

Ocean-Coastal radiometry - Requirements for high resolution

*IOCS breakout sessions on
« high resolution satellite data »
17 June 2015*

Antoine Mangin – ACRI-ST – GIS-COOC



Characterisation driven by
Geometry Radiometry

Coastal infrastructures

Coastal erosion/accretion

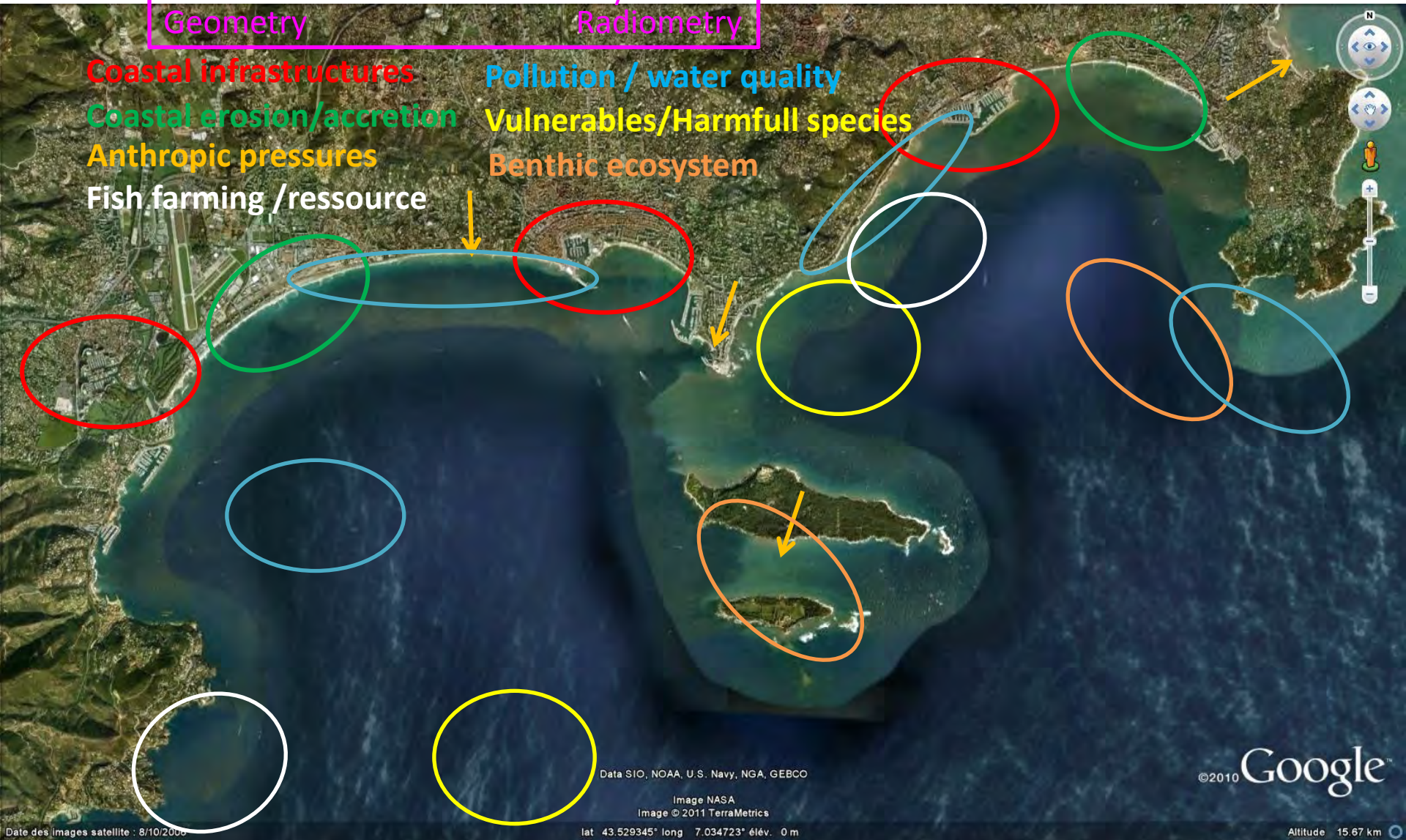
Anthropic pressures

Fish farming /ressource

Pollution / water quality

Vulnerables/Harmfull species

Benthic ecosystem

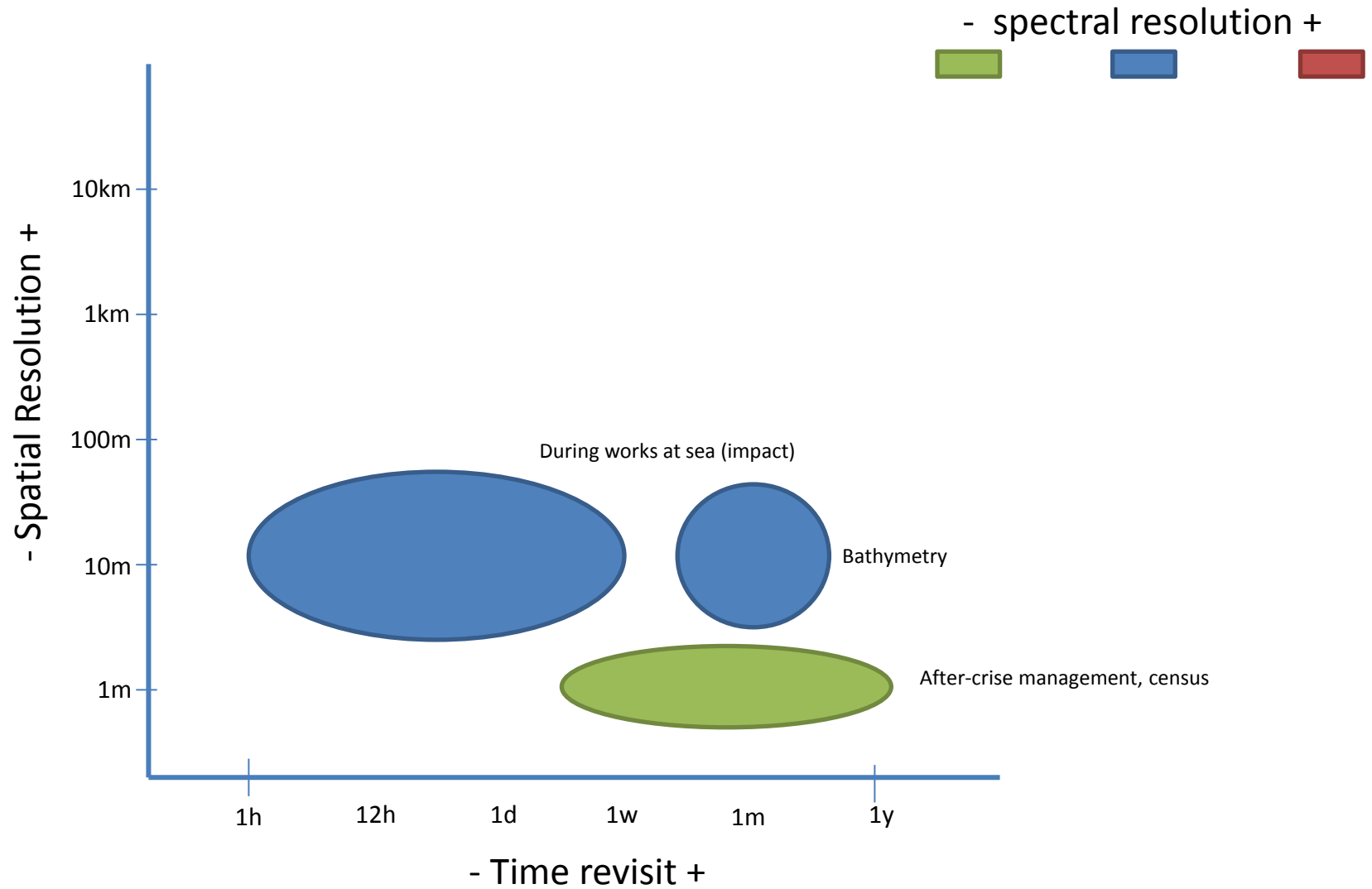


