

— Global Trade Management Agenda 2017

Apps in global trade and logistics – and top priorities in global supply chain management



Contents

Executive summary	03
Part I: Global Trade Management 2017	06
1. Global challenges, British decisions, and Chinese tea	06
2. Key GTM challenges in the year ahead: fast pace, low risk	06
3. Status quo in GTM: greatest shortcomings in personnel management	10
Part II: Apps in global trade and logistics	11
1. Introduction: business apps bring mobility to digitization	11
1.1 Definition and potential	11
1.2 State of research on business apps	11
2. Business apps in day-to-day business	13
2.1 Personal use: top management leads the way	13
2.2 Departments already using business apps	15
3. Apps in logistics, supply chain management, and global trade	16
3.1 Purposes in SCM & logistics: technical information tops the list	16
3.2 Apps in global trade: primarily for terror list screening, classification, and customs clearance	17
3.3 Standard apps are the norm	18
3.4 Apps in logistics & global trade a competitive factor	19
3.5 Benefits: flexibility, control, transparency	21
3.6 Problem: personal/professional boundaries and constant availability	24
3.7 Technical implementation and added value determine success	25
4. Participants in the study	27
About this document	30

— Executive summary

Mobile applications in global trade and logistics: The focus of this year's "Global Trade Management Agenda" is all about digitization. Powerful apps running on mobile devices such as smartphones and tablets already support many business tasks. They help manage data and control processes, for example. Always plugged in, wherever you go – that's the philosophy. The results from our survey of 330 global trade and logistics experts, conducted in the summer of 2016, show the utter relevance of our chosen theme. Though many companies have not yet embraced business apps, the expectations and interest this technology generates are very high. Managers are proving to be the strongest advocates: The use of apps in global trade, logistics, and supply chain management is driven from the top down.

Besides focusing on the subject of apps, this year's study also polled respondents about what they see as the most urgent priorities for global trade management in the coming year and how businesses are adapting to current conditions.

The study is a collaborative project of AEB Gesellschaft zur Entwicklung von Branchen-Software mbH and Baden-Württemberg Cooperative State University (Duale Hochschule Baden-Württemberg, DHBW) Stuttgart.

Global trade management – key themes in 2017

Fast pace, low risk

Fast shipping times are still a primary concern in the transport & logistics sector, as we saw when we asked about the leading global trade management issues: "Shorter lead times and time to delivery" once again topped the agenda this year, with nearly three out of four experts calling this very important. The number-two spot is also claimed by one of the industry's abiding themes: minimizing risk in the supply chain.

Investing more in employee excellence

The greatest need for improvement in global trade management is seen in the recruitment, training, and development of employees. The self-diagnosis here is quite critical, with half of respondents reporting that their own companies come up short here and in efforts to lower overall GTM costs and establish a tax-optimized supply chain. But at least one-third of businesses also see a need for improvement in addressing other GTM challenges as well.

Apps in global trade and logistics

Apps as a critical competitive factor

Nine of ten respondents rank global trade and logistics business apps as a critical competitive factor, with an almost equal number also believing that apps will become even more important over time. The overwhelming majority of businesses seem to have begun the digital transformation process – and apps play a major role here. Despite this positive assessment, many respondents see hype in the issue of apps, with one-fifth believing that mobile apps are “generally overrated.”

Distribution still limited – room for more investment

Only about 18% of respondents are currently using apps to support supply chain management (SCM), logistics, and customs processes. In logistics and SCM, the current focus is on the provision and use of technical information and on transport control. In customs and global trade, the most common area of application right now is terror list screening.

But there seems to be an untapped potential for investment in the business community, since 21.1% of respondents say they want to use apps in SCM, logistics, and customs in the future.

Transport & logistics sector leads the way

The use of business apps is especially prevalent in the transport & logistics sector. These companies typically use apps to support operational business processes. And the transport & logistics sector is more optimistic than other industries about the potential of these tools.

The expectation: greater transparency, flexibility, control

Transparency, flexibility, control – those are generally the main benefits that some four out of five respondents expect to gain from the use of business apps. Almost half even consider this potential “very likely.” Most also expect positive downstream effects on customer satisfaction, better process optimization, and a way to stand out from the competition.

Calling the shots: top management

A closer look shows that management is the main driver behind the adoption of business apps. One out of two respondents in the group of upper management and executives uses such mobile applications once or even many times daily, compared to a usage rate of just one in five among employees without leadership roles.

Upper management is also very optimistic when it comes to the opportunities that apps offer, seeing benefits such as process optimization, flexibility, control, and competitive advantages as “very likely” more often than other respondents. Top management seems to be driving innovation on this issue.

Downside: constant availability and distraction

The greatest fears respondents cite involve the human-to-app interface. Some three-fourths expect that apps will enable constant availability and erode the boundaries between work and personal life. Many also fear the inefficiencies that come with distractions. Those in larger enterprises also often worry about gaps in the availability of the apps.

Success factor: integration into existing IT environment

The most critical aspect of successfully deploying apps is integrating them into one's own IT environment. Nearly one in two respondents cited this as among the top three success factors. The survey participants seem to think it more likely that the benefits and advantages will be realized

if the applications access existing data and processes. One in three emphasizes that the apps also need to work across platforms.

Far fewer cited business management considerations such as price or the cost of support. The integration into external IT systems does not yet play a significant role.

■ Part I: Global Trade Management 2017

1. Global challenges, British decisions, and Chinese tea

Germany imported 609,000 metric tons of coffee in the first half of 2016, primarily from Brazil and Vietnam.¹ Tea lovers drank 29,500 metric tons of imported tea, with the bulk coming from China and India. But Germany relies on goods from abroad for more than just hot beverages: The total value of imports in 2015 came to 948,053 million euros. Germany would not be among the world's top three export nations if it could not top this figure with its exports, however: In the same year, the country set a new record with exports totaling 1,195,935 million euros. So global trade is thriving in Germany – even if the records will unlikely be repeated this year.²

At the same time, future trends depend on a host of factors that generate uncertainty: The planned Comprehensive Economic and Trade Agreement (CETA) with Canada and

Transatlantic Trade and Investment Partnership (TTIP) with the United States have steered into troubled waters. The Chinese market, which is so critical to Germany, has shown declining growth rates. Last but not least, the UK's decision to leave the EU is creating uncertainty. Amid such turbulence, it's difficult to make forecasts. This makes it all the more important that businesses regularly re-assess and optimize their global trade management (GTM) – all the tasks associated with planning and controlling international supply chains and trade relations. But what are the key GTM issues for businesses today? Where do the greatest challenges lie? And how well equipped do businesses here see themselves for these challenges? We've been asking real-world experts about these very issues every year since 2013 in our Global Trade Management Agenda studies.

2. Key GTM challenges in the year ahead: fast pace, low risk

Reducing lead times and time to delivery already led the GTM Agenda ranking last year. The trend toward faster and faster speeds continues. Some 72.9% of surveyed experts in the current GTM study consider

this to be an important or even very important challenge in the coming year (see Figure 1), making it the number-one issue in the GTM Agenda. Companies in the transport & logistics sector in particular

¹ Federal Statistical Office, Statistic of the Week from September 6, 2016: 609,000 tons of coffee imported in the first half of 2016, www.destatis.de.

² Federal Agency for Civic Education, March 9, 2016, Trend of German Foreign Trade, <http://www.bpb.de/nachschlagen/zahlen-und-fakten/globalisierung/52842/aussenhandel>, and Wirtschaftswoche online, February 9, 2016, Exports in Germany – Record Year for German Foreign Trade, <http://www.wiwo.de/politik/konjunktur/exporte-in-deutschland-rekordjahr-fuer-den-deutschen-aussenhandel/12937726.html>

attach great importance to this, with 84.9% ranking it as important or very important compared to just 52.9% in the chemical/pharmaceutical industry.

Logistics companies are also the ones tasked with implementing the growing need for speed. Optimized logistics concepts and new technologies can fuel this trend even further in the future. Drones, for example, offer the potential for last-mile deliveries within just a few minutes. That could become a reality in the not-too-distant future. In May, for example, Deutsche Post DHL announced that its “Parcelcopter” had successfully completed a three-month test

phase in Reit im Winkl, and that DHL would now be “the first worldwide who are able to offer a transport drone for end-customer delivery.”³ And DHL is far from an isolated case: Google, Amazon, and other global players have been hard at work on this problem for years.

A new forecast by the McKinsey consulting firm estimates that the volume of package shipments in Germany will double by 2025 and that one out of every five will be an express delivery.⁴ After all, customers are increasingly insisting on fast shipping in the form of same-day delivery or even instant delivery.

