



# STATE OF IoT ASSET TRACKING

2020 INSIGHTS



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## THE TROUBLE WITH TRACKING ASSETS

During October 2020 we gathered data from almost 600 respondents to gain insights from companies looking to solve problems related to IoT asset tracking. Both detailed data and key takeaways are included in this primary research report.

For many industries including Manufacturing, Supply Chain and others, the ability to track assets unlocks insights that enables companies to reduce operational costs, automate workflows, and squeeze the most value from existing assets.

At Helium, based on inbound demand and outbound efforts, asset tracking demand remains high, and yet legacy connectivity technologies continue to be costly and complex.

The unique challenges presented by asset tracking highlights gaps of what's needed and what's available in the market for connectivity. Besides accuracy, asset tracking requires long range/dense coverage (Wi-Fi, Bluetooth, are inadequate), low power consumption (cellular, too power hungry), and the economics need to work (private networks, often too costly).

## KEY TAKEAWAYS

To better understand customer asset tracking use cases, Helium conducted a primary research study in 2019 and launched a similar initiative this year with the participation of Digital Matter and Semtech.

In addition to key takeaways below and the Detailed Data section, a comparison with last year's findings is also provided.

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### MAJORITY ASSETS NOT TRACKED

Despite the urgency and high demand, over half of respondents (52%) report not tracking assets.

### PREVENTING LOSS/THEFT TOP BUSINESS DRIVER

Helping prevent loss/theft was the highest business driver (38%), with enhancing operational efficiency (37%) and optimizing product life cycles (11%) rounding out the top 3.

### COST BIGGEST CONNECTIVITY OBSTACLE

Too costly (25%) is the key reason why respondents are not using an asset tracking solution, if they're not actively researching for one (63%).

### HEALTHCARE LARGEST NON-TECH VERTICAL

While Tech (software, hardware, other), unsurprisingly was the most represented vertical (53%), Health Care was the largest non-tech vertical, followed by Transportation & Distribution, Retail, and Consulting.

### INTERNAL USE CASES BIGGEST NEED

From a business perspective almost half (47%) want asset tracking solutions to address internal use cases, while almost a third (31%) report commercial customers as their primary target.

### URGENT NEED FOR ASSET TRACKING

46% of respondents reported the need to address their asset tracking use cases within the next 3 months or sooner and 91% within the next 12 months.

## COMPARISONS WITH 2019

We've included comparison highlights of the different datasets over the last couple of years.

This year saw an increase in low power wide area network technologies (LPWAN), and reduced usage of RFID.

More companies are both using and researching asset tracking solutions.

See appendix for additional 2020 to 2019. comparisons and takeaways

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### INCREASED INTERNATIONAL REPRESENTATION

This year more representation from non-North American participants: Europe and Asia increased 8% to 21%, and 5% to 11%, respectively.

### SMALLER COMPANIES BIGGER VOICE

Higher representation from smaller companies: 78% under 50 employees vs 66% a year ago.

### MORE TRACKING OF ASSETS

Participants who reported IoT asset tracking increased by 14%.

### MORE COMPANIES RESEARCHING

Companies actively researching solutions for asset tracking solutions rose to 63% from 49%.

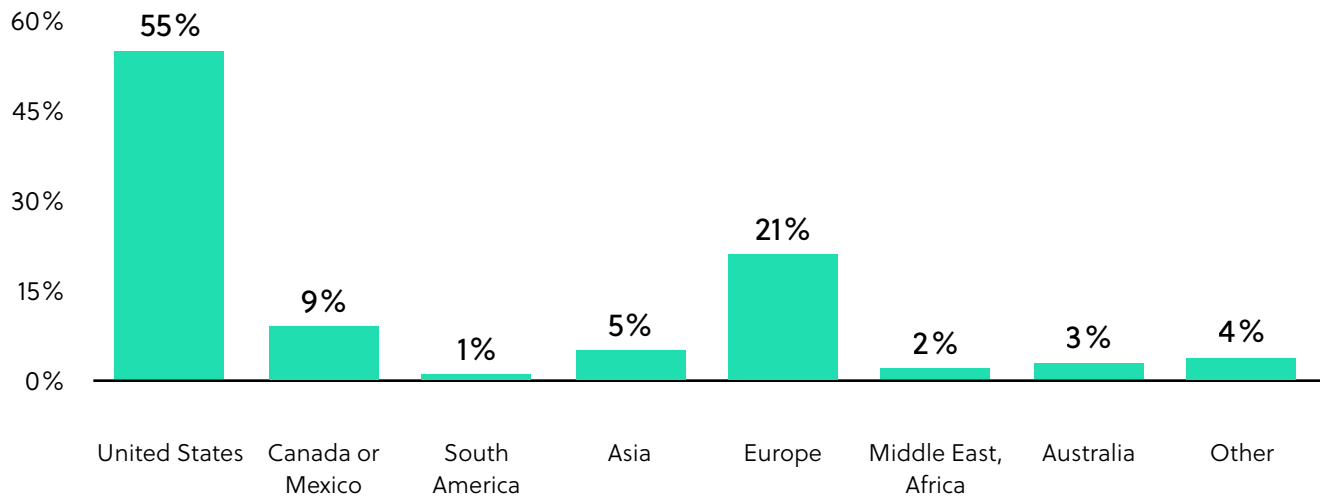
### LPWAN USAGE UP RFID DOWN

This year the use of LPWAN technologies (e.g., LoRaWAN) more than doubled 29% compared to 12%, while RFID decreased by more than half from 28% to 11%.

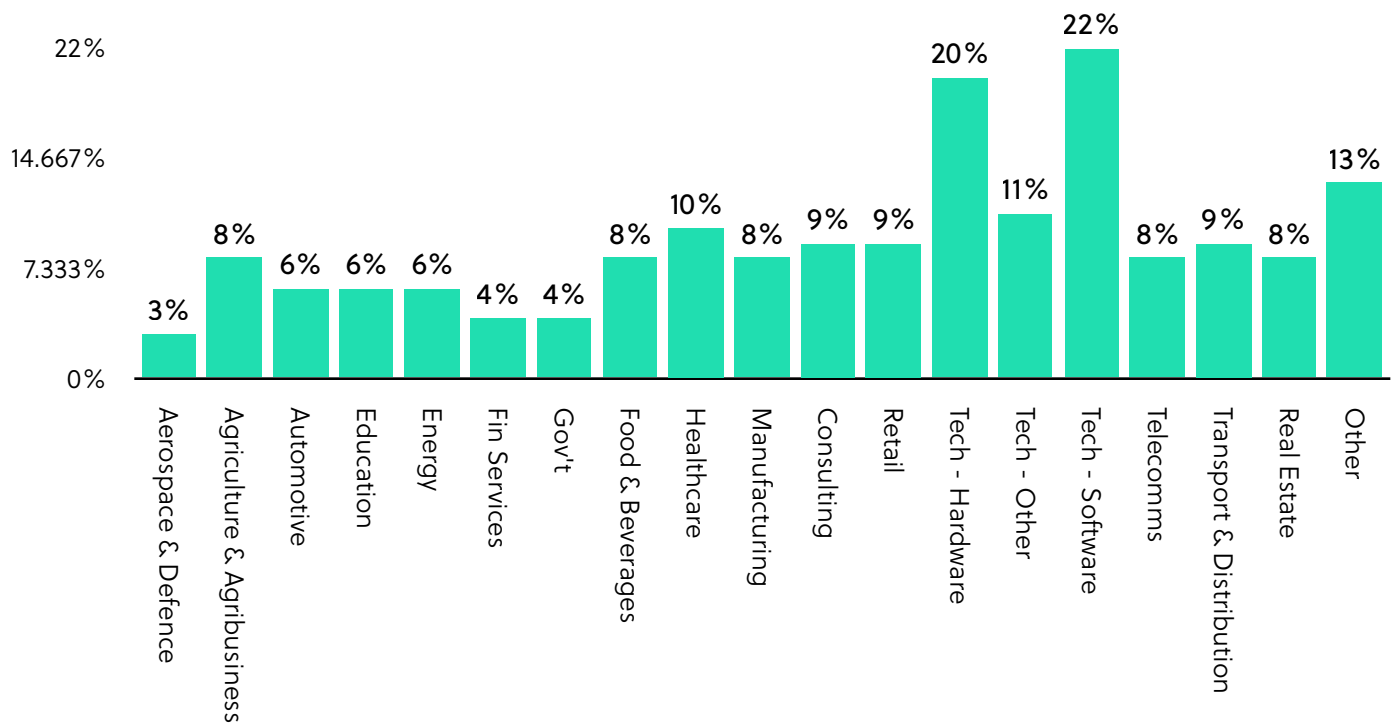
## DETAILED DATA

Certain questions allowed choosing multiple answers so total percentages may exceed 100%.

