



Market study

# Business Intelligence as a Service

conesprit GmbH  
in cooperation with  
Heilbronn University of Applied Sciences

2017

conesprit

HHN

HOCHSCHULE HEILBRONN

TECHNIK WIRTSCHAFT INFORMATIK

We would like to thank all the study participants and the students of the Heilbronn University of Applied Sciences, Kaan Göncü, Dominik Häußermann, Filiz Öztürk and Lisa Reiter, for their dedicated support in collecting and analyzing the data. Then we would like to sincerely thank the lecturer of Heilbronn University of Applied Sciences, Volker Schneider, for his continuous support and advice.

## Inhalt

Objective .....	4
Definitions .....	4
Background: Business Intelligence in SMEs.....	4
Summary of study results.....	5
Methodology and demography.....	11
Results of the market study .....	13
Use of Enterprise Resource Planning (ERP).....	13
Use of Business Intelligence Software .....	14
Benefits of Business Intelligence Software .....	16
Need of Business Intelligence Software .....	17
Evaluation of the concept BI as a Service (BlaaS).....	18
Purchasing reasons for BlaaS .....	18
Advantages of BlaaS .....	21
Reservations against BlaaS.....	24
Data storage .....	27
Conclusion .....	28
List of abbreviations .....	29

## Objective

The present empirical study deals with the status quo of the use of Enterprise Resource Planning (ERP) and Business Intelligence (BI) applications as well as the benefits and needs of BI applications. In addition to this, purchasing reasons for BI as a Service (BlaaS) as well as advantages of and reservations against BlaaS are illuminated.

## Definitions

**Business Intelligence** applications are software applications which are used for the systematic collection, analysis and evaluation of data. The results for reporting, planning, predictions, market and customer analyzes are processed automatically.

**Software as a Service** (SaaS) means that computer programs are not purchased by the users, but they are rented as a service. The software is usually operated in a web-based cloud. Operation, support and development of the software are provided by the SaaS service provider. BI software is also offered as a SaaS concept. In this case one speaks of BI as a service (BlaaS).

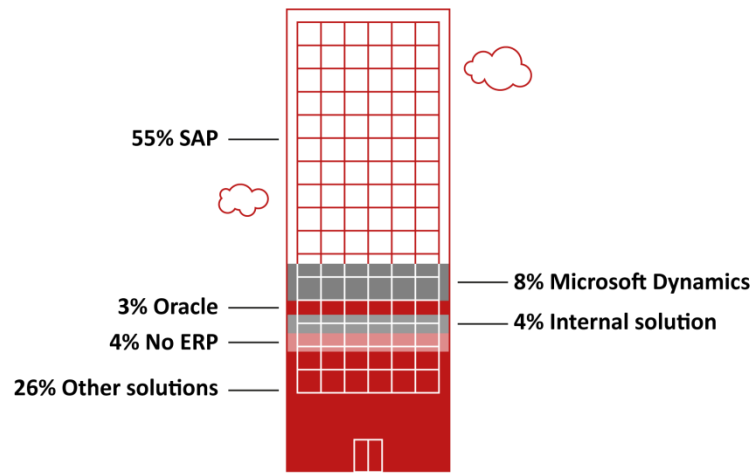
## Background: Business Intelligence in SMEs

For many years, BI had a reputation for being an application for large multinational corporations exclusively. Globalization, competitive pressure, changing trends, changing regulatory requirements and economic crises increase the demands on companies nowadays. The pace of change is faster. Only companies that recognize opportunities and risks quickly can secure competitive advantages. Due to the high amount of data, a manual path for a sensible information acquisition is hardly possible anymore. SMEs also have to implement a BI application on sight, because wrong decisions due to insufficient information can hit SMEs harder than diversified corporations.

Due to limited resources, many SMEs are afraid to introduce BI. Instead of an individually adapted BI application, the BlaaS concept is an alternative that must be evaluated. The implementation of BlaaS takes less time. Companies can access a variety of standard reports and functions always and from anywhere. All employees always access the same current application. Operation, support and further development are outsourced. This takes considerable work off the IT department. The BI software is remunerated through a rental fee. The costs are transparent and predictable.

## Summary of study results

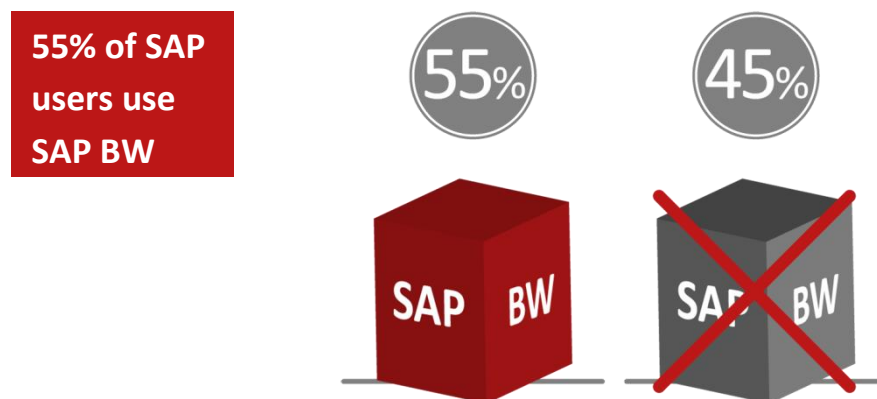
### Use of Enterprise Resource Planning (ERP)



Of the 350 study participants, 55% have SAP ERP in operation. The rest is distributed to other providers (Microsoft Dynamics 8%, Oracle 3%, internal solution 4%, no solution 4%, different solutions 26%).

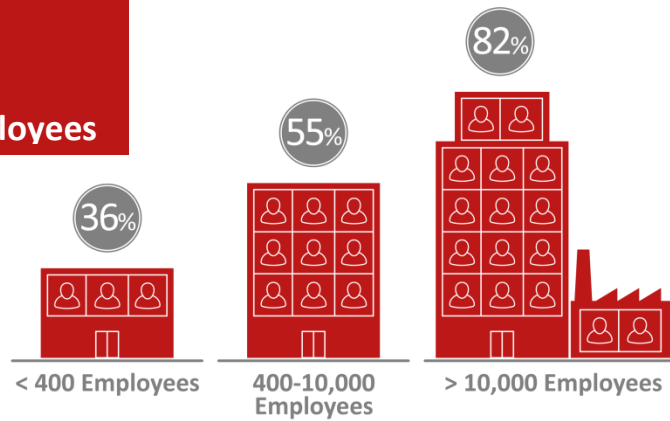
34% of companies with up to 400 employees have SAP ERP in operation. 66% of companies with more than 400 employees use SAP ERP.

### Use of Business Intelligence Software

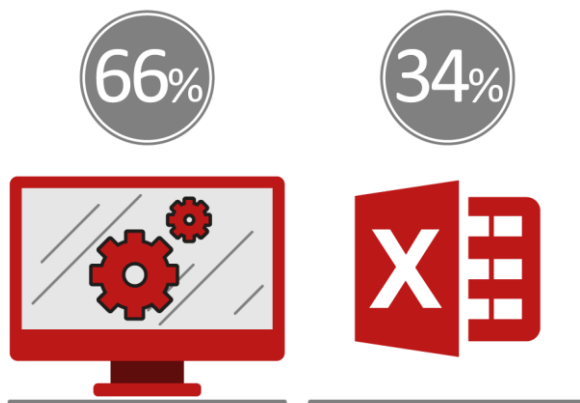


55% of the study participants who use SAP ERP (n=193) work with an SAP Business Warehouse (SAP BW), the BI solution of SAP. 45% of these participants use BI software of a different provider or no BI software at all.

### Use of SAP BW increases with number of employees



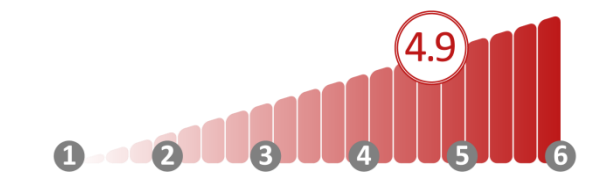
The use of an SAP BW increases with the number of employees (n=127). 36% of companies with up to 400 employees use SAP BW. 55% of companies with 400 to 10,000 employees work with SAP ERP. And 82% of companies with more than 10,000 employees use an SAP BW.



66% of non-SAP users use BI software

Out of 157 respondents, who do not use SAP ERP, 66% use BI software. 34% do not use BI software.

### Benefits of Business Intelligence Software

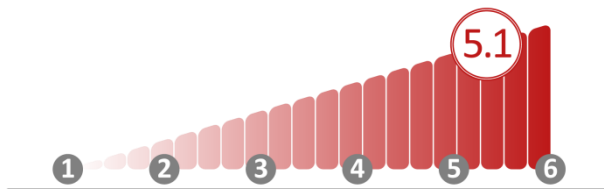


Benefits of BI software very high

In the market survey the participants were asked about the benefits of BI software. For the answer a scaling from 1 (very low) to 6 (very high) was used. The question of benefit was answered by 344 participants with 4.9 out of 6.0 as high. For companies with more than 400 employees the benefit is 5.3, with less than 400 employees it is 4.6.

The sales and logistics departments appreciate the value with 5.5 out of 6.0 as very high, followed by IT and personnel (5.3), controlling (5.1), marketing and management (4.5), finance and purchasing (4.3). The participants of the production estimate the benefit of BI software only at 3.3.

### Need of Business Intelligence Software

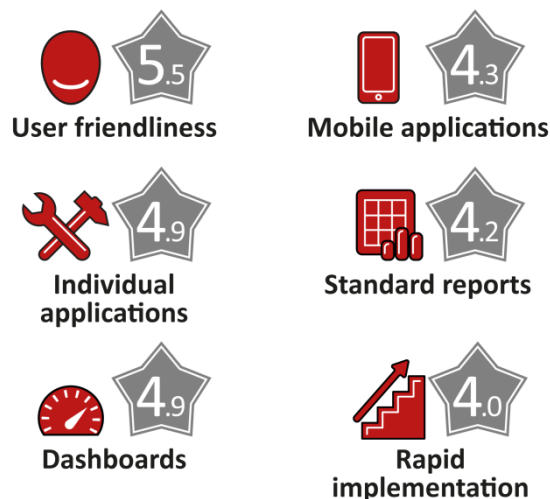


**Need for BI software  
very high**

The question of benefit was answered by 341 participants with 4.7 out of 6.0 as high. For companies with more than 400 employees the demand is 5.1, with less than 400 employees the demand is 4.5 out of 6.0.

