

Impact of the COVID-19 Pandemic on Conformity Assessment and Conformity Assessment Bodies in New Zealand

A report on the study carried out by University of Canterbury
in cooperation with International Accreditation New Zealand (IANZ),
the Joint Accreditation System of Australia and New Zealand (JAS-ANZ),
Bundesanstalt für Materialforschung und -prüfung (BAM), TU Berlin and Fraunhofer ISI, Germany

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A report by Bundesanstalt für Materialforschung und -prüfung
(BAM), Germany; TU Berlin, Germany and University of
Canterbury, New Zealand.

Background

Methodology	Online survey*
Survey period	6 October - 30 November, 2020
Sample	120 completed questionnaires

The survey was organized in New Zealand by Prof Pavel Castka (University of Canterbury) in cooperation with International Accreditation New Zealand (IANZ), the Joint Accreditation System of Australia and New Zealand (JAS-ANZ) and supported by the Ministry of Business, Innovation and Employment (MBIE). Accredited CABs in New Zealand were invited by e-mail to participate in the survey.

The survey is part of a global attempt to map the impact of the COVID-19 pandemic on conformity assessment and is jointly researched by Bundesanstalt für Materialforschung und -prüfung (German Federal Institute for Materials Research and Testing), the Technische Universität Berlin (TU Berlin, Chair of Innovation Economics), Fraunhofer ISI in the framework of the QI-FoKuS initiative and University of Canterbury. The survey was successfully administered in Germany, New Zealand, Italy and the UK (as of Dec 2020).



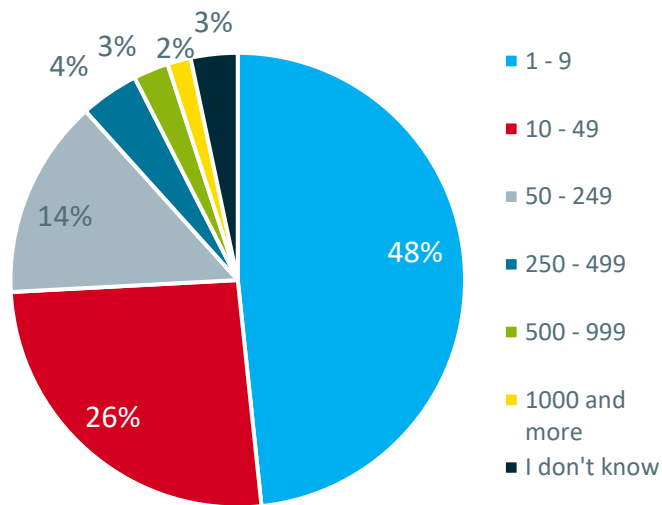
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The sample

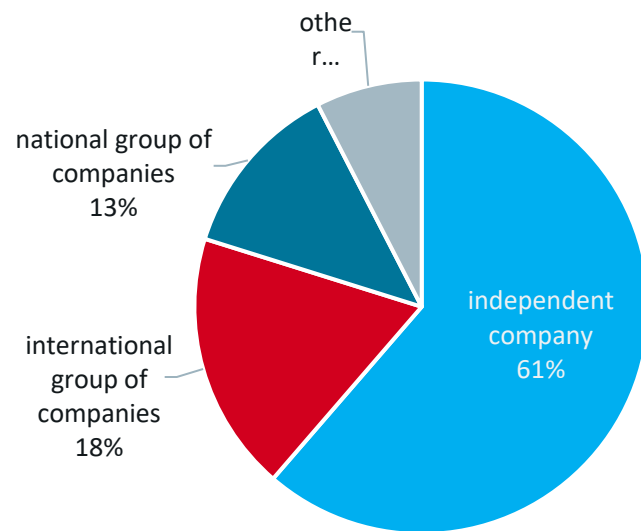
120 Conformity Assessment Bodies (CABs) have participated in the survey

- 74% of participating CABs have less than 50 employees, thus belonging to the group of **small enterprises**
- 61% are **independent companies**, 18% belong to an international group of companies
- 73% have their headquarters in New Zealand
- For 27% **CA is the main focus** of the entire organisation, whereas for 38% it is only one activity among others. 28% are **internal CABs** inside organisations.

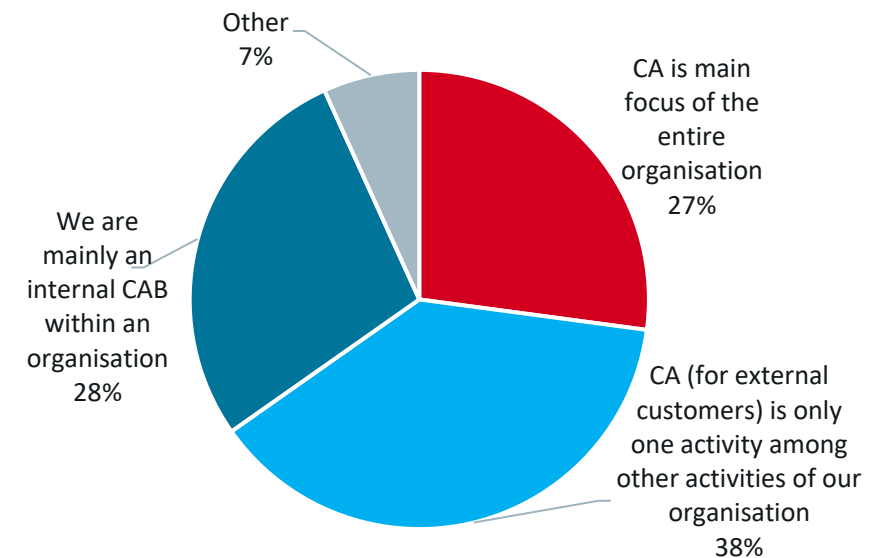
Number of staff members employed in New Zealand (n=120)



Type of company (n=119)

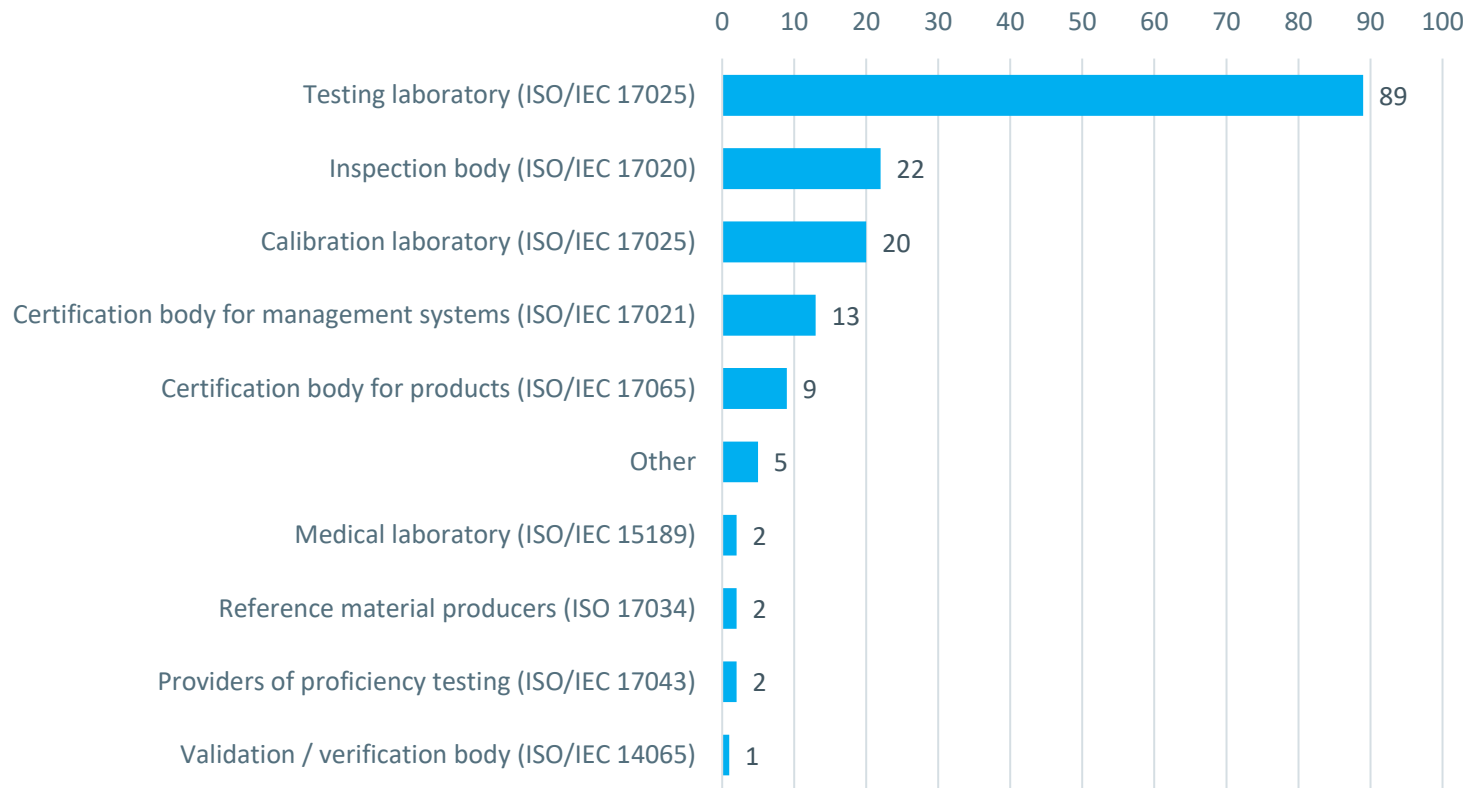


Role of conformity assessment for CAB (n=118)

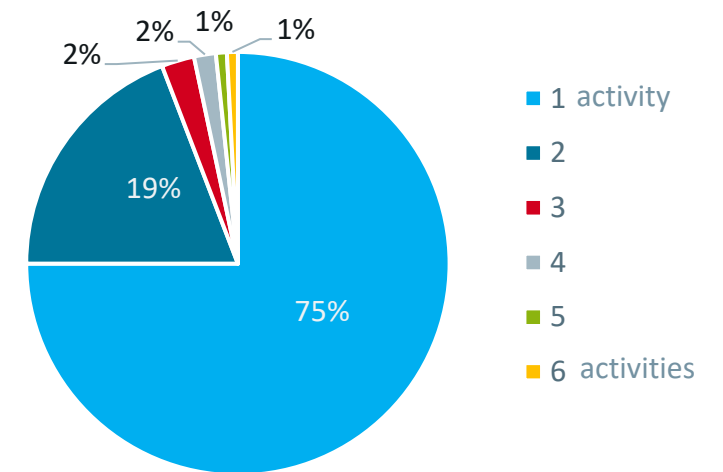


120 Conformity Assessment Bodies (CABs) have participated in the survey

Fields of activity (n=120) *multiple answers possible*



Number of different CA activities offered per CAB

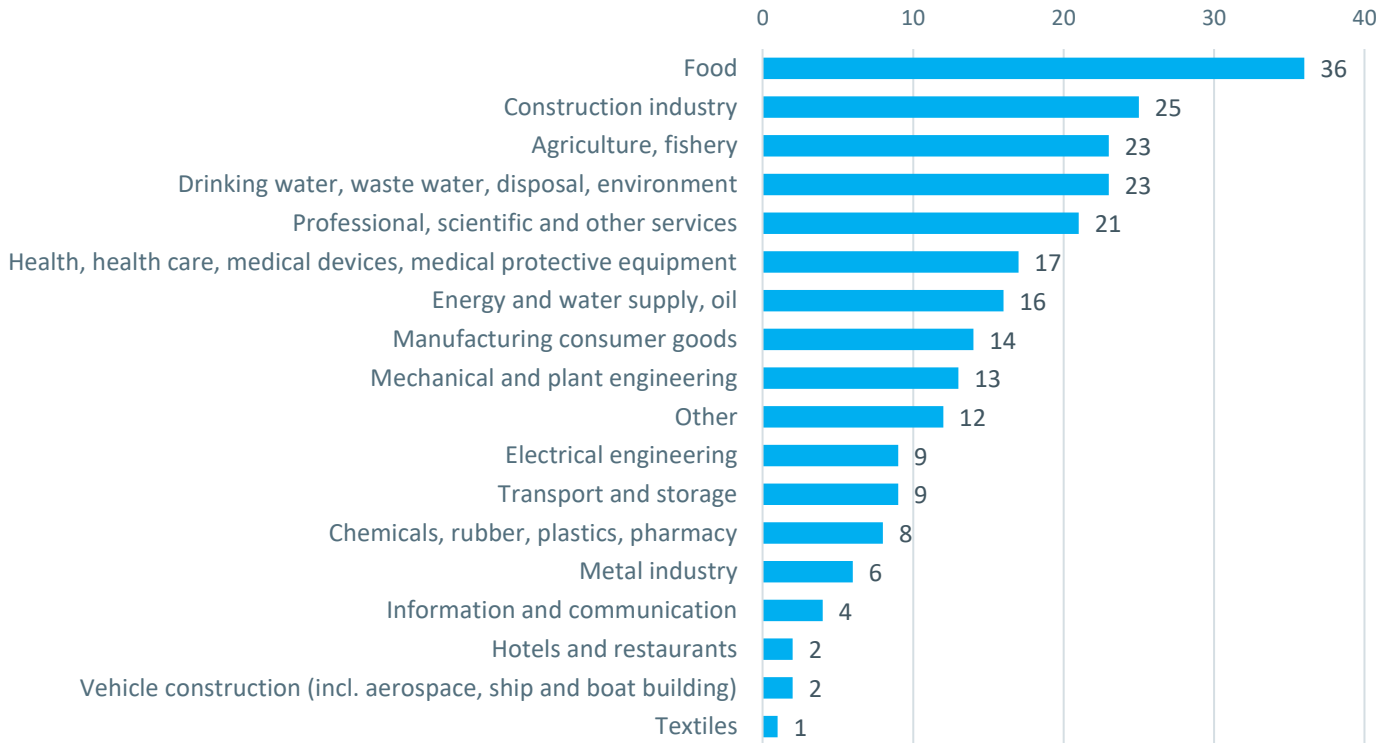


- Testing laboratories represent the **largest group of participants**
- 75% of CABs are **specialized** in a single field of activity

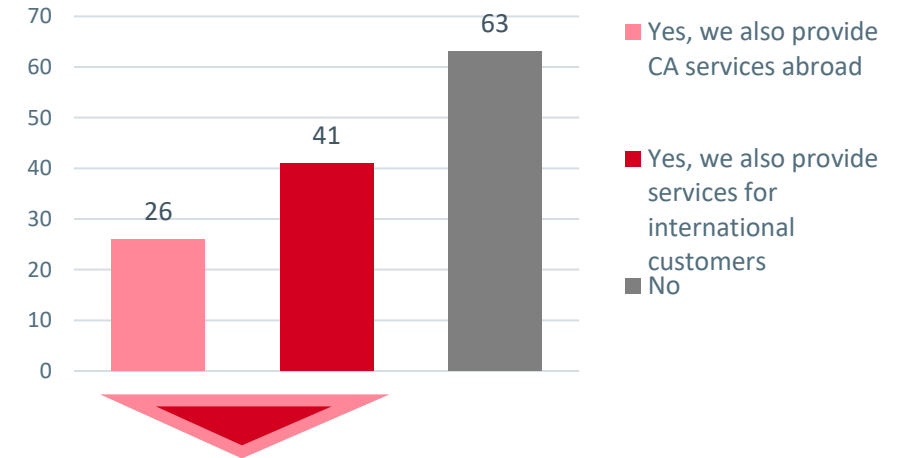
In the following analysis, the fields of activity were aggregated to increase the sub-sample size. Certification bodies for management systems, persons and products were aggregated into the general category of „Certification body“. Remaining types of CA with n < 6 (= Medical laboratories, Reference material producers, Providers of proficiency testing, Validation/verification bodies, Other) were added to form the group „Other“.