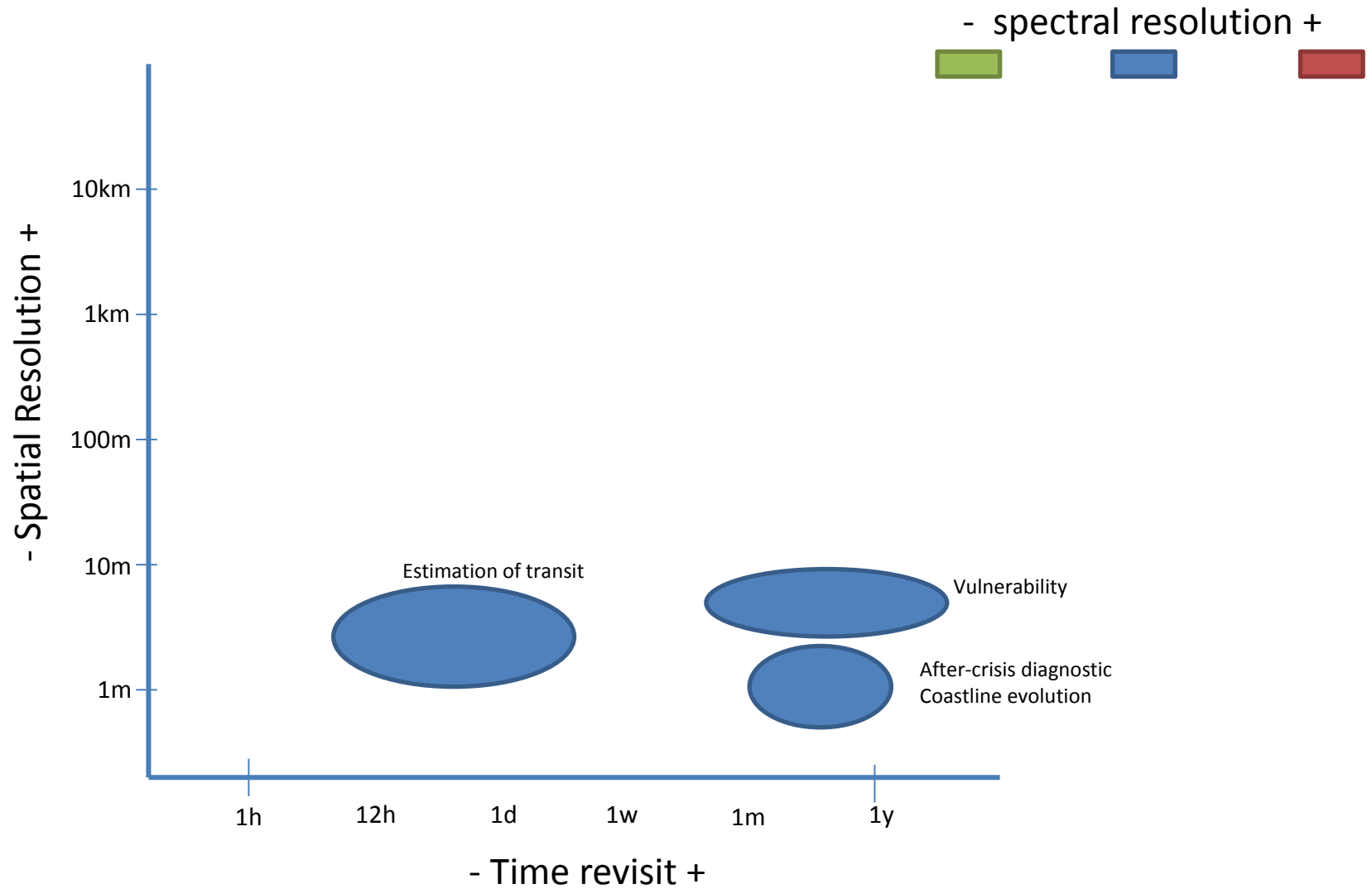
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image NASA
Image © 2011 TerraMetrics
lat 43.529345° long 7.034723° elev. 0 m

© 2010 Google
Altitude 15.67 km

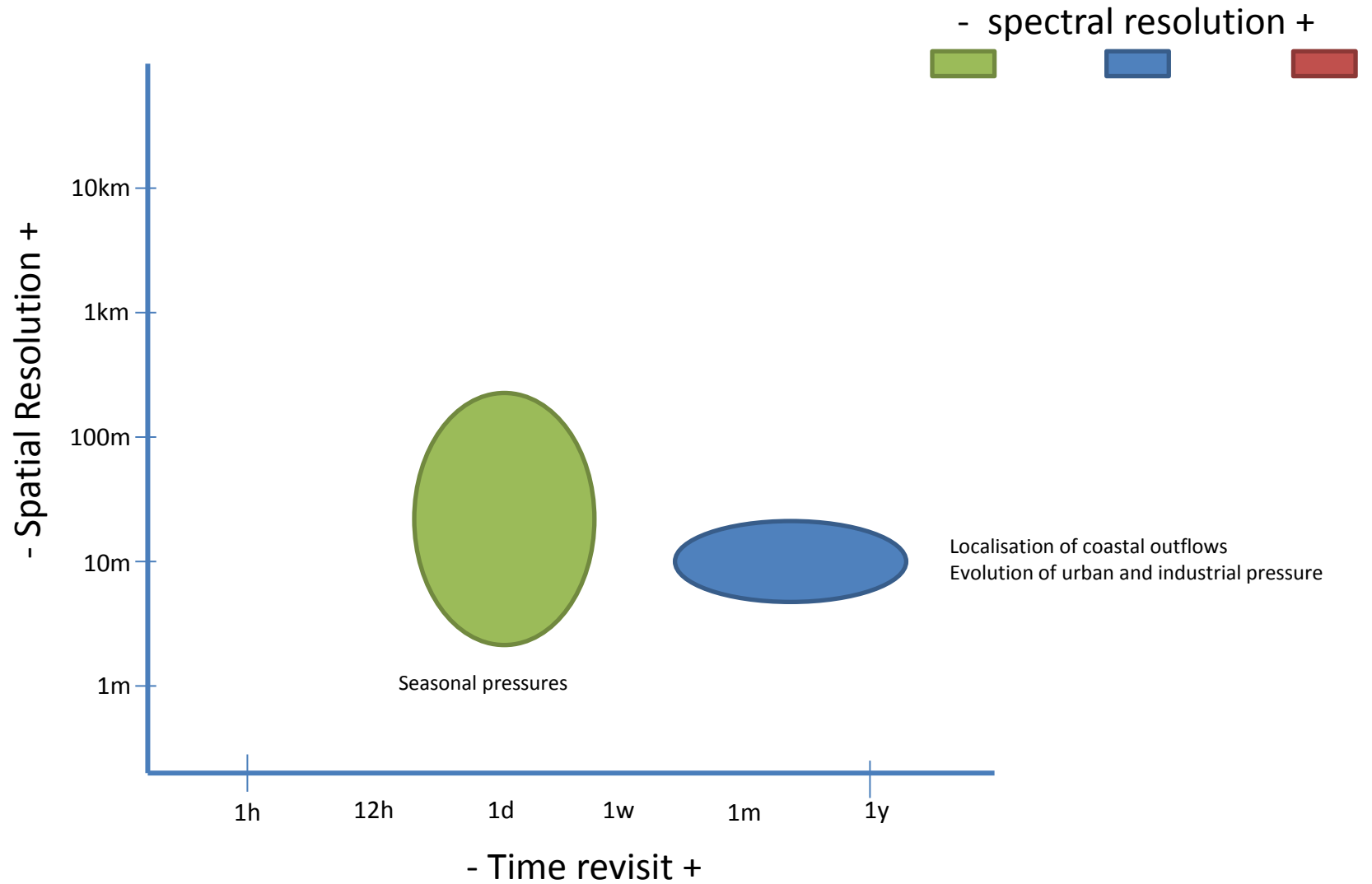
... more specifically ...

