TAKING FLIGHT: THE RISING IMPORTANCE OF DRONE INSURANCE

IN ASSOCIATION WITH

Kennedys

Insurance POST

SECTION ONE

DRONES ARE TAKING OFF

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AROUND THE WORLD, it is estimated that about 1.5 million drones, or unmanned aerial vehicles (UAVs) – excluding those used for military purposes – are already airborne with that number expected to triple by 2020. The biggest growth will be in commercial applications of drones, which a recent PWC report, *Clarity from Above*, predicted will grow in value from $2bn in 2016 to $127bn by 2020.

This growth is being driven by a combination of factors, the biggest being the increasing capabilities of low cost drones supported by generally favourable regulatory developments. In Europe a major overhaul of regulation is underway led by the European Aviation Safety Agency (EASA). Its aim is to bring greater conformity to the regulations across the continent, including the UK where the Civil Aviation Authority is responsible for the regulation of UAVs.

The CAA currently occupies a middle ground when it comes to regulation. In common with most other national regulators, it does not permit UAVs to be flown beyond 'line of sight' of the ground-based operator without a special licence and has strict rules about the heights at which they are permitted to be flown. Its standard restriction is no higher than 400 feet and no further than 500m from the operator for UAVs weighing up to 20kg, with permission granted for variations from this only when certain criteria are met. These cover where they can be flown, which will exclude built-up areas, airspace around airports and a wide range of other potentially sensitive or vulnerable locations, as well as imposing training requirements for the operators.

Despite the UK decision to leave the European Union, most experts in the field expect the CAA to follow the EASA's revised rules, which it is anticipated will relax the line of sight restrictions and permit more licensed operations in built-up areas, such as roof surveying, safety checks on factories, power lines or aerial photography. The biggest question mark is over the regulations for lighter drones – typically 20kg to 50kg – and those for leisure use and whether the EASA or the UK's Department for Transport will introduce a registration scheme for owners.

The risks posed by drones range from the loss of the UAV itself and any equipment it is carrying, to damage to property and bodily injury, as well as breach of privacy and the potential for catastrophic loss if it strays into controlled airspace and hits a plane or a helicopter. There have been very few insured claims so insurers have little to go on when it comes to rating drone risks, although some insurers such as Global Aerospace and Kiln have been in the market for several years.

With the rapid growth in the leisure and commercial use of drones, many insurers are now being asked to cover drones through both household and commercial policies. This would require an extension of the basic cover as aviation is a standard exclusion and most insurers are looking to specialists in aviation risks to provide the cover. For the larger insurers this could be an existing internal expertise, otherwise it is most likely to be provided in partnership with specialist underwriters or managing general agents.

How well-equipped the UK insurance market is for the predicted upsurge in drone ownership and usage over the next few years was explored recently in a survey commissioned by Post in conjunction with lawyers Kennedys. The results offer a fascinating insight into the current and likely future approaches of the market to drone risks. ■

SECTION TWO

A LEGAL PERSPECTIVE

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AMONG THE CHALLENGES the insurance market will face as it is asked to insure more drones is a lack of awareness of aviation law, warns Tim Scorer, a consultant with Kennedys:

"We are constantly surprised at how little understanding there is of the risk to people and property on the ground. *The Civil Aviation Act 1982*, section 76 imposes strict liability on the operator of an aircraft and that includes drones. In the non-Aviation market there is an unfortunate level of ignorance in relation to that."

"Section 76 mirrors certain provisions initially implemented by the Rome Convention 1952, to which the UK is not a party. Its effect therefore is that strict liability applies in many countries beyond the UK, albeit that the Convention has liability limitations based on aircraft weight. Many non-aviation underwriters may also not be aware of this," adds his colleague Stuart Farlow, a solicitor at Kennedys.

He says when drone risks are picked up by aviation underwriters this risk is covered because they use the standard aviation wordings. His concern is the possibility that more drone cover could be written in the general liability market: "If the new generation of regulations come in then use will expand quite rapidly and underwriters with less knowledge of aviation law could be tempted into the field."

This knowledge gap could be exposed if the pace of growth in drone ownership is anything like at the level predicted by PWC and others, says Scorer: "For leisure use especially, we see a potential involvement of the general liability market through household policy extensions. On the commercial side the cover is being written by aviation underwriters with their better understanding of the risks."