120 CABs have participated in the survey

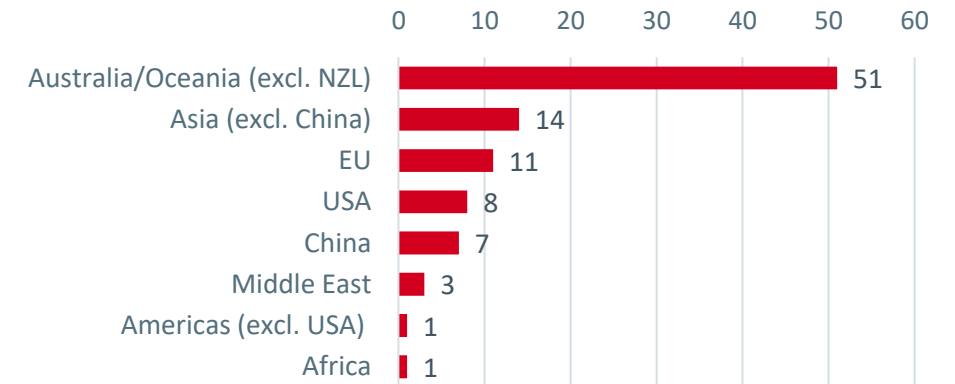
Main sectors served (n=120) (multiple answers possible)



International orientation (n=120)



Most important regions outside New Zealand (up to 3 answers possible)



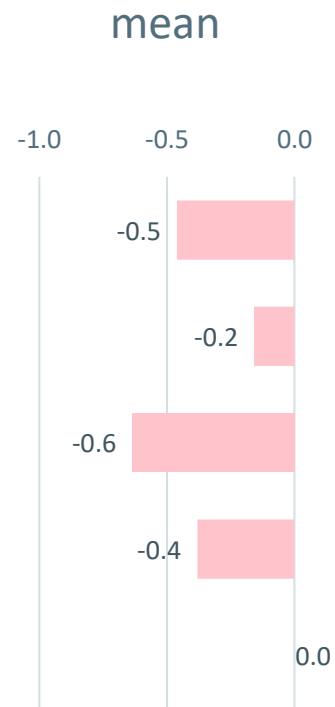
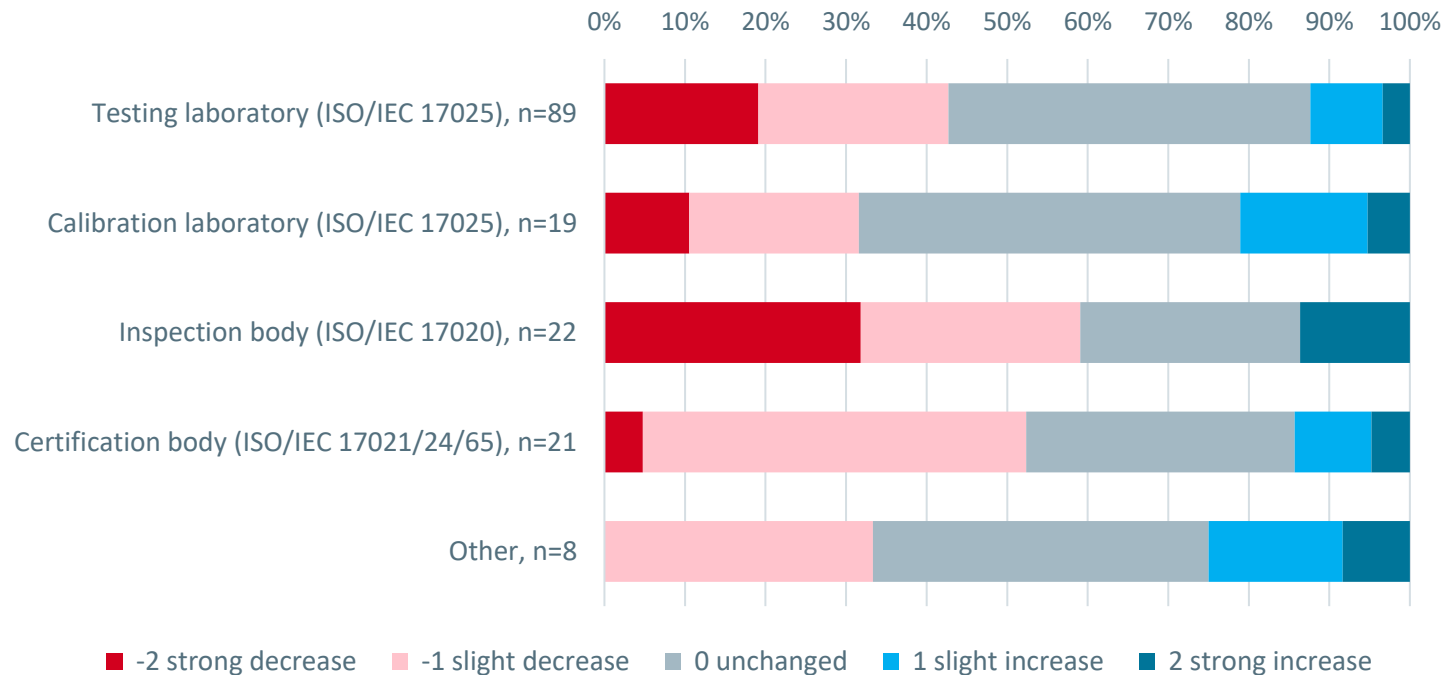
- The **most important industries served** by the CABs are food, construction, agriculture and fishery and water supply
- About half of the CABs operate **internationally**
- The **most important international markets** for CABs are Australia and Asia

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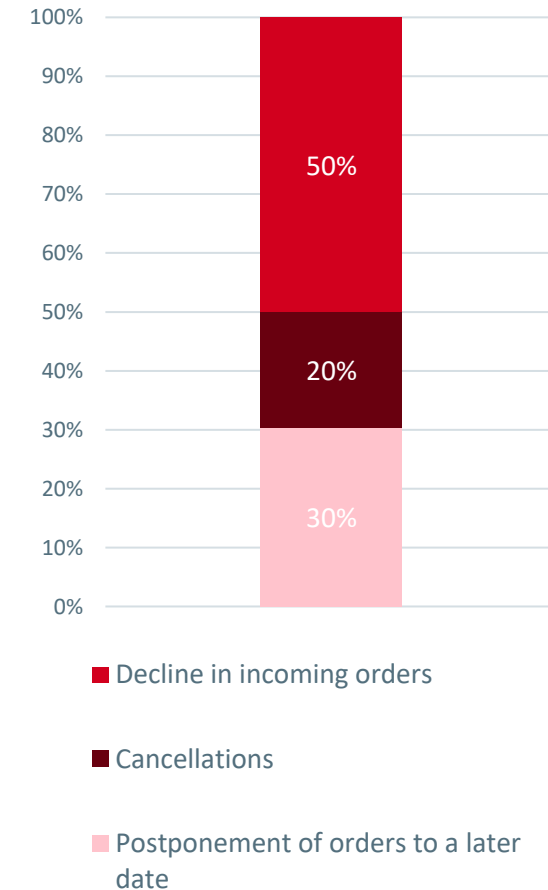
Effects of the COVID-19 Pandemic on the business operations of the CABs

Decline in order income during the COVID-19 pandemic for all types of CABs

Impact of the COVID-19 pandemic on the demand for CA services (compared to the pre-COVID-19 period)



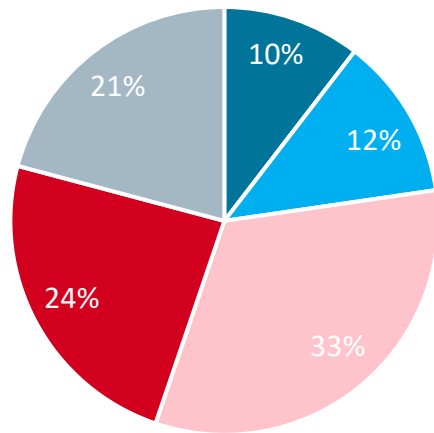
Main reason for decrease in demand



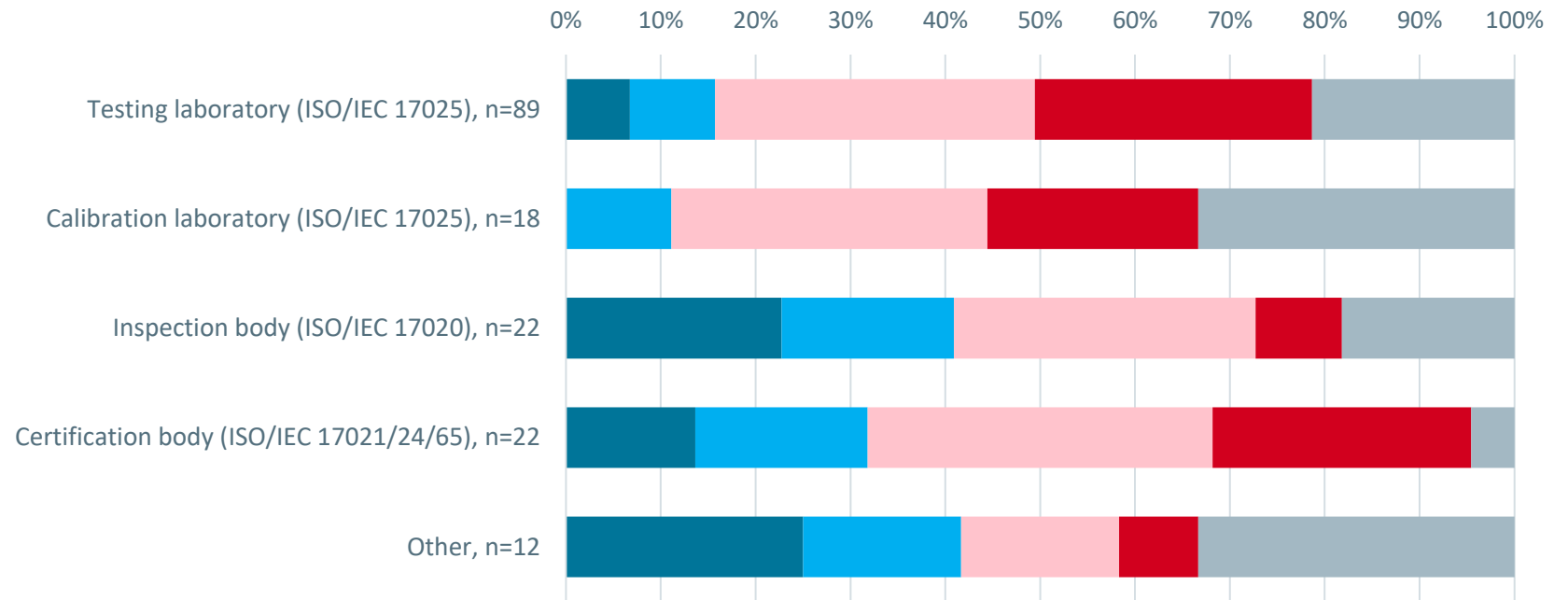
- 44% of all CA fields of activity with a **strong or very strong decline in orders**
- Inspection bodies** face the biggest decreases in demand, but also strongest increases
- Falling demand is mainly caused by **declining new orders**, cancellations prevail for 20% of CABs
- 1 in 7 CABs experienced **increased demand**

Expectations are rather pessimistic, insecurity is widespread

Do you expect an increase in demand for your services as the economy gradually re-opens?
(aggregated types of CABs)



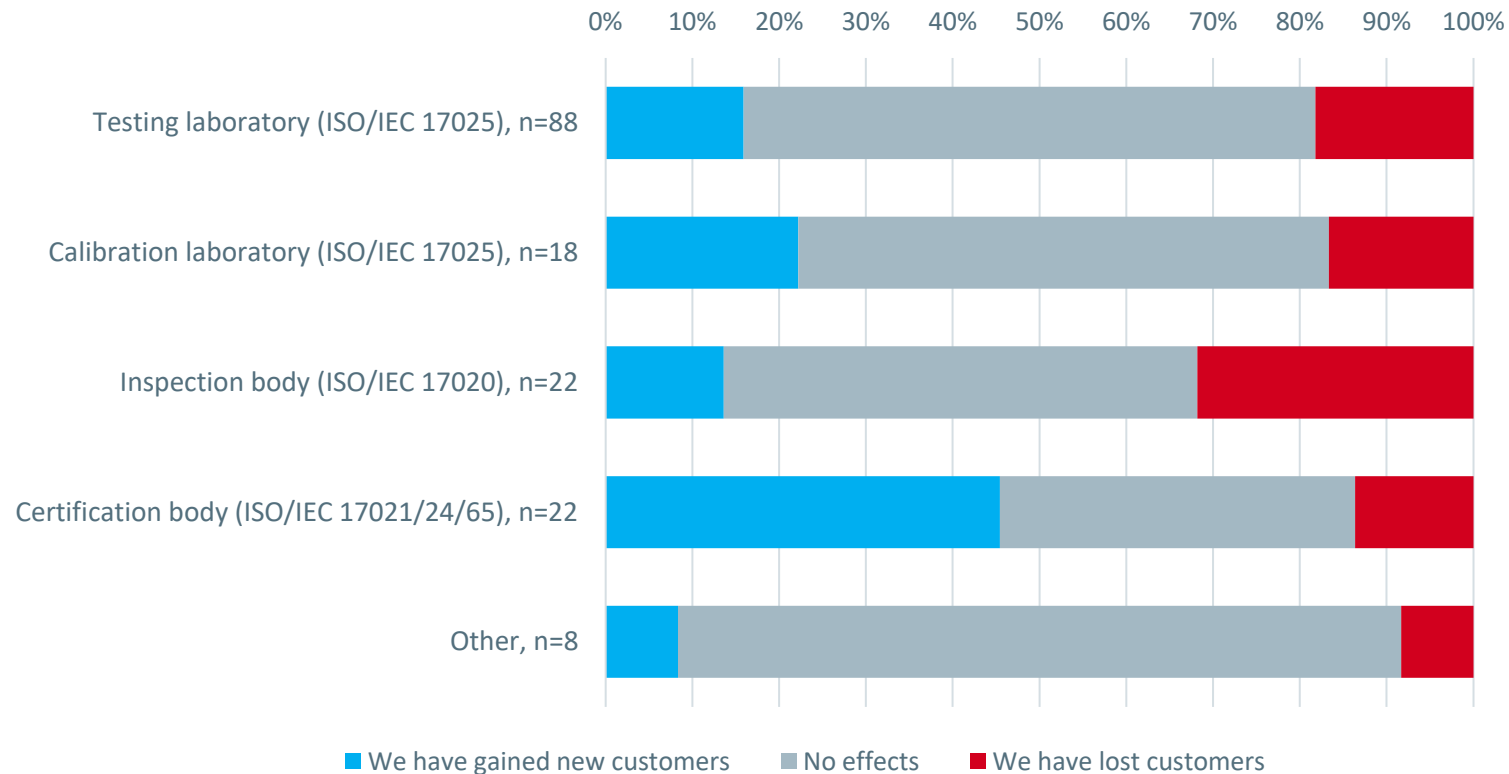
- over the next 3 months
- over the next 6 months
- over the next year
- no
- I don't know



- Most CABs do not expect a **recovery within the next 6 months**, every fourth does not expect one at all
- Every fifth CAB **does not know what to expect** from the future
- **Inspection bodies** are generally more optimistic about short-term recovery than other CABs

Impact of the pandemic on the CABs' customer base varies

Impact of COVID-19 pandemic on CABs' customer base

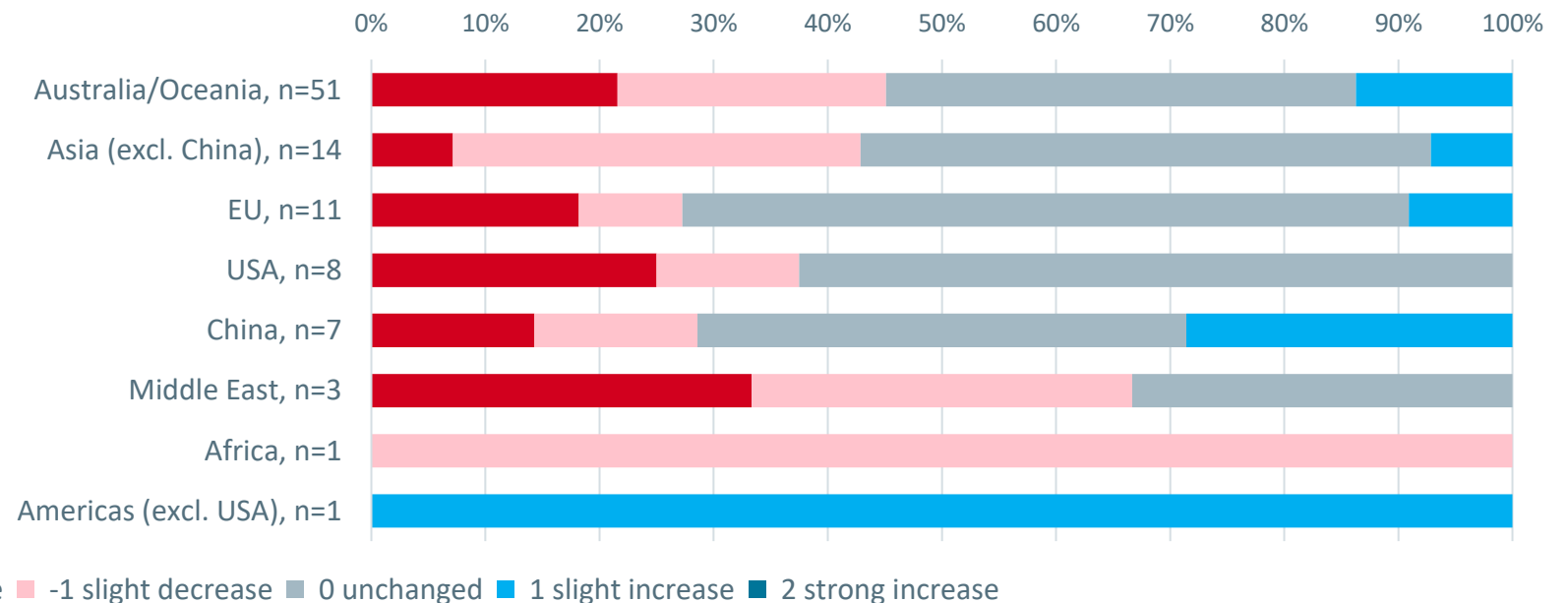
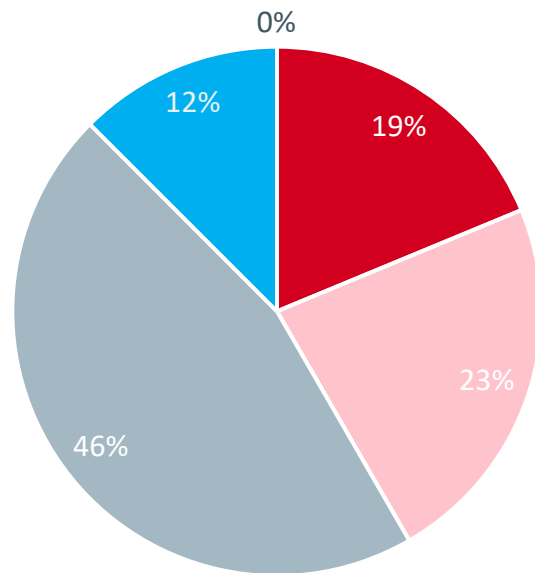


- For most CABs the customer base were not affected
- However, there are CABs **gaining and losing customers** in all fields of activity
- Almost half of certification bodies have gained new customers
- Loss of customers is especially experienced by **inspection bodies**: every third one is affected

CABs' main sales markets abroad are also affected by (sometimes sharp) declines in orders

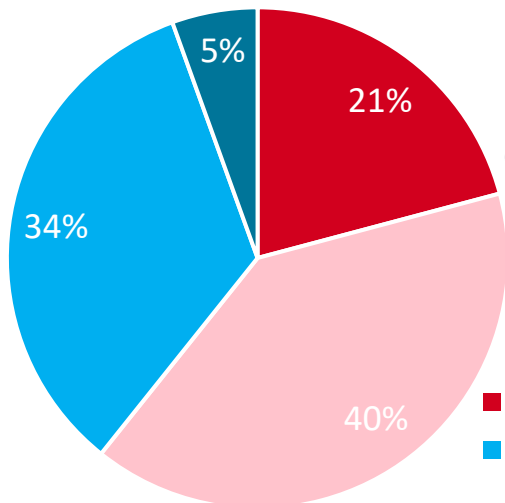
- 42% of CA fields of activity are affected by **strong or slight decreases in orders**
- The most important foreign market (**Australia/Oceania**) is among the most negatively affected one
- **Only in very few** cases, a slight **growth** is reported, mostly in the Chinese market

