

Sicherheit in Technik und Chemie

2022

Digitalization in Conformity Assessment in Singapore


A QI-FoKuS study

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www.qi-fokus.de

A study conducted within the framework of the QI-FoKuS initiative




Basic statistical population for the survey	535 accredited conformity assessment bodies (CABs) in Singapore
Data collection method	Online survey
Survey period	May 29, 2022 June 30, 2022
Sample	122 fully completed questionnaires (= 23% response rate)



QI-FoKuS
Research on Conformity
Assessment and Safety

Digitalization in Conformity Assessment

Online Survey





Supported by



The digital transformation of the economy as well as increasingly networked and complex products and applications are bringing digitalization into the focus of conformity assessment bodies (CABs). Innovations, new technologies and processes depend on corresponding conformity assessment services. This poses new challenges for testing and calibration laboratories, inspection and certification bodies, and other CABs. At the same time, however, digitalization also offers new opportunities. Our QI-FoKuS study explores "Digitalization in Conformity Assessment" based on data from an online survey of accredited CABs in Singapore.

Major topic areas covered

Digital Maturity Level

- Assessment of digital readiness and status of digital transformation in CABs based on a tailored digital maturity model

Drivers, Benefits and Barriers

- Drivers and motives for digital transformation, the benefits and impacts realized, and barriers faced by CABs towards digital transformation

Technology Trends

- Assessment of the digital technologies and processes currently in use (now and in a 5-year perspective)

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The Sample

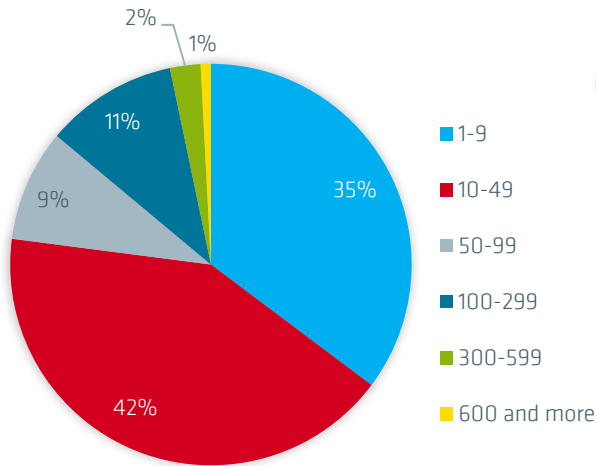
General information about the participating
Conformity Assessment Bodies

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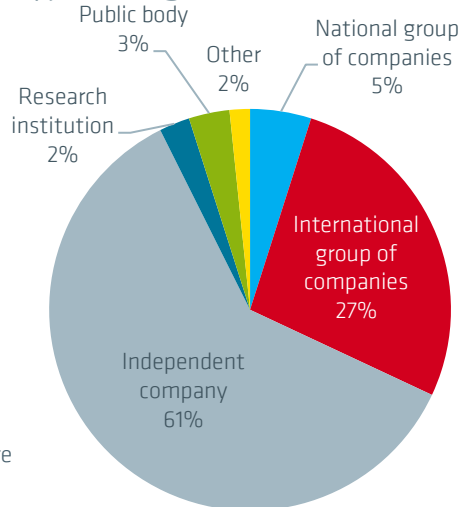
122 conformity assessment bodies (CABs) in Singapore participated in the survey

- 77% of the participating CABs are **small businesses** with less than 50 employees.
- 61% are **independent companies**, 27% belong to an **international group** and only 3% are **public bodies**.
- For 50%, Conformity Assessment (CA) is the main economic **focus of activity** and for 34% it is **one activity among others**.

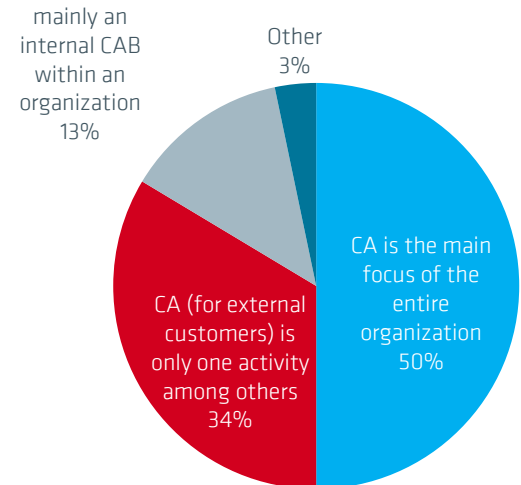
Number of employees (n=122)



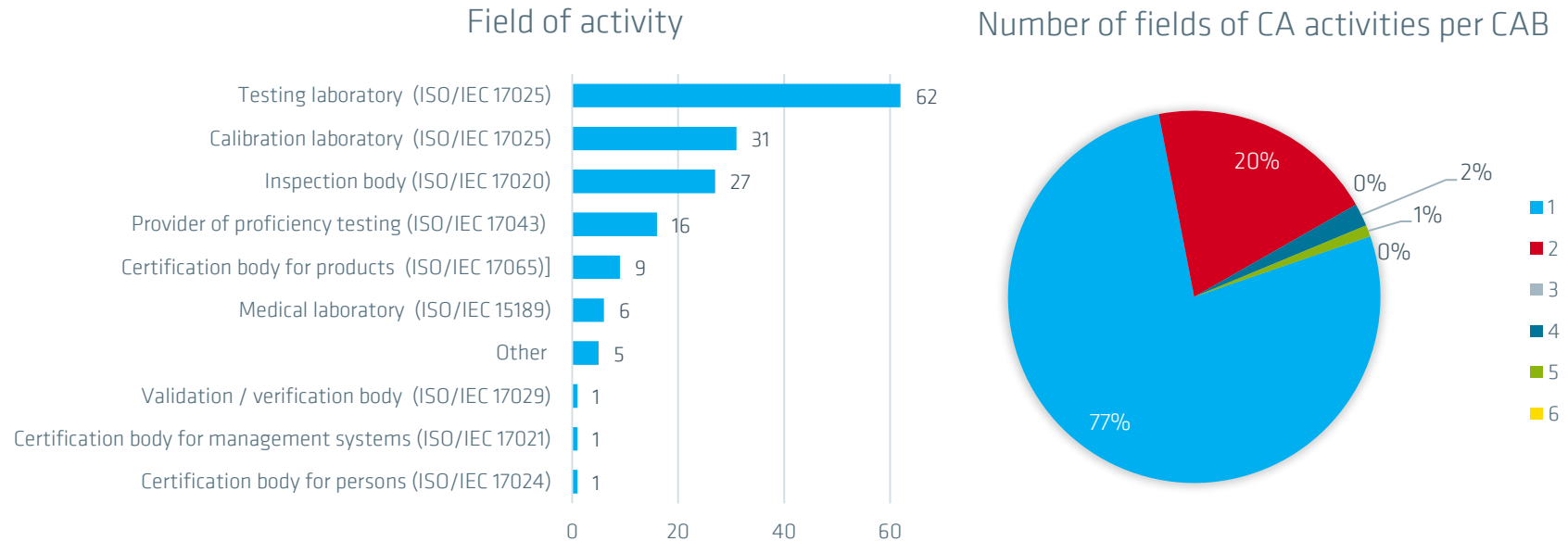
Type of organization (n=122)



Role of CA for the organization (n=122)



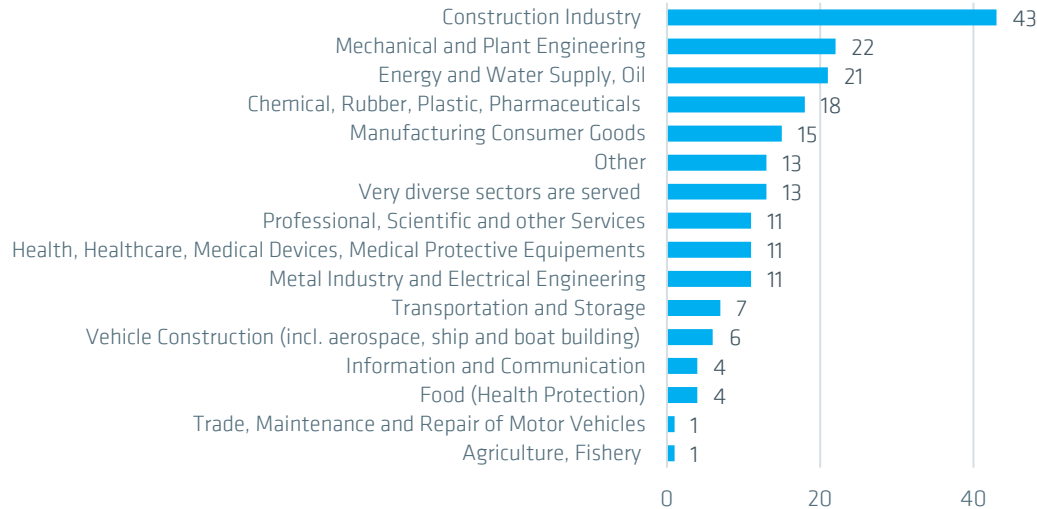
The 122 participating CABs cover a broad range of activities



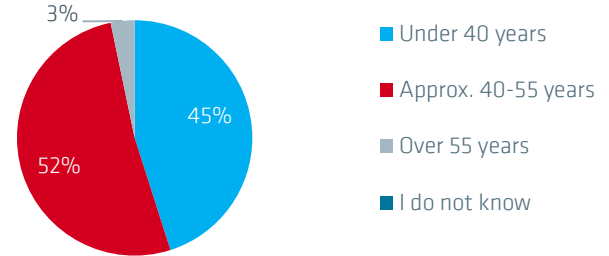
- Testing laboratories represent the **largest group of participants**, followed by calibration laboratories and inspection bodies.
- 77% of CABs are **specialized** in a single field of conformity assessment activity; 20% cover two activities and only a few cover a broader range of activities (up to 5).