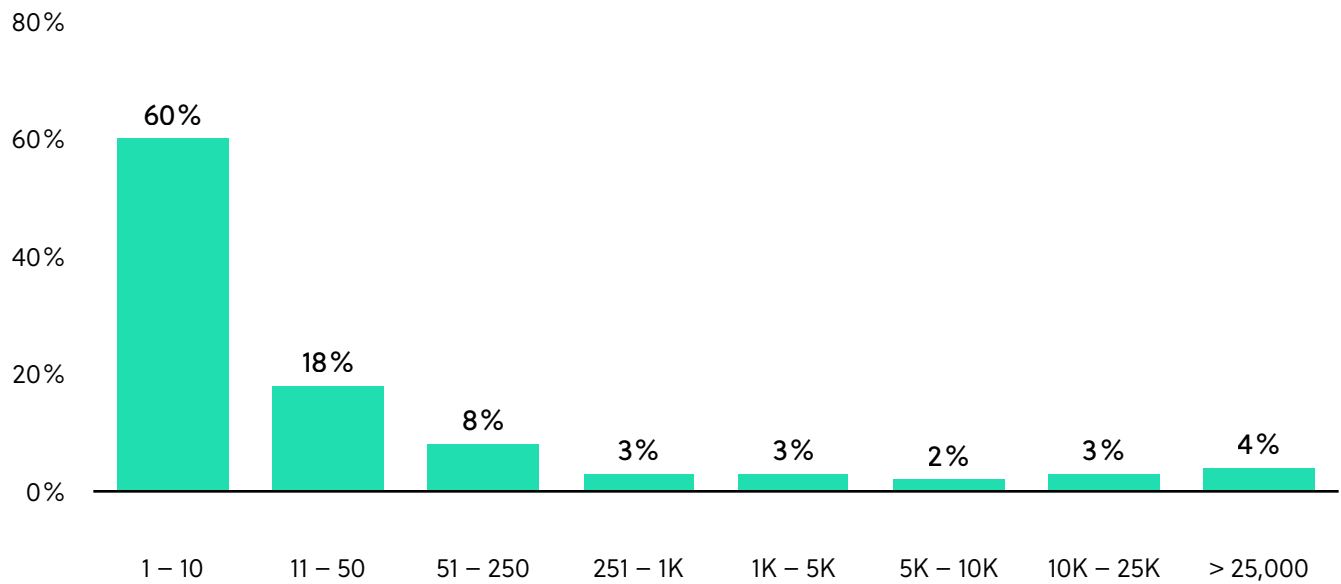
### Where's your company based?



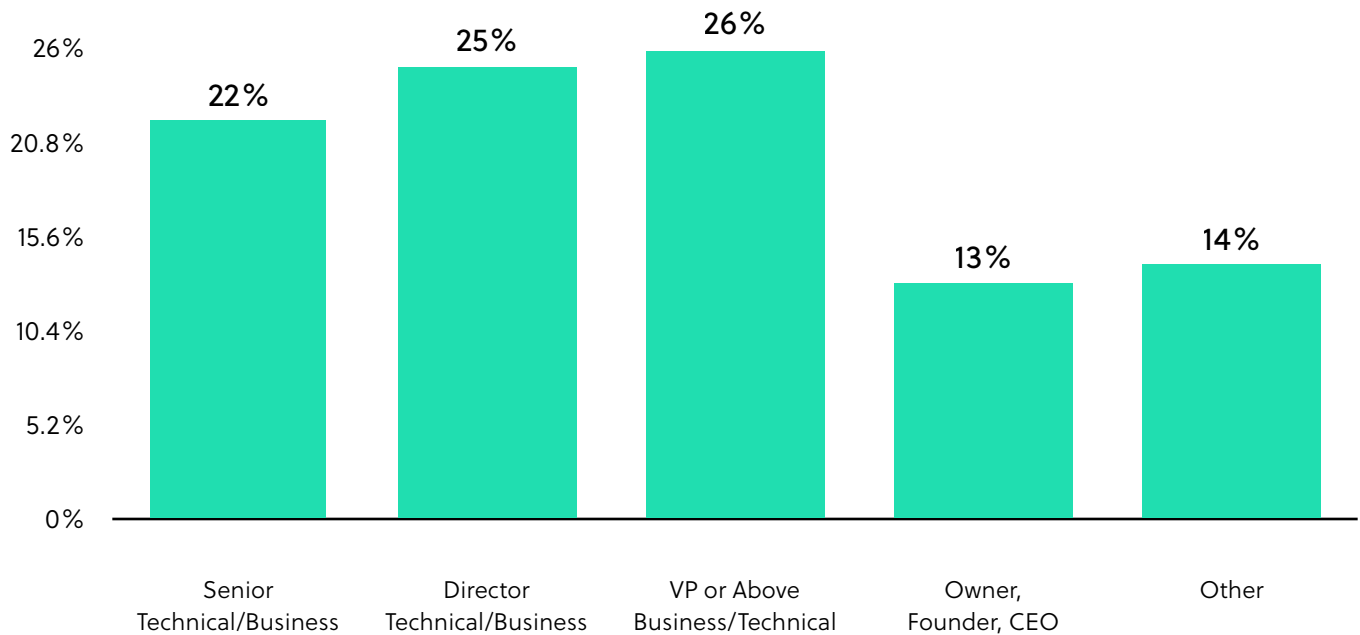
### What vertical industry does your organization belong to?



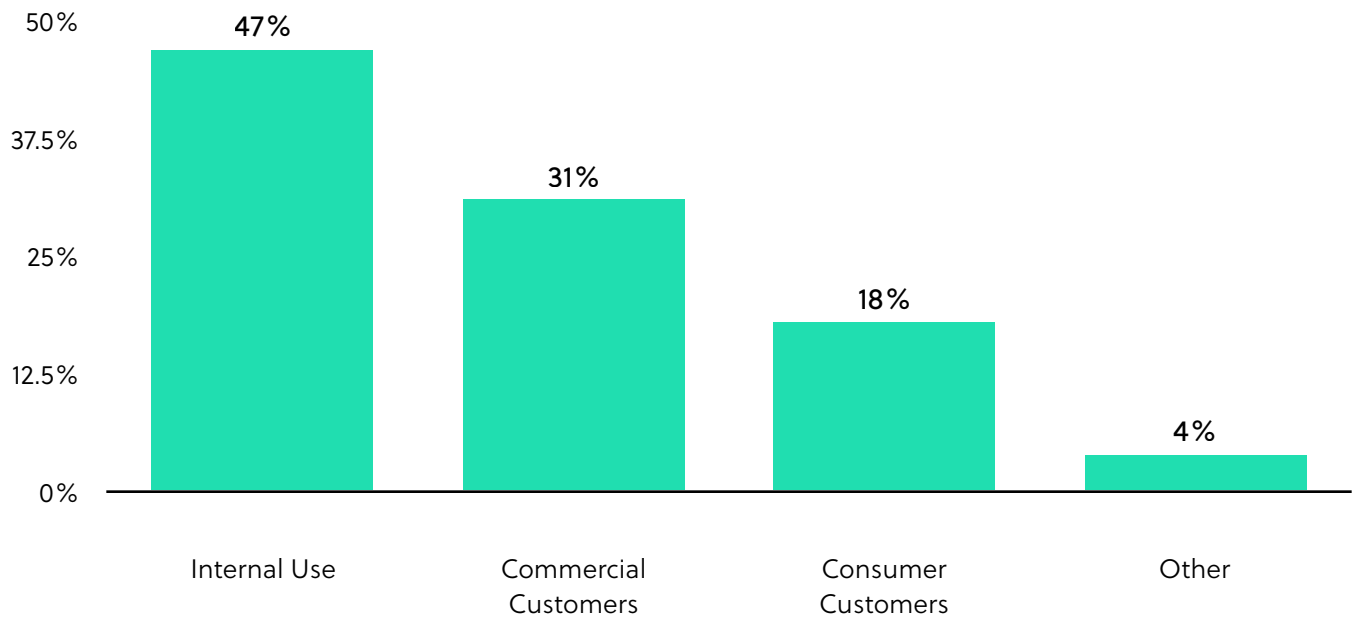
What's the size of your organization (employee number)?