Impact of the COVID-19 pandemic on the demand for CA services in foreign markets (compared to the pre-COVID-19 period)

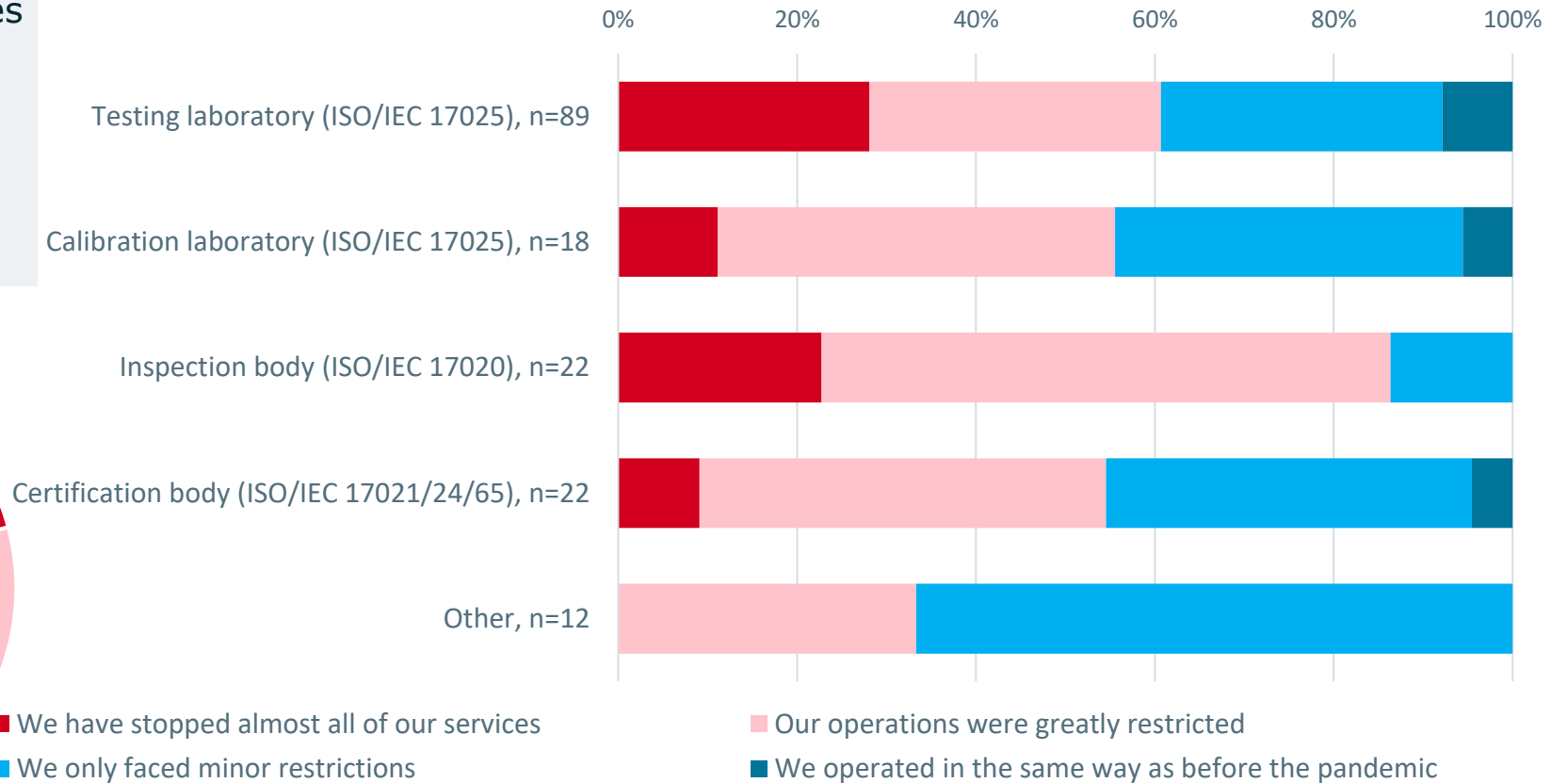


At the beginning of the pandemic, most CABs were strongly hampered in their operations

- **At the peak of the pandemic** (March-June 2020) every fifth CAB had to stop almost all of its services
- 40% faced **major restrictions** to operations
- **Inspection bodies`** operations were heavily obstructed
- Only 5% were unaffected

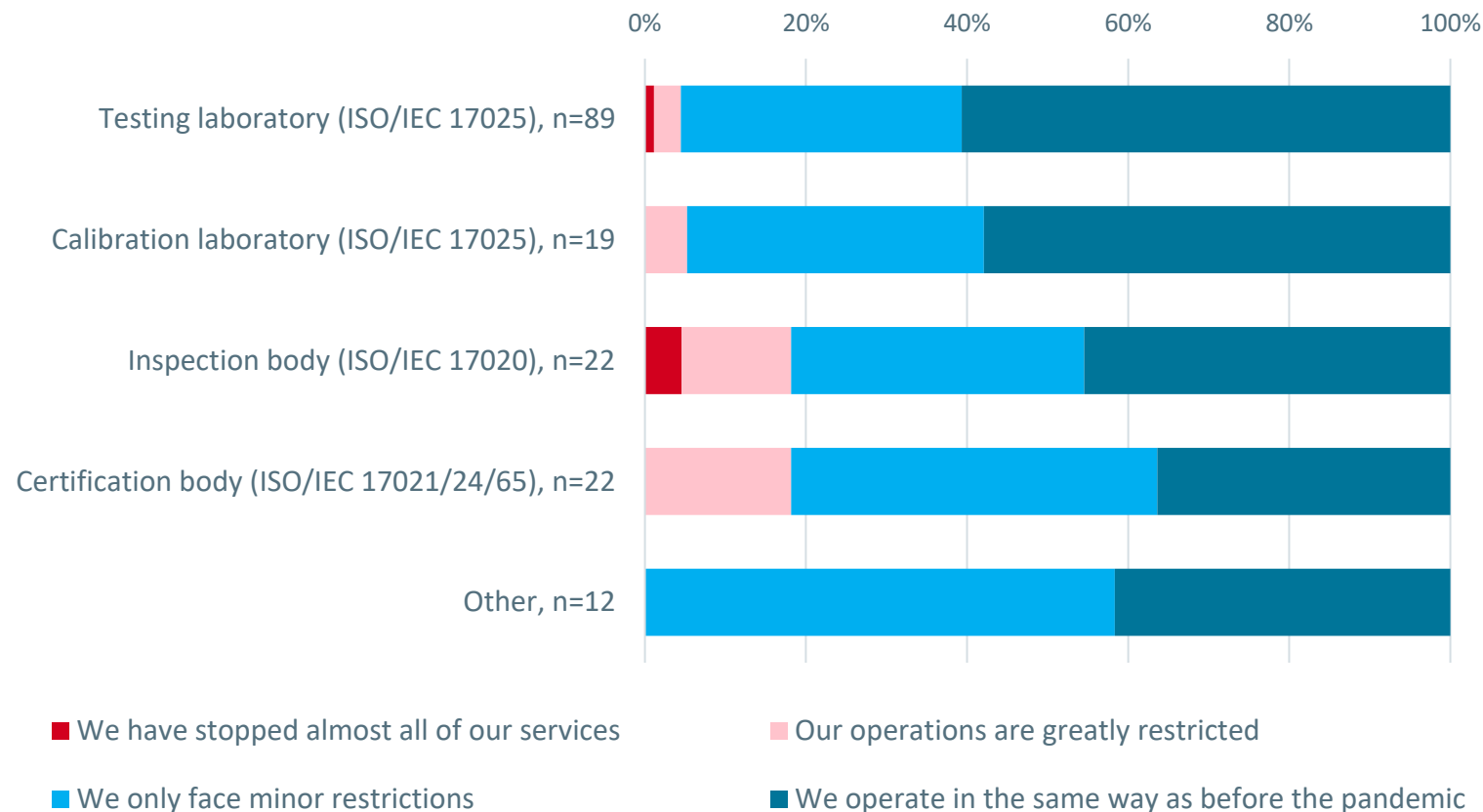


At the peak of the COVID-19 related restrictions (from March to June 2020): How did the restrictions affect your operations?

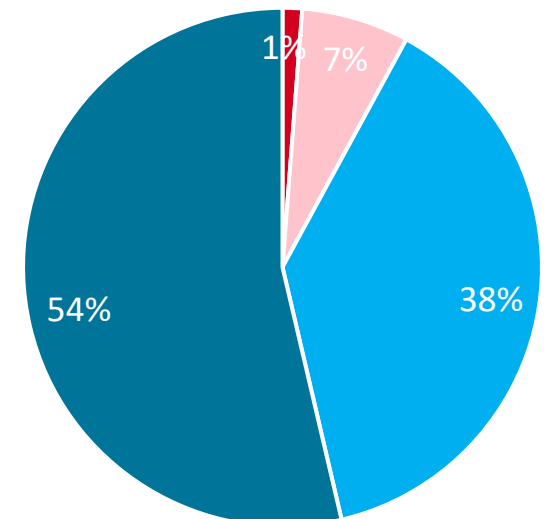


...though the majority has returned to normalcy (October/November 2020)

At the moment: How do the COVID-19 restrictions affect your operations?



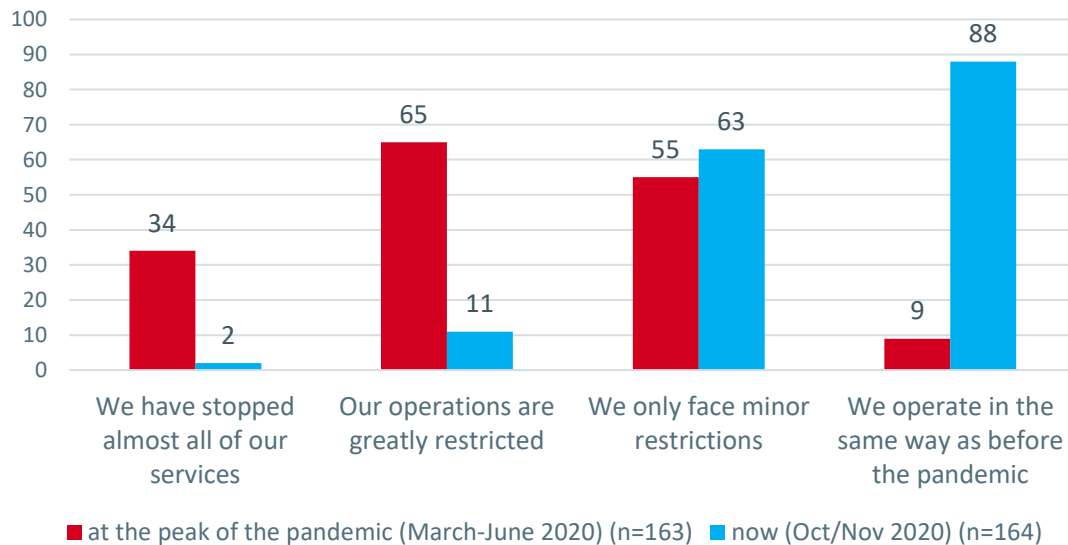
- The number of CABs still facing major **restrictions** or halting their operations due to the pandemic dropped to 8% at the time of the survey
- Minor restrictions persist for 38% of CABs surveyed
- More than half of CABs operate the same way as before the pandemic



Situation at the peak of the pandemic and at the time of survey compared

- **Situation has almost normalized** with the vast majority of CABs only being slightly restricted, if at all
- Access and travel to customers as well as bottlenecks in supply remain somewhat relevant issues for CABs
- Especially the problems of employee absence and supply of COVID-19 protective equipment have been resolved

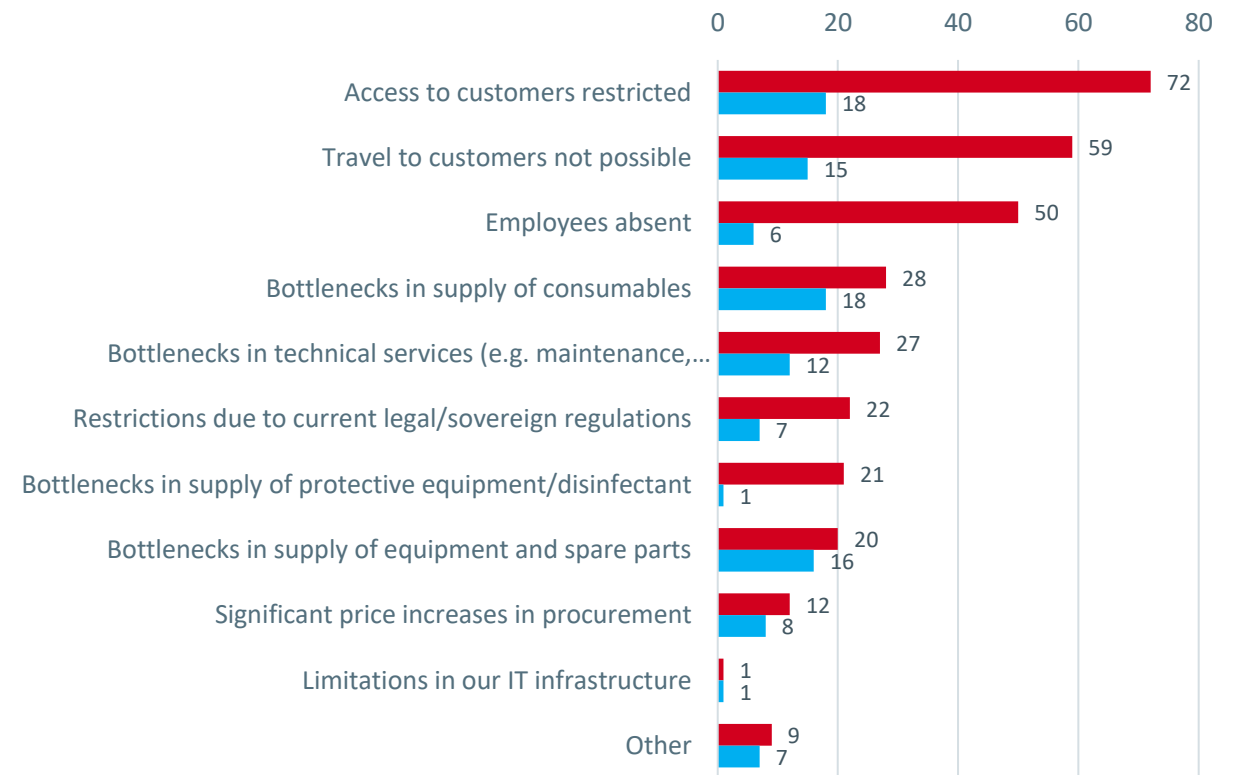
How did and do the COVID-19 restrictions affect your operations? (compared; n= fields of CA activity*)



*restrictions have been assessed per field of activity (1 CAB can cover 1 or more fields of activity; see page 5)

Most serious COVID-19-related restrictions compared

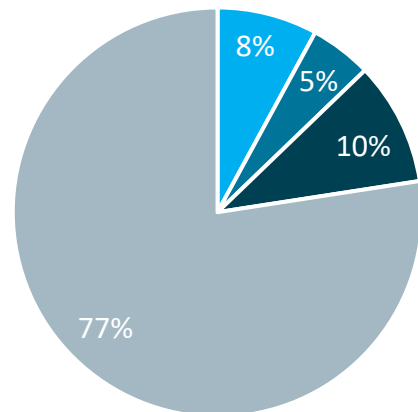
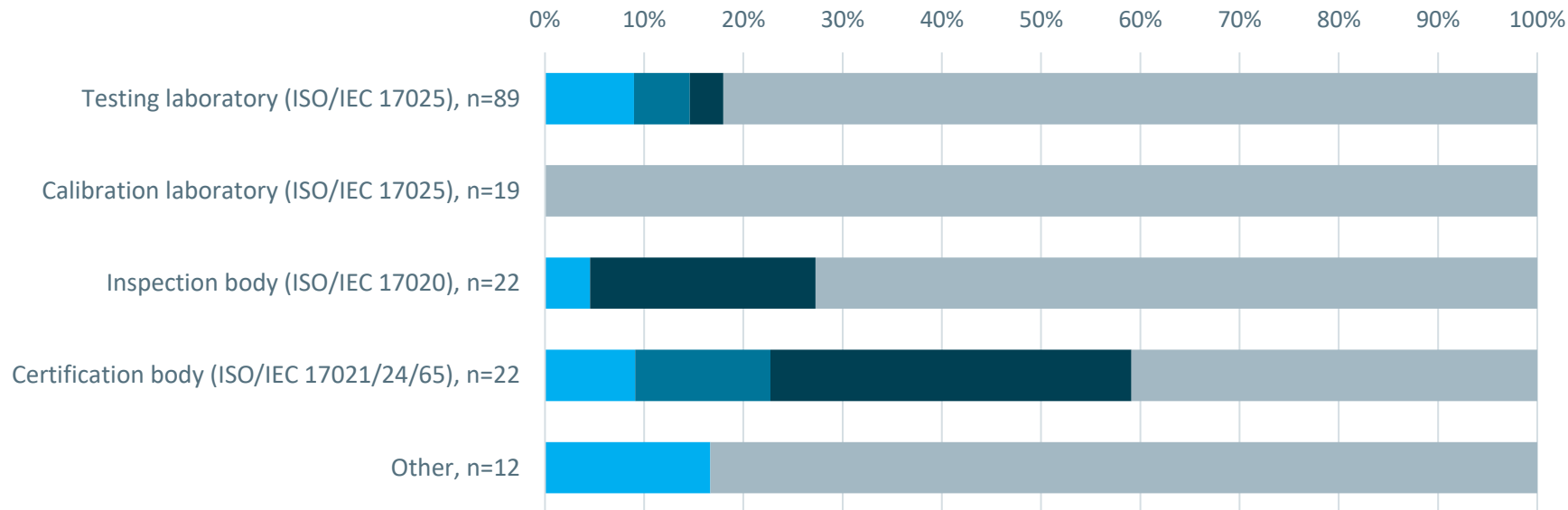
(multiple answers possible)



