

Stakeholder engagement on Urban Air Mobility and assessing public perceptions

Topics & learnings from this session

Topics covered

1. Key stakeholders in Urban Air Mobility (UAM)
2. Perceptions from stakeholders on acceptable use cases and the advancement of UAM operations
3. Current opinion from European citizens on UAM and use cases
4. Methods for engagement (Audience participation)
5. Increased public acceptance for this new technology (Audience participation)

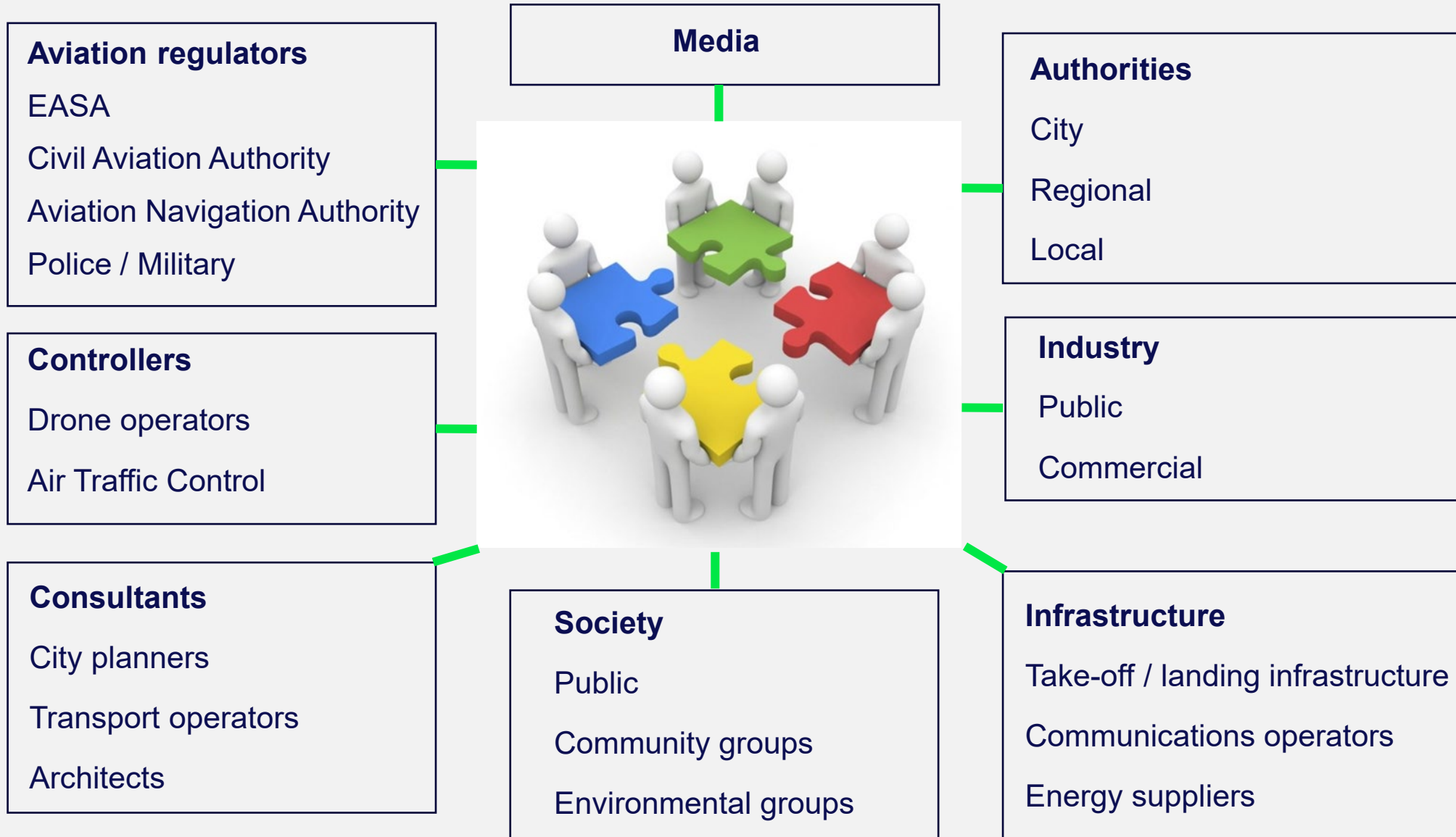
Learning objectives

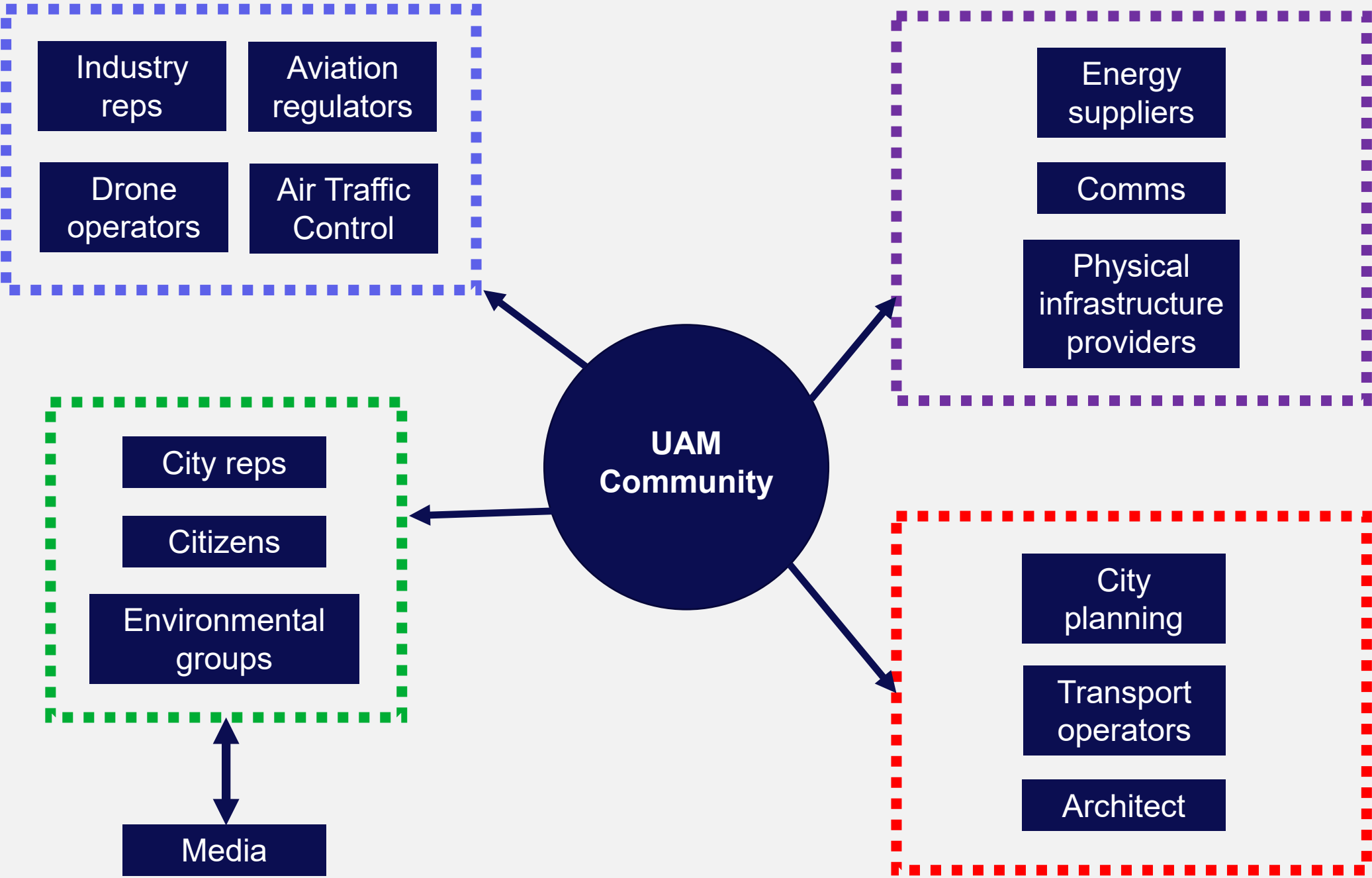
- List the stakeholders who should be consulted on drone operations
- Advise ways in which the public can be engaged on the topic of UAM and how to increase their acceptance of this new form of transport

