swiss market (see p. 13). In order to make it easier to spot these pages of the study, they have a grey background - like the present page.

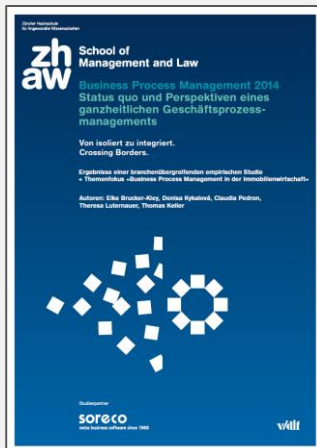


### Business Process Management 2011

Minonne, Clemente; Colicchio, Carlo; Litzke, Matthias; Keller, Thomas

<https://doi.org/10.21256/zhaw-1026>

Business Process Management (BPM) supports the analysis, modelling, implementation, execution and continuous improvement of business processes. Many companies and organizations do not seem to be fully aware of the potential that BPM methods and solutions offer, even though there is a general awareness of it. This empirical study shows the degree of maturity and adoption, as well as recent and medium-term trends in German-speaking Europe. A total of 219 representatives from over 200 companies and institutions participated in the study. It reveals interesting new findings as well as aspects that need to be interpreted critically. In addition, the study provides information on questions dealing with current and future investments in BPM, as well as initiatives in the area of Business Process Outsourcing (BPO).



### Business Process Management 2014

Brucker-Kley, Elke; Kykalova, Denisa; Pedron, Claudia; Luternauer, Theresa; Keller, Thomas

<https://doi.org/10.21256/zhaw-1027>

The Business Process Management 2011 study found that organizations are not yet fully exploiting the potential of method- and IT-based Business Process Management (BPM). This study builds on this and examines how organizations have moved further towards holistic BPM. The study focuses on the three aspects: strategic orientation, process-oriented organization and technology methods, and intends to examine the development of these design elements in order to draw conclusions about the state of holistic Business Process Management in organizations in the German-speaking region. The cross-sector analysis is supplemented by an industry focus on the real estate industry.



### Business Process Management 2015

Brucker-Kley, Elke; Kykalova, Denisa; Mevius, Marco; Grünert, David; Keller, Thomas; Kurz, Florian; Schertenleib, Raphael; Schlatter, Ueli et al.

<https://doi.org/10.21256/zhaw-3390>

The study examines how and to what extent companies are expanding the standard range of Business Process Management in the direction of process intelligence. Process intelligence closes the gap to the operational business and provides a new perspective on the management of business processes. In doing so, it focuses on the information that is created and used in operational processes and is thus an essential basis for the heavily discussed digital transformation of companies. In order to better understand, control and optimize processes, methods and tools of Business Process Management (BPM) and Business Intelligence (BI) are combined.

The study from 2016, with its focus on customer benefits, was not considered further.  
<https://doi.org/10.21256/zhaw-3444>

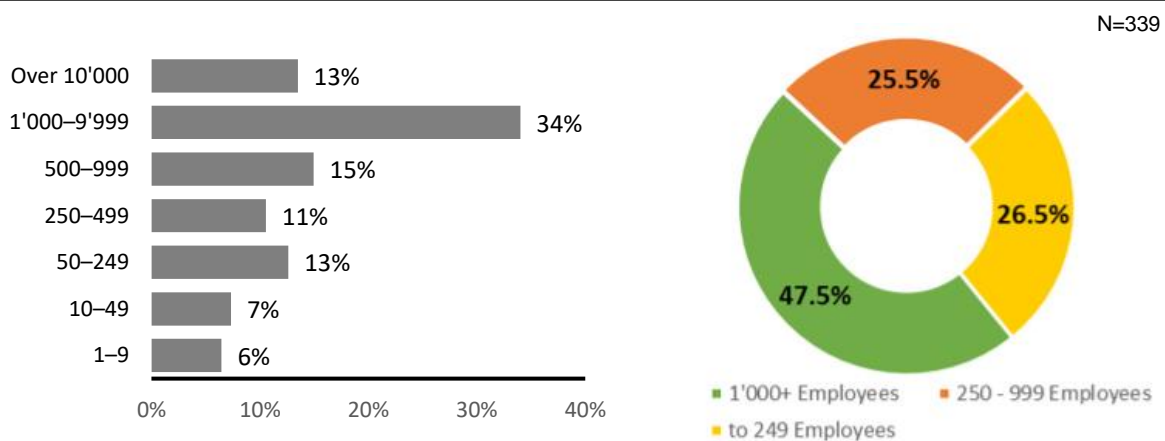
# Characteristics of the Study participants

As the figures on this and the following page show, the study is broadly based on several characteristics.

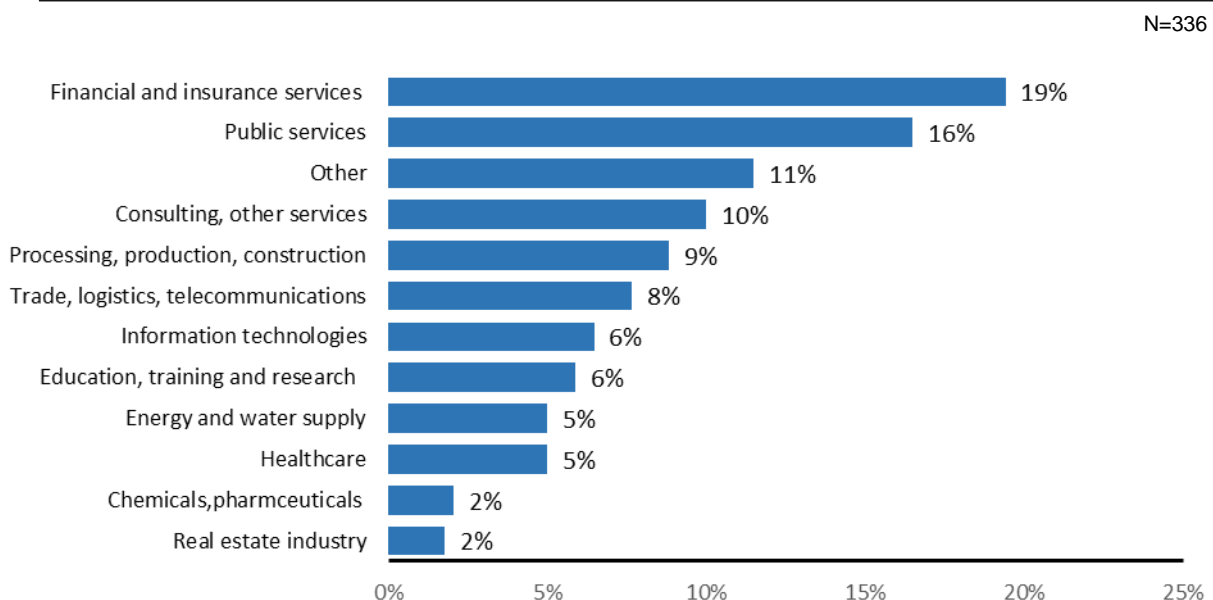
The sample of the study covers companies of various sizes: One quarter of the participants work in small and medium-sized enterprises (SMEs: 1-249 employees), one quarter in larger medium-sized companies (250-999 employees), and the remaining half in truly large companies with at least 1,000 employees.

The distribution of industries shows that participants from all economic sectors took part in the study. Due to the recruitment of participants, the highly regulated sectors such as finance, insurance and the public sector are slightly overrepresented.

## Participants by number of employees



## Participants according to industry groups

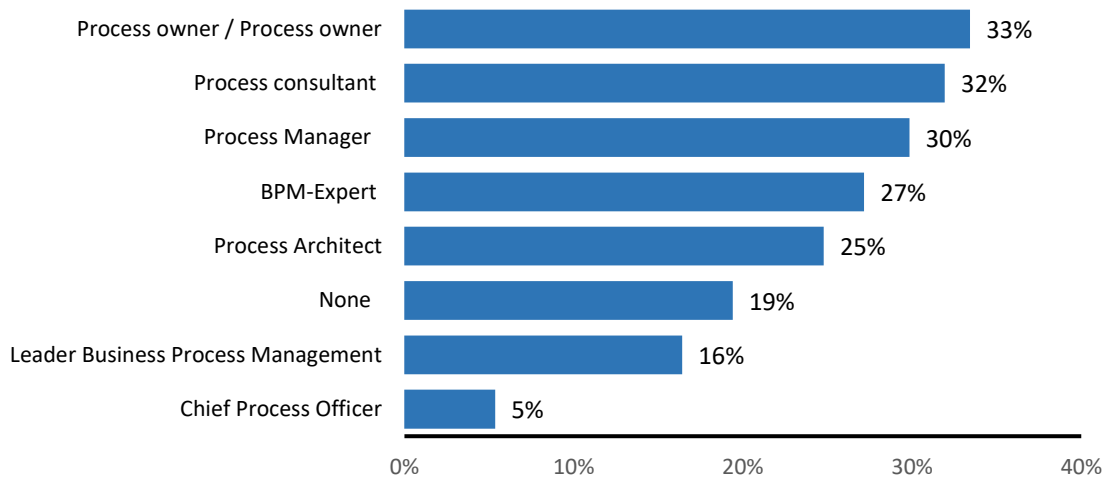


Around 80% of the participants have a connection to BPM in their role. This includes competencies ranging from technical experts to management, which means that both operational and strategic perspectives are represented in the survey.

In terms of distribution, the functional area of project, organizational and quality management is the most frequently represented, and in many companies, this is also where process management is focused. However, IT, business development and corporate management are also well-represented, so that this study can also show adjacent or higher-level perspectives.

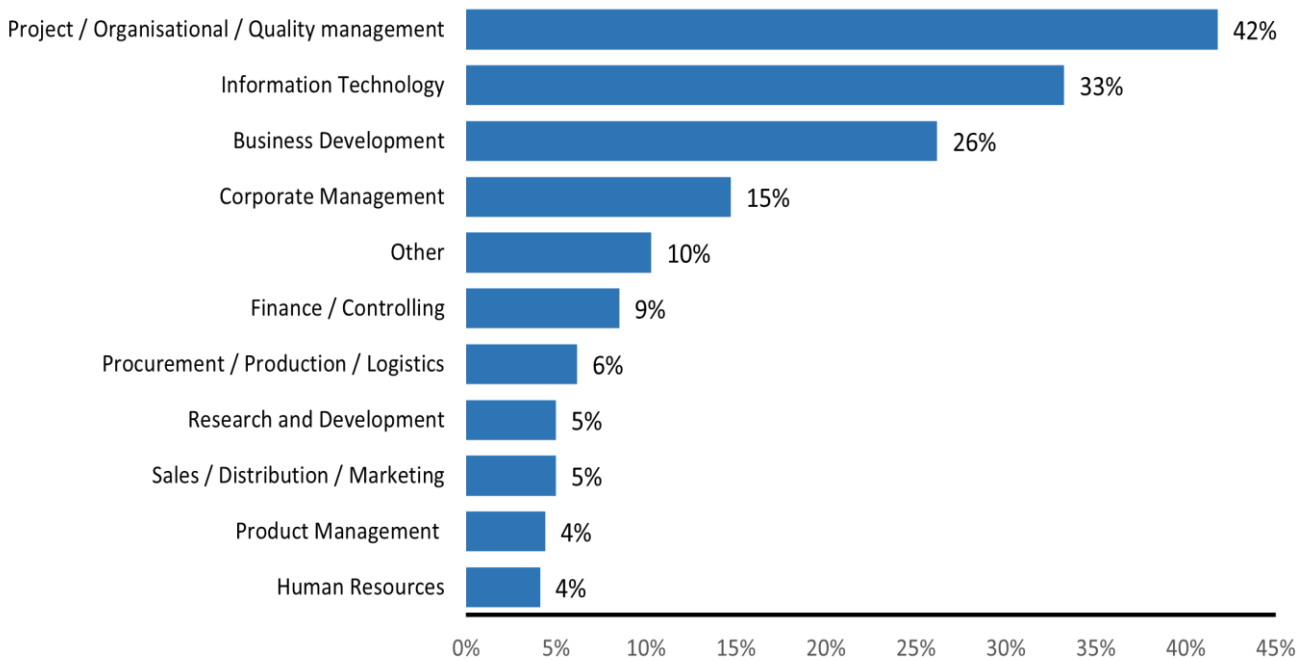
**Participants according to perception of a BPM function**

(Multiple answers possible), N=331



**Participants by area of business**

(Multiple answers possible), N=336



## COMPARISON WITH PREVIOUS STUDIES

The following table shows the differences in characteristics of participants in the studies from 2011 to 2022. The most striking "outlier" values are highlighted in bold.

	2011	2014	2015	2022
<b>Number of participants (N)</b>	219	308	82	<b>336</b>
<b>Scope</b>	78% CH, rest DE/AT	Probably +/-like 2011	Approx. 90% CH, rest primarily DE/AT	100% <sup>CH1</sup>
<b>Company Size</b>	<250: 45% <1000: 19% 1000+: 36%	<250: 45% <1000: 28% 1000+: <b>27%</b>	<250: 40% <1000: 21% 1000+: 39%	<250: 26% <1000: 26% 1000+: <b>48%</b>
<b>Industries</b>	Finance & Insurance 20% Public sector 2% Consulting & other services 14% Processing, Production & Construction 3% <sup>2</sup> Computer Science 13% Education, Training & Research 5% Real estate industry 2% Other industries 61%	Finance & Insurance 8% Public sector 14% Consulting & other services 18% Processing, Production & Construction 3% <sup>1</sup> Computer Science 18% Education, Training & Research 6% Real estate industry 7% Other industries 26%	Finance & Insurance 16% Public sector 24% Consulting & other services 11% Processing, Production & Construction 6% Computer Science 13% Education, Training & Research 10% Real estate industry 5% Other industries 15%	Finance & Insurance 19% Public sector 16% Consulting & other services 10% Processing, Production & Construction 9% Computer Science 6% Education, Training & Research 6% Real estate industry 2% Other industries 30%
<b>BPM Roles<sup>3</sup></b>	Process owner not surveyed Process consultant 7% Process manager 5% BPM Head & CPO 4%	Process owner 11% Process consultants 22% Process manager 14% BPM Head & CPO 6%	Process owner 27% Process consultants 31% Process manager 10% BPM Head & CPO 16%	Process owner 33% Process consultants 32% Process manager 30% BPM Head & CPO 21%
<b>Area of Business<sup>4</sup></b>	Project, organizational & quality management not collected Computer Science 31% Business Development not raised Management 9%	Project, organizational & quality management not collected Computer Science 27% Business Development not raised Management 10%	Project, organizational & quality management 26% Computer Science 24% Business Development 6% Management 23%	Project, organizational & quality management 42% Computer Science 33% Business Development 26% Management 15%

<sup>1</sup> 100% of the companies contacted are active on the Swiss market.

<sup>2</sup> This low percentage is probably because production was part of "Other".

<sup>3</sup> Participants were able to specify more than one role in 2014-2022, but only one in 2011. In addition, the BPM role was not surveyed separately in 2011 & 2014, but simply the position.

<sup>4</sup> Participants were able to specify more than one functional area in 2011 & 2022, and only one in 2014 & 2015 respectively.

# Study results

## Business perspective

This chapter is dedicated to the primarily **business aspects** of BPM. On page 7, the process management life cycle was introduced, which is referred to in the following:

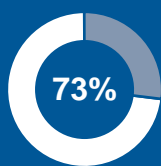
For the **Strategy & Conception** phase, it was analysed which benefits companies strive for through the application of BPM (see below for four central added values) as well as how the current and future implementation of process management in the organization is perceived.

For the **Design & Documentation** phase, the question was asked how and why processes are documented and what challenges companies face in doing so.

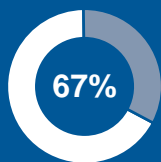
For the **Analysis & Optimization** and Feedback & Controlling phases, an overarching question was asked about the methods used to monitor, analyse, optimize and control the performance & compliance of processes.

