

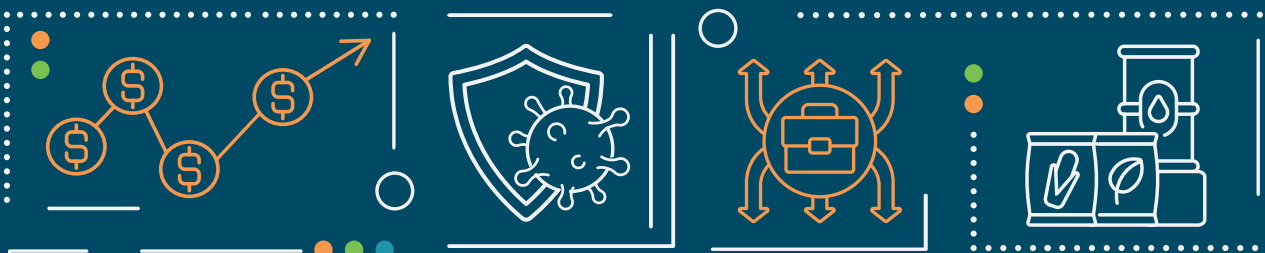


IASP

International Association of Science Parks
and Areas of Innovation

2022

IMPACT OF



COVID-19



ON AOIs/STPs

● CHAPTER 10:
● IMPACT OF COVID-19 ON AOIs/STPs

The COVID-19 pandemic had a significant impact on life around the world, and our industry was not immune from that. In March 2020 daily life changed dramatically, with events cancelled, work being done from home, businesses suffering and unemployment rising globally.

To overcome these challenges businesses had to adapt rapidly, and IASP and our member organisations were no different. Whilst working from home we hosted a number of webinars regarding the pandemic's impact, invited innovative companies in our network to present their COVID-19 solutions and facilitated the virtual sharing of knowledge.

The 37th and 38th IASP World Conferences took place online, and although there is no replacement for face-to-face networking, our virtual meetings and gatherings kept our community united and captured valuable knowledge sharing in times of change. The 2020 World Conference looked at the effects of COVID-19 on our network, whilst the 2021 edition examined the resilience of innovation ecosystems worldwide.

What we have learned, was actually that we have to leave behind the linear way of working. Companies can be onsite, they can be remote or they can be both, depending on their needs.

*Flavia Forin,
TECNOFUC,
Brazil*

At one level, our business model was devastated, but COVID-19 also created immense new opportunities and a sense of urgency, particularly around the delivery of services and the use of digital channels.

*Alan Boshwaen,
Botswana Innovation Hub,
Botswana*

If there's one thing which COVID-19 has taught everyone it's that there should always be crosslearning between the startups and the large companies and vice versa.

*Jitendra Sharma,
Andhra Pradesh MedTech Zone,
India*

Some business sectors in the Africa region faced total collapse, but others were almost overwhelmed by the opportunities for innovation which were created.

*Hauwa Yabani,
Abuja Technology Village,
Nigeria*

We saw new ideas, especially in robotics and rapid-testing diagnostics, because the pandemic challenged people to think if their previous assumptions were still correct and if there were new approaches and strategies.

*Albert Wong,
Hong Kong STP,
China*

Maintaining a team ethos was a challenge, especially during the first few months, as was maintaining it when new members join. It was also hard working out how to keep the team together despite working apart.

*Gavin Poole,
Here East,
UK*

In addition to the many online conversations we also wanted to quantitatively examine how our members were navigating the unprecedented events of the pandemic. The following pages provide a unique insight into how AOIs and STPs adjusted, evolved and even improved.

10.1 Infrastructure impact

IMPACT OF COVID-19 ON USE OF BUILDINGS/FACILITIES

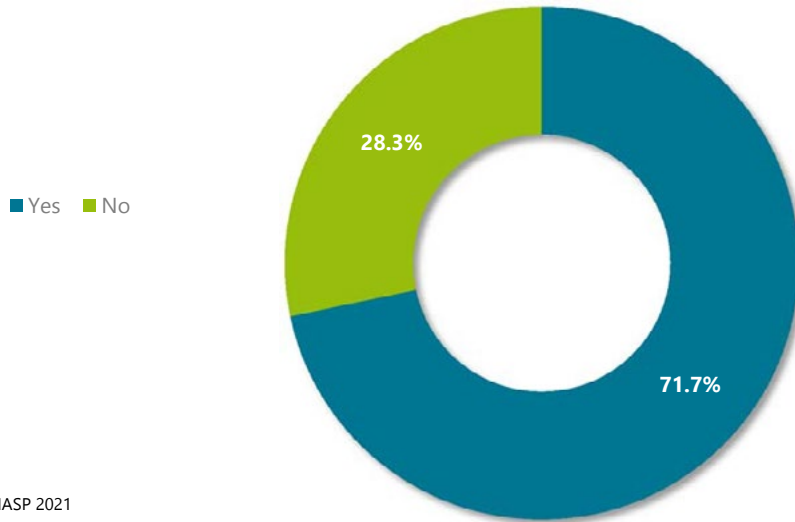


Chart 83 Source: IASP 2021

AOIs/STPs were asked whether the use of their buildings and facilities had changed in 2020 due to COVID-19. As expected, in the majority (71.7%) of organisations the use of buildings/facilities was affected by the impact of the pandemic.

CHANGES IN THE USE OF AOI/STP BUILDINGS/FACILITIES

	Decrease	Increase	No changes
Auditoriums	91.3%	3.8%	5%
Coworking	80%	11.3%	8.8%
Incubators	50%	17.5%	32.5%
Labs	46.8%	17.7%	35.4%
Meeting rooms	87.5%	3.8%	8.8%
Office space	66.3%	10%	23.8%
Open spaces	60%	21.3%	18.8%
Restaurants/cafés	88.8%	3.8%	7.5%
Other	48.7%	1.3%	50%

Table 7 Source: IASP 2021

This table shows the relative changes in use to AOI/STP facilities. All types of buildings and facilities experienced a drop in use, with those most affected being auditoriums and meeting rooms, with 65.5% and 62.8% of respondents seeing decreases in their use respectively. This is unsurprising given limits on in-person meetings set by many governments worldwide.

REASONS FOR CHANGES IN THE USE OF BUILDINGS/FACILITIES

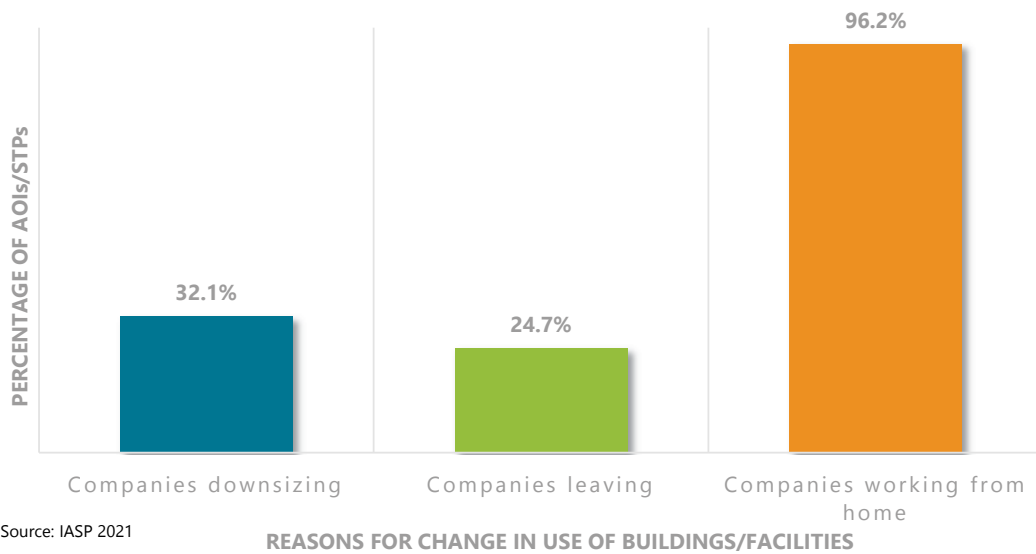


Chart 84 Source: IASP 2021

The vast majority (96.2%) of AOIs/STPs report that changes in the use of buildings/facilities are due to companies working from home. The measures imposed by governments that resulted in total or semi-lockdowns caused resident companies to drastically reduce the number of people working from their headquarters. However, despite remote working, in very few cases did companies leave the parks, as evidenced by the fact that only 24.7% of respondents selected this option as the cause of the change of use of their facilities.

CHANGES TO AOI/STP INFRASTRUCTURE

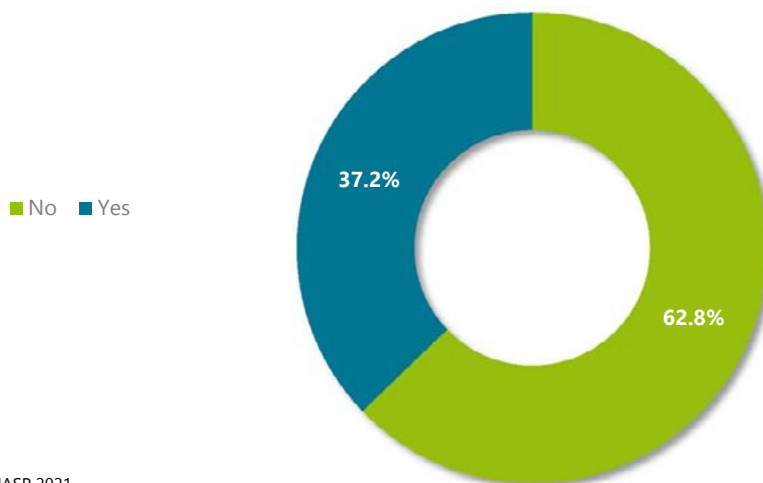


Chart 85 Source: IASP 2021

This chart shows how many respondents adapted and changed their infrastructure to respond to COVID-19. 37.2% made changes which often included adapting spaces for online meetings and improving ventilation systems, whilst more unique changes included offering parking spaces to a local hospital and refitting older buildings. Other infrastructure changes were to adapt to government regulations, such as disinfection stations, one-way systems and temperature monitoring equipment.