The CABs serve a broad spectrum of sectors, mainly manufacturing

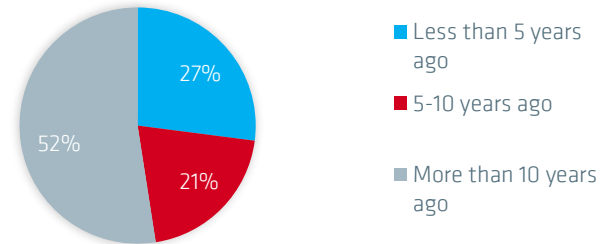
Main sectors served by CABs



Age of employees (n=122)



Establishment of the CAB (n=122)



- The **main industry** served by the CABs is the construction industry, however, the mechanical and plan engineering and the energy and water supply, oil industries are also important.
- In 52% of the CABs the **average age of the employees** is 40-55 years. A share of 45% has staff under 40 years on average.
- Every second CAB was **established** more than 10 years ago; 27% of the CABs are younger than 5 years.

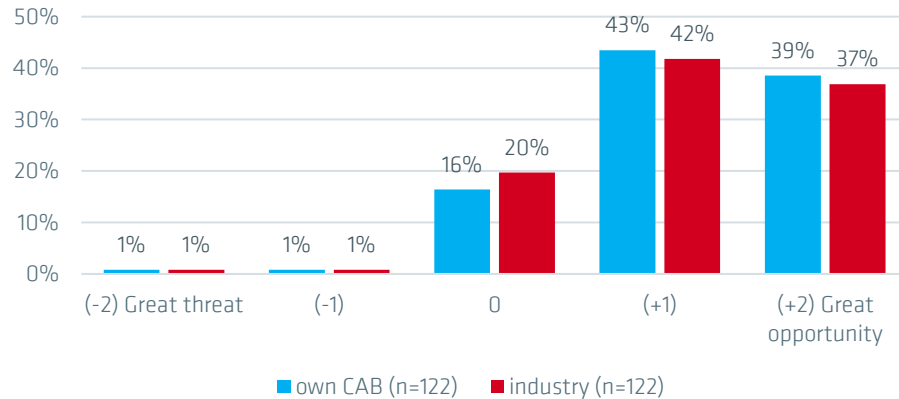
Digitalization in Singaporean CABs A General Overview

This section sheds light on how the participating CABs perceive digitalization for their organization (now and in perspective) and how they self-evaluate their current state of digital transformation.

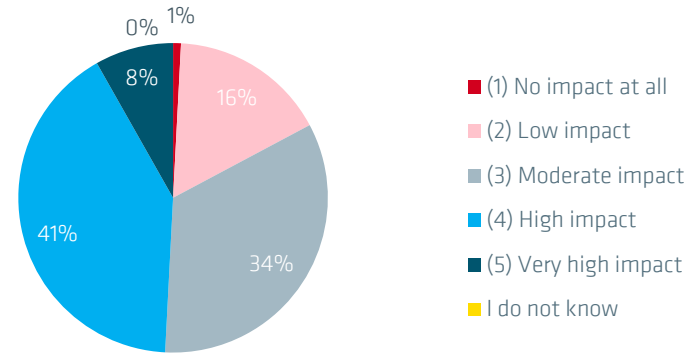
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Digitalization more of an opportunity rather than a threat // Major influence expected

For the CAB itself and the whole industry, digitalization is viewed rather as...



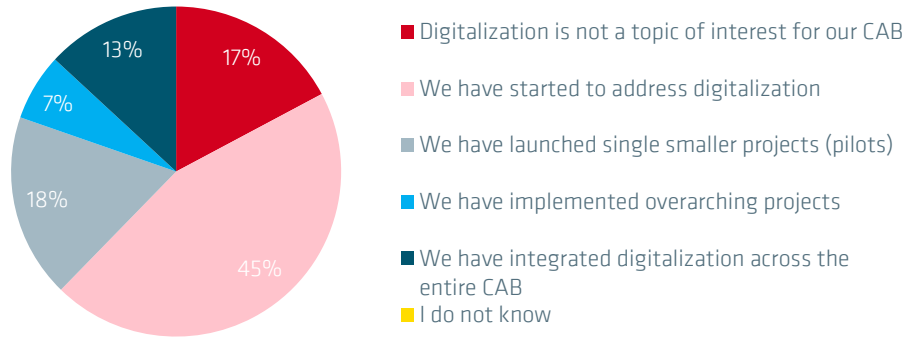
Expected impact of digitalization in the next 5-10 years (n=122)



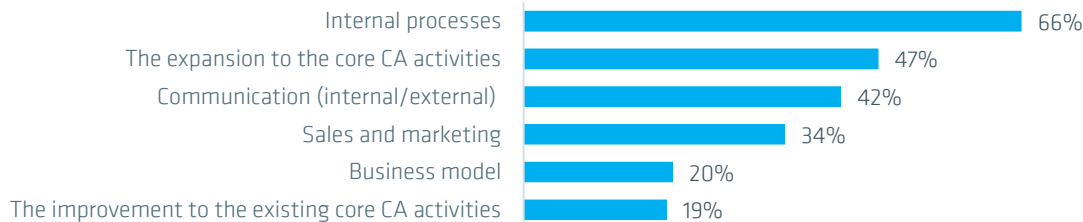
- In general, CABs have a **positive perception** of digitalization: 82% of the surveyed CABs recognize digitalization as an **opportunity or even a great opportunity** rather than a threat for their own organization, and 81% with regard to the whole CA industry.
- Only 49% of the participants expect digitalization to have a **great or even very great impact on CA activities** in Singaporean CABs in the next 5-10 years. 34% expects a moderate impact.

Majority of CABs just started to address digitalization//Focus mainly on internal processes

Status and extent of digitalization in the CABs (n=122)



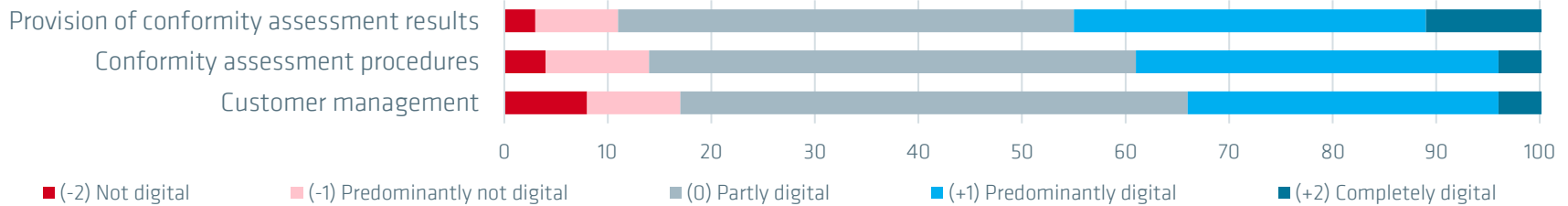
Areas targeted by digitalization (multiple answers possible, n=122)



- **The status of digitalization is quite divers** among the CABs in Singapore: While the majority of the CABs (45%) have just started to address this topic, 18% have launched single smaller projects and 7% have already implemented overarching projects. 13% state that they have integrated digitalization throughout the whole organization. However, for 17% digitalization is not a topic of interest.
- Most **digitalization activities concern internal processes**. Yet the expansion of the core CA activities is also a relevant area. However, digitalization is currently rarely used to adopt new business models or to improve CA services.

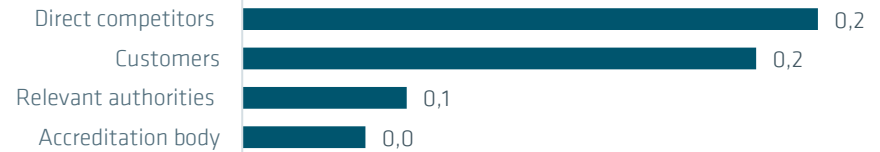
Positive self-assessment on digitalization in core areas - and in comparison with stakeholders

Self-evaluation of the CABs' status of digitalization in different areas (n=101)

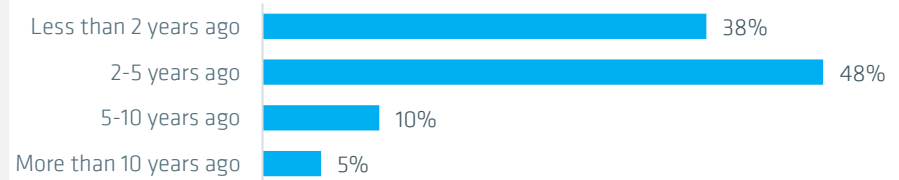


- The CA results are provided partly, predominantly or completely digitally by the majority of CABs. Customer management is less frequently digitalized.
- Compared to **other organizations** that are direct stakeholders, CABs rate their digital status on average as at least as good or slightly better, especially with regard to direct competitors and customers.
- Digitalization has not been a topic for long: the majority of CABs (86%) **has only started to deal with it** during the last 5 years. Only 4% of the CABs has done so at least 10 years ago.

Own status of digitalization compared to... (n=122)
(on a scale of (-2 much worse) to (+2 much better))



CABs started to deal with digitalization... (n=101)