Name stakeholders who should be engaged if you are planning a medical drone operation



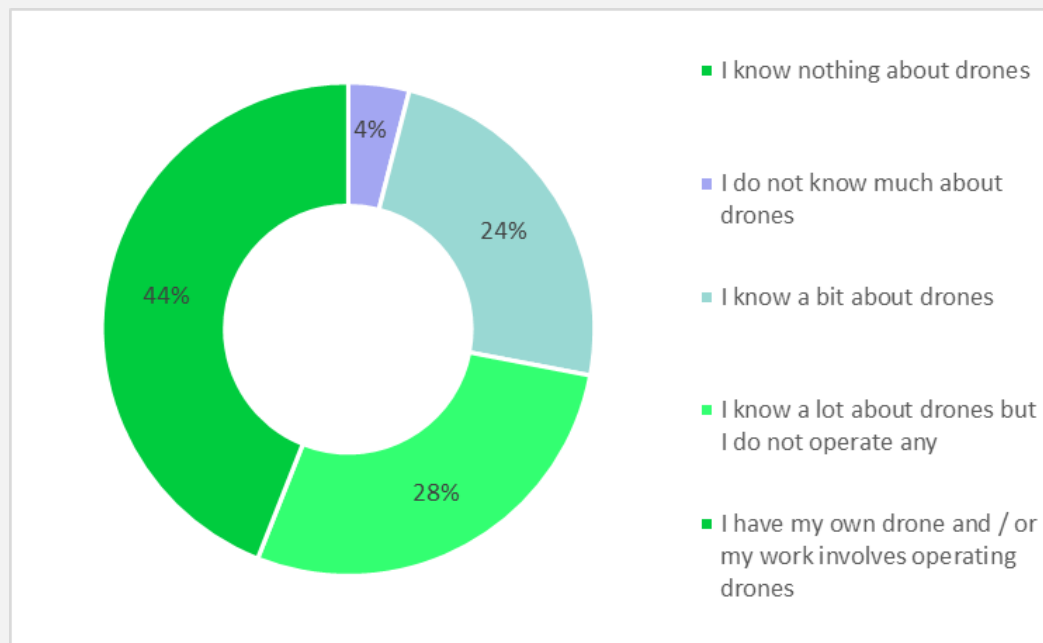
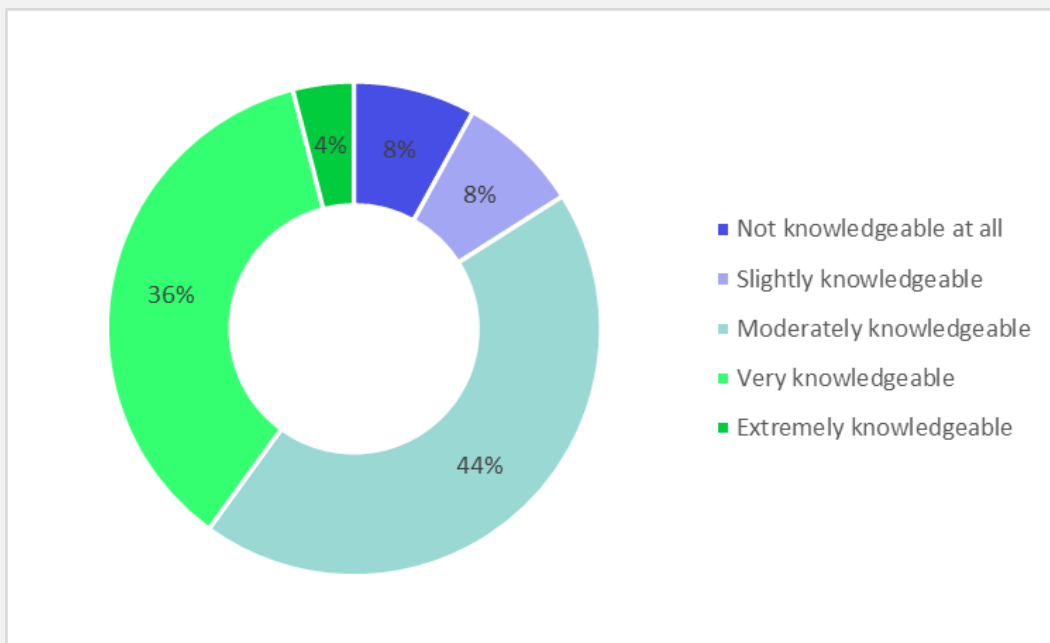
Stakeholders in UAM