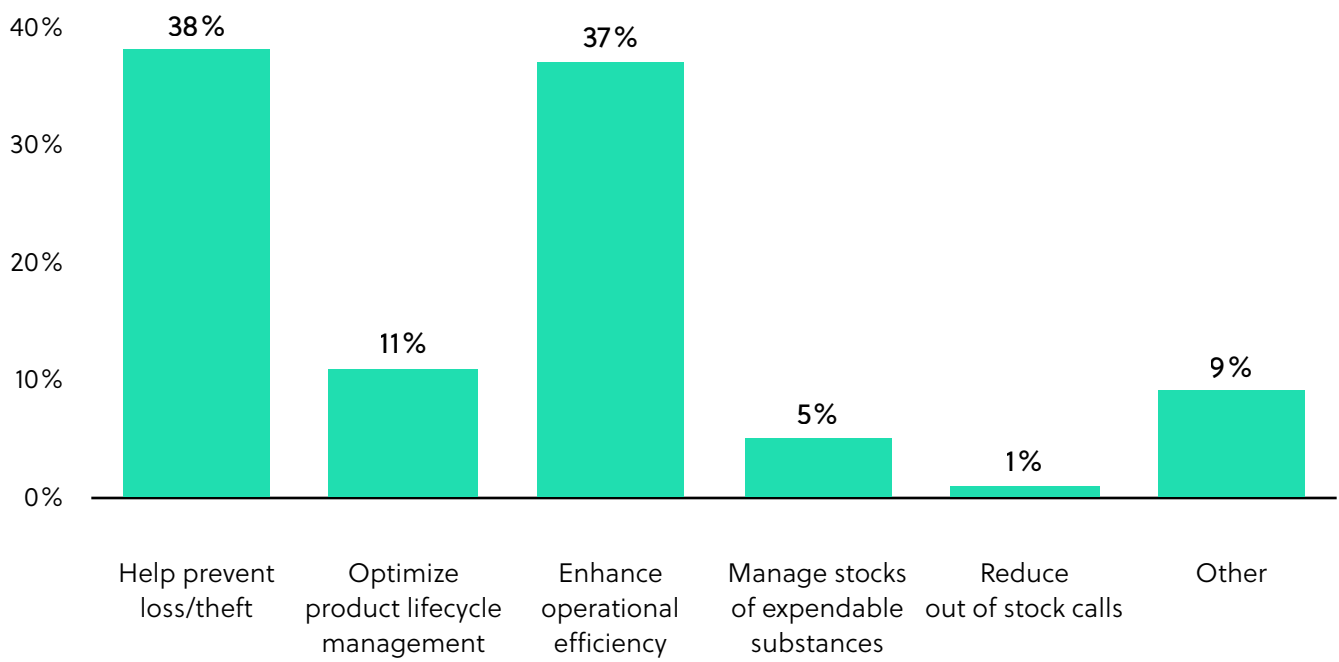
Which of the following best describes your job function?



Who is the primary target for your asset tracking need?

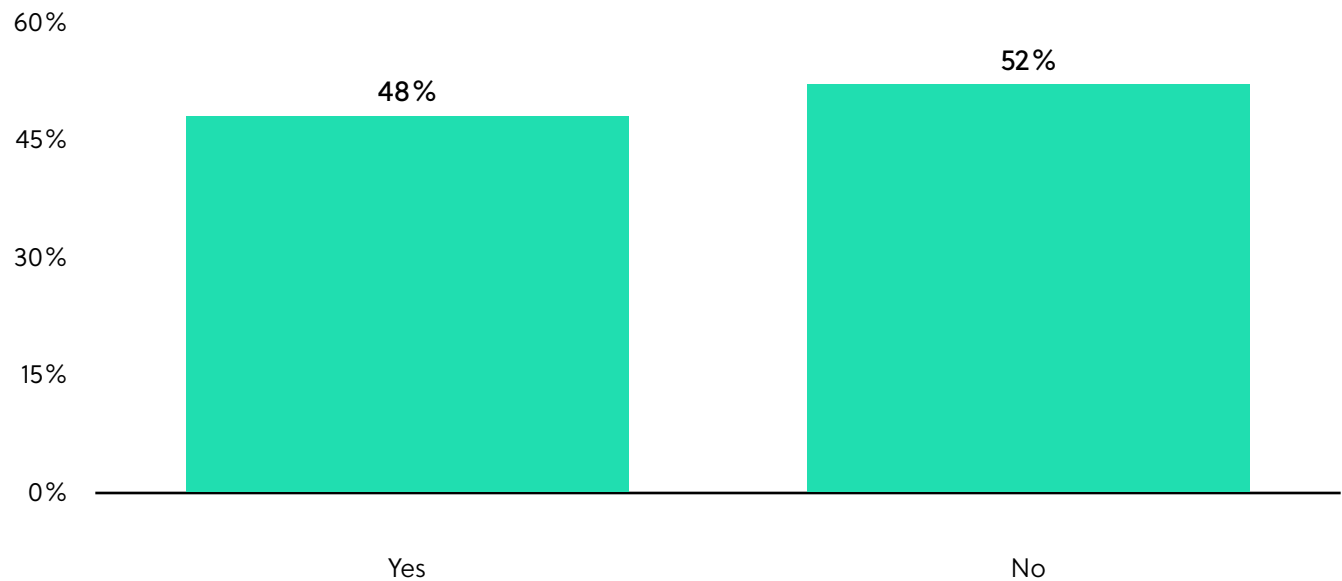


What are your primary business drivers for tracking assets?



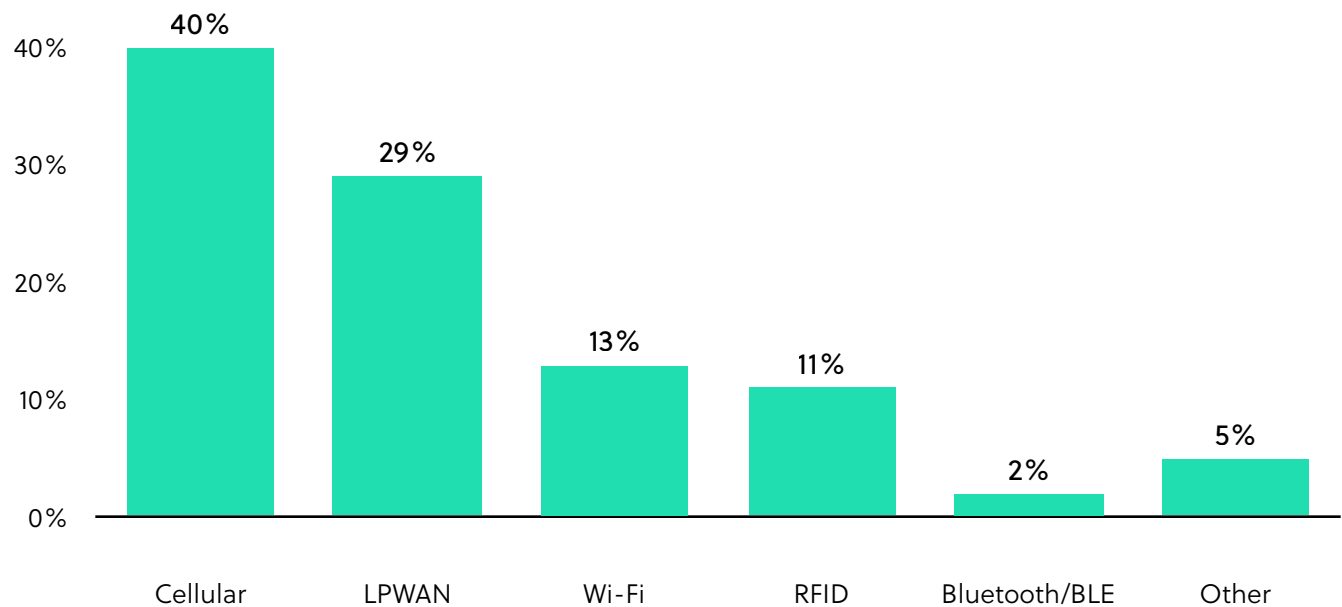


Are you currently using any connectivity technologies to track assets?