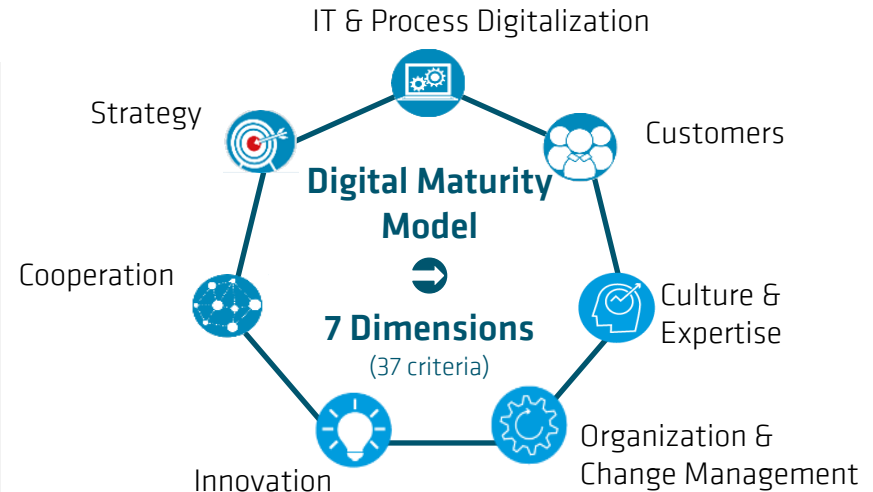


Digital Maturity of CABs

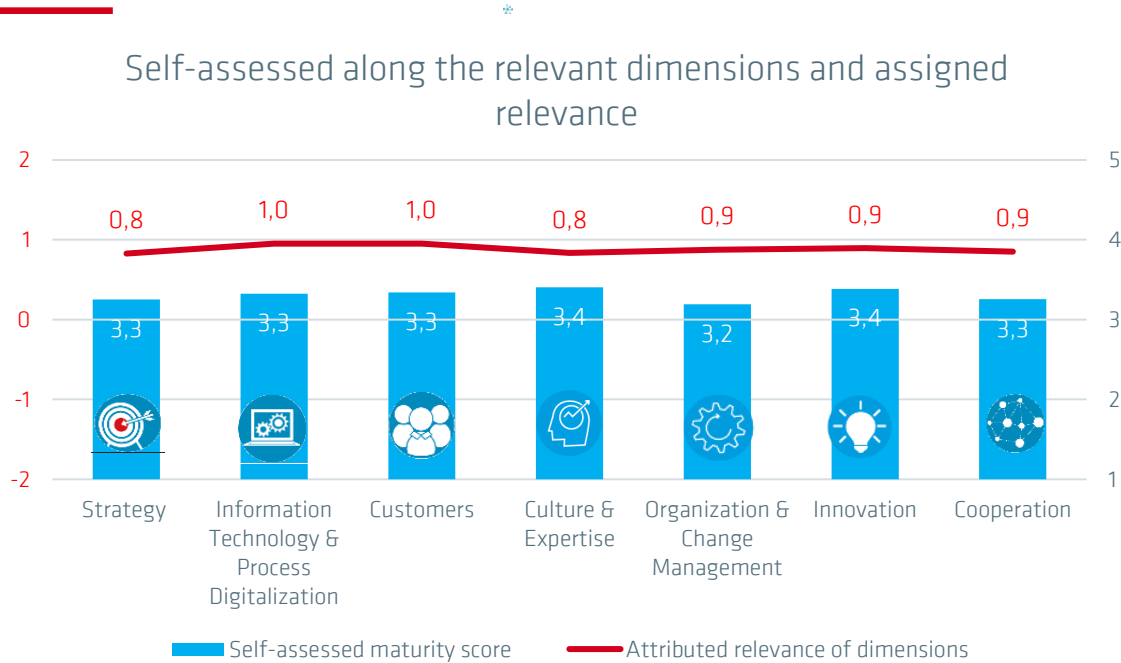
The "digital maturity" of an organization describes its status in the digital transformation. Digital maturity models use predefined dimensions and criteria to assess the ability of organizations to cope with the digital transformation. The following chapter presents the results for CABs in Singapore based on a model developed specifically for this study.

The digital maturity model for the conformity assessment industry

- The digital maturity level reflects the status of digital transformation of an organization and includes technical as well as organizational and strategic aspects.
- Becoming a digitally mature organization requires efforts, **capabilities** and **resources** across many areas.
- These are mapped in a maturity model using various **dimensions** and **criteria**:
 - Our specially developed model takes into account 7 dimensions that are essential for the digital transformation of CABs: from technological to strategic and organizational to cultural aspects.
 - Each dimension is operationalized by 4 to 6 criteria describing basic success factors in terms of capabilities, capacities, and resources.
- By means of a self-assessment of the participating CABs along these criteria, an individual digital maturity level is calculated - from level 1 ("beginner") to level 5 ("expert").



Different maturity of dimensions: Culture and Innovation advanced, Organization at a lesser extent



* The CABs were asked to self-evaluate their maturity/performance along statements in 7 topic areas (dimensions) on a scale from 1 (I do not agree at all) to 5 (I fully agree). These statements and dimensions are displayed in detail in the annex.

The participants were then asked to rate the importance of each dimension with regard to a successful digital transformation on a scale from -2 (not important at all) to +2 (very important).

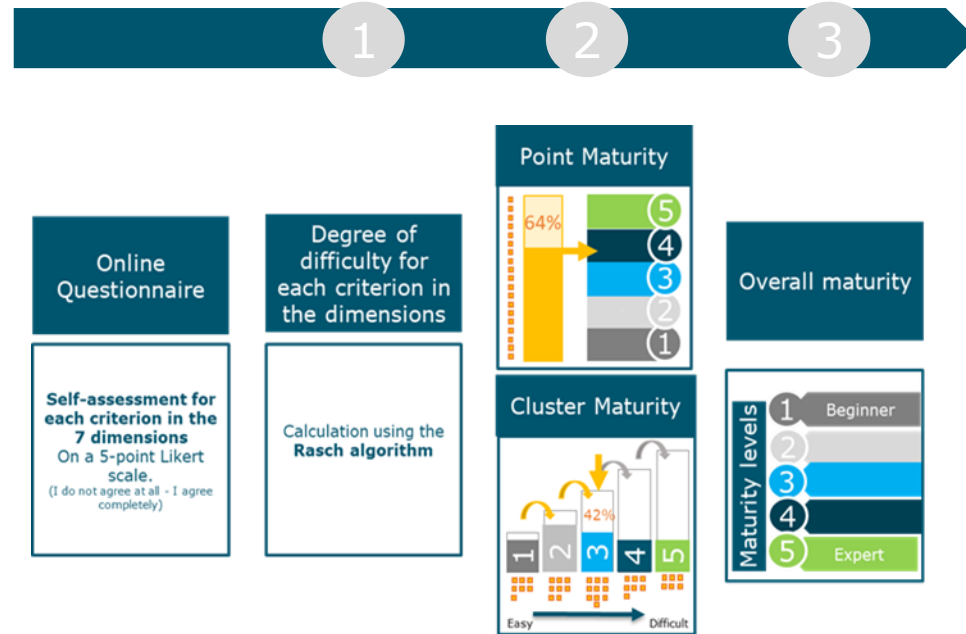
- The results of the maturity model show that the status of the CAB slightly differs in the various dimensions:
 - The CABs consider themselves to be **most advanced** in the area of "Culture and Expertise" and "Innovation".
 - The **greatest need** to catch up is in the area of "Organization and Change Management".
- Respondents are aware of the high relevance of the Innovation and Information Technology dimension, and of the Customers as well.

➔ *Details on the composition and partial results in the individual dimensions can be found in the appendix.*

Background information: Calculation of the digital maturity level

In the questionnaire, participants indicate the extent to which each of the criteria of the 7 dimensions applies to their CAB. In a **multi-stage process**, digital maturity is determined on the basis of these assessments:

1. For each criterion, the Rasch algorithm is first used to calculate how difficult it is to achieve a good result for it (**degree of difficulty**). If, on average, a large number of participants state that they can meet this criterion, it is classified as easy to achieve.
2. Based on this, 2 types of maturity levels are determined: **Cluster analysis** is used to divide the indicators into 5 sequential maturity clusters (1 = easiest indicators; 5 = most difficult). To reach a higher maturity, the thresholds of the lower maturity levels have to be met first. In addition, the **point maturity** is calculated: Here, the points achieved count in comparison to the possible total points.
3. The **overall digital maturity score** is the average of the cluster and point maturity scores.

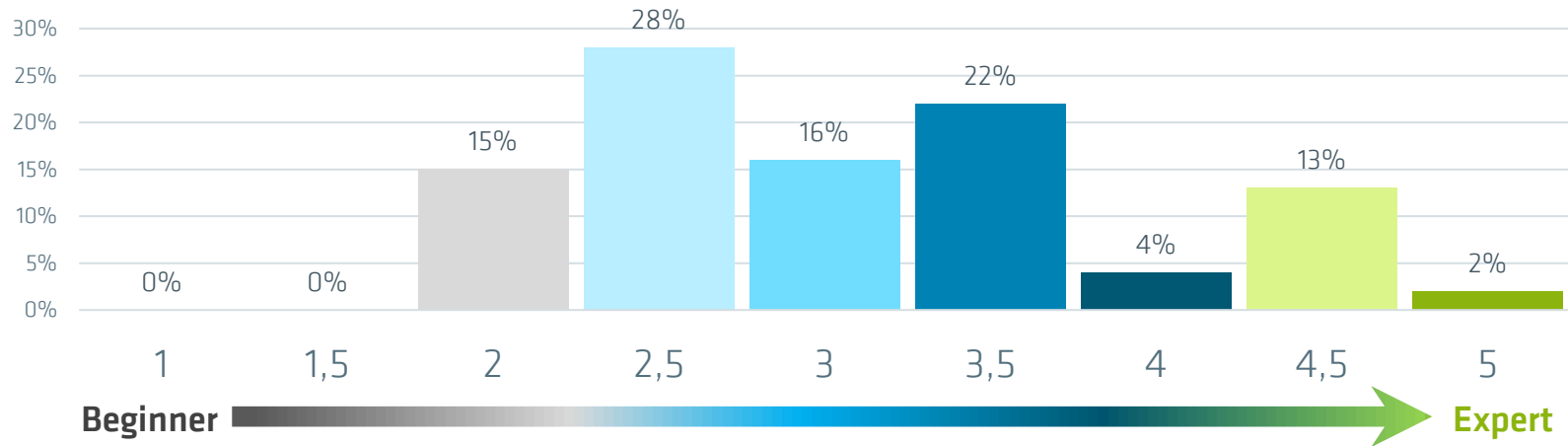


The calculation is based on the method of the St. Gallen Maturity Model. See Back & Berghaus (2016). Digital Maturity & Transformation Study; Berghaus & Back (2016). Stages in Digital Business Transformation; and Friedel & Back (2012). Determination of enterprise 2.0 development levels with a maturity model.

Overall Digital Maturity Scores of the Singaporean CA industry



Distribution of overall maturity scores (n=122)



Statistically, the **digital maturity levels** achieved by the 122 participating CABs in Singapore follow a right-skewed *normal distribution*:

- 38% of the CABs have reached medium level (i.e. 3 and 3,5). 19% of CABs have already reached a higher level of maturity. However a high share of CABs (43%) is still in an earlier stage of transformation, but there are no CABs at the beginner levels 1 and 1.5.
- So far, only 2% of the CABs have reached expert level 5.