The departments IT, human resources, logistics, controlling and sales regard the demand for BI software on average as high. Finance, purchasing and management consider the demand as rather high (4.1). The production department sees the need for BI software as rather low (3.3).

### Purchasing reasons for Business Intelligence as a Service (BlaaS)



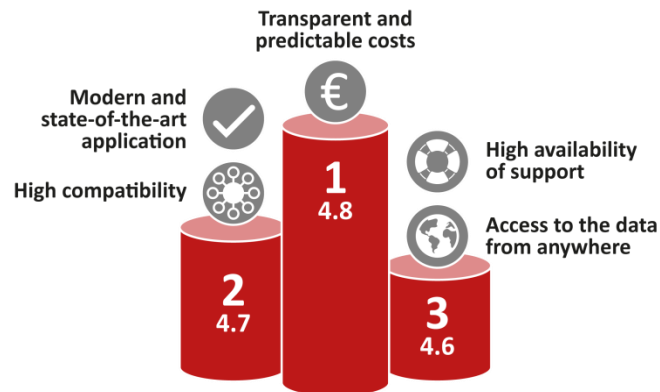
Respondents were asked to assess the importance of different criteria in the selection of BaaS applications (scale 1-6; 'completely unimportant' to 'very important'). The ratings range from 2.9 (rather unimportant) to 5.5 (important to very important).

From the perspective of around 295 respondents, user friendliness is by far the most important factor for a BaaS solution, followed by individual further development (4.9) and the possibility to display data as dashboards (4.9). The mobile application of the software (4.3) is more important to the interviewees than the immediate use of standard reports (4.2) and the rapid implementation (4.0). Outsourcing of further development (3.3), outsourcing of support (3.2) and outsourcing of



operations (2.9) are rather insignificant for the interviewees. A price model on a monthly basis also plays a rather insignificant role (2.9).

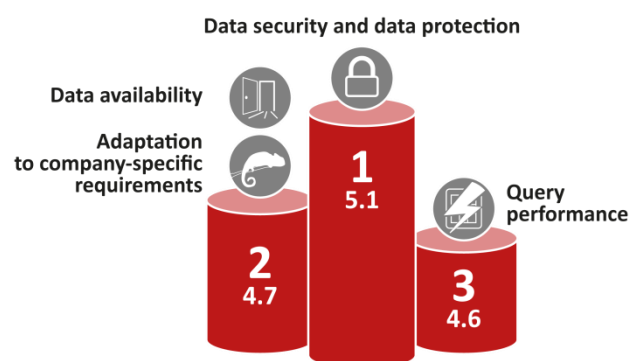
### Advantages of BlaaS



Interviewees were asked to assess a number of advantages of BlaaS (scale 1-6; 'very low' to 'very high'). The given evaluations range from 4.0 (rather high) to 4.8 (high). The evaluation range is therefore rather small.

For some 250 respondents, the most important advantage of BlaaS is transparent and predictable costs (4.8). The advantages of a modern and state-of-the-art application (4.7) as well as high compatibility (4.7) are second, followed by access to the data from anywhere (4.6) as well as high availability of the support (4.6). A rapid implementation (4.4) is in the middle of the assessment. Cost savings and mobile access are rated 4.2. The lower workload of the IT department, standardization and possibility of cancellation (terminability) are rated as rather high at 4.1 and 4.0, respectively, but they represent the least significant benefits.

### Reservations against BlaaS



Respondents were asked to assess a number of reservations against BlaaS (scale 1-6: 'very low' to 'very high'). The evaluations range from 3.3 (rather low) to 5.1 (high).



Data protection of personal data (5.1) and data security of company-related data (5.1) are perceived as the most important reservations among the approximately 280 respondents. Data availability (4.7), the adaptation of the BI solution to company-specific requirements (4.7) as well as the query performance (4.6) is classified as high by the interviewees. Dependency on the software provider of the BaaS solution is rated as rather high (4.1). The fear that BaaS suffers from low flexibility is rather low at 3.3.

### Data storage

**Data storage (still)  
preferred on premise**



Data storage on premise is rated as more important with 4.4 out of 6.0 by the 293 respondents.

### Evaluation of BaaS by company size

**For small and medium-sized enterprises,  
contractual aspects are particularly attractive**



Looking at the assessment by small and medium-sized companies, it is striking that they attach greater importance to contractual aspects with the BaaS provider. These include the speed of implementation, the outsourcing of further development and support, transparent and predictable costs as well as the termination of the contract. Likewise, mobile access and access from anywhere play a greater role for them than for large corporations.

### Evaluation of BaaS by Business departments



Salespeople find BaaS solutions more attractive than their counterparts from other departments, but they are also more critical. Management is equally attracted to BaaS, but shares the assessment of the reservations to a lesser extent than the average. Employees from IT see the benefits of BaaS as less attractive.

### Conclusion

Usability, described here by user friendliness, up-to-date and modern tools (e.g. dashboards), as well as fast, universally applicable and mobile data availability are very important in a decision for BaaS. Transparent and predictable costs are considered to be significant benefits of BaaS. Cost savings and billing period play a subordinate role. It is very important for the surveyed companies that the BI application can be adapted to suit individual company-specific requirements. The standardization of the BaaS software as well as its rapid implementation is appreciated. Whether the support, the operation or the further development of the BI application are performed in the company itself or via the BaaS service provider and thus relieves the IT department from a high workload is less important.

It is important that the BI application works smoothly and, in the event of a problem, the support solves it as fast as possible. Data storage is very sensitive to companies. Companies prefer to store their data on premise due to data protection and data security. The fear that a company is dependent on a BaaS provider through a BaaS application and that the flexibility is affected by such a concept are among the least valued reservations among the participating companies.

## Methodology and demography

The present study on the topic BlaaS was developed by conespirit GmbH in collaboration with Heilbronn University of Applied Sciences as part of a study project based on an empirical investigation. The market survey was carried out among 350 participants in November and December 2016. The participants were either won over mailings (58%) like the Controllers' e-News of the International Controllers' club, or over various Xing- groups as well as the Controller-Portal (42%). The selected Xing-groups are primarily aimed at controllers, some are aimed at people interested in the topic BI.

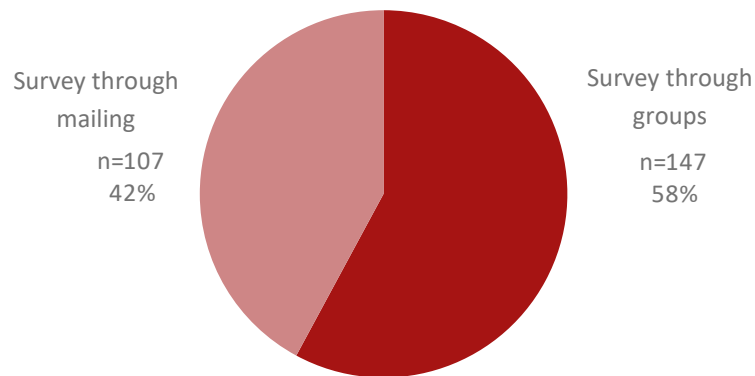


Illustration 1: Participant generation (n=254)

The sectoral distribution shows that 38% of the participants come from the industry. Participants from the service sector are also strongly represented (28%). 12% of the participants are from the trade. 22% of the participants come from other sectors.

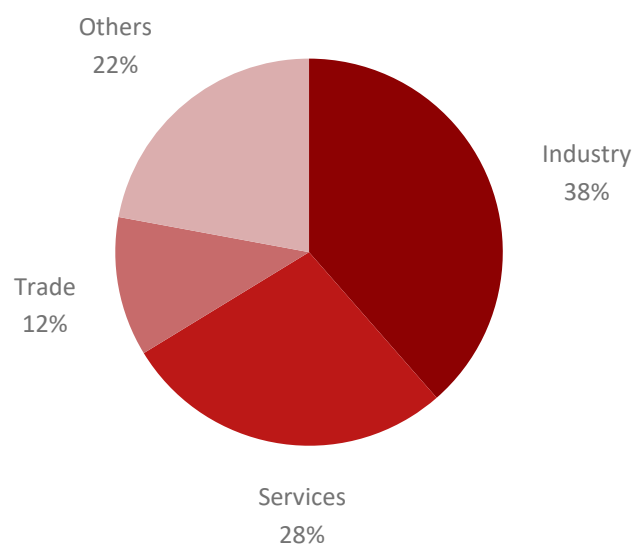
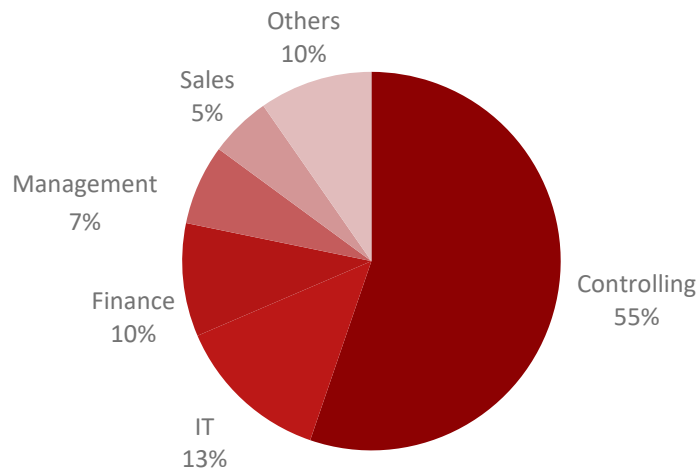