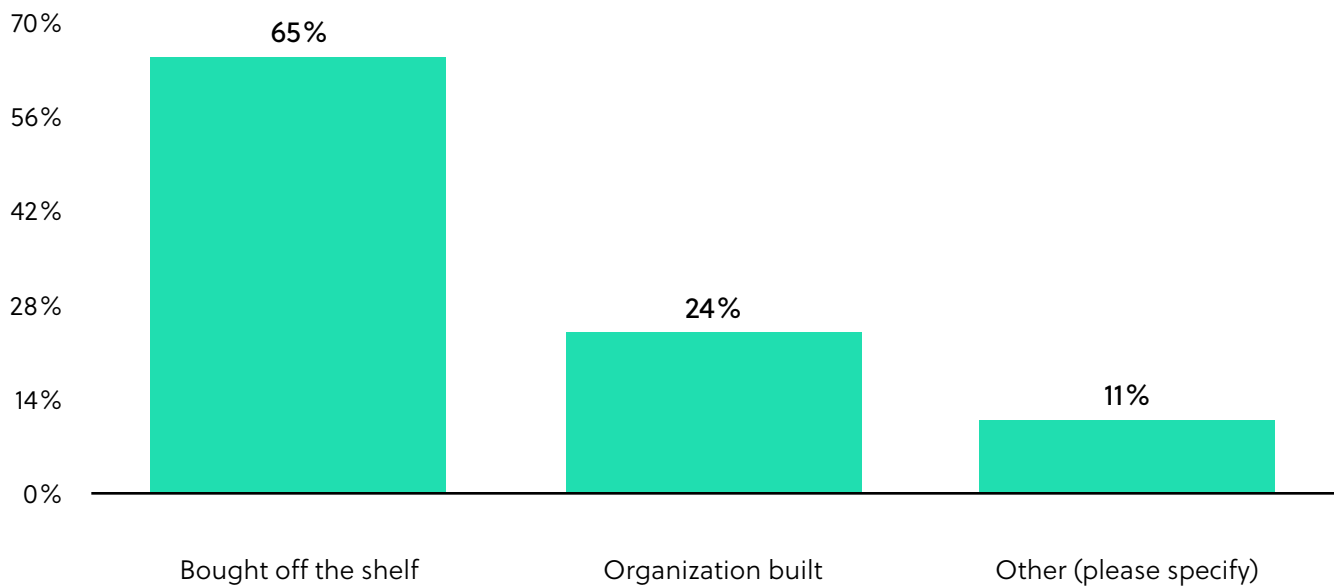
What connectivity technologies are you primarily using?

Answered Yes: Are you currently using any connectivity technologies to track assets?



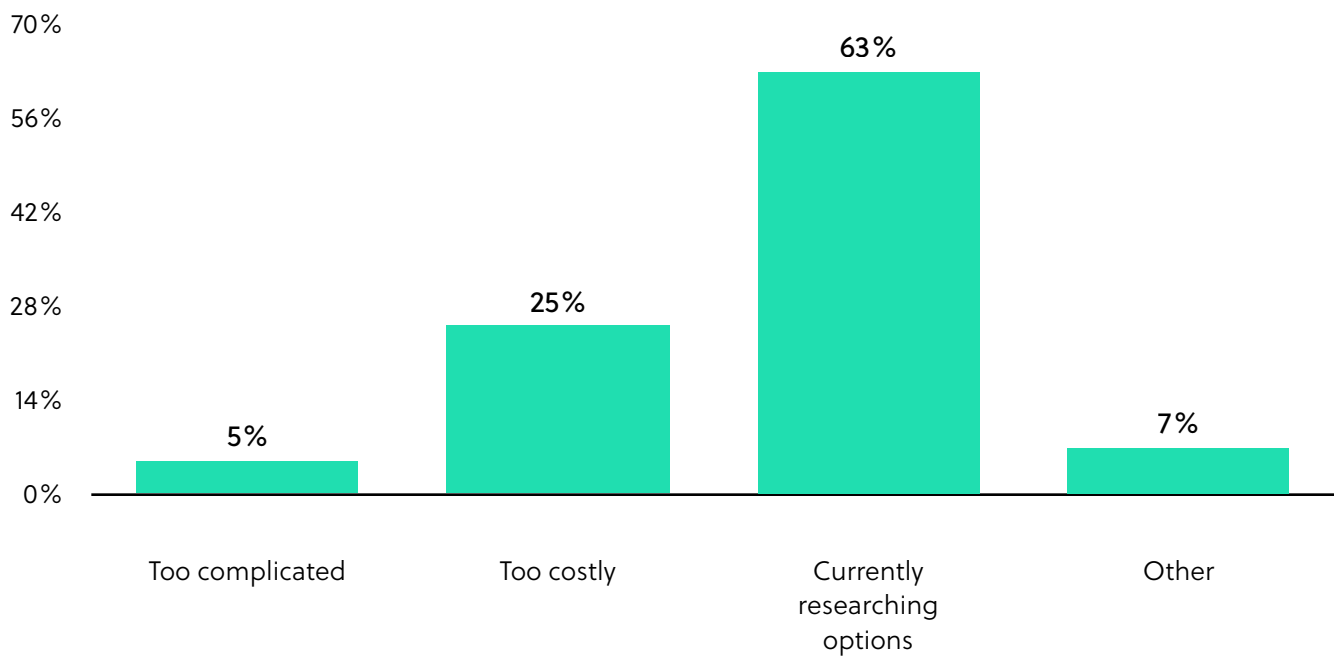
## Please share details about your tracking sensor, is it:

Answered Yes: Are you currently using any connectivity technologies to track assets?

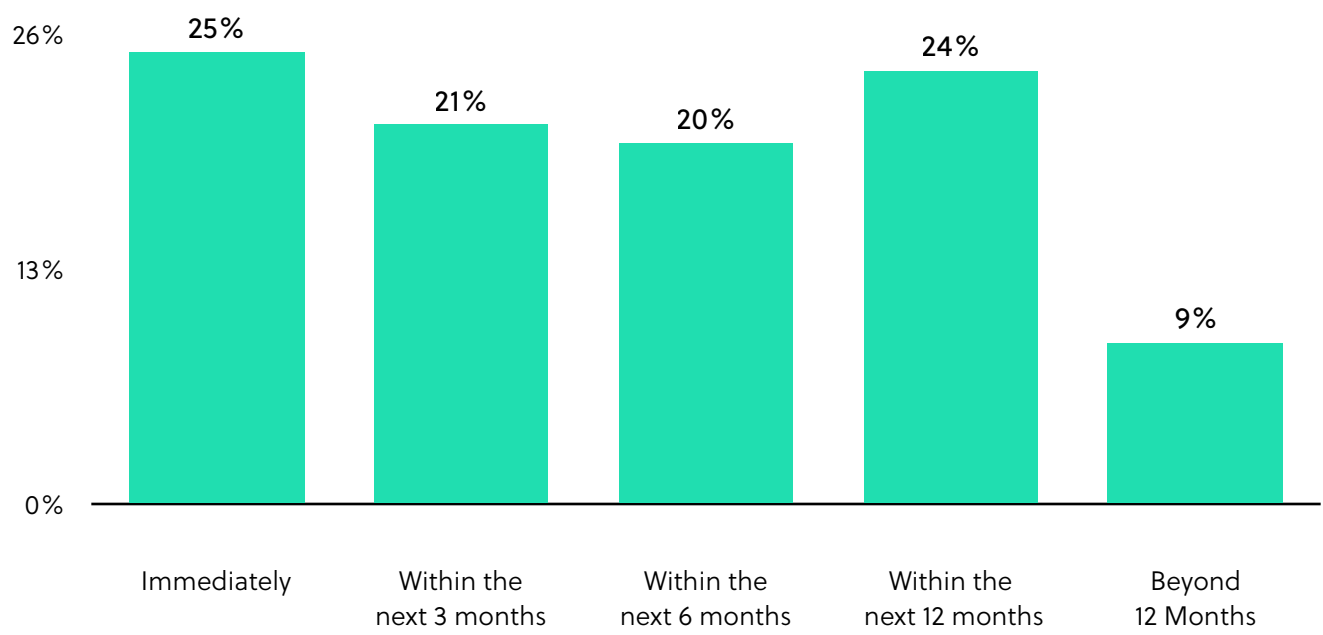


## What's the primary reason you're not using any of these technologies?

Answered No: Are you currently using any connectivity technologies to track assets?