The 5 Digital Maturity stages in Singapore CABs

Expert

Beginner

1



- ✓ Digitalization has a central role in strategy
- ✓ Evaluation of digital technologies with regard to innovation potential



- ✓ Digitalized customer interactions



- ✓ Open to new technologies, change, and transformation



- ✓ Digitalization as a new source of value creation

2



- ✓ IT security: awareness and compliance



- ✓ Risk of failure accepted
- ✓ Targeted training of our employees



- ✓ Digital activities integrated into core processes



- ✓ Digital innovations are driven forward systematically and purposefully
- ✓ Competitive advantages generated



- ✓ Work across departments

Intermediate

3



- ✓ Automated routine processes
- ✓ Networked processes
- ✓ Most important technologies are known
- ✓ Investment in digital technologies
- ✓ Use of digital technologies ensured



- ✓ Integrated, digitalized customer care
- ✓ Analysis of customer data



- ✓ Digital transformation is important



- ✓ External experts
- ✓ Collaboration supported

4



- ✓ Well documented and communicated digital strategy



- ✓ Digital solutions based on customer needs



- ✓ Availability of right people and skills for successful digital transformation



- ✓ Defined roles, responsibilities & decision-making processes
- ✓ Quick reaction to change



- ✓ Customers involved in development of digital innovations
- ✓ Clearly defined innovation process



- ✓ Collaboration with stakeholders

5



- ✓ Key indicators for measuring the implementation of the digital strategy
- ✓ Clearly defined responsibilities for implementing goals
- ✓ Digital Roadmap



- ✓ Digitalization goals defined and measurable
- ✓ Early warning system to identify relevant digital technologies and business models
- ✓ Sufficient innovation resources available



- ✓ Partner network

The Digital Maturity of CABs in Singapore // Summary of the observed patterns



- Even at the **first maturity level**, digitalization is given a central place in the corporate strategy and is pursued as a driver for new value creation. CABs are open to change and evaluate digital technologies with regards to innovation potential.
- In the **second maturity stage** systematically pursued digital innovations generate competitive advantages. Target training to employees is offered and there is cross-departmental collaboration on this topic.
- Organizations at the **third maturity level** have a strong focus on IT, where corresponding investments are made. Collaboration is strengthened, also with external stakeholders. Customer care is digitalized and customer data is analyzed.
- CABs in the **fourth maturity stage** count with the right people and skills ensure a successful digital transformation. Responsibilities are well defined and resources are allocated. Organizations are also increasingly involving customers in the development of digital innovations.
- In the final **fifth stage** the focus is on organizational adaptation and strategy. CABs have well defined and measurable digitalization goals and sufficient innovation resources are available.

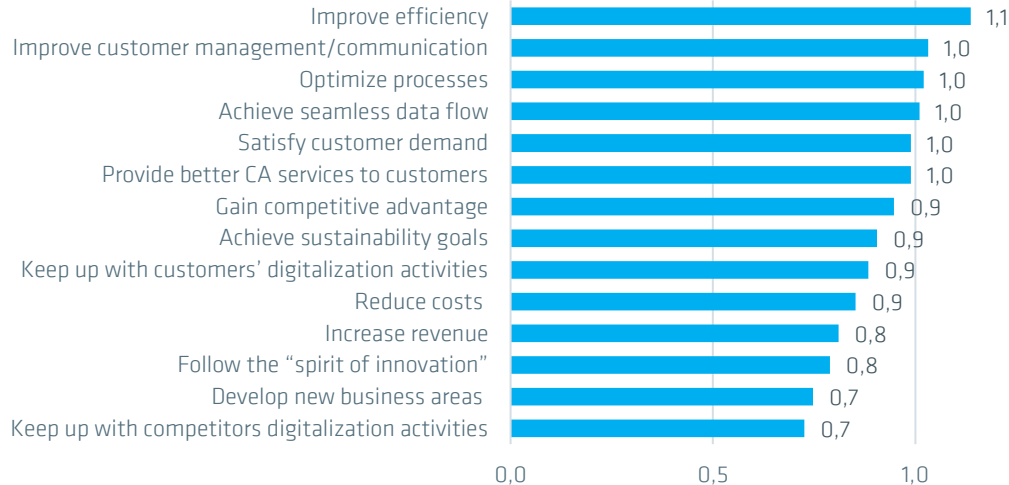
Motives, Impacts and Hurdles of Digitalization

What drives digitalization in Singaporean CABs? What effects can be achieved for the organizations? Are expectations being met? And what are the biggest hurdles to overcome in the digital transformation?

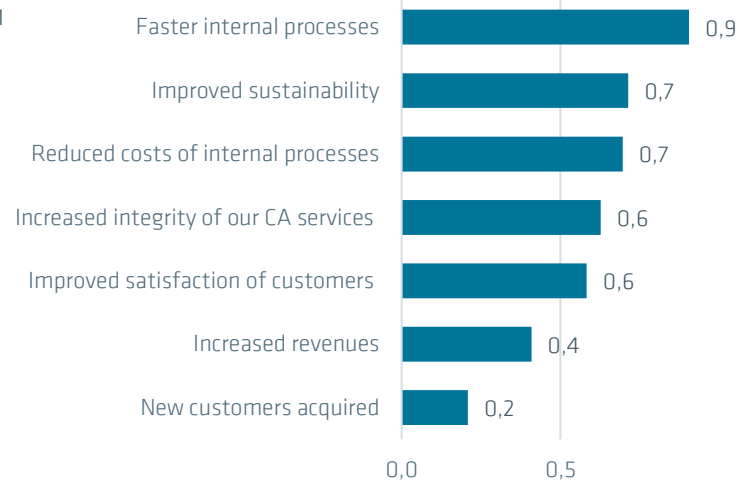
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Focus on efficiency improvements and providing better CA services

Goals behind the digitalization efforts (n=95)
(on a scale from (-2) does not apply at all to (+2) fully applies)



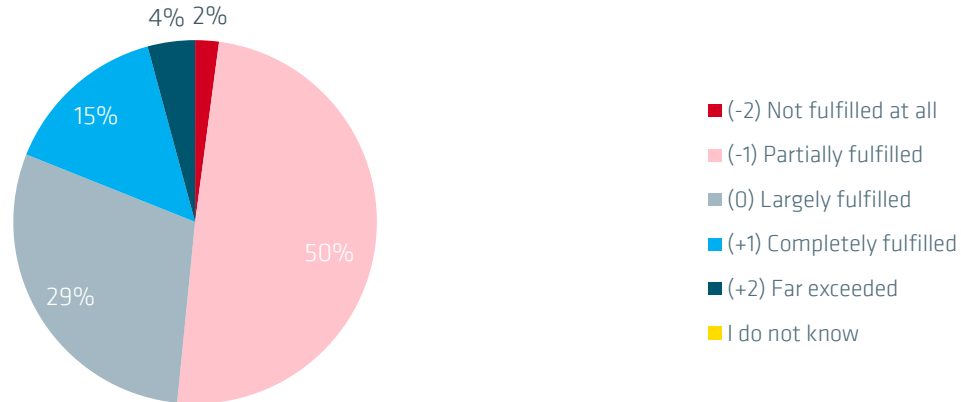
Benefits realized from digitalization (n=115)
(on a scale from (-2) not agree at all to (+2) fully agree)



- Improving efficiency and providing better CA services to customers are the **main goals** behind the digitization efforts of CABs in Singapore. In fact, faster and more cost-effective internal processes are considered as the greatest realized benefits.
- Market objectives such the development of new business areas and increase revenues are no big drivers - and the effects achieved on sales and new customer acquisition are correspondingly low. However, many respondents see the satisfaction of existing customers as well as the CAB's sustainability improved.

CABs' expectations in connection with digitalization are partially met

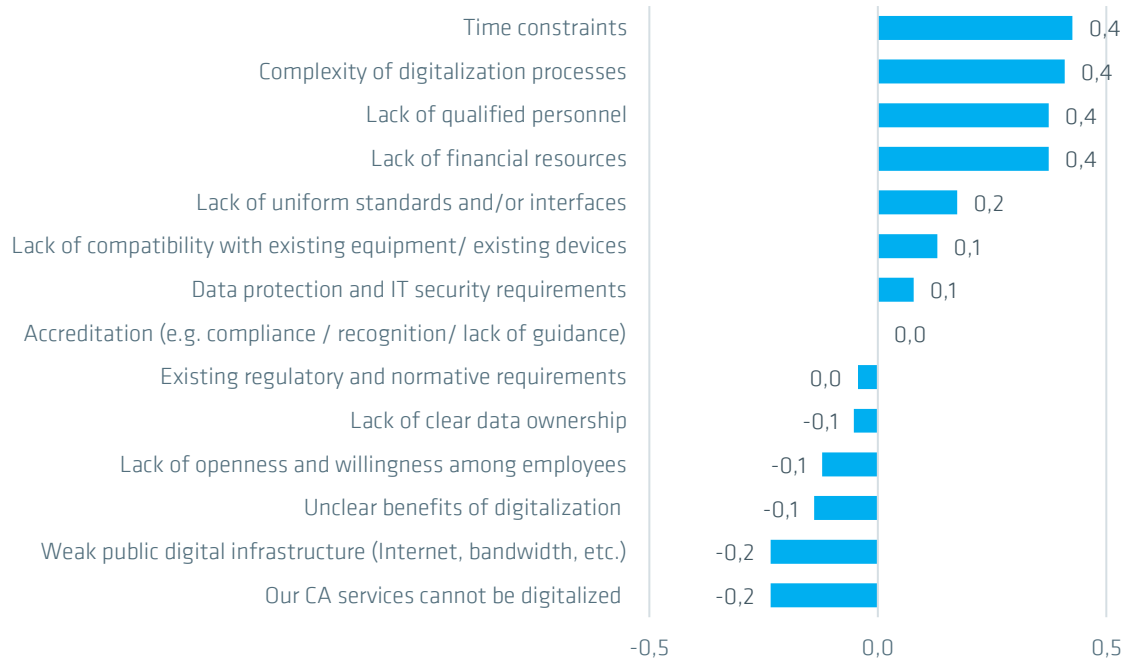
Whether the expectations behind the introduction of digital processes/technologies have been fulfilled overall so far (n=95)



- 44% of the CABs consider their expectations behind the introduction of digital technologies to have been largely or completely fulfilled. The majority (50%) finds them only partially fulfilled.
- Only for 2% of the CABs the expectations are not fulfilled at all.

Lack of time and complexity of the topic are the biggest hurdles to digital transformation

Hurdles to digital transformation (n=115)
(Scale from (-2) not at all to (+2) very much)



- Lack of time is the biggest hurdle for CABs, followed by the general complexity of digitalization processes.
- While the lack of qualified personnel and financial resources is an obstacle, a lack of openness/ readiness on the part of employees is not.
- The inability to digitalize CA services is not a hurdle for CABs.

