



Project Sunrays

Getting ready for COVID-19 vaccines logistics by air

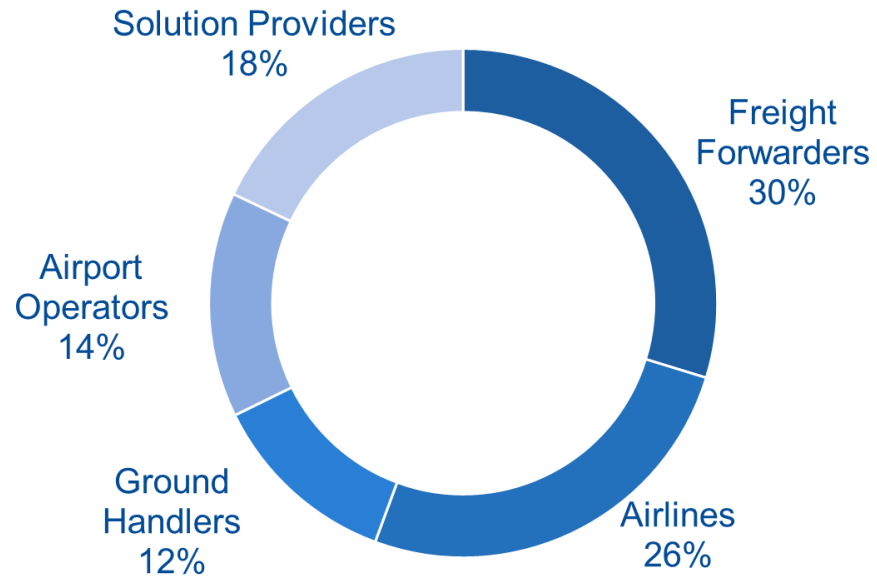
Airfreight readiness survey results (executive summary)



Insights from airfreight industry

- **Industry survey** to collect insights from airfreight sector on capabilities, readiness, concerns and needs

181 answers received from 8 to 20 September 2020, analysed and presented by Change Horizon