What's your timeline to address your asset tracking use cases?



## ASSET TRACKING ON A NEW NETWORK

Asset tracking solutions running on the Helium Network allow businesses to remotely track and trace assets, collect location data in real time,

and cryptographically prove asset location using the Helium Blockchain.

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### REMOTELY TRACK ASSETS TO PREVENT LOSS AND THEFT

With the world's largest public IoT network, businesses can prevent asset loss and theft by tracking assets across large geographic regions with commodity trackers that don't need replacing batteries for years.

### COLLECT TRACKING DATA FOR A FRACTION THE COST OF CELLULAR

Collecting real-time data for assets onsite or in transit on a network optimized for long range and battery life is now accessible to organizations at a fraction the connectivity costs of cellular.

### PROVE ASSET LOCATION

Every time a tracker connects, the time and location of the event is added as a permanent record to the Helium Blockchain.

By linking tracker data with connection events recorded on the blockchain, companies can cryptographically prove the location and time a tracker sent data.

For help tracking assets contact [sales@helium.com](mailto:sales@helium.com).

## ABOUT

The State of IoT Asset Tracking survey and report was an initiative conducted in partnership with Helium, Digital Matter, and Semtech.

Multiple companies participating contributed to a larger number of respondents with more international representation.

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## HELIUM

Co-founded by Shawn Fanning and Amir Haleem in 2013, Helium is building the world's first peer-to-peer wireless network to simplify connecting devices to the internet by rewarding anyone to become a network operator.

The network is live in more than 2000 cities and counting throughout North America, the European Union, and the UK. Learn more at [helium.com](https://helium.com).

## DIGITAL MATTER

Digital Matter designs, builds, and delivers incredible GPS and IoT devices for businesses that require reliable and agile asset tracking solutions.

With over 20 years of telematics experience, we are celebrated for our quality, performance, and turnkey solutions. To learn more about Digital Matter LoRaWAN trackers visit our [site](#).

## SEMTECH

Semtech's LoRa device-to-Cloud platform is a globally adopted long range, low power solution for IoT applications, enabling the rapid development and deployment of ultra-low power, cost efficient and long range IoT networks, gateways, sensors, module products, and IoT services worldwide. Semtech's LoRa devices provide the communication layer for

the LoRaWAN® protocol, which is maintained by the LoRa Alliance®, an open IoT alliance for Low Power Wide Area Network (LPWAN) applications that has been used to deploy IoT networks in over 100 countries. Semtech is a founding member of the LoRa Alliance. To learn more about how LoRa enables IoT, visit Semtech's [LoRa site](#).

## APPENDIX - 2020 VS 2019

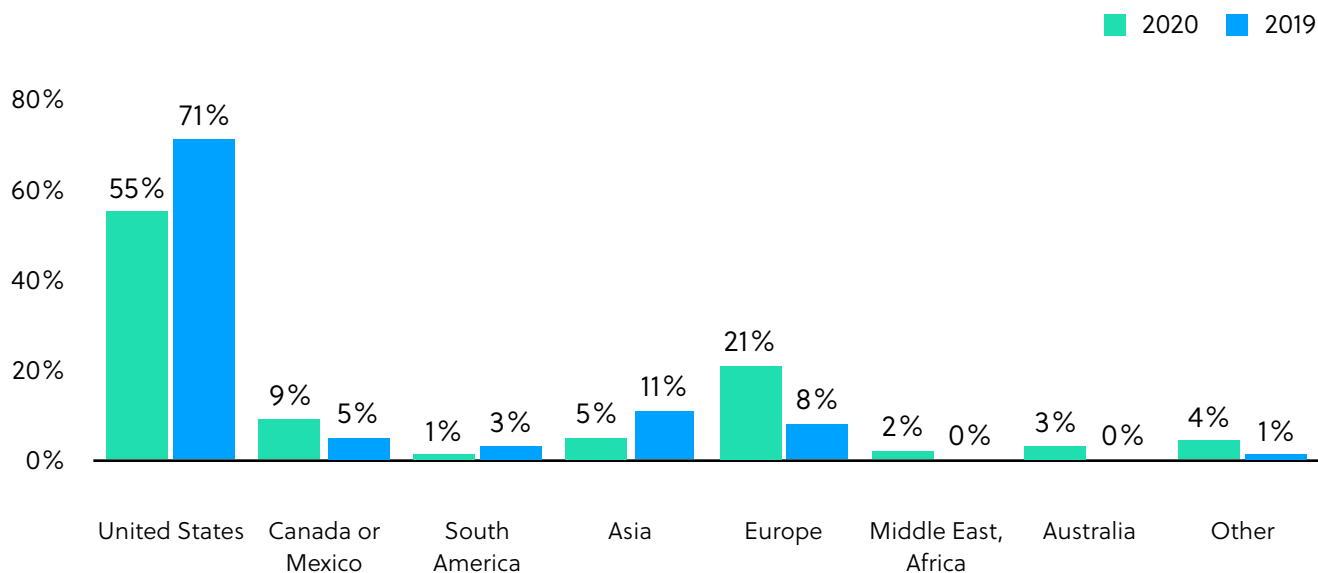
Asset tracking's attractiveness has increased tremendously over the last year resulting in 400+ more respondents in 2020 compared to 2019.

While Tech (Hardware, Software, Other) is the leading vertical, Healthcare has surpassed Manufacturing as the next largest in 2020. The majority business drivers for an asset tracking solution is to help prevent loss/theft (38%),

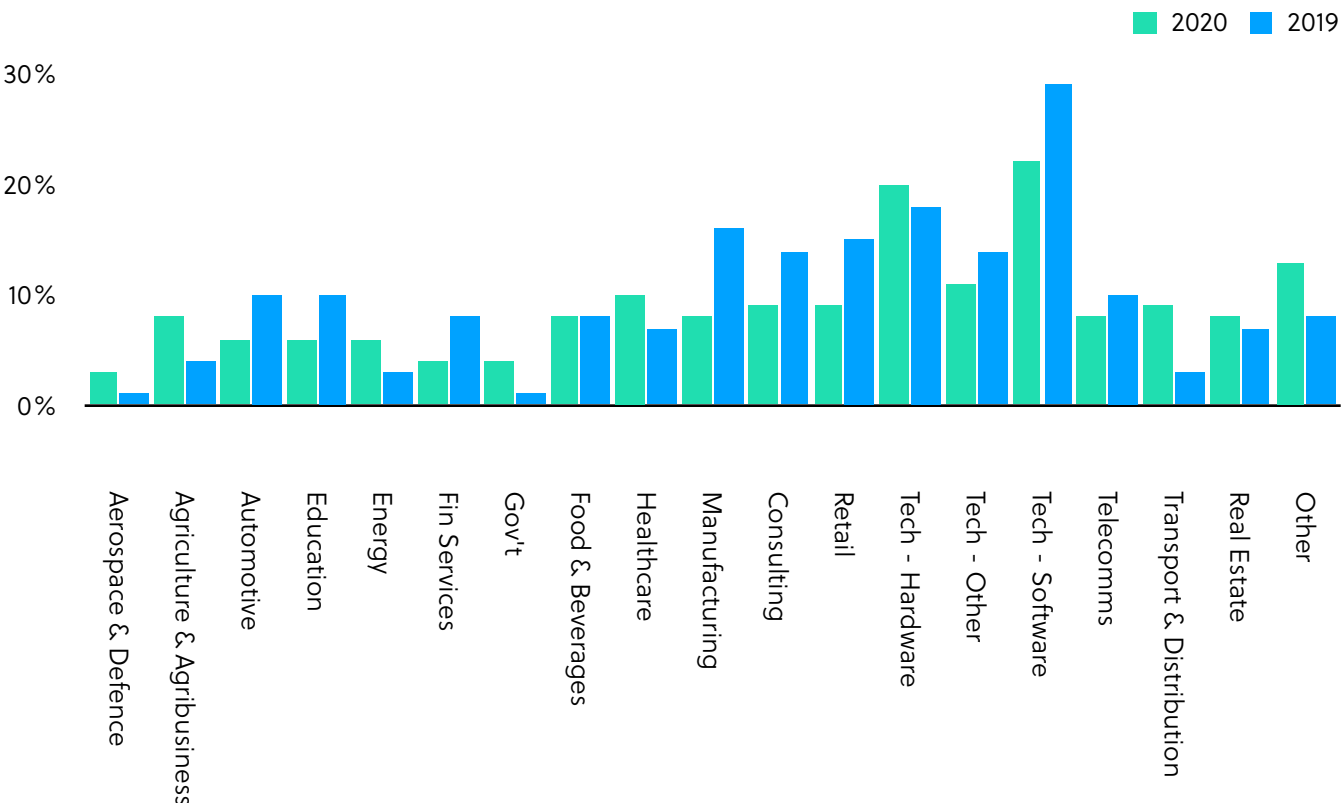
while enhancing operational efficiency is a very close second at 37%. Although the need for a solution is relatively urgent, 52% of respondents reported they currently have no form of technology based asset tracking.