While not something that necessarily has legal implications, the question of whether the growth in the commercial use of drones will affect who underwrites commercial liability risks is an interesting and live one, says Barnaby Winckler, partner at Kennedys.

"How far will aviation insurers deploy additional capital to provide cover for a growing range of uses outside the risks they have historically covered and how far will general liability insurers extend cover to risks in this area? I suspect it will probably be a bit of both. Public liability covers generally exclude aviation risk but my impression is that general liability insurers may increasingly be prepared to pick up drone related risks, at least for commercial insureds to whom drone use is ancillary to their main business and whom the aviation market may not currently be interested in. However, my impression is that "incidental" UAV risk is something for which there is not yet a lot of demand and many general liability insurers will not be entirely comfortable with the risks associated with things that fly. There will be an underwriting question whether the use of drones transforms a risk profile significantly and how to address that if so."

He said he suspected that using drones in some contexts such as traditionally hazardous operations or large scale risks might not necessarily greatly affect how underwriters viewed a risk but there would be areas where the risks posed by drones and the levels of cover sought might be something entirely new. "A wedding photographer has not historically expected to be exposed to liability for seriously injuring or killing someone in the course of their business. That is now a real consideration if they are using even a modest sized drone that drops out of the air." ■

SECTION THREE

KEY FINDINGS

WHAT TYPE OF BUSINESS DO YOU WORK FOR?/WHAT BUSINESS FUNCTION DO YOU WORK IN?

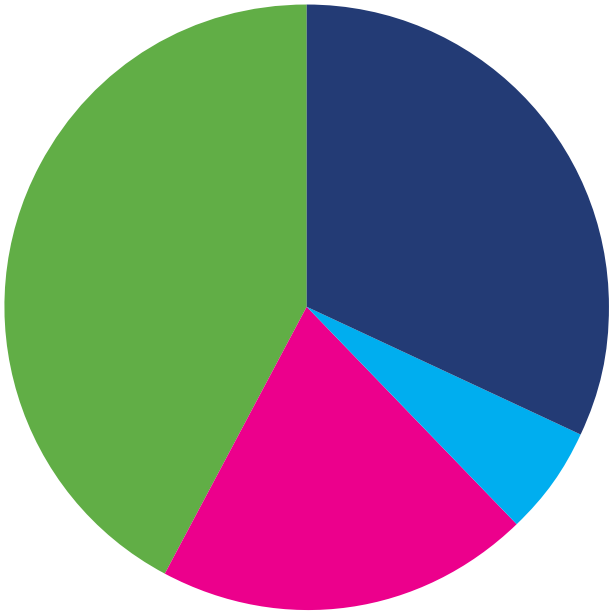
- Broker **33%**
- Commercial lines insurer **20%**
- Composite insurer **23%**
- London market / Lloyd's insurer **6.8%**
- Managing General Agent **9.5%**
- Personal lines insurer **6.8%**

The respondents to the survey came from a broad cross-section of the market with two-thirds working for insurers and one-third for brokers. The majority work in underwriting with 23% in business development, not surprising considering the potential growth in the market.

The insurers represent the full range of the market currently active in underwriting drones from specialist insurers, through managing general agents to larger insurers that have dedicated aviation teams.

ARE YOU CURRENTLY INSURING DRONES?

- Yes, have been insuring them for over a year **32.4%**
- Yes, have been insuring them for under 12 months **5.4%**
- Not yet, but are planning to in the next 12 months **20.3%**
- No, and no immediate plans to do so **41.9%**



WHAT TYPE OF DRONES ARE YOU INSURING?

(Tick all that apply)

- Commercial operator – Ancillary to main business (construction, agriculture) **21**
- Commercial operator – Drone operation is main business (aerial photography) **14**
- Hobbyist/Leisure **4**
- Other - Please specify **3** (Ancillary Education 1, Education 1, Media & Entertainment Industry for film shoots 1)