ECONOMIC IMPACT OF INFRASTRUCTURE CHANGES

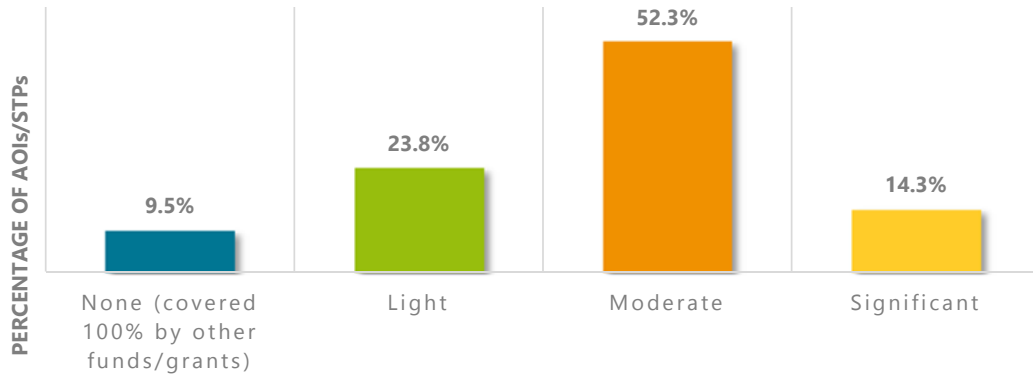


Chart 86

Source: IASP 2021

ECONOMIC IMPACT

For most (52.3%) of those AOIs/STPs who implemented changes in their infrastructure, the modifications had a moderate economic hit. These changes proved extremely costly in 14.3% of respondents' organisations.

10.2 Services impact

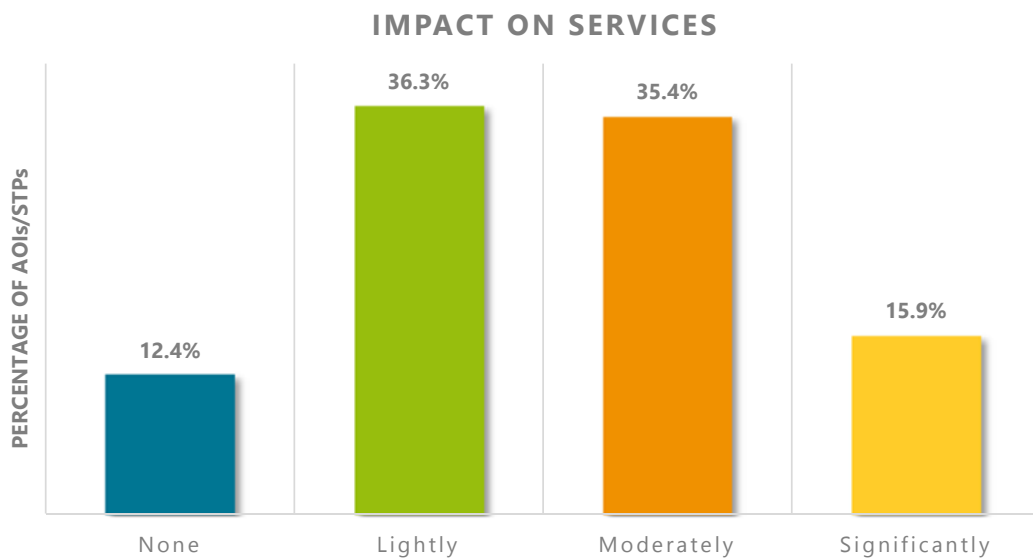


Chart 87

Source: IASP 2021

IMPACT ON SERVICES

A high proportion (87.6%) of AOIs/STPs saw COVID-19 impact their services. Despite this, only 15.9% were significantly impacted, with organisations typically seeing a light impact as was the case for 36.3% of AOIs/STPs.

NEW OR ADAPTED SERVICES OFFERED

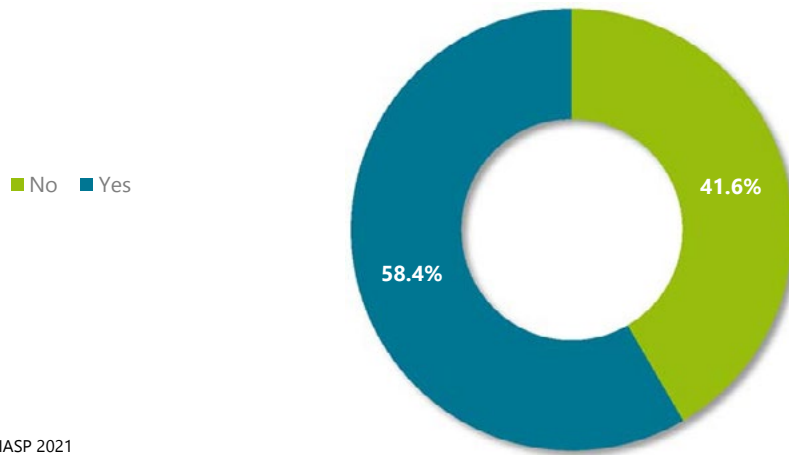


Chart 88 Source: IASP 2021

Although most areas/parks did not adapt their infrastructures due to COVID-19 (see chart 85), the majority of respondents did offer new services or adapt existing ones due to the pandemic. This was the case for 58.4% of organisations with new services including virtual meeting platforms, business crisis support and training on how to adapt to COVID-19. Other AOIs/STPs offered a virtualisation of mentoring, mental health webinars or simply online services with the same aims as before COVID-19.

The vast majority of respondents expect these changes to remain, as online and hybrid ways of working are predicted to continue long into the future. Others are yet to decide as the situation regarding COVID-19 can and does change rapidly. However, some highlight that many of the services were very specific to the restrictions of the time and will therefore not be continued.

NEW SERVICES OFFERED (BY IASP REGIONAL DIVISION)

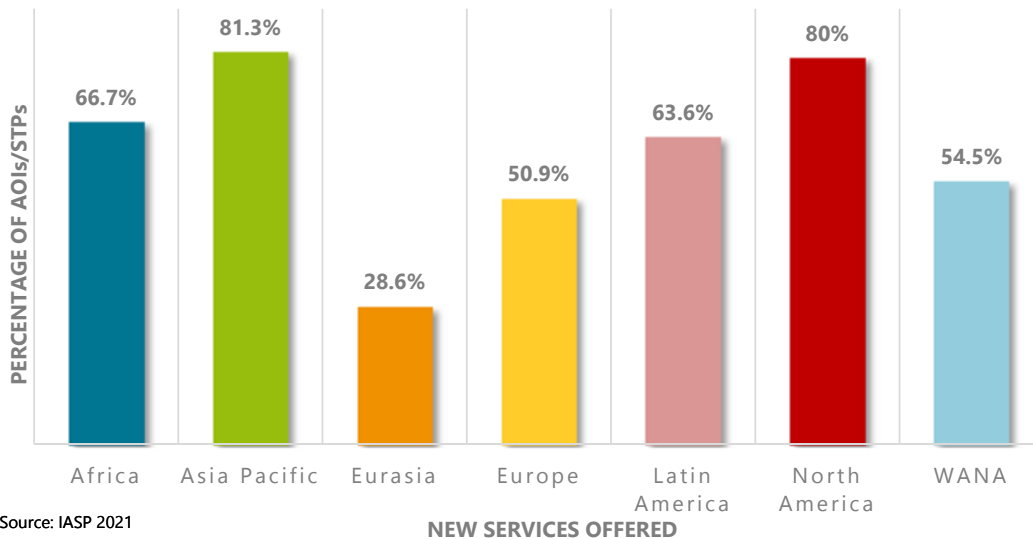


Chart 89 Source: IASP 2021

New services were offered in a majority of AOIs/STPs from all IASP Regional Divisions with the exception of Eurasia, where more than twice as many respondents offered the same services as before COVID-19. On the other hand, many North American AOIs/STPs made changes to services on offer, as was the case in 80% of organisations.

The fact that no new services were offered to residents may depend on the number and type of services that the areas/parks already provided before the pandemic, which in some cases already had a high digitalisation component. It should be taken into consideration that a number of AOIs/STPs, in addition to the services provided to their resident companies, offer services to companies located outside their premises (see chart 58) and therefore virtual services were already available before COVID-19.