91% of respondents reported a timeline to address their asset tracking use cases within the next 12 months and 46% within the next 3 months.

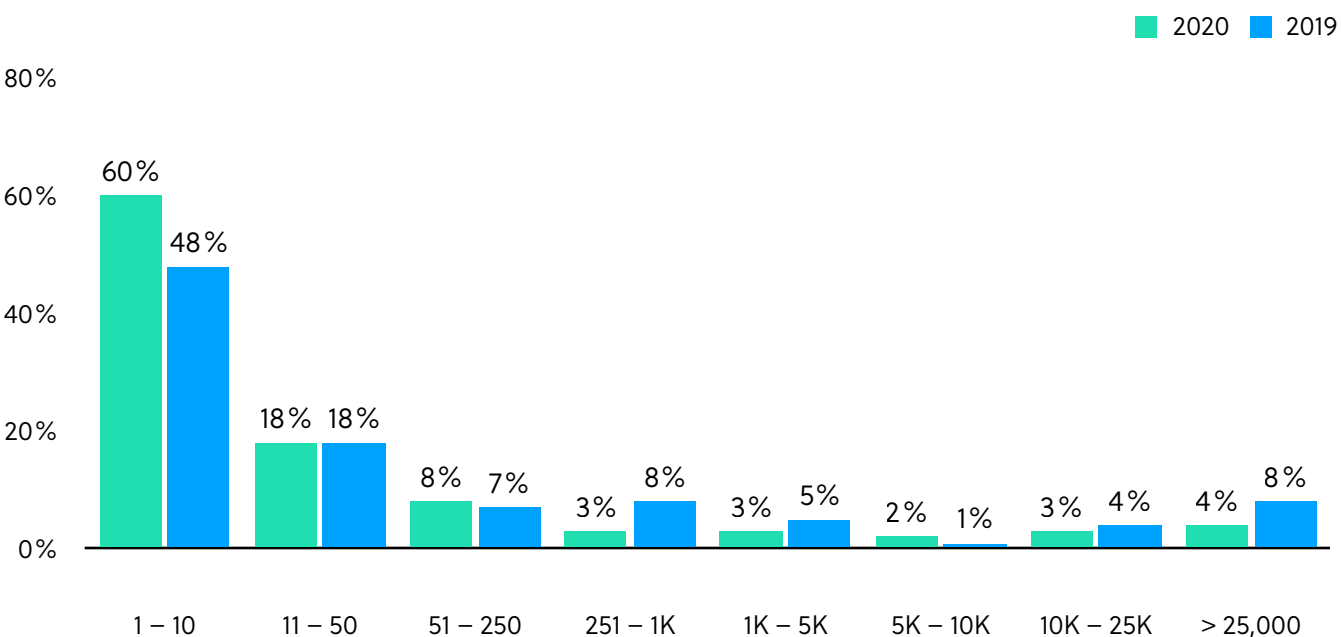
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