³ Press release from the Deutsche Post DHL-Group, published on May 9, 2016: „Einbindung des DHL-Paketkopters in die Logistikkette erfolgreich getestet.“, http://www.dpdhl.com/de/presse/pressemitteilungen/2016/einbindung_dhl_paketkopter_logistikkette_erfolgreich_getestet.html

⁴ Deutsche Post DHL Group press release of May 9, 2016: “Successful trial integration of DHL Parcelcopter into logistics chain,” http://www.dpdhl.com/en/media_relations/press_releases/2016/successful_trial_integration_dhl_parcelcopter_logistics_chain.html

Which global trade issues will motivate companies in 2017

Fast pace, low risk: Businesses see the greatest global trade management challenges in 2017 in short lead times and supply chain management.

Top issue



72.9%

Reducing lead times / time to delivery



65.0%

Minimizing supply chain risks



62.1%

Taking advantage of simplified processes



61.6%

Implementing changes to customs laws



59.1%

Ensuring legal protection



56.2%

Lowering GTM costs



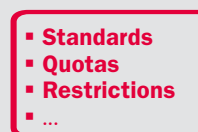
49.5%

Establishing a tax-optimized supply chain



47.3%

Recruiting and training/developing employees



45.8%

Managing non-tariff trade restrictions

Figure 1: Percentage of companies that attach a high or very high significance to the listed tasks in 2017

Number two on this year's agenda is risk minimization in the supply chain – a topic that has been growing in importance for a few years now. Implementing changes to customs laws remains a mid-level priority. Even so, nearly two-thirds of respondents cite it as an important or very important challenge. What's most interesting here is that the Brexit vote did not produce any significant changes or increase the perceived importance of this issue. The British referendum took place during the survey period, and most of the respondents completed the questionnaire after the results of the vote were known. It was not yet clear at the time, however, how the foreign trade relations between the EU and

UK would be managed and what impact the Brexit vote would have.

The topic of “recruiting and training/developing employees” ranked fourth on last year's survey and fell to eighth place this year. Medium-sized and larger companies in particular need – or want – to be concerned with this issue (see Figure 2). Some 60% of companies in this size category call this issue very important. The problem is much less pressing for smaller companies and for very large enterprises. The latter typically have an image advantage as attractive employers, possibly leaving them less impacted by the shortage of skilled labor.

Importance of recruiting and training / developing employees – by size of company

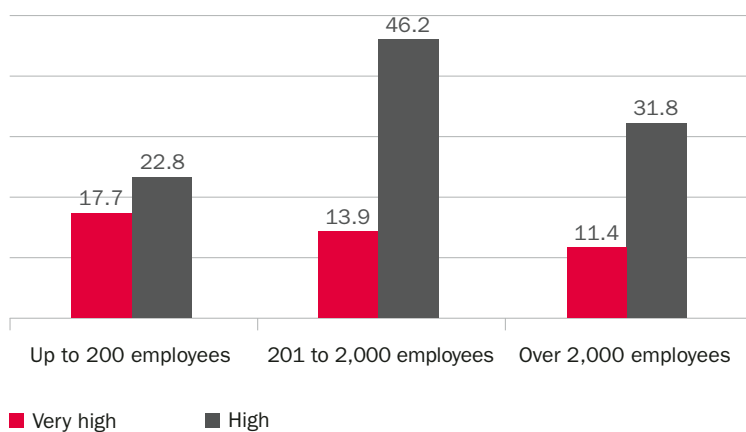


Figure 2: The small and medium-sized business sector (SMBs) in particular sees a need for action in the area of personnel (in percent)

3. Status quo in GTM: greatest shortcomings in personnel management

Companies are quite well positioned when it comes to the top priorities on the GTM Agenda. Only 41.2% felt they had room for improvement when it comes to reducing lead times and time to delivery. The same applies to risk minimization in the supply

chain (42.2%). Topping the list of shortcomings this year, like last year, is the issue of recruiting and training employees. More than half of companies see at least the potential for improvement here (see Figure 3).

Status quo of businesses in GTM: tasks where improvement is needed

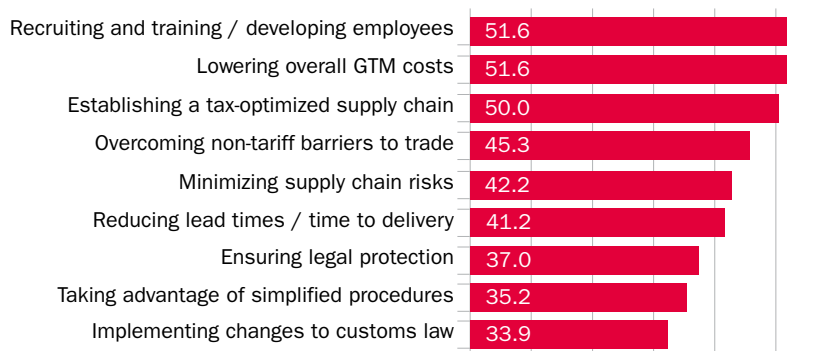


Figure 3: Greatest GTM shortcomings: employee recruitment and cost reduction (in percent)

■ Part II: Apps in global trade and logistics

1. Introduction: business apps bring mobility to digitization

“Business apps are currently one of the hottest topics in the (IT) industry,” proclaimed *Wirtschaftswoche* back in 2015. One key indicator of this trend is that the small developers and creative minds who pioneered the issue have since been joined in the market by more and more IT giants such as IBM, SAP, and Salesforce. Total global revenues for mobile apps came to about 41 billion dollars in 2015 – with B2B accounting for 20% of that. By 2017, however, business apps are expected to account for about half of the expected 76 billion in total revenues for mobile apps.⁵ Business apps generally promise to bring flexibility and mobility, simplify business processes, and make data available anytime, anywhere. But have businesses already embraced these tools? In what areas are they being used? And above all, what role do they play in global trade and logistics? The results of this year’s Global Trade Management Agenda offer an assessment of current developments.

1.1 Definition and potential

A mobile application (or “app”) is an application for mobile devices or mobile operating systems. The AEB study is concerned solely with apps used for business

purposes. Before the first question on this topic, the survey provided a common working definition for the term “business app”:

“Business apps” refers here to all types of mobile applications (“apps”) on smartphones or tablets that are used for business purposes or to support business activities.

Today there is a wide variety of mobile solutions for various business scenarios. Apps can support sales and marketing, for example. They can be used for internal and external communications, HR, or even to optimize processes and workflows along the value chain. They are most helpful wherever it is important to be able to access data quickly from any location.

1.2 State of research on business apps

The personal use of mobile devices and mobile apps is very high throughout Germany. Nearly 50 million people in the country use smartphones. Various studies on the online behavior of Internet users⁶ typically show that over 80% use smartphones and more than 50% use tablets.⁷

There is not yet any reliable data on the use of apps for business. Various studies paint a general picture of great expectations but

⁵ Michael Kroker: “Jetzt entern die IT-Konzerne das App-Geschäft,” *Wirtschaftswoche* online, July 1, 2015. <http://app.wiwo.de/unternehmen/it/app-in-die-fabrik-jetzt-entern-die-it-konzerne-das-app-geschaeft/11932894.html>

⁶ Burda Mobile Effects 2016, survey, www.burda-forward.de/advertising/marktforschung or Mobile Activity Trends, May 2016, SevenOne Media, survey via Online Access Panel, www.sevenonemedia.de

⁷ Accenture survey of 1,925 decision-makers, including 175 from Germany, www.accenture.com/mobile-apps-research, 10/2015

(still) unused potential, however. A study conducted by the consulting firm Accenture finds that 83% of surveyed technology and digitization decision-makers believe that mobile apps will be the dominant user interface of the future, while 85% regard apps as a key technology on the path to successful digitization. Their use is still considered modest, however, at far less than 50% of companies.⁸ The research team behind the study “Der deutsche Mittelstand ‘App to date?’”⁹ came to similar conclusions, with 88% of surveyed SMBs reporting a belief that apps can increase competitiveness. Only about a third of the companies currently use apps, however – mainly for communications and marketing,

and much more rarely to streamline processes.