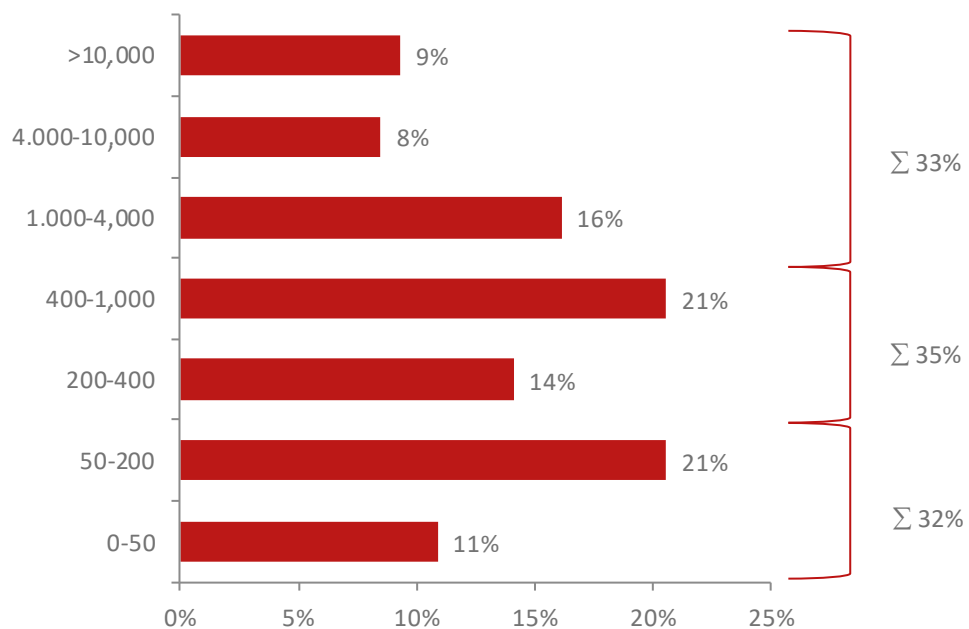
Illustration 2: Sectoral distribution (n=249)

Due to the nature of the participant generation, the number of participants in the controlling department is high. The IT department is represented by 13%, finance with 10%, management with 7% and sales with 5%. The other departments account for 10%.



**Illustration 3: Distribution by business departments (n=248)**

Just under a third of the respondents come from companies with less than 200 employees. 35% of the respondents work in companies with 200 to 1,000 employees. Another third of the participants (33%) are employed in companies with more than 1,000 employees.



**Illustration 4: Distribution by company size in employee numbers (n=248)**

## Results of the market study

### Use of Enterprise Resource Planning (ERP)

Of the 350 study participants, 55% have SAP ERP in operation. The rest is distributed to other providers (Microsoft Dynamics 8%, Oracle 3%, internal solution 4%, no solution 4%, other solutions 26%).

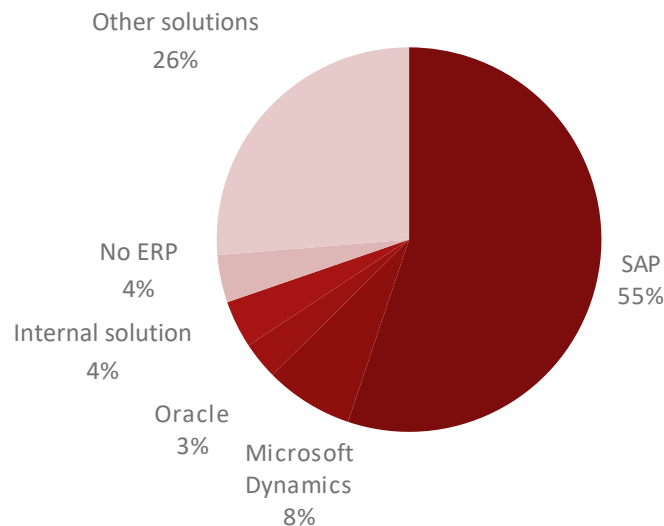


Illustration 5: Distribution of Enterprise Resource Planning Systems (n=350)

34% of companies with up to 400 employees have SAP ERP in operation. 66% of companies with more than 400 employees use SAP ERP.

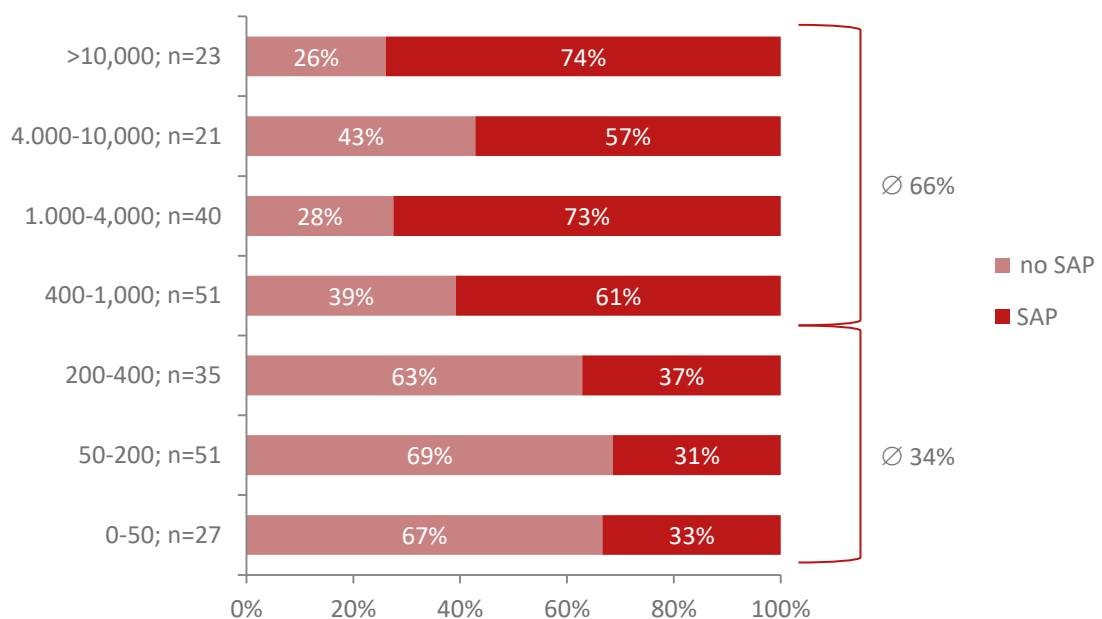
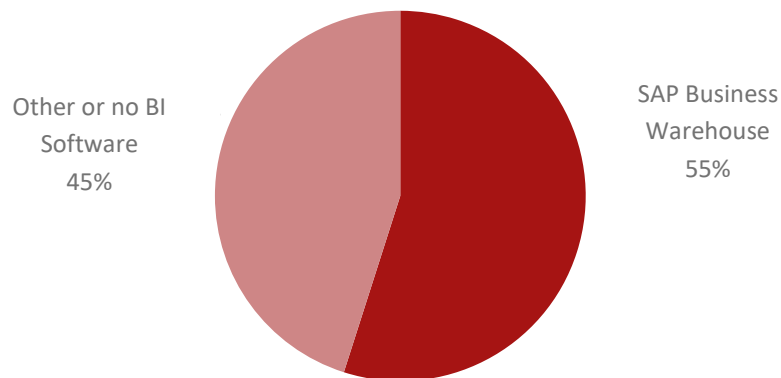


Illustration 6: Use of Enterprise Resource Planning (ERP), distribution according to number of employees (n=248)

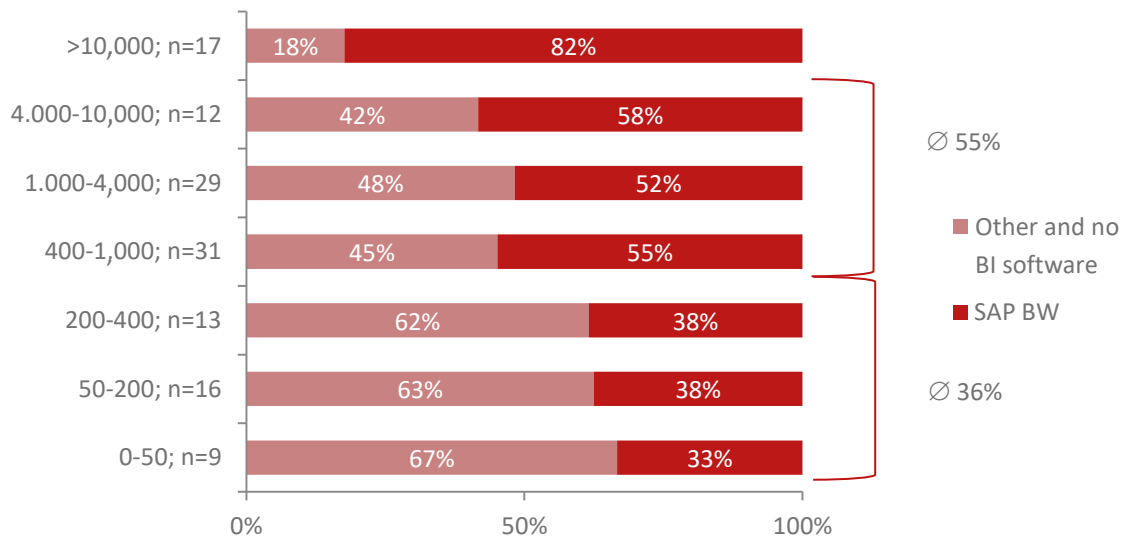
## Use of Business Intelligence Software

55% of the study participants who use SAP ERP (n=193) work with a SAP Business Warehouse (SAP BW), the BI solution of SAP. 45% of these participants use BI software of a different provider or no BI software at all.