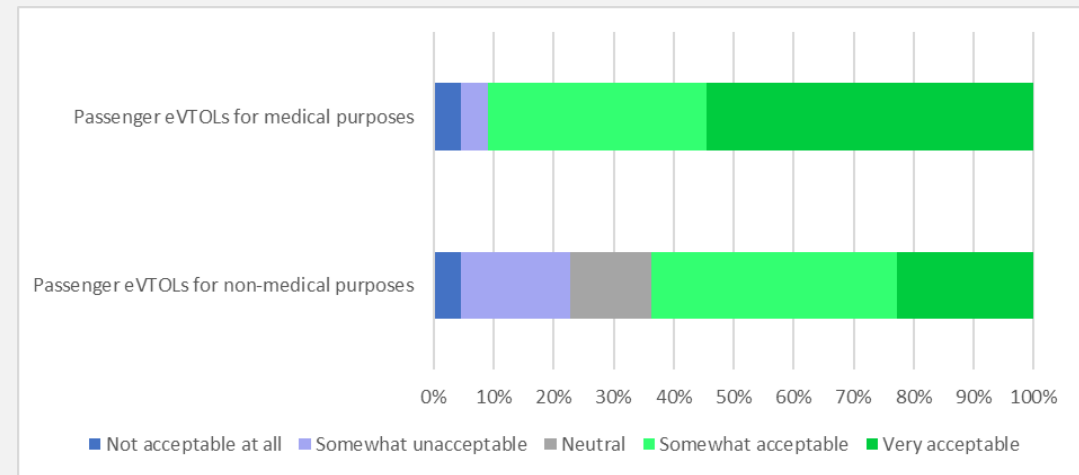
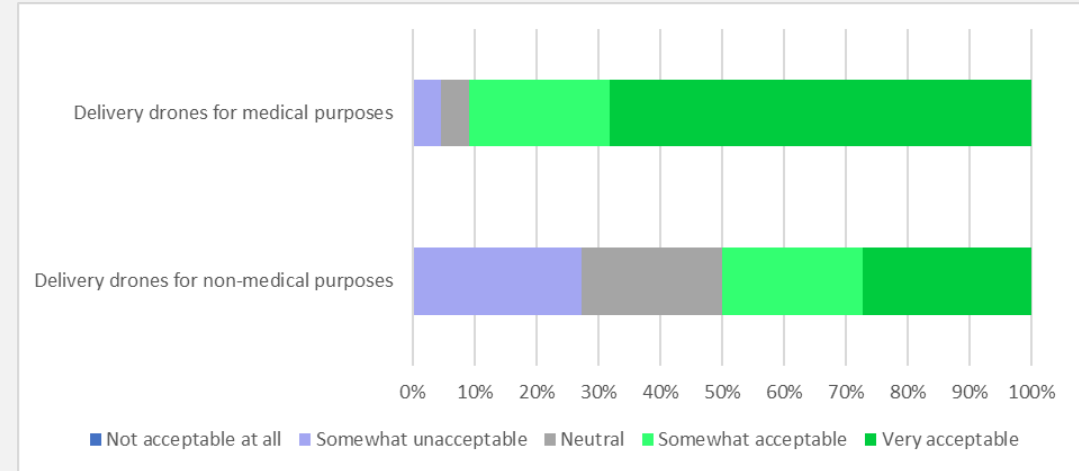
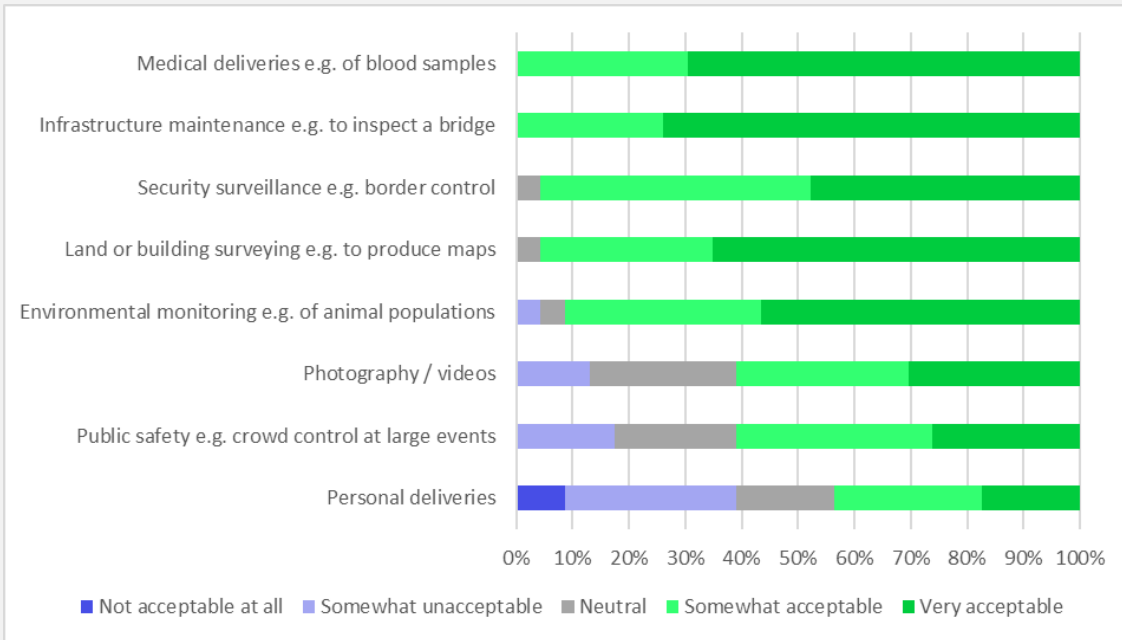


Stakeholder engagement

Prior knowledge levels ...



Use cases ...



Expert perspective on advancing UAM



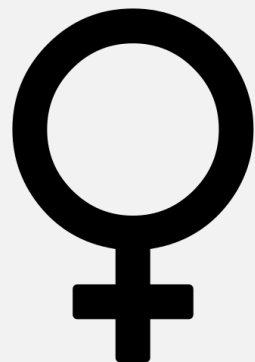
What are the barriers to innovation?

- Lack of specific test areas.
- Technology readiness, minimising risks, communication infrastructure, public acceptance.
- Regulations and standards are missing, in particular for passenger eVTOLs and fully autonomous aircraft.
- ‘Holistic technologic aspect’ remains a key challenge, which includes how to build UAM into existing ground infrastructure (adapt cities for drone flights).
- Drones have to be able to land anywhere e.g. to deliver a defibrillator anywhere. This creates challenges from an aviation security perspective, as drone corridors are no longer useful.

What are the next steps for integration?

- Economies of scale have to be developed in order for drones to be commercially attractive.
- Architects need to take this new form of mobility into account in their designs, e.g. open windows for drone deliveries in high rise buildings.
- Well defined regulations, testing and certification, infrastructure, good network of cellular coverage.
- Vision is for the transportation, digital infrastructure, physical infrastructure, air mobility industry to be created with the user in mind. Also the industry needs to focus on the youth programme outreach in the future workforce.

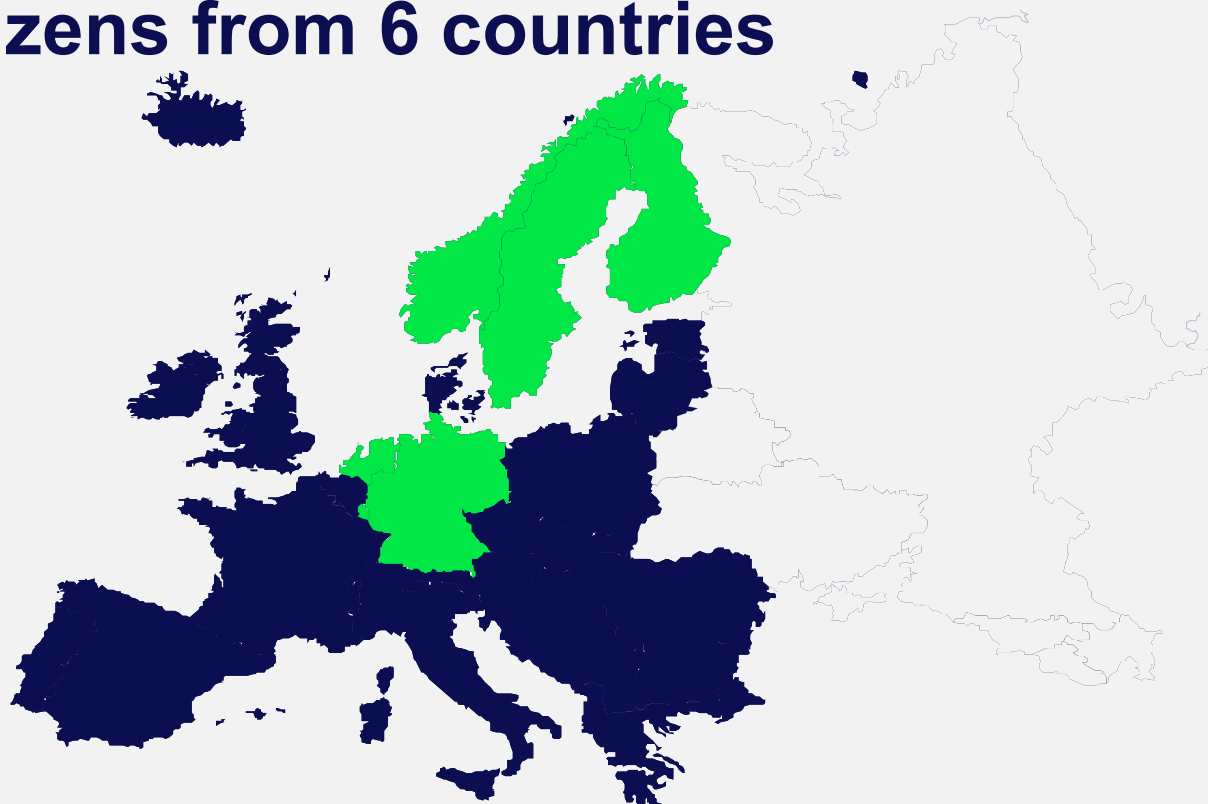
Questionnaire of 1,104 Citizens from 6 countries