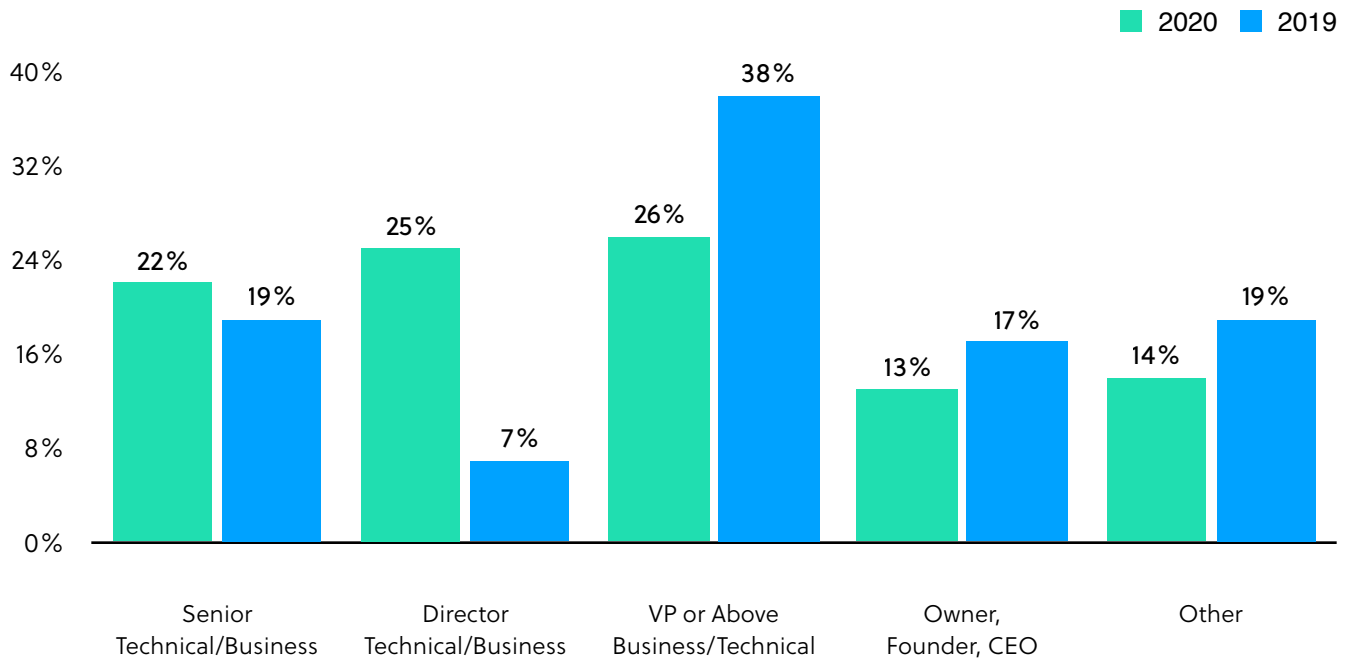
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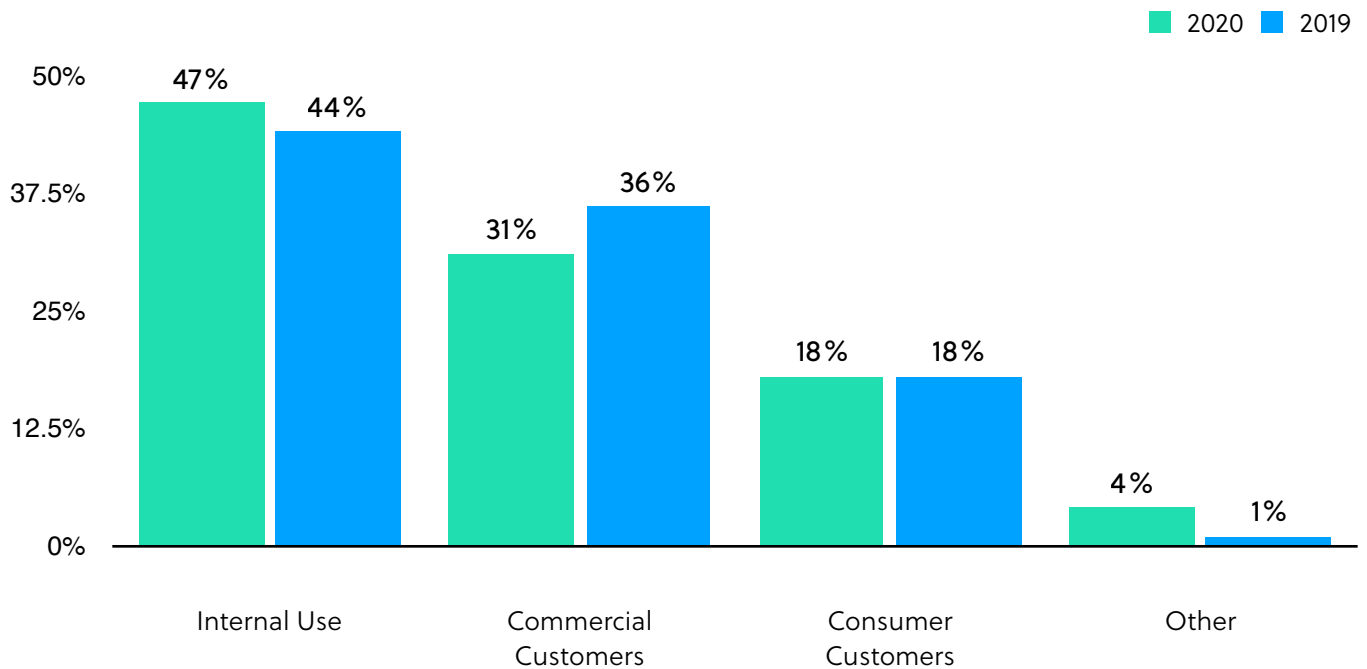
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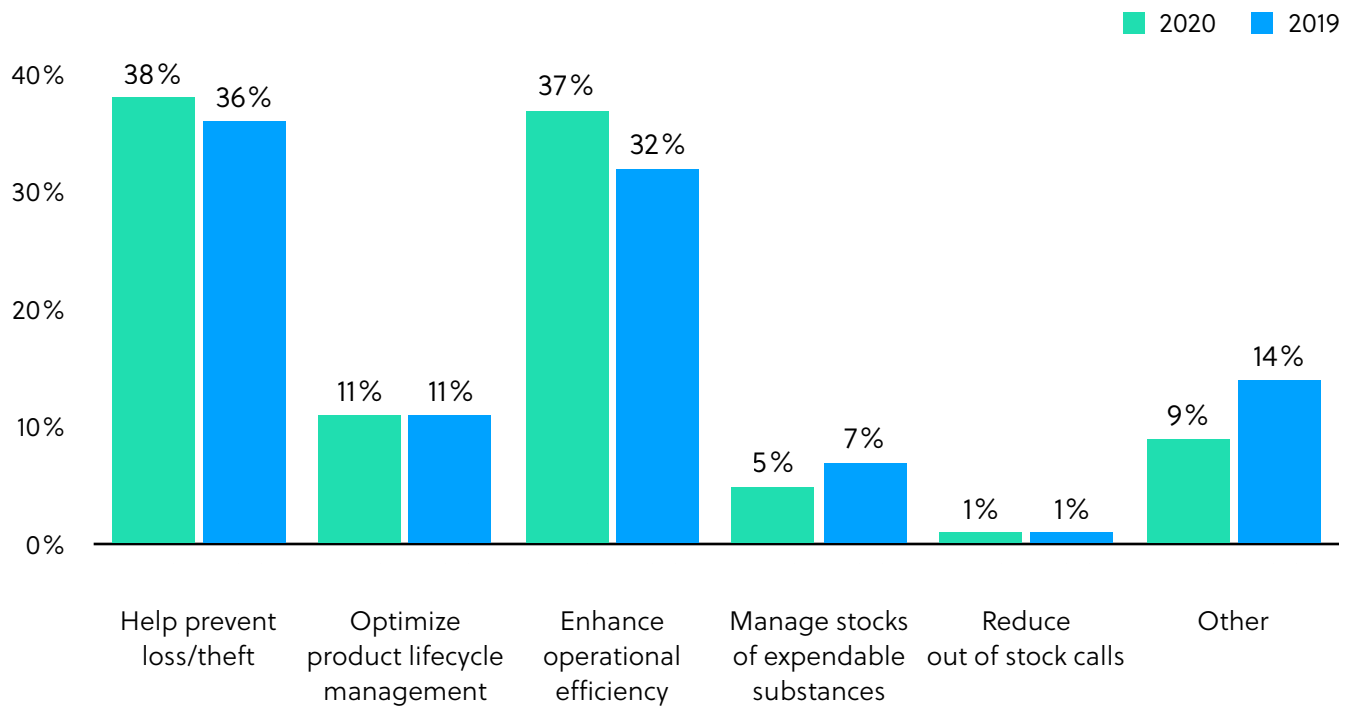