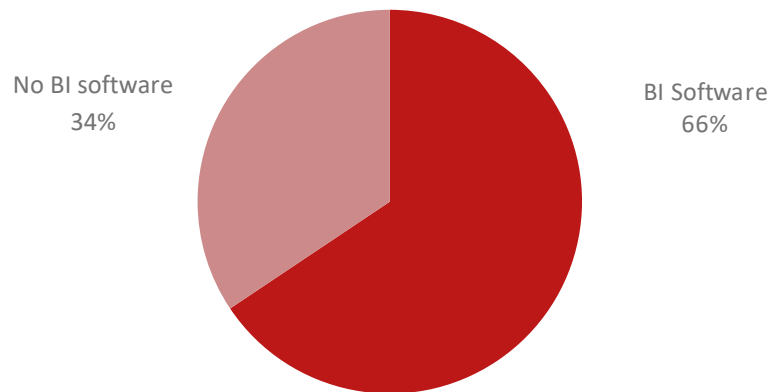
**Illustration 7: Companies with SAP: Use of SAP Business Warehouse (n=193)**

The use of an SAP BW increases with the number of employees. 36% of companies with up to 400 employees use SAP BW. 55% of companies with 400 to 10,000 employees work with SAP ERP. And 82% of companies with more than 10,000 employees use an SAP BW.



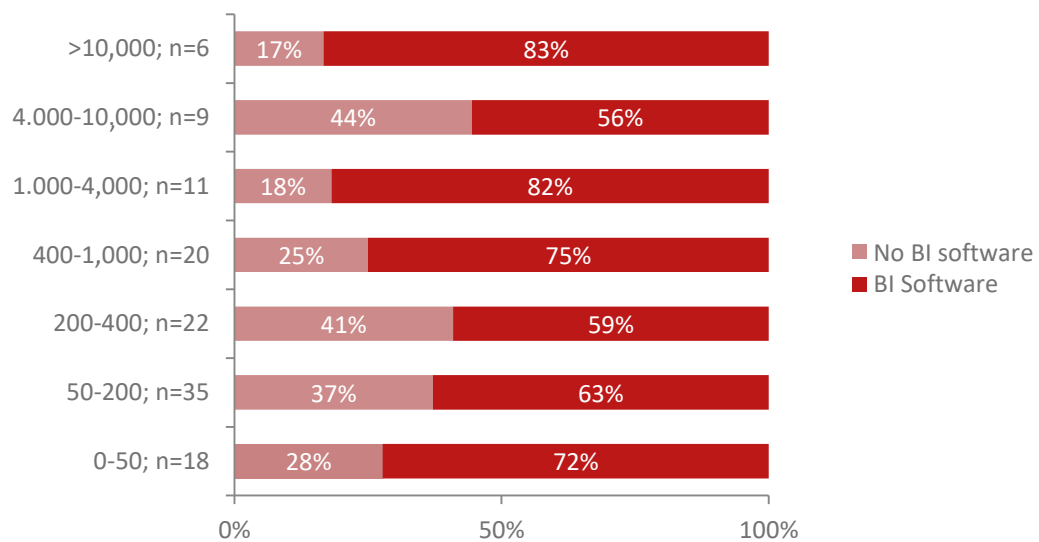
**Illustration 8: Companies with SAP: Use of SAP Business Warehouse, distribution according to number of employees (n=127)**

Out of 157 respondents who do not use SAP ERP, 66% use BI software. 34% do not use BI software.



**Illustration 9: Companies without SAP: Use of BI software (n=157)**

The operation of BI software in companies that do not use SAP ERP is in no relation to the company size according to the number of employees.



**Illustration 10: Companies without SAP: Use of BI software, distribution by employees (n=121)**



## Benefits of Business Intelligence Software

In the market study the participants were asked about the benefits of BI software. For the answer a scaling from 1 (very low) to 6 (very high) was used. The question of benefit was answered by 344 participants with 4.9 out of 6.0 as high. For companies with more than 400 employees the benefit is 5.3, with less than 400 employees it is 4.6.

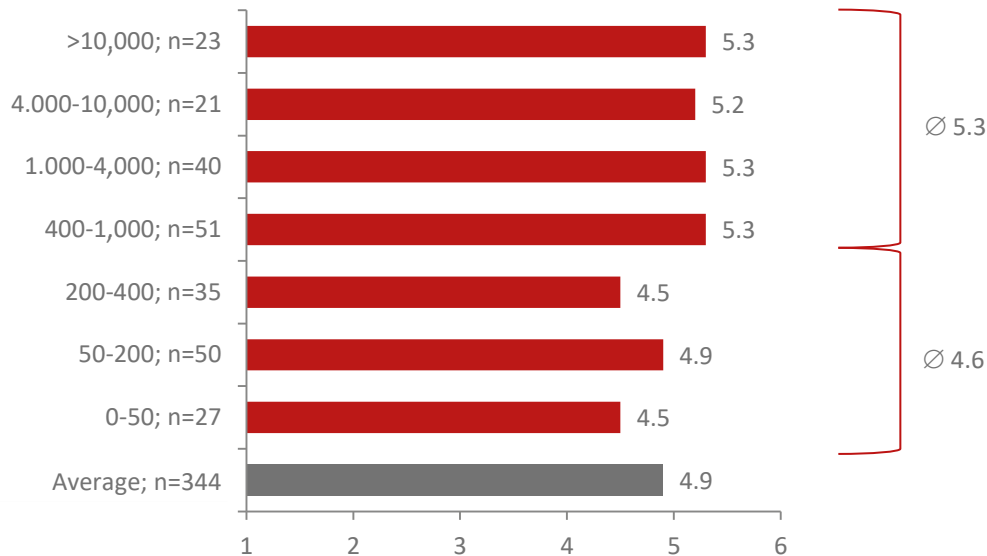


Illustration 11: Benefit of BI software, distribution according to number of employees

The sales and logistics departments appreciate the value of 5.5 out of 6.0 as very high, followed by IT and human resources (5.3), controlling (5.1), marketing and management (4.5), finance and purchasing (4.3). The participants of the production estimate the benefit of BI software only at 3.3.

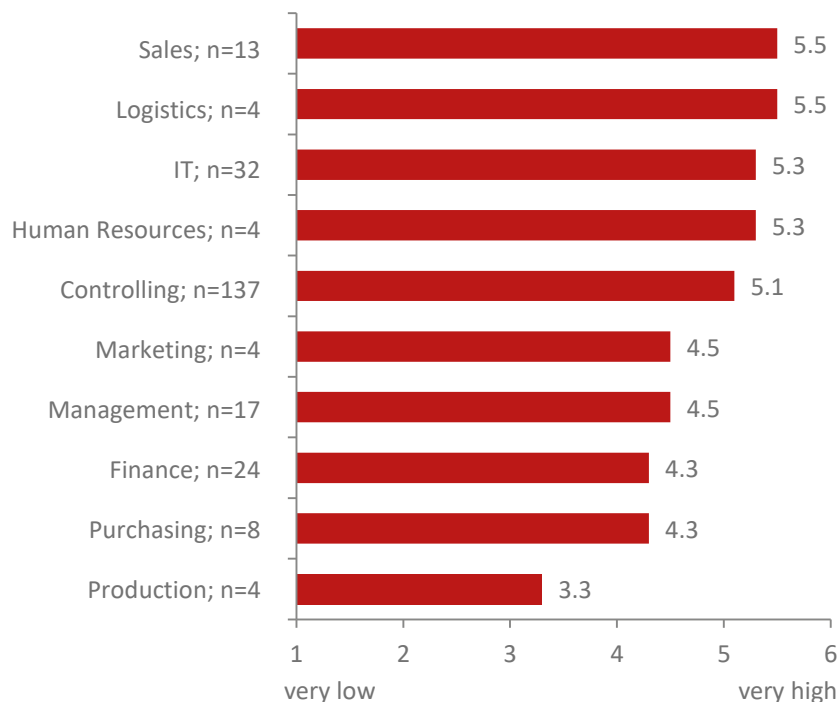


Illustration 12: Benefit of BI software, distribution according to business departments

## Need of Business Intelligence Software

The question of benefit was answered by 341 participants with 4.7 out of 6.0 as high. For companies with more than 400 employees the demand is 5.1, with less than 400 employees the demand is 4.5 out of 6.0.

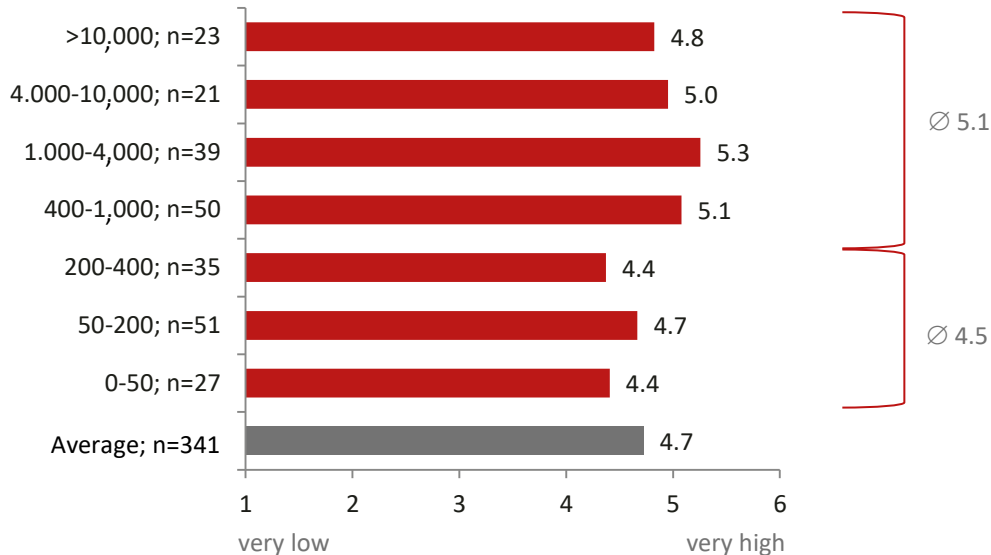


Illustration 13: Demand for BI software, distribution by employees

The departments IT, human resources, logistics, controlling and sales regard the demand for BI software on average as high. Finance, purchasing and management consider the demand as rather high (4.1). The production department sees the need for BI software as rather low (3.3).