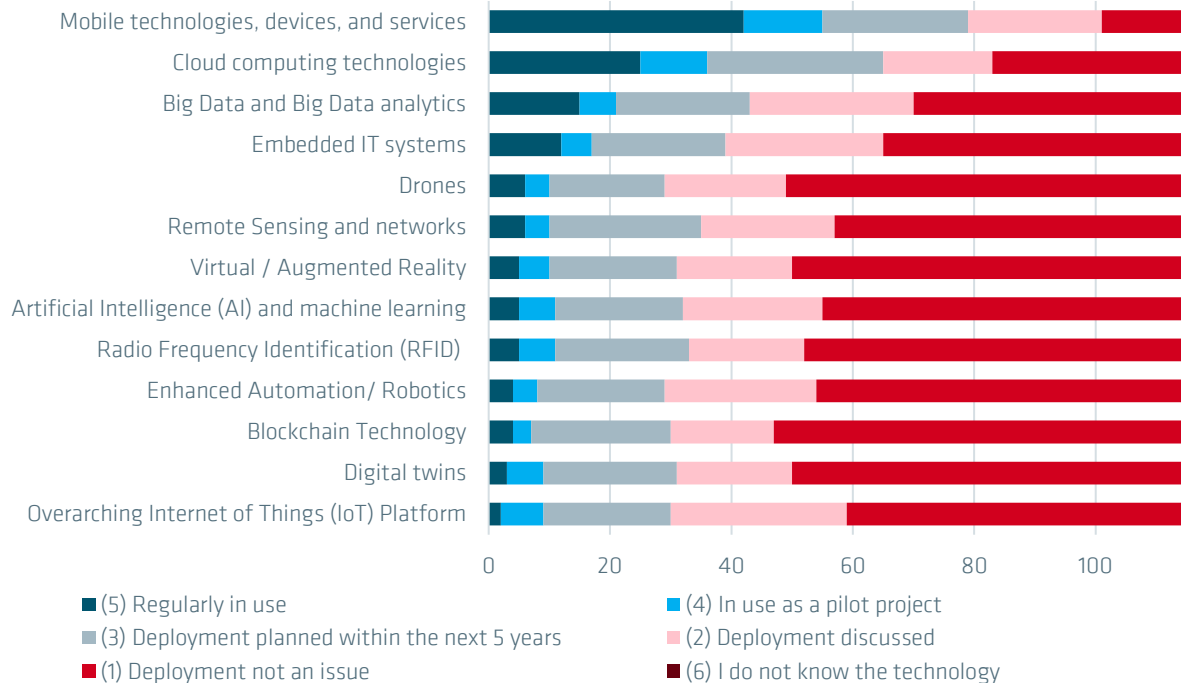
Technologies and Trends

This section highlights the actual (or planned) use of concrete digital technologies and applications in the CABs. In addition, the use of remote procedures and technologies is presented.

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Latest digital technologies are not yet widely used in CABs

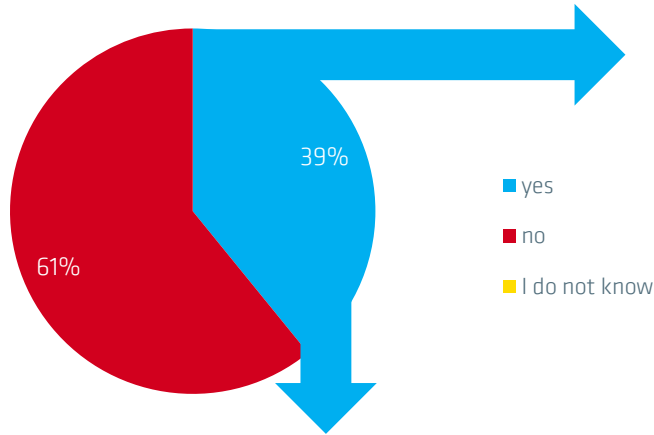
Technologies that are used or planned to be used (n=115)



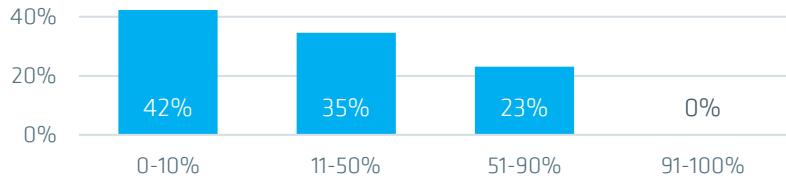
- Many of the latest digital technologies such as Big Data, drones and virtual reality are used by CABs in Singapore, but not yet on a large scale.
- Among CABs, mobile technologies are widely used in many CABs, followed by cloud computing technologies.
- All the technologies listed are known by the CABs, but for some of them the deployment is still discussed.

Remote methods and technologies are not largely used by most CABs

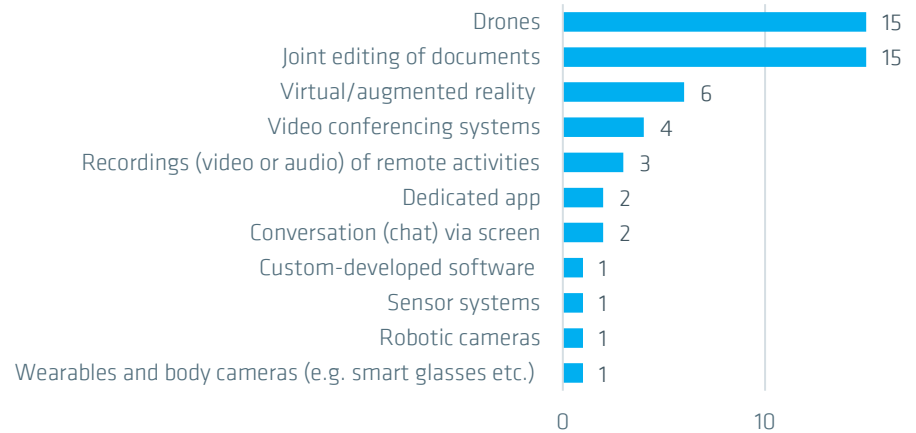
CABs that use remote methods in CA (n=115)



Share of CA services taking place remotely (n=26)



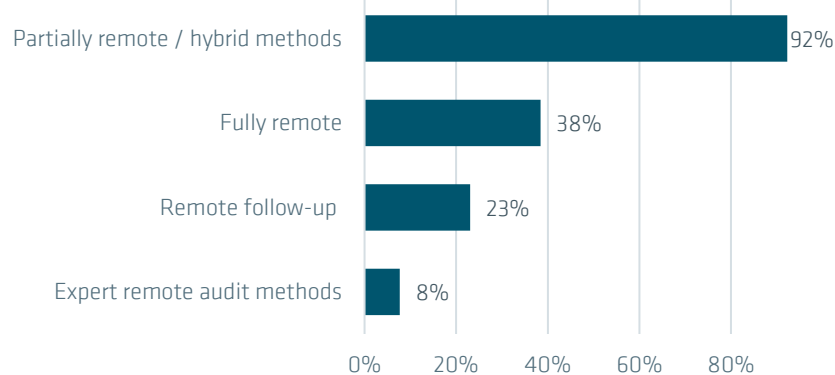
Technologies used for remote procedures (n=26)



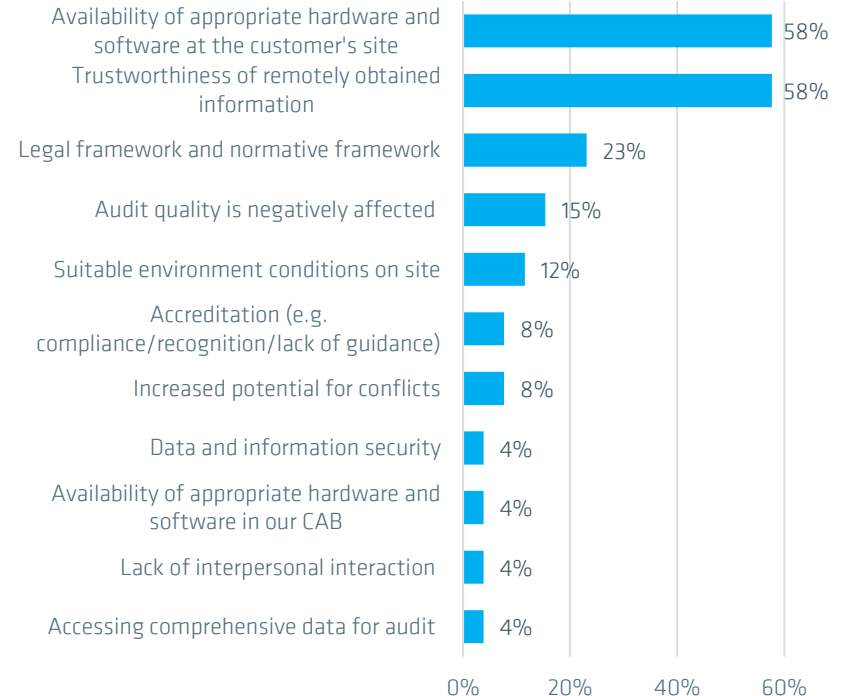
- Only 39% of the CABs use **remote methods** in their CA activities.
- Almost one in two CABs still performs a maximum of 10% of their activities remotely. No CAB has already switched completely.
- Drones are the most commonly used **tool for remote working**, while wearables and body cameras are rarely used.

