



Australian Government
Bureau of Meteorology

Opportunities from Non-traditional Observations

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Observations Ecosystem Plan

Vision

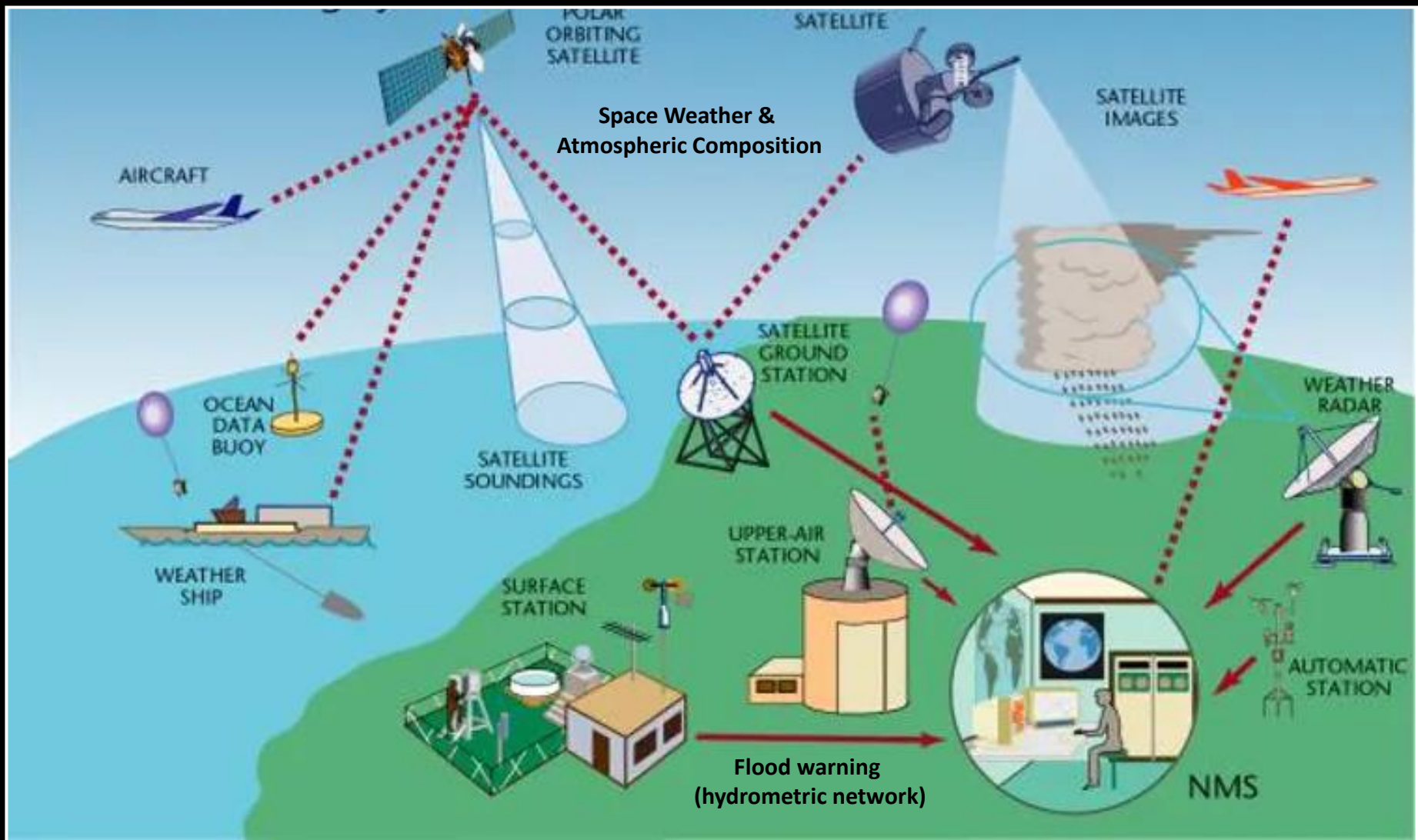
A trusted, adaptive and resilient observations ecosystem that maximises impact and value to our growing customer base across government, industry and the wider community.