10.3 Economic impact

FINANCIAL IMPACT ON AOIs/STPs

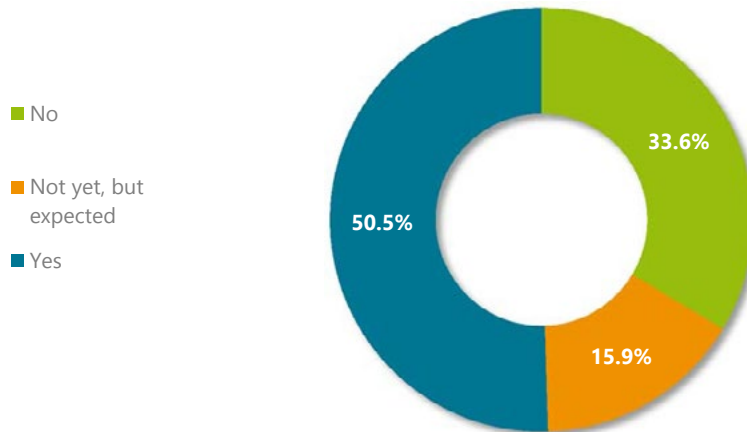


Chart 90 Source: IASP 2021

Despite the economic slowdown in 2020, the responses highlight the resilience of the industry with 49.5% of AOIs/STPs not experiencing any financial impact, even if 15.9% of them expected to feel an impact in the future. However it is important to bear in mind that this data is a snapshot.

SEVERITY OF FINANCIAL IMPACT ON AOIs/STPs

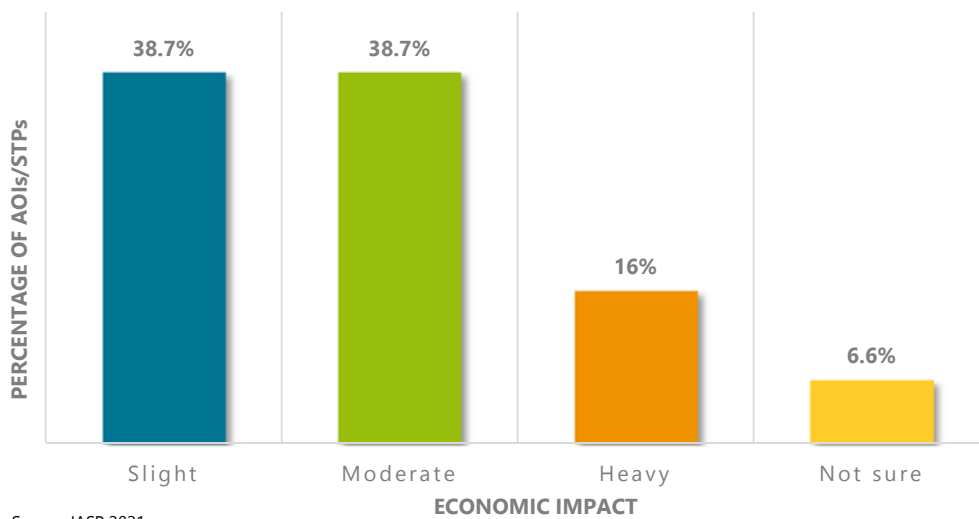


Chart 91 Source: IASP 2021

Only 16% of those areas/parks that stated to have had an economic impact or expected one in the future due to the pandemic confirmed that the impact was heavy. For most of the AOIs/STPs the impact was moderate or slight.

SEVERITY OF FINANCIAL IMPACT ON AOIs/STPs (BY IASP REGIONAL DIVISION)

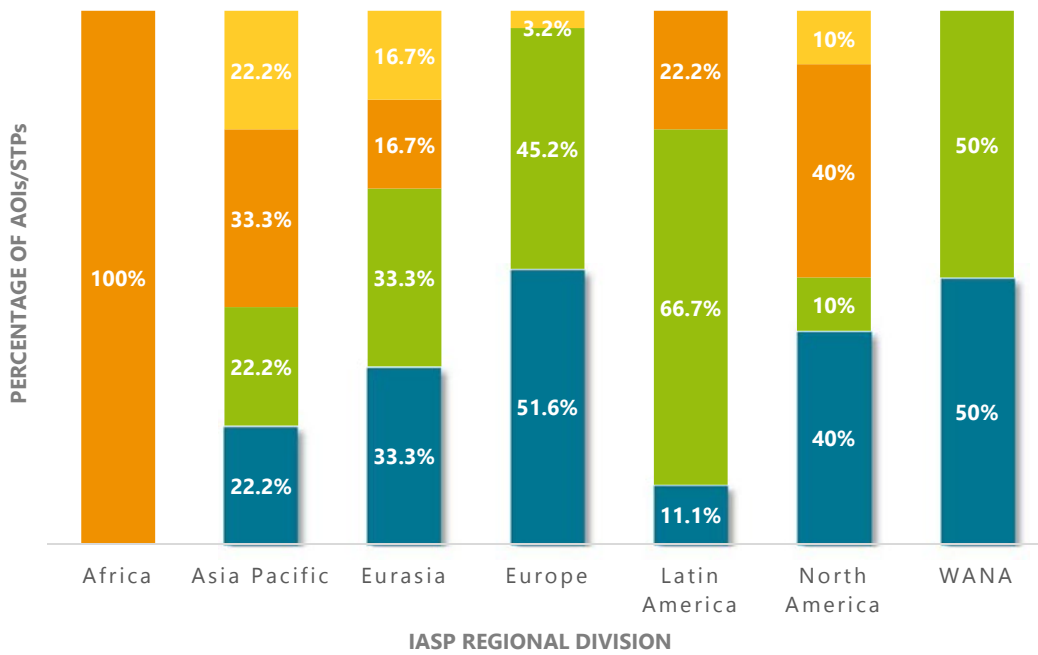


Chart 92

Source: IASP 2021



When broken down by IASP Regional Division, responses show that African AOIs/STPs have suffered the most, with every respondent reporting a heavy financial impact due to COVID-19. Of those who did suffer or expect to suffer economically, the Europe and WANA regions were not affected as much as others. In both cases, respondents indicated that they had not experienced a heavy economic impact due to COVID-19.

LOSS IN AOI/STP EARNING FROM SERVICES

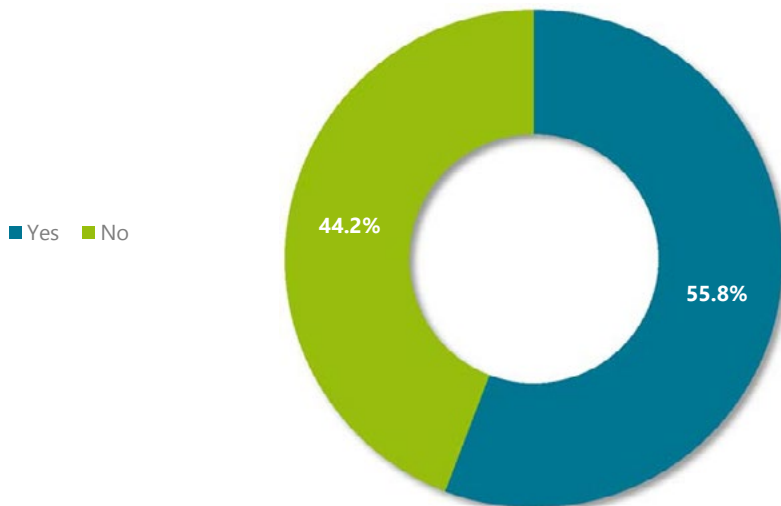


Chart 93

Source: IASP 2021

The above chart shows that 55.8% of AOIs/STPs lost out on income from their services. Affected services included events, catering, consulting, meeting room leasing and networking. Gyms, tourism and hotels also saw a loss in earning for a few AOIs/STPs.

10.4 Grants and funding

SUPPORT FOR AOIs/STPs

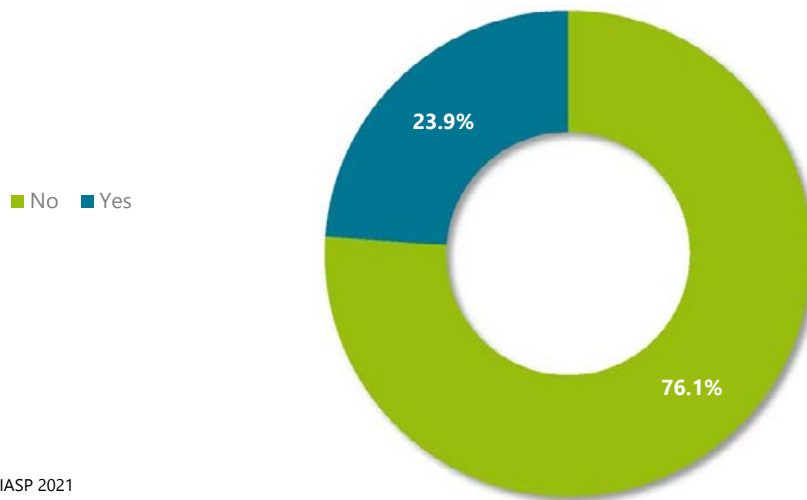


Chart 94 Source: IASP 2021

More than three quarters (76.1%) of AOIs/STPs did not receive any grants or funding support to mitigate the impacts of COVID-19, but rather guided their companies on how to access government financial support packages. Support for AOIs/STPs included tax reductions, recovery plan assistance, grants for digital investments, low-rate government loans and transportation infrastructure grants.