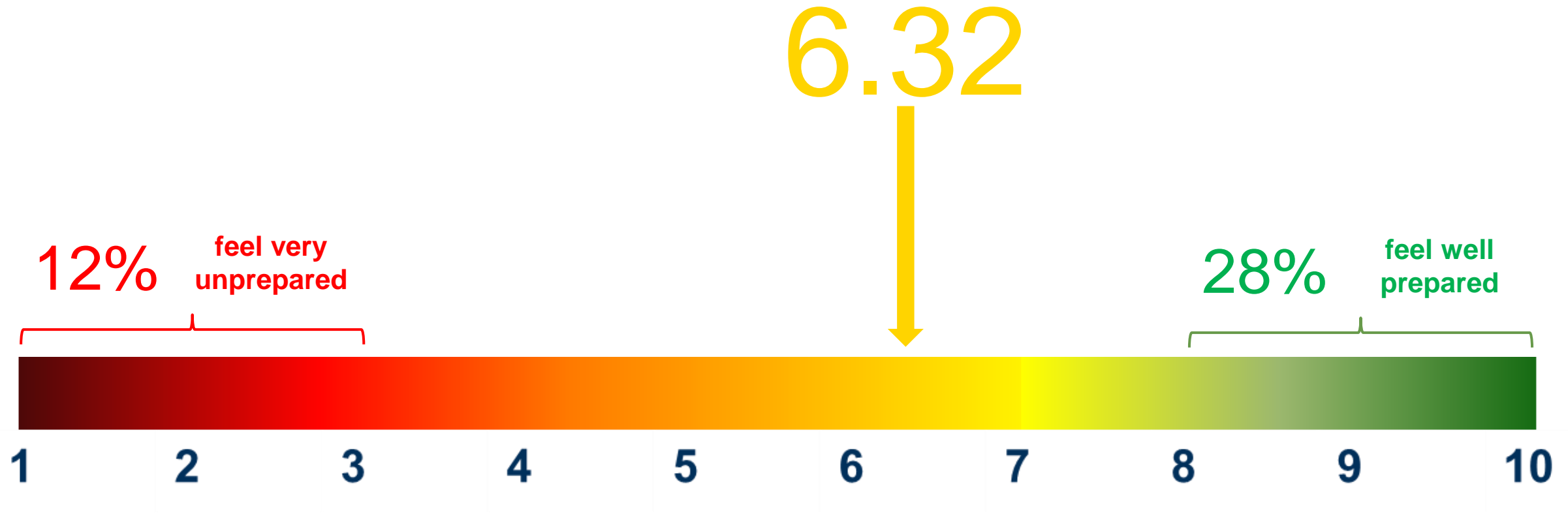


- **Deep dive talks** with air pharma logistics specialists
- **Research** and compilation of information, available on public domain

Objective was to have a better understanding on current readiness level in the airfreight supply chain for the future COVID-19 vaccines, plans to get ready and existing capabilities to handle, store, transport and deliver the vaccines

Airfreight preparedness

How well-informed and prepared is your organisation in the global air transportation of Covid-19 vaccines?



Airfreight preparedness: engage with pharma shippers!

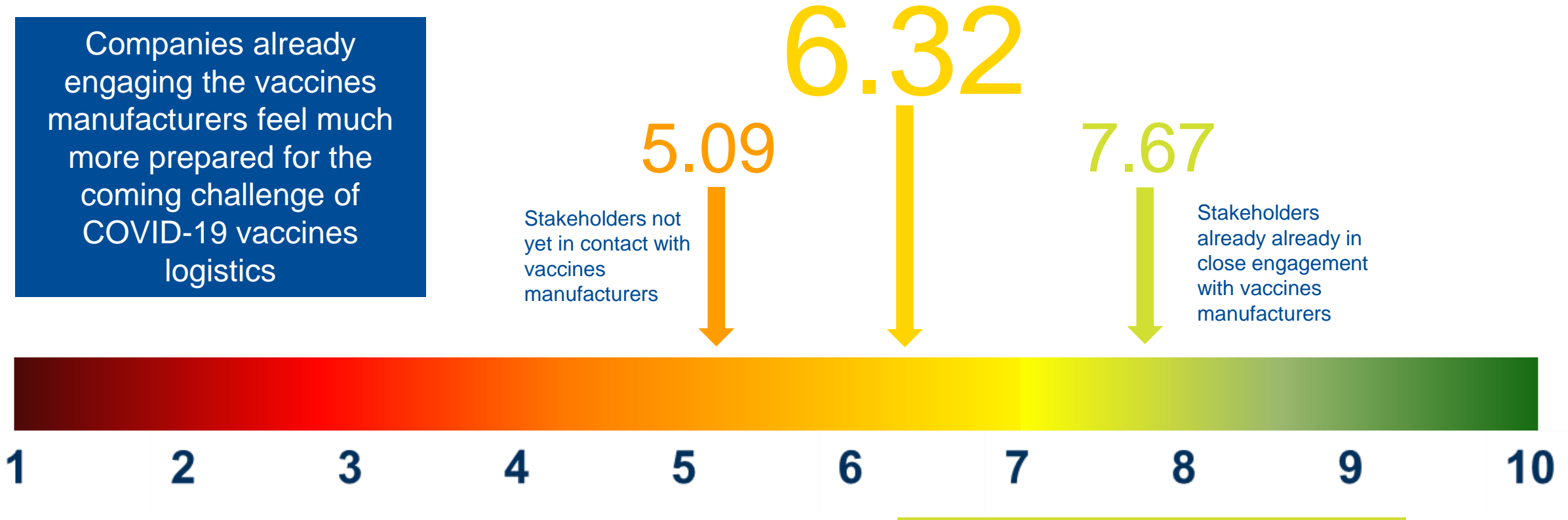
How well-informed and prepared is your organisation in the global air transportation of Covid-19 vaccines?