Diverse approaches used and experienced hurdles in remote procedures

Type of remote procedures used (n=26)



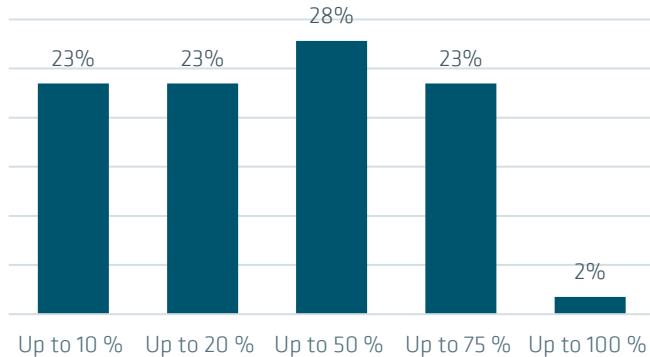
Barriers (n=26)



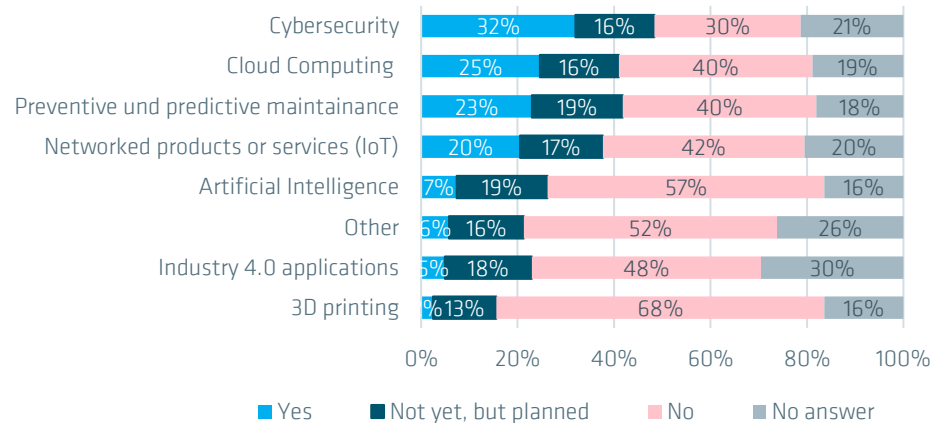
- **Hybrid methods** are the predominant type among remote methods used by CABs.
- The lack of appropriate hardware and software at the customer's site and the trustworthiness of remotely obtained information are seen as the biggest **hurdles** to using remote procedures.

CA for advanced digital technologies is only performed by a minority of CABs so far

Share of routine processes that are digital (n=115)



Digital products and applications for which CA is conducted (n=122)



- 25% of the CABs have digitalized more than half of their **routine processes**. However, almost the same number of CABs has not even digitally converted 10% of their processes.
- 45% of the surveyed CABs conduct **conformity assessments for modern digital technologies and applications**. In focus: cybersecurity (32%) and cloud computing (25%).

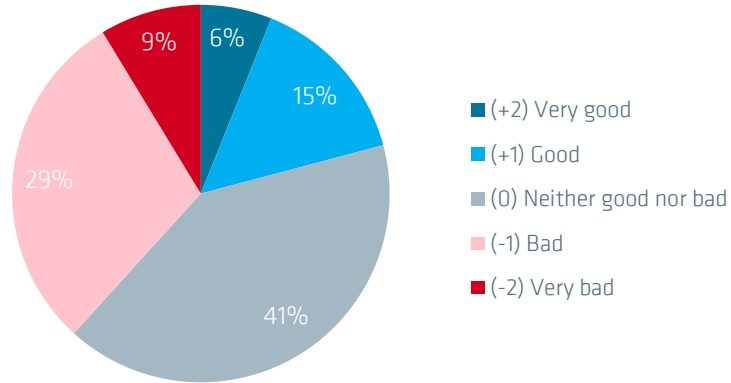
The COVID-19 Pandemic and Digitalization

The role of digitalization in responding to the challenges posed by the COVID-19 pandemic and the impact of the pandemic on digitalization.

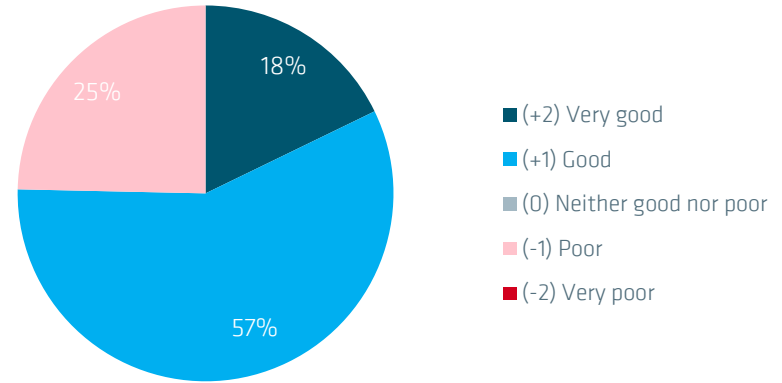
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Most CABs have not coped well with the COVID-19 pandemic

CABs' order situation in 2021 compared to pre-COVID-19 times (n=115)



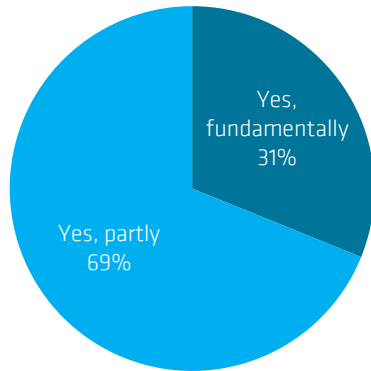
Response to the challenges of the COVID-19 pandemic (n=73)



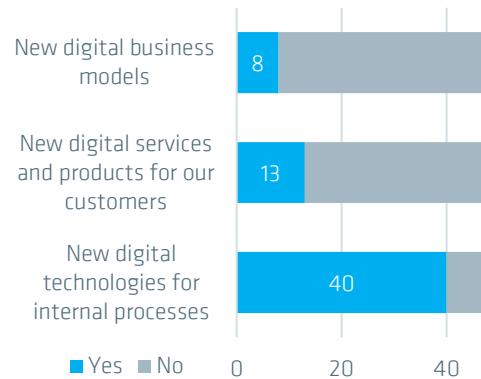
- For 41% of the CABs, the **economic situation** in terms of incoming orders in 2021 was no better or worse than before the pandemic. 38% of the CABs stated that their orders have declined, and only 21% of the CABs have actually seen their order situation improve.
- The majority of CABs (75%) reported that they had responded well or very well to the challenges associated with the COVID-19 pandemic.

Pandemic and digitalization

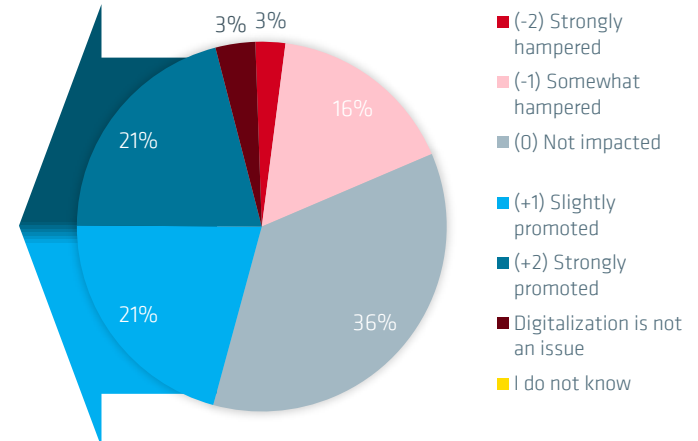
Digital technologies have helped coping with challenges of the COVID -19 pandemic (n=115)



Digital adaptation in course of the COVID-19 pandemic (n=48)



Impact of the Covid-19 pandemic on the digitalization of CABs (n=115)



- For all the CABs, digital technologies have helped in coping with the challenges of the COVID-19 pandemic.
- Yet, in 19% of CABs the pandemic has hampered digitalization, while 42% of CABs report that digital transformation has been slightly or even strongly encouraged and has led to adaptations:
 - 83% of CABs have introduced new digital technologies for internal processes, 27% new digital services and products for their customers, 17% even new digital business models.

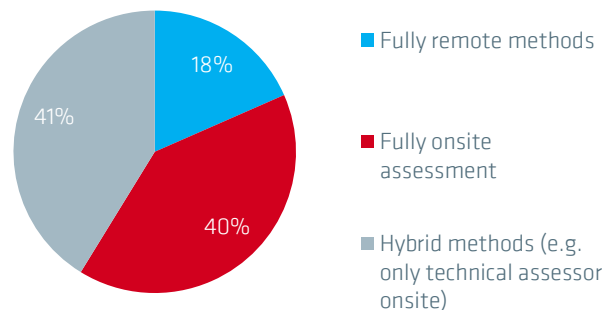
Accreditation

This section presents the potential role of digitalization for accreditation related services

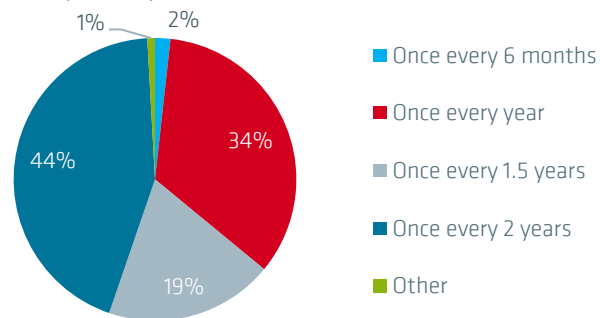
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Hybrid methods still most preferred for assessing the accreditation status

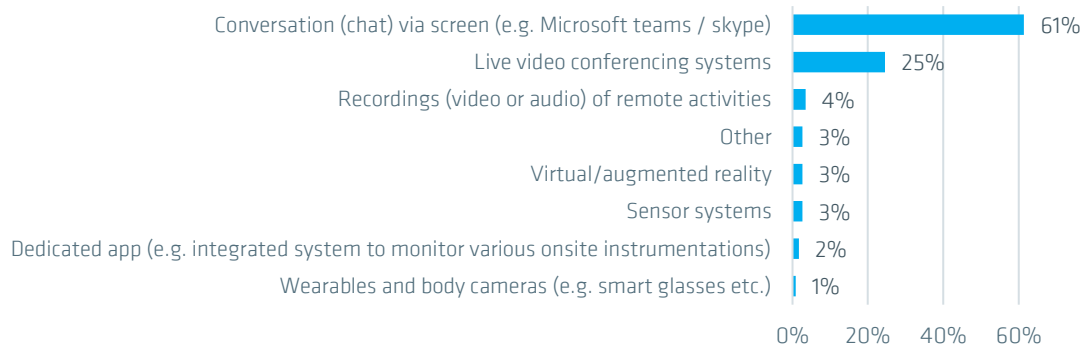
Assessment of accreditation status



Frequency of accreditation assessment (n=114)