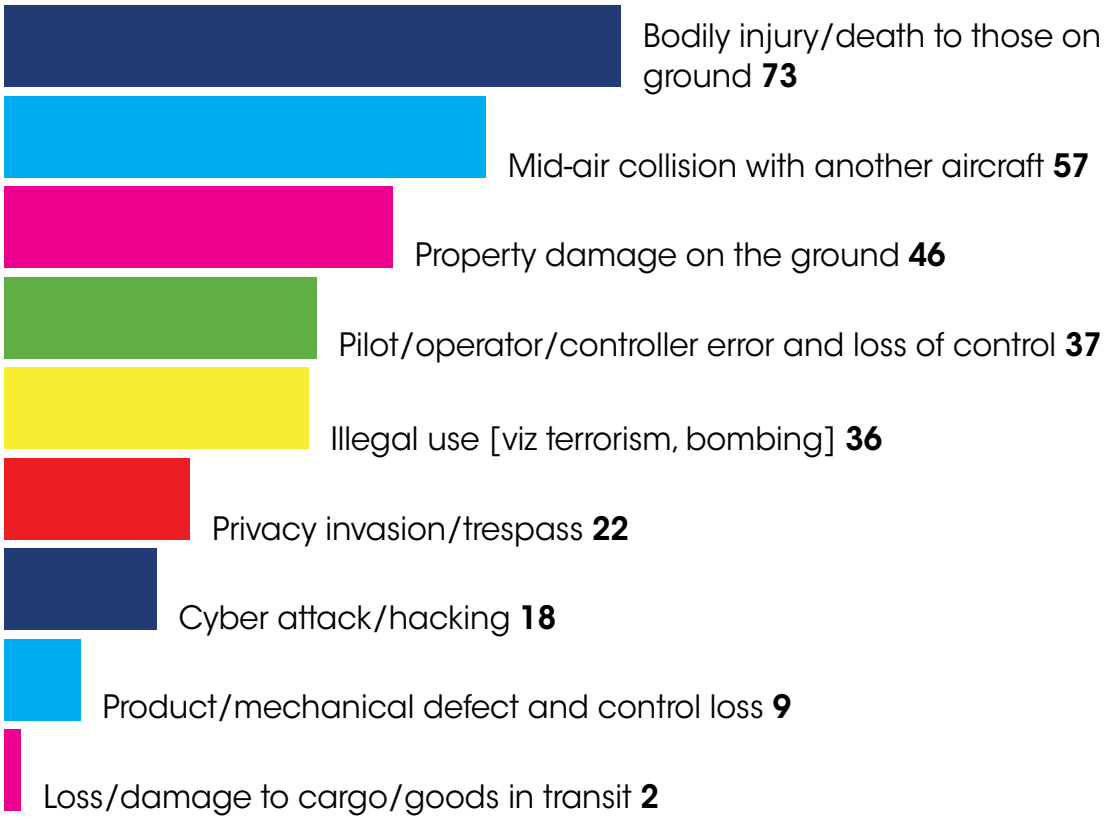
Among the respondents there was a solid foundation of experience of placing or underwriting drone risks with almost one-third having been active in the field for over a year. A small percentage (5.4%) started insuring them in the last year and a further 20.3% expect to start underwriting drones in the next 12 months.

The experience of those currently underwriting them reflects the current pattern of usage and level of awareness. The largest proportion of insureds are firms using them to carry out hazardous functions such as high-level surveying or time-consuming, labour-intensive activities that are already part of their business such as surveying large areas of agricultural crops. So far, the leisure users are not looming large on the insurance radar.

BIGGEST INSURABLE RISKS

What do you envisage as the biggest insurable risks associated with drones?

Please rank the below risks as follows:
(1 = biggest risk; 2 = second biggest risk; 3 = third biggest risk)



The participants in the survey were asked to rank what they see at the three biggest insurable risks with drones.

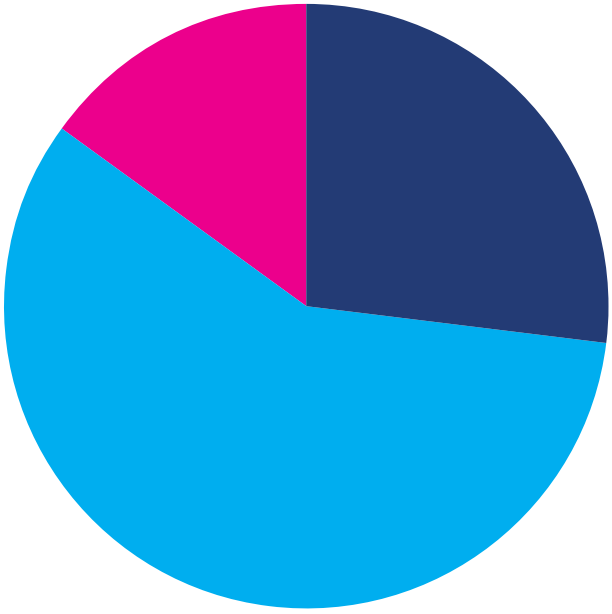
Some of the comments submitted alongside the survey are revealing when it comes to understanding how people rank the risks and partially explain why mid-air collision ranks so high when flying drones illegally, including into controlled airspace around airports, is excluded.