Is your organisation already engaging the vaccines developers/ shippers on supply chain requirements for global manufacturing and distribution?

Has your organization already formed a dedicated team to prepare for the global air transportation of Covid-19 vaccines?

Have you started strategizing/ collaborating with your other supply chain partners and subcontractors to handle the logistics of COVID-19 vaccines?

Companies already engaging the vaccines manufacturers feel much more prepared for the coming challenge of COVID-19 vaccines logistics



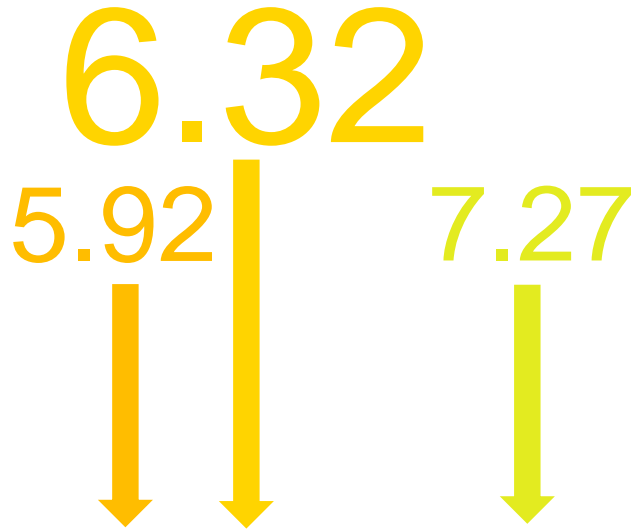
- 87% have the right structure in place with a **dedicated team**
- 61% are already in close engagement with their supply chain **partners** and 31% have either started or will start engaging them soon

Airfreight preparedness: the sooner, the better

How well-informed and prepared is your organisation in the global air transportation of Covid-19 vaccines?
Is your organisation currently involved in the air transport of Covid-19 vaccines which are in clinical trials?

Companies involved in clinical trials logistics feel more prepared for the coming challenge of COVID-19 vaccines logistics

Stakeholders not involved in the air transport of Covid-19 vaccines which are in clinical trials



Stakeholders already involved in the air transport of Covid-19 vaccines which are in clinical trials



Feedback from companies involved in clinical trials logistics

Is your organisation currently involved in the air transport of Covid-19 vaccines which are in clinical trials?

Based on the air transportation of vaccines in clinical trials, did your organisation adjust your existing processes to fulfil shippers/clients' requirements?

Please share the adjustments made by your organisation in facilitating the transportation of the Covid-19 vaccines undergoing clinical trials.