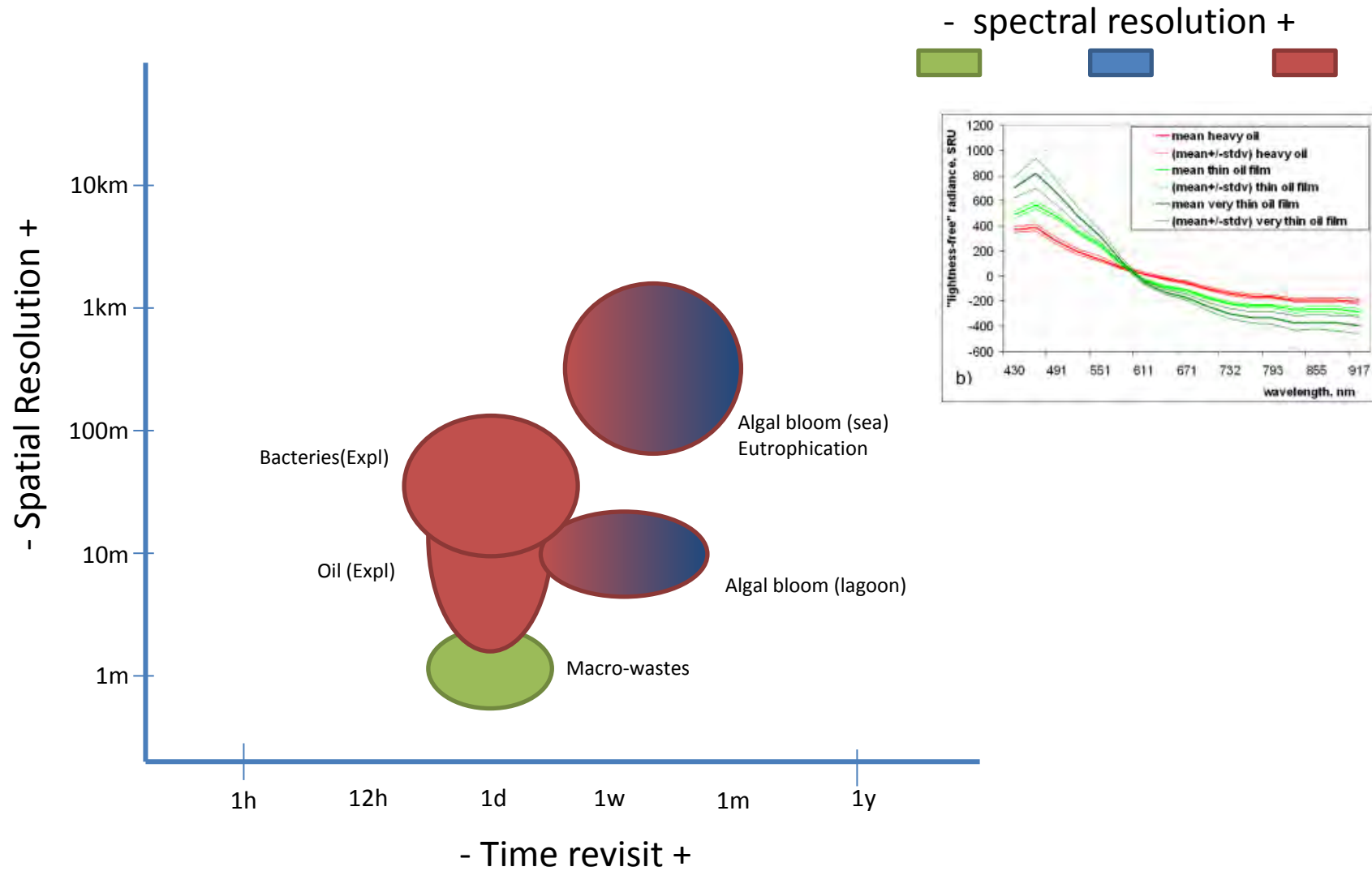
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- Coastal infrastructures** : Census, stability status, impact studies
- Coastal erosion/accretion** : Coastline, sediment transport assessment, vulnerability
- Anthropic pressures** : Regular release at sea (waste waters,..),
seasonal pressure (tourism, moorings, ...)
- Pollution / water quality** : Macro-waste, oil, chemical (release, drift), bacteria, heavy
metals, (harmful) algal blooms, eutrophication
- Vulnerables/harmfull species** : Sea mammals (sanctuary), turtles, posidonia,
jellyfishes, ostreopsis, caulerpa
- Benthic ecosystem** : Seagrass field extent, biodiversity, coral reefs
- Fish farming/ressource** : Location and numbering of fish cages, sites selection,
ecological monitoring, stock estimates (Thuna...) and
recrutement stability
- Security/survey** : *to keep in mind*



