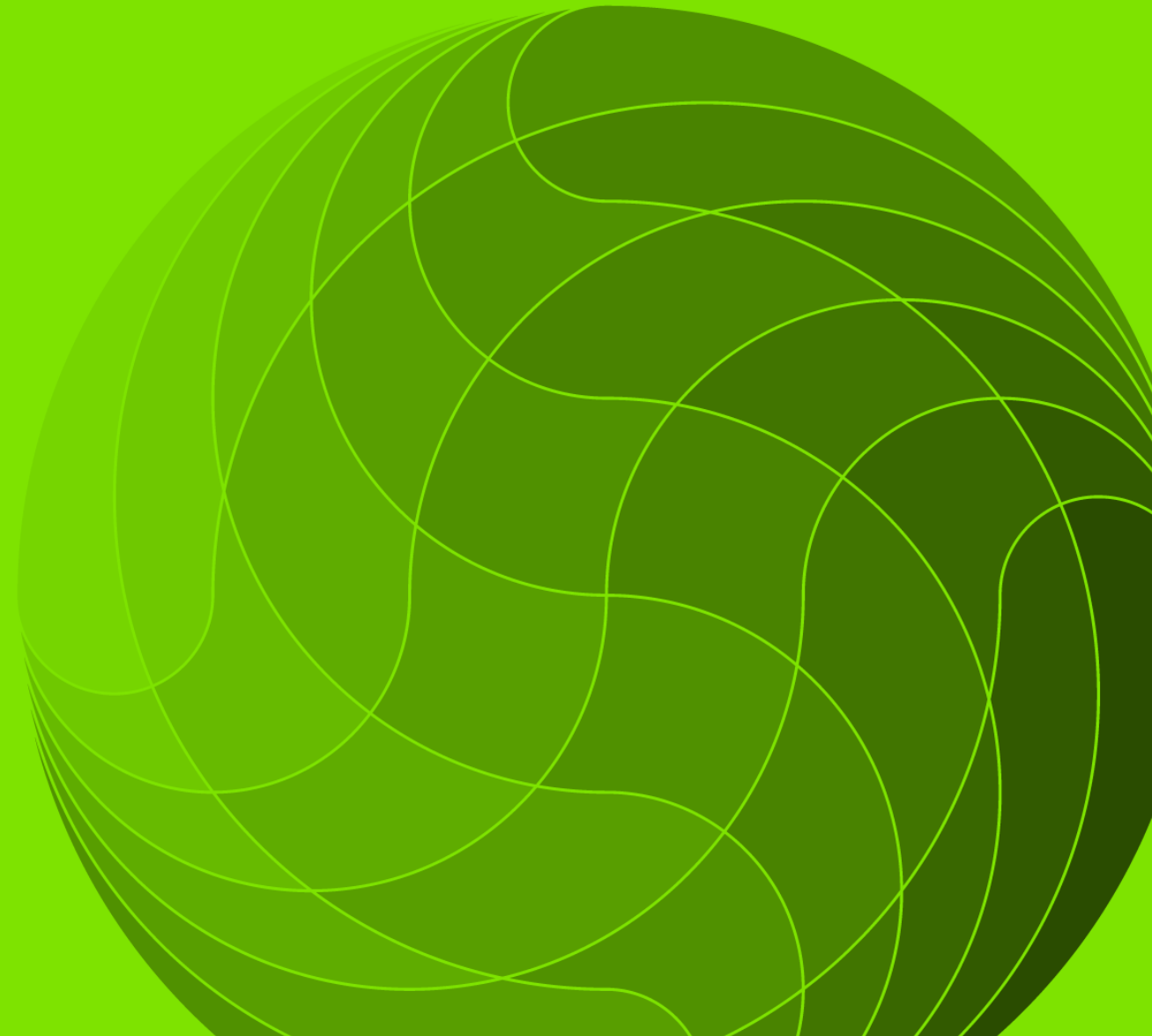


## Measurement for our planet

Providing confidence in climate action

# Scientific evidence in