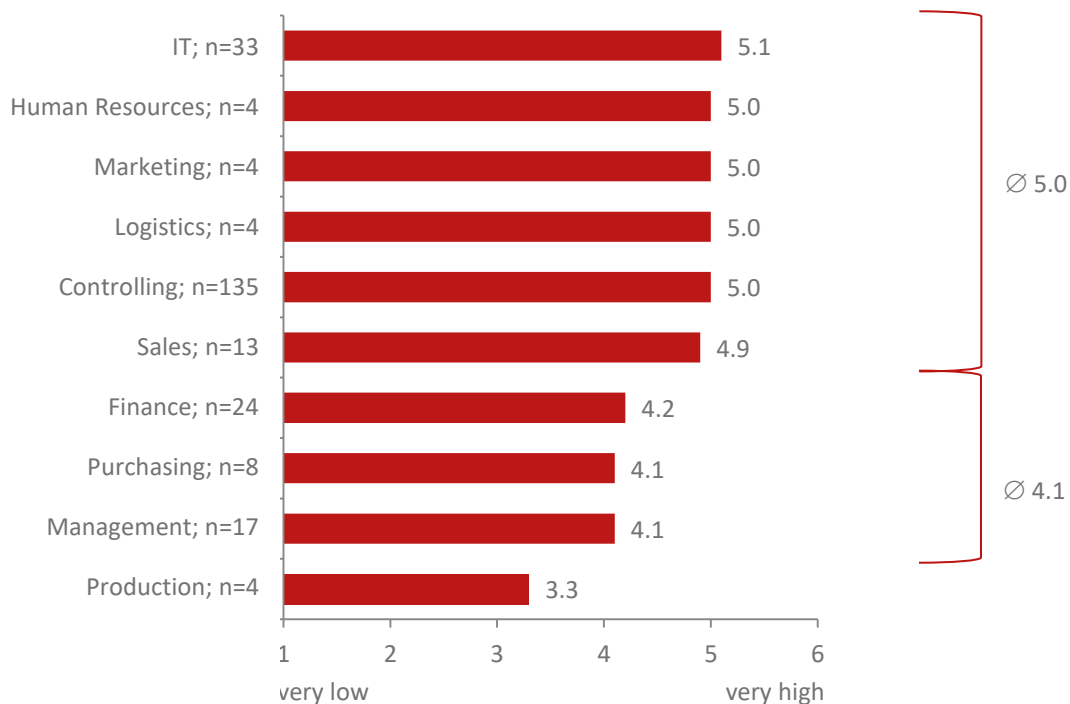


Illustration 14: Demand for BI software, distribution by business departments

## Evaluation of the concept BI as a Service (BlaaS)

### Purchasing reasons for BlaaS

Respondents were asked to assess the importance of different criteria in the selection of BlaaS applications (scale 1-6; 'completely unimportant' to 'very important'). The ratings range from 2.9 (rather unimportant) to 5.5 (important to very important).

From the perspective of around 295 respondents, user friendliness (5.5) is by far the most important factor for a BlaaS solution, followed by individual further development (4.9) and the possibility to display data as dashboards (4.9). The mobile application of the software (4.3) is more important to the interviewees than the immediate use of standard reports (4.2) and the rapid implementation (4.0). Outsourcing of further development (3.3), outsourcing of support (3.2) and outsourcing of operations (2.9) are rather insignificant for the interviewees. A price model on a monthly basis also plays a rather insignificant role (2.9).

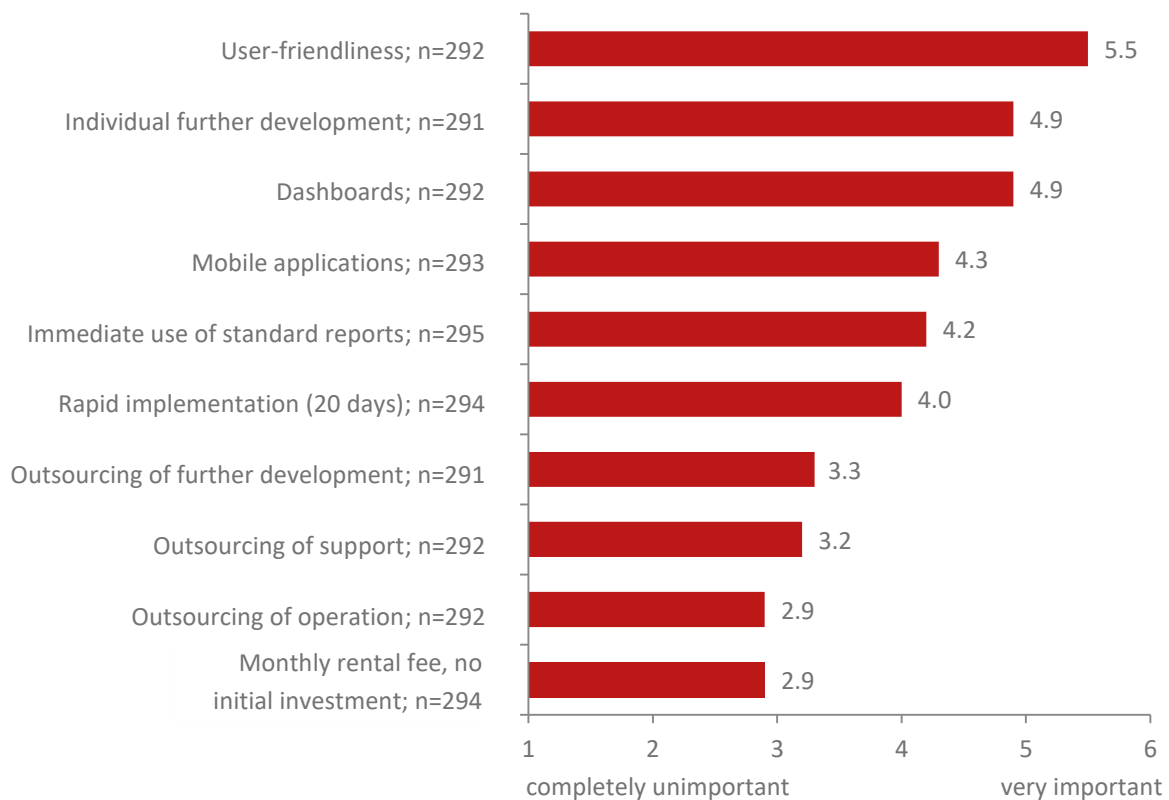
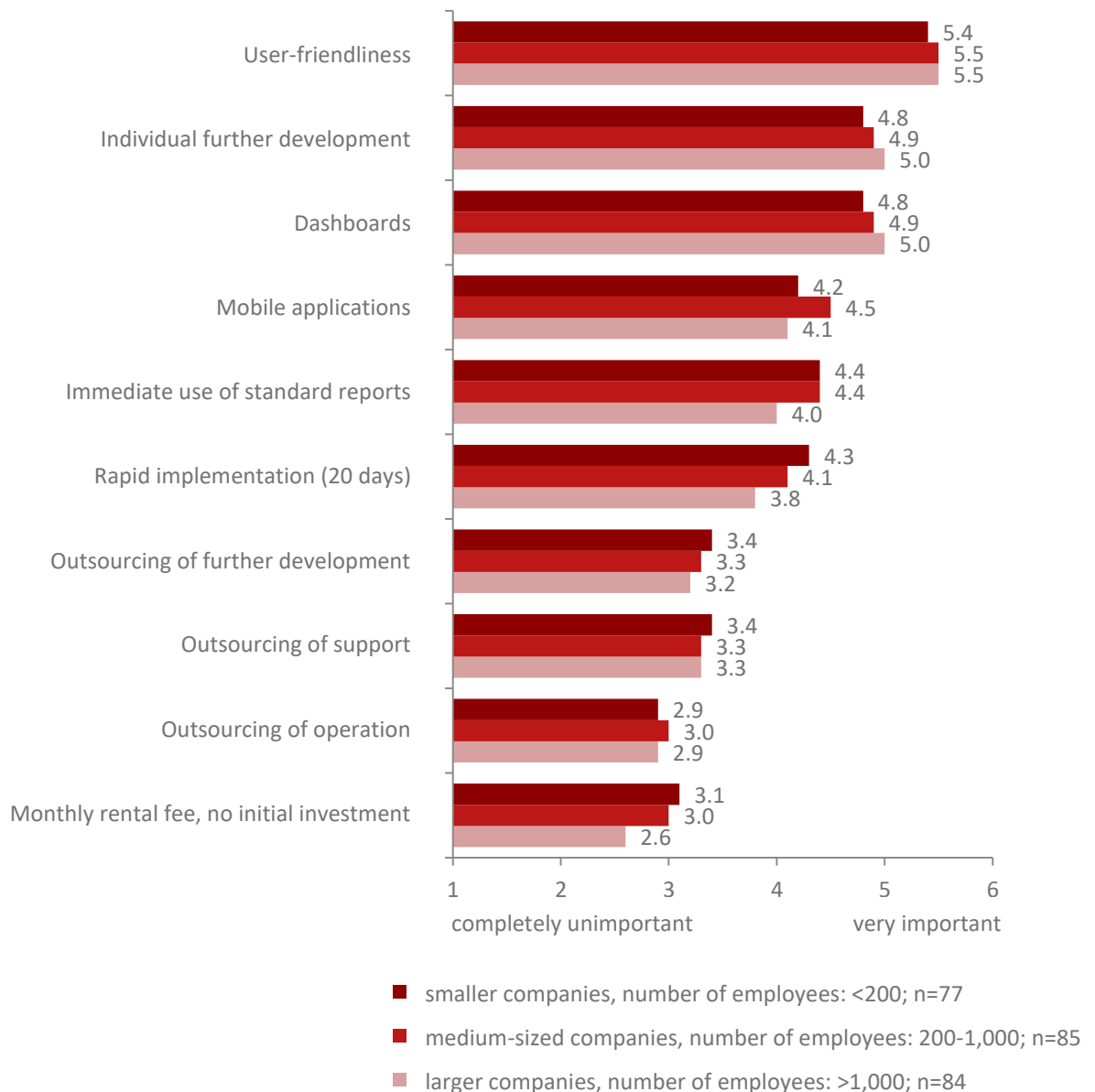