Questions in the **Implementation & Realization** and Execution & Operation phases were not asked in this part of the Business Management Perspective. This is because these are almost always software-related and are therefore only addressed in the second part of the study results (Technological Perspective).

### Benefits of BPM for the organization, top 4 answers (see next page for details):



#1 Transparency through documentation



#2 Increasing the efficiency of work processes



#3 Compliance & Governance

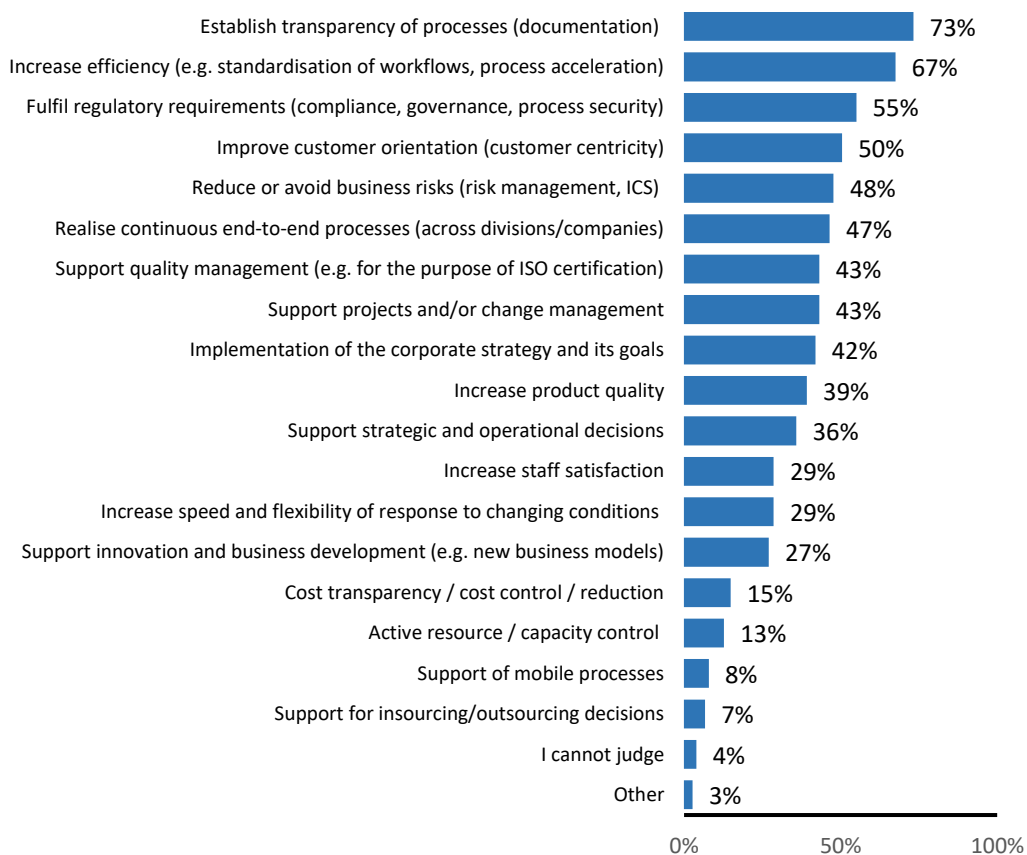


#4 Improving customer orientation

# Benefits of BPM for the organization

Which **benefits** is your organization currently pursuing with the **management of business processes**?

(Multiple answers possible), N=326



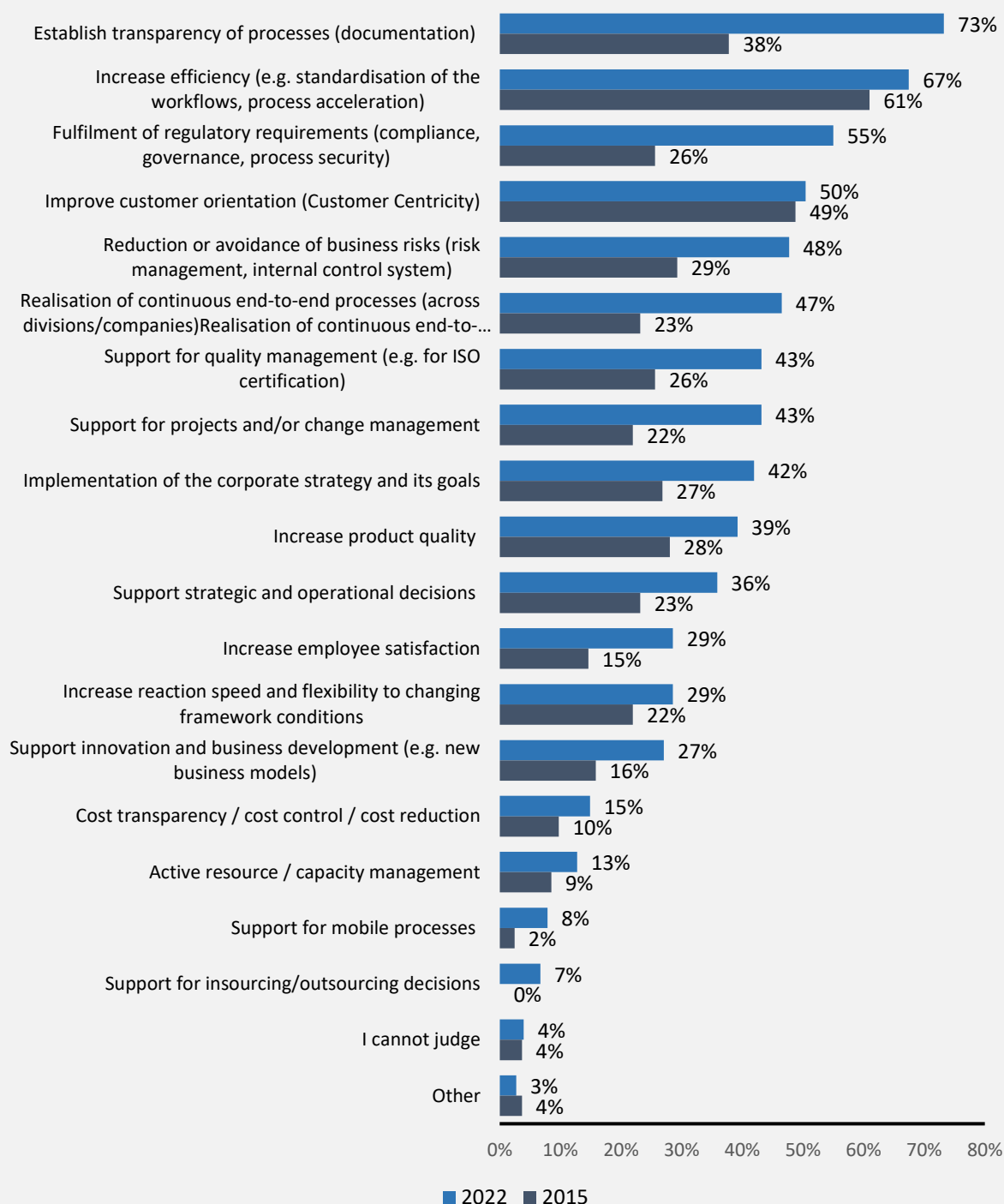
The first places are taken by the added values of BPM that have a **transparency-creating effect**, whether explicitly (*creating transparency of processes*) or implicitly for compliance, risk management/ICS and quality management. These added values require above all **documentation of processes**.

Companies aiming for a higher level of BPM maturity than "just" transparency must master not only documentation but also the **later phases in the BPM life cycle**, such as analysis and optimization. Only then will the added benefit with an **operationalizing effect** be achieved, such as the *increase in efficiency* mentioned in the top ranks as well as the *realization of continuous end-to-end processes*.

The intended benefits differ only minimally depending on the **size of the company**. Only SMEs seem to use BPM more often for increasing product quality and for more customer orientation, while large companies are more focused on meeting regulatory requirements.

## Which **benefits** is your organization currently pursuing with the **management of business processes**?

Comparison of results from 2015 (N=82) with 2022 (N=326), (Multiple answers possible)



In 2015, an average of 4.3 beneficial areas were selected, while in 2022 6.6. This is partly due to the fact that only the 2015 study included a note in this question: "Please tick the current five most important for your performance mandate".

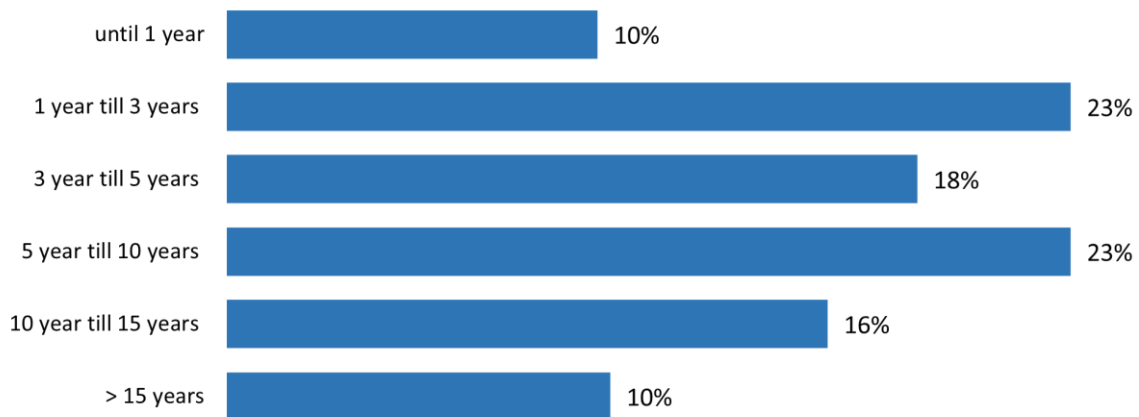
Despite these methodological differences, it can be observed that the following added values, expressed in absolute percentage points, **have increased** particularly **strongly**: Transparency (+35%), compliance with regulatory requirements (+29%), realization of continuous end-to-end processes (+24%) and support for projects and/or change management (+21%).



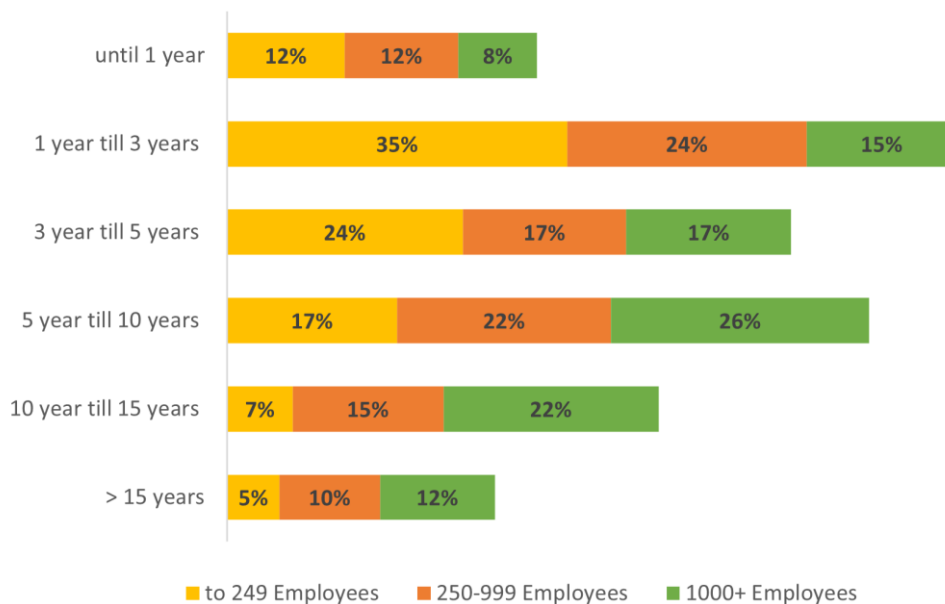
# Anchoring BPM in the organization

Since when has the topic of **process management** been actively pursued in your company?

N=290



Breakdown according to company size



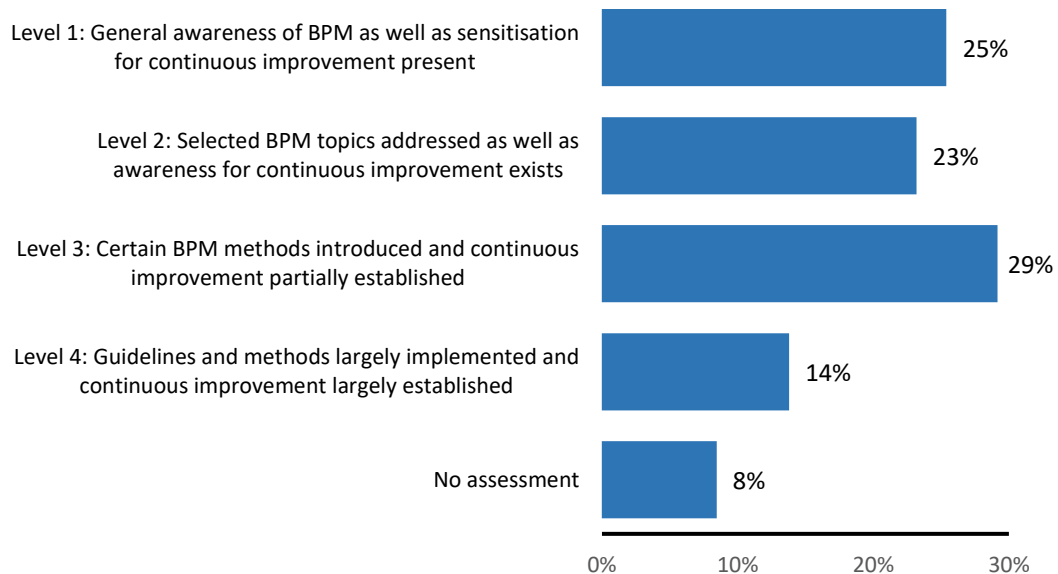
There are striking differences in this question depending on the **size of the company**: the larger the companies, the longer they have been actively involved in Process Management. Only 29% of SMEs have been actively engaged in BPM for five or more years, while 60% of companies with more than 1,000 employees have been doing so. Respectively, 47% of SMEs have been involved in BPM for less than 3 years, but only 23% of companies with 1,000+ employees.

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**In which maturity stage is the application of BPM in your organization today?**

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N=315



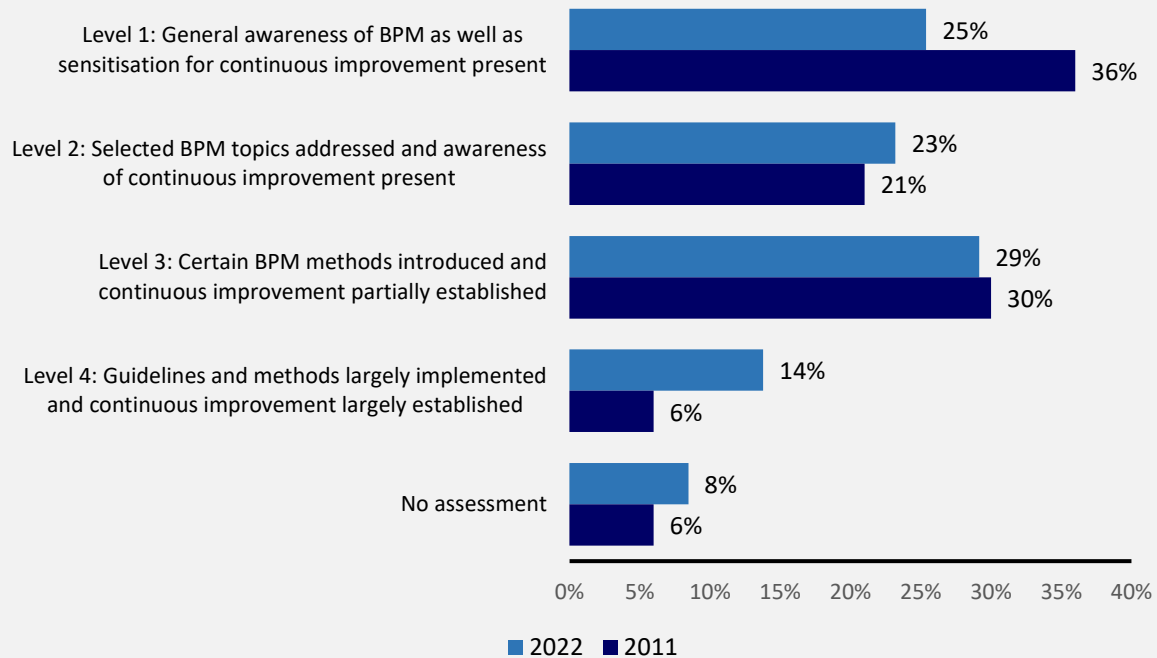
The question and stages were derived from the **Business Process Maturity Model (BPMM)**<sup>1</sup> of the Object Management Group (OMG). In order to make the question easier to understand, the authors decided to summarize the original five maturity stages to four.