Female
50%



Male
50%

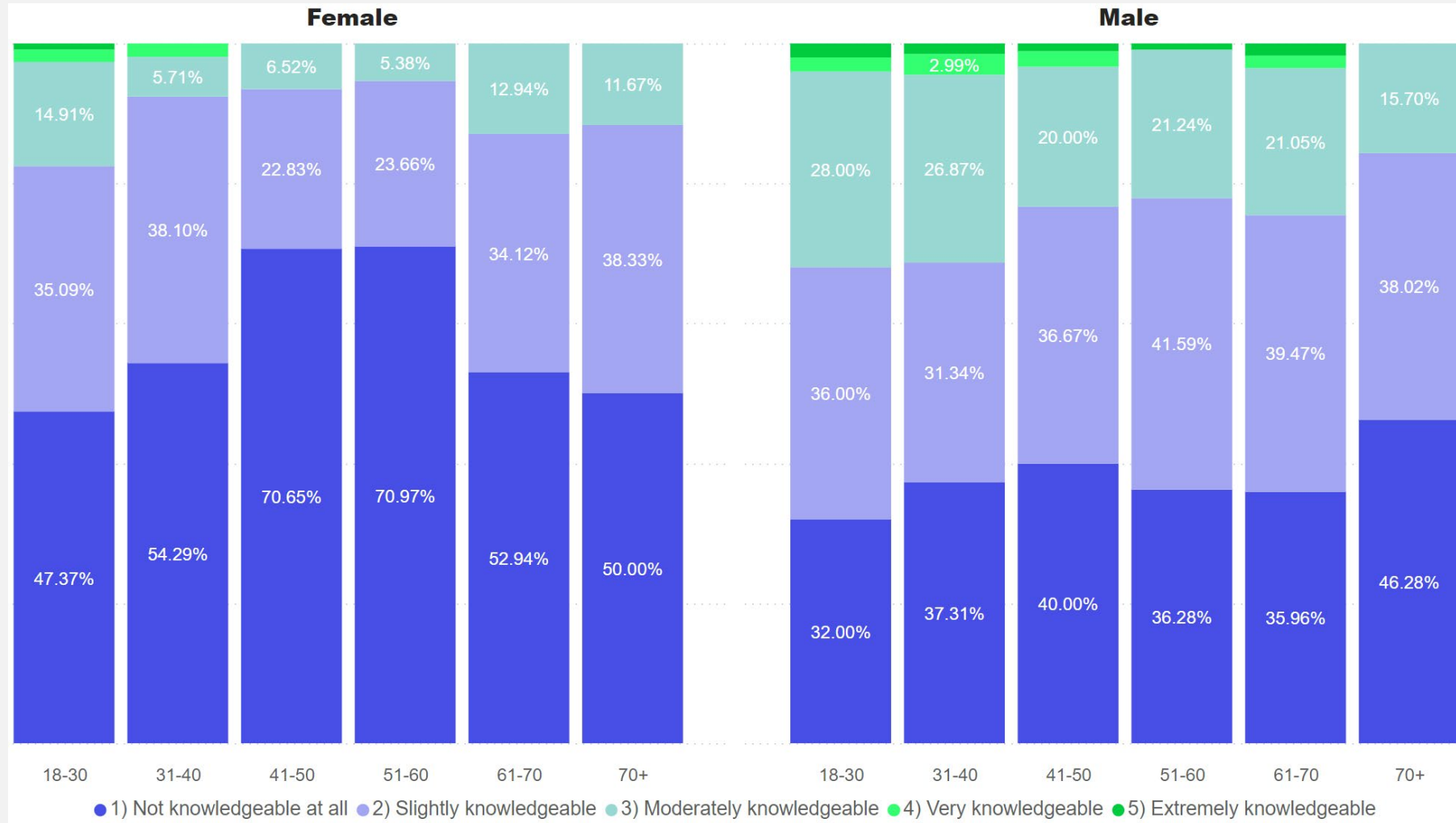


Germany – Nordhessen region
Luxembourg – whole country
Netherlands – whole country
Sweden – Stockholm, Goteborg, Norrköping and Linköping
Finland – Uusimaa region
Norway – Stavanger, Oslo, Bergen

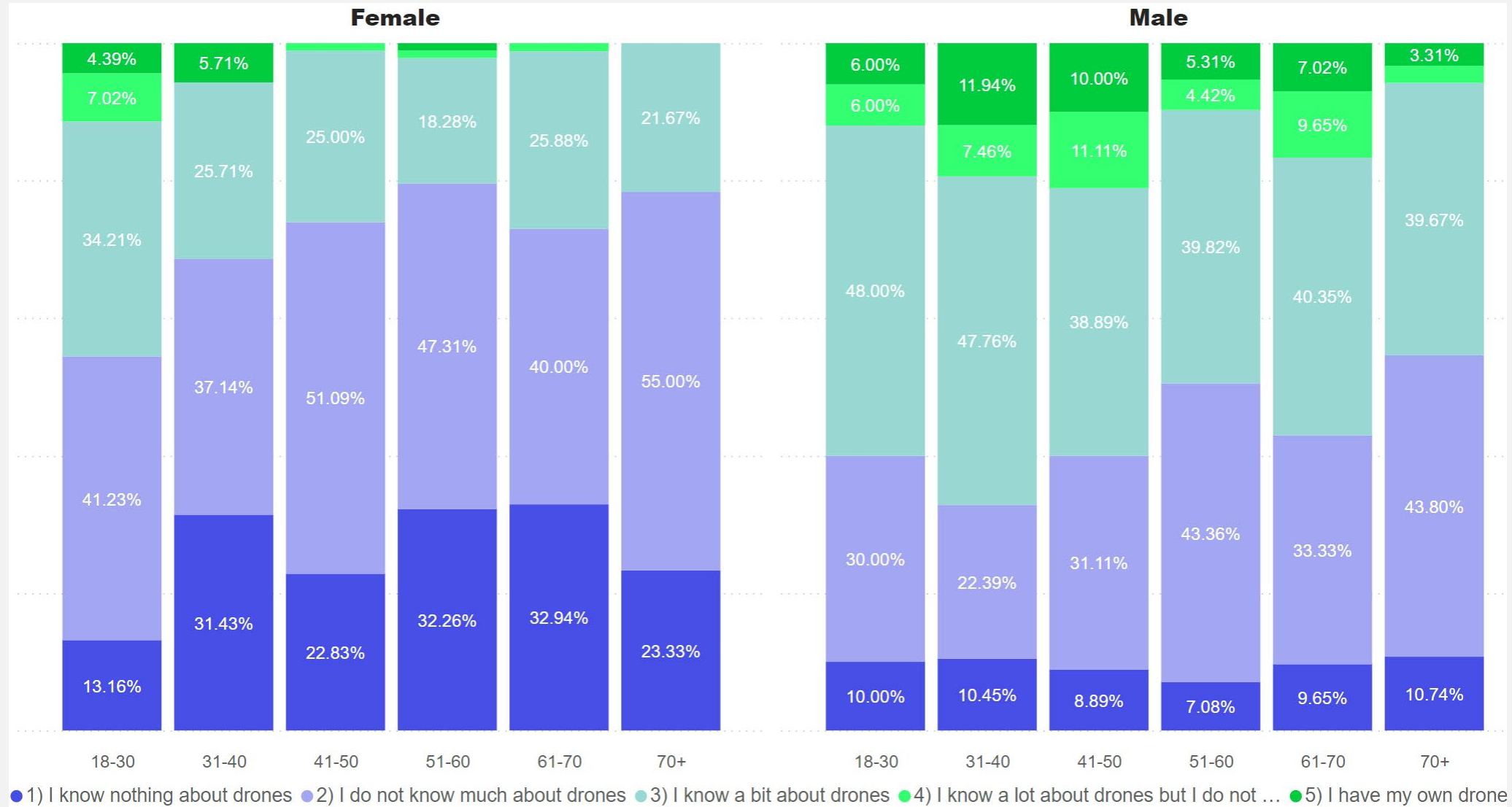
Age group	Percentage
18-30	16.5%
31-40	16.5%
41-50	17%
51-60	17%
61-70	16.5%
70+	16.5%