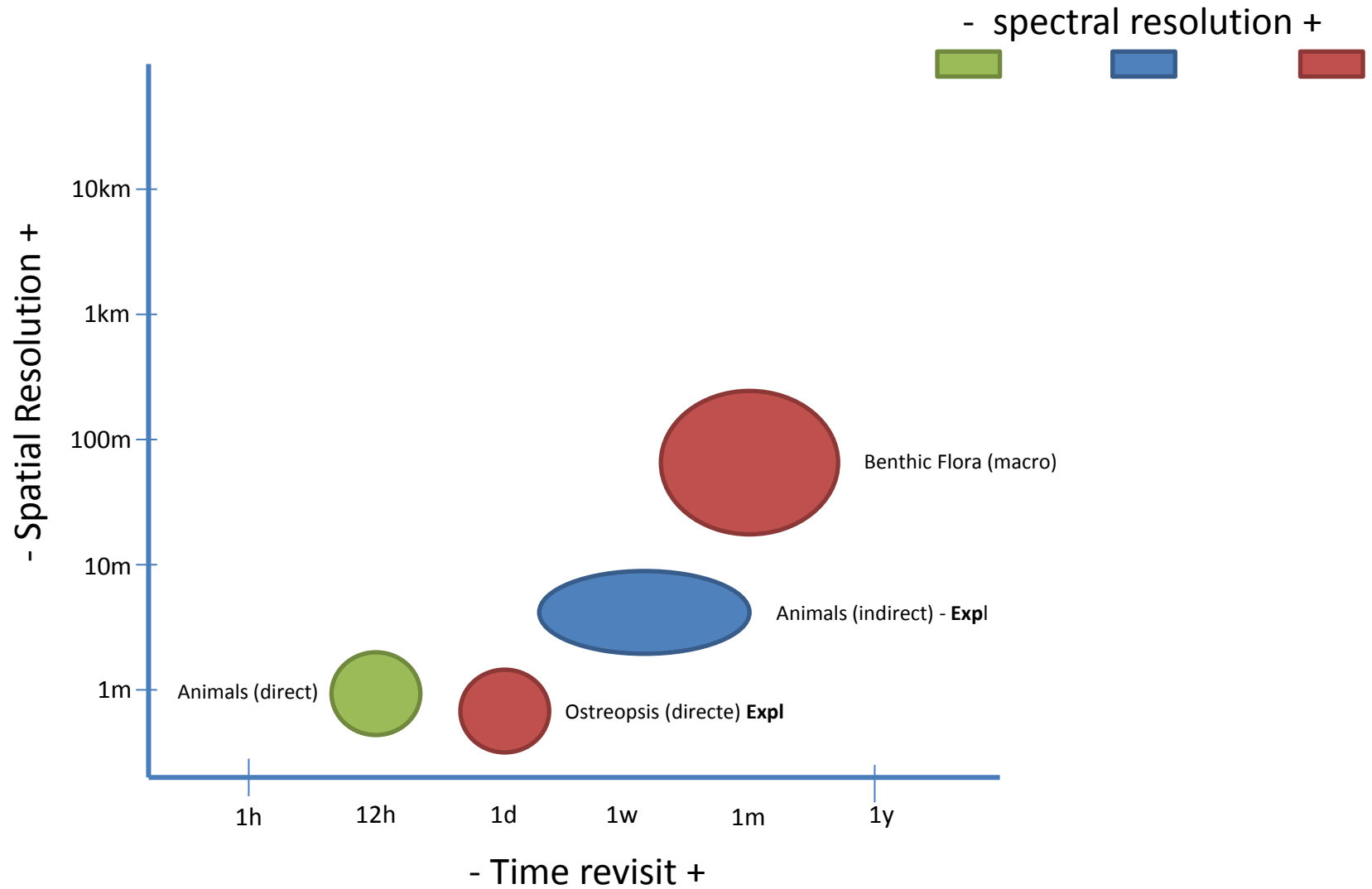


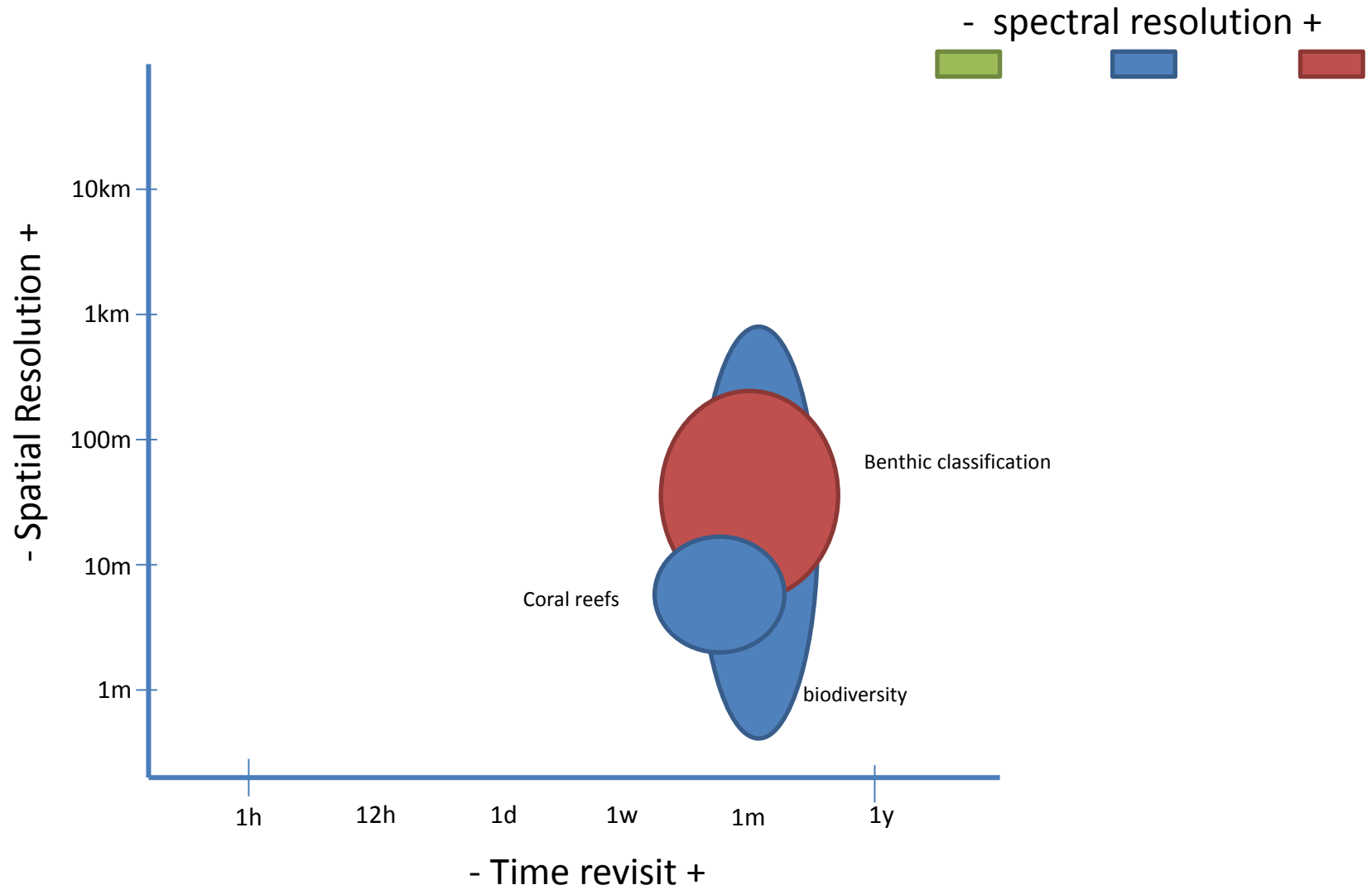
Anthropic pressure