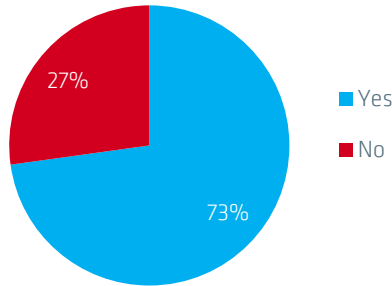
Technologies available for remote assessments (n=114)



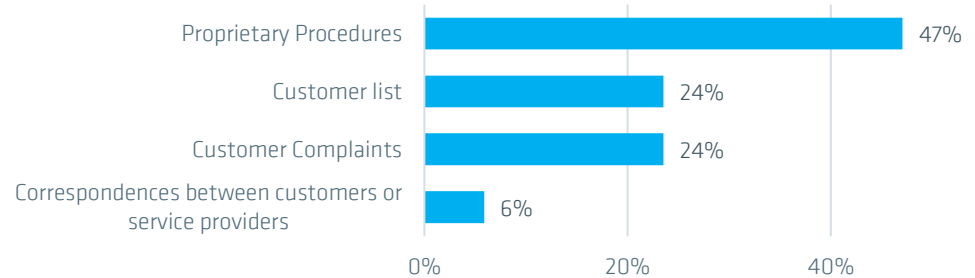
- Only 18% of the CABs prefer fully remote methods for the accreditation status; a high share of 40% still prefers fully onsite assessments.
- 61% of the used technologies for remote assessment are conversations via screen, followed by live video conferencing systems. Latest digital technologies such as virtual augmented reality are rarely used.
- 44% of CABs believe that accreditation should be conducted every 2 years; and 19% once every 18 months. However, 34% still believe that it should be conducted once a year.

CABs in Singapore are willing to share documents for accreditation assessments

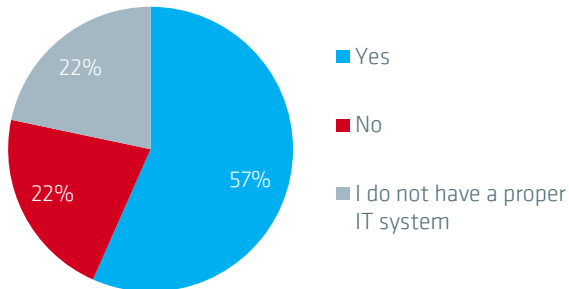
Willingness to share documents and records (n=114)



Type of information that could be shared to reduce frequency of assessment (n=35)



Access to CABs IT system (n=83)



- 73% of the CABs in Singapore are willing to share their company's documents and records to reduce the frequency of their accreditation assessment.
- In particular, 47% of the CABs are willing to share proprietary procedures.
- 57% of the CABs are willing to allow the accreditation body time limited access to their IT system to view documents and records related to the accreditation activities, with the objective of reducing the frequency of the accreditation assessment.

- CABs in Singapore clearly see digital transformation as an opportunity. The **level of digitalization** varies among CABs. The majority of participants has reached a medium or higher level of digital maturity.
- Even though digital transformation is an individual project for each organization, **typical patterns of digital maturity** in Singaporean CABs are nevertheless confirmed: An initial focus on culture, innovation, and technology is followed by holistic organizational transformation, including strategy, cooperation and change management.
- Many of the cutting-edge digital technologies such as Big Data, virtual reality and artificial intelligence are used by CABs in Singapore, but not yet on a large scale.
- With their digitalization efforts, the CABs are primarily **aiming** at internal process improvements. Routine processes are increasingly being digitalized and there is a switch to – mostly hybrid - remote processes.

Singapore in international comparison

How do Singaporean conformity assessment bodies compare internationally? We have conducted the survey on digitalization in conformity assessment in around 20 other countries. The individual country reports and a final comparative study will be published step by step on our website. Furthermore articles and an extensive report with further detailed analyses are planned.



➔ www.qi-fokus.de



This study was developed in the context of the QI-Digital initiative. Its goal is to develop solutions for a modern digital quality infrastructure (QI) - together with stakeholders from business, politics, science, and QI.

More information on the initiative and the opportunities for participation can be found at

➔ www.qi-digital.de

The Project and Contacts

Project partners



Supported by



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QI-FoKuS stands for **Qualitätsinfrastruktur - Forschung für Konformitätsbewertung und Sicherheit** ("Quality Infrastructure - Research for Conformity Assessment and Safety").

The initiative was launched jointly by BAM and TU Berlin in 2019 and is supported by the Federal Ministry of Economic Affairs and Climate Action.

We conduct studies on current and fundamental topics of conformity assessment and accreditation. The studies are based on our comprehensive surveys of companies and in particular conformity assessment bodies in Germany and abroad. By publishing the results, we contribute to an improved database, scientifically sound findings and the identification of trends in quality infrastructure.

 www.qi-fokus.de

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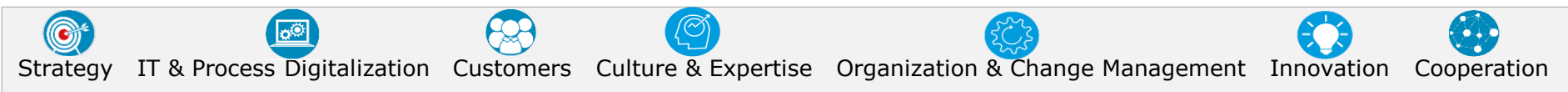
Annexes

www.bam.de

Digital Maturity Model








Level 1 (Beginner)

Description Level 1: Beginner	Dimensions						
							
Digitalization has a central role in our overall strategy	■						
We evaluate new technologies as well as changes in customer behavior to identify potential for digital innovation	■						
Most of the interactions with our customers (e.g., advise, purchase conclusion and customer service) take place via digital channels			■				
Our CAB is open to new technologies, change and transformation				■			
With digitalization, we open a new source of value creation						■	



Digital Maturity Model

Level 2

Description Level 2	Dimensions						
							
Our employees are aware of important rules of conduct for IT Security and their compliance is regularly checked							
We accept the risk of failure in new digital activities							
We promote the development of digital expertise through targeted training of our employees at all levels							
Digital activities are integrated into the core processes of our CAB							
We drive digital innovations forward systematically and purposefully							
We generate competitive advantages through digitalization							
We work across departments and functions on the topic of digitalization							



Strategy



IT & Process Digitalization



Customers



Culture & Expertise



Organization & Change Management










Innovation



Cooperation

Digital Maturity Model

Level 3

Description Level 3	Dimensions						
							
We exploit the latest digital opportunities to automate our routine processes		■					
Our processes are already networked through IT		■					
We know the most important digital technologies and that they can have an impact on CA		■					
We invest in digital technologies throughout the CAB		■					
Our IT department can ensure the use of digital technologies relevant to our CAB		■					
The provision of services for customers, as well as customer care are digitally integrated, and personalized			■				
Customer data is analyzed, and relevant actions are taken accordingly			■				
The understanding of the importance of digital transformation is pronounced within our CAB				■			
We use exchanges with external experts to build up additional knowledge in the area of digitalization							■
We undertake actions (e.g., workplace concepts) that support employees in collaborating effectively							■



Strategy



IT & Process Digitalization



Customers



Culture & Expertise



Organization & Change Management









Innovation

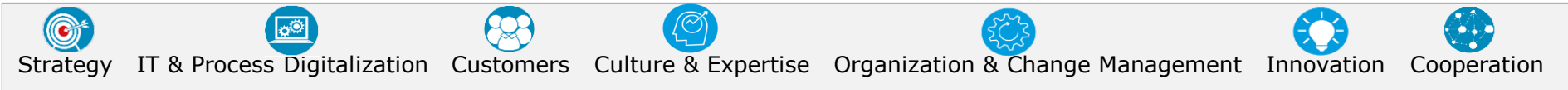


Cooperation

Digital Maturity Model








Level 4

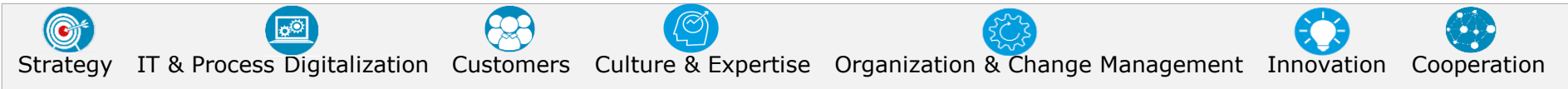
Description Level 4	Dimensions						
							
Our digital strategy is well documented and communicated	■						
We systematically and specifically analyze customer needs in order to develop appropriate digital solutions			■				
We have the right people and skills for a successful digital transformation				■			
The digital transformation is managed on the basis of defined roles, responsibilities and decision-making processes					■		
We are able to react quickly to changes in the technological or market environment					■		
We actively involve customers in the development of new digital innovations						■	
We have a clearly defined innovation process for the development, evaluation, and implementation of new ideas by employees and/or customers						■	
We collaborate effectively with stakeholders on digital initiatives							■



Digital Maturity Model

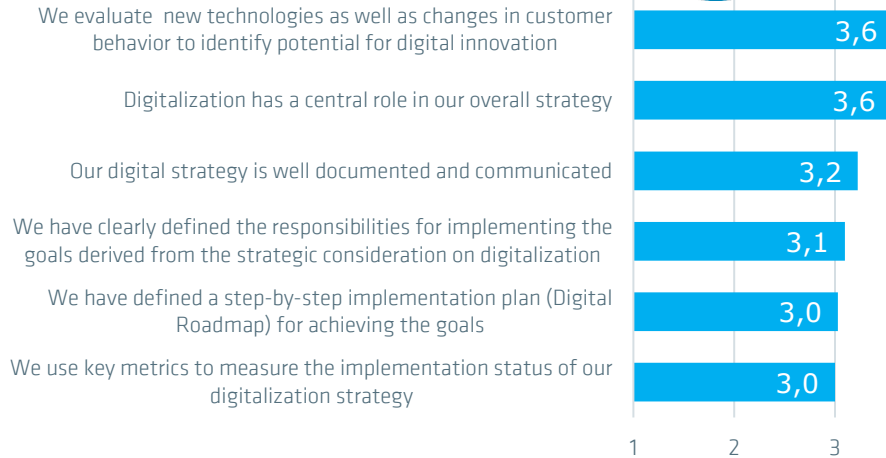
Level 5 (Experts)