The sample shows that the share of levels 1 (basic awareness) to 3 (BPM introduced) is relatively evenly distributed. The companies therefore seem to be in **quite different BPM maturity stages**. In addition, reaching level 4 (BPM introduced, CIP established) seems to be a challenge for many companies, as only 14% believe they have reached this level.

<sup>1</sup> <https://www.omg.org/spec/BPMM/>

### In which **maturity stage** is the application of BPM in your organization today?

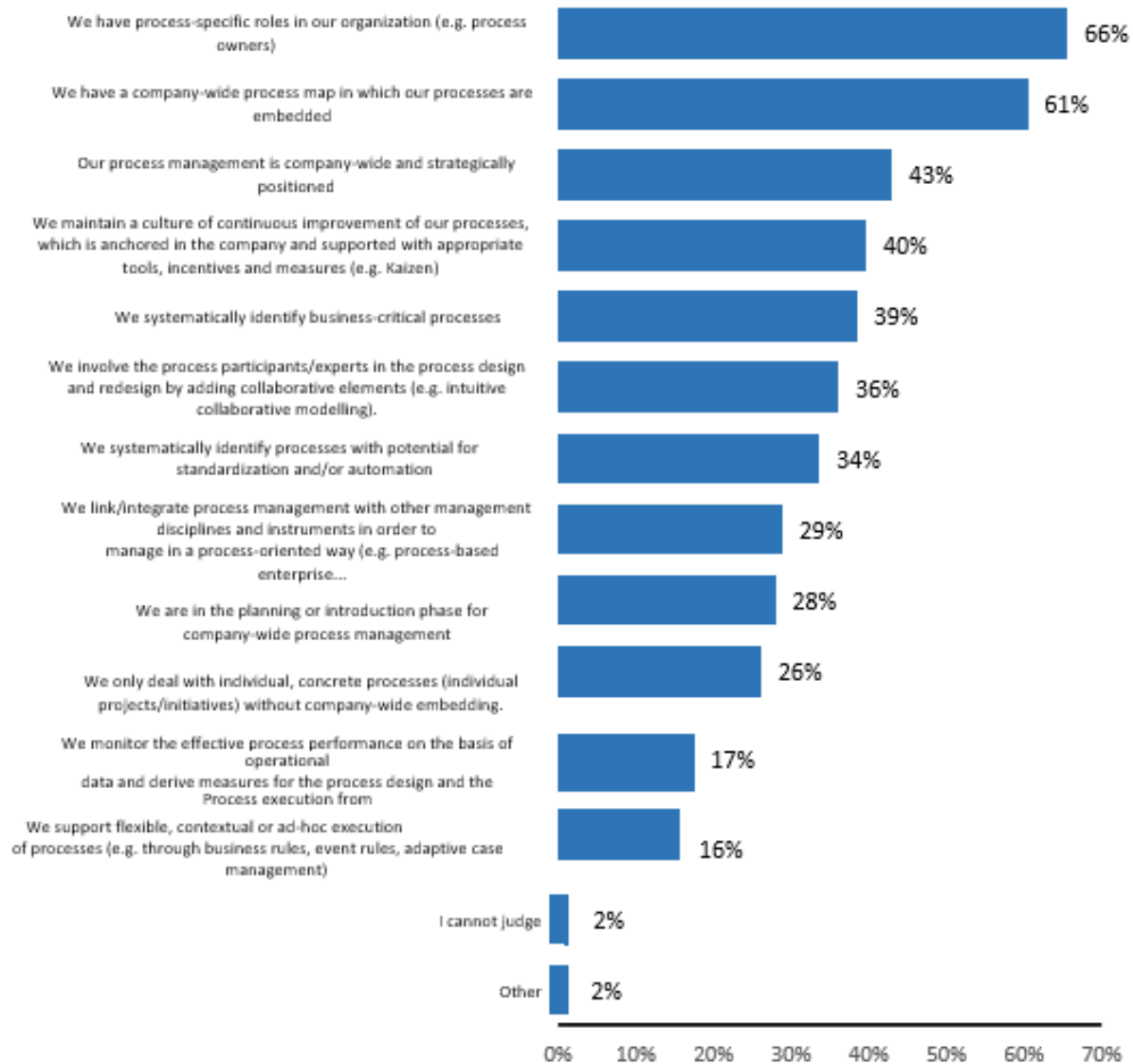
Comparison of results from 2011 (N=205) with 2014 (N=308) with 2022 (N=315)



The **BPM maturity has increased between 2011 and 2022**. This is evident from a significant decrease in the share of companies in stage 1 and a higher share of stage 4.

## What is the **extent of your process management** and its implementation in the organization?

(multiple answers possible), N=328

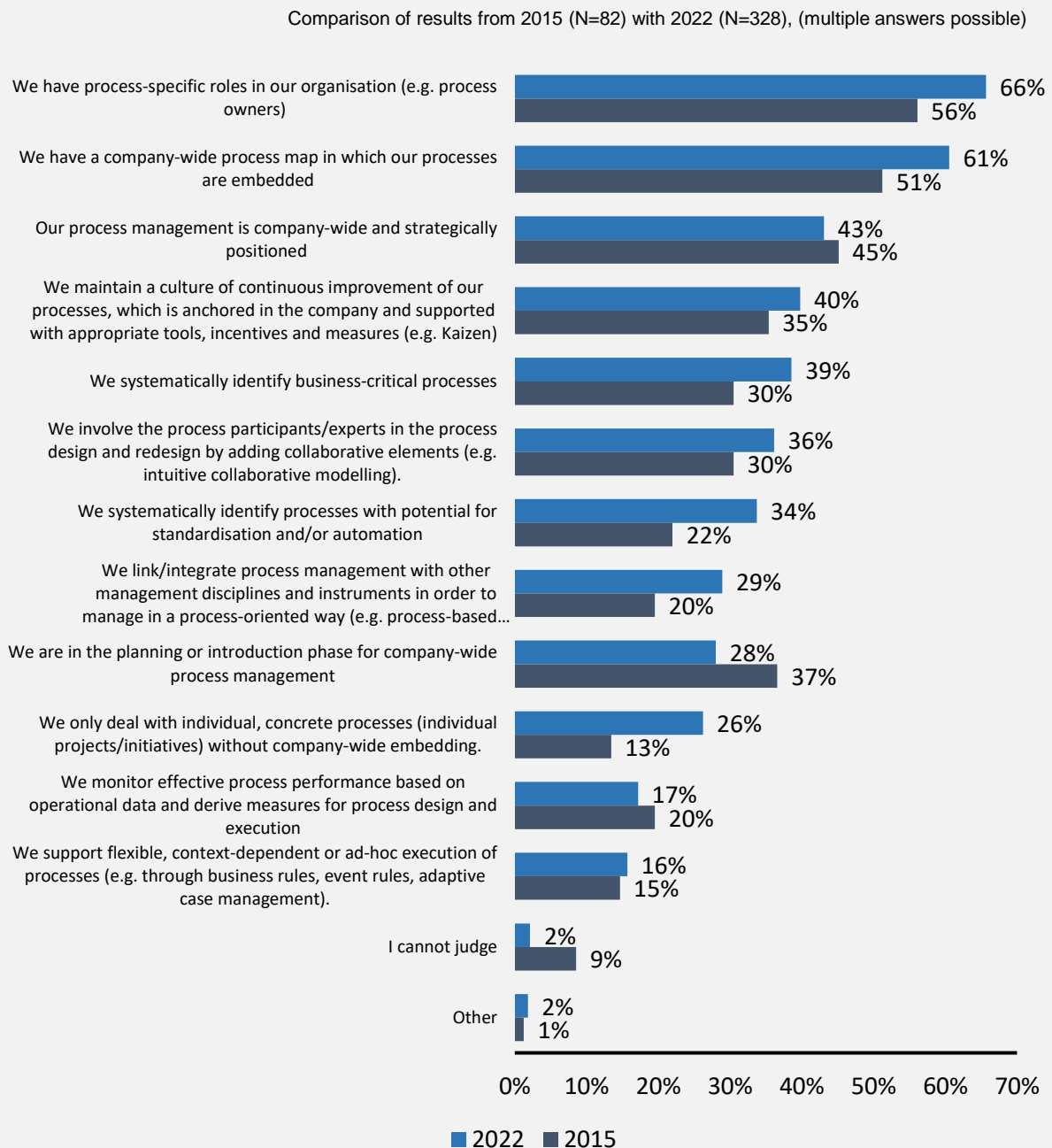


One is which benefits companies hope to gain from BPM (see p. 15 f.) and at which stage of maturity the companies assess themselves (see p. 18 f.). The other is what **process management activities** companies actually engage in (see figure above). There are both similarities and discrepancies here:

43% of the companies align **process management company-wide and position it strategically** and also 43% of the companies are in maturity level 3 or 4 according to self-assessment (see p. 18).

On the other hand, only 34% of the companies systematically **identify processes with standardization and/or automation potential**, although twice as many companies (67%) hope for an **increase in efficiency** as a benefit from BPM (see p. 15).

## What is the extent of your process management and its implementation in the organization?

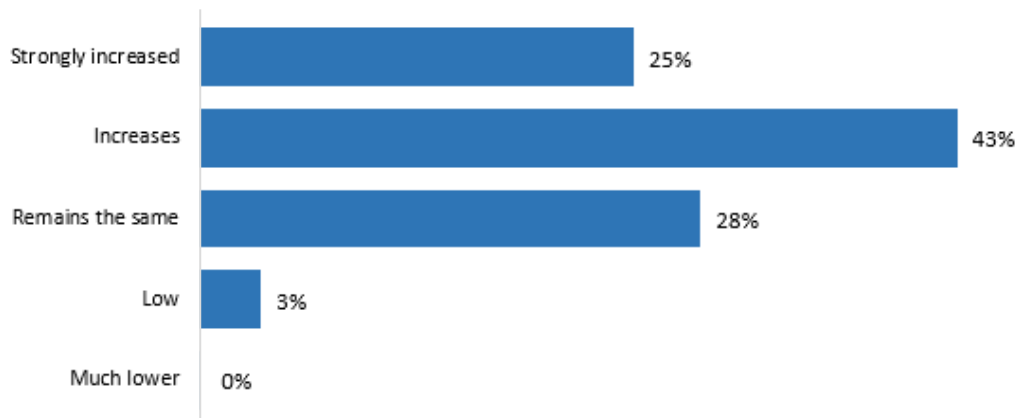


Overall, the comparison of survey results from 2015 and 2022 points to an **increasing professionalization in process management**: there is an increase in process-specific roles in organizations, a trend towards integrated management systems and a significant increase in the systematic identification of standardization and automation potential. Furthermore, fewer companies are in the planning or implementation phase for a company-wide BPM.

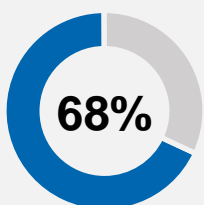
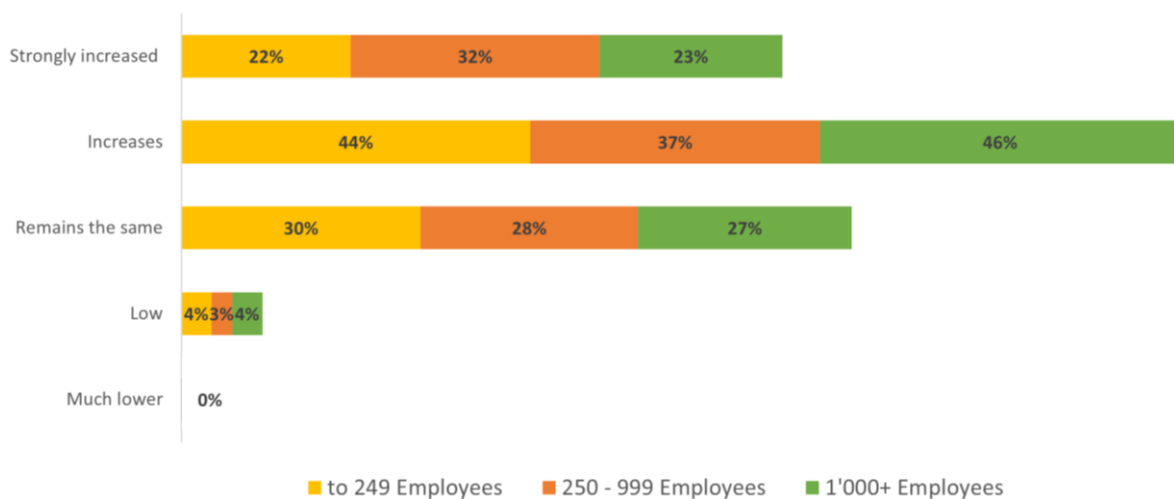
However, it is precisely this last point that reveals **some surprising results**. The number of companies that only deal with individual, concrete processes without company-wide embedding doubled. What's more, the number of companies that align process management company-wide and position it strategically stagnated. These surprising results can be partly explained by the different samples in 2015 and 2022 in terms of the number of participants, company size and industry distribution (for differences see p. [13](#)).

How do you estimate the **development of relevance of process management** in your company in the next few years?

N=284



Breakdown according to company size



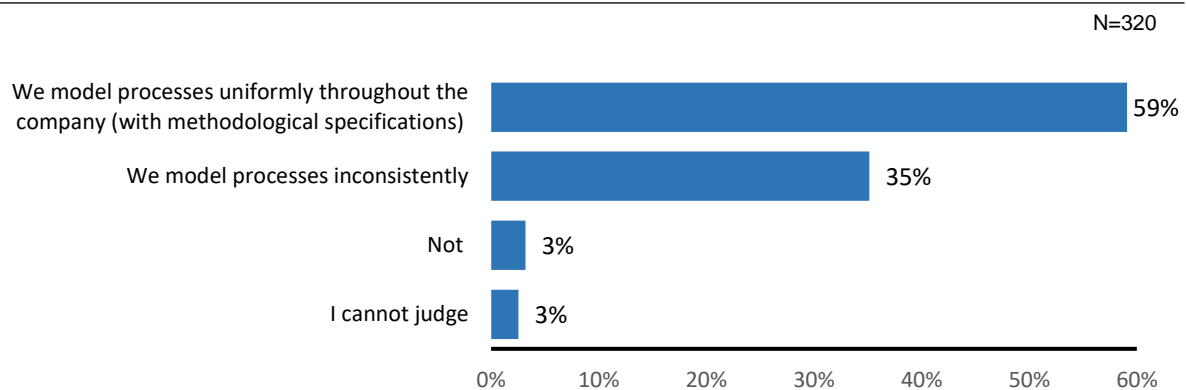
68% of the participants see the future relevance of BPM in their company either significantly increased or intensified.

And 96 percent expect that the relevance of process management will remain the same at the very least. This is a further clear indication that, at least from the point of view of participants, **process management is a management discipline that companies cannot do without.**

The respondents from smaller large companies (250-999 employees) expect the strongest increase in relevance. Apart from this, the **size of the company** has no significant influence on the assessment of relevance.