"The biggest risk to the drone user and the market is basic ignorance of people ... whether that be as a user or indeed the media and public."

Another commented: "You can lose signal or the drone can go off without warning. There should also be drone no-fly zones such as football stadiums or historic landmarks due to the threat they cause."

DO YOU THINK THE INSURANCE SECTOR UNDERSTANDS DRONE RISKS?

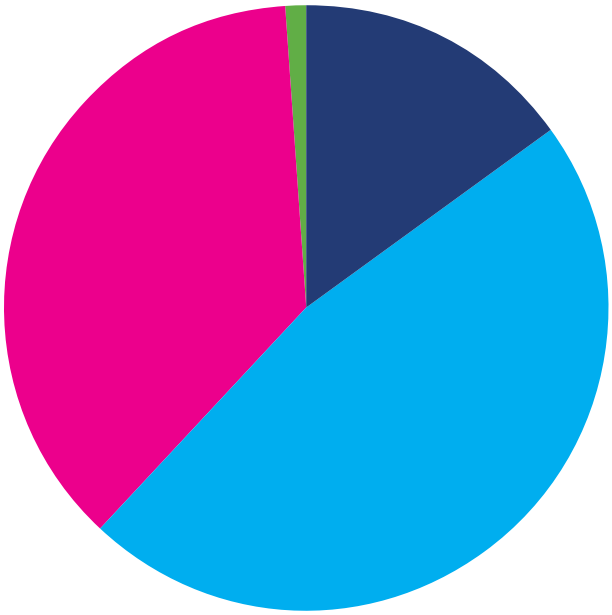
- Yes **27.3%**
- No **58.2%**
- Don't know **14.5%**



A very significant 58.2% believe that the insurance sector does not understand drone risks sufficiently well to offer useful cover with only 27.3% expressing confidence in the sector's knowledge of the risks. Put alongside the answers to the question about whether the respondents are insuring drones this could be taken as a belief among those currently active in this area that those who might try to enter the market in the future are likely to be less well informed about the risks.

DO YOU THINK DRONES ARE …?

- A useful, but not necessary tool, that will find favour in some markets, but not all **15.1%**
- An important tool, that will continue to grow in usage and attraction to the insurance industry across many lines **46.5%**
- An important tool, but one which will ultimately see its growth curbed by regulation **37%**
- Of no use now, or in the future **1.4%**



When it comes to how the insurance industry itself might use drones, there is a widespread conviction that there will be a significant take-up, although some concern that regulation could limit their use. There are examples of drones being used to survey storm damage, especially when large areas are affected.

LEVELS OF COVER

What do you think is the most reasonable range for mandatory minimum levels of liability insurance cover for those using recreational drones?

- £0.5 - £1m **24.3%**
- £1.1 - £2m **16.2%**
- £2.1 - £3m **10.7%**
- £3.1 – £4m **1.4%**
- £4.1 – £4.5m **6.8%**
- Dependant on weight **31.1%**
- No limit **9.5%**