Key Theme: Use of novel observations types

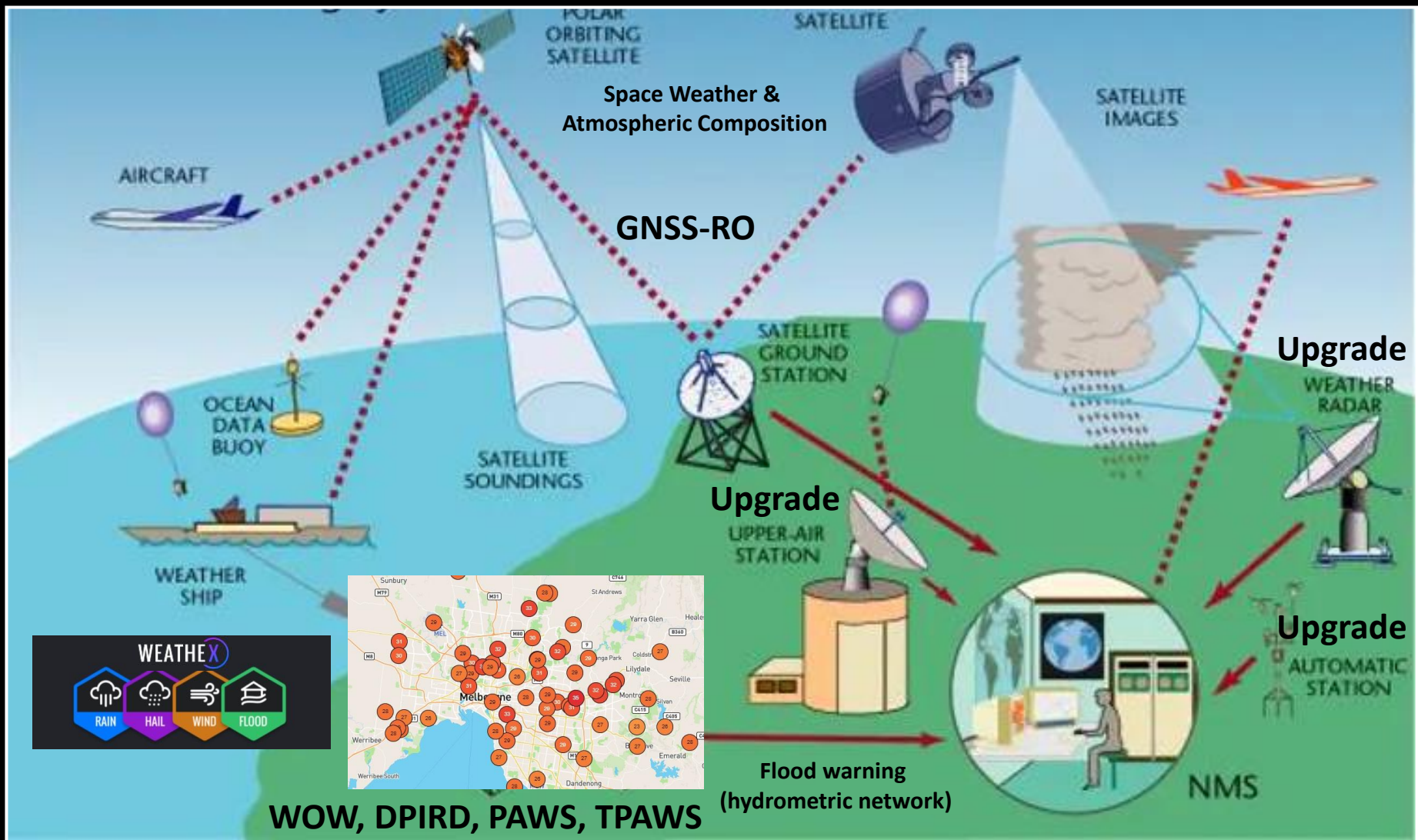
- The Bureau can effectively use non-traditional, novel observations types in a fit-for-purpose manner to support next-generation analysis, nowcast and forecast capabilities (e.g. impact forecasts, urban scale modelling).

Key Theme: Use of new Technology

- The Bureau can harness new and cutting-edge observation technologies where it matters most to provide SIG and its customers with the best available observations.



The Bureau's Observing Network (1990's – 2010's)



The Bureau's Observing Network (2020)

Exciting Opportunities

New technology: Drones, 'AeroClipper' balloons (TC eye pressure), UAS – Unmanned aircraft system; Crowdsourcing

Enhance obs capability; fill gaps in data sparse regions, oceans and middle atmosphere; more data in urban environments

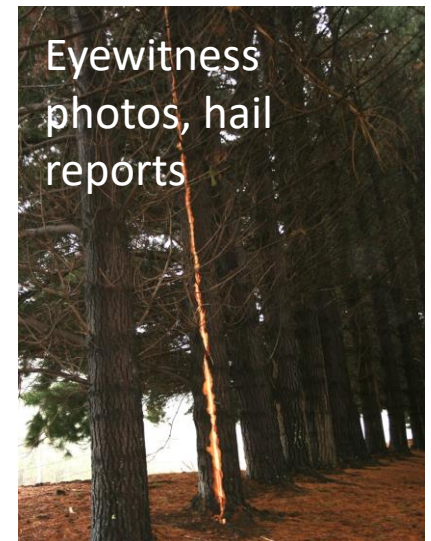
Social Media



IoT Sensing



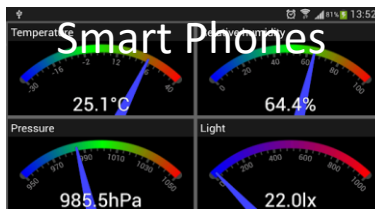
Eyewitness photos, hail reports



Mobile Platform

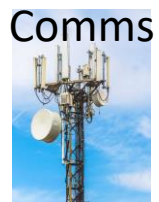


Smart Phones



Many more Mesonets Incl. air quality

Comms



Cameras



ADSB



Future Directions

- Act as a data broker
- Build capability through partnerships and collaborations
- Facilitate economic benefits and build industry capability
- Customers want to share their data with the Bureau
- Customers don't need all observations to be gold standard (fit for purpose)
- Focus on areas that customers are interested in
- Bureau will require improved processes
- Enabled by ROBUST
- Further development of tools is required
- Data quality (a challenge)
- Data seen as beneficial and will complement conventional observations.
- Data can provide even more extensive weather impact information

Next Steps....



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Thank you

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