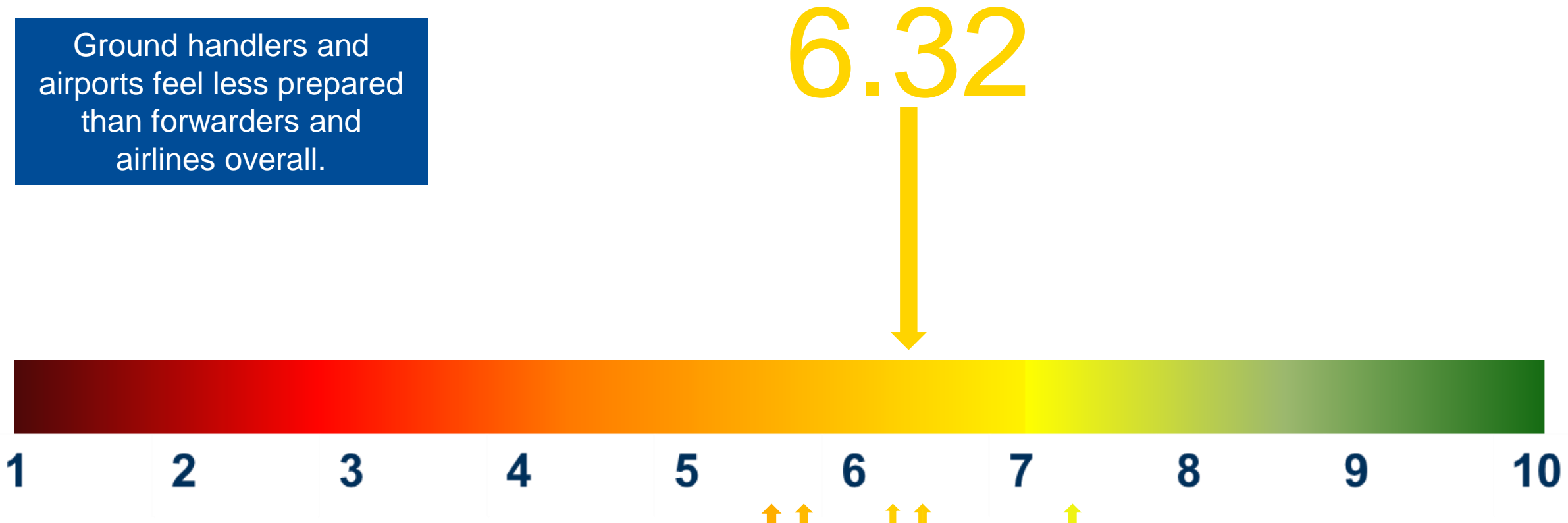
- 20% of the respondents are already involved in logistics of COVID-19 vaccines in clinical trials
 - 65% explained their existing processes were compliant with clients' requirements
 - 35% declared there were additional requirements beyond the standard pharma services they used to provide, such as:
 - Setting up a **specialized team** to manage COVID-19 vaccines related orders (all stakeholder types)
 - Integrating methods / solutions to **track, collect and share data** on the shipment (solution providers such as ULD, Packaging, IT solution providers)
 - Developing new/better **packaging and dry-ice solutions** (solution providers such as ULD and Packaging providers)
 - Defining **final mile delivery solutions** (mainly forwarders)
 - Expanding **network capabilities** with CEIV Pharma certified partners and adequate cargo facilities (airlines, forwarders, handlers, airports)
- Difficult to collect more information at this stage as this is sensitive (competitive advantage)

Airfreight preparedness: don't leave the GHAs and airports behind!

How well-informed and prepared is your organisation in the global air transportation of Covid-19 vaccines?

Which segment of the air cargo industry does your organisation represent?

Ground handlers and airports feel less prepared than forwarders and airlines overall.