# Documentation of processes

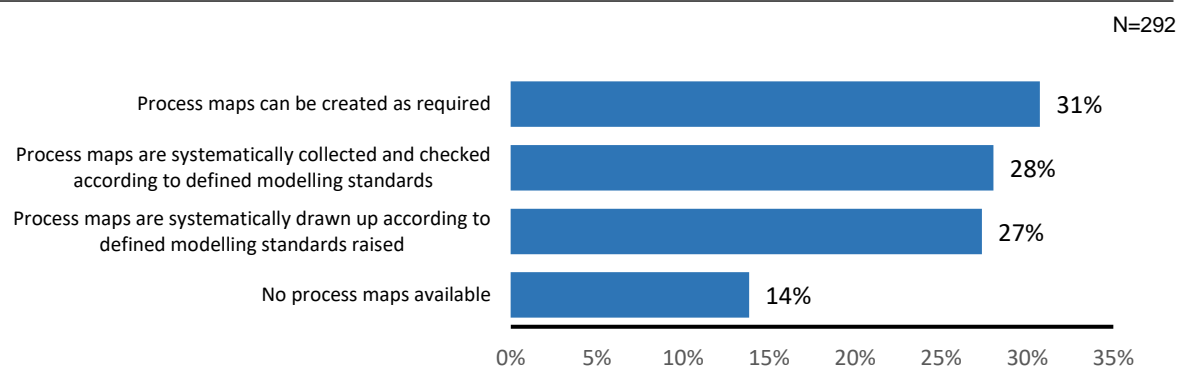
## How do you model your business processes?



**95 percent of all companies model their processes.** In 2015, this was also 85 per cent, but at that time there were around 10 per cent of companies (especially SMEs) that did not model any processes, currently only 3 per cent.

Even though the majority of organizations (59%) practice **consistent process modelling**, for example with a modelling convention, this is not the case for 35%. However, uniform modelling makes processes easier to understand, analyse, optimize and automate.

## Are **process maps** systematically collected and agreed in your organization?

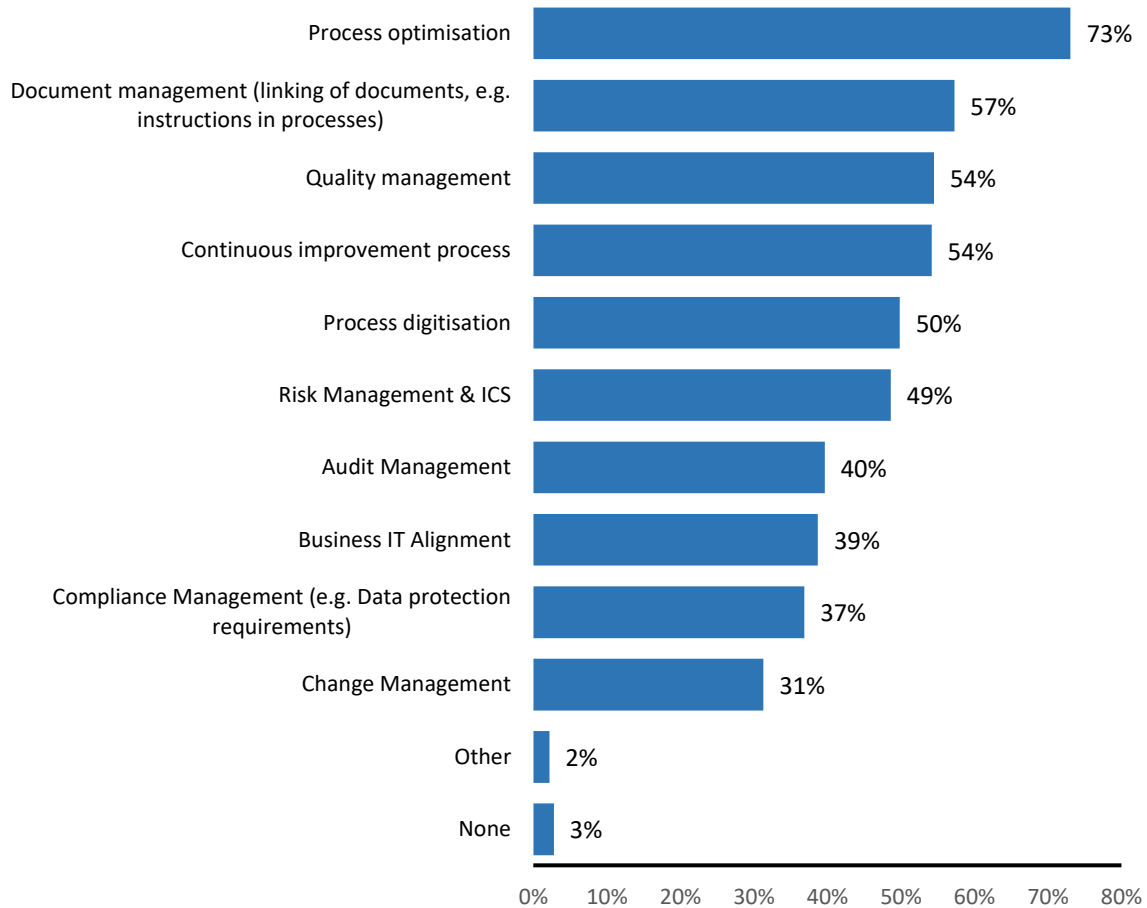


A majority (55%) of companies have a **systematic approach to collecting process maps**. And only a few companies (14%) do not have a process map at all.

If process maps are systematically collected, duplications between processes can be identified more easily. In addition, process maps facilitate communication between organizational units as they promote a **common understanding of** the end-to-end process and the customer journey.

Which **scenarios** in your company **benefit from process documentation**? Or build on them?

(multiple answers possible), N=320



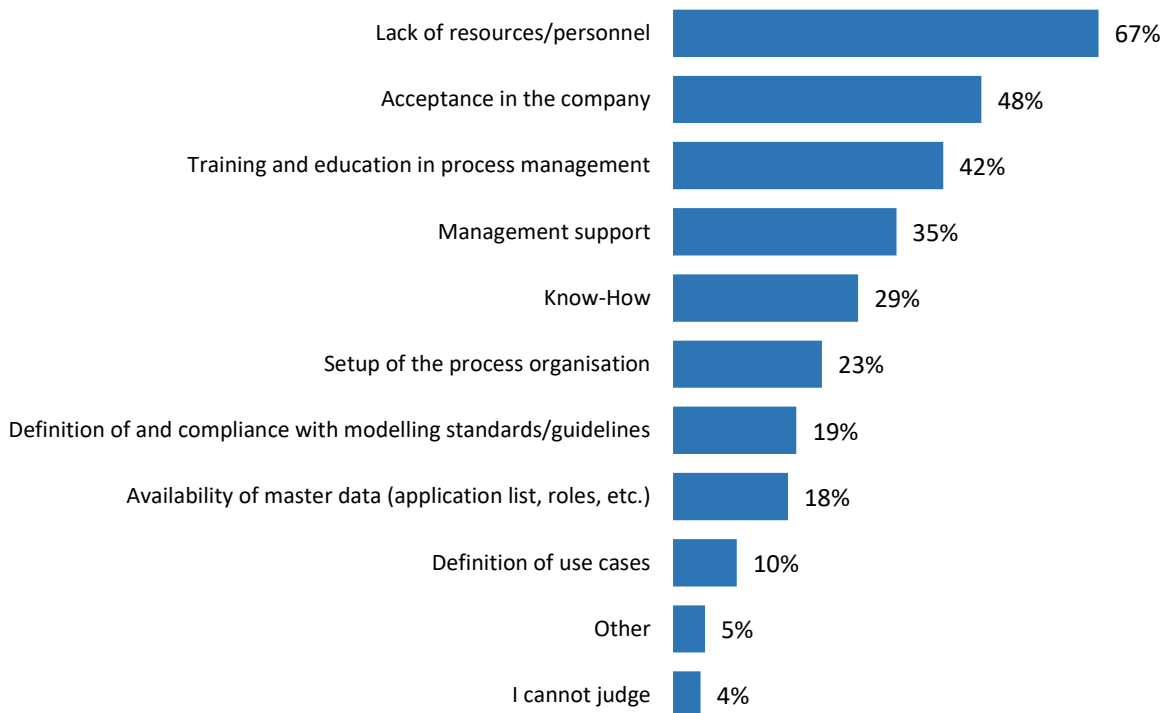
**Process documentation** is seen as an important prerequisite for a wide range of **scenarios** in companies. In particular, it forms the basis for *optimizing processes* (73%), for *document management* (57%) and *quality management & CIP* (54% each).

Furthermore, companies also recognize process documentation as an important tool for **process digitalization**. Presumably, because process documentation allows better understanding on which existing IT systems or new technologies optimally support process implementation. More on this topic in the *Technological Perspective* section starting on page [27](#).



## What are currently your biggest **challenges in process documentation** for your company?

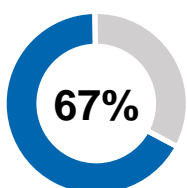
(multiple answers possible), N=295



The biggest challenge by far is the **lack of resources & staff** (67%), thematically related to challenges in *training* (42%), *know-how* (29%) and *definition & compliance with modelling standards* (19%).

In addition, several challenges in connection with the **anchoring of BPM in the company** can be grouped thematically: It is astonishing that although this is quite good according to p. [17](#) ff., 48% of the respondents note insufficient *acceptance in the company* and 35% insufficient *management support*, another 23% consider the *setup of the process organisation* and 10% the *definition of documentation use cases* to be challenging.

Since the clear majority of respondents believe that the **relevance of BPM will** increase or remain the same (see p. [20](#)), it can be hoped that the extent of these challenges can be reduced through corresponding investments, e.g. in staff expansion, in the coming years.

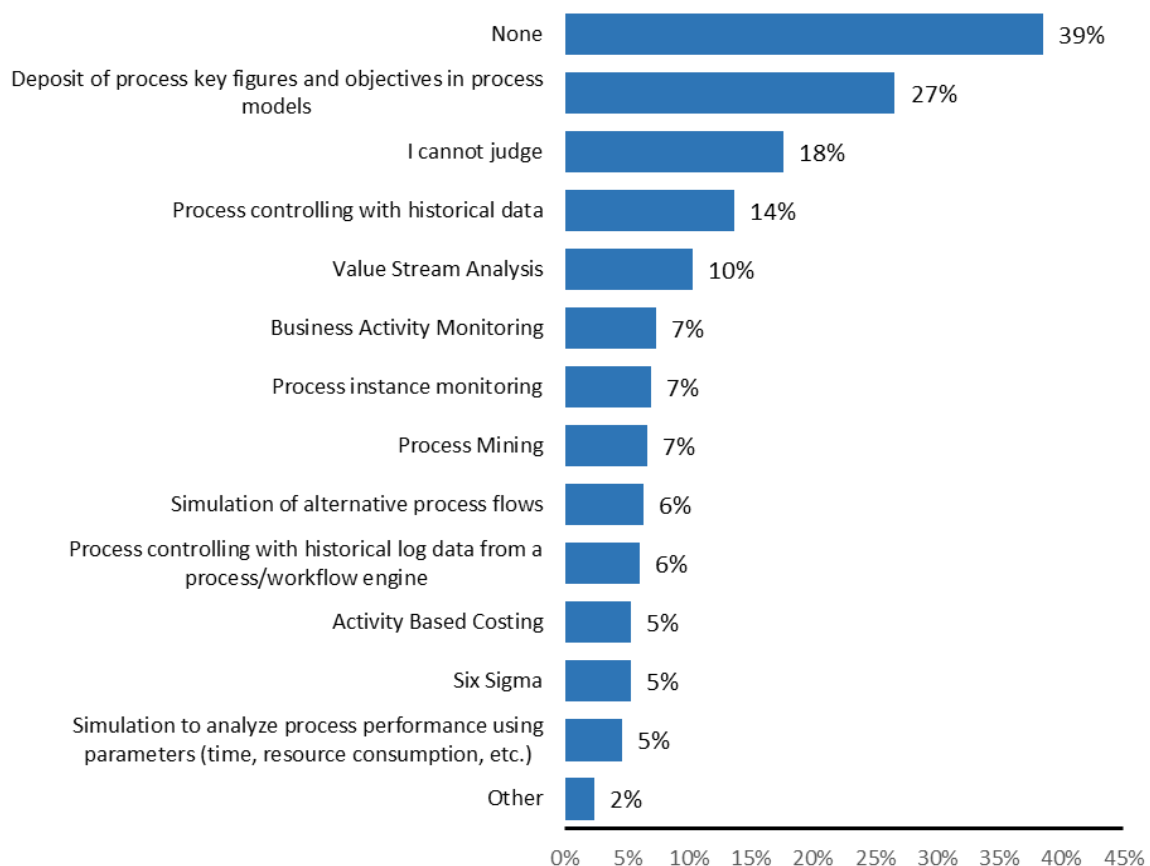


Two-thirds of companies are struggling with a lack of resources/staff in the area of process management.

# From analysis to controlling

Which methods do you use to **monitor / analyse / optimize / control the performance / conformity** of your processes?

(multiple answers possible), N=295



**39% of all participants do not use any of the listed methods** to monitor, analyse, optimize or control process performance or compliance. This high percentage is at odds with the intended added value of BPM, in particular to use it to increase efficiency and fulfill regulatory requirements (see p. [15](#)). Both of these can only be achieved to a limited degree with the mere process documentation. So, there is still room for improvement.

The most frequently mentioned method (27%) of *storing process indicators and target values in process models* is a step in the right direction, but is not enough to monitor the actual current process performance or conformity. This would require methods such as *process controlling with historical data*, mentioned by only 14%, or the methods of *business activity monitoring*, *process instance monitoring* and *process mining*, mentioned by only 7% each.

# Study results

## Technological perspective

This chapter is dedicated to the primarily **technological aspects** of business process management. On page 7, the process management life cycle was presented, which is referred to in the following:

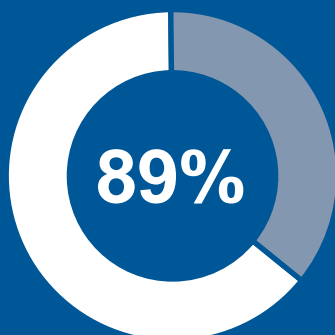
For the **Strategy & Conception** phase, it was investigated how important companies consider *process automation* compared to other ICT topics (e.g. cybersecurity) as well as how important they consider *BPM tools* (a core finding is shown below in the infographic).

**BPM tool** is the umbrella term for both software that supports only individual phases of the BPM lifecycle (e.g. modelling software) and BPM suites that typically cover all phases of the lifecycle.

For the **Design & Documentation** phase, we asked which BPM tools or other software are used to model processes.

The **implementation & realization** and **execution & operation** phase is the one that comes to mind first in the context of the technological perspective. We asked in general terms what tools companies use to support this phase and then wanted to know in particular what software is used to automate processes.

For the phases **Analysis & Optimization** and **Feedback & Controlling**, we were interested in whether companies have a data-supported feedback loop. For this purpose, we first asked from which sources data on process execution originate, which flow into the process analysis. Then we asked in which form the results of this analysis are presented to the users. Finally, we wanted to know whether the historically independent disciplines of BPM and BI have already grown together in the companies.