Public engagement

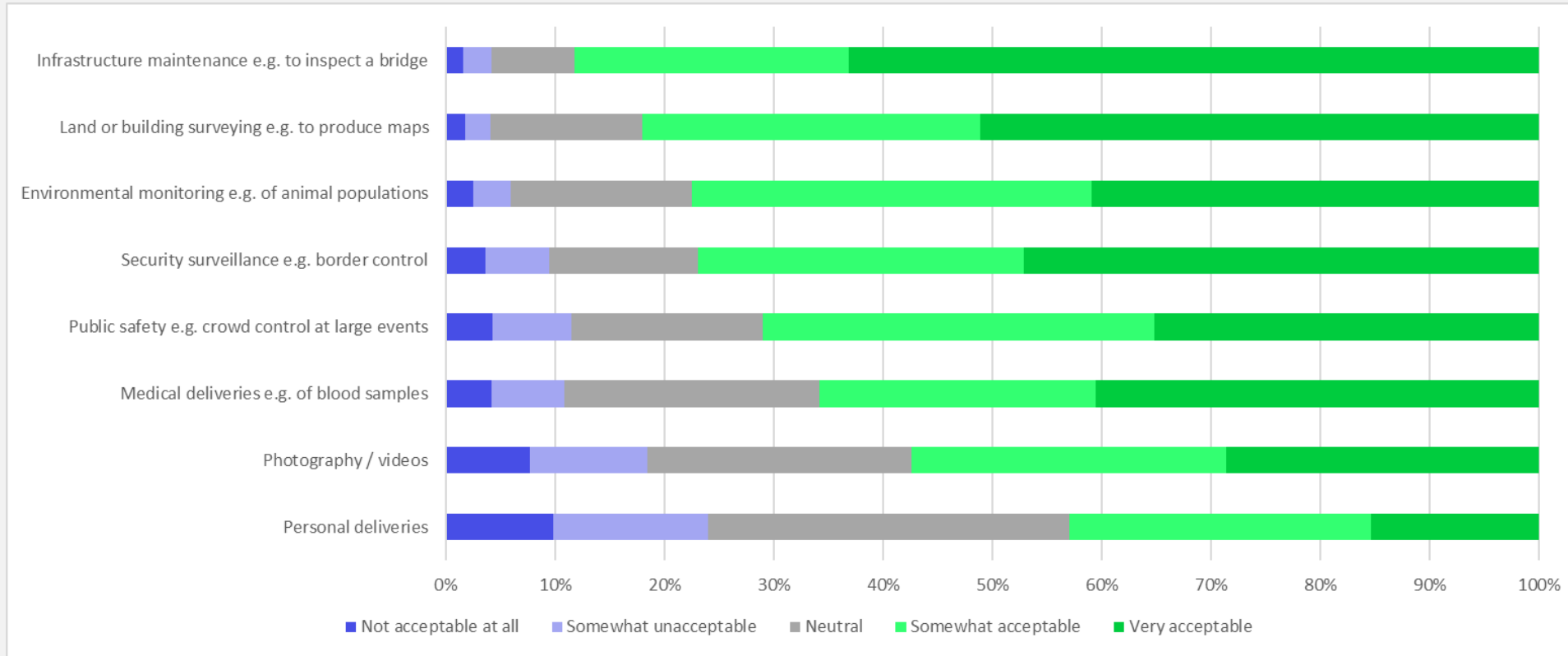
Knowledge of UAM ...