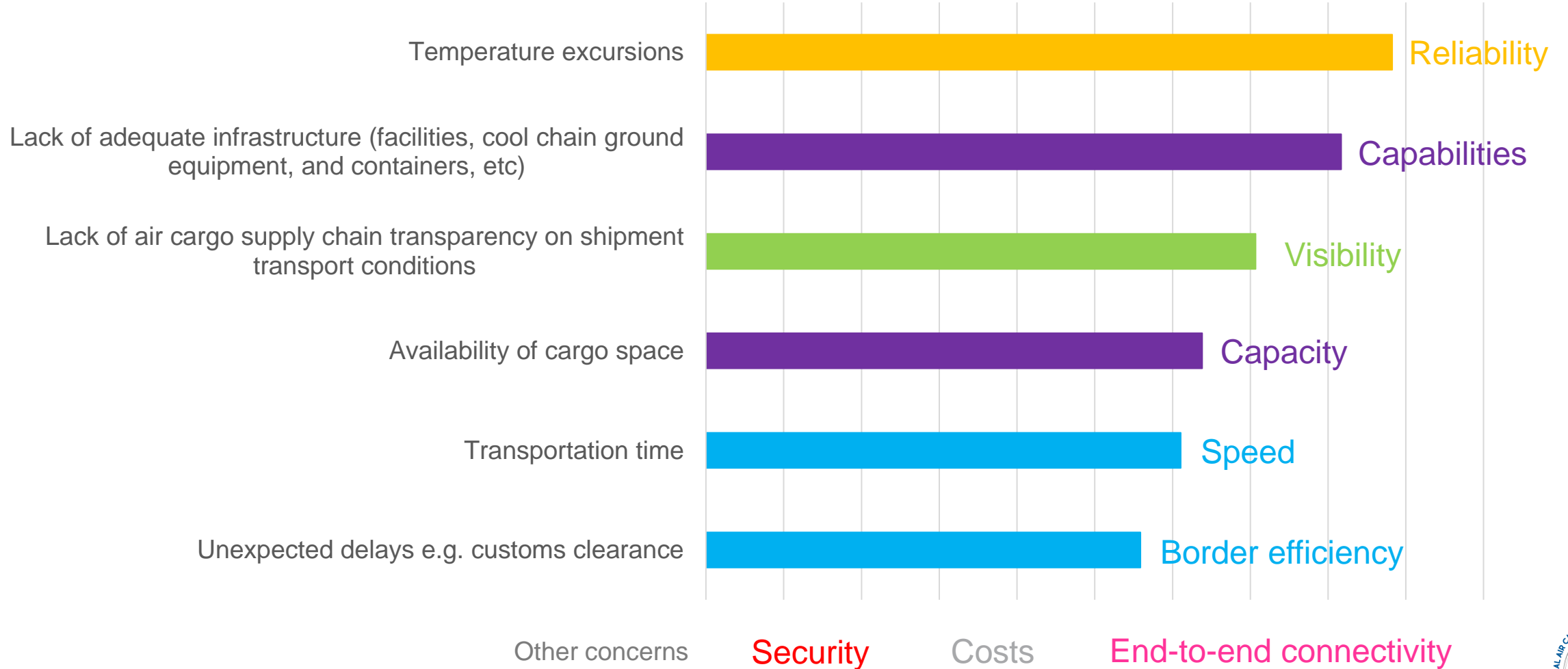
Ground handlers 5.55
Airports 5.88
Forwarders 6.26
Airlines 6.36
Solution providers, mainly ULD and packaging providers 7.22

Source: TIACA and Pharma.Aero - Sunrays airfreight readiness survey, September 2020 (181 answers received)

Top concerns

What are your biggest concerns with respect to air transportation and last mile distribution of Covid-19 vaccines shipments?

All respondents



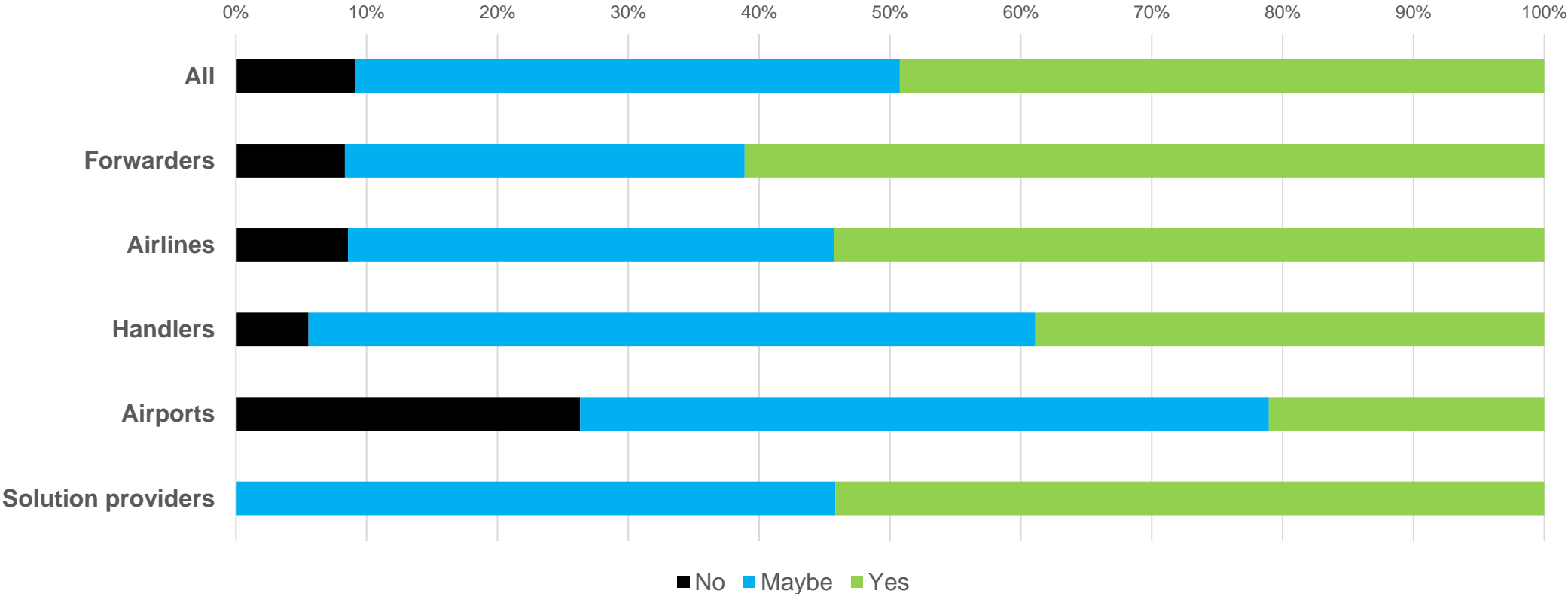
Source: TIACA and Pharma.Aero - Sunrays airfreight readiness survey, September 2020 (132 answers received)