GOVERNMENT FINANCIAL SUPPORT FOR AOI/STP RESIDENT COMPANIES

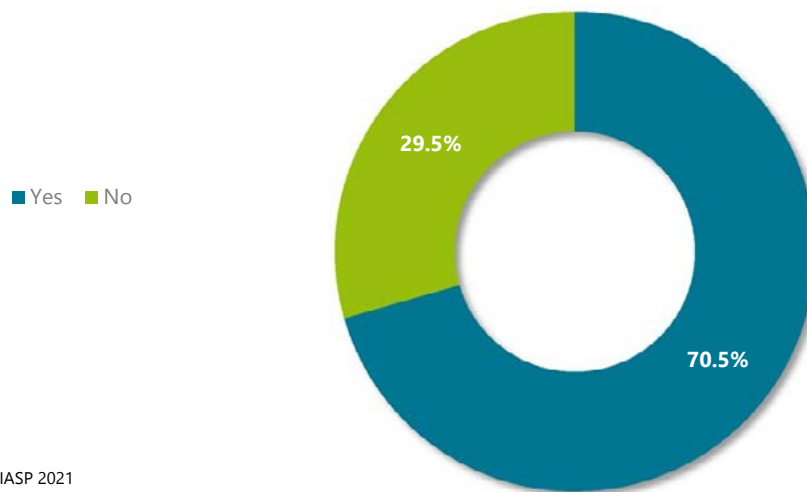


Chart 95 Source: IASP 2021

Contrary to what was seen in the previous graph (chart 94), which showed that only 23.9% of areas/parks had received some kind of financial assistance, resident companies from most AOIs/STPs (70.5%) did receive financial support from the government.

TYPE OF GOVERNMENT SUPPORT AOI/STP RESIDENT COMPANIES RECEIVED

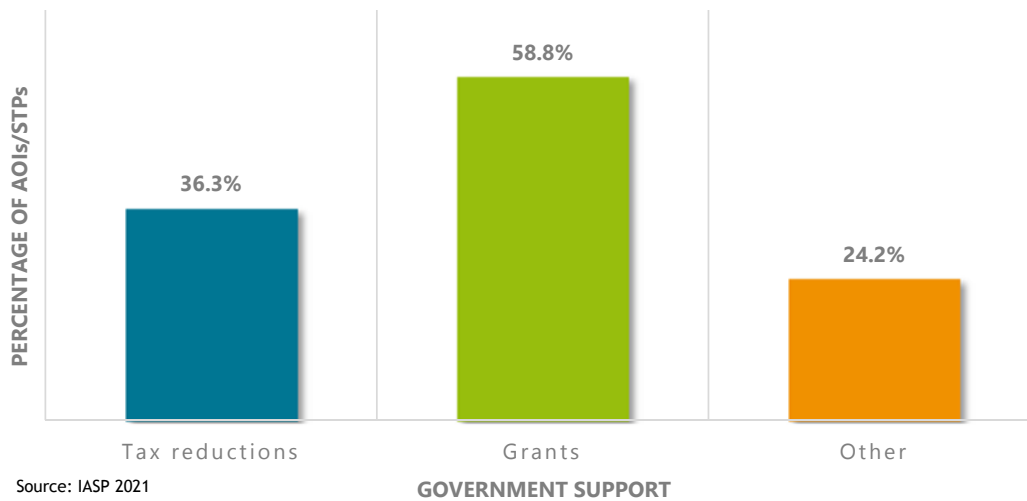


Chart 96

Source: IASP 2021

The government support resident companies of AOIs/STPs received was mostly in the form of grants, as was stated by 58.8% of respondents. Tax reductions were less common, with just 36.3% of resident companies that received support benefitting from them. Meanwhile, the resident companies of 24.2% of AOIs/STPs benefitted from other types of government support. This included a waiving of utility services charges, government-backed loans and furlough schemes. Rent reductions were also offered to a number of AOI/STP residents by various governments, which is possible due to the fact that many respondents’ organisations are based on public land (see chart 14).

10.5 AOI/STP support for residents

IMPLEMENTATION OF MEASURES TO SUPPORT RESIDENT COMPANIES

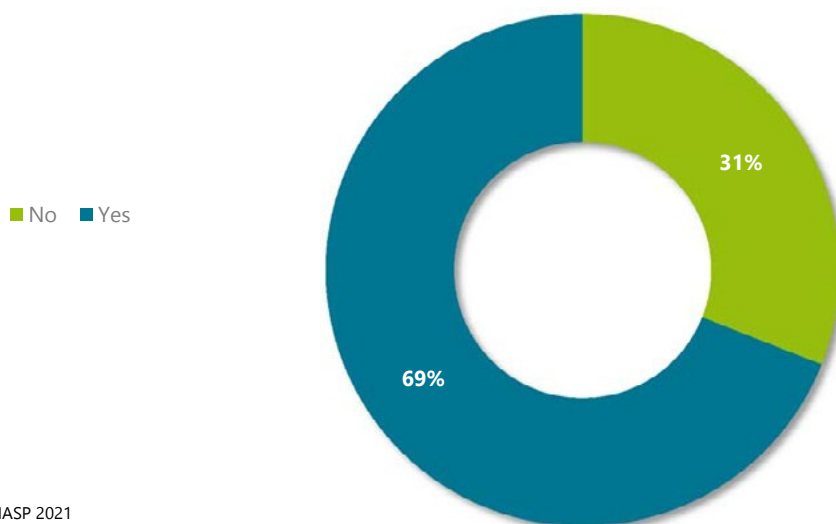


Chart 97

Source: IASP 2021

In addition to the financial support offered by governments, resident companies benefitted from specific measures implemented by AOIs/STPs to alleviate the difficulties brought on by COVID-19. As is shown in the chart, most AOIs/STPs (69%) applied some kind of action to help their resident companies.

MEASURES IMPLEMENTED TO SUPPORT RESIDENT COMPANIES

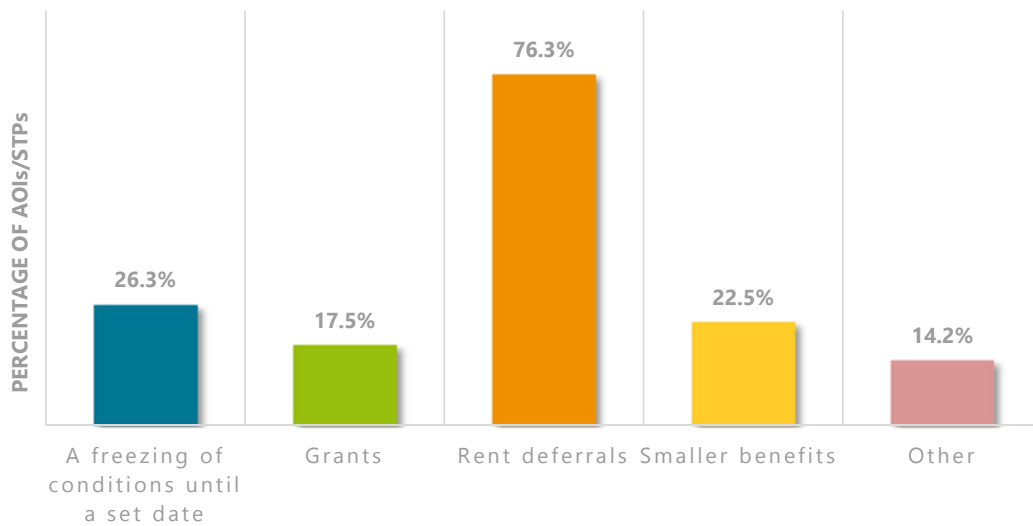


Chart 98

Source: IASP 2021

MEASURES

Measures offered to residents varied greatly, although most respondents that implemented measures reported deferring rent payments, as was the case for 76.3% of organisations.

MEASURE IMPLEMENTED: GRANTS (BY IASP REGIONAL DIVISION)