Description Level 5: Expert	Dimensions						
							
We use key metrics to measure the implementation status of our digitalization strategy							
We have clearly defined the responsibilities for implementing the goals derived from the strategic consideration on digitalization							
We have defined a step-by-step implementation plan (Digital Roadmap) for achieving the goals							
The goals of the digitalization within our CAB are defined and measurable							
We have an "early warning" process to identify new, relevant digital technologies or business models for us							
We have enough resources to drive digital innovation							
In the field of digitalization, we maintain a partner network with external service providers, start-ups, or research institutions							

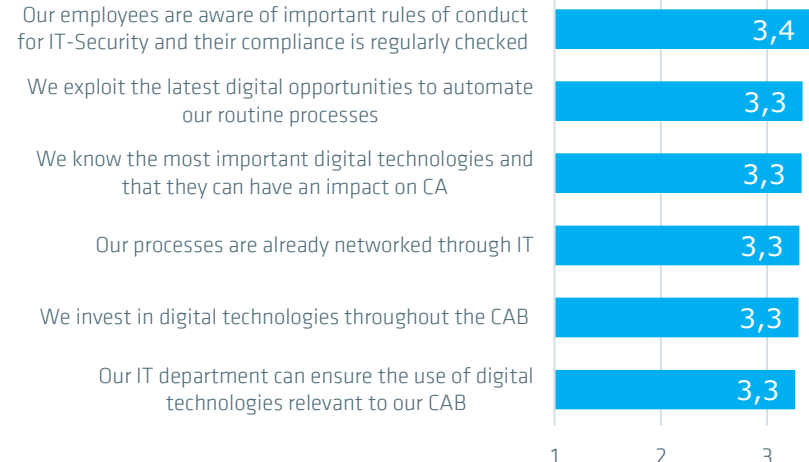


Dimensions of digital maturity: Detailed overview

Strategy (n=101)



Information Technology & Process Digitalization (n=101)

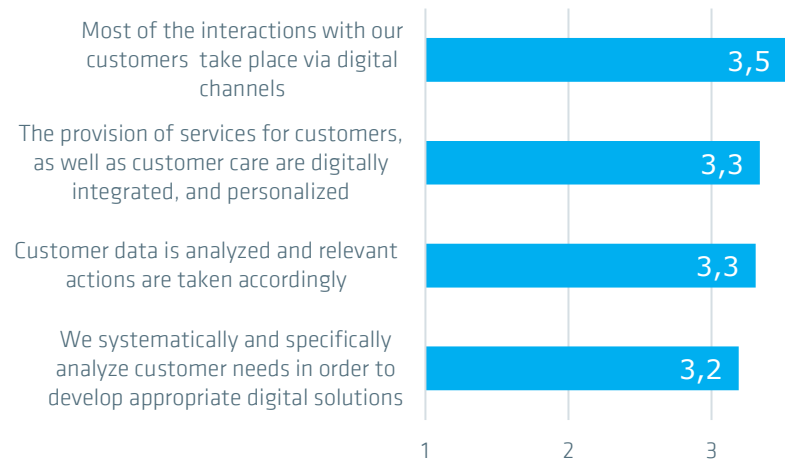


1 (I do not agree at all) to 5 (I fully agree)

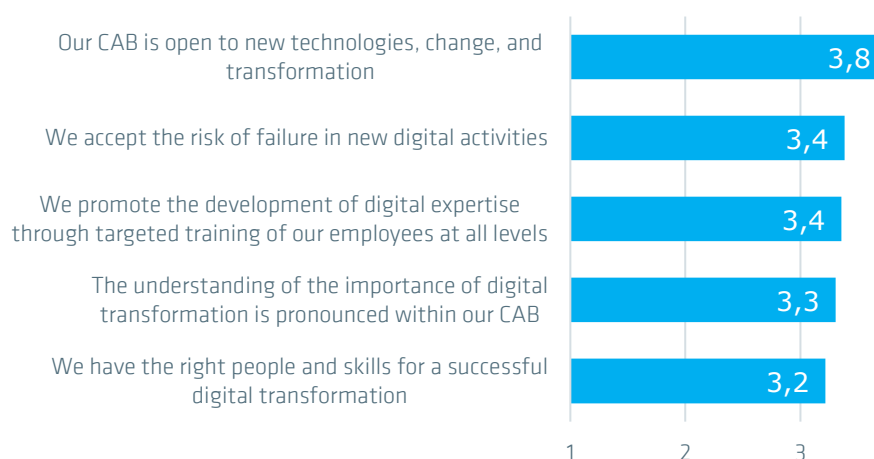
- In most CABs (72%), digitalization plays a central role in their overall strategy, with 64% having a well documented digital strategy.
- 60% have set up a Digital Roadmap and use key metrics to measure the implementation status of their digitalization strategy.
- At least 66% of CABs are aware of, invest in and are able to use digital technologies properly while complying with IT security regulations. 66% of CABs have networked their processes and automated routine procedures.

Dimensions of digital maturity: Detailed overview

Customers (n=101)



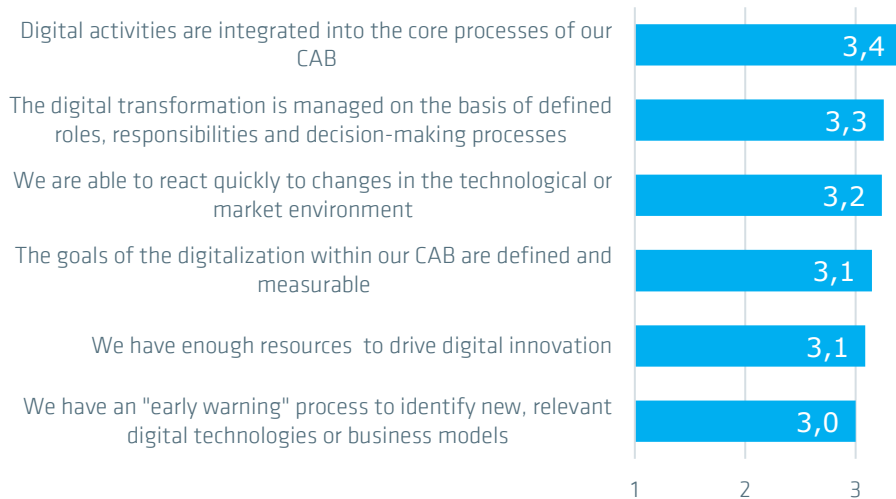
Culture & Expertise (n=101)



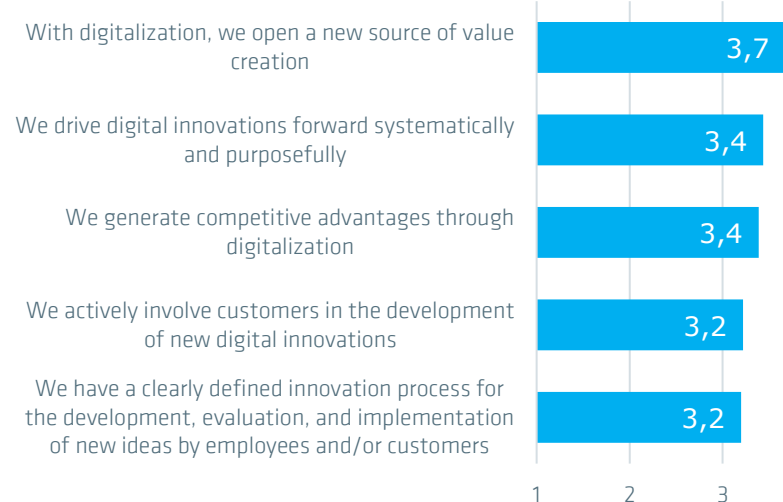
- 70% of CABs in Singapore interact with their customers via digital channels.
- 66% offer digitally integrated services to customers and only 64% of them develop appropriate digital solutions based on customer needs.
- Singaporean CABs are definitely open to new technologies, changes and transformations (76%). At least 64% of them have a strong understanding of the importance of digital transformation and have the right skills to successfully implement the change.

Dimensions of digital maturity: Detailed overview

Organization & Change Management (n=101)



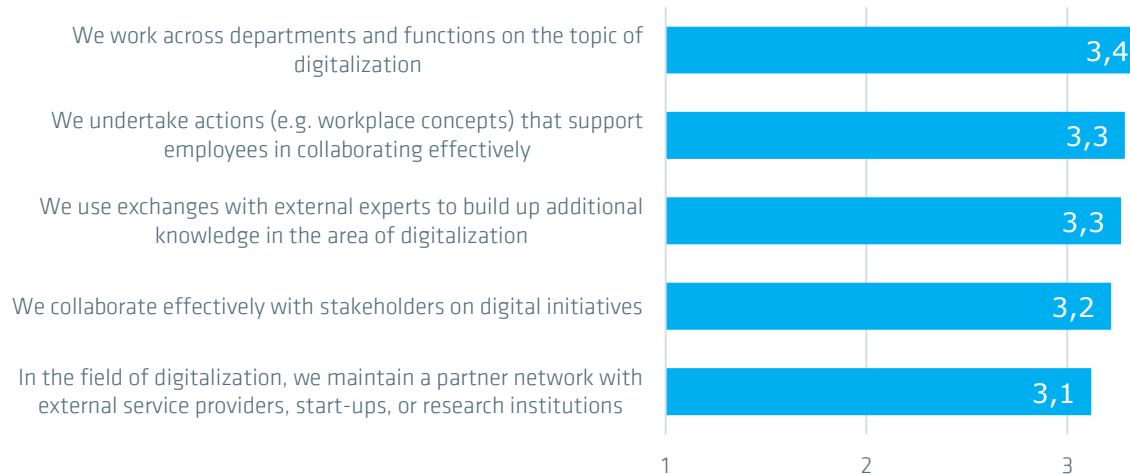
Innovation (n=101)



- 68% of CABs have integrated digital activities into their core processes. The clear definition of responsibilities and strategic goals is key to the implementation of digital transformation.
- For the majority of participants (74%), digitalization represents a new source of value creation.
- However, customers are hardly involved in the innovation process.

Dimensions of digital maturity: Detailed overview

Cooperation (n=101)



- In order to work on the topic of digitalization across departments and functions (68%), 66% of CABs build additional knowledge through external expert consultations. They also collaborate effectively with stakeholders on various digital activities.
- 62% maintain a partner network with external service providers.