a systems approach to climate action

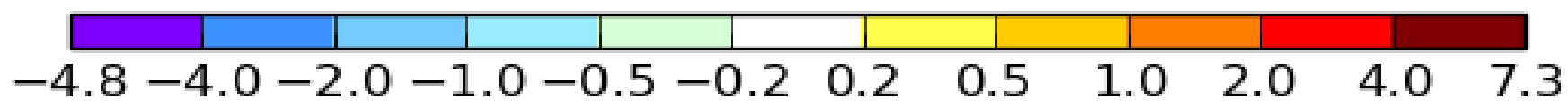
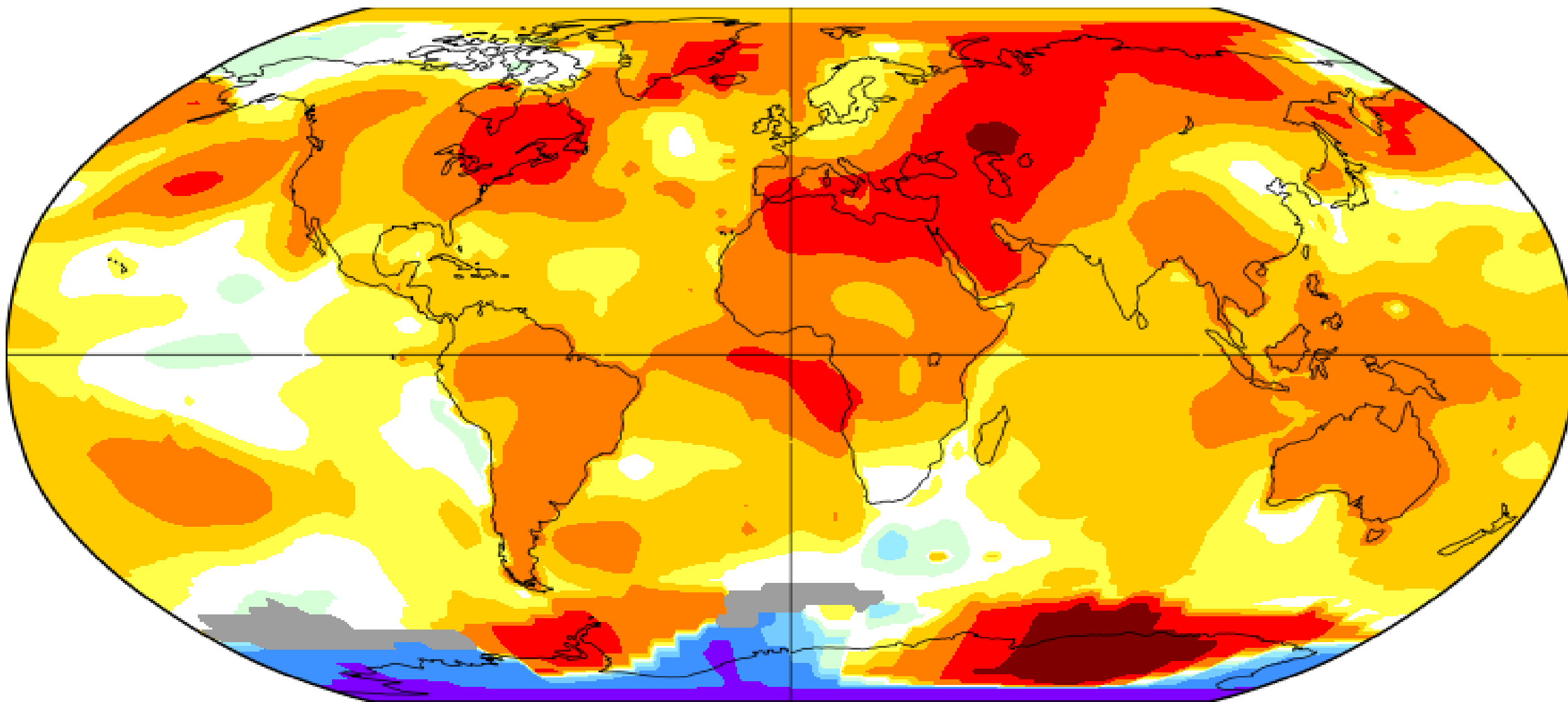
Richard Barker