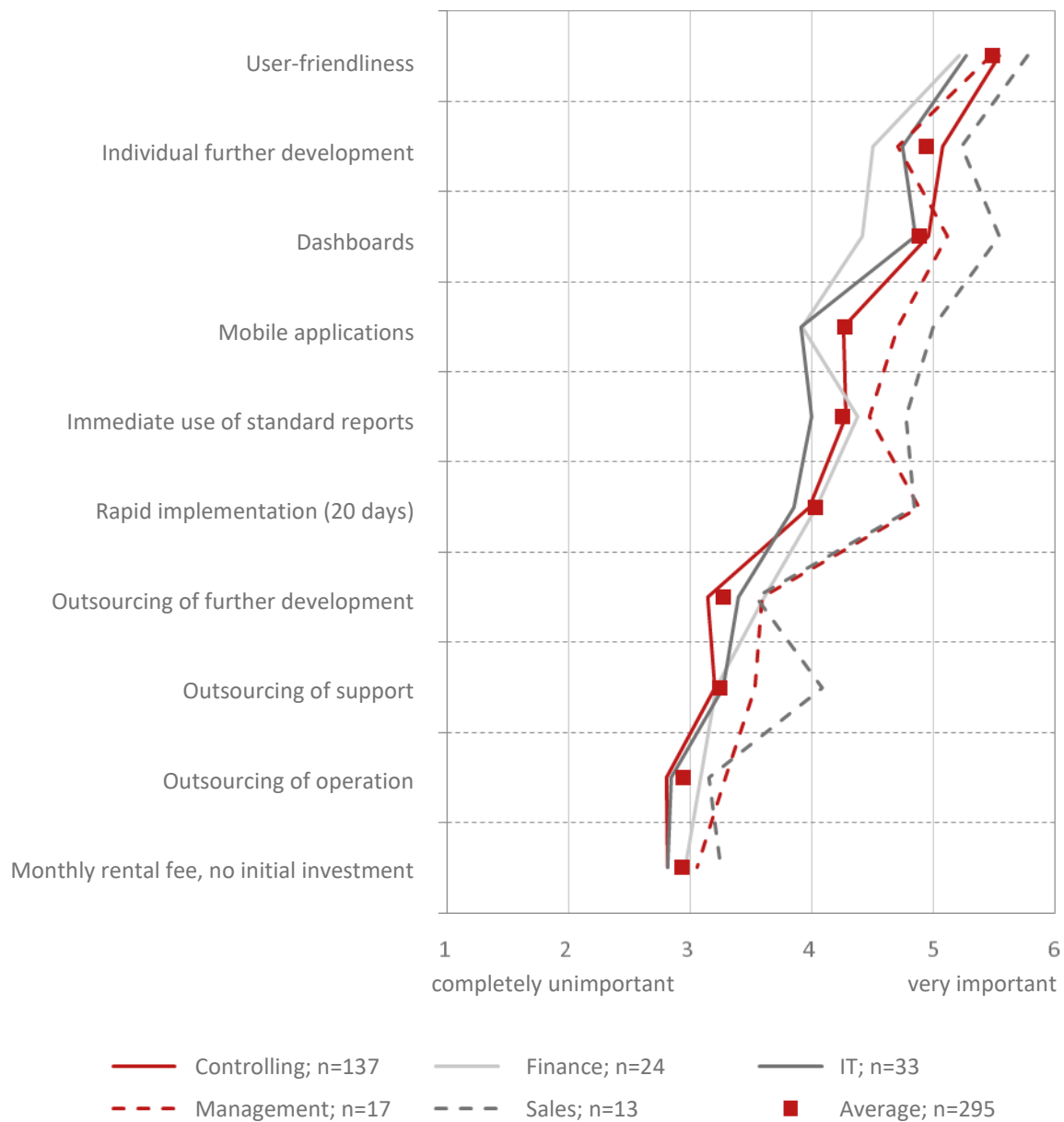
Illustration 15: Purchasing reasons for BlaaS

If one considers the reasons for buying by company size, the order of importance of the individual purchase reasons remains almost unchanged. However, a number of reasons are judged to be stronger or weaker depending on the company size. Small and medium-sized enterprises place greater emphasis on the immediate use of standard reports, rapid implementation, outsourcing of further development and support as well as the monthly payment model of a BaaS solution. Medium-sized enterprises find the mobile application of BaaS more attractive than small and large enterprises.



**Illustration 16: Purchase reasons of BaaS, distribution by company size as measured by the number of employees**

The sales department rates all purchase reasons consistently higher than the average. The highest deviation lies in the purchase reasons dashboard, mobile application, rapid implementation as well as outsourcing of support. The interviewees from the management have a partly higher rating than the average. The criteria rapid implementation, mobile application and outsourcing of further development, support and operation are more important in the management than on average of all interviewees.



**Illustration 17: Purchase reasons for BlaaS, distribution by business departments**

### Advantages of BlaaS

Respondents were asked to assess a number of advantages of BlaaS (scale 1-6; 'very low' to 'very high'). The evaluations made range from 4.0 (rather high) to 4.8 (high). The evaluation range is therefore rather small.

For some 250 respondents, the most important advantage of BlaaS is transparent and predictable costs (4.8). The advantages of a modern and up-to-date application (4.7) as well as high compatibility (4.7) are second, followed by access to the data from everywhere (4.6) as well as high availability of the support (4.6). A rapid implementation (4.4) is in the middle of the assessment. Cost savings and mobile access are rated 4.2. The lower workload of the IT department, standardization and terminability are rated as rather high at 4.1 and 4.0, respectively, but they represent the least significant benefits.

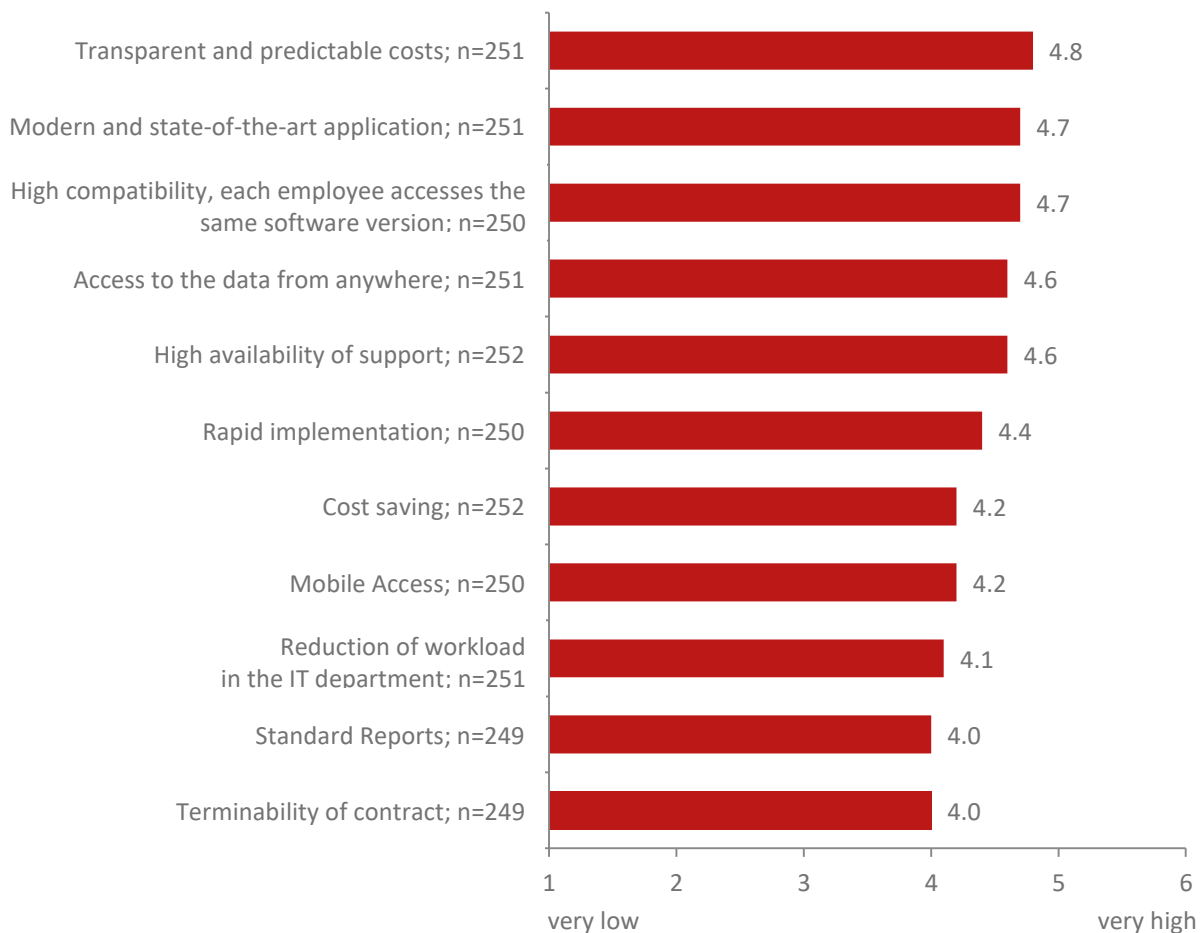
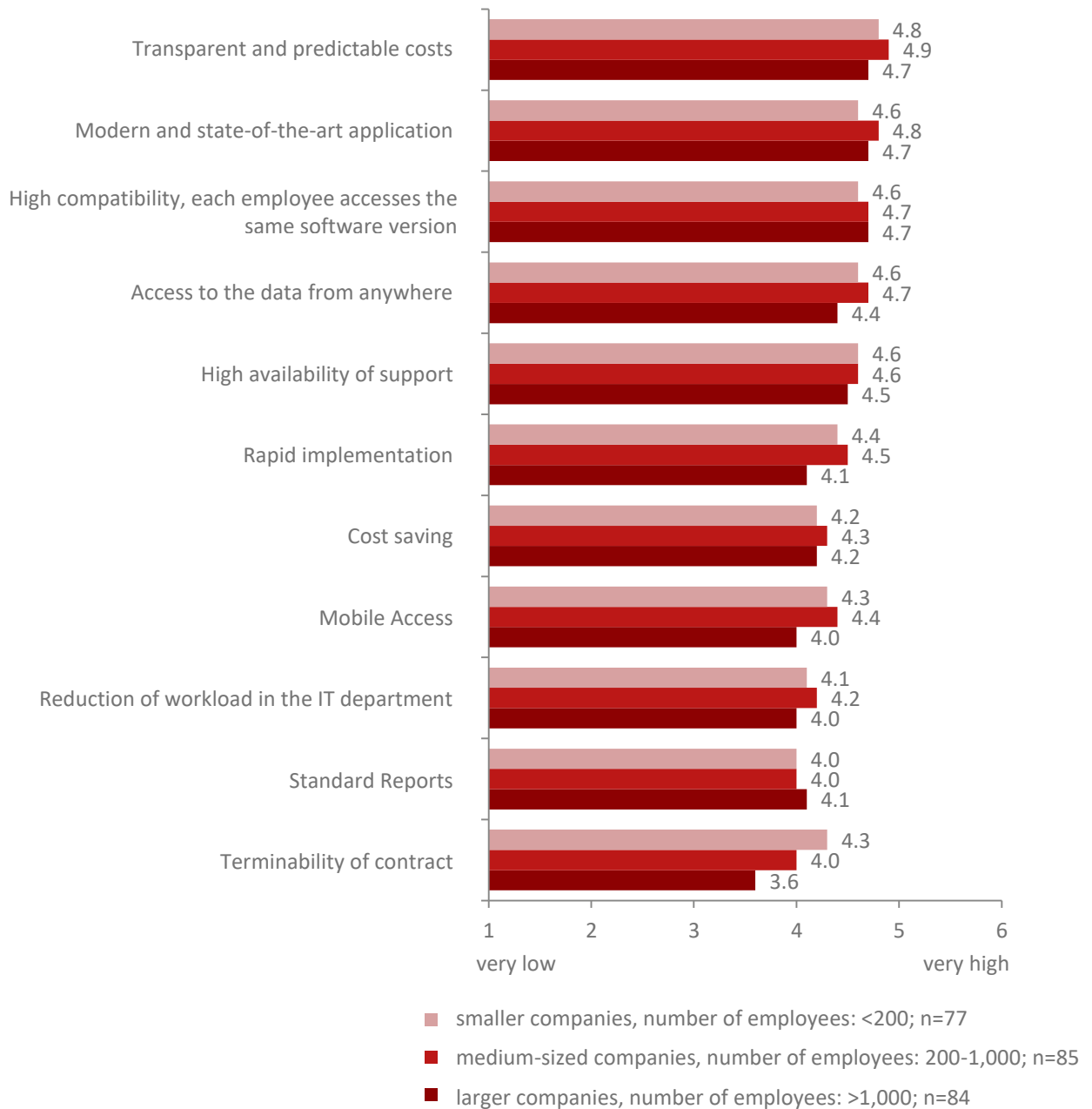