■ at the peak of the pandemic (March-June 2020) (n=111)
 ■ now (Oct/Nov 2020) (n=55)

One in four CABs responds to the pandemic by expanding services or offering new ones

New or expanded activities and services due to the COVID-19 pandemic

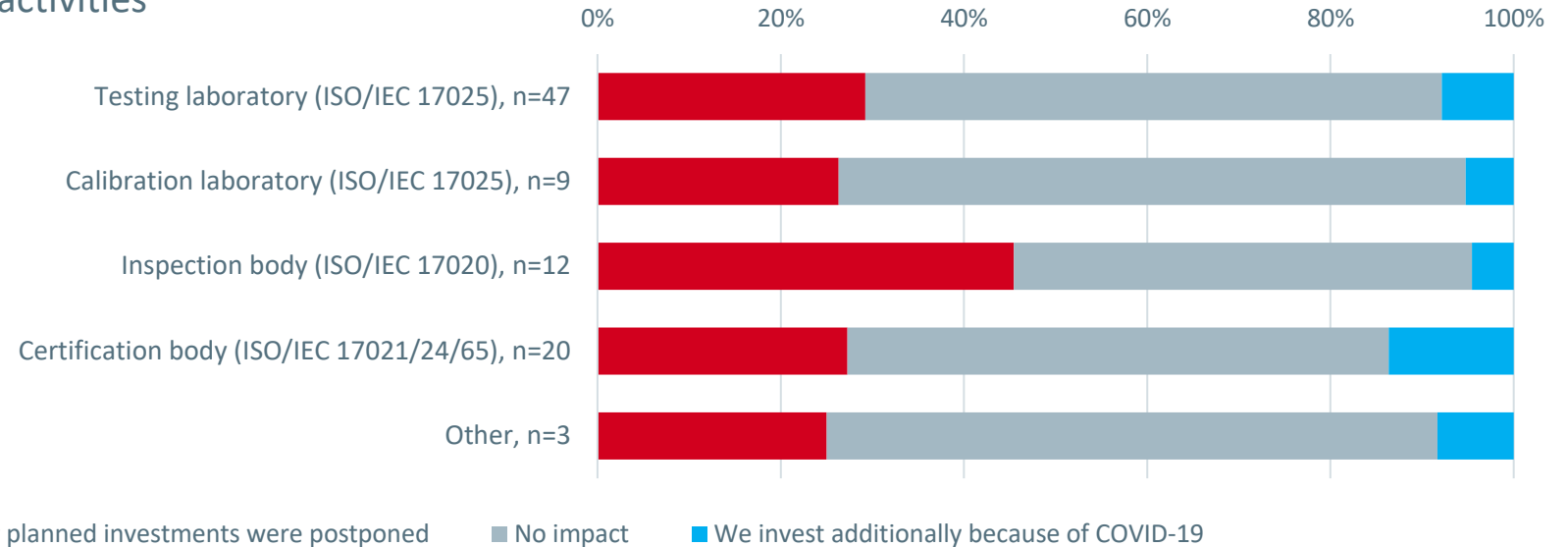
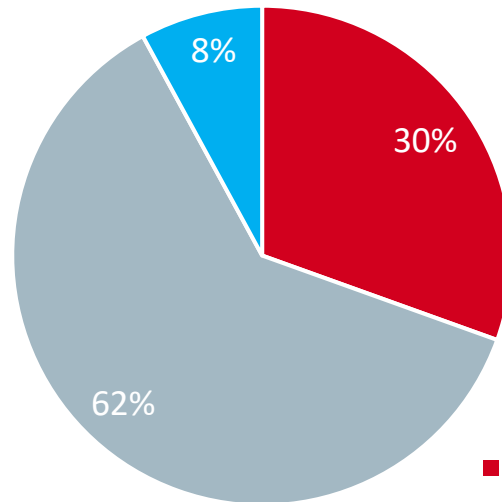


- Yes, we have started new activities or offer new services
- Yes, we have reinforced our existing services and increased our offerings of these services
- Yes, both (we started new activities and reinforced existing services)
- No

- 23% of all CA fields of activity, **new activities** were initiated **and/or existing ones were strengthened** during the pandemic
- This was especially common among **certification bodies** (59%) as well as **inspection bodies** (27%)
- New or increased activities in **particular in**:
 - COVID-19 testing
 - COVID-19 protection equipment
 - Remote activities (inspection, auditing)
- **Calibration laboratories** did not introduce new services or expand existing activities

Every third CAB postpones investments due to the pandemic

Impact on investment activities



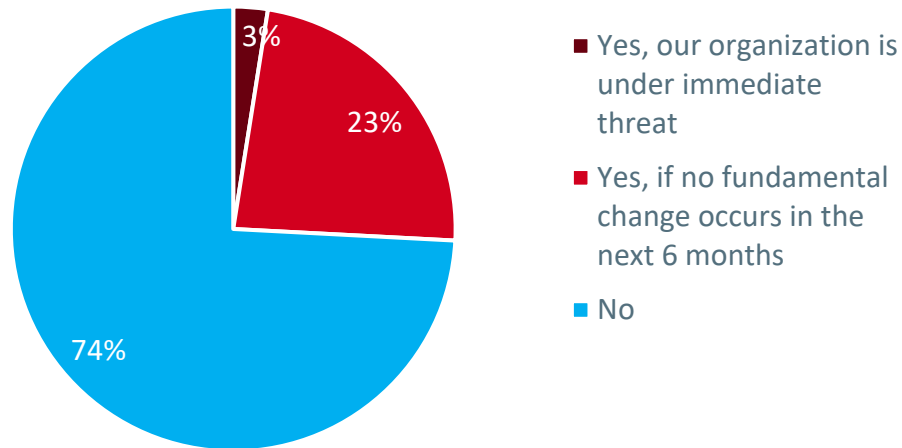
- **30% of the CABs postpone investments** due to the COVID-19 pandemic – especially inspection bodies (46%)
- **Only 8% of all CABs invest additionally** – mostly certification bodies (14%)
- Areas most CABs invest in are **digital infrastructure** and new devices and equipment

Areas of investment (multiple answers possible)

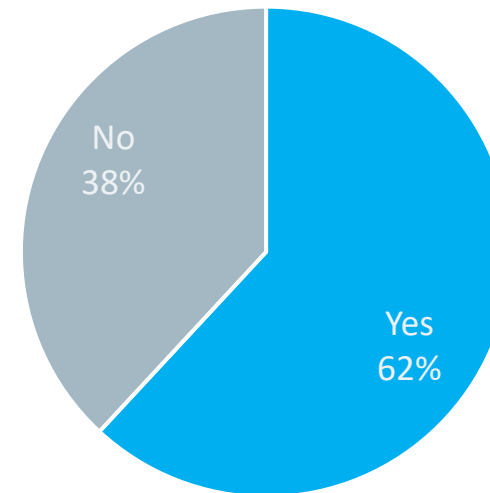


No immediate threat to economic viability

Threat for business viability due to the COVID-19 pandemic (n=120)



Application for governmental support (n=105)



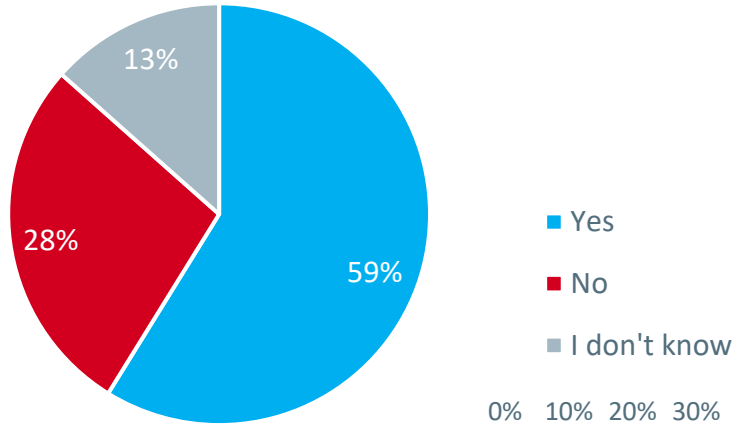
- 74% of CABs **do not see their business viability threatened** by the COVID-19 pandemic at the moment
- ... but 23% do if the situation does not change fundamentally within the next six months
- 62% took advantage of **governmental support**

3

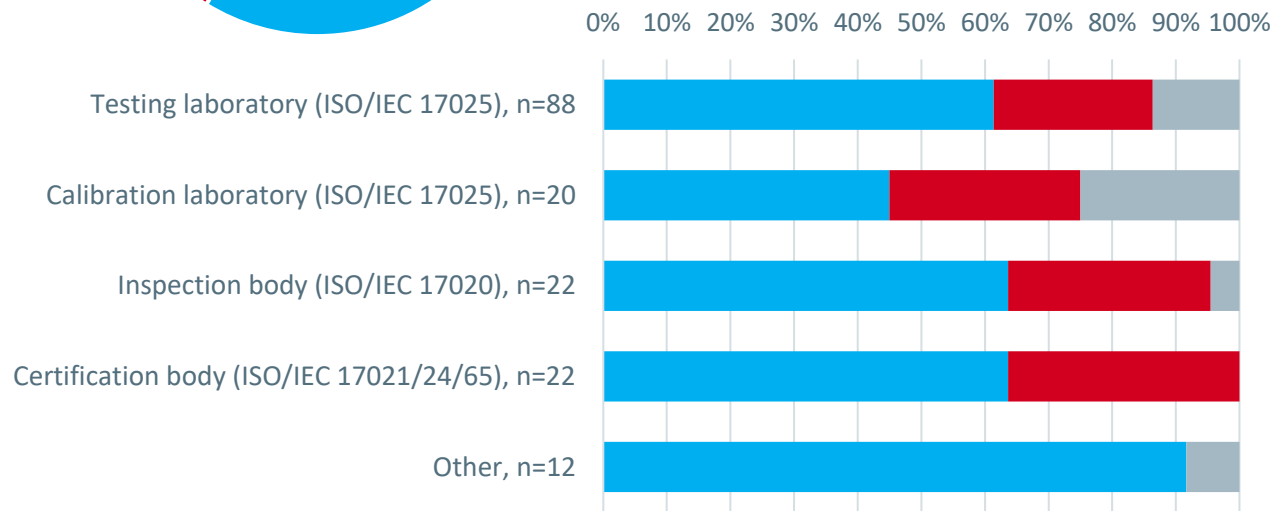
Resilience of the conformity assessment industry

Most CABs had contingency plans & resources for coping with the pandemic

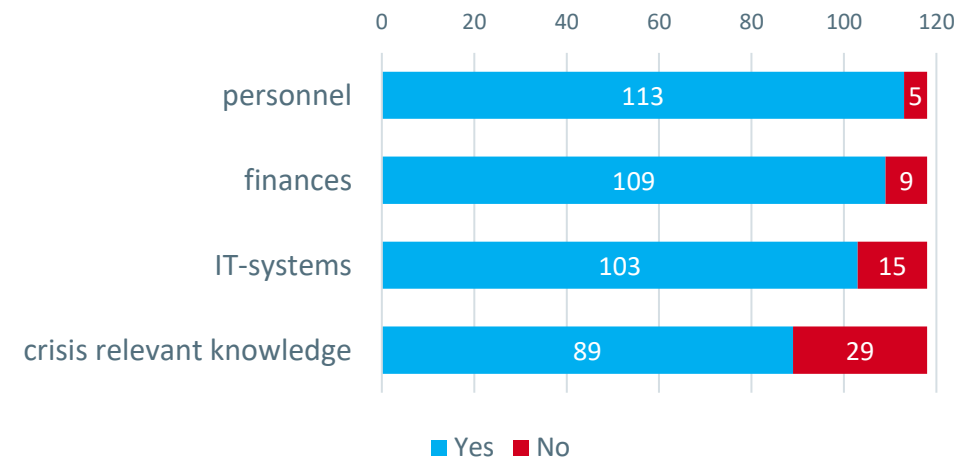
Availability of contingency plan before pandemic (n=119)



- 59% of all CABs had a **contingency plan** before the start of the COVID-19 pandemic
- Accordingly, 75% of the CABs surveyed stated that they did have **crisis-relevant knowledge** at that time
- Most CABs had the necessary personnel (96%), IT systems (87%) and the financial resources (92%) to cope with the crisis

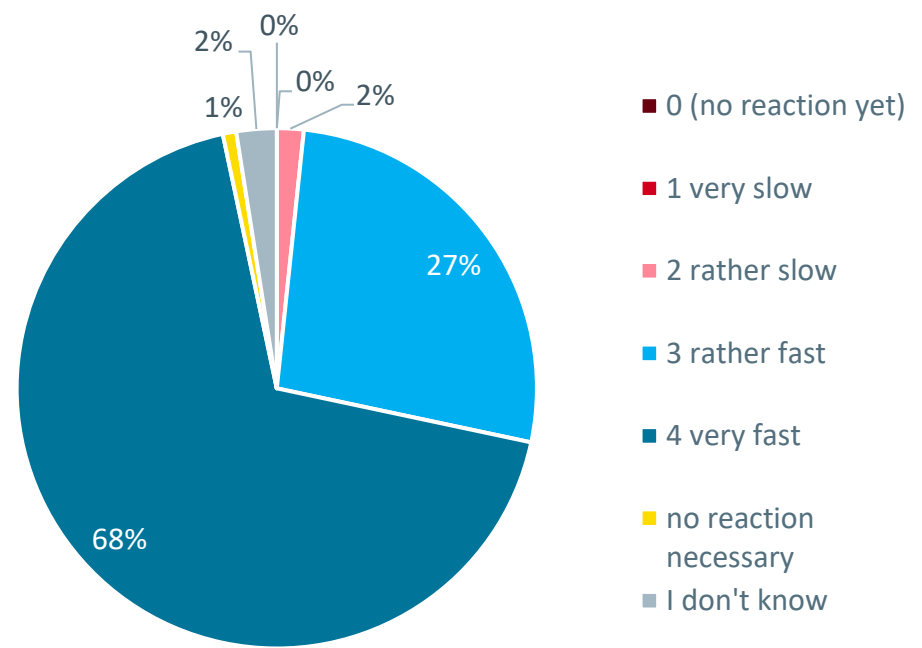


Availability of necessary resources at the beginning of the pandemic (n=118)



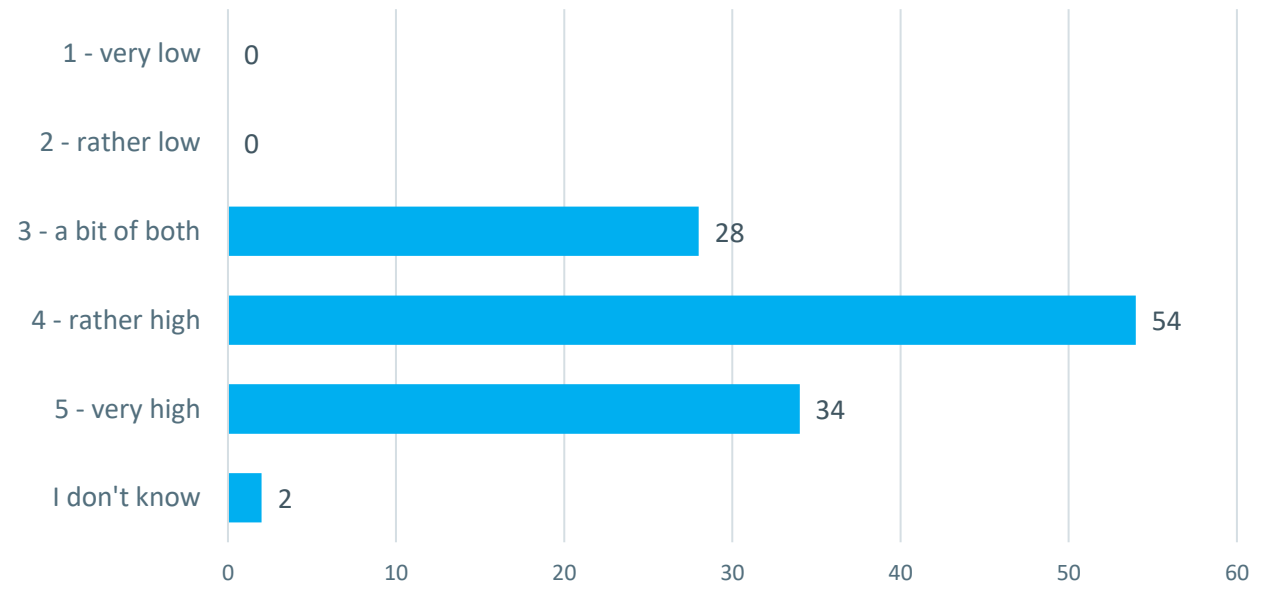
Rapid response to the pandemic / CABs are confident to learn from the crisis

Response time to challenges resulting from the COVID-19 pandemic (n=120)



- 95% claim they **have responded very or rather quickly** to the challenges posed by the pandemic
- 76% of the CABs surveyed rate their **ability to learn** from the experience of the COVID-19 pandemic and to take any necessary adaptation measures as very or rather high

Ability to learn from experience (n=116)