An online survey by the market research firm YouGov commissioned by Salesforce even identified an “app gap” in Germany: a divide between ideals and practices when it comes to business apps. The survey found that although 83% of respondents use apps in their personal lives, only 17% did so in their professional lives. But one in two expressed a desire to be able to use apps for more business tasks. The researchers conclude that companies should provide their employees with more and better business apps to realize the productivity and efficiency gains.¹⁰

⁸ Franca Ruhwedel, Tom Truxius, Larissa Vogelsang, Rhine-Waal University of Applied Sciences, Faculty of Communication and Environment, Work Report 01/2016, Der deutsche Mittelstand “App to date?”, Ergebnisse einer Befragung deutscher Mittelständler zur Verwendung von Apps

⁹ Online survey conducted by YouGov on behalf of Salesforce, June 2016. An analysis in German can be found on Michael Kroker’s blog at <http://blog.wiwo.de>

¹⁰ Online survey from YouGov on behalf of Salesforce, June 2016, e.g. outlined by Michael Kroker, <http://blog.wiwo.de>

2. Business apps in day-to-day business

2.1 Personal use: top management leads the way

Generally speaking, many of the survey participants are already using business apps. Some 64.2% of respondents report using such apps in their day-to-day business, and 27.8% even do so daily or many times a day. This stands in contrast to

a solid one-third that does not use any smartphone or tablet apps for business purposes (see Figure 4). What's interesting is that the use of business apps does not correlate to age, as one might suspect. High levels of acceptance are constant across all age groups.

Personal use of business apps

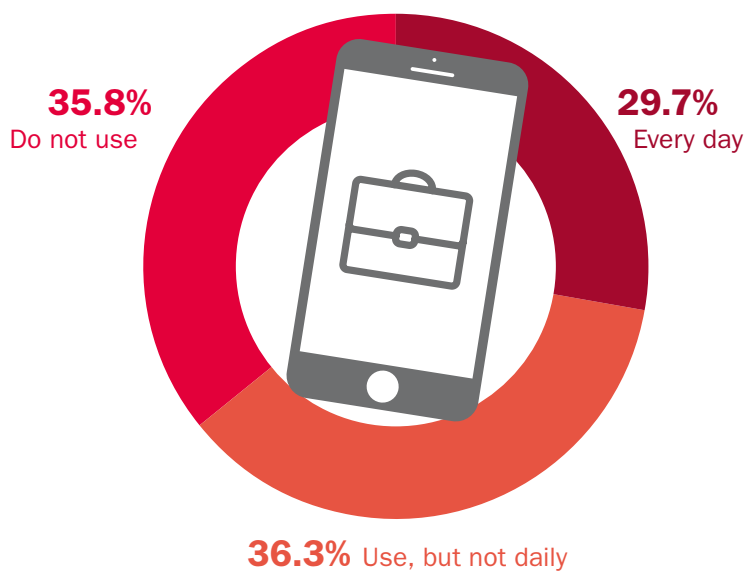


Figure 4: Nearly two-thirds personally use business apps

If you break down the figures by industry, it's clear that respondents from the transport & logistics sector are especially enthusiastic in their use of business apps (see Figure 5), with 39.4% actually using such programs at least once a day. This industry – in which collaboration, transparency, and above all speed are critical to success – plays a clear pioneering role.

In the mechanical engineering sector, on the other hand, business apps still frequently play little or no role, with half of respondents reporting no usage. Apps are most prevalent in the chemical & pharmaceutical industry, even if they're not used on a daily basis.

Personal use of business apps – by industry

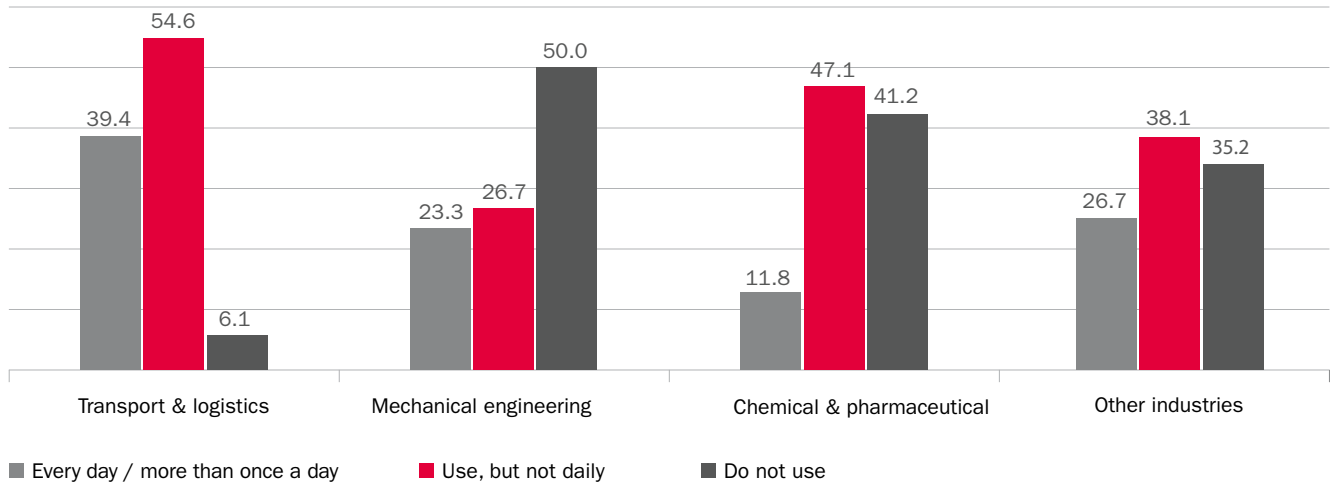


Figure 5: Business apps in day-to-day use: transport & logistics leads the way (in percent)

The position of the respondent in the company also affected business app usage (see Figure 6), with upper management and executives driving the trend as heavy users. Half of top managers use mobile applications on their smartphones or tablets every day, and only one-fifth do not use them at all in their day-to-day business.

These trends are the opposite among employees without a leadership role. So apps are currently used primarily to support management tasks. Potential usages include management and supervisory functions, approvals, and information management.

Personal use of business apps – by position of respondent

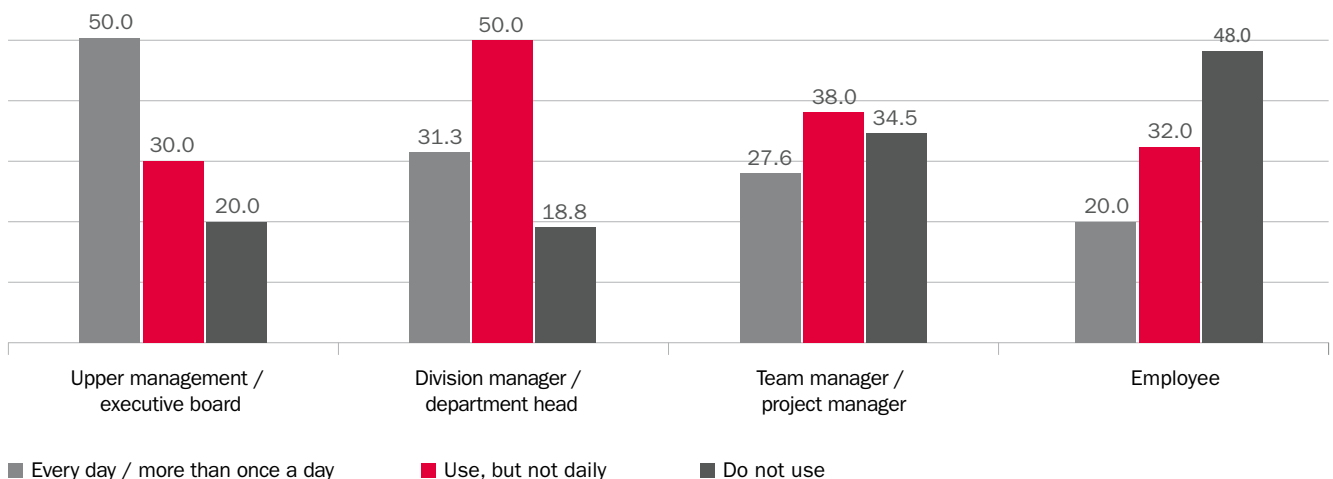


Figure 6: Use of business apps: managers lead the pack (in percent)

2.2 Departments already using business apps

In addition to the personal use of business apps, the study also looks at the areas within a company that are already supported by apps or where such support is planned. Figure 7 compares actual and planned usage. The key finding: Currently, no more than one-fifth of companies currently use apps in every department.

The mobile tools are now used most frequently in administration, sales,

marketing, and supply chain management / logistics / customs. The issue is poised to become much more important in the latter three areas, with many businesses planning to use business apps here going forward.

Apps are used for management accounting only rarely (4.7%) and do not yet play a significant role in procurement, either (10.2%). This will likely change – at least for management accounting, where 12.5% of respondents are planning a future role for apps.