Illustration 18: Advantages of BlaaS

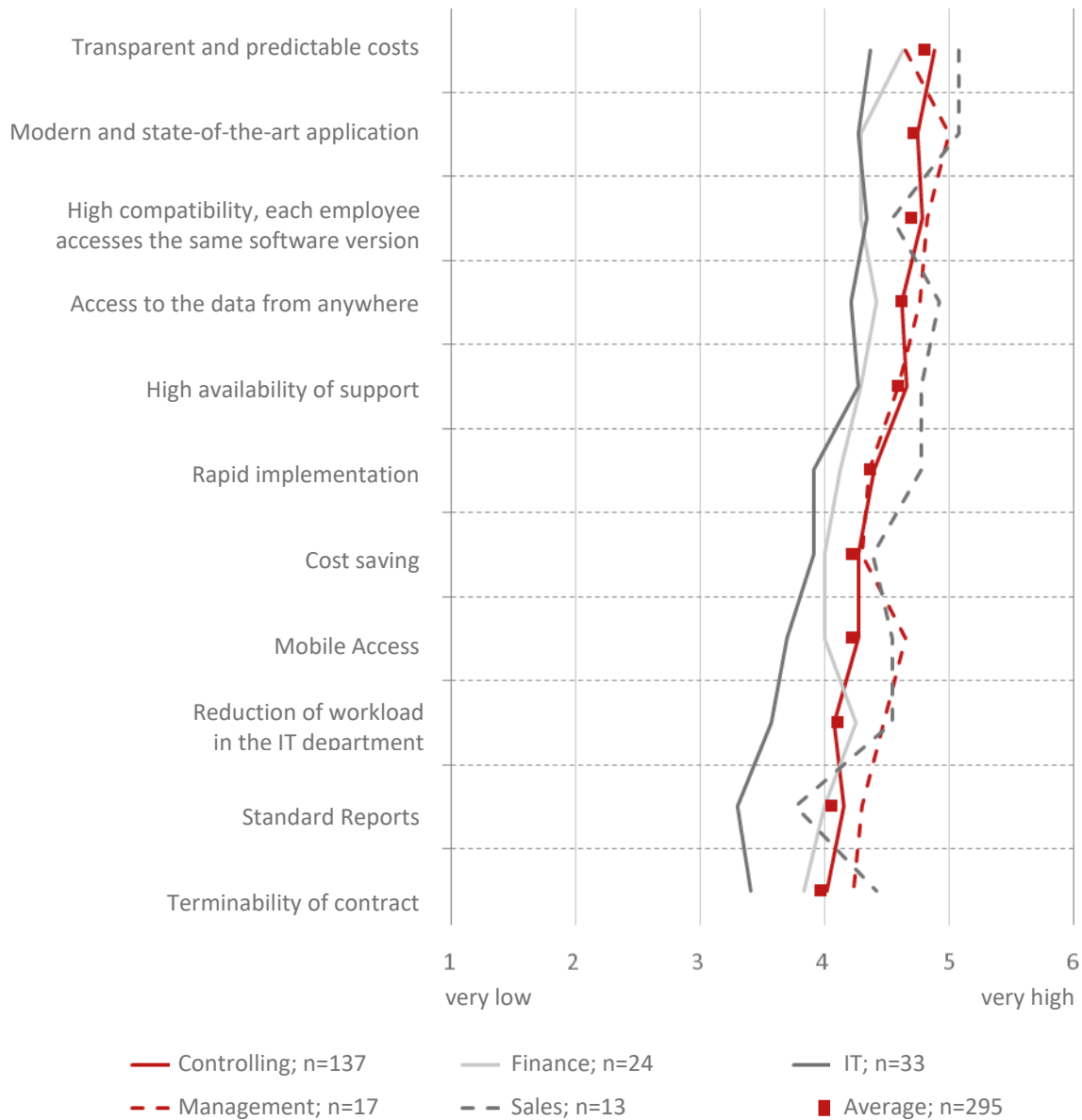
Some advantages are estimated by small and medium-sized enterprises as higher than by large companies. This includes, in particular, the terminability of a BaaS solution, but also the speed of implementation, cost planning, mobile access and access from anywhere to the data.



**Illustration 19: Advantages of BaaS, distribution by company size as measured by the number of employees**



While sales and management evaluate many benefits of BaaS higher than the average, IT departments consider all the advantages of BaaS as less important. The financial department attaches less importance to most of the benefits.



**Illustration 20: Advantages of BaaS, distribution by business departments**

### Reservations against BlaaS

Respondents were asked to assess a number of reservations against BlaaS (scale 1-6: 'very low' to 'very high'). The evaluations range from 3.3 (rather low) to 5.1 (high).

Data protection of personal data (5.1) and data security of company-related data (5.1) are perceived as the most important reservations among the approximately 280 respondents. Data availability (4.7), the adaptation of the BI solution to company-specific circumstances (4.7) as well as query performance (4.6) is classified by the interviewees as high. Dependency on the software provider of the BlaaS solution is rated as rather high (4.1). The fear that BlaaS suffers from low flexibility is rather low at 3.3.

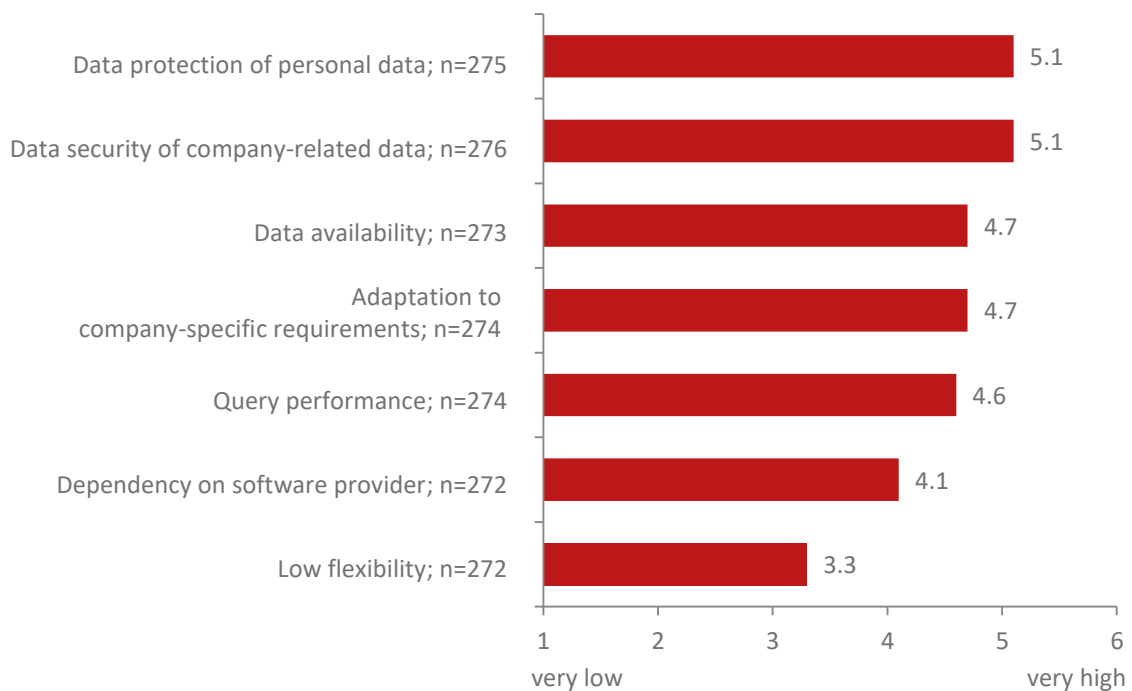


Illustration 21: Reservations against BlaaS

In the assessment of the reservations there are no clear differences in terms of company size.



