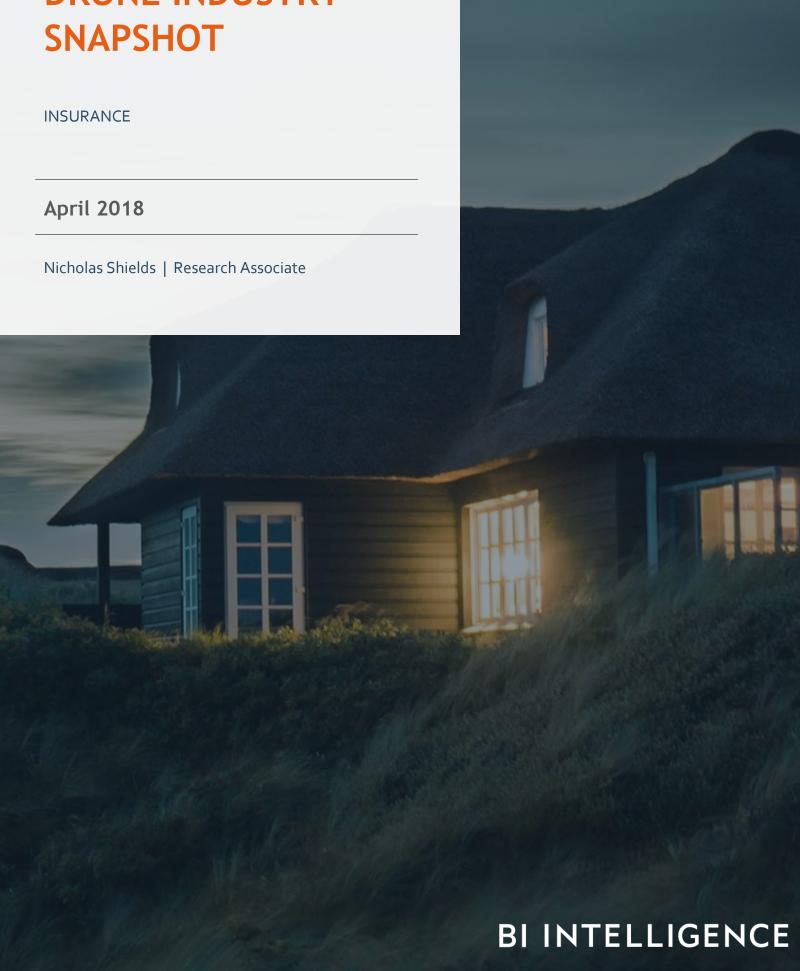
## **DRONE INDUSTRY**



The rising costs and <u>frequency</u> of natural disasters are putting property and casualty (P&C) insurers globally in a crunch. In fact, it's <u>estimated</u> that the average global annual cost of insurance claims from natural disasters has increased eight-fold since 1970. Meanwhile, German reinsurer Munich Re <u>estimates</u> that inflation-adjusted insured catastrophe losses reached an all-time high of \$135 billion in 2017. As the insurance industry seeks out new solutions to reduce these losses and improve efficiencies, it's likely many firms will turn to drone technology to provide faster and more accurate property assessments. Matthew Josefowicz, CEO of insurance consultancy Novarica, <u>estimated</u> last May that 20% of global P&C insurers were actively piloting or deploying unmanned aircraft.

INSURANCE BY NUMBERS		
Š	Annual Industry Revenue	\$1.2 trillion
	Industry Employees	2.7 million as of March 2018 (US only)
X	Addressable Market for Drone Use	\$6.8 billion
9	Share of Total Value Generated by Enterprise Drones	5.3%
	Top Regulatory Barriers	Autonomous drone bans, LOS requirements, bans on drones flying over humans
Source: Business Insider Intelligence estimates, PwC, Bureau of Labor Statistics, Insurance Information Institute		BI INTELLIGENCE

## **Top Use Cases**

Claims assessments. In the aftermath of natural disasters like hurricanes and floods, P&C insurers often have to handle a high volume of complex claims. Additionally, damage to local infrastructure can make it quite challenging for human assessors to access properties. For instance, it took adjusters three days to reach the edge of damages after a tornado hit Joplin, Missouri in 2014. To counter these pain points, insurance firms can turn to unmanned aircraft. Enterprise drones, which are often equipped with GPS trackers and high-definition cameras, can get to hard-to-reach locations immediately after a disaster hits. From there, they can capture precise images and videos of damage that can be transmitted in real-time back to mobile devices for assessment. According to Farmers Insurance, a drone could help a claims adjuster process three houses in an hour, versus about three houses a day on their own.

Risk evaluations. When determining coverage for a property, an in-person inspection is often required to assess its current condition and identify any risk factors, such as damage, leaks, or mold. If an assessor misses an issue, which is common due to an inability to reach and inspect every inch of a property, an insurer could be on the hook for future damages. One way insurers can perform more accurate inspections, thus reducing future losses, is by adopting drone technology to complement human assessors. Drones not only have the ability to provide a full and detailed aerial view of large properties, but they can also be used to identify hard-to-find issues. For example, drones equipped with infrared cameras have the ability to quickly and accurately detect water and air leaks, which are easily missed by humans but can lead to expensive structural damage. In turn, drone data can be plugged into an insurer's risk model for a comprehensive view of a property for a more accurate determination of value and risk.

## **What Comes Next**

Cognizant <u>predicts</u> that drone technology could make adjusters 40-50% more efficient by enabling them to cut down assessment times and more accurately assess the costs of damages. Eventually, the data being gathered via unmanned aircraft will be used in machine learning (ML) algorithms to build models that will be able to accurately predict damages before they occur. For example, drones will be able to gather data on properties that can be plugged into ML algorithms and combined with weather data to give predictions on the monetary value of the claims insurers' will need to pay out, all before storms even occur. Drones won't likely ever completely replace human assessors, but insurers will be able to reduce the number of workers they have on-site in the coming years, ultimately cutting down costs and boosting profit margins.

## **BI INTELLIGENCE**

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