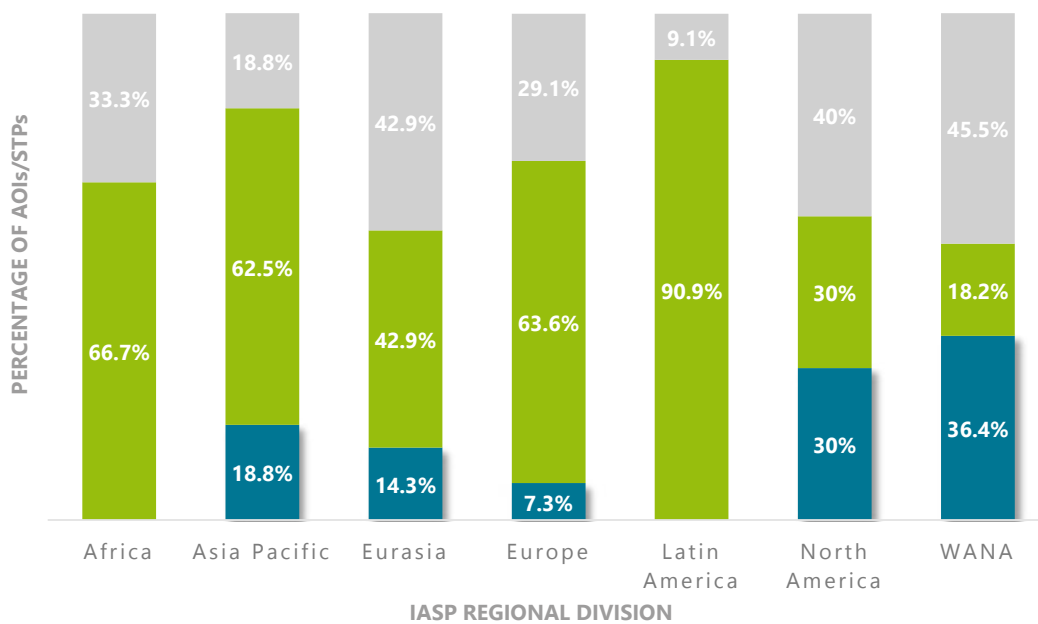


Chart 99

Source: IASP 2021

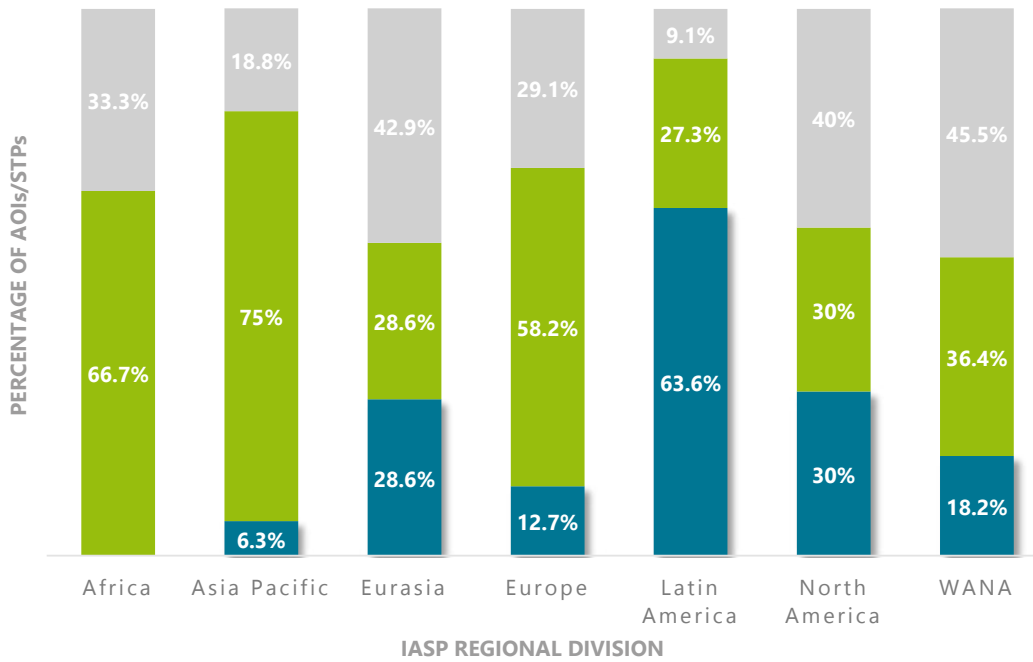
GRANTS PUT IN PLACE: ■ Yes ■ No ■ No implementation of measures

How to read this chart:

36.4% of AOIs/STPs in the WANA division implemented grants for residents, whilst 18.2% implemented other measures but not grants. 45.5% implemented no measures at all.

No respondents in the Africa or Latin America regions implemented grants for their resident companies. AOIs/STPs in these regions were more likely to suffer financially due to COVID-19 (see chart 92), meaning it's probable they did not have the funds to implement grants. The implementation of grants was more common amongst organisations in WANA and North America, with 36.4% and 30% of AOIs/STPs respectively enacting a grant scheme.

MEASURE IMPLEMENTED: FREEZING OF CONDITIONS
(BY IASP REGIONAL DIVISION)



FREEZING OF CONDITIONS PUT IN PLACE: ■ Yes ■ No ■ No implementation of measures

Chart 100

Source: IASP 2021

How to read this chart:

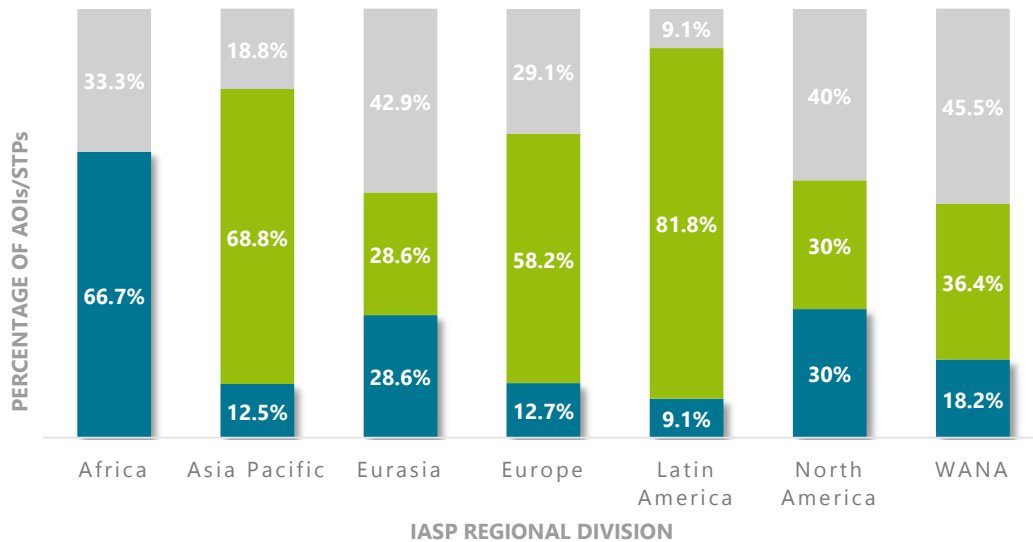
12.7% of AOIs/STPs in the European IASP Regional Division implemented a freezing of conditions for residents, whilst 58.2% implemented other measures but not a freezing of conditions. 29.1% implemented no measures at all.

AOIs/STPs in all regions except Africa froze conditions for resident companies, whilst this was done to a greater extent in Latin America where 63.6% of respondents report doing so. A significant number of AOIs/STPs in North America and Eurasia also implemented a freezing of conditions, with 30% and 28.6% of respondents applying this action respectively.



MEASURE IMPLEMENTED: SMALLER BENEFITS

(BY IASP REGIONAL DIVISION)



SMALLER BENEFITS PUT IN PLACE: ■ Yes ■ No ■ No implementation of measures

Chart 101

Source: IASP 2021

i How to read this chart:

28.6% of AOIs/STPs in the Eurasia IASP Regional Division implemented smaller benefits for residents, whilst 28.6% implemented other measures but not smaller benefits. 42.9% implemented no measures at all.

Smaller benefits for resident companies were implemented in two thirds of African organisations, perhaps due to their lower cost given the financial impact these AOIs/STPs took (see chart 92). On the other hand, Latin American AOIs/STPs were the least likely to implement them, with just 9.1% of organisations doing so. This trend is the opposite of that of freezing conditions, suggesting AOIs/STPs chose one of the two measures to implement.

CONTINUATION OF MEASURES TO SUPPORT RESIDENT COMPANIES

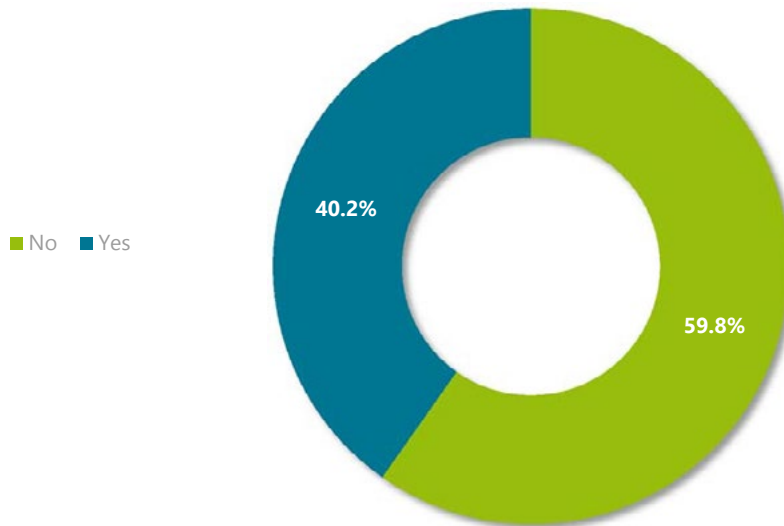


Chart 102 Source: IASP 2021

Of the respondents who had implemented support measures, 59.8% have decided not to continue with them into the future. On the other hand, 40.2% envisage a continuation of them, although it is unclear for how long, with responses ranging from 12 months to forever. Most made clear that there is no certainty regarding the situation, with these measures being drawn up specifically due to the COVID-19 pandemic and its timescale still remaining unknown. (Please note that data was collected in 2021 and respondents were asked specifically about their experiences during 2020.)

10.6 Impact on residents

AOI/STP RESIDENTS MOST FINANCIALLY IMPACTED

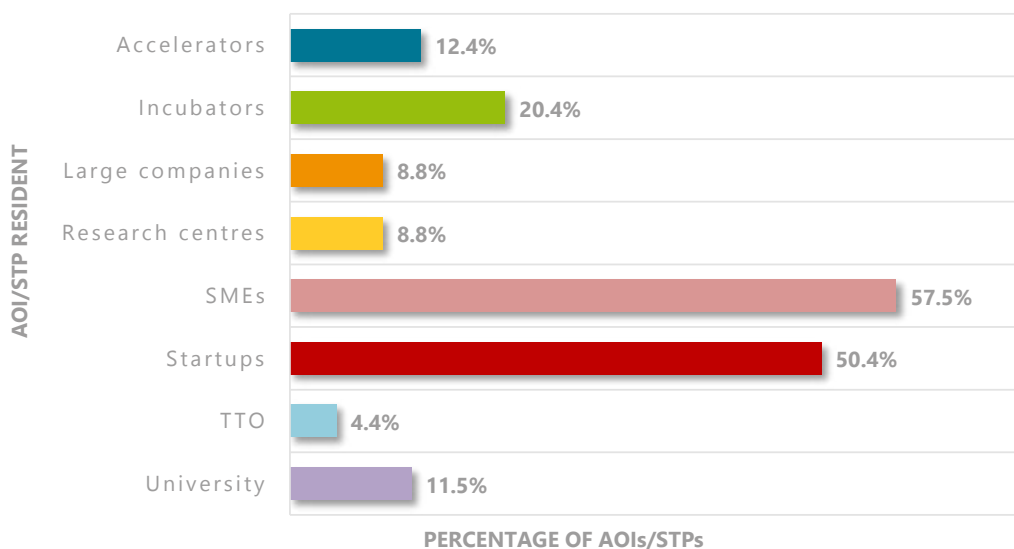


Chart 103 Source: IASP 2021

When asked to name the two AOI/STP residents most affected financially by COVID-19, most respondents indicated that SMEs and startups, 57.5% and 50.4% respectively, had suffered the most. This is a logical finding given that these companies make up 94.9% of residents (see chart 75). The least concern was for Technology Transfer Offices (TTOs) with just 4.4% of respondents viewing them as one of the two most financially affected residents.