## Who is the primary target for your asset tracking need?

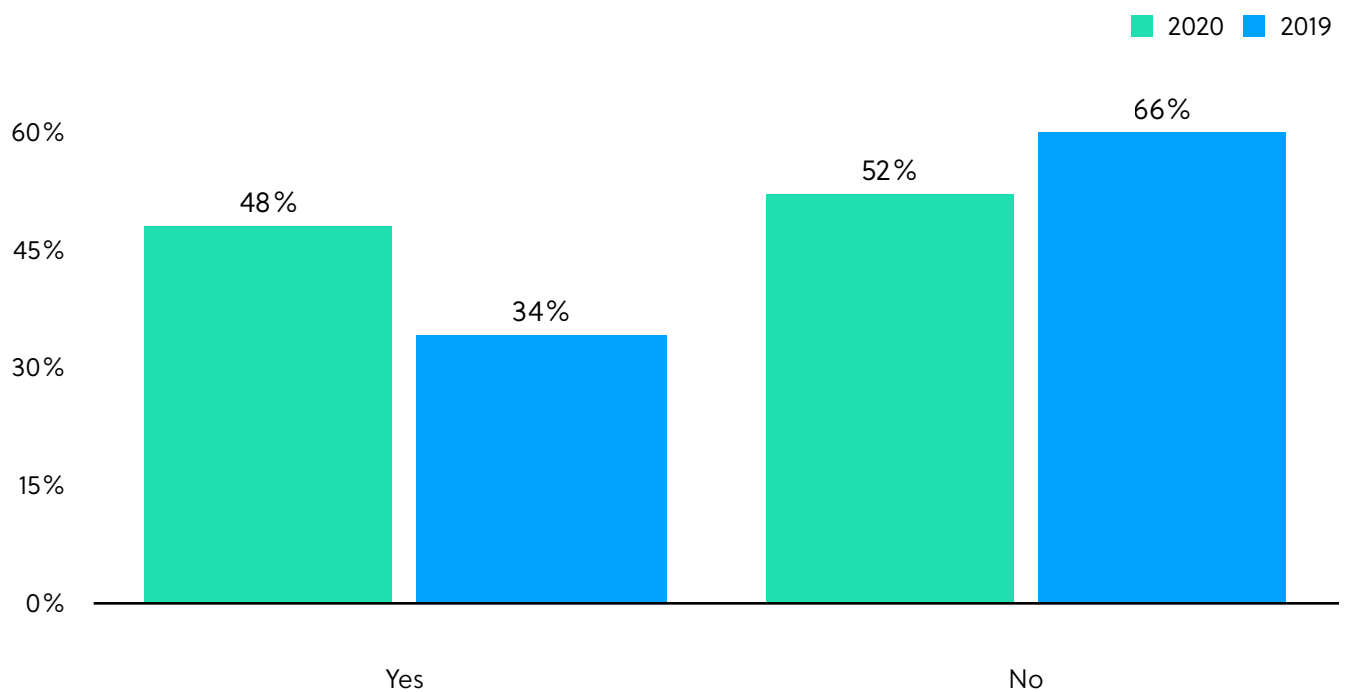




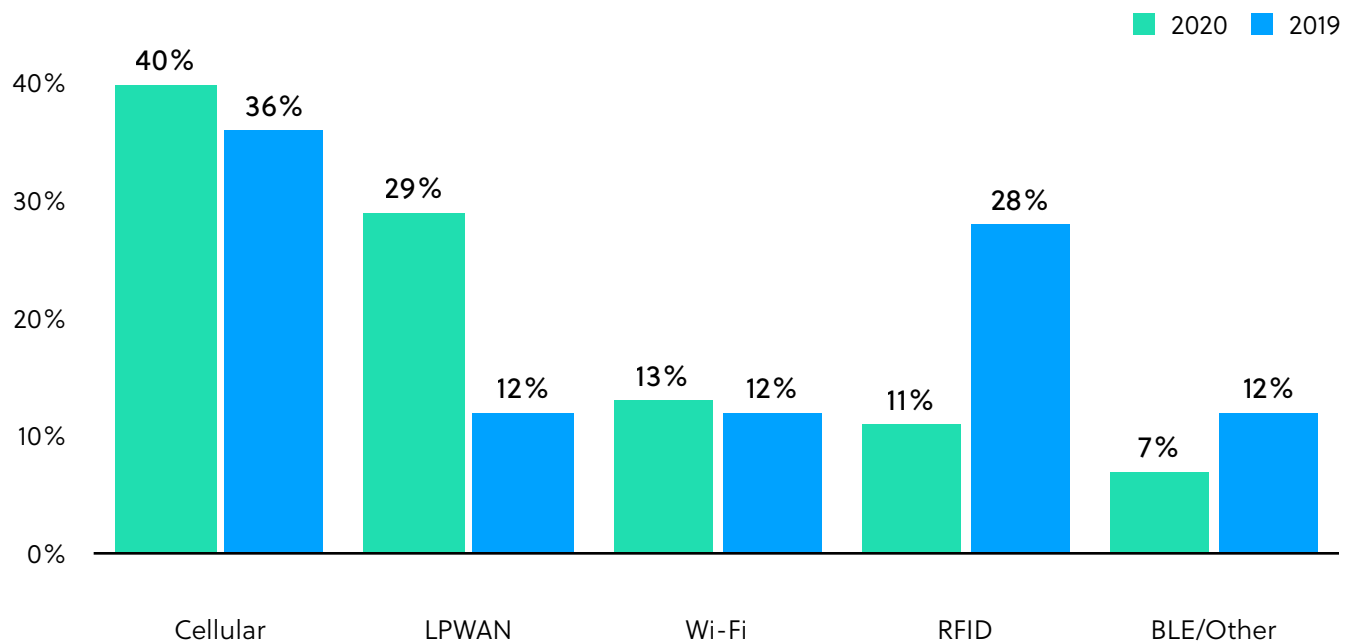
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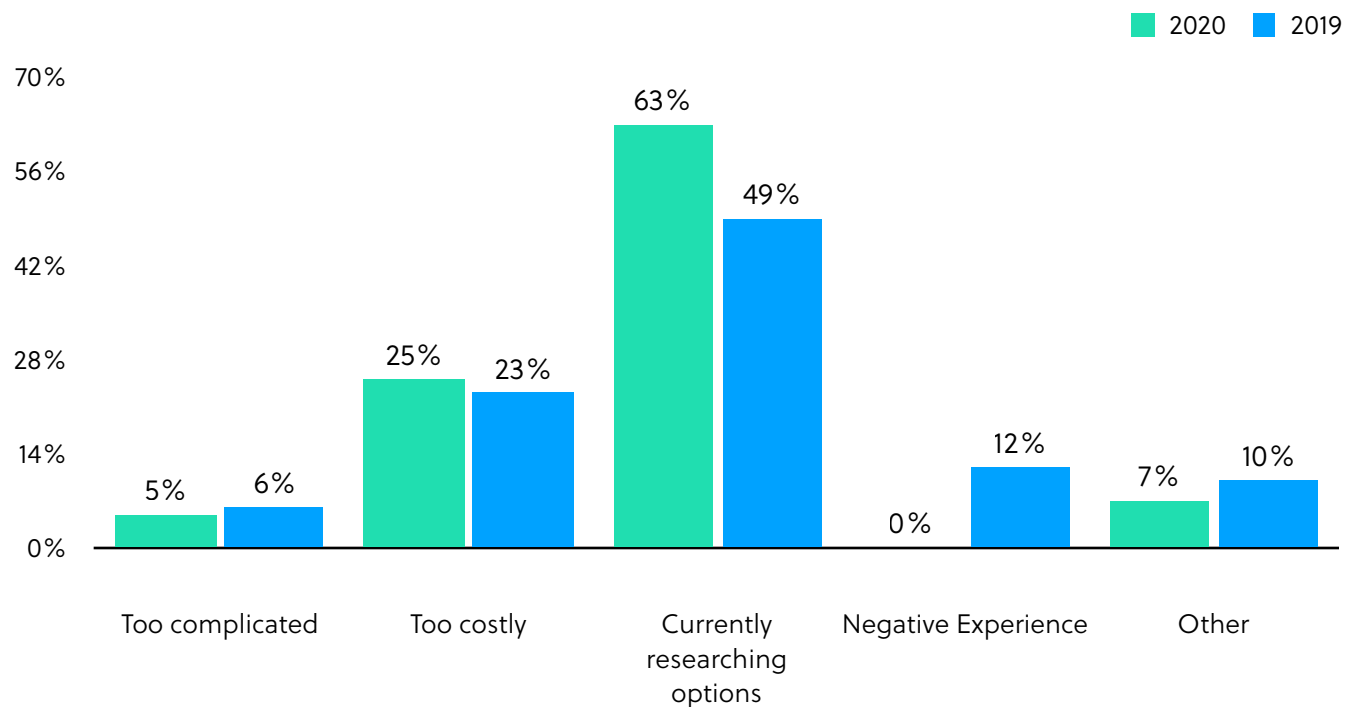
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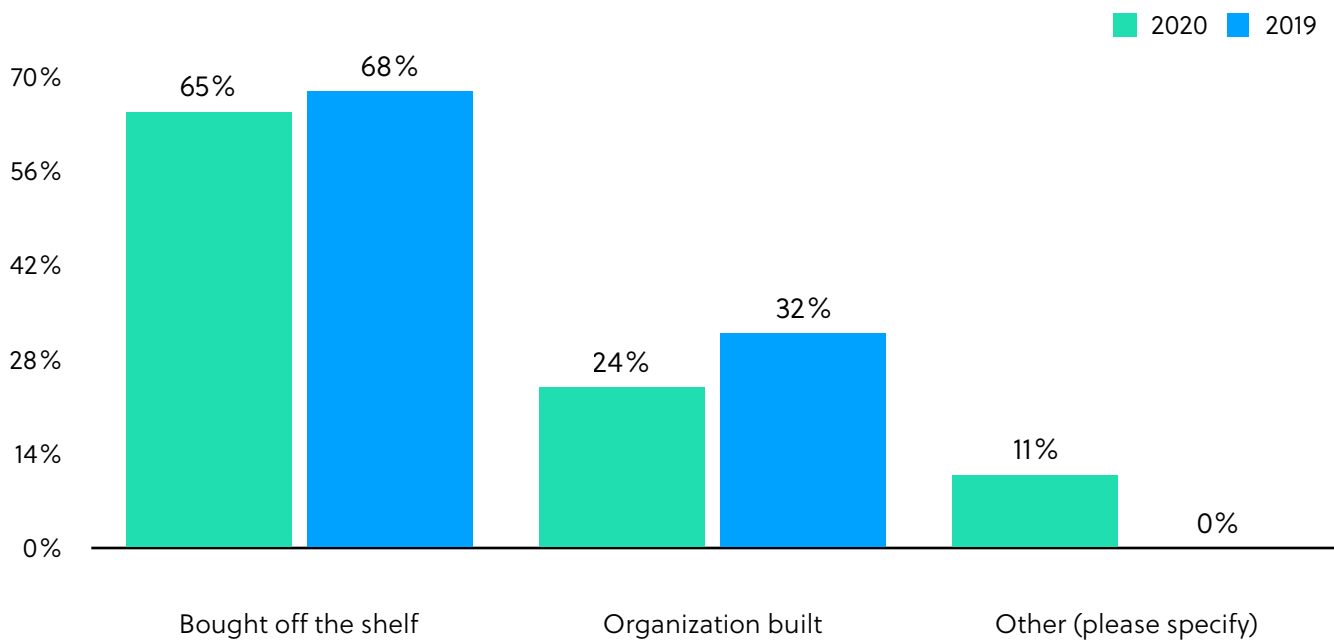
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