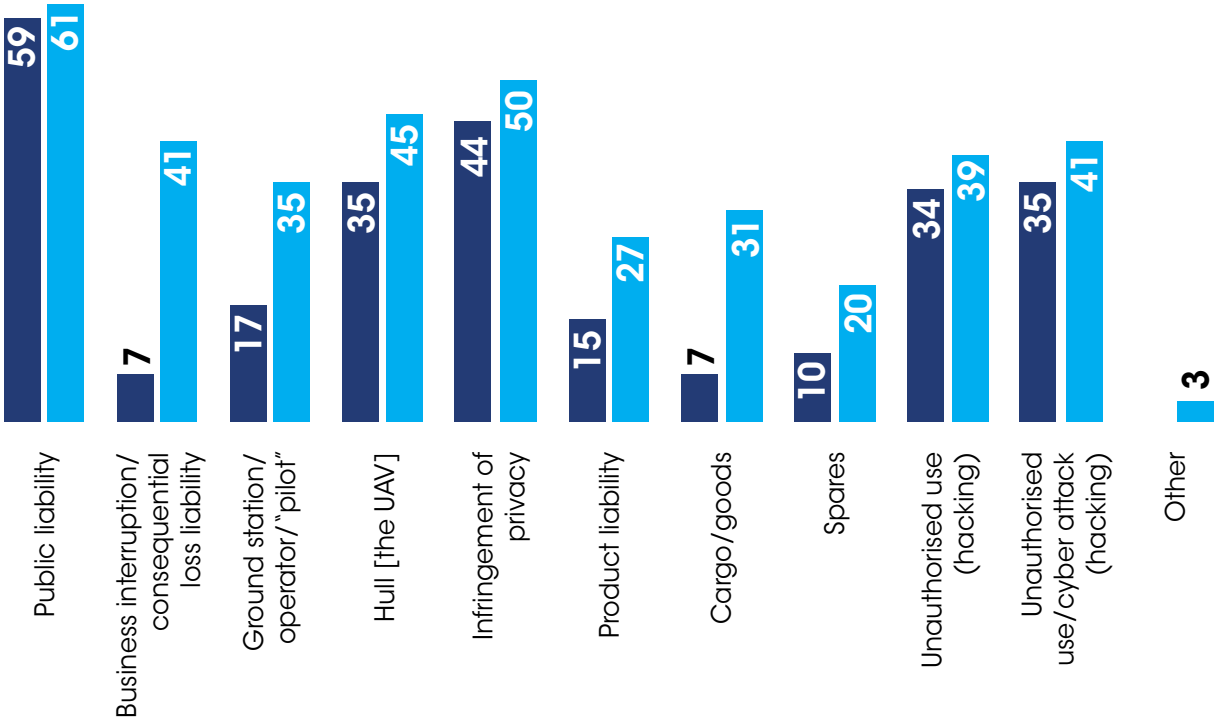
Respondents would like to see significantly varying levels of liability cover and, not surprisingly, this is significantly higher for commercial usage. The weight/activity rating methodology favoured by 30% to 40% of the respondents reflects the approach currently taken by most of the established underwriters operating in the field, but is unlikely to suit a rapid expansion of the smaller end of the drone market where, according to many market experts, premium levels will not support a sophisticated underwriting approach.

"Some of the answers hit the nail on the head when they say the level and amount of actual cover depends on the usage and weight of the drone," says Scorer.

WHAT SHOULD BE COVERED?

What classes of insurance cover would you expect to be included in respectively ● a recreational drone policy and ● a commercially operated drone policy?

(Tick as many as relevant)



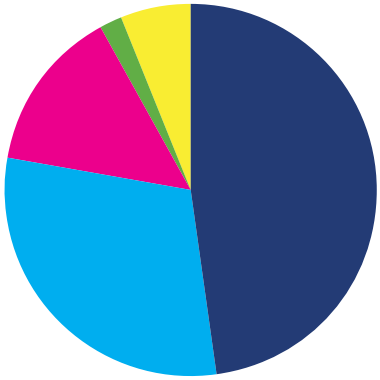
In the UK, insurers may have limited appetite for some of the liabilities drone use is likely to give rise to, says Winckler. "There are a lot of privacy issues that could arise with drone use. It can give rise to a claim for damages by intruding into your neighbour's privacy. Harming your neighbour's person or property is something insurers would be expected to cover but whether there is an appetite for wider cover is an open question."

Some respondents highlighted the complex nature of the risks posed by drones: "The values at risk, (hull), for drones is relatively insignificant, especially for private individuals, generally much less than a private motor car. Indeed a lot of the value we see is in the camera equipment on board a drone, which is currently what drones are being used for outside those used by the military. Naturally appreciating that there is likely to be an increased use of drones in the future, for example, Amazon delivery services, then the most sizeable risk is that of a liability risk to third parties, whether property or individuals."

This also raised the question of which insurers would will provide the cover: "There appears to be a gap between commercial public liability insurance and aviation insurance, which might be bridged by UAV specific cover," said one respondent.

