

## Knowledge is power

Tracking and transparent reporting of battery-related incidents — including product type, what happened and the impact — is critical to helping drive understanding of this technology and where the greatest risks exist.

# Lithium-ion battery incident reporting

The proliferation of lithium-ion batteries and the products that run on them has resulted in an exponential increase in incidents resulting in injuries and fatalities.

# 7,741

total incidents

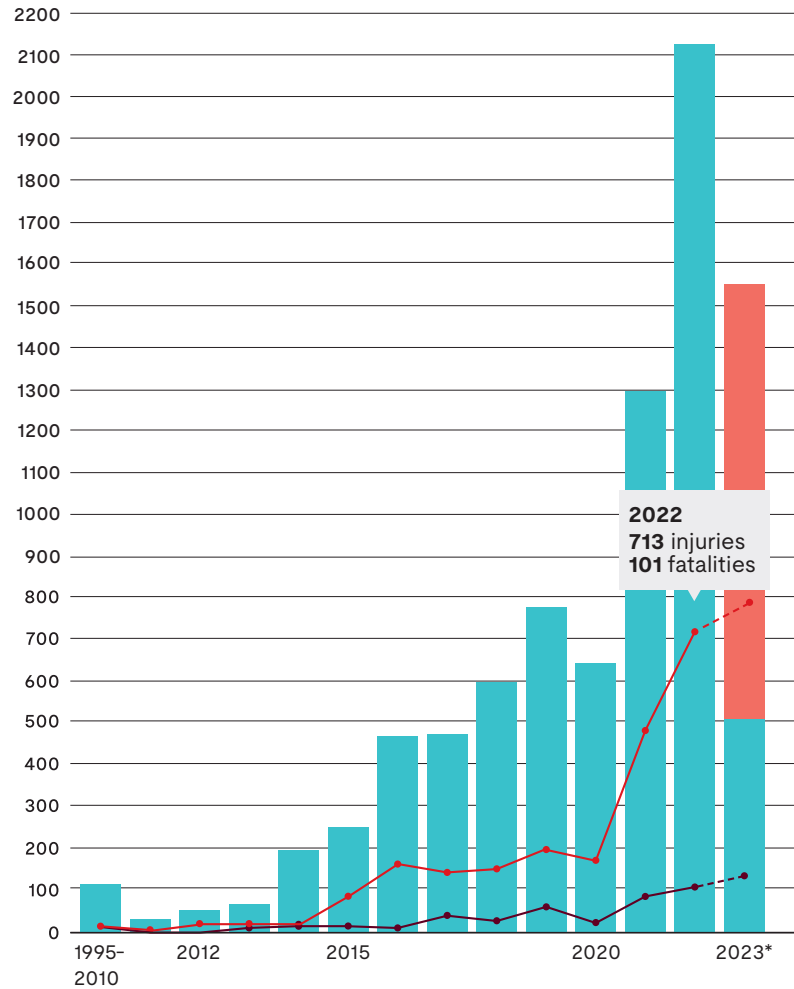
# 518

incidents in 2023 to date



## Increase in total incidents over time

● Injuries ● Fatalities ● Total incidents ● Projected total



Total over time: **2,431** **401**

\*2023 projected based on Q1 2023 data

## Total incidents reported for each category

(1995-2023 YTD)