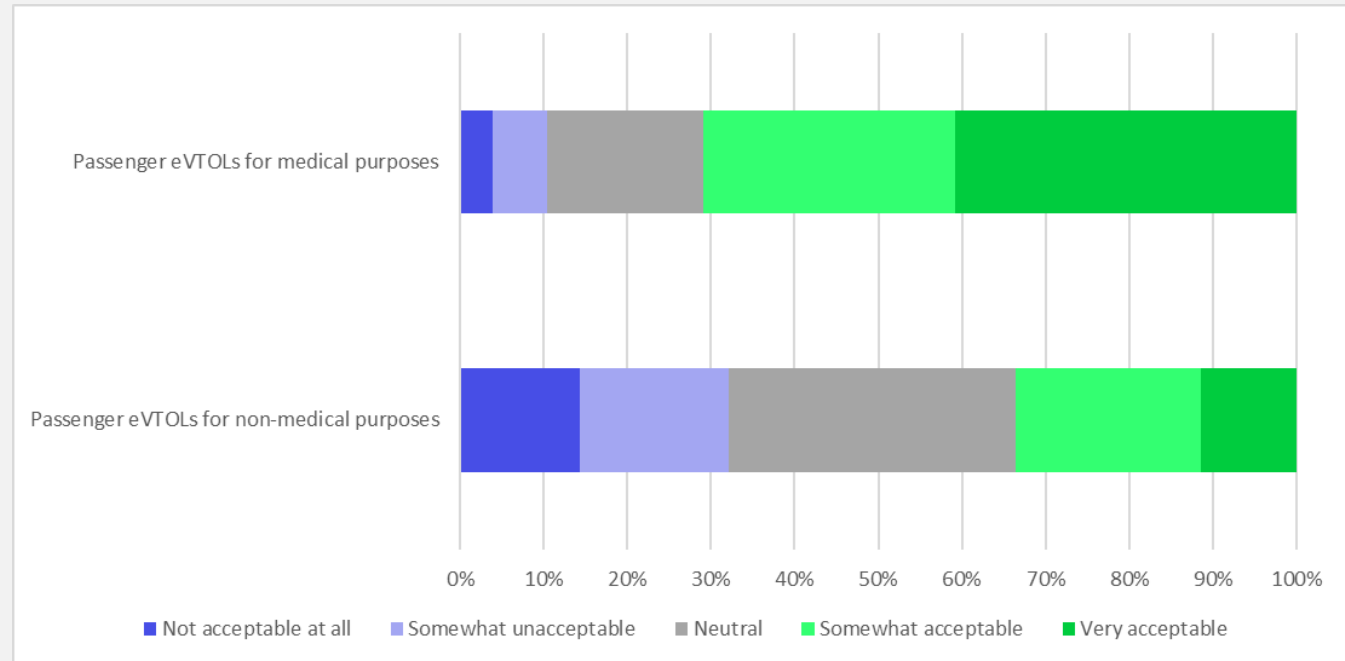
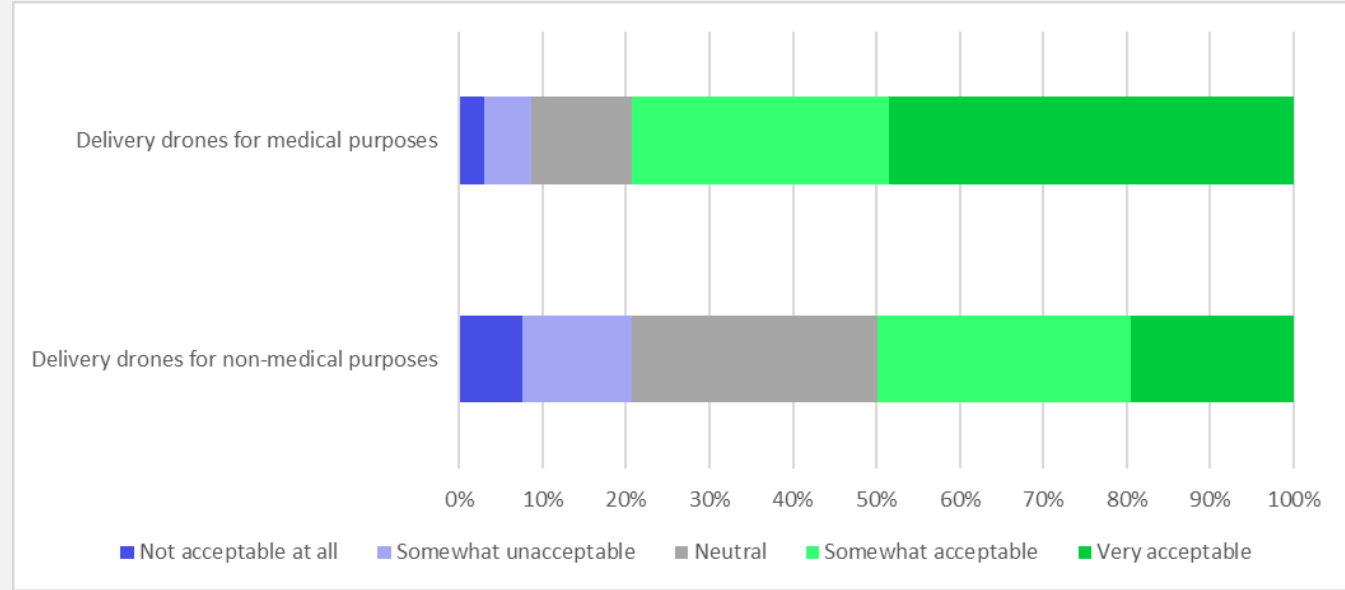
Exposure to drones



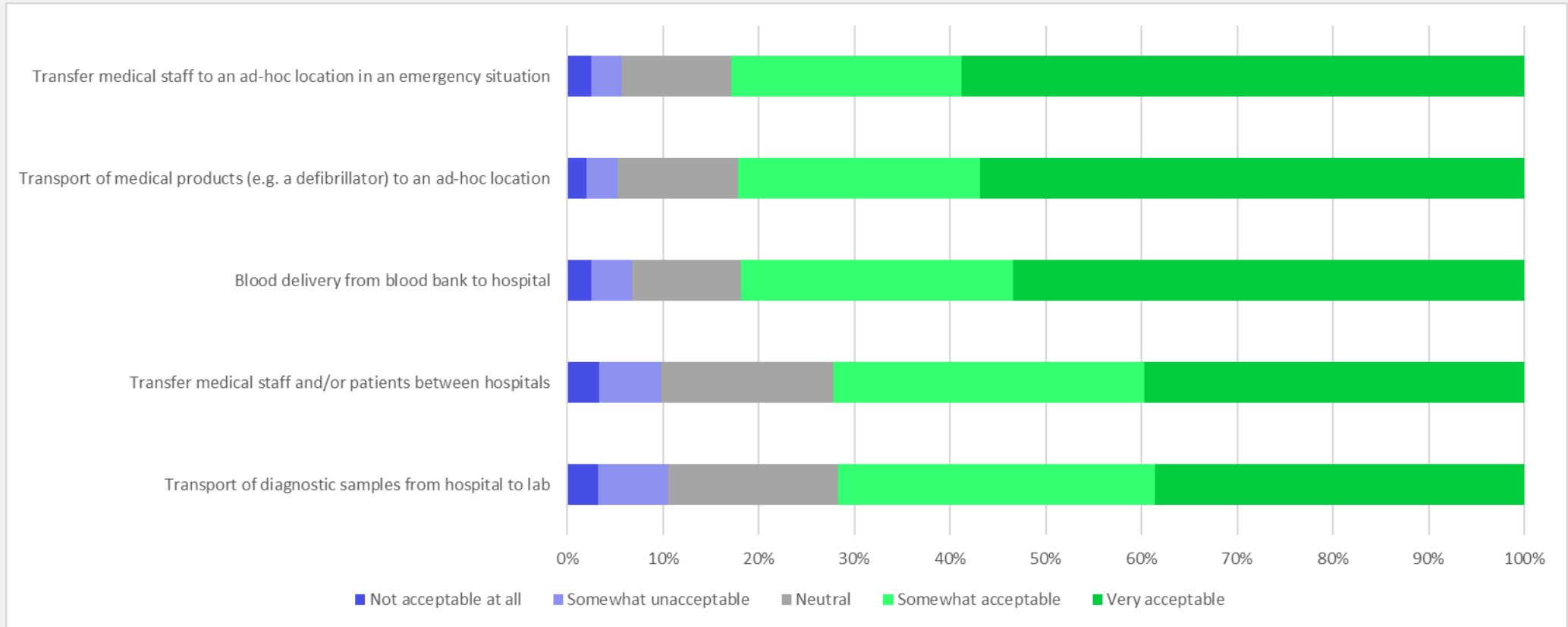
Use cases...