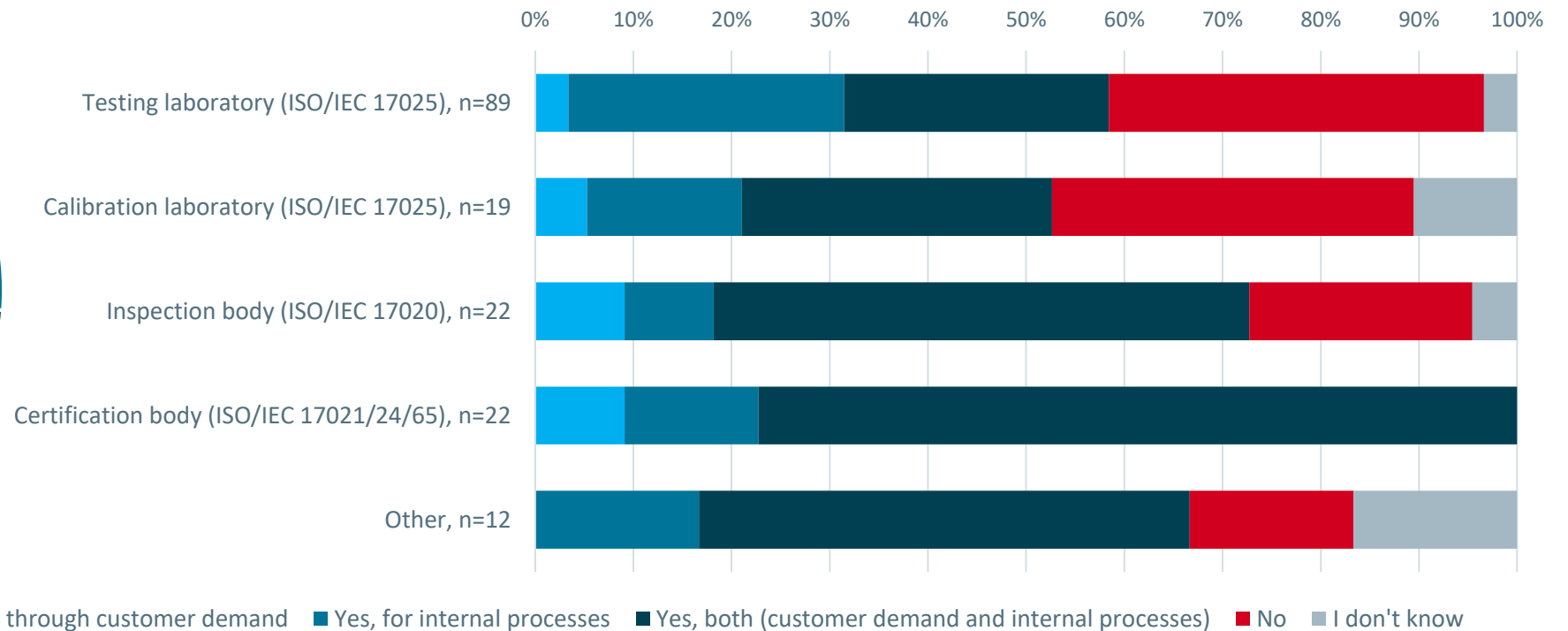
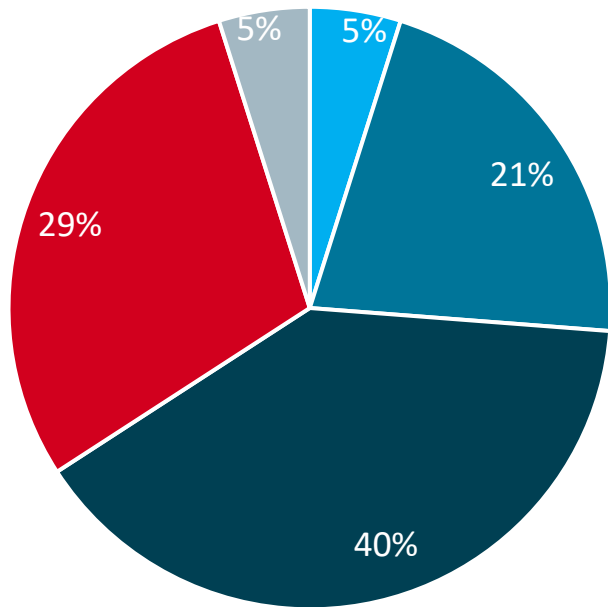


4

COVID-19 and digitalization

Majority of the CABs see increased need for digitalization due to the COVID-19 pandemic

Increased need for digitalisation due to the pandemic?

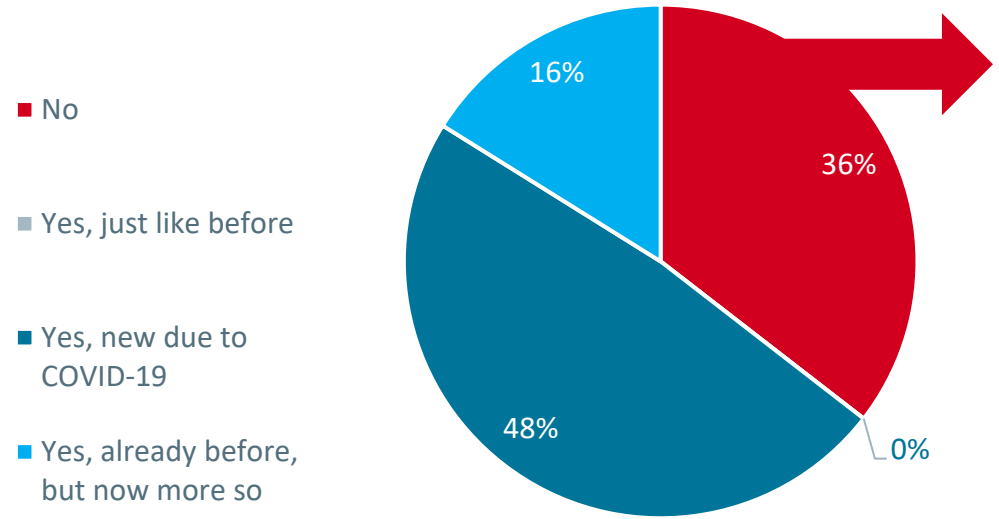


- Demand for digitalization **is driven by both, customer demand and for internal processes**
- An increased need for digitalisation is common especially among **certification and inspection bodies**

Remote procedures newly introduced or intensified in 64% of CABs

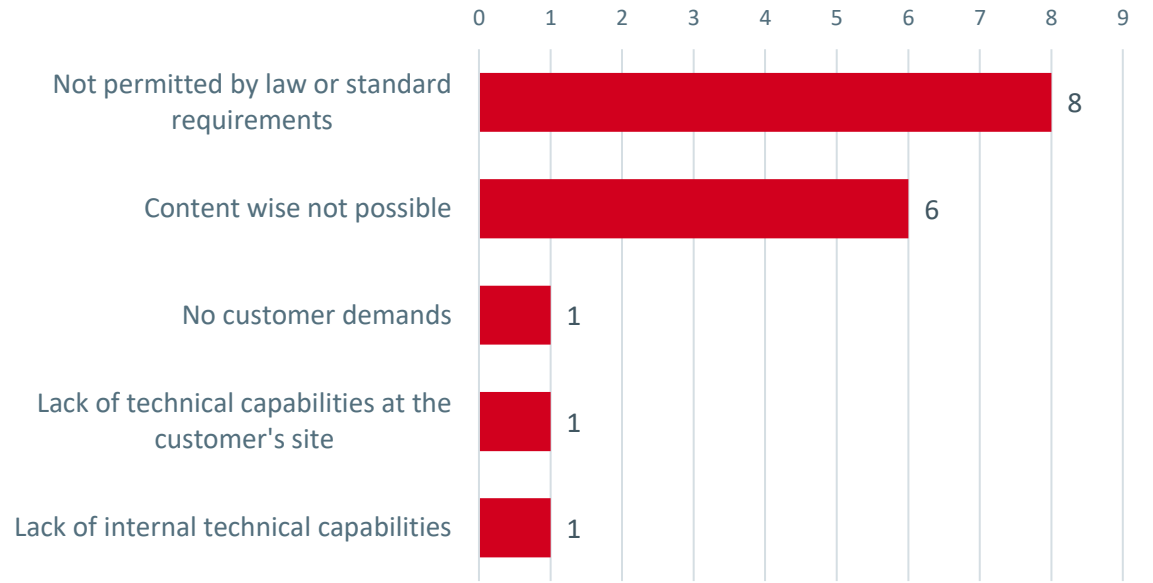
*Questions only to certification and inspection bodies, n=31

Remote Audits/Inspections possible?*



Why no Remote Audits/Inspections?

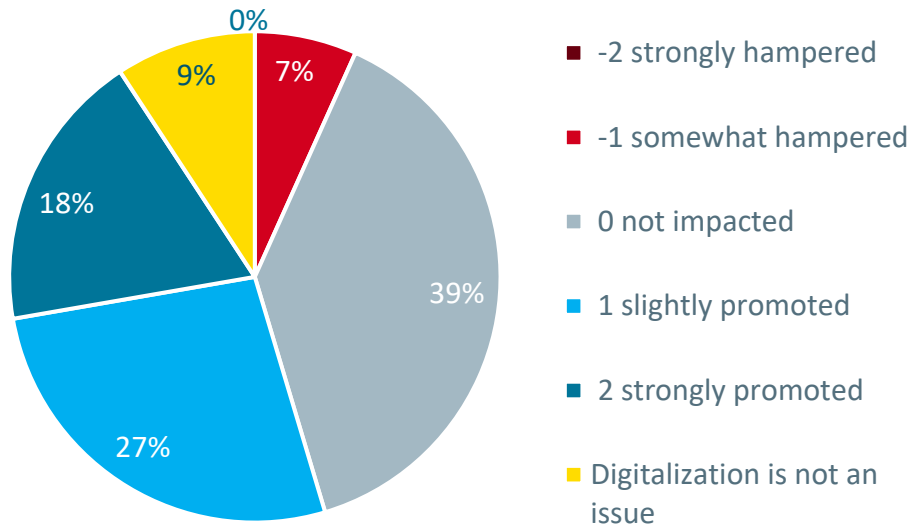
(multiple answers possible, n = number of respondents)



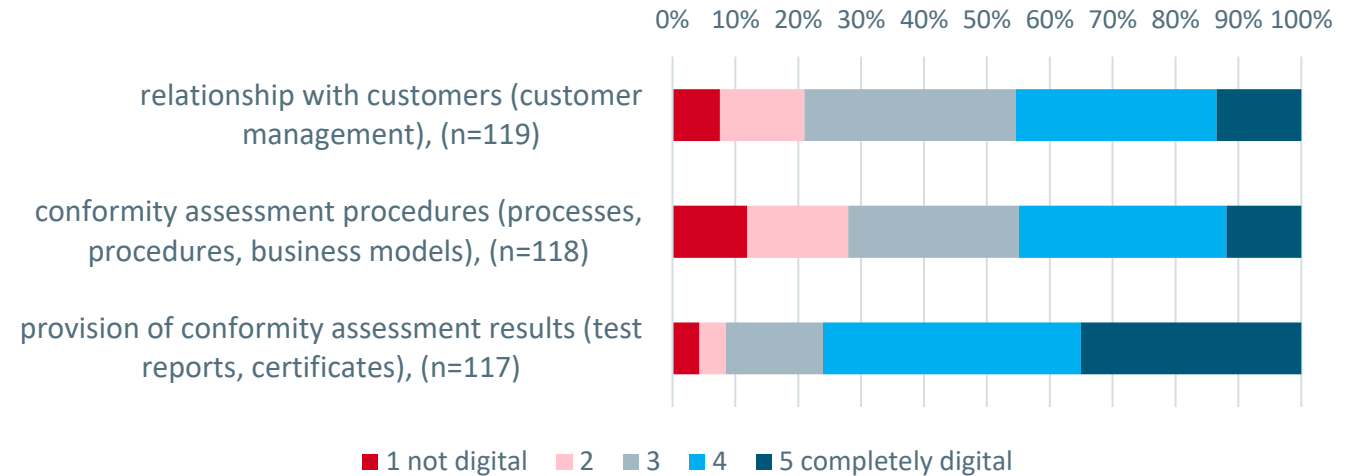
- Since the COVID-19 pandemic began, 48% of the certification and inspection bodies surveyed started to offer **remote audits or inspections**, whilst an additional 16% intensified these activities
- Still, 36% of CABs do not offer remote services even during the pandemic
- The main **reasons for not doing so** are restrictions due to laws or standard requirements as well as the content of the services offered.

The COVID-19 pandemic drives digitalisation

Impact of the pandemic on digitalisation (n=119)

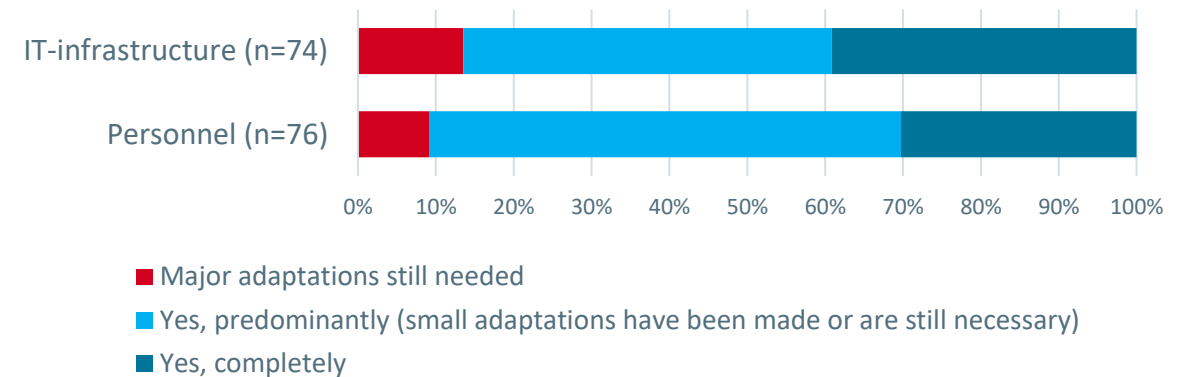


Current state of digitalisation in CABs (Oct/Nov-2020)



- For 45% of the CA fields of activity, the COVID-19 pandemic is promoting digitalization somewhat or strongly
- At the time of the survey, on average only 20% of the CA activities were **not** (or predominantly not) **digital**, while 20% were completely digital
- 13% of the CABs indicate that major IT **adaptations** are still needed

IT and personell prepared for digitalisation?

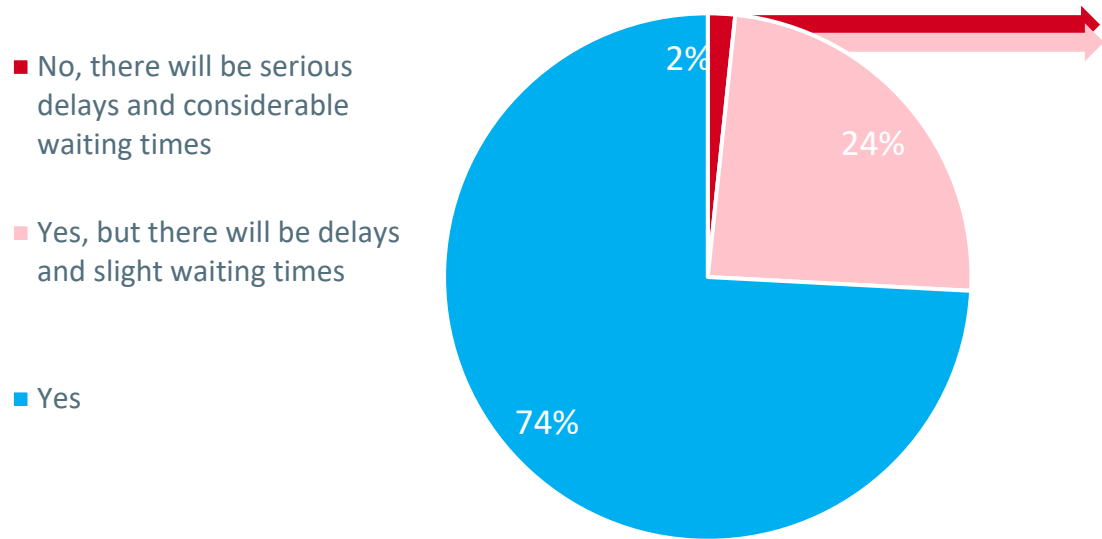


5

Economy and competition

Demand for CA in the course of the opening of the economy can be met – yet, partly with waiting times

Can short-time needs of customers be met when the COVID-19 restrictions are loosened? (n=120)



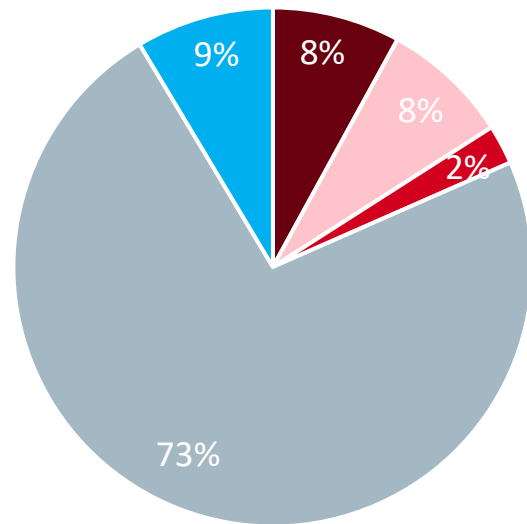
Reasons for delays
(multiple answers possible)