AOI/STP RESIDENTS LOST IN 2020

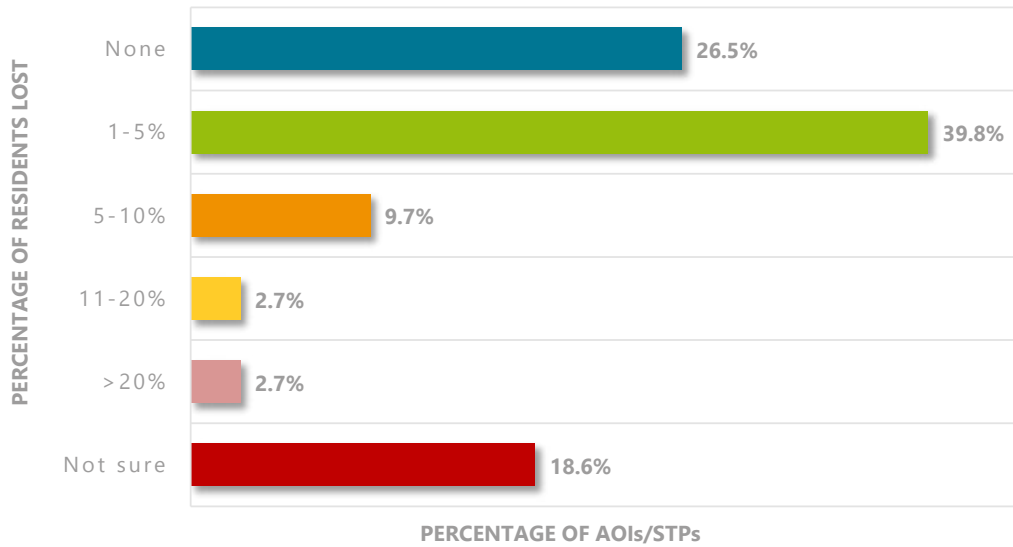


Chart 104 Source: IASP 2021

The resilience of the AOI/STP industry is highlighted by the fact that almost two thirds of respondents (66.3%) reported losing less than 5% of their residents during 2020. Although businesses were affected, just 2.7% of organisations lost more than 20% of their residents, whilst more than 1 in 4 (26.5%) lost none at all.

AOI/STP RESIDENTS LOST IN 2020 (BY IASP REGIONAL DIVISION)

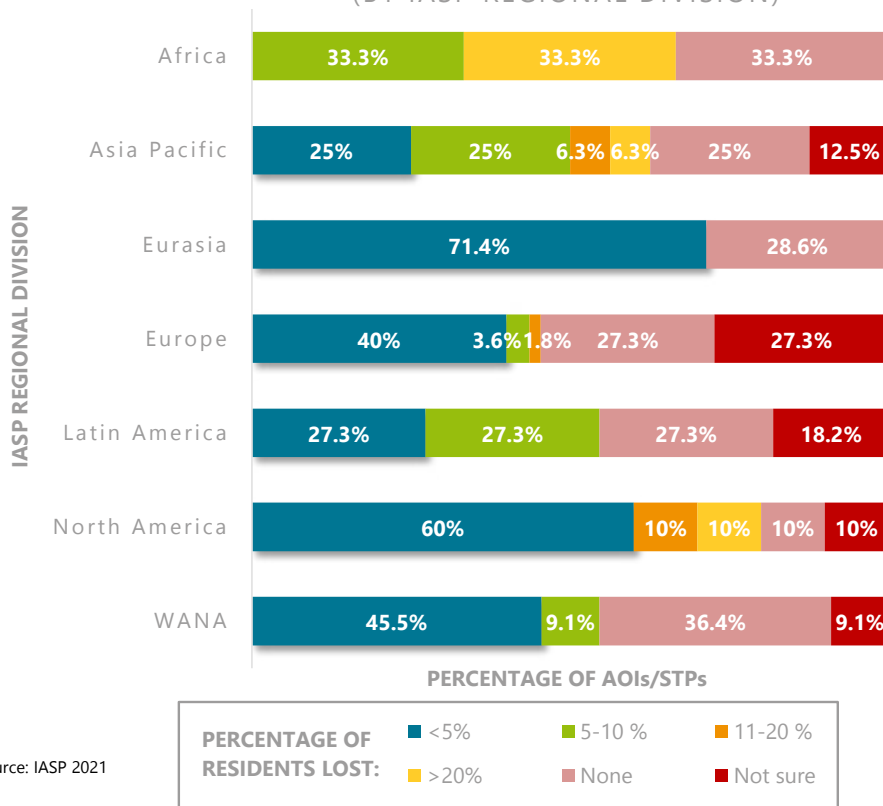


Chart 105 Source: IASP 2021

With the exception of North American respondents with just 10%, AOIs/STPs that lost no companies due to COVID-19 are spread relatively evenly around the world. The region worst affected in 2020 was Africa, with 33.3% of organisations losing more than 20% of resident companies. The consequences of this are shown in chart 92, with Africa being by far the most heavily affected region in terms of finances.

CONTACT WITH RESIDENT COMPANIES SINCE COVID-19 EMERGED

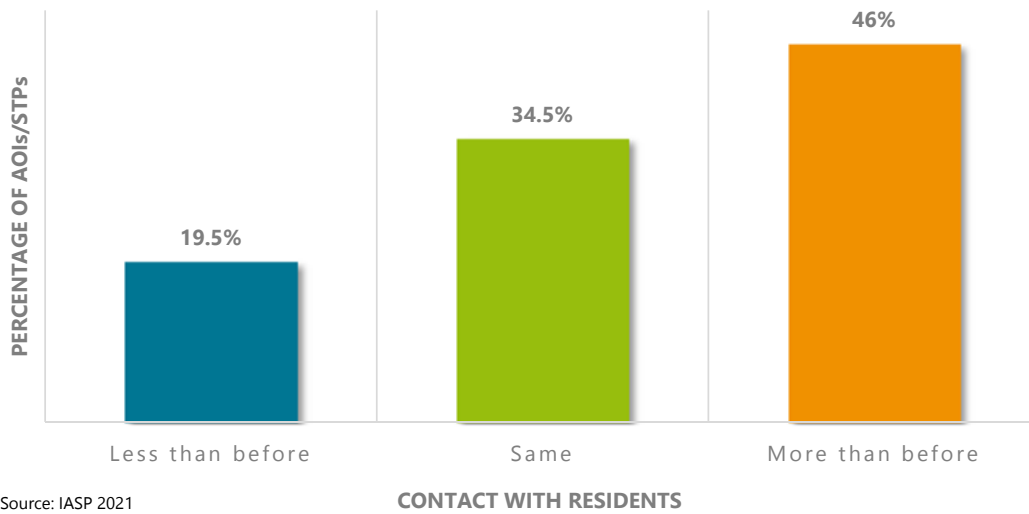


Chart 106

Source: IASP 2021

Despite lockdown orders worldwide, almost half (46%) of AOIs/STPs have had more contact with their residents than before COVID-19 emerged. This shows the adaptable nature of the management teams of AOIs/STPs, as well as their focus on communication with residents by providing them with valuable services and facing the impact of the pandemic together.