Actual and planned use of apps by businesses – by department

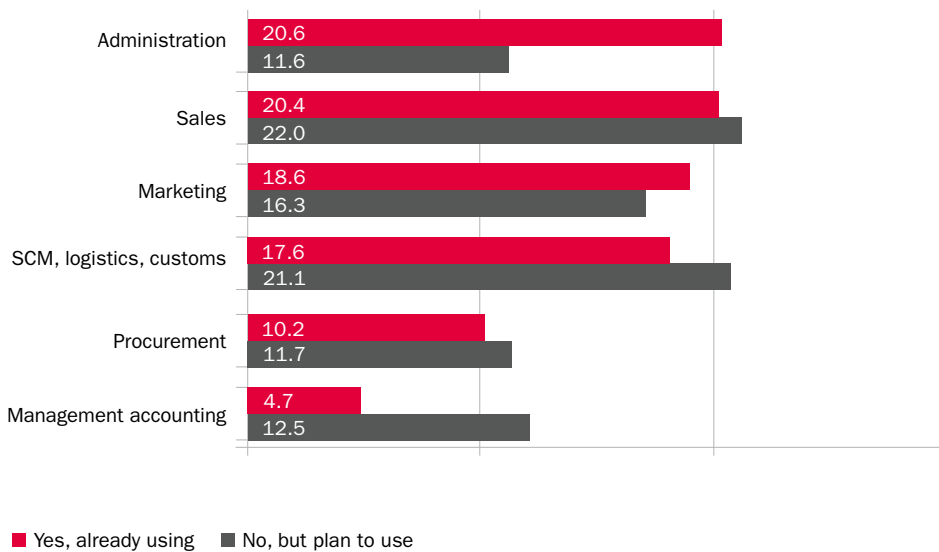


Figure 7: Use of business apps by department: administration and sales lead the way (in percent)

The use of apps in the area of supply chain management, logistics, and customs depends on the size of the company. Over half of large enterprises with more than 2,000 employees already use apps for these tasks or plan to. The figure is even an impressive 41.8% for small businesses with 200 or fewer employees. But usage is much rarer in medium-sized businesses with 201 to 2,000 employees.

Breaking down the figures by industry shows that the transport & logistics sector leads the way in already using or planning to use apps for SCM, logistics, and customs (see Figure 8). That means that this sector, with “mobility” as its business concept, is also a pioneer when it comes to mobile apps.

Actual and planned use of apps in SCM, logistics, customs – by industry

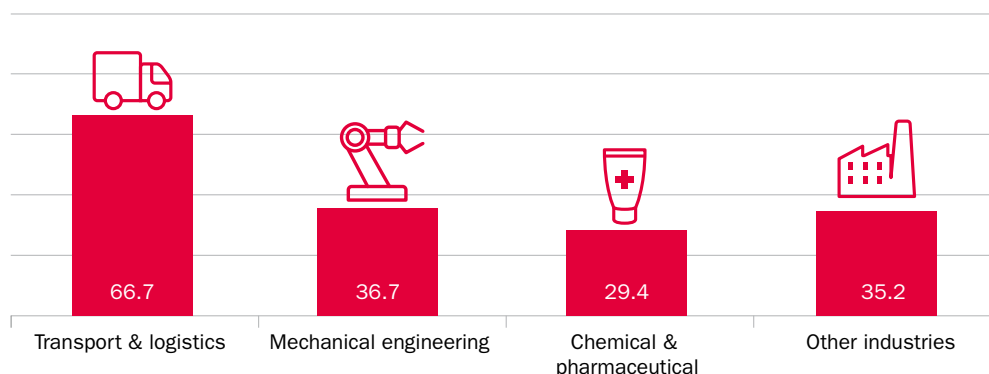


Figure 8: Apps for SCM, logistics, customs primarily in transport & logistics (in percent)

3. Apps in logistics, supply chain management, and global trade

3.1 Purposes in SCM & logistics: technical information tops the list

A total of 38.7% of respondents reported that they already use or are planning to use apps in supply chain management, logistics, or customs. In the following, we'll show which specialized tasks in this area are or should be supported by apps (see Figure 9).

The respondents report using apps most often to search for or provide technical information (28.4%). This is especially true for respondents from the transport & logistics sector, where the figure is nearly

60%. Apps are used almost as often in transport control (26.1%). Nearly one-fifth of respondents are already using them in fleet management (20.5%) and container management (20.4%).

Overall usage in all areas is relatively low at present. But an interesting trend is emerging here, since about 35% to 44% of respondents plan to use apps in the future. This is true in all specified categories of tasks with the exception of stock management and order management.

Actual and planned use of apps in supply chain management – by area of responsibility

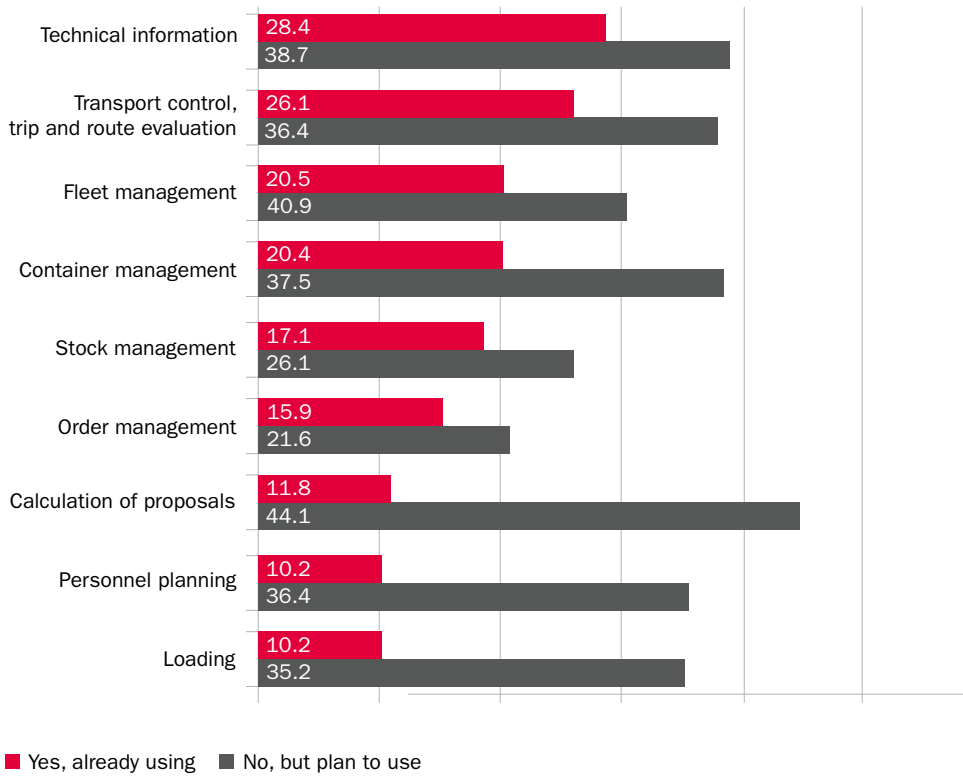


Figure 9: App use in logistics and SCM: focus on technical information and transport control (in percent)

3.2 Apps in global trade: primarily for terror list screening, classification, and customs clearance

Terror list screening is a task that every company must grapple with. So it only seems logical that the use of apps is already prevalent for this issue in particular (see Figure 10). Among the respondents, 29.4% report already using such tools, and another 33.8% plan this kind of support.

Figure 11 shows that the answers given here also correlate with the position of the respondent. Operationally, the issue of terror list screening is handled at the team manager or project manager level, but strategically, it is decided by the upper management. The interest in support is particularly great among the latter group,

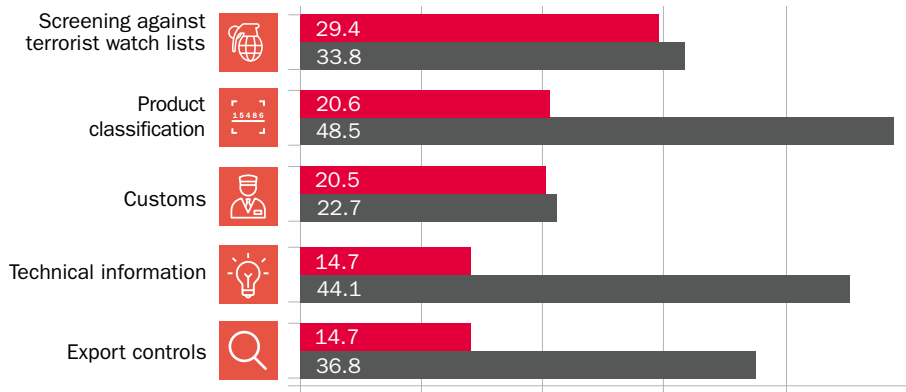
with 75% of upper management reporting plans to use apps here.

The use of apps is especially rare in export controls, although 36.8% of companies already have plans for this.

Business apps are becoming more widespread in the areas of customs management as well. Apps are used for classification in only about one-fifth of companies, for example, but nearly 50% have plans to do so.