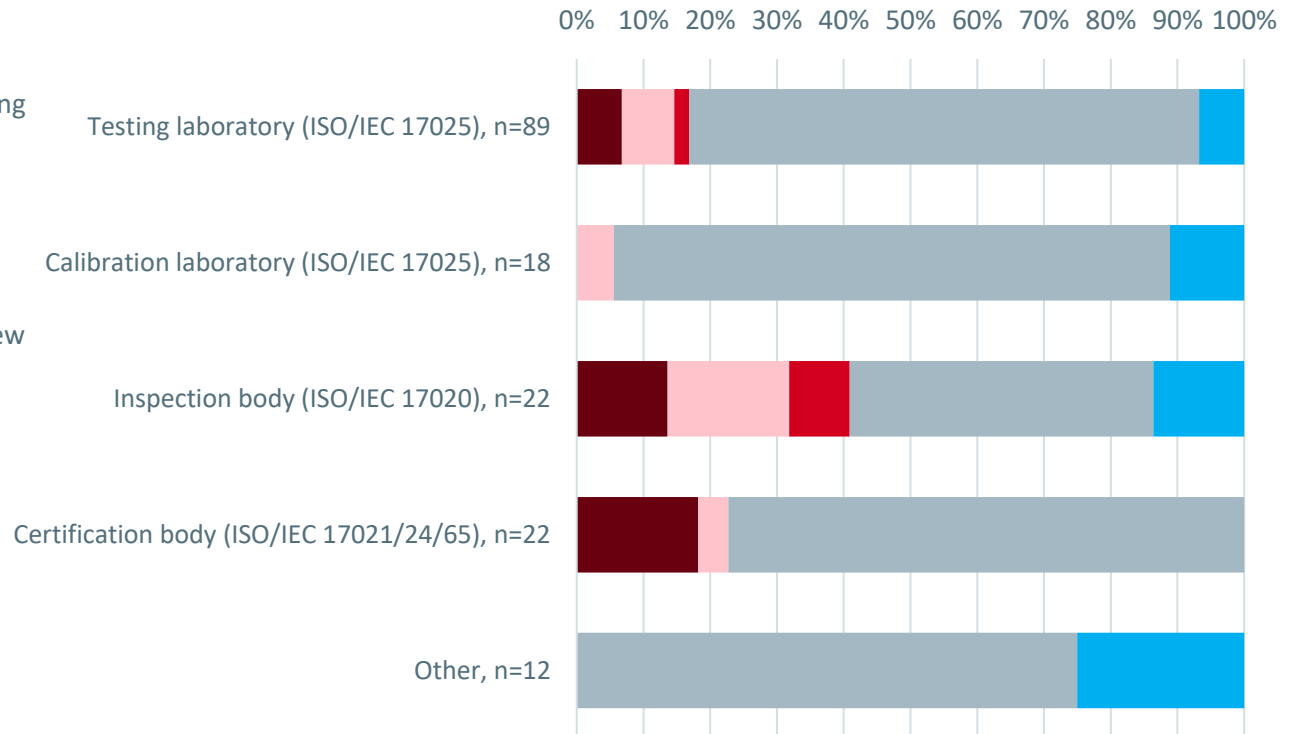
- 74% of the CABs are able to meet the CA needs from industry when the economy re-opens, but one in four CABs expects **delays**
- The latter is especially prevalent among **certification and inspection bodies**
- The main reasons are the continuing lack of employee availability, backlog of orders, and continued existence of travel restrictions

The pandemic changes the competitive situation for 27% of CABs

Change of competitive situation during COVID-19 pandemic



- Both (new + stronger existing competitors)
- More competition from existing competitors
- More competition, since new competitors emerged
- No changes
- Less competition



- CABs report **more competition** in 18% of their fields of activity
- Competition has grown for inspection bodies especially, while calibration laboratories were largely unaffected
- In 9% of cases, CABs experience **less competition**

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Further comments from the participants on different aspects of conformity assessment in the COVID-19 pandemic

Further comments by participants



General operations under lockdown

- [The] COVID pandemic has resulted in the NZ **laboratory community working together with a common goal**, achieving a number of **significant advances** [...].
- It **is impossible for lab staff to work from home** when all of the test equipment and test jigs are installed and operated in a controlled environment. [Under level 4, **we**] **were not classed as essential workers** so we were unable to travel to work [...]. Fortunately we could open under level 3. It has taken about 6 months for demand to return to levels seen just before lock down.
- [T]he process of testing is a physical one and hence the **lockdown stopped our business completely**[,] **regardless** of any contingency or emergency management processes we had in place. [...] **The process of deciding whether we were an "essential service"** or whether a request for us to perform testing work during the lockdown was "essential" was murky at best and we decided to err on the side of caution and close the business completely. This **process could do with clarification** going forward. From our point of view we could have continued to provide services without contact with clients or customers and minimal contact between a small group of staff.
- **International supplies** take longer to arrive.
- The **use of remote auditing has increased** due to COVID-19. We anticipate that **we will continue to use some remote auditing** as part of a blended audit model into the future.
- Although the COVID shutdown did have a financial effect on business operations[,][...][t]he **down time was used to great effect** by those responsible for **research and development** and the **implementation of new initiatives**.

Further comments by participants



Government regulations and support

- **No redundancies** thanks to the **wage subsidy**. We would have been in much worse shape had it not been for the [government] support.
- The govt subsidies only covered staff wages but gave **no relief for normal operating expenses** payments etc this means we are playing financial catch up and that makes things hard.
- Business was prepared for COVID 19 impact[, however] [o]ur **Regulators were simply not prepared** and this caused unnecessary delay with both us and our clients. [...] Government entities [...] were also ill-prepared and had no plan for when lockdown began. Audit work was simply postponed which has now caused a serious months long backlog in our business.
- **[B]orders are closed**, so we cannot get **access to the foreign talent** we need to maintain our business much less grow it.



Economic situation

- The Covid-19 pandemic has been hard on our business we had **two months without any trading** at all this meant absolutely no income.
- [We] [i]ncurred **large financial loss** with the COVID 19 level 4 lockdown[,] but [we are] managing to cope with [the] current construction activity.
- [After lockdown, many] clients are trying to use **(lower) pricing** as a determinant in selecting work [...]. It is important the regulatory authorities and their related parties (such as IANZ and JAS-ANZ) step up and **enforce regulations** so that the smaller unviable cowboys cannot gain hold in the market due to low price.

7

Background information

Prof Pavel Castka

Pavel Castka is Professor in Operations Management and Sustainability at UC Business School, University of Canterbury, New Zealand. He formerly served as Research Director of the College and MBA Director and had visiting appointments at UCLA Anderson School of Management (USA), University of Salford (UK), BOKU University (Austria), Vienna University of Economics and Business (Austria), Otago University (New Zealand) and NZT Fellow at Peking University (China). In 2018-2019, he served at Business and Economics Panel (Tertiary Education Commission, New Zealand) for 2018 PBRF assessment of research performance in New Zealand.

Prof Castka has been actively involved with international standardization within committees at the International Organization for Standardization as well as Standards Australia and Standards NZ and contributed to the development of the international guidance standard on social responsibility (ISO 26000), where he served as nominated expert between 2005-2010. He is currently ISO/TC 176 committee member; QR-008 committee member, and a member of IUCN's Commission on Environmental, Economic and Social Policy (CEESP). Pavel's research interests focus at the role of standards, self-regulation and certification in operations and supply chain management. He currently works on several research project that focus on innovations in conformity assessment as well as projects on food supply chains and remote auditing.



International Accreditation New Zealand (IANZ)

IANZ protects the health and wealth of New Zealand by ensuring that the companies who test or inspect the products and services you buy, consume, use or are surrounded by every day, are safe, accurate, and aren't doing us harm.

We do this by ensuring testing laboratories, inspection bodies, building consent authorities and medical imaging providers meet international standards and can demonstrate that they are competent.

Not all laboratories or inspection bodies are accredited, so when you see reports or certificates that carry the IANZ symbol, you can have confidence in results that are trusted in New Zealand.



The NZ mark of competence
Tohu Matatau Aotearoa

Joint Accreditation Scheme of Australia and New Zealand (JAS-ANZ)

JAS-ANZ helps markets work better by providing internationally recognised accreditation services that create economic benefit.

We play an integral role in helping the large and increasingly complicated market of goods and services work better—national, Trans-Tasman and international.

Accreditation has many flow-on benefits throughout the market chain for business, regulators and government by:

- reducing compliance and transaction costs*
- reducing risk*
- streamlining operations*
- breaking down barriers to trade, which provides greater access to foreign markets*
- providing assurance to the many players involved that goods and services sold are safe and can be used for their intended purpose.*

Accreditation adds value to the ever growing and increasingly complicated market chain in many ways, including by providing a symbol of assurance that certifiers and inspectors are independent and competent to perform their duties.



The research initiative QI-FoKuS

QI-FoKuS is a research project with a focus on **Quality Infrastructure (QI)**, specifically conformity assessment and safety, from an economic perspective.

QI-FoKuS was launched in 2019 as a joint initiative of the German Federal Institute for Materials Research and Testing (BAM) and Technische Universität Berlin (Chair for Innovation Economics of Prof. Knut Blind) and is supported by the German Federal Ministry for Economic Affairs and Energy.

The initiative aims to create a better data base for research by regularly conducting surveys among companies and conformity assessment bodies. The data and analyses contribute to improve our understanding of the elements of QI and their interactions. It thereby informs political decision-makers, industry, and the public in a professional manner through evidence-based argumentation on conformity assessment and accreditation.



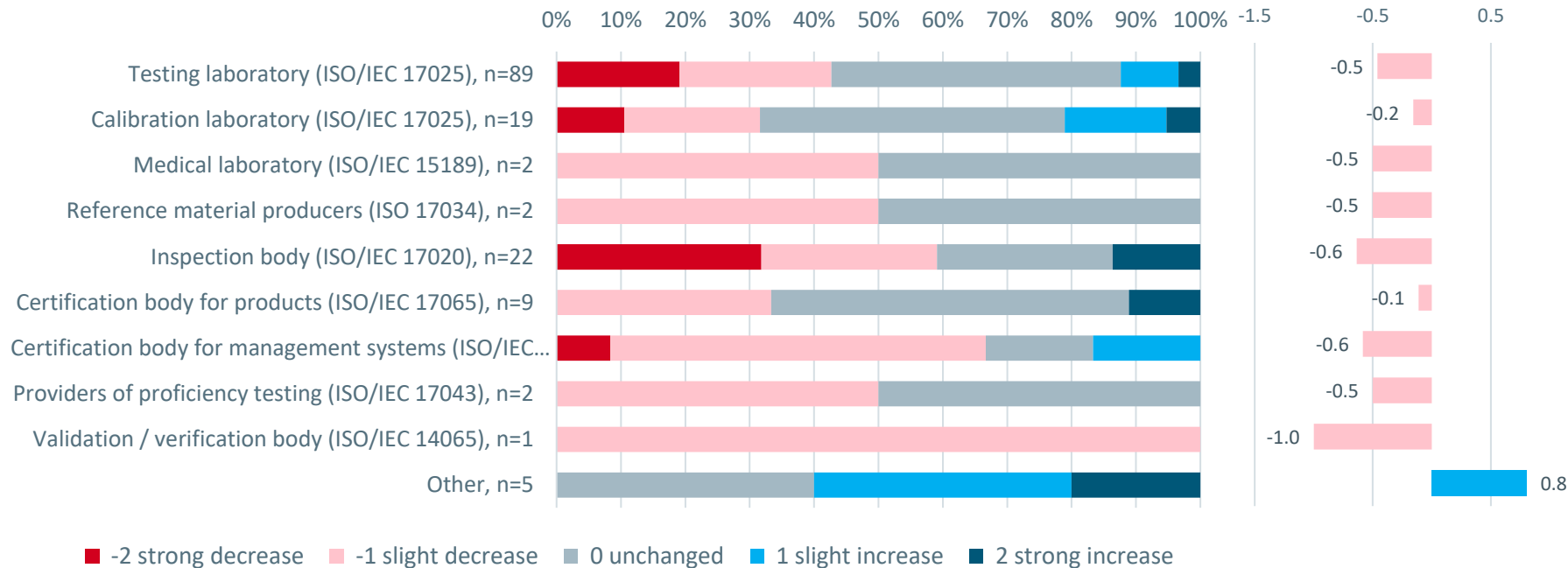
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Appendix

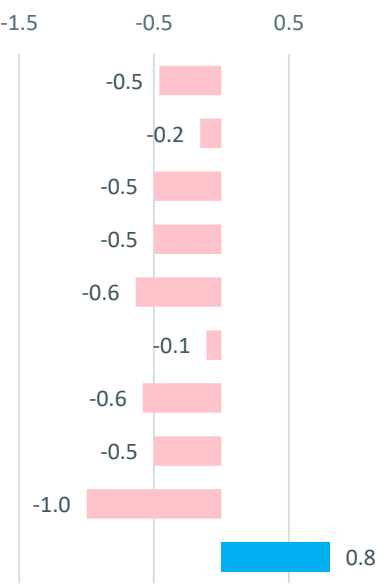
detailed data for all types of CABs (non-aggregated)

Decline in demand during the COVID-19 pandemic for all types of CAB

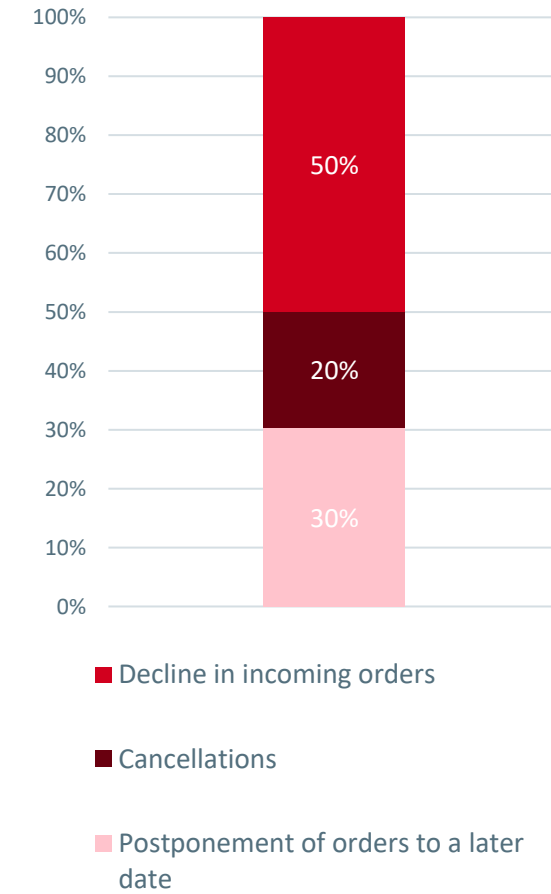
impact of the COVID-19 pandemic on the demand for CA services (compared to the pre-COVID-19 period)



Mean



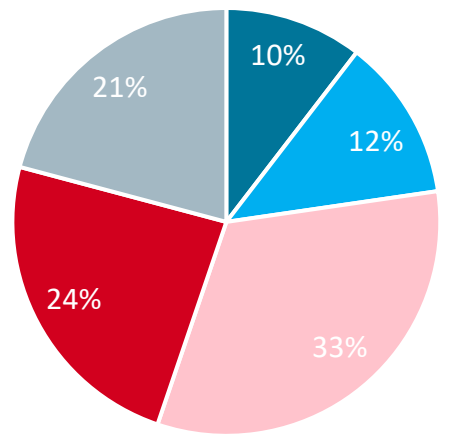
Main reason for decrease in demand



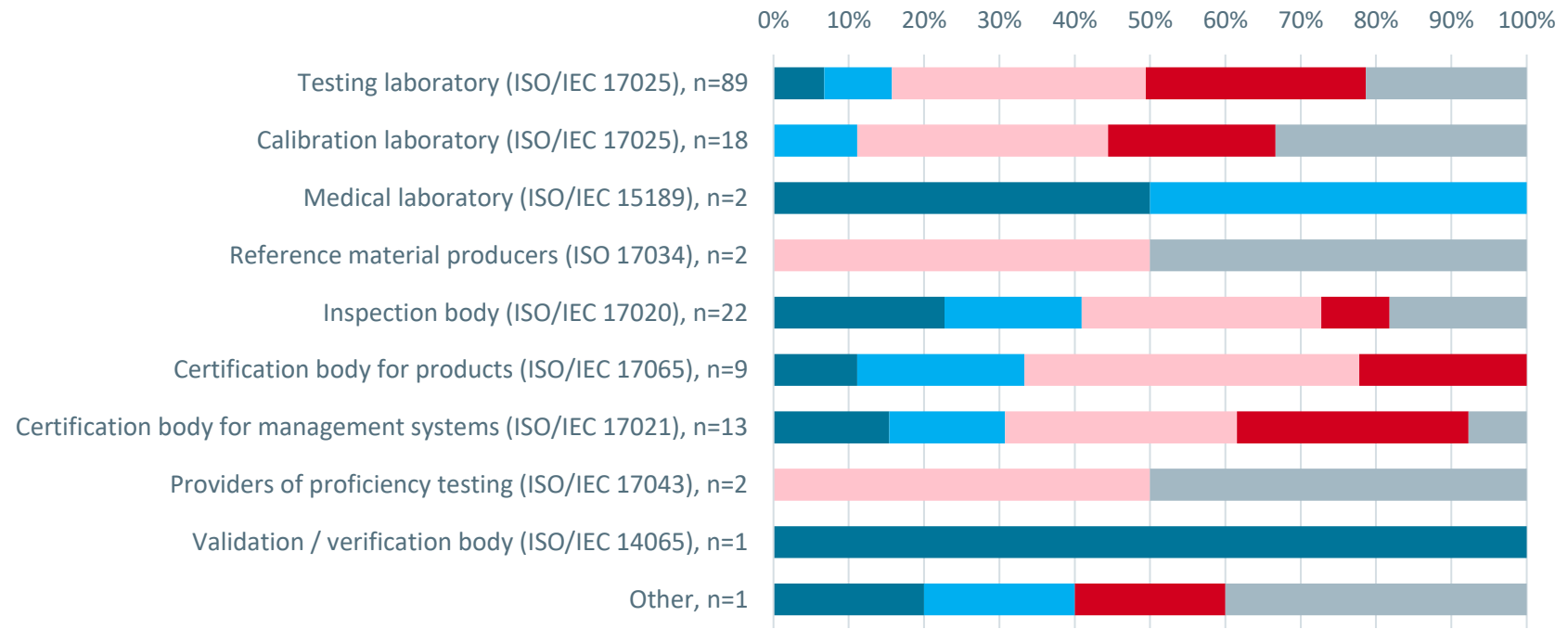
- 44% of all CA fields of activity with a **strong or very strong decline in orders**
- **Inspection bodies** face the biggest decreases in demand
- Falling demand is mainly caused by **declining new orders**, cancellations prevail for 20%.
- One in 7 CABs experiences **increased demand**

Expectations are rather pessimistic, insecurity is widespread

Do you expect an increase in demand for your services as the economy gradually re-opens?
(aggregated types of CABs)