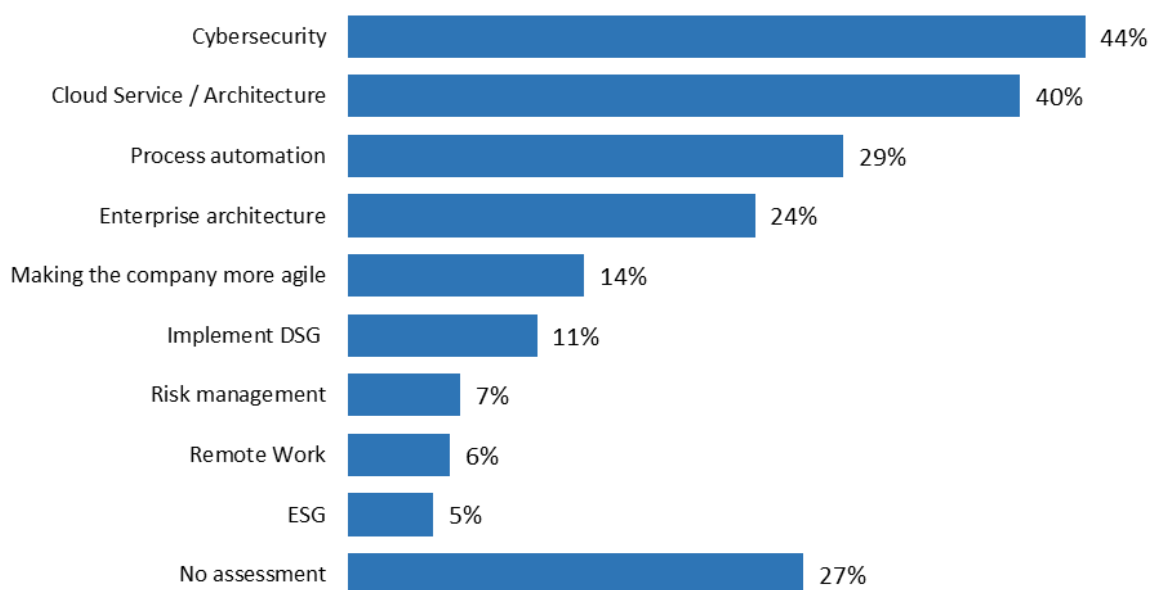


**89% of participants** rated the future importance of using BPM tools of **higher or same relevance**

# ICT investment focus

Where is the **investment focus in the IT department** for next year?

(Multiple answers possible), N=283



The question provides information about the topics that the IT departments in companies are pursuing as an important investment focus in 2023. From the perspective of business process management, it is interesting to note that **process automation** is in third place with 29%, but the broader topics of cybersecurity and cloud service / architecture are rated as even more important.

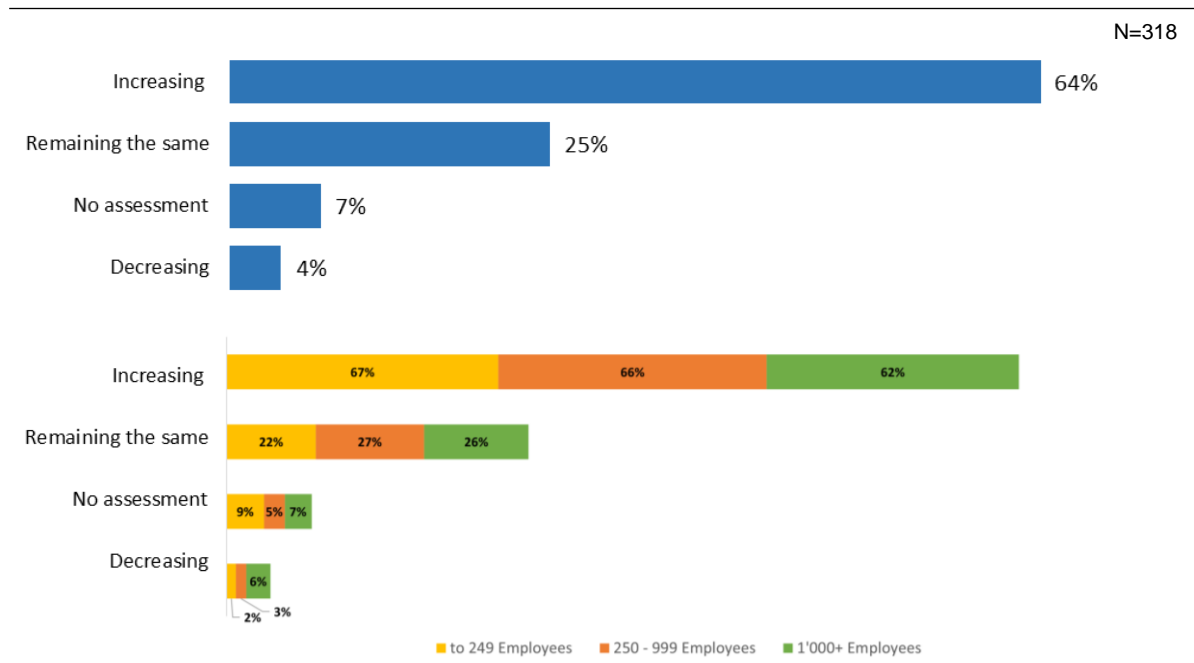
It is also evident that the imminent entry of revDSG into force (revision of the Data Protection **Act in line with the** EU requirements of the GDPR) is currently receiving little attention from Swiss companies.

In addition, the topic of **ESG** (environment, social, governance) does not yet seem to be widely represented as a strategic focus for companies

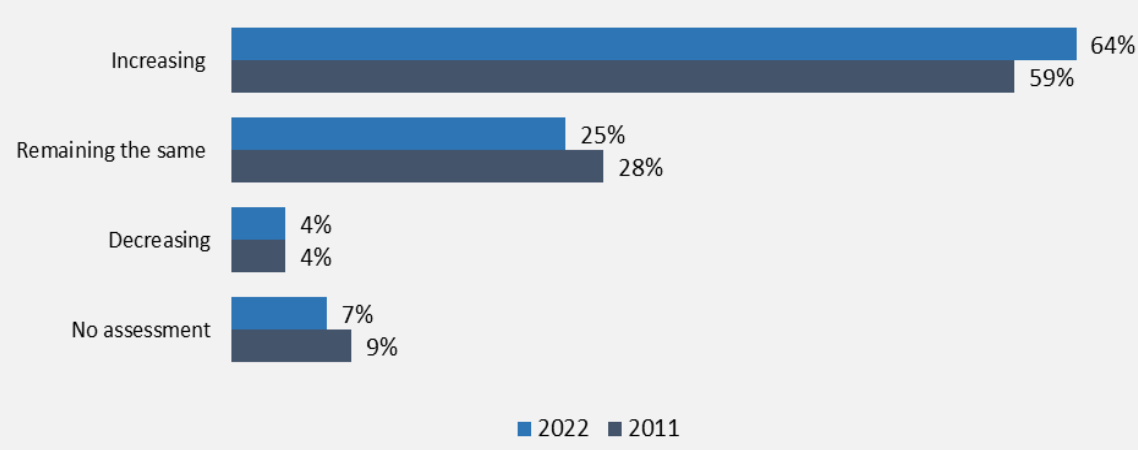
The high proportion of "**No Assessment**" responses is likely to be due to the fact that a number of study participants do not work in an IT department and were therefore unable to answer this question.

# Importance of BPM tools

How would you rate the future **importance of using software-based BPM tools** in your organization?



Comparison of results from 2011 (N=219) with 2022 (N=318)



89% of companies assess the **importance of BPM tools** as **increasing** or **constant**.

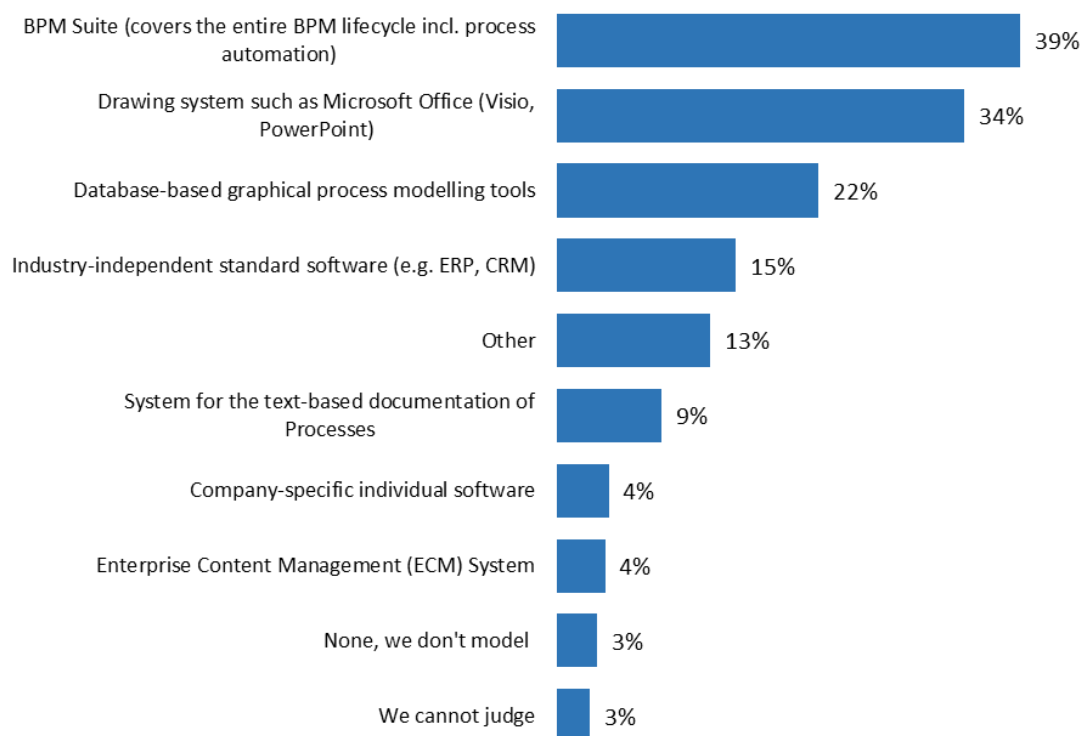
There is a marginal difference according to **company size**: Small and medium-sized companies rate the importance of BPM tools slightly higher than the large companies. This could be due to the fact that large companies have on average had BPM in place for longer (see p. 17).

In a **time comparison**, the importance also seems to have increased marginally between 2011 and 2022 (+5%). However, the increasing importance would probably have been slightly higher in 2022 with the same sample, since there were significantly more SMEs in the study in 2011 (45%) than in 2022 (26%).

# Modelling software

Which software-based tools do you use to **model** your processes?

Multiple answers possible, N=315



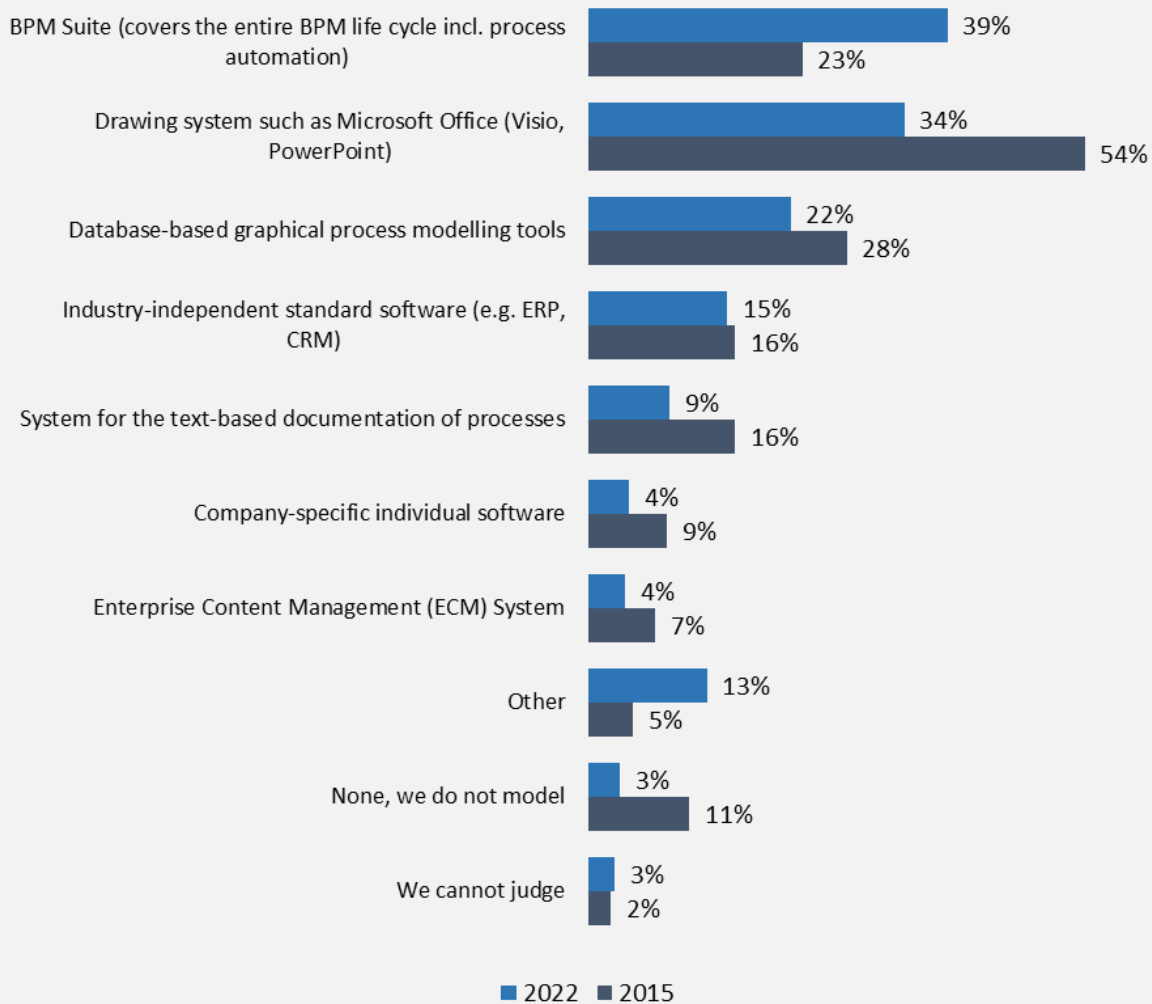
**Tools specialized in process management** (BPM suites and database-based graphical process modelling tools) are very often used for modelling. Drawing systems such as Microsoft Visio follow in second place. However, their use has decreased significantly (see next page).

The proportion of **others** is relatively large, so it can be assumed that some study participants use tools that are specialized in process management but are neither database-based, nor equivalent to a full-fledged BPM suite.

Since participants were able to select **several options** here, it is unclear whether 34% of the companies use drawing systems exclusively or in addition to other tools, e.g. BPM suites by appropriately trained employees, and Visio on the other hand by specialist departments for initial model drafts.