Evidently, companies see a potential for apps primarily for tasks of limited complexity. Technical information in particular can be quickly called up “on the fly” and used immediately to work more efficiently.

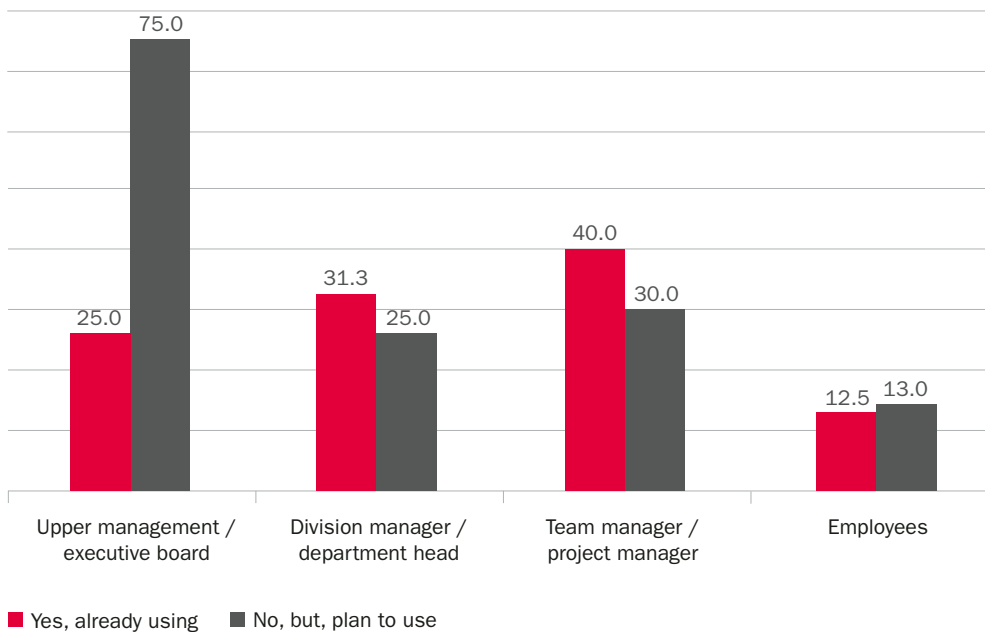
Actual and planned use of apps in customs – by area of responsibility



■ Yes, already using ■ No, but plan to use

Figure 10: On the rise: Use of apps planned primarily for classification, technical information, and export controls (in percent)

Actual and planned use of apps for “terror list screening” – by position



■ Yes, already using ■ No, but plan to use

Figure 11: Strong interest among upper management in apps for terror list screening (in percent)

3.3 Standard apps are the norm

Most companies work exclusively with apps not specific to the company, but a good third (34%) use apps developed especially for their company. The size of the company is one factor determining whether a company

opts for a standard app or a custom app. The more employees in the company, the more likely it is to have a company-specific app developed (see Figure 12).

Use of in-house apps in SCM, logistics, and customs – by size of company



Figure 12: Custom developments most prevalent in large enterprises

3.4 Apps in logistics & global trade a competitive factor

The results show that the study has taken up an issue of great relevance that may just be on the cusp of a dynamic phase of development. Although business apps are not yet used in many companies, most respondents agree on one thing: Mobile business apps represent a critical competitive factor (89.5%) and are generally becoming more important (86.7%). Two out of five participants in the study even

“completely agree” with this statement (see Figure 13).

Most respondents, however, do not expect business apps to greatly simplify day-to-day business (only 28.5% overall agree with this statement) and do not consider the issue to be (strongly) customer-driven. So these two factors do not provide a satisfactory explanation of why apps are seen by nearly all respondents as a critical competitive factor.

Importance of business apps:

Apps in global trade and logistics ...

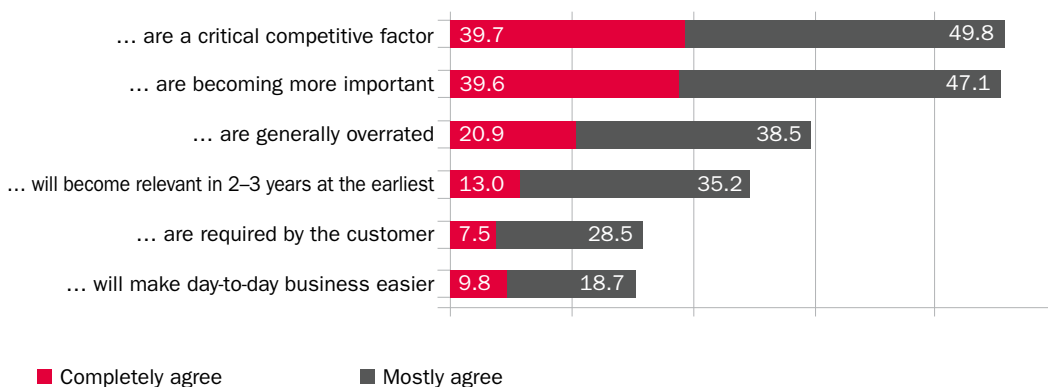


Figure 13: Business apps: decisive competitive factor with growing importance (in percent)

Upper management sees business apps much more optimistically than employees without a leadership role. The latter group may be more hesitant in their assessment, since they are not generally involved in the strategic decisions of company leaders and therefore have a hard time estimating the future importance of apps in their own company. They may also be more realistic when it comes to the actual trend of the tools in the near future. Overall, however, most employees at all levels expect the role of business apps in their workflow to grow in the future.

This opinion is also largely independent of age. People in younger and middle age groups are not the only ones with high expectations for mobile applications: 79.6% of respondents over 50 also believe in the growing importance of this technology. The participants are not of one mind when it comes to a timeline for the increased

relevance of apps, however. Will the use and availability of apps in global trade and logistics develop quickly or become relevant “in 2–3 years at the earliest”? The participants are unwilling to commit to a response here, instead choosing answers near the middle (see Figure 14).

A similar picture emerges with the statement “apps in global trade and logistics are generally overrated.” There is uncertainty here as well, since many of the respondents cannot assess the benefit of apps from their own experience.

Nevertheless, one-fifth clearly feel that apps “are generally overrated.” This assessment is especially prevalent among those from the transport & logistics sector – the same companies that have already put the use of apps to the test in day-to-day business and for whom it is not just a concept (see Figure 15).

Assessment and development of apps in global trade and logistics

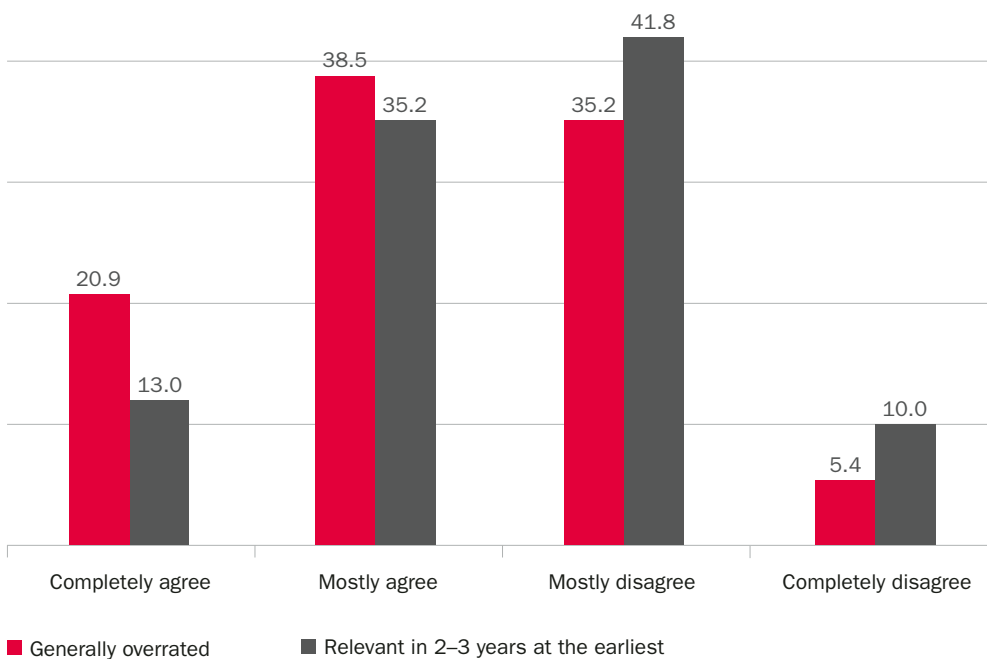


Figure 14: No clear forecast for the development timeline (in percent)