August 2021

L-OTI(°C) Anomaly vs 1951-1980

0.83

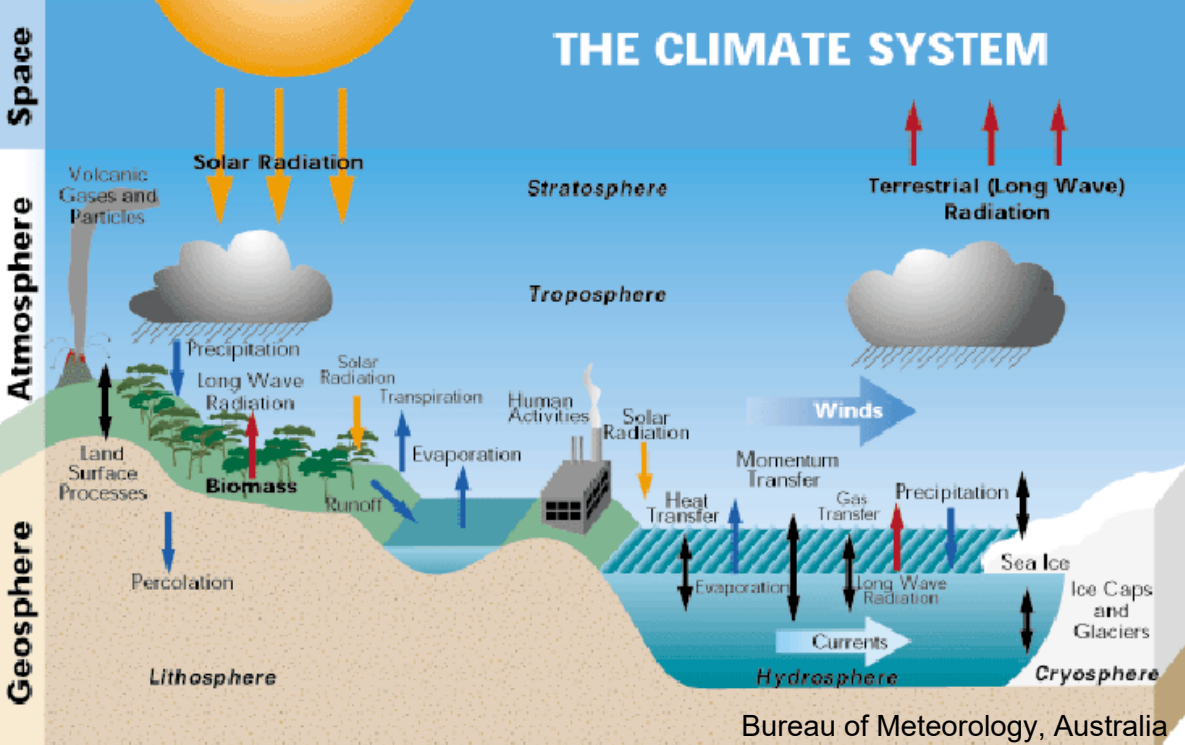




Science is the pursuit of knowledge and understanding of the natural world following a systematic methodology based on evidence