## Which software-based tools do you use to **model** your processes?

Comparison of results from 2015 (N=82) with 2022 (N=315), (multiple answers possible)



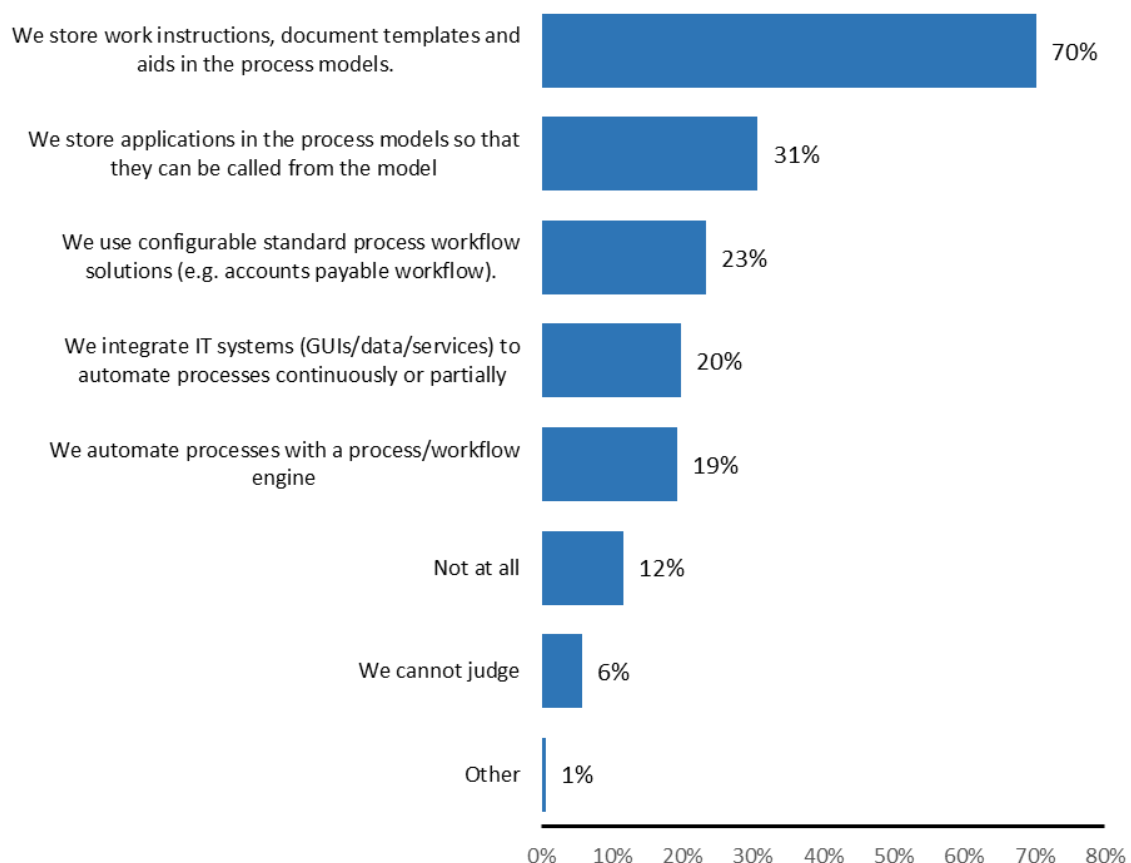
Over the last eight years, there has been a **sharp decline in** companies relying on **drawing systems** such as Microsoft Office for process modelling. More and more companies rely instead on specialized *BPM suites* or *other* software.

In addition, the survey results also indicate that significantly **fewer processes** are **documented in the form of texts** and that **company-specific individual software** (-5%) is used for modelling. The number of companies that **do not model any processes at all** has also decreased.

# Tool use in the implementation & execution of processes

How do you **support** the **implementation/execution** of your processes?

(multiple answers possible), N=309



By far the most frequently used method to support the implementation & execution of processes is the **deposit of work instructions, document templates and tools** in the process models. For example, companies link instructions to individual activities or to the process model as a whole.

This is followed by the somewhat more advanced **storage of applications** in the process models, so that employees can ideally open the appropriate application for a specific activity directly from a process portal.

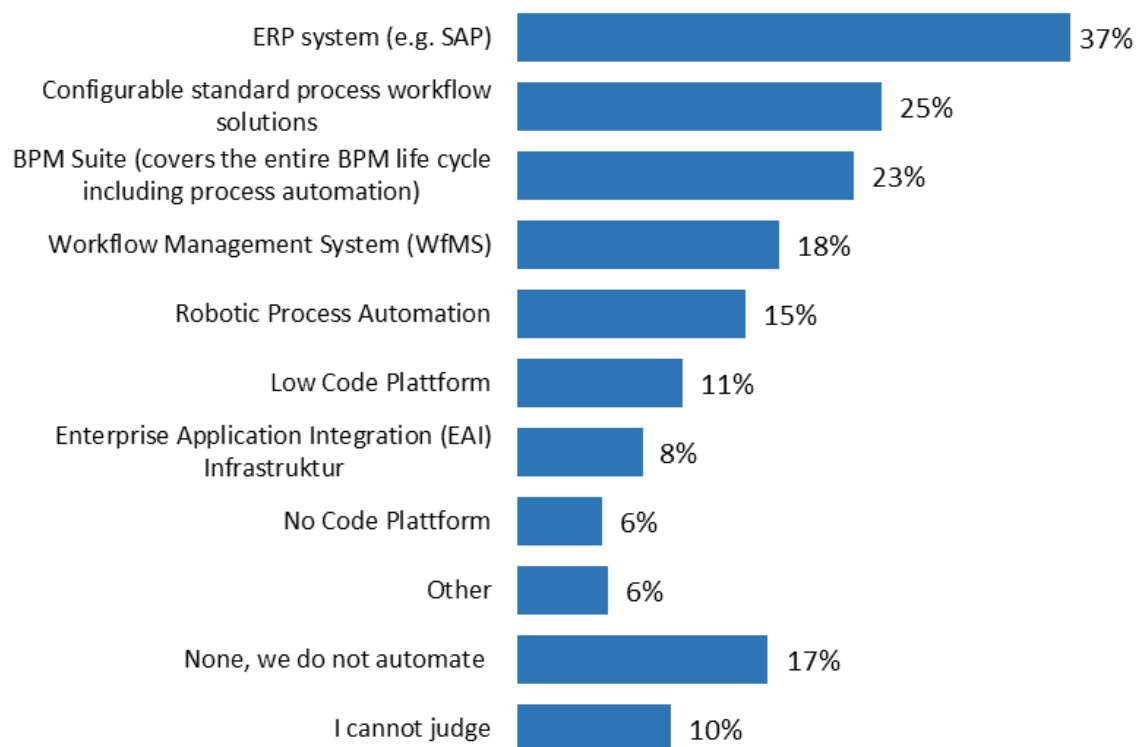
In contrast, methods that lead to an even **higher degree of digitization or automation** are only used by about one fifth of the companies. These include the use of *configurable standard workflow solutions*, the *integration of IT systems* and the use of *workflow engines*. Other tools are also used for automation (see next page).



# Process automation

Which software-based tools do you use to **automate** your processes?

(Multiple answers possible), N=256



34% of all participants state that processes are systematically **evaluated** for **standardization and automation potential** (see p. 20). Accordingly, it can be expected that at least as many companies now also use at least one technology for process automation. And in fact, only 17% of the participants do not automate at all.

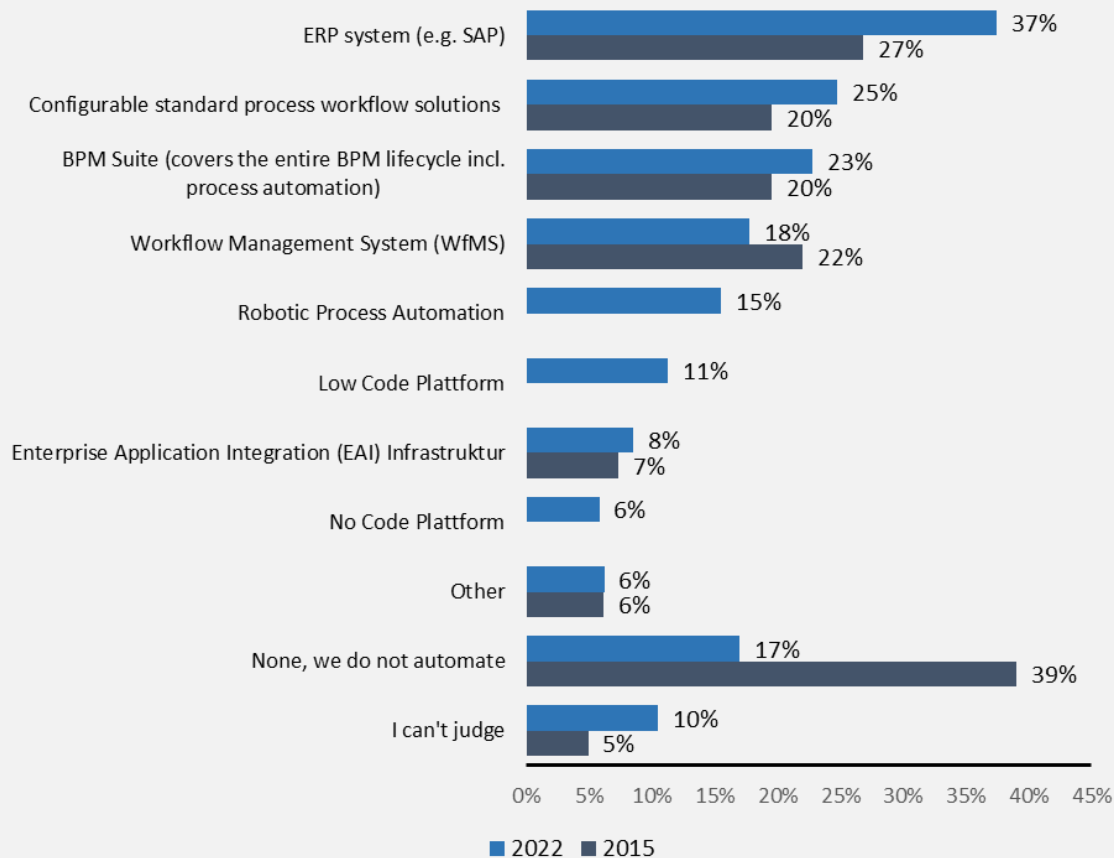
**ERP systems** are by far the most frequently used for "automation". Although a high degree of digitalization is usually achieved with these systems, the degree of automation is often low because despite the fact that people are guided and supported by the system, a lot of manual work is still required.

In the case of the technologies *configurable standard workflow solutions*, *BPM suites* and *workflow management systems* mentioned between 18% and 25%, the **orchestration of the IT systems and people** is mostly predefined by a workflow, which reduces the flexibility of employees compared to ERP systems, but increases standardization and thus efficiency.

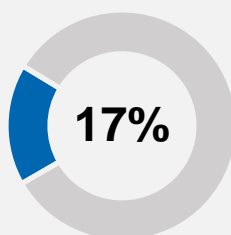
The share of **No Code and Low Code** technologies seems to be low at first glance (6% *No Code*, 11% *Low Code*), but all market leaders of *Robotic Process Automation* (RPA) solutions (named in 15%) also rely on Low Code and the majority of market leaders of *BPM Suites* (23%) and *WfMS* (18%) also rely on Low Code.

## Which software-based tools do you use to **automate** your processes?

Comparison of results from 2015 (N=82) with 2022 (N=256), (multiple answers possible)



Interpretation note: The options *Robotic Process Automation*, *Low Code Plattform* and *No Code Plattform* were not available for selection in 2015



The proportion of companies that do not automate at all has fallen from 39% to 17% within the last 7 years.

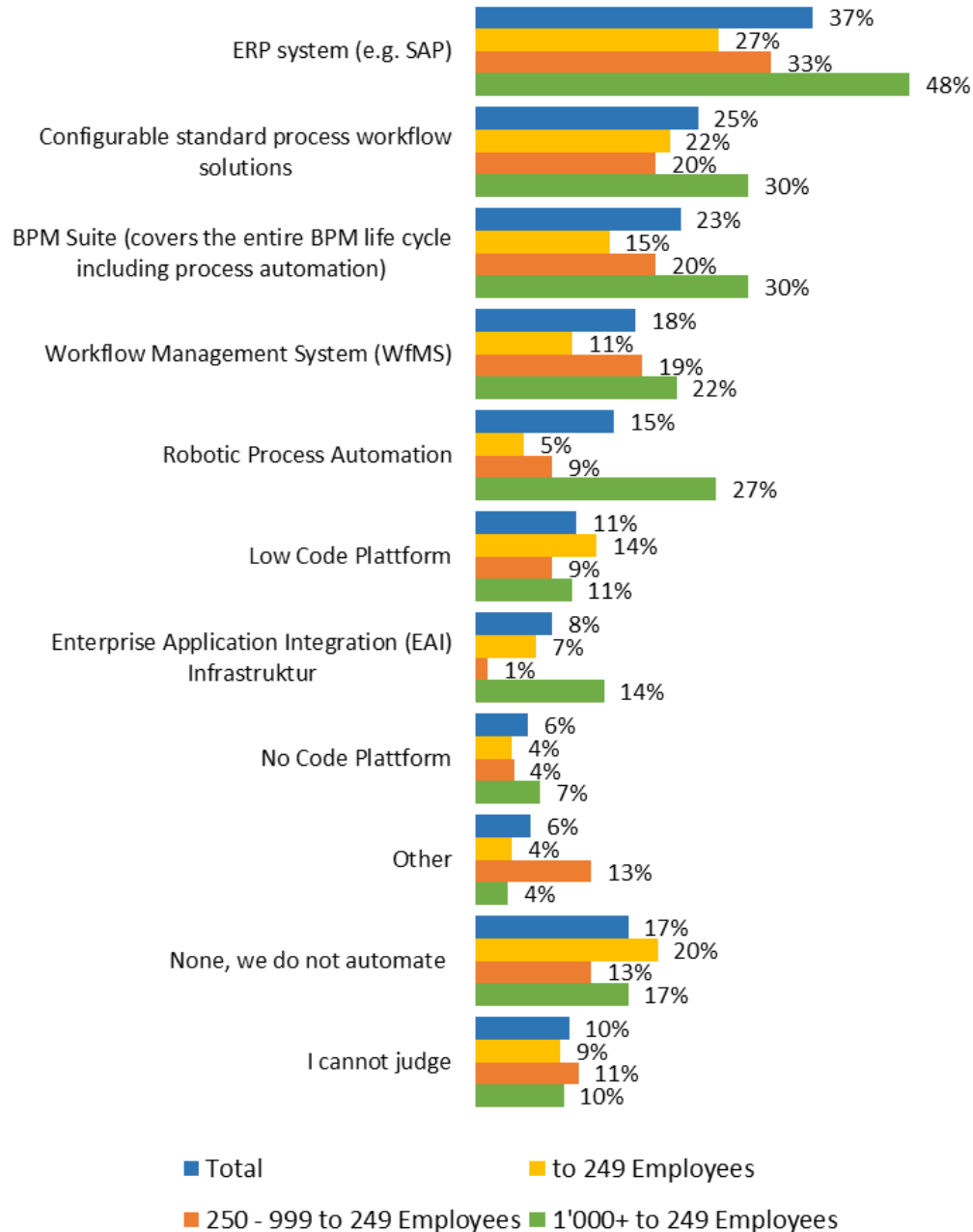
In the last 7 years, there has been a **strong increase in process automation**: The share of companies that do not automate their processes at all has more than halved (-22%).

The largest growth was recorded in **ERP systems** with +10%. On the other hand, it is striking that the traditional **technologies for orchestration & integration** only achieved an overall increase of +5% (*configurable standard workflow solutions*, *BPM suites*, *workflow management systems* and *EAI*).

Unfortunately, no comparison with 2015 can be made about the development of the **modern automation technologies** *RPA*, *Low Code* and *No Code platforms*. But it is likely that their share would have been in the single-digit percentage range in 2015.

## Which software-based tools do you use to **automate** your processes?

Top 5 answers by company size, (multiple answers possible), N=256



The breakdown into three company sizes shows that the **degree of automation increases depending on the size of the company**. This means that companies with more employees probably automate comparatively more processes.