“Apps in global trade and logistics are generally overrated” – by industry

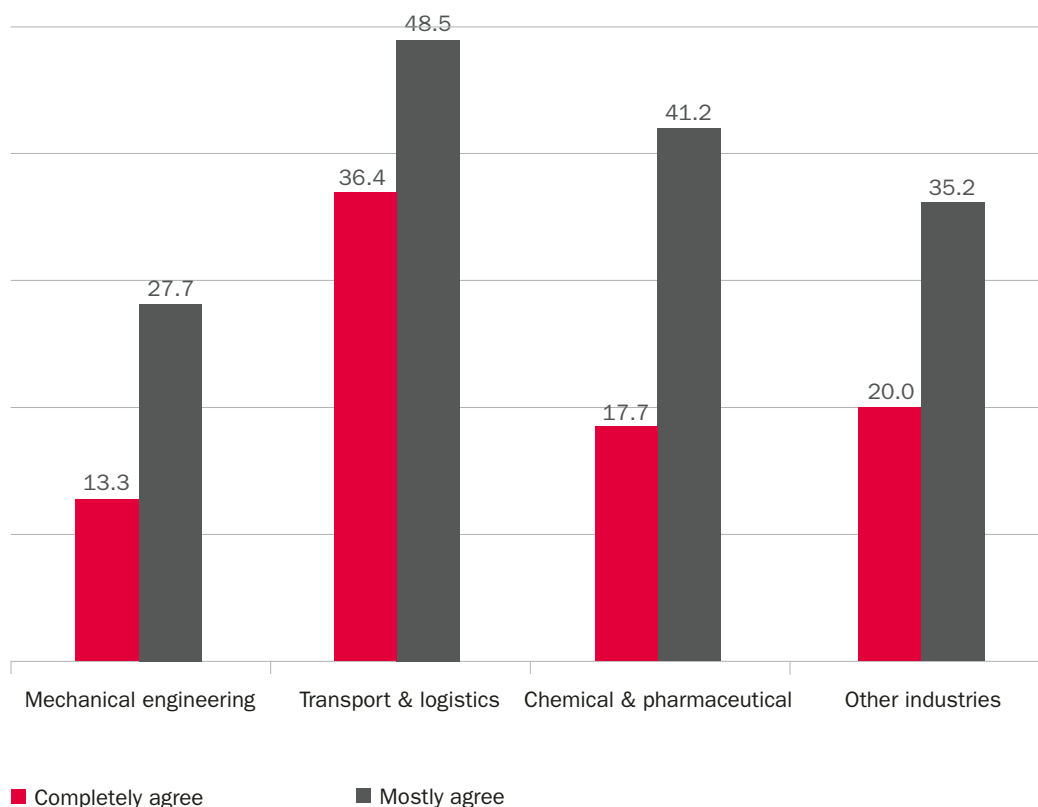


Figure 15: Respondents from the transport & logistics sector often see apps as overrated (in percent)

3.5 Benefits: flexibility, control, transparency

What do companies hope to gain by using apps in supply chain management, logistics, and global trade? In the questionnaire, the experts indicated how likely they feel it is that various benefits will materialize.

Opinions were very positive overall. Above all, respondents expect the mobile tools to deliver greater transparency, flexibility, and control – some 46% to 47% call this “very likely” (see Figure 16).

Many cited a competitive edge as an

opportunity, but this received fewer votes than other potential benefits, with only 30.4% saying it is “very likely” that apps would help with this important goal. This does not necessarily contradict the fact that a majority of respondents earlier ranked apps as a “critical competitive factor.” It’s possible that they expect apps to become the norm and that, above all, it is important to keep up with this trend. But if this development unfolds very rapidly, the phase for differentiating oneself as an early adopter or first follower is only very brief.

Benefits and opportunities from apps in SCM, logistics, and customs

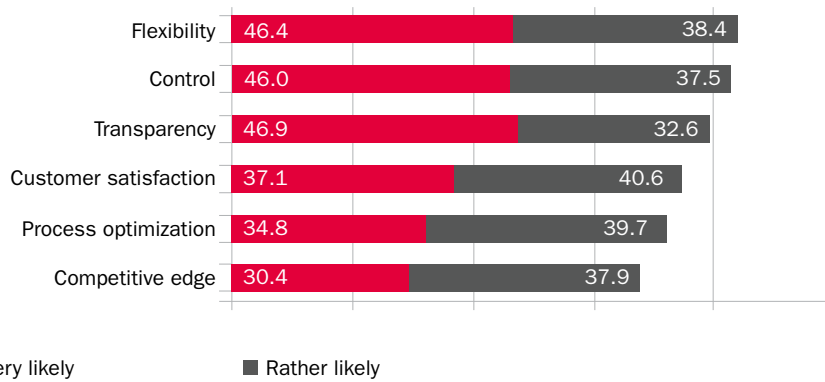


Figure 16: The benefits of business apps: flexibility, control, and transparency lead the pack (in percent)

Upper management is particularly optimistic when it comes to benefits and opportunities. Figure 17 shows that this group considers the realization of process optimization, flexibility, control, and a competitive edge to be “very likely” more frequently than other managers, while employees without a leadership role see the matter with much greater skepticism.

The views of upper management should not be seen here merely as strategically calculated optimism. It is in fact often based on personal experience. After all, top-level managers currently use business apps most intensively. Business apps are a top-down issue in global trade and logistics: used, pushed, and integrated into future planning by the upper management.

“Very likely” benefits and opportunities from apps – by position

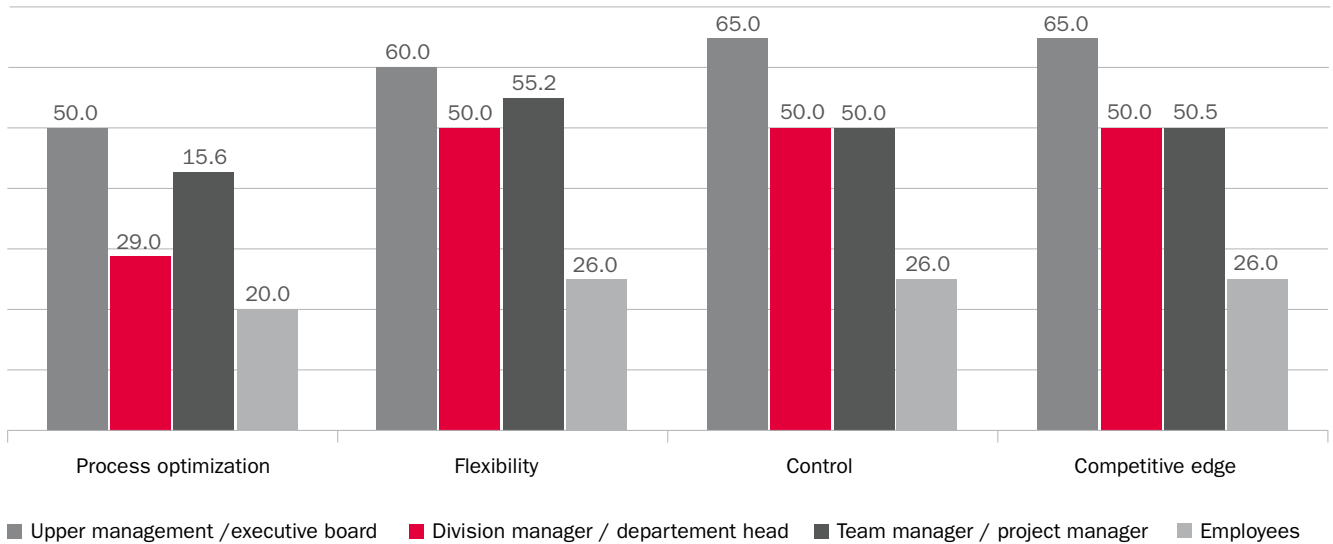


Figure 17: Business apps in global trade and logistics: a top-down issue (in percent)

An industry-level perspective also reveals that industries such as transport & logistics that are relatively strong users of business apps estimate the tools’ potential higher.

Those who use the apps can apparently better assess the benefit and reach a more positive conclusion (see Figure 18).