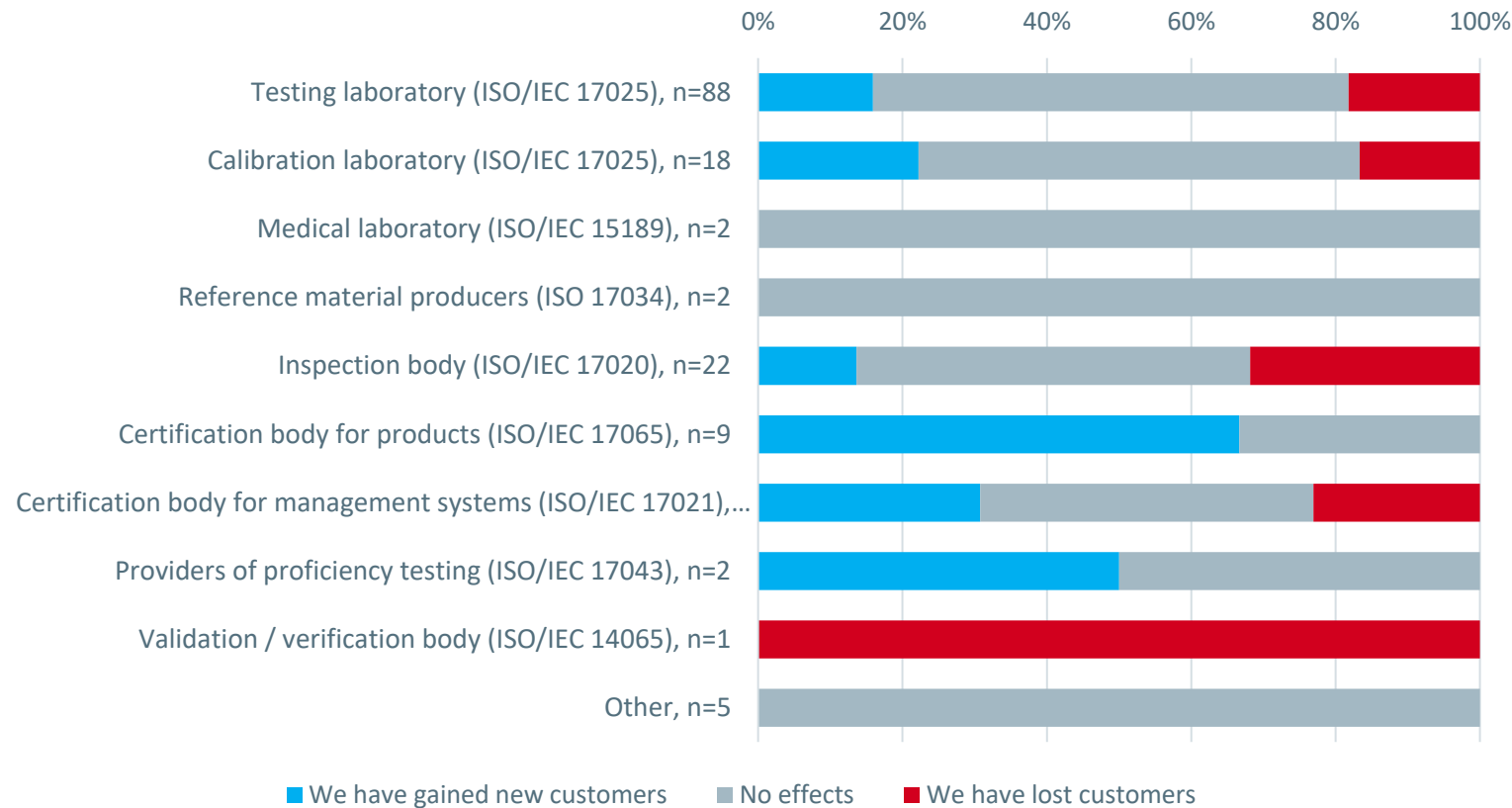
- over the next 3 months
- over the next 6 months
- over the next year
- no
- I don't know



- Most CABs do not expect a **recovery within the next 6 months**, every fourth does not expect one at all
- Every fifth CAB **does not know what to expect** from the future
- **Inspection bodies** are generally more optimistic about short-term recovery than other CABs

Impact of the COVID-19 pandemic on the customer base varies

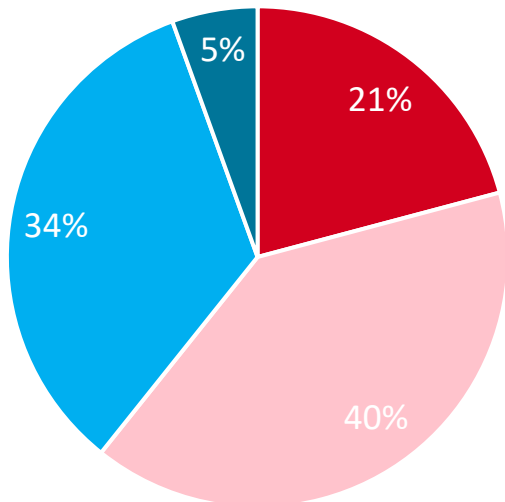
Impact of COVID-19 pandemic on CABs' customer base



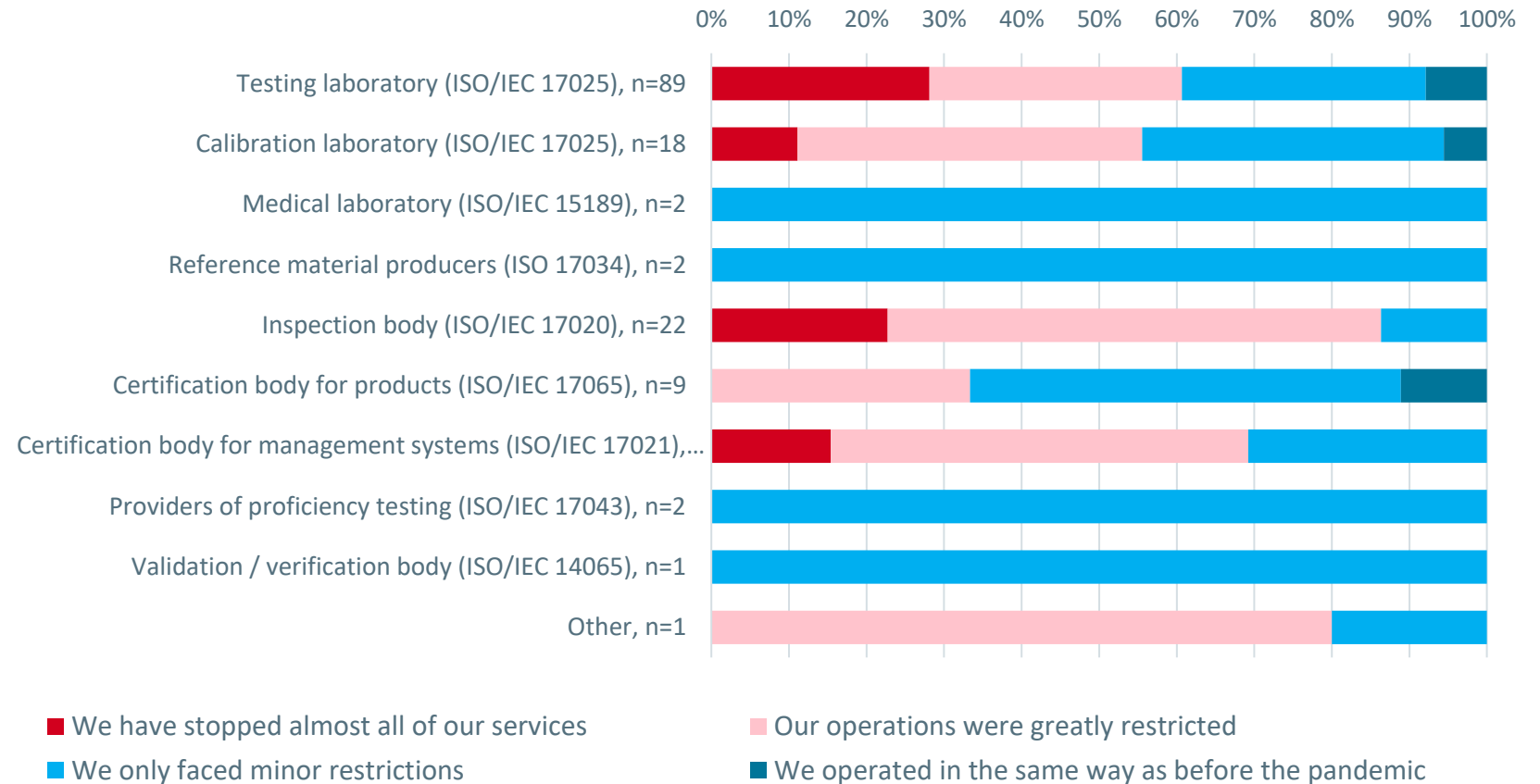
- For most CABs the customer base has not been affected
- However, there are CABs **gaining and losing customers** in all fields of activity
- Almost half of certification bodies have gained new customers
- Loss of customers is especially common among **inspection bodies**: every third is affected.

At the beginning of the pandemic, most CABs were strongly hampered in their operations

- **At the peak of the pandemic** (March-June 2020) 1 in 5 CABs had to stop almost all of its services
- 40% faced **major restrictions** to operations
- **Inspection bodies`** operations were heavily obstructed
- Only 5% were unaffected

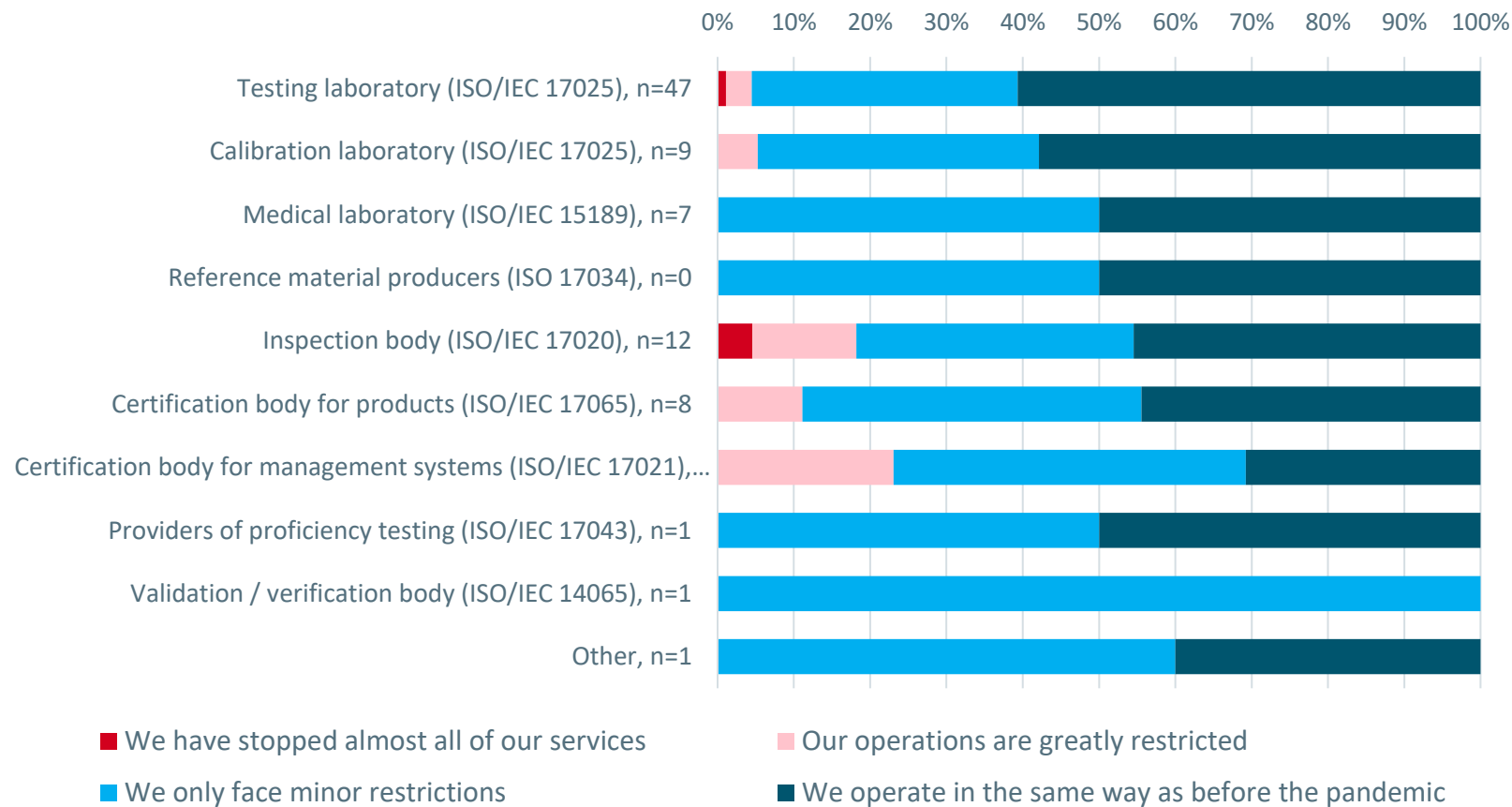


At the peak of the COVID-19 related restrictions (from March to June 2020): How did the restrictions affect your operations?

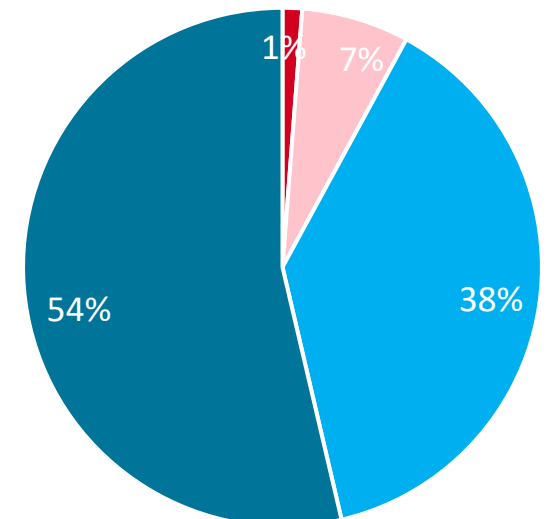


....though the majority has returned to normalcy (October/November 2020)

At the moment: How do the COVID-19 restrictions affect your operations?

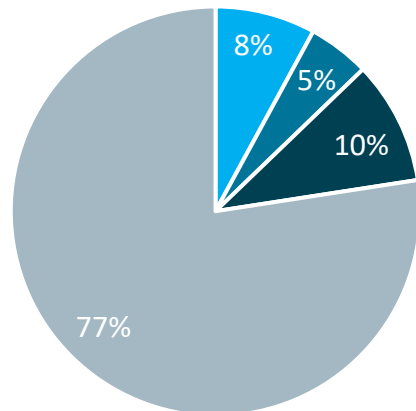
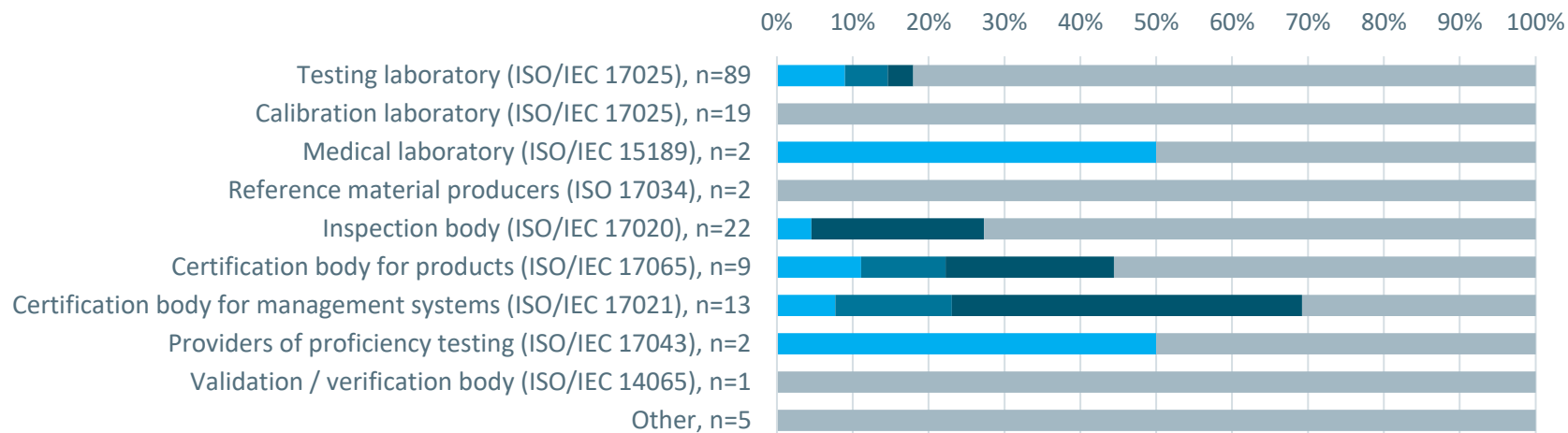


- The number of CABs still facing major **restrictions** or halting their operations due to the pandemic dropped to 8% at the time of the survey
- Minor restrictions persist for 38% of CABs surveyed
- More than half of CABs operate the same way than before the pandemic



One in four CABs respond to the pandemic by expanding services or offering new ones