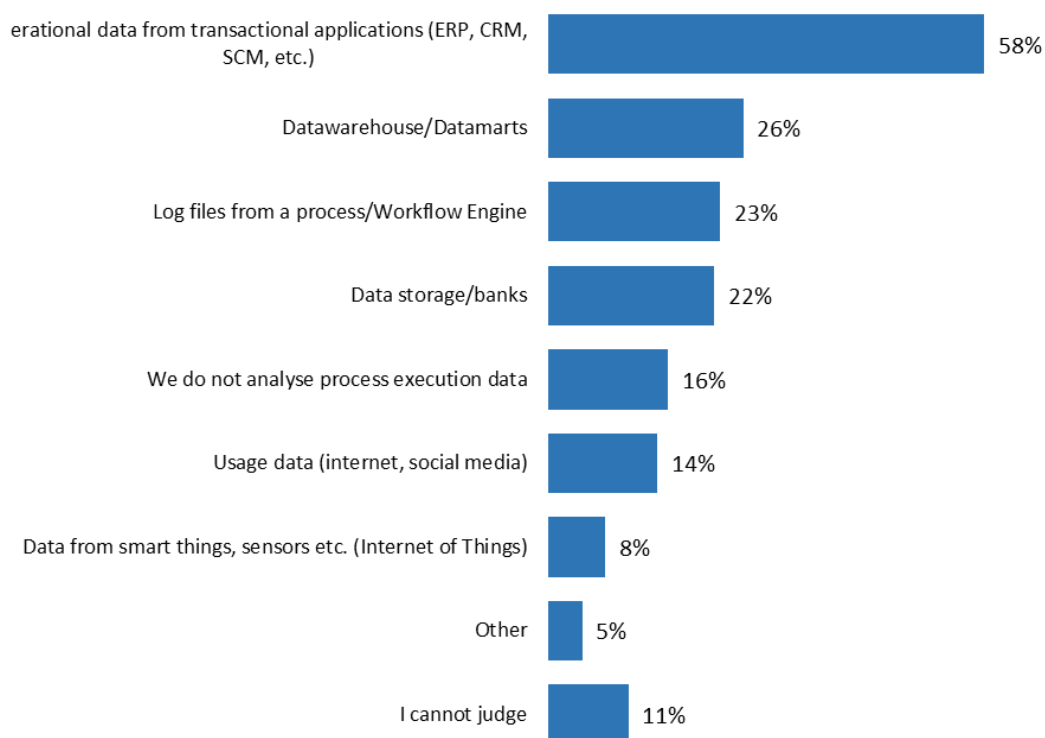
Furthermore, **large companies** tend to use more cost-intensive and powerful automation technologies such as ERP systems, BPM suites, configurable standard workflow solutions, WfMS or EAI.

The only automation tools that **SMEs** use more than large companies are low-code platforms. The fact that SMEs use Robotic Process Automation significantly less often than large companies, even though RPA is also based on low code, could be related to the fact that the barrier to entry has so far been very high due to corresponding licensing models of the market leaders.

# Data-driven feedback loop

If you use **data from process execution** for analysis, **where do you get this data from?**

(multiple answers possible), N=131 *The sample here is significantly smaller than usual, as this question was only displayed depending on the answers to the question on p. 26*

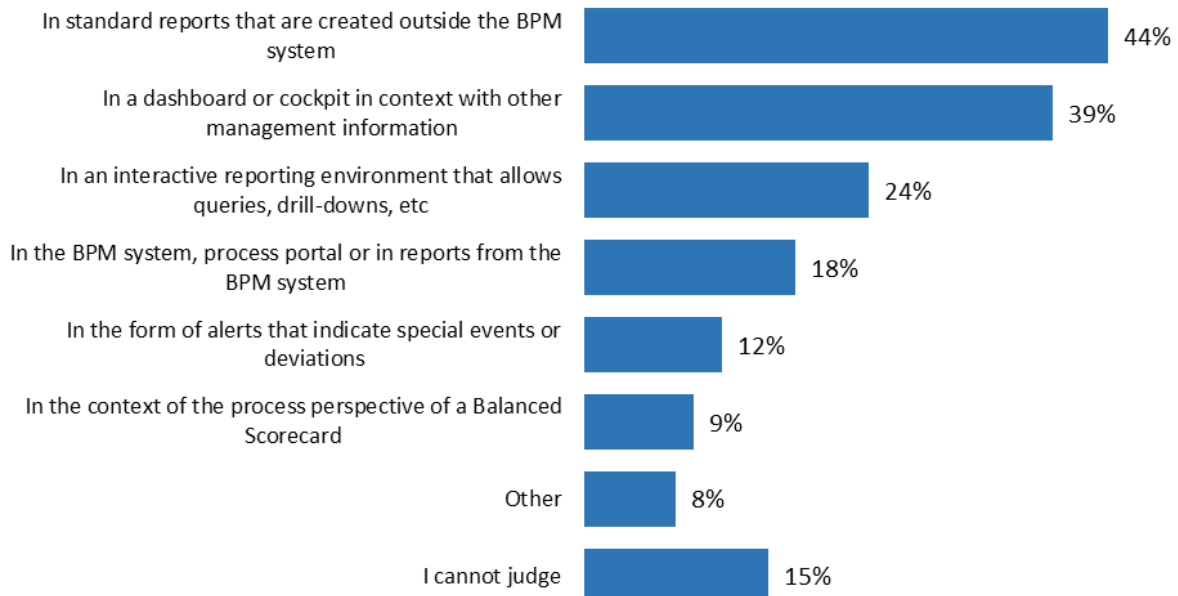


The survey results show that companies use a **wide variety of data sources to analyse process execution**. The most common source is *operational data from transactional applications* such as ERP systems (58%), followed at a considerable distance by *data warehouses / datamarts* (26%) and *log files from a workflow engine* (23%).

**Process execution data is an important source for process analysis.** From participants who use at least one of the methods presented on p. 26, only 16% do *not analyse process execution data* at all, and a further 11% *currently cannot assess* this.

### Where do you see the **results of these analyses**?

(multiple answers possible), N=129 *The sample here is significantly smaller than usual, as this question was only displayed depending on the answers to the question on p. 26*



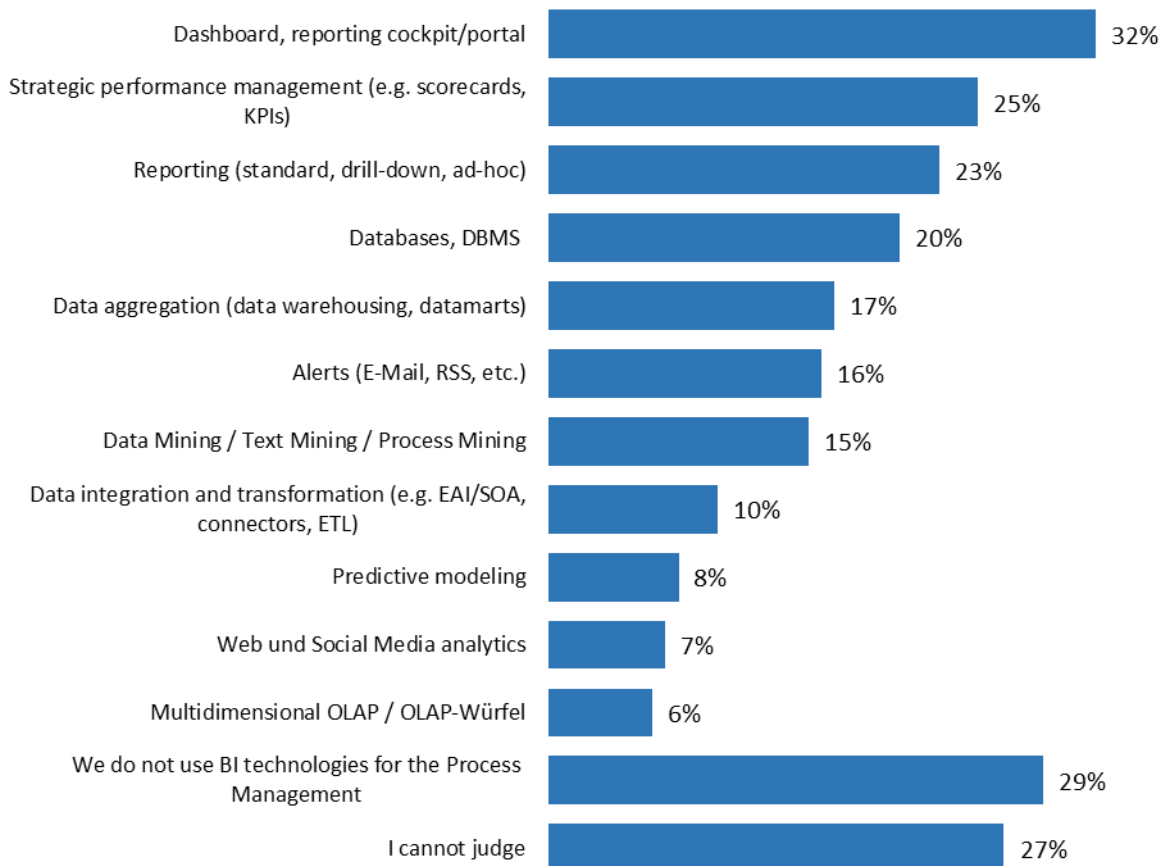
About a quarter of the participants make a separate effort to prepare the analysis results based on process execution data by using **interactive reporting environments**.

More widespread, on the other hand, is the **use of the display options already integrated in the execution environments, which does not require any extra effort**. These certainly include *standard reports outside a BPM system* (44%), such as in an ERP system, and the *process portal or reports in the BPM system* (18%).

Also very common is the presentation of results in a *dashboard in the context of other management information* (39%), whereby this linking of process metrics with other information, such as the daily turnover achieved, makes it easier to make **data-based strategic decisions**. This would be even more the case if it were integrated into a *balanced scorecard*, but only 9% of respondents practice this.

## Is BI infrastructure used for process management?

(multiple answers possible), N=309



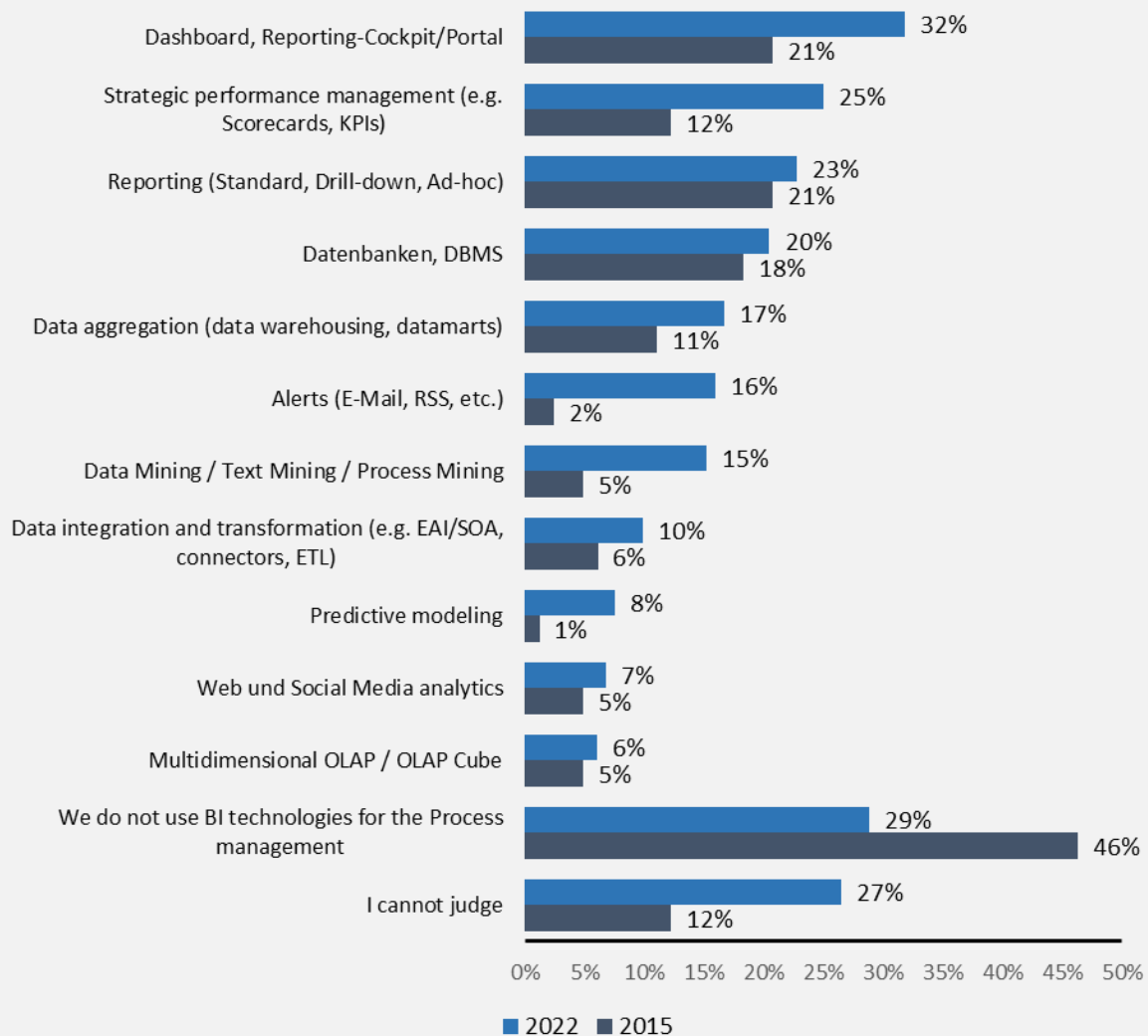
Almost 60% of companies do **not** yet use **business intelligence technologies in the BPM context** (29%) or *cannot assess this* (27%). This means they are missing out on the opportunity to increase their operational efficiency through data-based and thus more reliable decisions.

Among the **companies that use BI infrastructure in the BPM context**, the following options mentioned on the previous page appear in the first three places: *Reporting, Dashboards & Cockpits* and *Scorecards - here summarized with KPIs to Strategic Performance Management*.

It is interesting to see how this has developed over the last 8 years (see next page).

## Is BI infrastructure used for process management?

Comparison of results from 2015 (N=82) with 2022 (N=309), (multiple answers possible)



Overall, an **increasing use of BI infrastructure** can be assumed over the last eight years: Compared to the first data collection in 2015, the proportion of companies that do *not* use *BI technologies for process management* has decreased significantly (-17%). However, among the 2022 participants, a significantly higher proportion (+15%) is not in a position to assess this. Thus, we cannot know for sure how many of these 15% do or do not use BI technologies.

What is certain, however, is that **some BI technologies** are **used significantly more** than in 2015: *alerts* have increased by 14%, *strategic performance management* by 13%, *dashboards & cockpits* by 11%, *data mining, text mining & process mining* by 10% and *predictive modelling* by 7%.

# Conclusion

The aim of the study was to gain an impression of the **status quo of process management and its development since 2011** for companies operating on the Swiss market. The result of this online survey provides an insight into the **business and technological aspects** of process management.

Overall, it can be said that the times when business process management was a marginal discipline are now over in all industries and company sizes. Instead, BPM has become a central, stable component of most companies or is on its way to becoming so. Practically all those involved assume that the **relevance of process management will remain the same or increase**.

As a conclusion to the phases of the process management life cycle presented on p. [8](#), the following can be stated:

## Phase **Strategy & Concept**

- Process transparency, efficiency increase as well as fulfilment of compliance requirements continue to be the top reasons for using process management.
- Process management is practiced more professionally and the companies see themselves on average at higher levels of the BPM maturity.
- The use of BPM tools is also viewed by a large majority as increasingly important in the future.

## Design & Documentation Phase

- For modelling, more and more companies rely on specialized BPM tools such as e.g. BPM suites instead of drawing tools such as Microsoft Visio.
- Process documentation is recognized as a central prerequisite for many scenarios, from process optimization to quality management and process digitalization.
- Accordingly, processes are more than just "drawn graphics" - the majority of the companies surveyed model their processes in a standardized way, embed them in process maps and enrich the process models with numerous other pieces of information.
- The lack of resources and staff is currently seen as one of the biggest challenges in the field of process documentation.



### **Analysis & Optimization and Feedback & Controlling Phases**

- Many companies use few or no BPM methods for monitoring, analysis, optimization and control. As a result, they miss out on potential with regards to increasing efficiency and better meeting compliance requirements.
- When companies use process execution data for analysis & optimization, it primarily comes from transactional systems such as an ERP, and accordingly the standard reports built into these systems are used most often.
- The use of business intelligence in the context of BPM has increased, but is still only widespread in a minority of companies.

### **Phases Implementation & Realization and Execution & Operation**

- Process models created in the Design & Documentation phase are linked to work instructions, document templates, tools or even the necessary ICT systems to support the Execution phase.
- Process automation beyond this is an ICT investment focus for almost a third of companies in 2023.
- Process automation has increased significantly in importance in recent years, with ERP systems playing the biggest role, followed by orchestration & integration technologies such as standard workflow solutions or BPM suites.

