

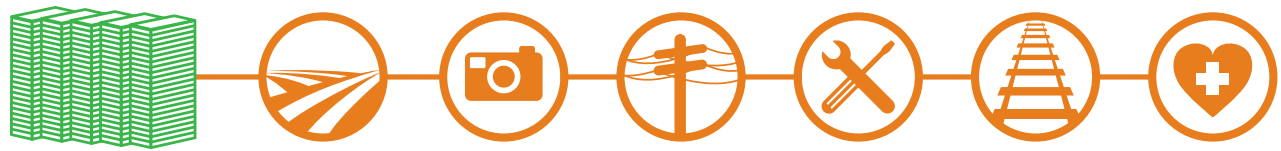
## Cornerstones of successful upper air observations

### Value of meteorology to societies

Extreme weather such as floods, hurricanes, and blizzards has a profound impact on society

Various sectors such as agriculture, energy, transportation, construction, tourism and healthcare benefit from well timed preparation and mitigating actions.

The developing world has even more at stake.



Weather forecasting provides early warnings

People can prepare in advance to save lives and property. Weather forecasting in European Union (EU27) annually saves:

- 200-800 lives
- 0.5-2.7B€ in assets

In the developing world, the projected annual savings are:

- 23,000 lives
- 0.3-1.9B€ in assets



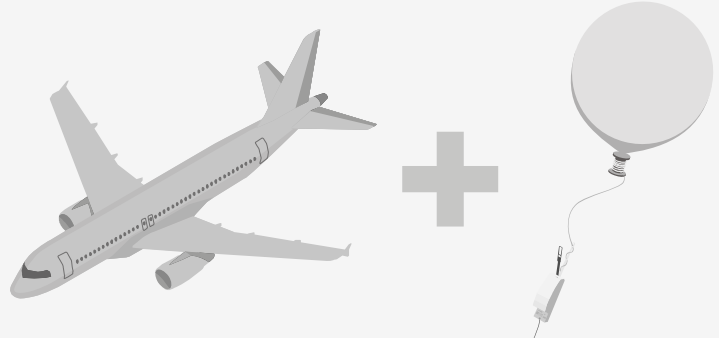
### 6 steps to weather preparation



1. Observation systems provide data
2. Network management tools manage hardware
3. Observation leads to weather forecasts
4. Forecasts lead to weather warnings
5. Operators interpret the warnings
6. Decision-makers recommend actions

### 4D numerical weather prediction

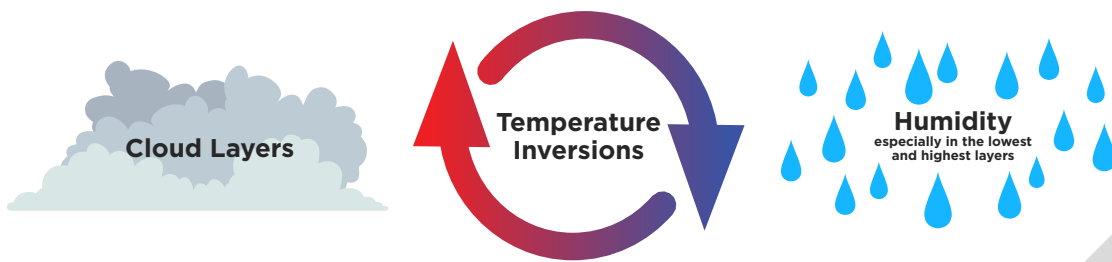
- Radiosoundings and aircraft data are the most critical sources of surface-based weather observations
- Aircraft data complements the view of weather conditions



## The cornerstones of successful upper air observations: High-quality data and automatic soundings

### How do you benefit from high-quality data?

Use soundings to measure air mass vertical profiles, including:

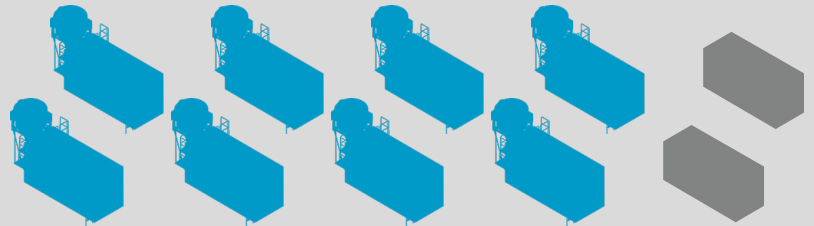


### Why automatic soundings?

- Superior data quality and availability
- Less weather sensitive
- No onsite staffing required
- Employees can focus on forecasting
- Lower labor and facility costs

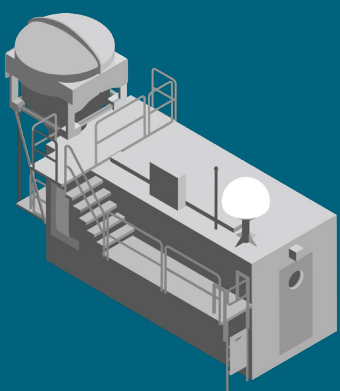
There are over **100** Vaisala Autosondes in operation worldwide

8 of every 10 automatic sounding systems in the world are from Vaisala



## Vaisala AUTOSONDE® AS41 and Vaisala Radiosonde RS41: An accurate and reliable solution

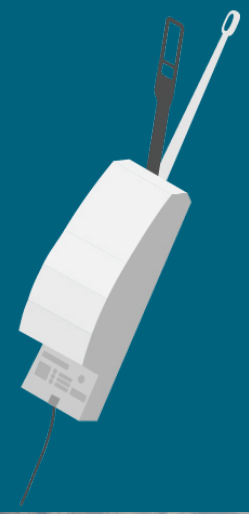
### AUTOSONDE® AS41



- Offers the longest autonomous sounding capacity on the market
- Operates in harsh climates
- Easy to install and safe to use – even with hydrogen
- Low maintenance with easy remote control

### Radiosonde RS41

- Platinum resistive temperature sensor for durable, faster data capture
- Special hydrophobic coating prevents condensation
- Continuous prevention of icing of the humidity sensor
- Provides accurate and reliable humidity data, even from the upper troposphere.



Trusted weather observations for a sustainable future