### CONSUMER PRODUCTS

**1,159** **114**

total injuries total fatalities



### ELECTRIC VEHICLES (>20MPH)

**91** **69**

total injuries total fatalities



### MICRO-MOBILITY DEVICES (<20MPH)

**1,140** **214**

total injuries total fatalities

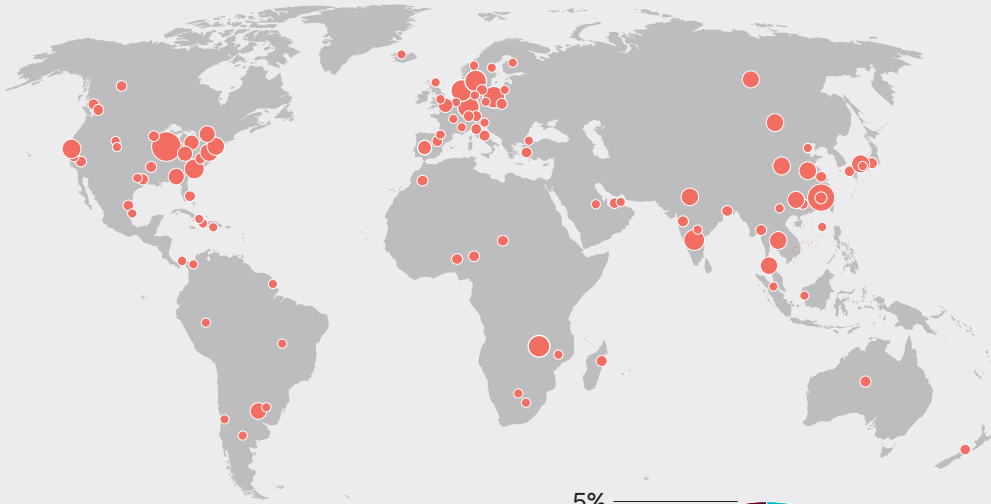


### ENERGY STORAGE SYSTEMS

**14** **4**

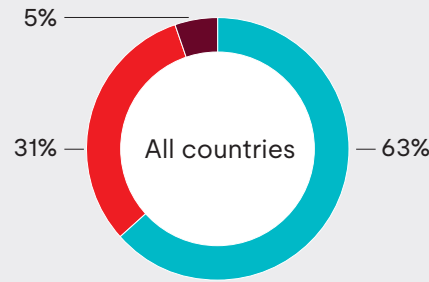
total injuries total fatalities

## Incidents reported by country

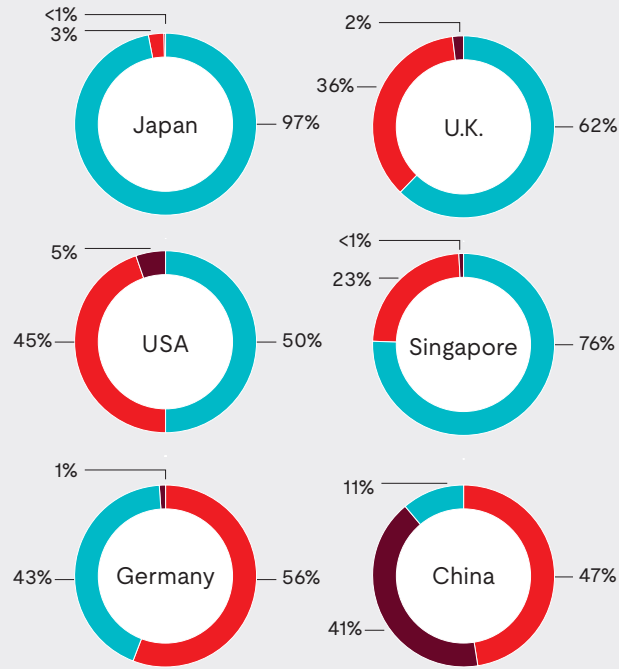


### Incident awareness and analysis

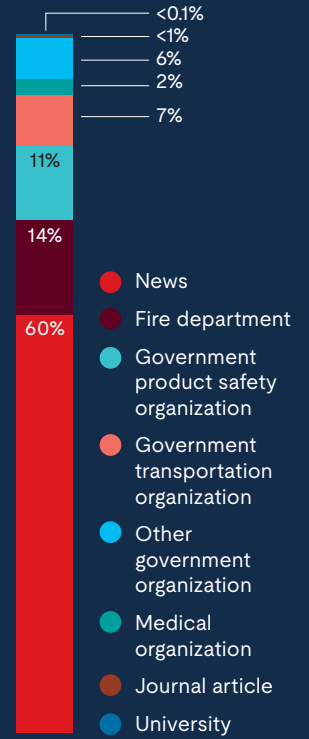
Reporting is critical to understanding the depth and nature of this challenge. With limited visibility into battery incidents globally, we know this data is just the beginning – there are many more incidents occurring than are being reported. Some countries release bulk estimates rather than individual data points. Others, like Japan, provide weekly data points through the National Institute of Technology and Evaluation.



● Injuries ● Fatalities ● Other incidents

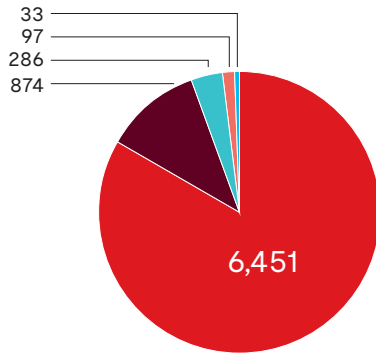


## Total incidents by data source



## Reported incidents by type

- **Heat**  
Hot, no gas released
- **Swelling**  
Increased in size, may be hot, no gas released
- **Venting**  
Gas released, may be hot and/or swollen
- **Fire**  
Gas released and ignited
- **Explosion**  
Gas released, quick ignition causing loud sound and pressure increase



## Incidents over time by battery status