CONTACT WITH RESIDENTS SINCE COVID-19 EMERGED (BY IASP REGIONAL DIVISION)

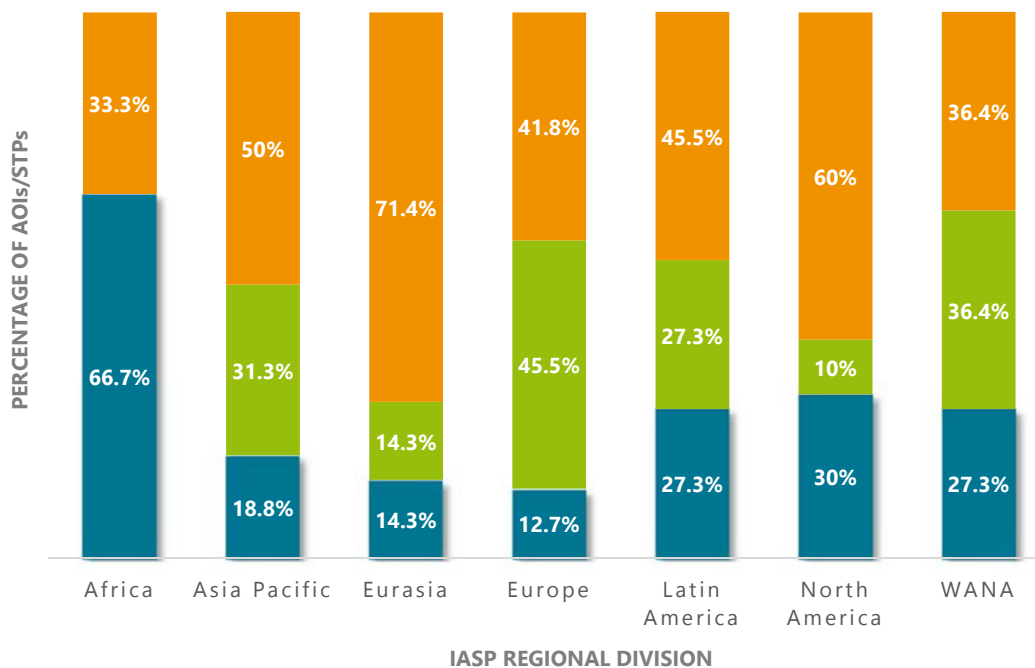


Chart 107

Source: IASP 2021

CONTACT WITH RESIDENTS: ■ Less than before ■ Same ■ More than before

Most IASP Regional Divisions saw a small amount of AOIs/STPs communicating with residents less than before, with the most common response for Asia Pacific, Eurasia, Latin America, North America and WANA being more contact than before. Europe also has a significant number of respondents in this category with 41.8%, with just African organisations more likely to have less communication (66.7%) with residents during the pandemic.

10.7 Impact on AOI/STP staff

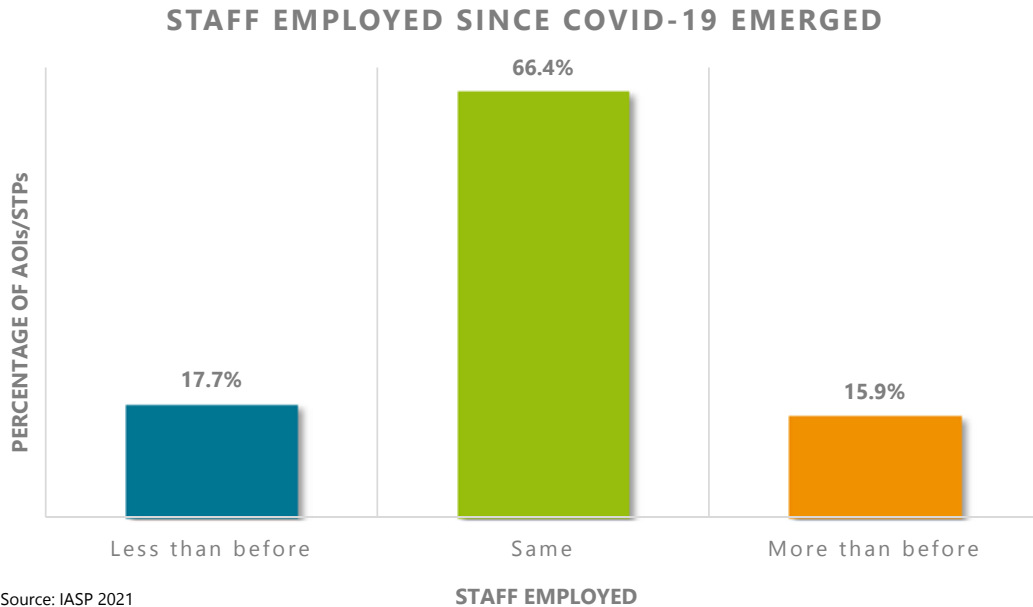


Chart 108 Source: IASP 2021

Most respondents have made no changes to their staffing numbers, with 66.4% of AOIs/STPs employing the same amount of staff as before COVID-19.

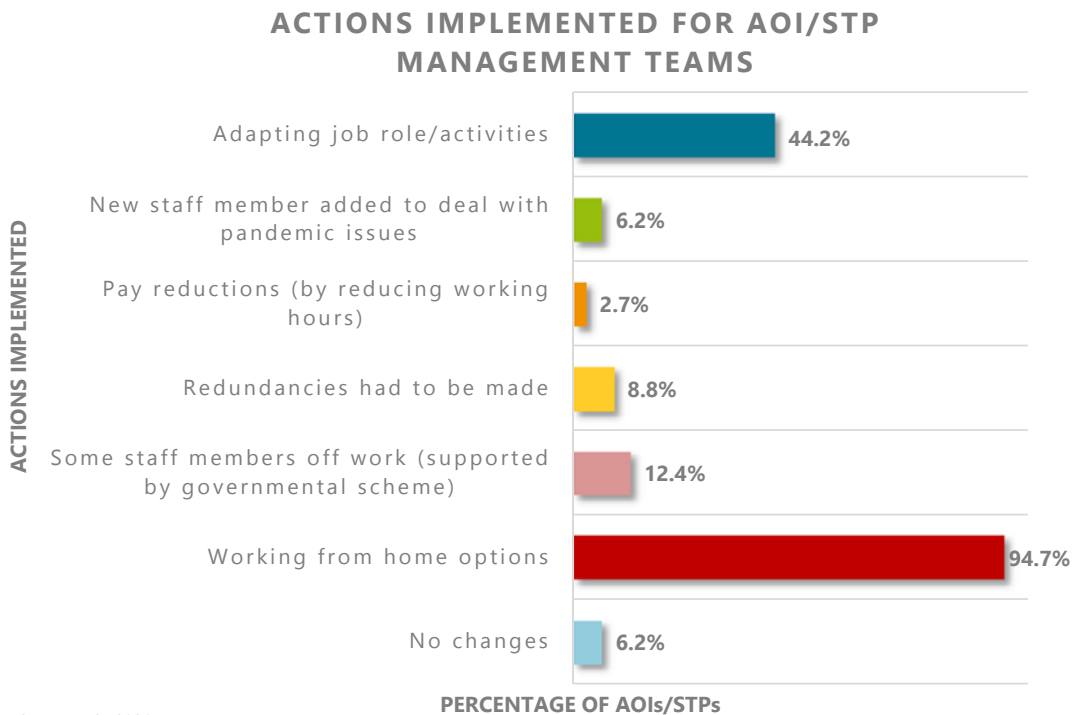


Chart 109 Source: IASP 2021

Although the number of workers in the team has remained practically the same (see chart 108) and few areas/parks (8.8%) have had to lay off employees and/or reduce their salaries (2.7%), the management teams had to adapt to the restrictive situation. In 44.2% of AOIs/STPs this meant adapting their role and/or activities to the new scenario and resident companies' needs, and through remote working for almost all respondents (94.7%).

10.8 Future expectations

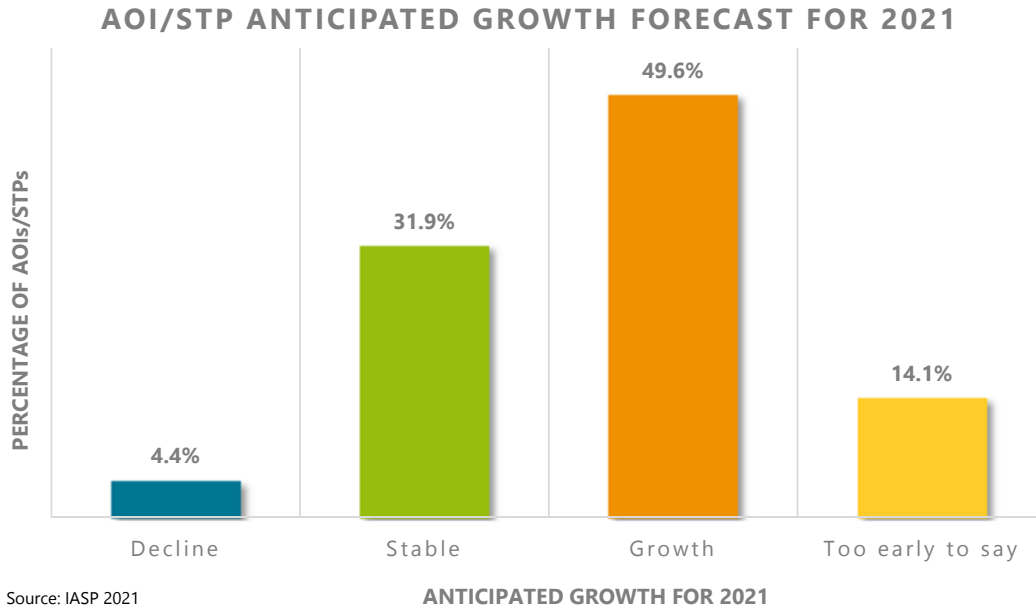


Chart 110

Source: IASP 2021

When asked how they viewed their expectations for the remainder of the year, despite all the challenges faced due to COVID-19, only 4.4% expected their AOI/STP's to decline. The strength and adaptability of the industry is emphasised by this, especially given close to half of respondents (49.6%) expected growth in 2021.