New services

In ensuring timely and reliable global air transportation of Covid-19 vaccines, is your organisation planning to introduce additional and/or premium services for shippers/clients?

49% will introduce additional and/or premium services

42% may introduce additional and/or premium services



■ No ■ Maybe ■ Yes

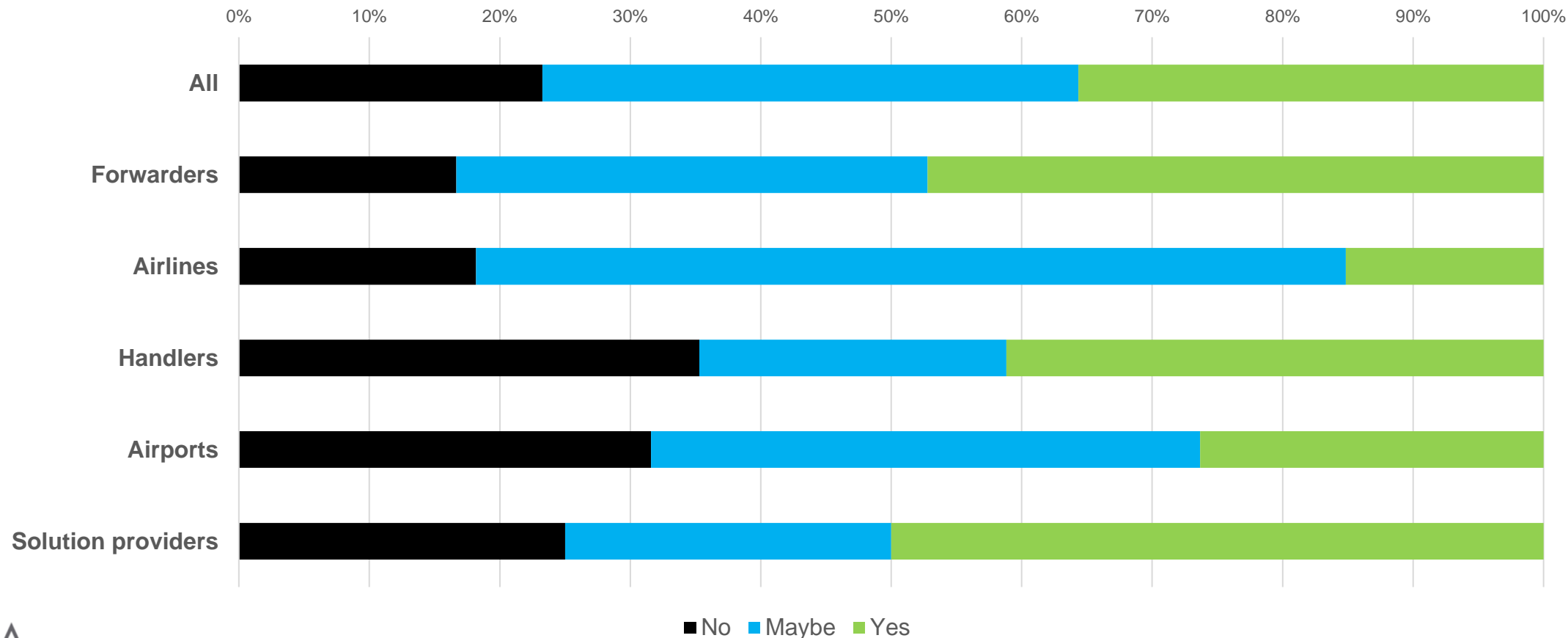
Source: TIACA and Pharma.Aero - Sunrays airfreight readiness survey, September 2020 (132 answers received)