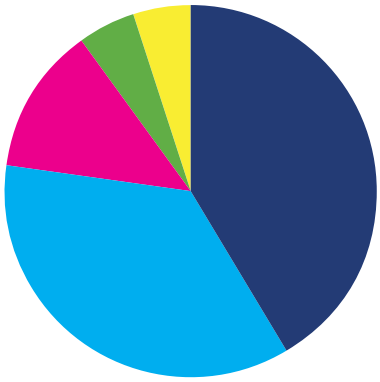
REGULATION

How important is the need for regulatory standards being introduced for drones in the EU (including UK)?



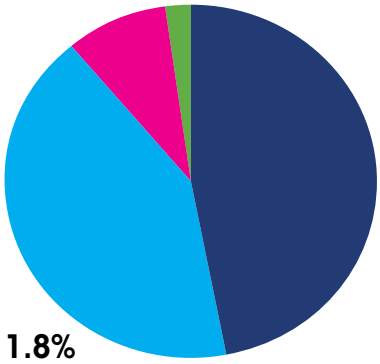
- It is of the utmost importance and needs to be a top priority **48.4%**
- It is desirable, but not of the utmost urgency **29.6%**
- Existing aviation regulations are sufficient **14.1%**
- Do not think it is necessary **1.6%**
- Have no opinion **6.3%**

How important is the need for regulatory standards being introduced for drones globally?



- It is of the utmost importance and needs to be a top priority **42.2%**
- It is desirable, but not of the utmost urgency **35.9%**
- Existing aviation regulations are sufficient **12.5%**
- Do not think it is necessary **4.7%**
- Have no opinion **4.7%**

How familiar are you with EASA's proposed regulations which are currently under consultation?



- Did not know of them **47.3%**
- I have a passing knowledge **41.8%**
- I have a detailed knowledge **9.1%**
- I have a detailed knowledge and have contributed to the consultation process for the proposed regulations **1.8%**

The majority of respondents want new regulations and want them sorted out quickly. In the light of that it is perhaps surprising that the awareness of the discussions that are going on at the moment is relatively low.

"There is a clear absence of an appropriate regulatory framework for the use of drones. Strict regulation needs to put in place to mitigate the risks arising from the use of drones. For example, a drone causing an airplane that is full of passengers to crash. There are various conventions that exist that could provide a useful framework but there is work to be done", said one respondent.

BARRIERS TO EFFECTIVE REGULATION?