EXPECTATION OF A REDUCTION IN OFFICE SPACE REQUIREMENTS BETWEEN 2021-2023

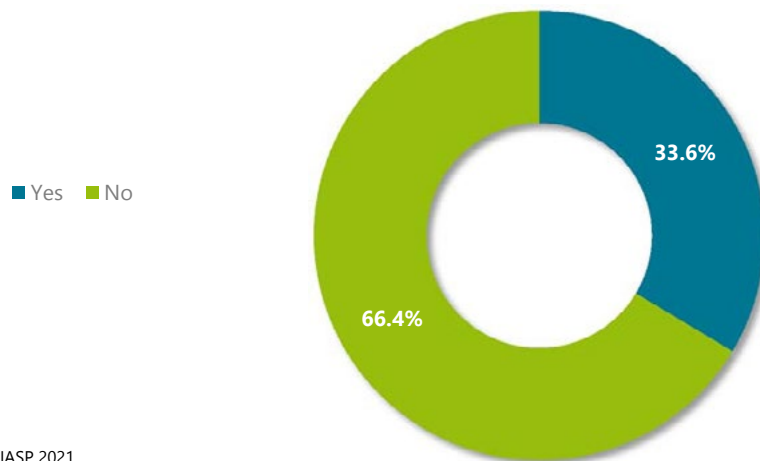


Chart 111

Source: IASP 2021

Contrary to what was generally predicted at the beginning of the pandemic, considering the increase in remote working and the continued social distancing that has remained for a long time in many parts of the world, the above chart shows an optimism regarding AOIs/STPs' expectations for office space requirements. Around 2 out of 3 respondents (66.4%) were not anticipating a reduction in demand over these three years.

EXPECTATION OF A REDUCTION IN OFFICE SPACE REQUIREMENTS BETWEEN 2021-2023

(BY IASP REGIONAL DIVISION)

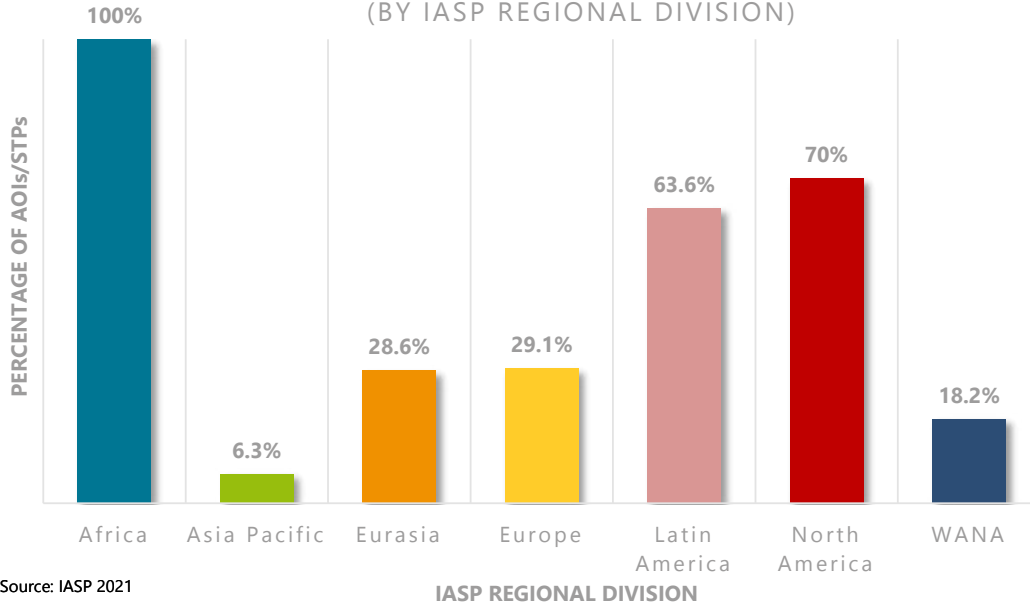


Chart 112

Source: IASP 2021

Despite the majority of AOIs/STPs not expecting a reduction in office space requirements between 2021 and 2023 (see chart 111), this highly depends on the region. North American, Latin American and African respondents all expect a reduction, whilst the vast majority of organisations do not. Huge regional disparities are shown by the fact 100% of AOIs/STPs in the Africa Regional Division expect a reduction in demand, compared to just 6.3% in Asia Pacific. Given the number of residents lost in AOIs/STPs in the latter region (see chart 105), its organisations are clearly confident of bouncing back quickly.

ANTICIPATED REDUCTION IN OFFICE SPACE REQUIREMENTS BETWEEN 2021-2023

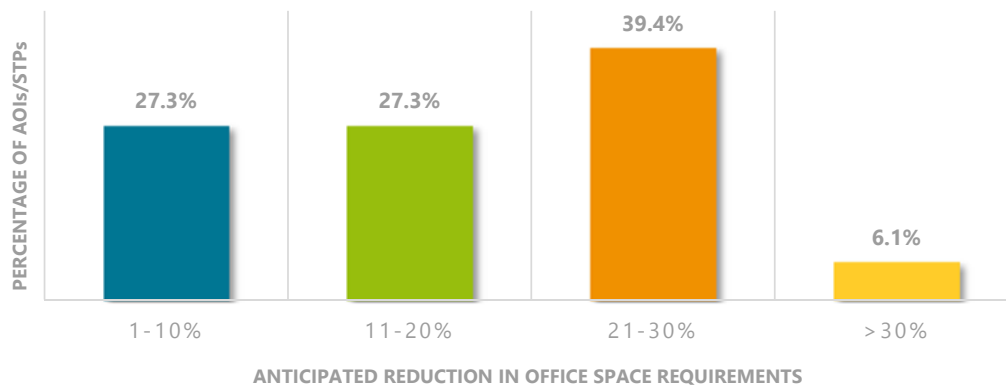


Chart 113

Source: IASP 2021

i How to read this chart:

Of those AOIs/STPs expecting a reduction in office space requirements, 27.3% anticipates a reduction up to 10% from the total space offered by the area/park.

Areas/parks that stated to expect a reduction in office space requirements were asked by what percentage they thought the demand for space would be reduced. Most of them (39.4%) expect demand to drop between 21% and 30%.

CHANGES FOR AOIs/STPs PREDICTED FROM 2021 ONWARDS

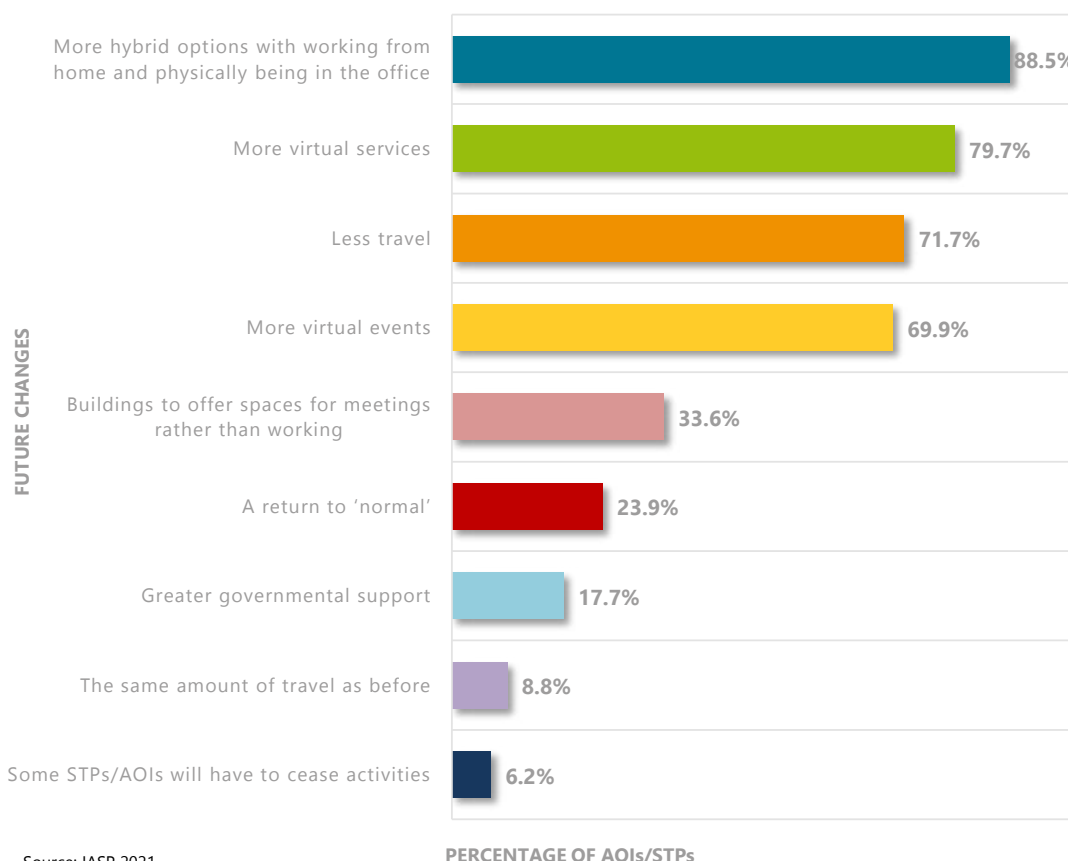


Chart 114

Source: IASP 2021

Our final question asked AOIs/STPs their predictions for the future. Most seem to believe changes to ways of working brought about by the pandemic are here to stay, with 88.5% expecting more hybrid working options, 79.7% predicting more virtual services and 71.7% less travel. Coworking spaces were highlighted as a trend that will continue, although 23.9% believe in a return to 'normal' in the near future. 93.8% of respondents are not expecting some AOIs/STPs to cease activities, demonstrating the emphatic confidence in the future direction of the industry.

On a final note, it is also worth pointing out that in qualitative debates about the future of AOIs/STPs at subsequent events such as the IASP 2021 Virtual World Conference, the need for in-person knowledge sharing and creation of ideas thanks to serendipitous encounters on AOI/STP premises was highlighted. Seen as a key value to interweave with virtual services, it is gaining momentum again as AOIs/STPs continue supporting their resident companies and local communities in a post pandemic world.