Additional infrastructure

In ensuring timely and reliable global air transportation of Covid-19 vaccines, is your organisation planning to invest in additional physical and/or digital infrastructure?

36% will invest in additional physical and/or digital infrastructure

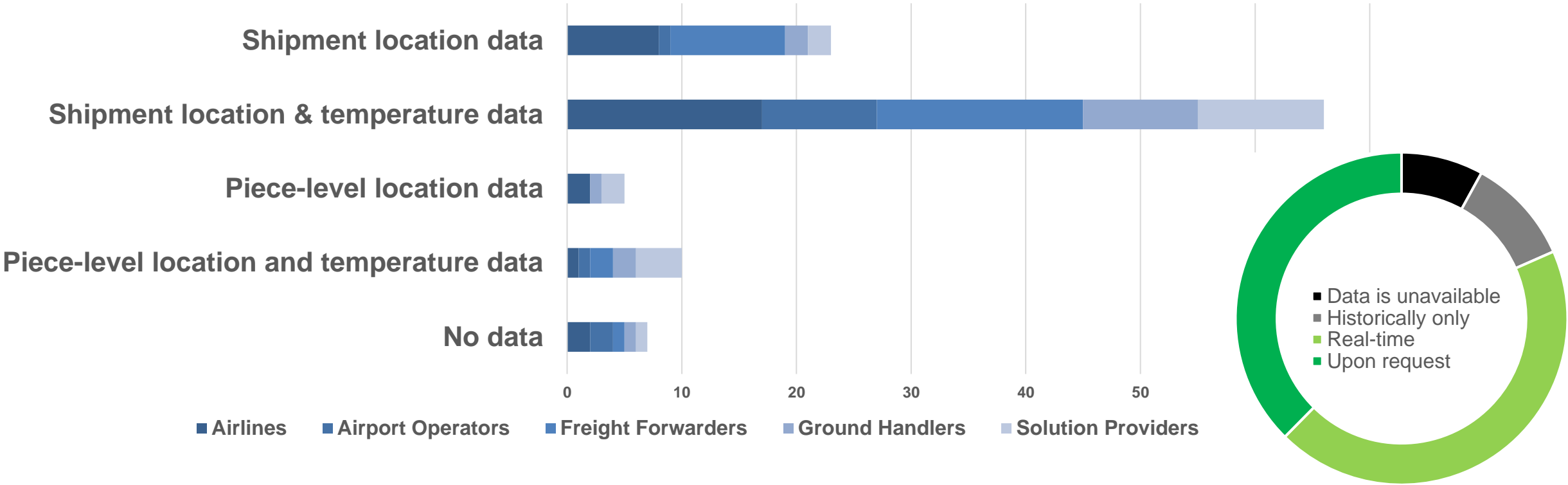
41% may invest in additional physical and/or digital infrastructure



Source: TIACA and Pharma.Aero - Sunrays airfreight readiness survey, September 2020 (132 answers received)

Monitoring shipments: what can be done?