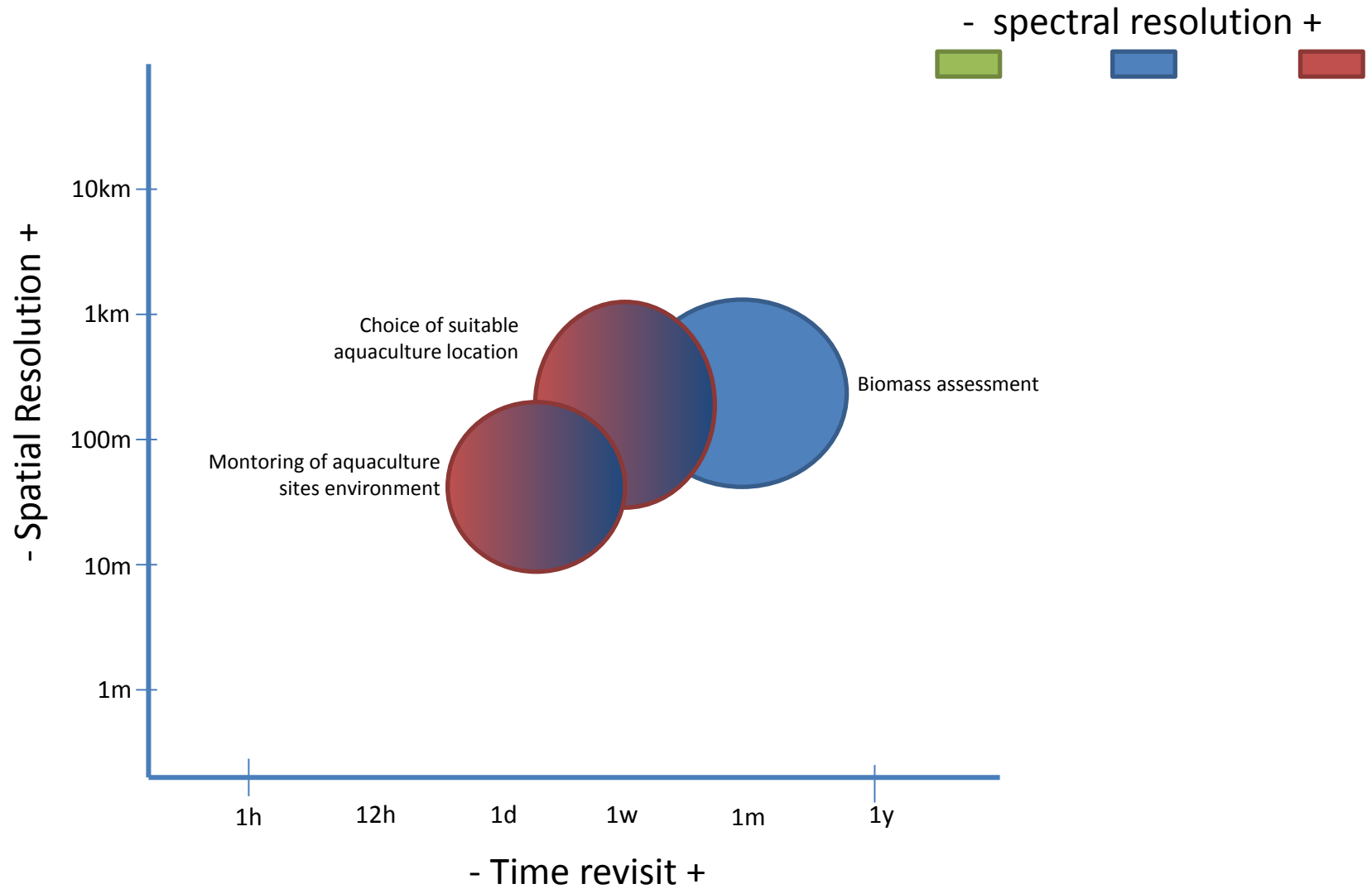


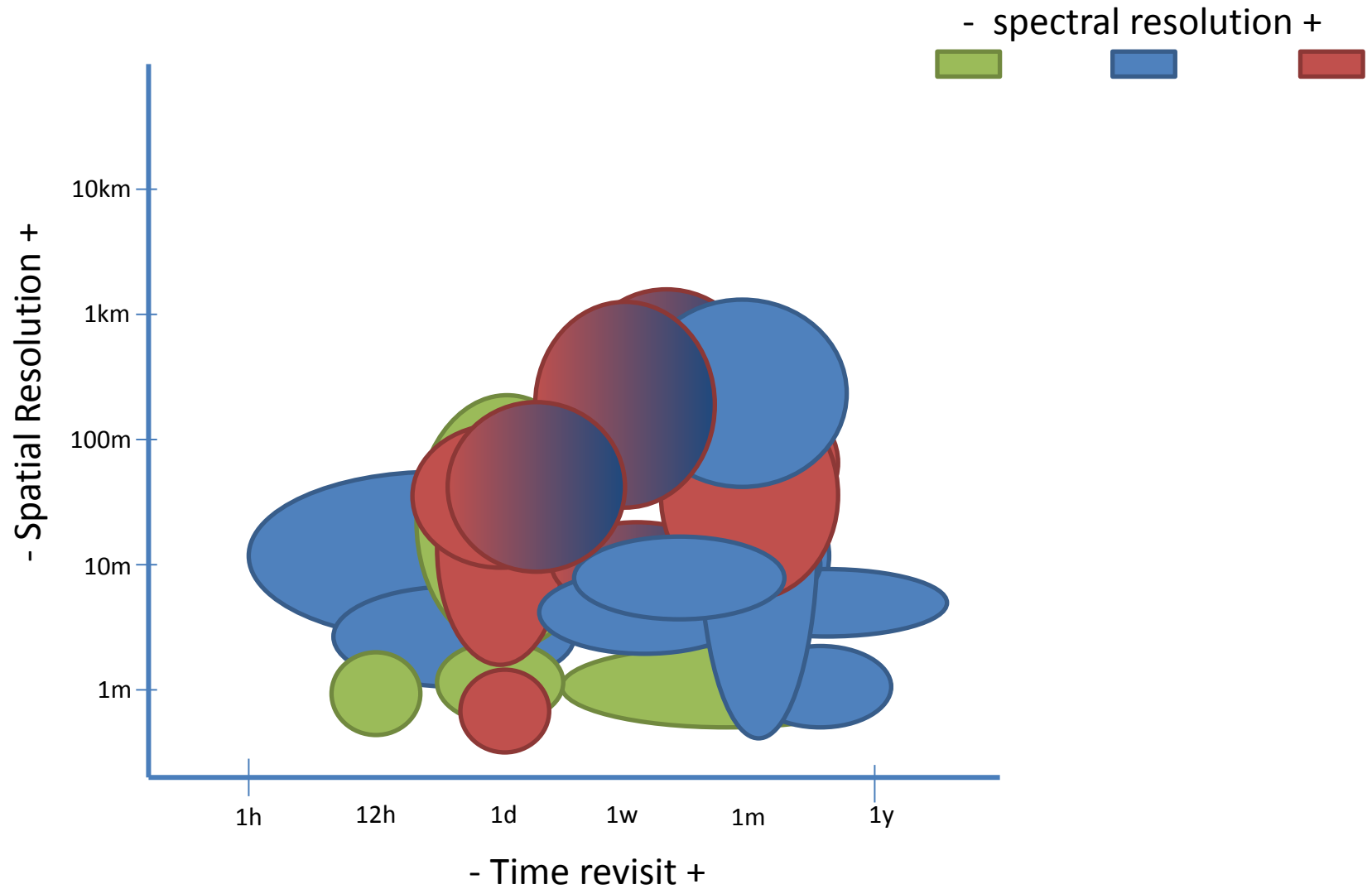


Vulnerable / Harmful species

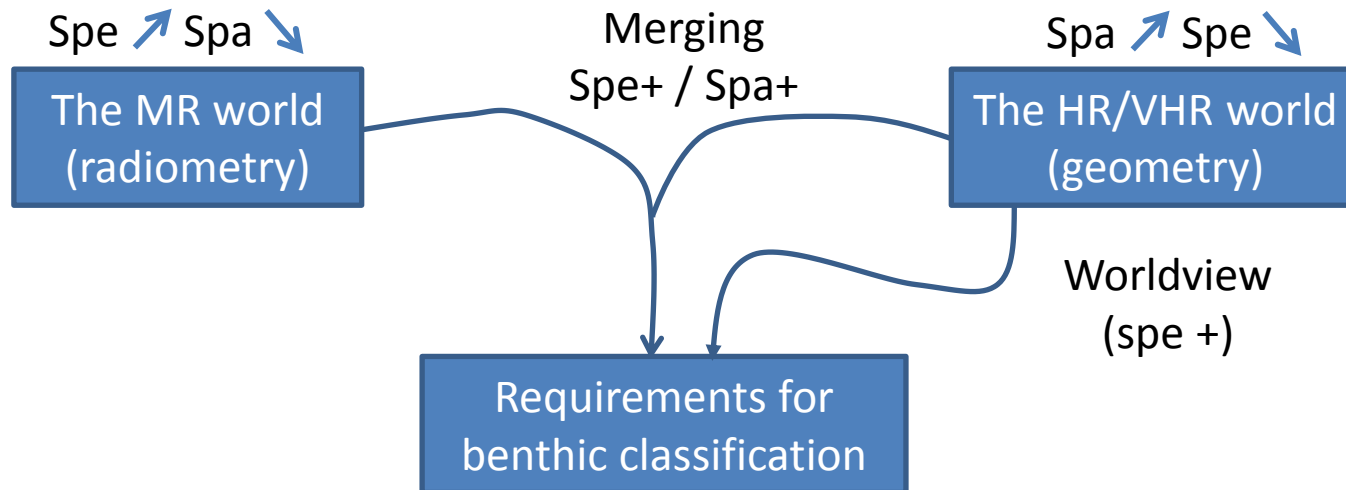








The most significant increase in the use and merging of (V)HR with MR is probably for bathymetry/benthic classification (and coral reefs)





Atmospheric correction schemes are under development



Thanks for attention