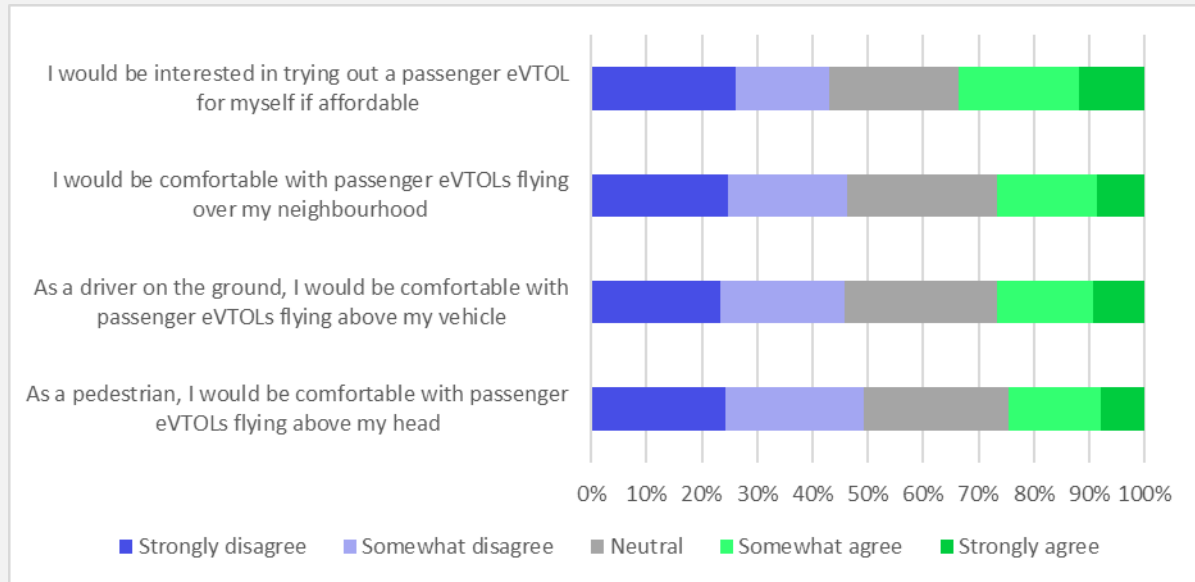
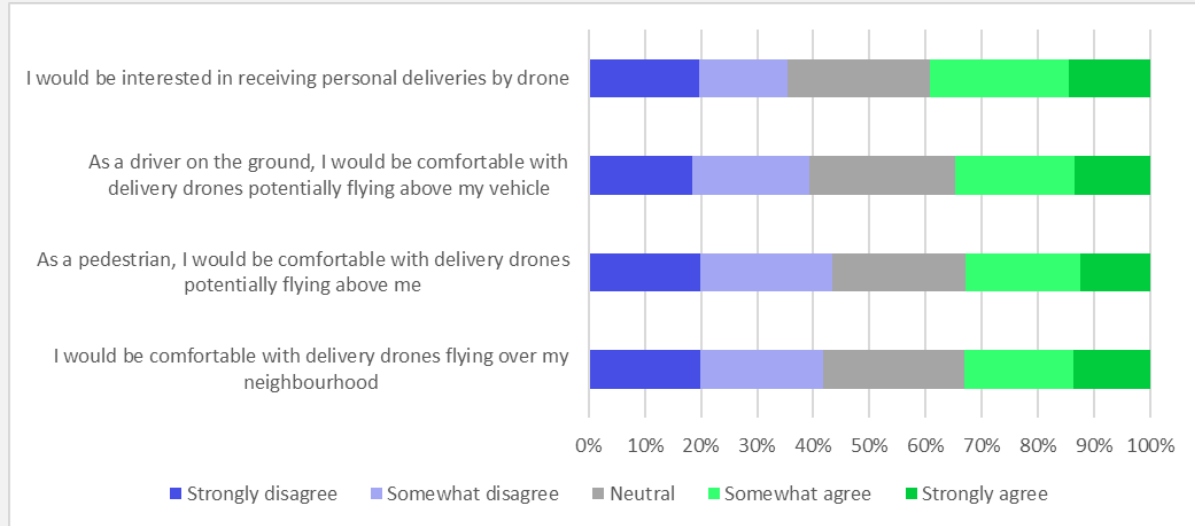
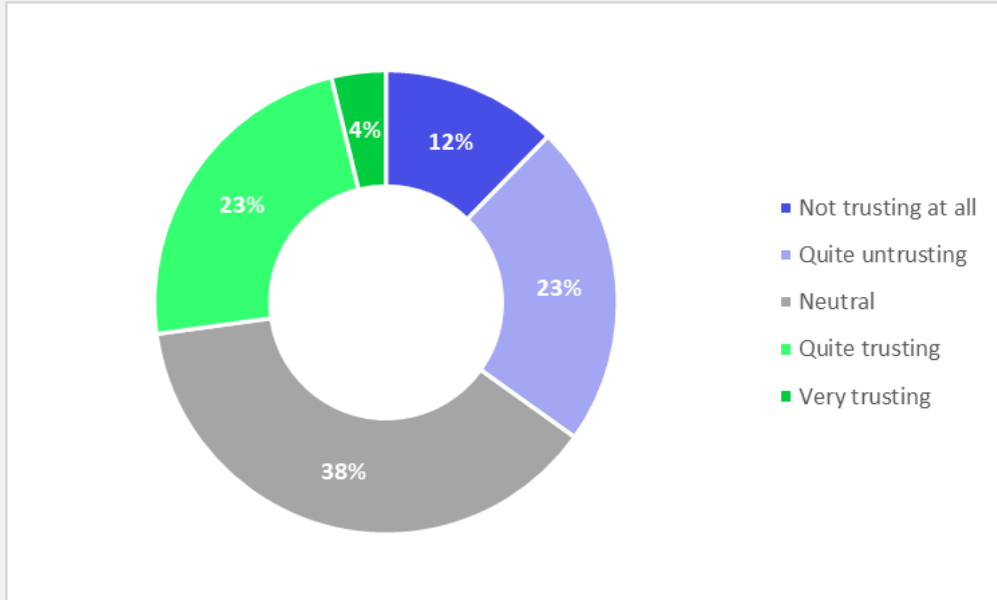
Use cases...



Use cases...

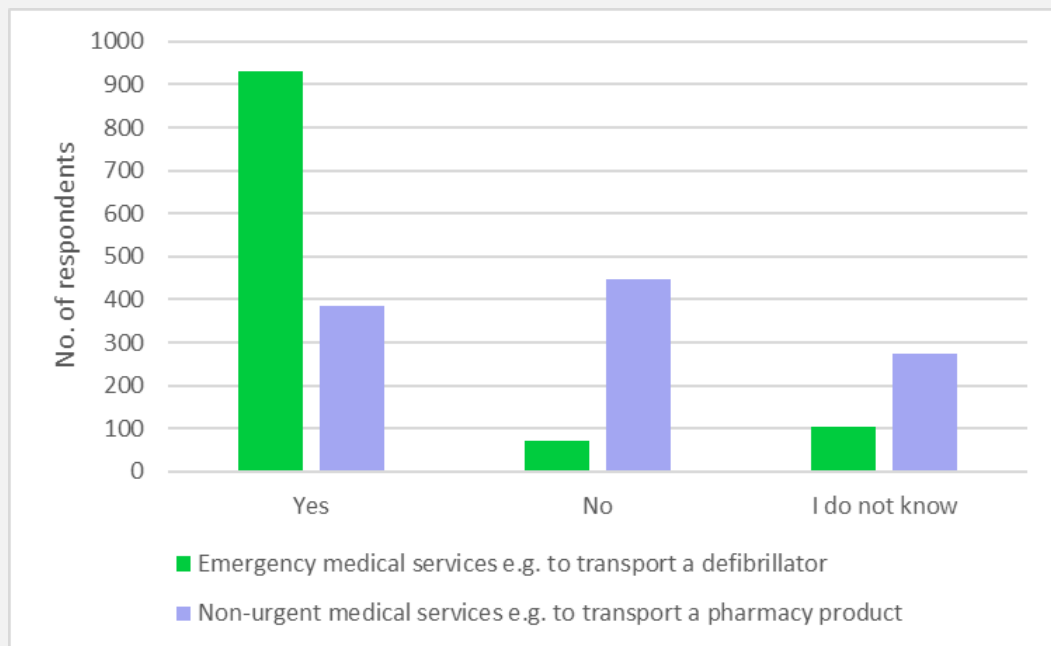


Comfort and trust ...