**Illustration 22: Reservations against BlaaS, distribution by company size as measured by the number of employees**

Controlling, finance and IT have largely similar assessments of reservations. The assessment of the management is partly more moderate. Sales assigns a higher rating to the reservations. Salespeople fear that a BaaS application will not provide a satisfactory performance when creating reports, and are more worried about data protection, data security, and data availability than the average.

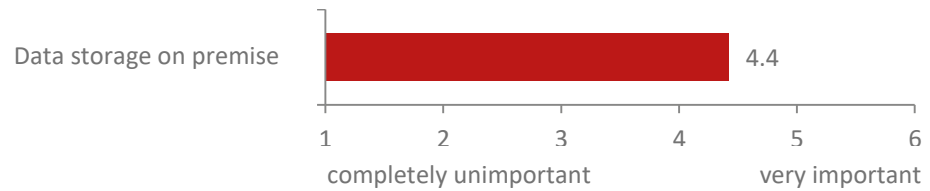


**Illustration 233: Reservations against BaaS, distribution by business departments**

### Data storage

The participants were asked to evaluate how important it is for them to store the data on premise (scale 1-6; 'completely unimportant' to 'very important').

Data storage on premise is rated as more important by the 293 respondents with 4.4 out of 6.0.



**Illustration 24: Data storage on premise (n=293)**

## Conclusion

Usability, described here by user-friendliness, up-to-date and modern tools (e.g. dashboards), as well as fast, universally applicable and mobile data availability are very important in a decision for BlaaS. Transparent and predictable costs are considered to be significant benefits of BlaaS. Cost savings and billing period play a subordinate role. It is very important for the surveyed companies that the BI application can be adapted to suit individual company-specific requirements. The standardization of the BlaaS software as well as its rapid implementation is appreciated. Whether the support, the operation or the further development of the BI application are performed in the company itself or via the BlaaS service provider und thus relieves the IT department from a high workload is less important.

It is important that the BI application works smoothly and, in the event of a problem, the support solves it as fast as possible. Data storage is very sensitive to companies. Companies prefer to store their data on premise due to data protection and data security. The fear that a company is dependent on a BlaaS provider through a BlaaS application and that the flexibility is affected by such a concept are among the least valued reservations among the participating companies.

Looking at the assessment by small and medium-sized companies, it is striking that they attach greater importance to contractual aspects with the BlaaS provider. These include the speed of implementation, the outsourcing of further development and support, transparent and predictable costs as well as the termination of the contract. Likewise, mobile access and access from anywhere play a greater role for them than for large corporations.

Salespeople find BlaaS solutions more attractive than their counterparts from other departments, but they are also more critical. Management is equally attracted to BlaaS, but shares the assessment of the reservations to a lesser extent than the average. Employees from IT see the benefits of BlaaS as less attractive.

## List of abbreviations

BI	Business Intelligence
BlaaS	Business Intelligence as a Service
BW	Business Warehouse
ERP	Enterprise Resource Planning
SaaS	Software as a Service



## About conesprit GmbH

conesprit is an SAP software and consulting company. The company specializes in individual consulting solutions for the entire BI life cycle. In addition to branch-specific consulting, conesprit is known as an innovative company that develops complementary software solutions for SAP.

## Sesam – SAP Business Intelligence

Sesam is a BI as a Service solution based on SAP and Microsoft Azure. The range of functions includes standard reports and self-service BI, as well as templates for sales-planning, dashboards and company-specific applications.

Preconfigured BI solution & implementation in 20 days	Reporting & Self-Service BI	Operation, support & further development included
<ul style="list-style-type: none"> <li>• Connection of Sesam to SAP ERP in 20 days</li> <li>• Implementation in Microsoft Deutschland Cloud (Data center in Frankfurt a.M.)</li> </ul>	<ul style="list-style-type: none"> <li>• Standard reports via intuitive Sesam portal (MS Excel style)</li> <li>• Self-service BI function (similar to MS Excel Pivot)</li> <li>• Templates for sales planning, dashboards and company-specific applications</li> </ul>	<ul style="list-style-type: none"> <li>• Significant work reduction for IT and other departments</li> <li>• Access to the most state-of-the-art software version</li> <li>• Rental solution, no initial investment</li> </ul>

Sesam is a sustainable solution for SMEs looking for cost-effective and timely implementation of SAP Business Intelligence, or for SMEs that want to outsource their existing SAP Business Warehouse.

*“An advantage for our users is the Sesam Portal, which stands out through its intuitive user-friendliness. The self-service function of Sesam proves to be a significant added value for our departments. For many ad-hoc reports, which have previously been programmed by the IT department, today only a few clicks are necessary. Availability in the cloud means that salespeople can connect to Sesam all over the world without VPN.”*

Monika Schuster, Director ITO, Murrelektronik GmbH



#### Legal Notice

#### © Copyright

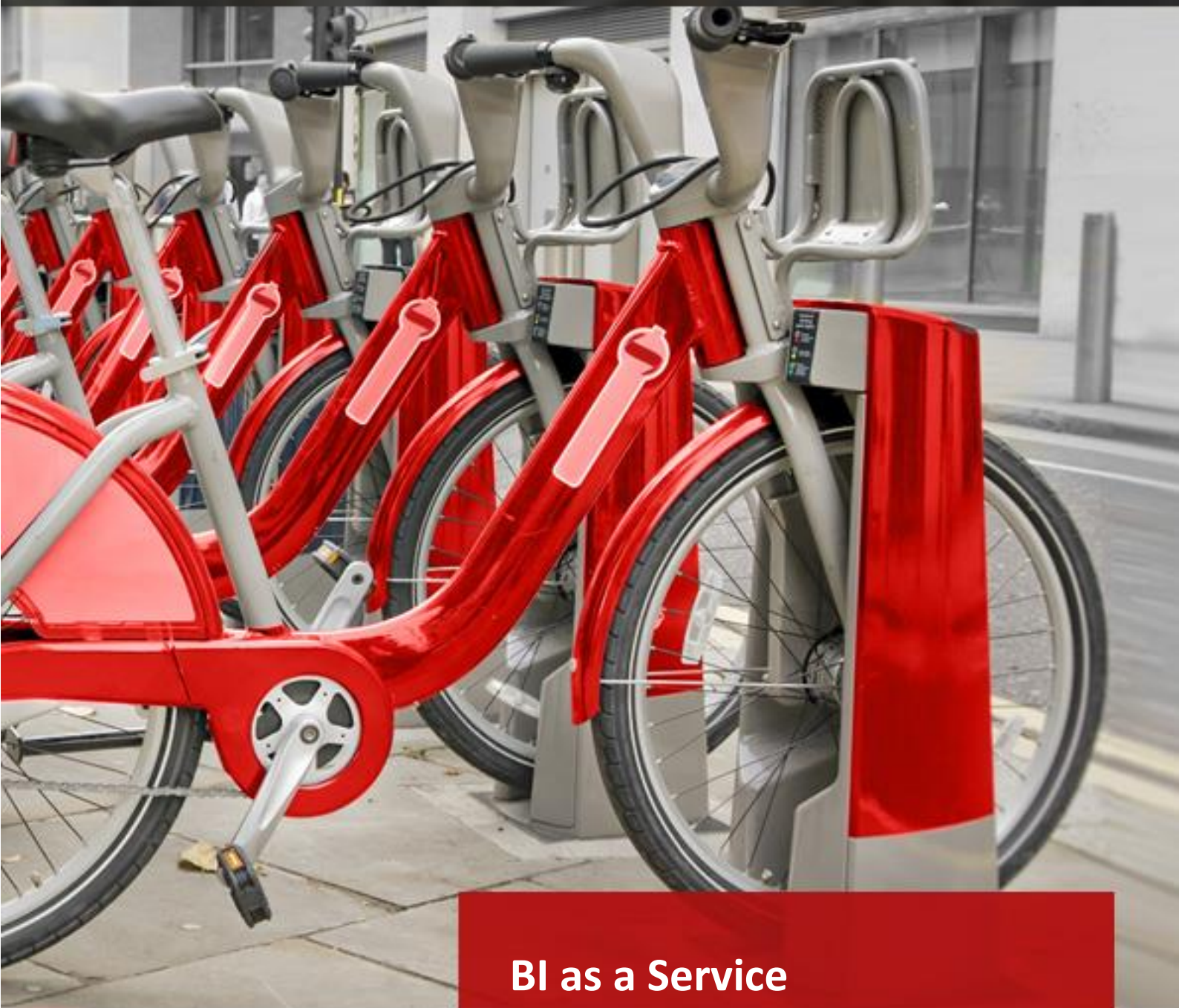
This document is protected by copyright. All rights which this establishes, particularly the rights of translation, reproduction, presentation, the copying of illustrations and tables, radio transmission, microfilming, or duplication by other means, and storage in data-processing systems are reserved, also in cases of only abridged exploitation. The duplication of this document or parts thereof, also in individual cases, is only permitted within the limits of the provisions of law. Any infringements may have civil or criminal law consequences.

#### Disclaimer

The information which is contained in this document has been prepared from data which was assumed to be accurate; however, we do not accept any liability or provide any guarantee as to its correctness or completeness. While we have prepared this presentation with due care, it cannot be excluded that it is incomplete or contains errors. The publisher, its managing directors, senior officers or employees are therefore not liable for the correctness or completeness of the information. Any incorrectness or incompleteness of the information shall not give rise to any liability for direct or indirect damages or loss.

conesprit GmbH  
Löwensteiner Weg 28  
71522 Backnang  
support@sesamcloud.de  
www.sesamcloud.de

Contact person  
Katrin Douverne  
katrin.douverne@conesprit.de  
tel.: +49 7191 18 70 190  
fax: +49 7191 18 70191



**BI as a Service**  
**Rent instead of buy**