“Very likely” benefits and opportunities from apps – by industry

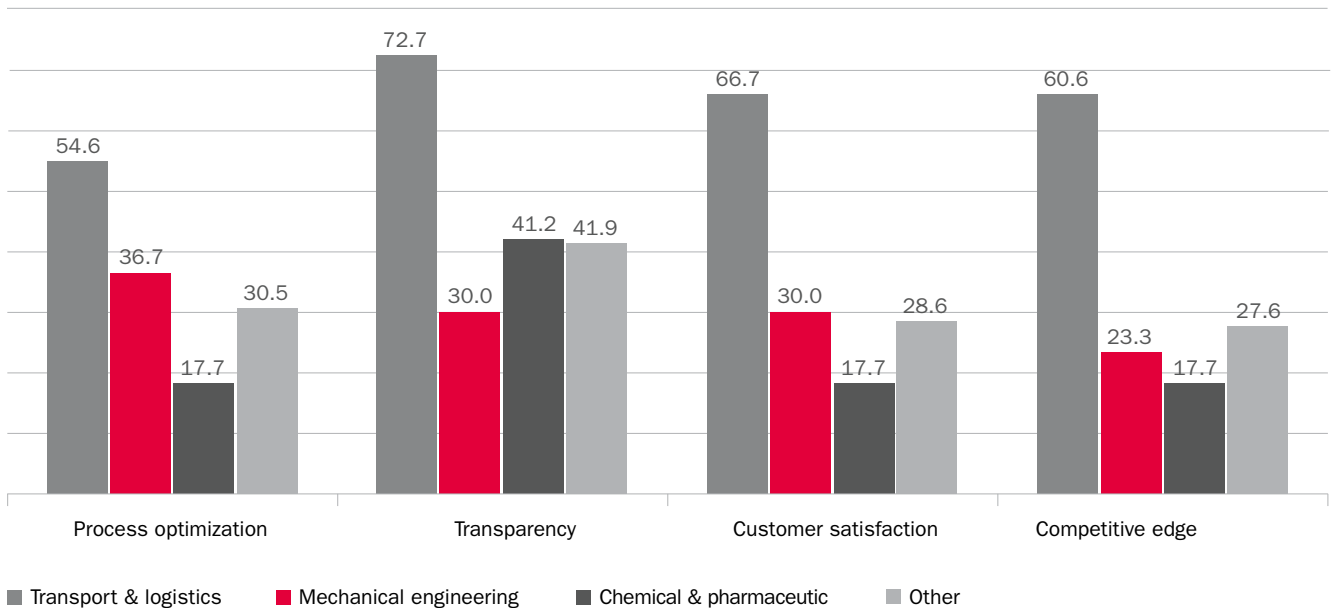


Figure 18: Transport & logistics expect more of apps (in percent)

3.6 Problem: personal/professional boundaries and constant availability

The respondents also see a variety of negative consequences that can arise through the use of business apps (see Figure 19). Most consider it “very likely” that apps will erode the “boundaries between work and personal life” (40.7%). They also see the danger of “constant availability in the business context” and “inefficiencies due to distraction” as likely. The fact that people always have the mobile devices with them means that apps and

information – but also interruptions and distractions – are always present. It’s worth noting that respondents over 40 years of age cite the constant availability that apps offer as a disadvantage more often (82.9%) than their younger counterparts (66.2%). So the greatest apprehensions relate to how people interact with the app and how work is organized. Few respondents rank problems of data quality and failsafe protections as “very likely,” but many also consider these consequences to be essentially possible.

Disadvantages from business apps in SCM, logistics, and customs

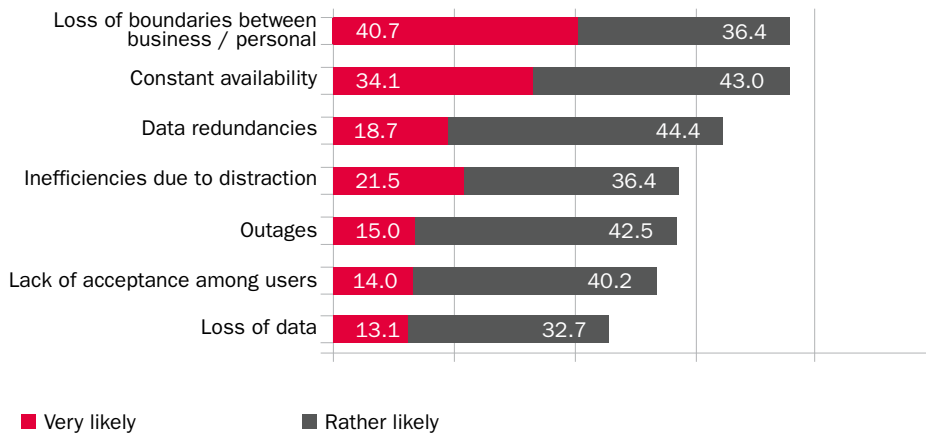


Figure 19: Problematic: constant availability and boundaries between personal and professional life (in percent)

When it comes to these technical issues, it is mostly the employees without leadership roles who fear problems, while the upper management deems such effects less likely (see, for example, Figure 20 on data loss). One possible explanation lies in the differing roles. Employees on the operational end are the first to be affected by potential problems. They’re the ones, after all, who have to resolve the technical issues. Diffuse fears about change and

innovation may play a role here, since new tools always require a break-in, training, testing, and adjustment period before everything runs smoothly. But differences in how the negative aspects and risks of using business apps are perceived also depend on the size of the company. Companies with more than 200 employees, for example, regard possible gaps in the availability of the app to be likely, while smaller companies rarely cite

this problem. It's possible that the unavailability of apps is a problem primarily for more complex organizations where many functions are interlinked. Larger enterprises

also typically have more experience implementing new tools, so they have a more realistic awareness of the problem.

Data loss as disadvantage of apps – by position of respondent

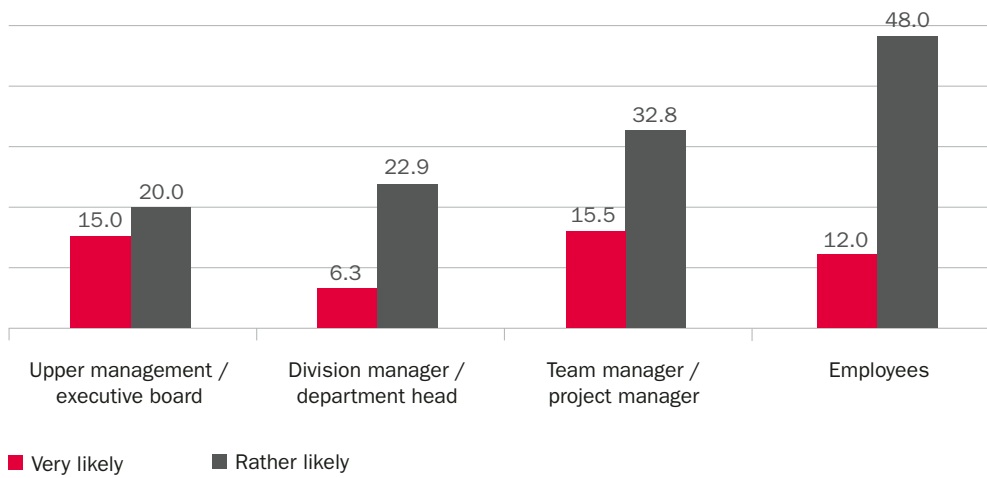


Figure 20: Fear of data loss is most pronounced among employees without a leadership role (in percent)

3.7 Technical implementation and added value determine success

What determines whether the use of apps in global trade and logistics will succeed and give companies the benefits they hope for? The study asked experts to evaluate a list of seven determinants of success and select the factors they consider most important. Figure 21 lists these factors, sorted by how often they were named in the top three. Integration into internal IT systems was cited as the most critical factor (47%), while

integration into external systems was ranked lowest (15.2%). In other words, apps are currently seen as an internal issue.

What's also noteworthy is that technical factors outweigh business factors. The apps must integrate, work across different operating systems, offer added value, and be easy to use. Only then do cost issues such as maintenance expense and price come into play.

**Success factors for apps in SCM, logistics, and customs
– frequency of choices among first three**

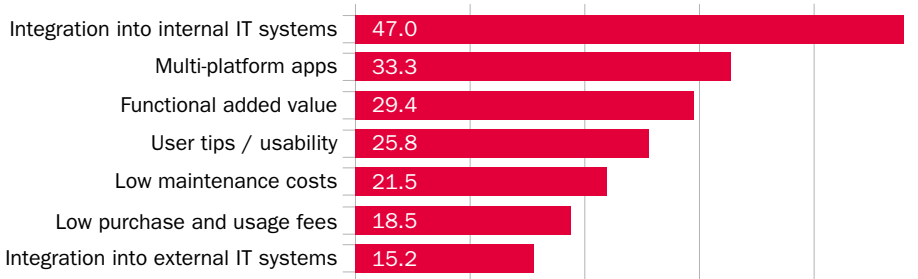


Figure 21: Key determinant of success: integration into internal IT systems (in percent)

The cost-effectiveness of apps is much more important to small companies with fewer than 200 employees, however, than for larger enterprises (see Figure 22), since the smaller companies can be assumed to be more price-sensitive. Maintenance costs, on the other hand,

garner more attention as the size of the company increases (see Figure 23). Nearly half of companies with more than 2,000 employees cited this issue in their top three, while only about one-fourth of small businesses with fewer than 200 employees did so.