New or changed activities and services due to the COVID-19 pandemic

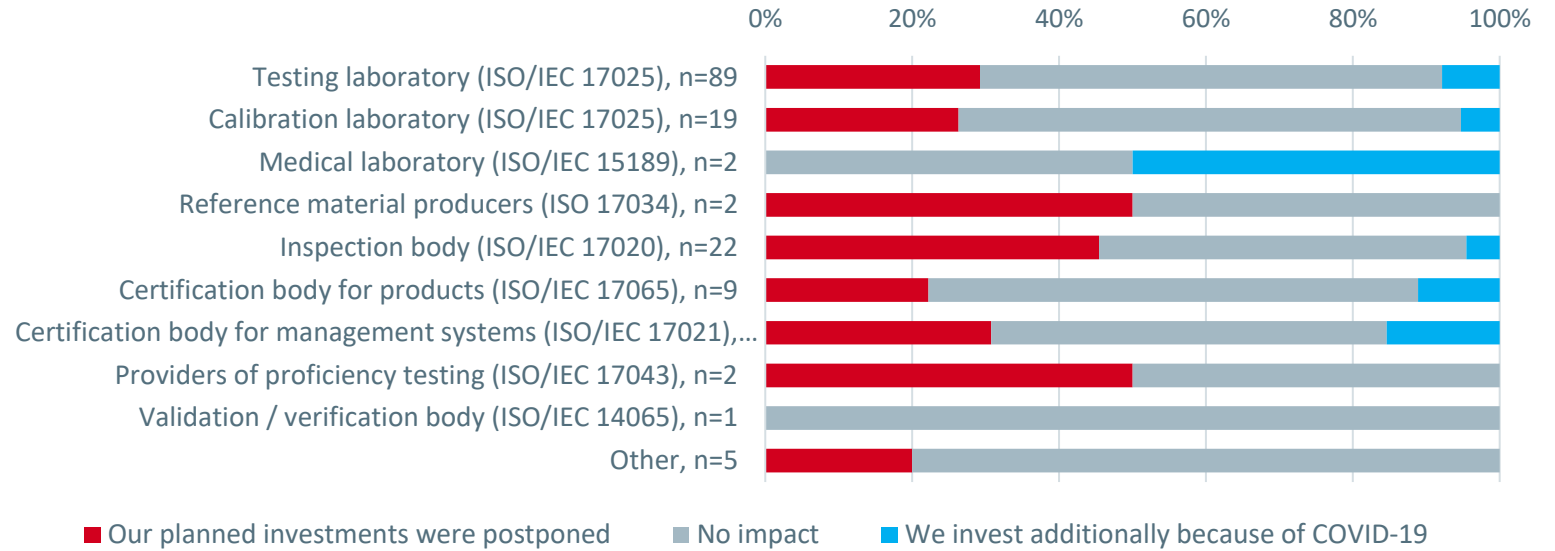
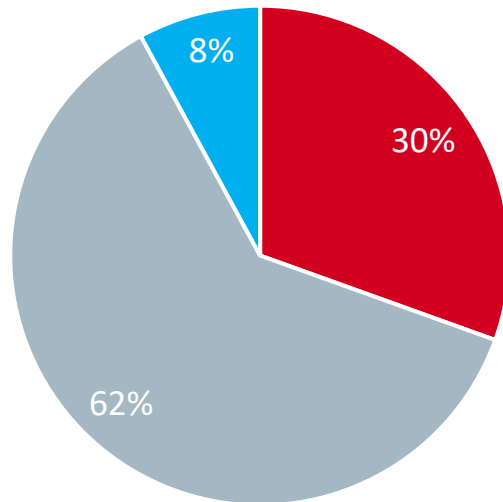


- Yes, we have started new activities or offer new services
- Yes, we have reinforced our existing services and increased our offerings of these services
- Yes, both (we started new activities and reinforced existing services)
- No

- 23% of all CA fields of activity, **new activities** were initiated **and/or existing ones were strengthened** during the pandemic
- This was especially common among **certification bodies** (59%) as well as **inspection bodies** (27%)
- New or increased activities **in particular** in:
 - COVID-19 testing
 - COVID-19 protection equipment
 - Remote activities (inspection, auditing)
- Calibration laboratories did not introduce new services or expand existing activities

Every third CAB postpones investments due to the pandemic

Impact on investment activities



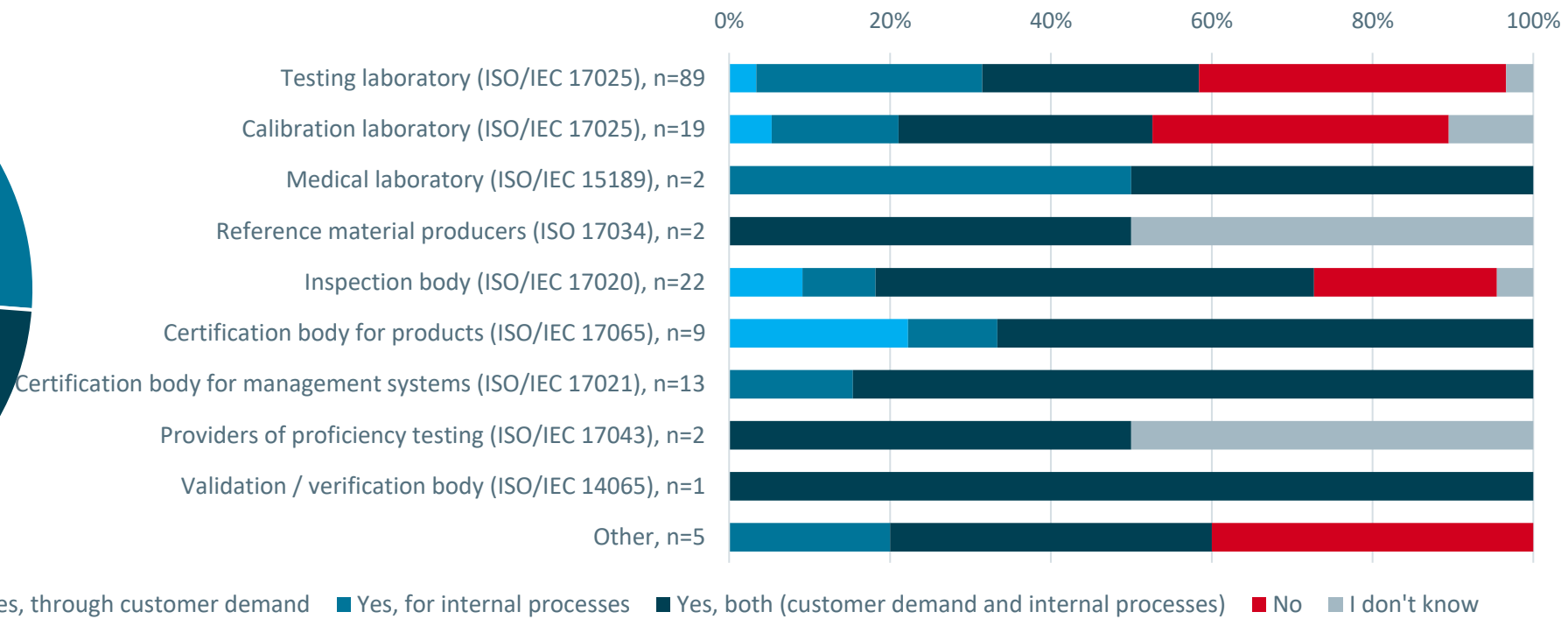
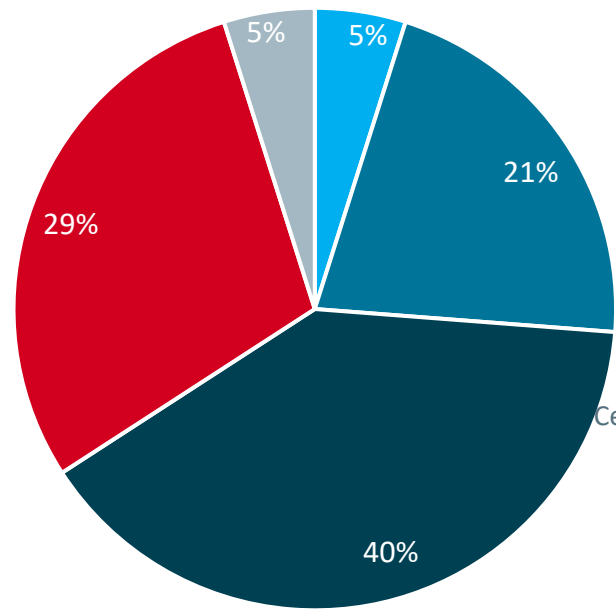
- **30% of the CABs postpone investments** due to the COVID-19 pandemic – especially inspection bodies (46%)
- **Only 8% of all CABs invest additionally** – mostly certification bodies (14%)
- Areas most CABs invest in are **digital infrastructure** and new devices and equipment

Areas of investment (multiple answers possible)



Majority of the CABs sees increased need for digitalization due to the COVID-19 pandemic

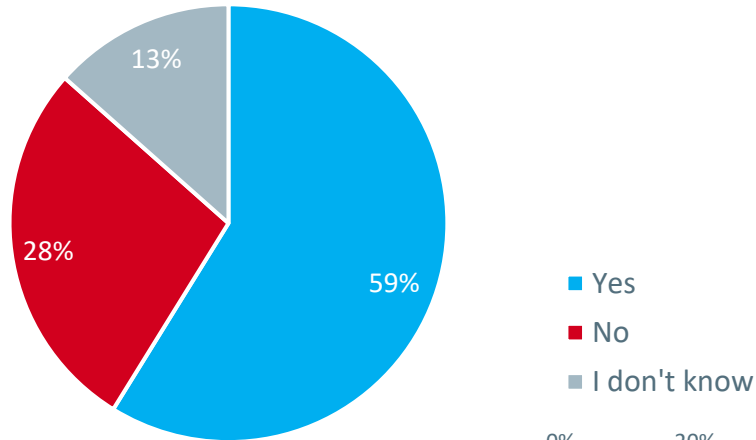
Increased need for digitalisation due to the pandemic?



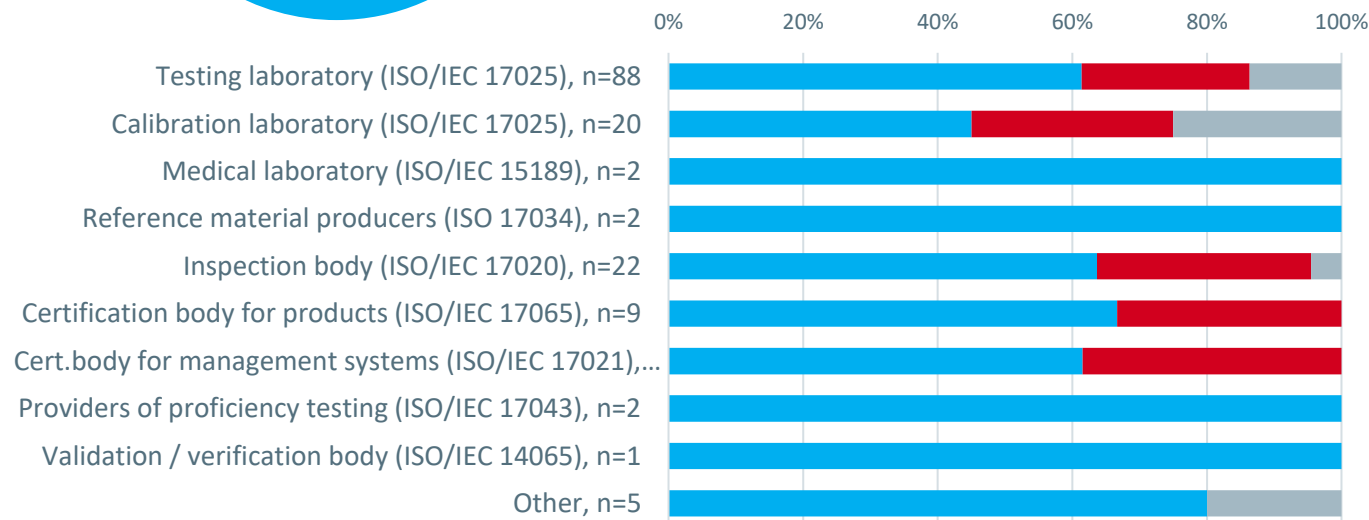
- Demand for digitalization **is driven by both, customer demand and for internal processes**
- An increased need for digitalisation is common especially among **certification and inspection bodies**

Most CABs had contingency plans & resources for coping with the pandemic

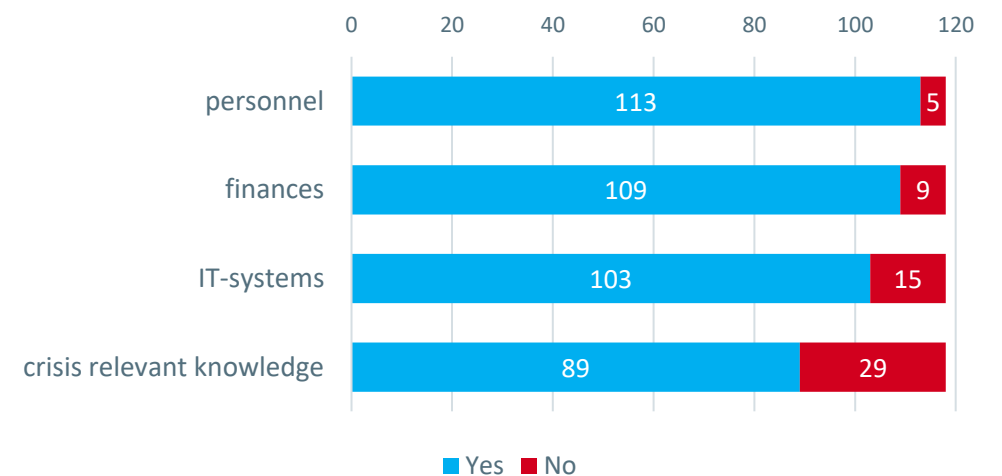
Contingency plan before pandemic (n=119)?



- 59% of all CABs had a **contingency plan** before the start of the COVID-19 pandemic
- Accordingly, 75% of the CABs surveyed stated that they did have **crisis-relevant knowledge** at that time
- Most CABs had the necessary personnel (96%), IT systems (87%) and the financial resources (92%) to cope with the crisis

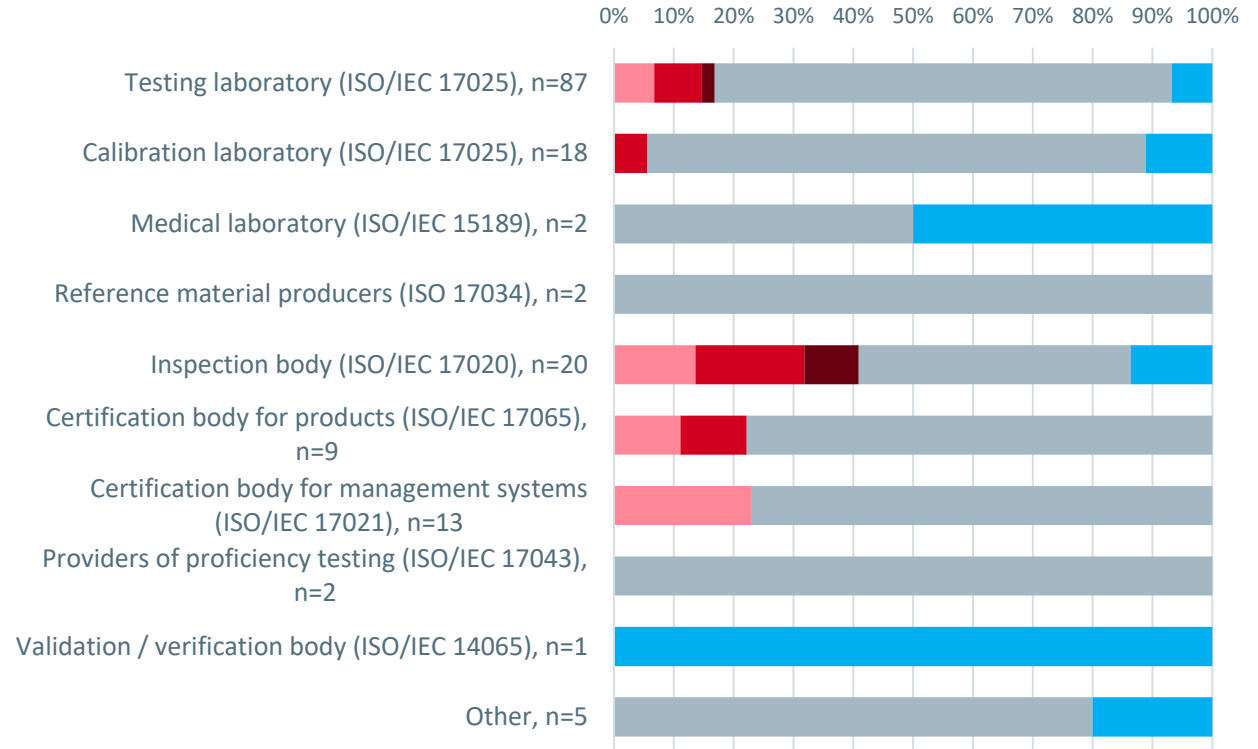
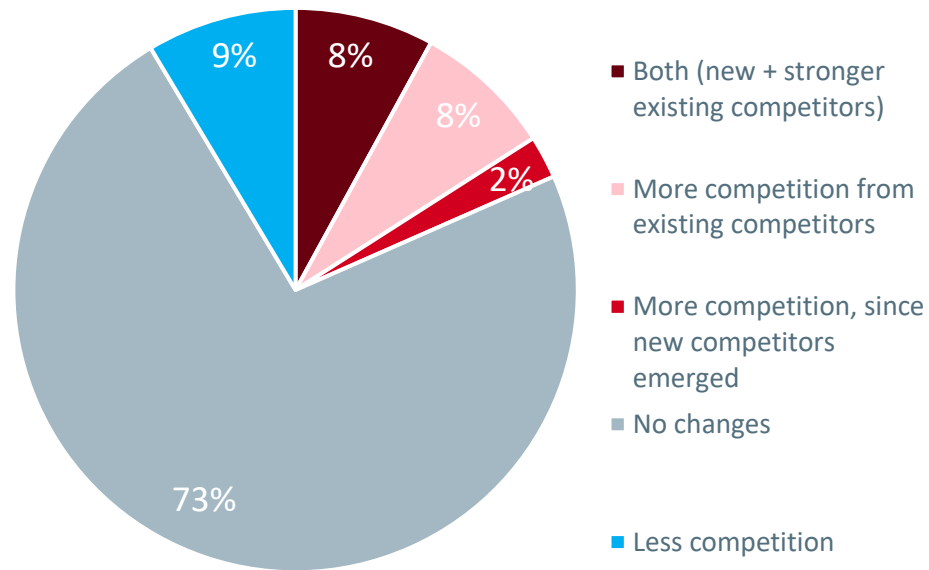


Availability of necessary resources at the beginning of the pandemic (n=118)



The pandemic changes the competitive situation for 27% of CABs

Change of competitive situation during COVID-19 pandemic



- CABs report **more competition** in 18% of their fields of activity
- Competition has grown for inspection bodies especially, while calibration laboratories were largely unaffected
- In 9% of cases, CABs experience **less competition**