Based on current processes, what levels of visibility would your organisation be prepared to provide shippers/clients with?
How fast would you be able to provide the above data to your shippers/clients?



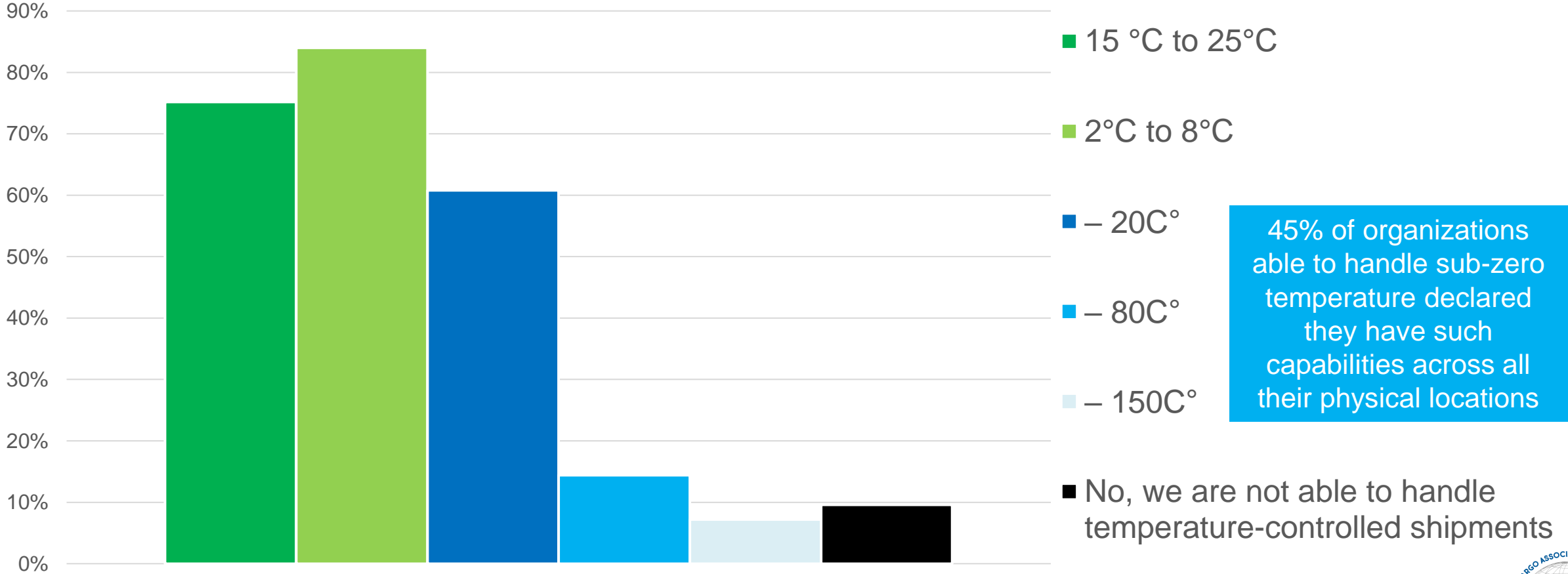
Airlines recommend shippers and forwarders to

1. Use airlines' own tracking devices
2. Use an already approved device by the airline(s) you plan to work with
3. For non-approved devices, start the approval process now as it can take some time

Source: TIACA and Pharma.Aero - Sunrays airfreight readiness survey, September 2020 (132 answers received)

Existing cool chain capabilities

Is your organisation currently able to handle/store/transport temperature-controlled shipments?



What airfreight providers need: information as early as possible

Information is needed on:

- Trade-lanes
- Product specifications
- Specific handling, storage and security conditions
- Packaging details
- Real-time shipment monitoring requirements
- Use of dry-ice or not
- Use of active containers needing power supplies
- List of monitoring devices customers will use