**Price as top success factor with business apps
– by size of company**



Figure 22: Important for small businesses above all: the price of an app (in percent)

Maintenance costs as top success factor with business apps – by size of company

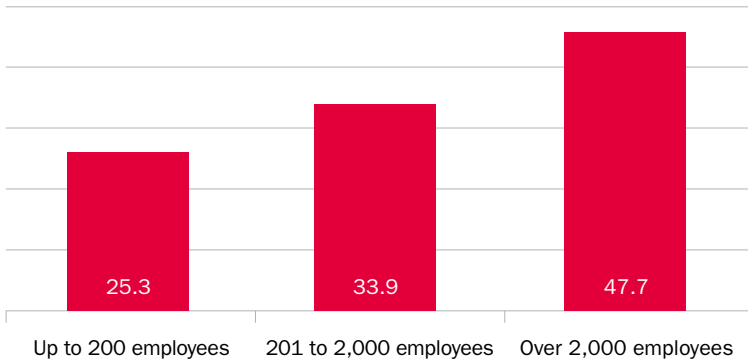


Figure 23: Relevant primarily to large enterprises: maintenance costs (in percent)

4. Participants in the study

A total of 330 global trade and logistics experts responded to questions about the use and importance of business apps and on GTM trends for the coming year.

A quarter of respondents head a division or department, and more than 10% of participants are members of upper management or the executive board. Some

30% head a team or have project manager status (see Figure 24). So it's not surprising that the average age is relatively high at 43.9 years. Nearly two-thirds of respondents are over 40, and 26.8% are over 50 (see Figure 25). Most participants are men, but the proportion of women was above one-fourth at 27.4%.

Position in the company

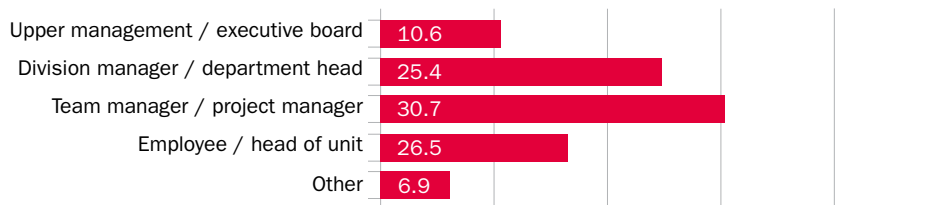


Figure 24: Participants: from upper management to regular employees (in percent)

Age of respondents

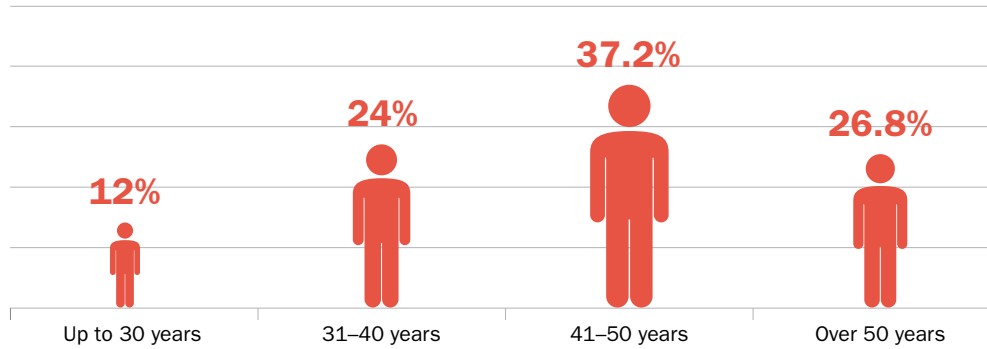


Figure 25: Most participants in the study are over 40

The findings of this study are based on a wide range of day-to-day working conditions, since companies of all sizes are represented (see Figure 26). Nearly a quarter of the surveyed companies have more than 2,000 employees, and 14.4% even have more than 10,000. This year's theme of "business apps" was of interest to

smaller companies as well, with a relatively high participation rate by experts from companies with fewer than 100 employees. The companies are primarily from the "transport & logistics" sector (30%) or industries not specified in the questionnaire (others: 26%).

Number of employees

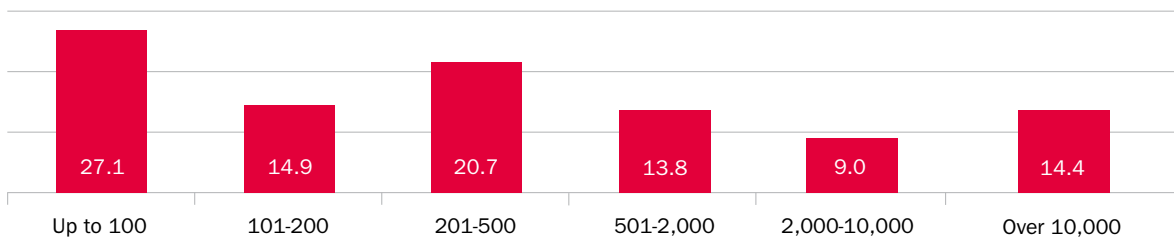


Figure 26: Participation from companies of all sizes (in percent)

The industries most strongly represented in the study are transport & logistics (17.8%) and mechanical engineering (16.2%). The other participating businesses are distributed across a wide diversity of

industries: chemical & pharmaceutical, hightech & electrical, and automotive & manufacturing follow at 6.5% to 9.2% (see Figure 27).

Industries

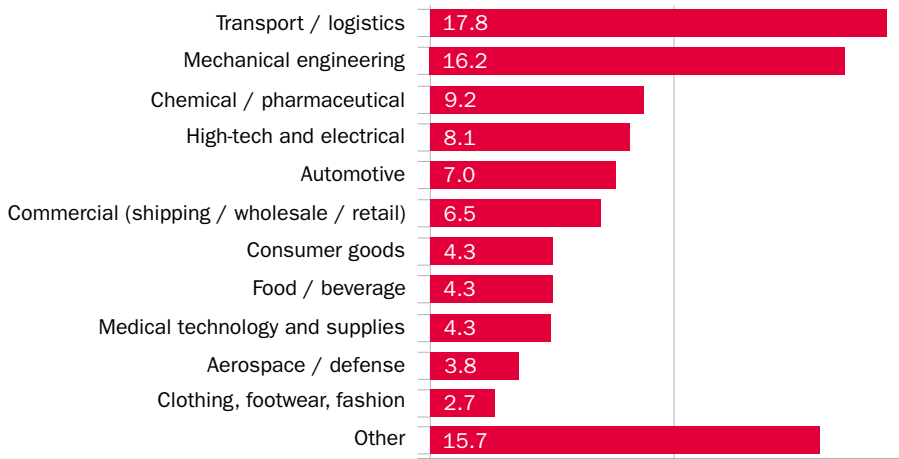


Figure 27: Industries represented most strongly: transport & logistics and mechanical engineering (in percent)

This year, like last year, the questionnaire was made available in both German and English. A total of 35.2% of respondents opted for the English version, so the proportion of foreign-based companies is relatively high this year (see Figure 28). Only about half the companies are headquartered in Germany. Switzerland (12.4%) and the

Netherlands (12.9%) were relatively well represented. The general category of “other” encompasses a wide range of European and non-European countries (Sweden, France, Italy, Liechtenstein, Ireland, Belgium, Indonesia, Singapore, Japan, the Philippines, Brazil, West Africa, and “global”).

Company headquarters

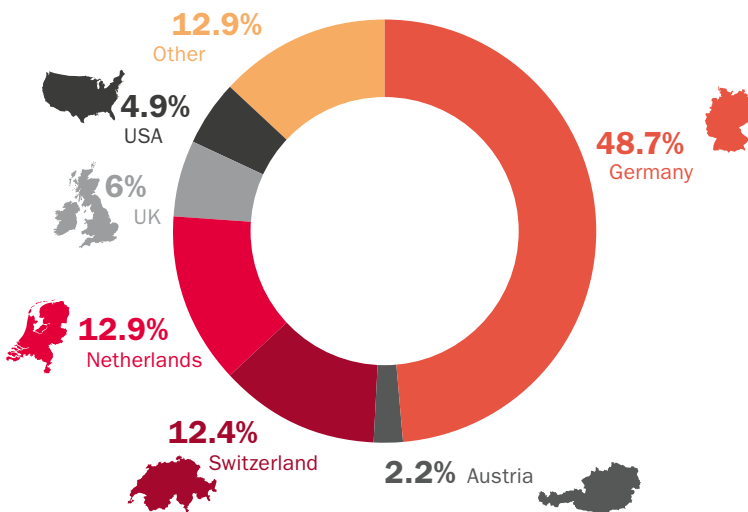


Figure 28: Location of main offices

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