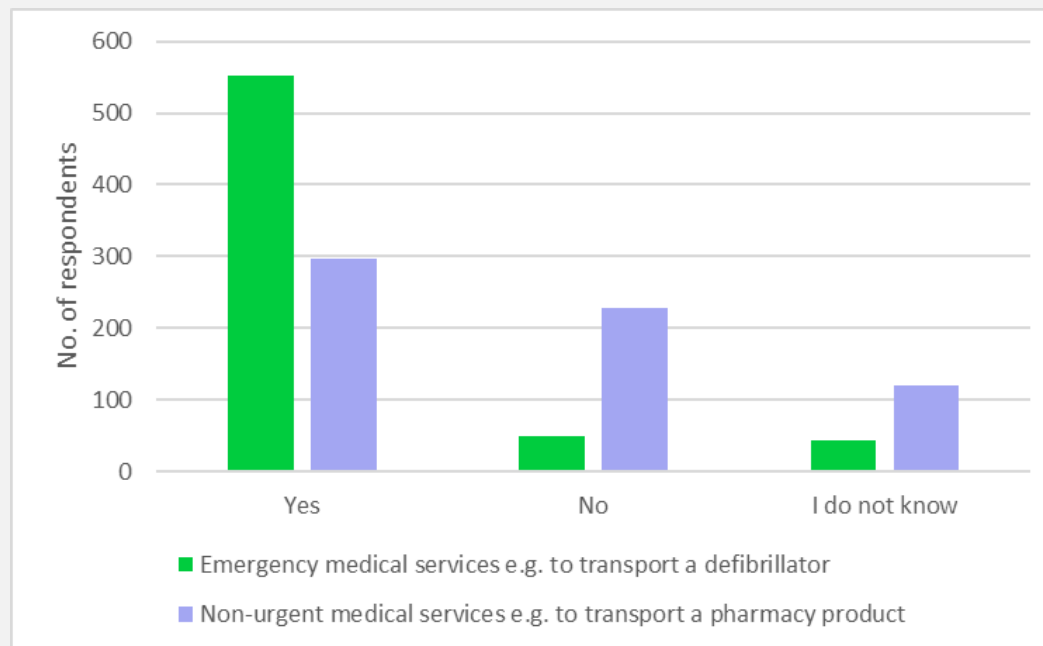


Location of operation...

Near to residence?

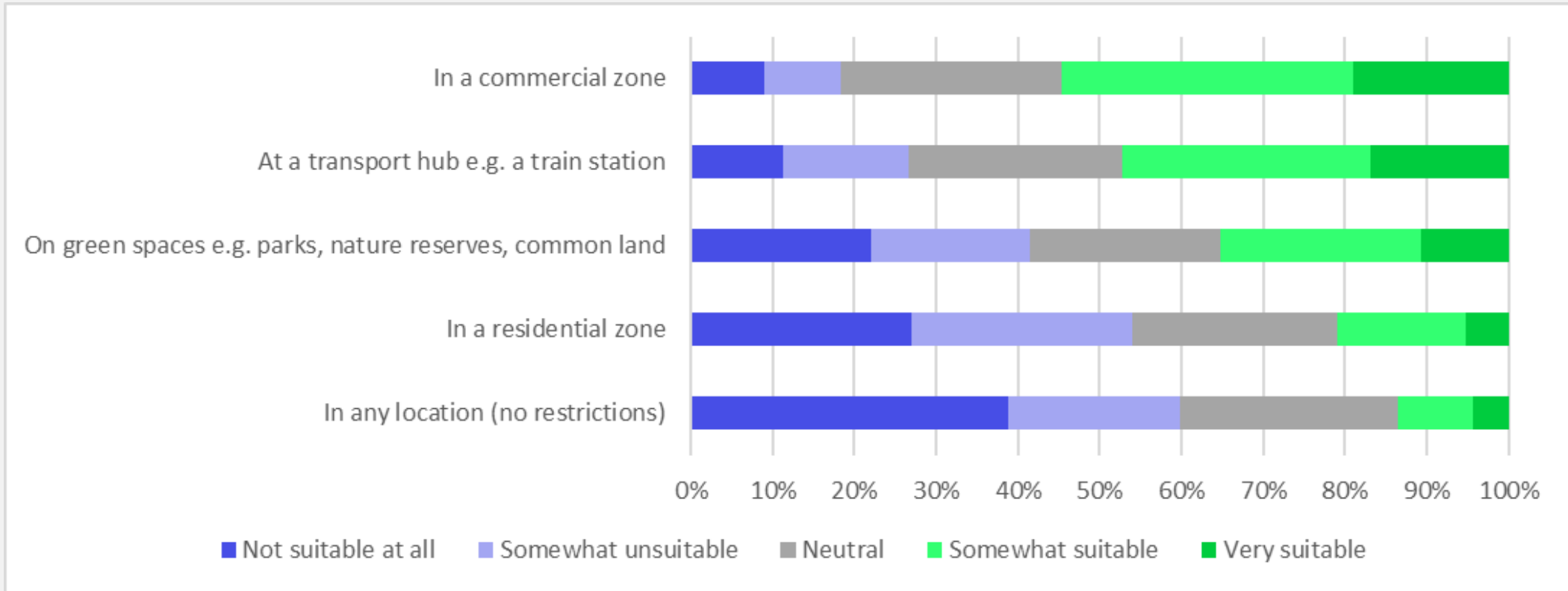


Near to work?



Location of operation...

Suitability of location for eVTOL landing site



Key findings from engagement to date

- Citizens are either ‘not knowledgeable at all’ about UAM or are ‘slightly knowledgeable’. A high proportion are ‘undecided’ about drones which is reflective of their lack of knowledge.
- There is a link between news reports and levels of public acceptability. The media plays a large role in this.
- Acceptable use cases are infrastructure maintenance, land or building surveying & environmental monitoring.
- Non-urgent medical use cases are considered less acceptable than urgent ones.
- Social inequality appeared as a high concern for citizens if delivery drones and passenger eVTOLs are introduced in the airspace.
- Technical stakeholders feel that regulations are currently the most limiting factor in the advancement of UAM. There is a need for an easier process to enable test flights for drones and certification of drone operators should be mandatory.

Questions

What concerns do you have with Urban Air Mobility?



What benefits do you think Urban Air Mobility could bring?

What strategies could be used to engage the public on this topic?

What factors would increase public acceptance of drones?

Initial learnings from engagement activities

- Engage with citizens as early as possible!
- Be inclusive in your engagement.
- Encourage women in the industry.
- Speak to the media.
- Invite stakeholders and the public to your demonstrations.
- Support uses that benefit the whole of society.
- Regulate, certify and monitor!





Thank You!

Lucy Mascarenhas

l.mascarenhas@luxmobility.eu