# About the publisher



The Institute of Information Systems (IWI) at the ZHAW School of Management and Law operates between business administration and information technology and pursues the goal of increasing the innovative power of society and the economy. Our guiding principle is: "From Information to Innovation".

Information technology is not only a driver for process optimization, but also enables completely new business models. We support companies in all sectors from the redesign of their customer processes to process automation and the digital transformation of their business models.

To this end, we are your partner in applied research projects and consulting mandates. In addition, we offer you a wide range of further training courses that enable your employees to achieve top performance with scientifically sound and practical content.

Our mission is to increase the innovative power of society and business. Through practical events such as the annual WINsights symposium, we promote an inspiring exchange between higher education, business and society

<https://www.zhaw.ch/de/sml/institute-zentren/iwi/>



## CAS Process Digitization

Process management and process digitalization are not just the subjects of this study. They have also been at the core of business informatics for over 50 years. The CAS Process Digitization provides a sound basis for all those who want to advance the ICT support of processes through process automation in companies.

In addition to teaching the concepts, models and methods of process management, we place particular emphasis on hands-on experience using real processes in participants' companies. Using these processes as examples, students learn practical skills from modelling in BPMN to building prototypical process solutions with the help of low-code technologies.

<https://www.zhaw.ch/de/sml/weiterbildung/detail/kurs/cas-prozessdigitalisierung/>



## FURTHER EDUCATION OFFER

In addition to the CAS Process Digitization presented on the previous page, the Institute of Information Systems offers numerous other continued education programmes, most notably the following two MAS programmes:

### MAS BUSINESS ENGINEERING



For more than a decade, the MAS Business Engineering has been imparting practice-oriented know-how on the digital transformation of companies. The spectrum ranges from the design of digital strategies and process digitalization to the agile design of information systems and the use of data.

<https://www.zhaw.ch/de/sml/weiterbildung/detail/kurs/mas-business-engineering/>



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## TO THE COMPLETE TRAINING OFFER

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# About the study partner



BOC Group is the leading provider of software tools and consulting services in the areas of Business Process Management, Enterprise Architecture and Governance, Risk & Compliance. Our flagship products include **ADONIS for BPM**, **ADOIT for EA** and **ADOGRC for GRC**.

We focus on **innovative** and sustainable growth and drive digital transformation through close cooperation with universities and research institutions.

BOC Group was founded in 1995 as a spin-off from the University of Vienna and remains **self-financed** to this day. This ability to remain independent and focus on customer needs makes us a **reliable** and **consistent partner**, especially in a complex and dynamic environment.

[www.boc-group.com](http://www.boc-group.com)



## The smart BPM tool ADONIS

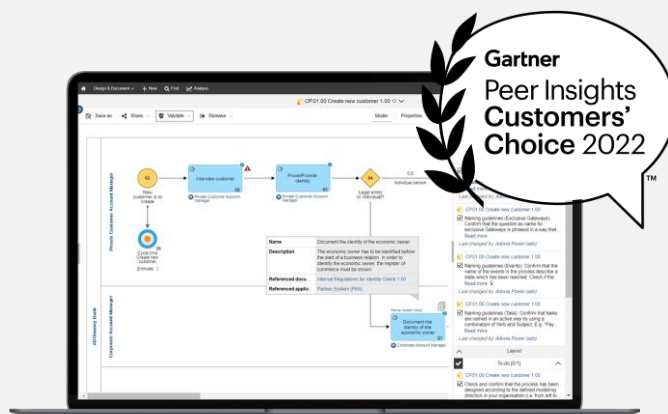
The BPM tool ADONIS offers companies a versatile way to model their processes smartly and collaborate seamlessly with colleagues. The extensive analysis functions enable valuable insights to be gained and customized as needed to meet all business requirements. ADONIS is thus a powerful tool that offers countless possibilities to make processes more efficient and increase business performance.

More information about ADONIS BPM > [www.boc-group.com/de/adonis/](http://www.boc-group.com/de/adonis/)



Try ADONIS here for free:

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- ▶ Process Management
- ▶ Quality Management
- ▶ Operational Excellence
- ▶ Digitalization Automation
- ▶ Audit & Compliance

## ADONIS BPM ECOSYSTEM

### Openness. Integration. Extension. Customization.

ADONIS stands for openness, integration, extension and customization. The BPM tool offers an open architecture that makes it possible to integrate best-of-market applications with ADONIS without restrictions and thus achieve the greatest benefit for companies. Business process management should be flexible and adaptable to meet ever-changing requirements. ADONIS is a flexible BPM tool that can be extended and customized to perfectly fit different requirements.

### A selection of extensions from the ADONIS BPM ecosystem:



#### **GDPR (General Data Protection Regulation) Module**

Efficient and intelligent data processing for **GDPR** to successfully manage data protection compliance.

Learn more here: <https://knowledge.boc-group.com/en/module/data-protection/>



#### **Confluence Integration**

Publication of BPM information in the Confluence Wiki. Promote transparency, collaboration and agility throughout the organization.

Learn more here: <https://knowledge.boc-group.com/en/module/confluence-adonis/>



#### **Process automation**

Increase transparency and traceability, reduce process costs and increase process quality through automation.

Learn more here: <https://knowledge.boc-group.com/en/module/adonis-process-automation/>



#### **Process Mining**

Seamlessly retrieve real process data and connect and compare it with the process knowledge already stored in ADONIS.

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#### **View all BPM extensions in the ADONIS Marketplace:**

<https://knowledge.boc-group.com/de/marketplace/adonis-de/>

# Appendix

## QUESTIONNAIRE OF THE ONLINE SURVEY

Questions and Answer options

Multiple  
choice

### A - Segmentation

**A1 Which industry does your organization belong to?**

Real estate industry

Chemicals,

pharmaceuticals

Energy and water supply

Healthcare

Education, training and research

Computer science

Trade, logistics, telecommunications

Processing, production, construction

Consulting, other services Public

services

Financial and insurance services Other

**A2 How many employees does your organization currently have worldwide?**

1-9

10-49

50-249

250-499

500-999

1000-9999

Over 10000

I cannot judge

A3	What is your position in the company?	X
	Board of Directors / Supervisory Board	
	Management	
	Head of Department/Business Unit	
	Head of staff unit	
	Head of Department	
	Business Analyst	
	Developer	
	Project Manager	
	Programme Manager	
	Advisor	
	IT Architect	
	Subject matter expert / specialist	
	Other	
A4	In which functional area of your company do you work?	X
	Management	
	Research and development	
	Procurement / Production / Logistics	
	Sales / Distribution / Marketing	
	Business Development / Change Management / Corporate Development	
	Project / organisational / quality management	
	Product management	
	Finances / Controlling	
	Human Resources	
	Computer Science	
	Other	

**A5 Do you perform a process function?**

Chief Process Officer

Head of Business Process

---

Management Process Consultant

BPM Expert

---

Process Architect

Process owner Process manager

---

None

---

**B - Process design and implementation**

**B1 What is the extent of your process management and its Anchoring/integration in the organization?**

X

We only deal with individual, concrete processes (individual projects/initiatives) without company-wide embedding.

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We are in the planning or introduction phase for company-wide process management

Our process management is company-wide and strategically positioned

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We have process-specific roles in our organization (e.g. process owners)

We have a company-wide process map in which our processes are embedded

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We systematically identify business-critical processes

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We maintain a culture of continuous improvement of our processes, which is anchored in the company and supported with appropriate tools, incentives and measures (e.g. Kaizen)

We systematically identify processes with potential for standardization and/or automation

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We link/integrate process management with other management disciplines and instruments in order to lead the company in a process-oriented way (e.g. process-based enterprise architecture management, risk management, balanced scorecard).

---

We monitor effective process performance based on operational data and derive measures for process design and execution

---

We support flexible, context-dependent or ad-hoc execution of processes (e.g. through business rules, event rules, adaptive case management).

We involve the process participants/experts in the process design and redesign by adding collaborative elements (e.g. intuitive collaborative modelling).

I cannot judge Other

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B2

Since when has your company been addressing the issue of

Up to 1 year

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1 - 3 years

3 - 5 years

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5 - 10 years

10 - 15 years

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More than 15

years

B3	What benefits does your organization pursue with the management	X
	Improve customer orientation (Customer Centricity)	
	Increase product quality	
	Support innovation and business development (e.g. new business models)	
	Increase employee satisfaction	
	Increase reaction speed and flexibility to changing framework conditions	
	Support for strategic and operational decisions	
	Implementation of the corporate strategy and its goals	
	Reduction or avoidance of business risks (risk management, internal control system)	
	Fulfilment of regulatory requirements (compliance, governance, process security)	
	Increasing efficiency (e.g. standardization of work processes, process acceleration)	
	Establish transparency of the processes (documentation)	
	Realization of continuous end-to-end processes (across divisions/companies)	
	Support for insourcing/outsourcing decisions	
	Support for quality management (e.g. for ISO certification)	
	Support of mobile processes Active	
	resource / capacity control	
	Cost transparency / cost control / cost reduction Support for projects and/or change management I cannot judge	
	Other	

B4	At what stage of development in the application of BPM where is your organization today?
	Level 1: General awareness of BPM as well as sensitization for continuous improvement present
	Level 2: Selected BPM topics addressed and awareness of continuous improvement present
	<hr/> Level 3: Certain BPM methods introduced and continuous improvement partially established
	Level 4: Guidelines and methods largely implemented and continuous improvement largely established
	<hr/> No assessment
B5	How do you rate the future importance of a deployment software-based BPM tools in your organization?
	Increasing
	Remaining the
	<hr/> same Decreasing
	No assessment
B6	Do you document your business processes?
	We document processes uniformly throughout the company (with methodical specifications)
	We document processes inconsistently
	No
	I cannot judge Other

B7	Which scenarios in your company benefit from the Process documentation or build on it?	X
	Business IT Alignment	
	Compliance management (e.g. data protection requirements)	
	Document management (linking of documents, e.g. directives, guidelines, etc., in the processes)	
	Risk Management & ICS	
	Process Digitization	
	Process Optimization	
	Quality Management	
	Audit Management	
	Continuous improvement process	
	Change management	
	None	
	Other	
B8	Are process maps systematically used in your organization? raised and voted?	
	Process maps are systematically collected and checked according to defined modelling standards	
	Process maps are systematically collected according to defined modelling standards	
	Process maps can be created as required No process maps available	
B9	Do you model your business processes?	
	We model processes uniformly throughout the company (with methodological specifications)	
	We model processes inconsistently No	
	I cannot judge Other	

B10	Which software-based tools do you use to model your processes?	X
	Drawing system such as Microsoft Office (Visio, PowerPoint)	
	System for the text-based documentation of processes	
	Database-based graphical process modelling tools	
	BPM Suite (covers the entire BPM lifecycle incl. process automation)	
	Enterprise Content Management (ECM) System	
	Industry-independent standard software (e.g. ERP, CRM)	
	Company-specific individual software	
	None, we do not model	
	I cannot judge	
	Other	
B11	How do you support the implementation/execution of your processes?	X
	We store work instructions, document templates and aids in the process models.	
	We store the applications used for execution in the process models so that they can be called from the model	
	We automate processes with a process/workflow engine	
	We integrate IT systems (GUIs/data/services) to make processes to automate the entire process or parts of it	
	We use configurable standard process workflow solutions (e.g. accounts payable workflow or industry-specific: Energy Data Management Systems)	
	Not at all	
	I cannot judge	
	Other	

B11a	Which software-based tools do you use to automate your processes?	X
	BPM Suite (covers the entire BPM lifecycle incl. process automation)	
	Workflow Management System (WfMS)	
	Enterprise Application Integration (EAI) Infrastructure	
	ERP system (e.g. SAP)	
	Robotic Process Automation	
	No Code Platform	
	Low Code Platform	
	Configurable standard process workflow solutions (e.g. accounts payable workflow or industry-specific: Energy Data Management Systems)	
	None, we do not automate	
	I cannot judge	
	Other	
B11b	What infrastructure for the integration/orchestration of processes/services/data do you use in your organization?	X
	Self-developed interfaces	
	Standardised connectors	
	Messages Oriented Middleware (MOM)	
	Enterprise Service Bus (ESB)	
	Object Request Broker (ORB)	
	None	
	I cannot judge	
	Other	

Question B11b was not included in the study results because a large proportion of participants could not assess this question.

B12 What methods do you use to ensure performance/conformity?  
of your processes to monitor / analyze / optimize /control?

Deposit of process key figures and objectives in  
process models

Simulation of alternative process flows

Simulation to analyze process performance by means of  
parameters (time, resource consumption, etc.)

Process mining (to identify and analyze processes from operational  
process execution data)

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Process controlling with historical log data from a process  
/workflow engine

Process controlling with historical data from other operational  
systems and sources (e.g. applications, data stores, data  
warehouses)

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Activity Based Costing or Six Sigma

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Value Stream Analysis

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Process instance monitoring / tracking of business  
cases(near/real-time monitoring of process execution  
status and/or key figures of individual process steps of  
individual process cases)

Business activity monitoring / monitoring of business processes  
(fast/real-time monitoring of process KPIs aggregated from  
individual operational process data)

None

I cannot judge Other

B12a	If you use data from process execution for analysis, where do you get this data from?	X
	Log files from a process/workflow engine	
	Operational data from transactional applications (ERP, CRM, SCM, etc.)	
	Data storage/banks	
	Data warehouse/datamarts	
	Usage data (internet, social media)	
	Data from smart things, sensors etc. (Internet of Things)	
	We do not analyse process execution data	
	I cannot judge	
	Other	
B12b	Where do you see the results of these analyses?	X
	In the BPM system, process portal or in reports from the BPM system	
	In standard reports that are created outside the BPM system	
	In an interactive reporting environment that allows queries, drill-downs, etc.	
	In a dashboard or cockpit in context with other management information	
	In the context of the process perspective of a Balanced Scorecard	
	In the form of alerts that indicate special events or deviations	
	I cannot judge	
	Other	



B12c	Is BI infrastructure used for process management?	X
	Databases, DBMS	
	Multidimensional OLAP / OLAP Cube	
	Data integration and transformation (e.g. EAI/SOA, connectors, ETL)	
	Data aggregation (data warehousing, datamarts)	
	Data Mining / Text Mining / Process Mining	
	Predictive modelling	
	Web and social media analytics	
	Strategic performance management (e.g. scorecards, KPIs)	
	Reporting (standard, drill-down, ad-hoc)	
	Dashboard, reporting cockpit/portal	
	Alerts (e-mail, RSS, etc.)	
	We do not use BI technologies for process management	
	I cannot judge	
	Other	
B13	What are your biggest challenges at the moment in the process documentation for your company?	X
	Lack of resources/personnel	
	Training and education in process management	
	Know-How	
	Management support	
	Acceptance in the company	
	Setup of the process organization	
	Definition of and compliance with modelling standards/guidelines	
	Availability of master data (application list, roles, etc.)	
	Definition of use cases	
	I cannot judge	
	Other	

## C - Strategy

C1	Where is the investment focus in the IT department for next year?	X
	Cybersecurity Process	
	Automation Risk Management	
	Enterprise Architecture Cloud	
	Service / Architecture	
	Make the company more agile	
	Implement DSG	
	Remote Work	
	ESG	
	I cannot judge Other	
C2	How high are the annual costs incurred in your organization? Investments in the BPM area (without own personnel costs)?	
	Lower than CHF 60 000 (lower than 50 000 euros)	
	60 001 to 180 000 CHF (50 001 to 150 000 Euro)	
	180 001 to 360 000 CHF (150 001 to 300 000 Euro)	
	Over CHF 360,000 (over 300,000 euros)	
	I cannot judge/no statement	
C3	How do you estimate the development of the relevance of process management in your company in the next few years?	
	Strongly increased	
	Increased	
	Remains the same	
	Lower	
	Much lower	

# IMPRINT

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## **Disclaimer**

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