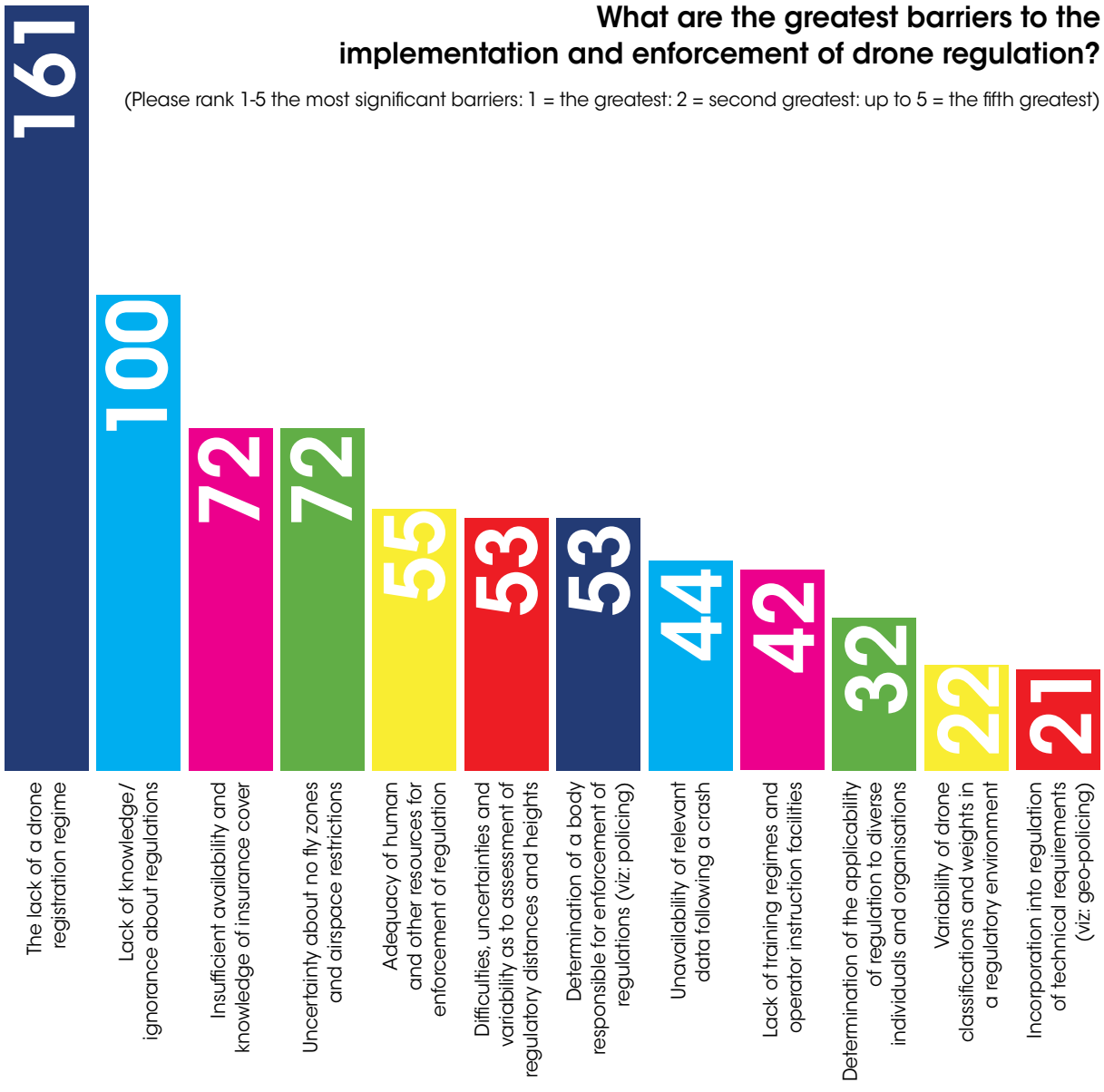
Overwhelmingly, insurers want to see a registration scheme but fear it might be lacking from the new regulations. This fear is well founded says Winckler, despite the obvious advantages to having drones registered:

"Insurers would like to see them compulsorily registered and flight logs maintained. Even relatively small and inexpensive drones should increasingly be able to send back data that in principle can be stored and that would assist in understanding the causes of any incident involving the relevant system."

He too has some doubts about whether a compulsory registration scheme will be introduced for all drones: "It will be a matter of political will and some difficult decisions on what is proportionate and necessary". He said it would be very unlikely that any registration scheme would be made retrospective.

What are the greatest barriers to the implementation and enforcement of drone regulation?

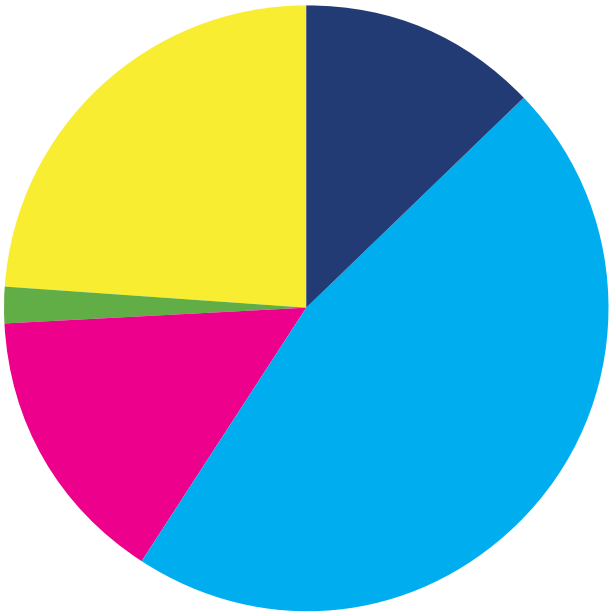
(Please rank 1-5 the most significant barriers: 1 = the greatest: 2 = second greatest: up to 5 = the fifth greatest)



INSURERS INFLUENCE

In terms of formulating regulation for drones do you think that generally insurers:

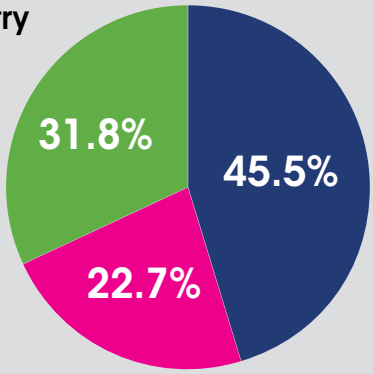
- Are playing an adequate role in shaping the future **12.7%**
- Are not doing enough to influence regulation, but still have a chance to play a significant role in shaping it **47.2%**
- Are not doing enough to influence regulation, and have missed the chance to play a significant role in shaping it **14.5%**
- Are taking a leading role in shaping the future **1.8%**
- Don't know **23.6%**



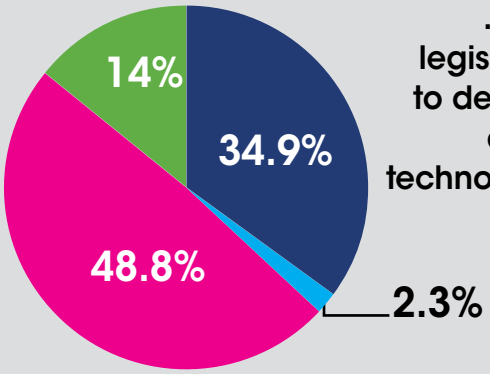
The respondents to the survey still see an opportunity to influence the development of the regulations, while admitting the industry has not done enough up until now to make its voice heard.

WHO IS LEADING THE RACE IN TERMS OF…

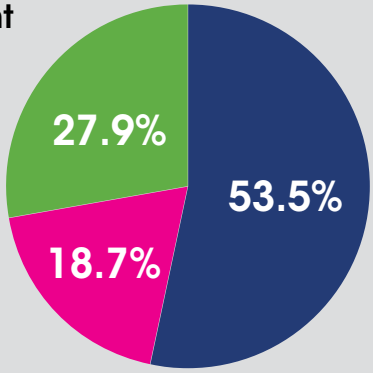
…drone industry and market (jobs, GDP, investments)?



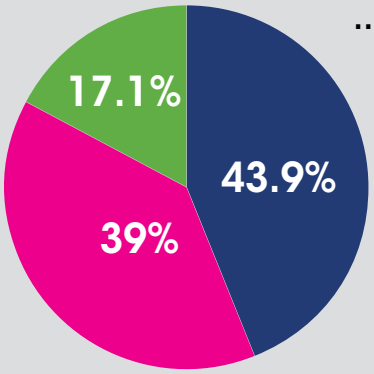
…new legislation to develop drone technology?



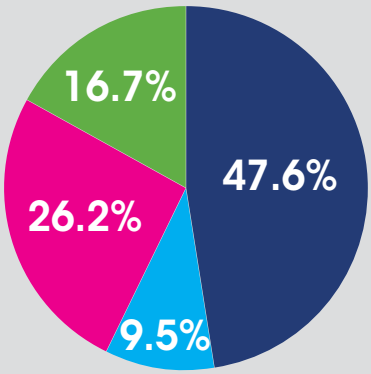
…development of drone technology (trials and testing)?

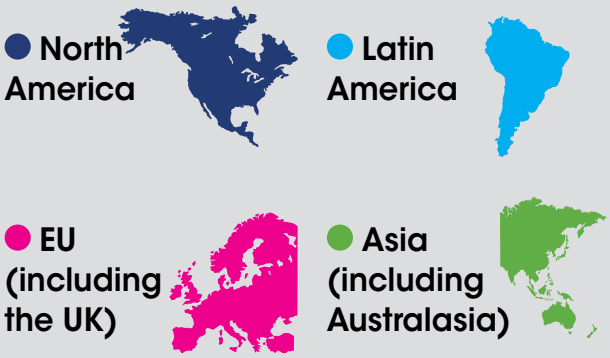


…government-led initiatives encouraging drone industry?



…removal of regulatory barriers?





Eyes are firmly cast around the globe when it comes to looking for key developments in drone technology and regulation, especially North America where the US Federal Aviation Authority has moved quickly to act on the results of pilot schemes to authorise much wider use of drones, although privacy concerns remain high in the US. ■