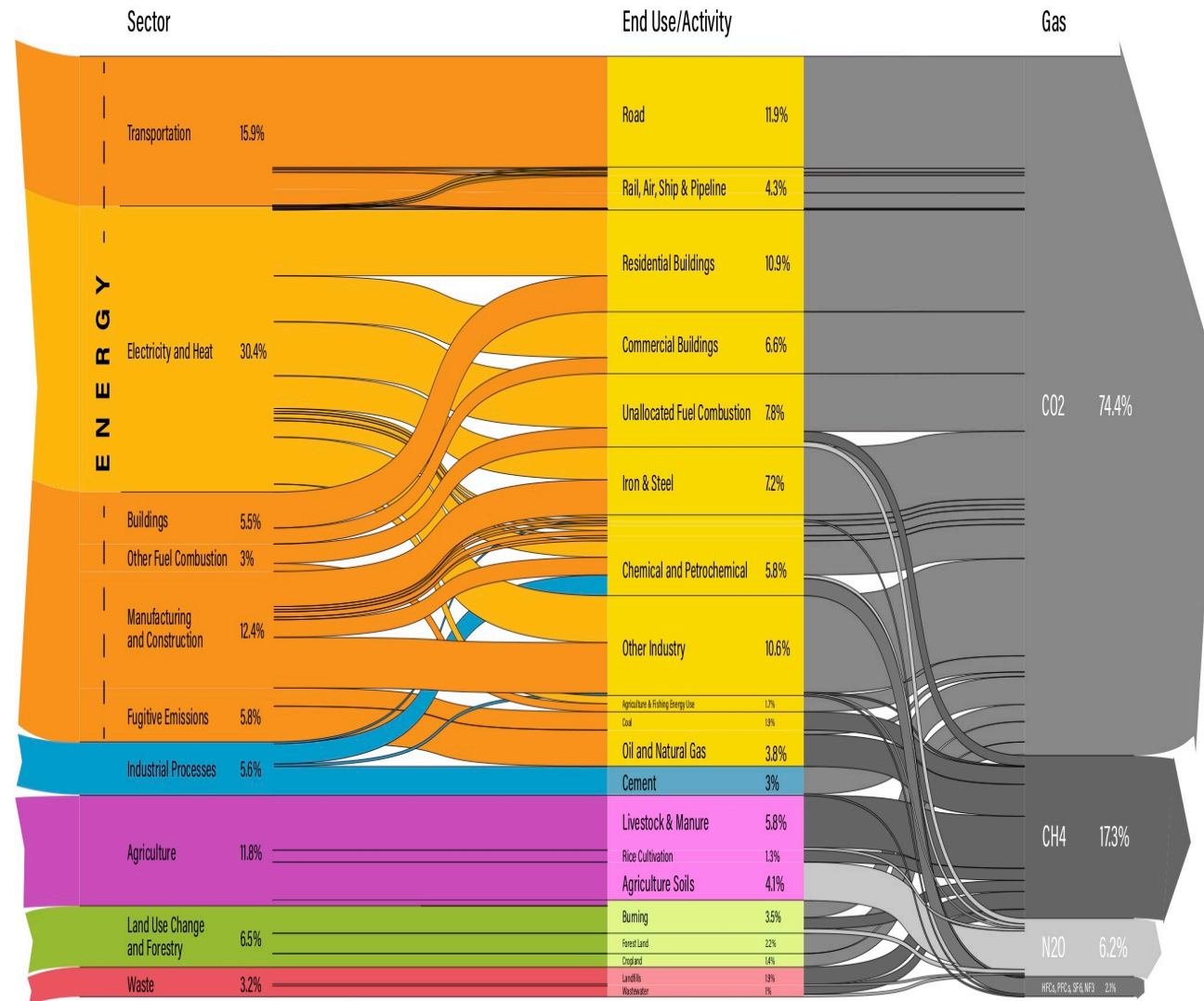






## World Greenhouse Gas Emissions in 2016

Total: 49.4 GtCO<sub>2</sub>e



Source: Greenhouse gas emissions on Climate Watch. Available at: <https://www.climatewatchdata.org>



Can Metrology  
help with the  
assurance of  
climate  
evidence?



COP25  
CHILE  
MADRID 2019  
UN CLIMATE CHANGE CONFERENCE





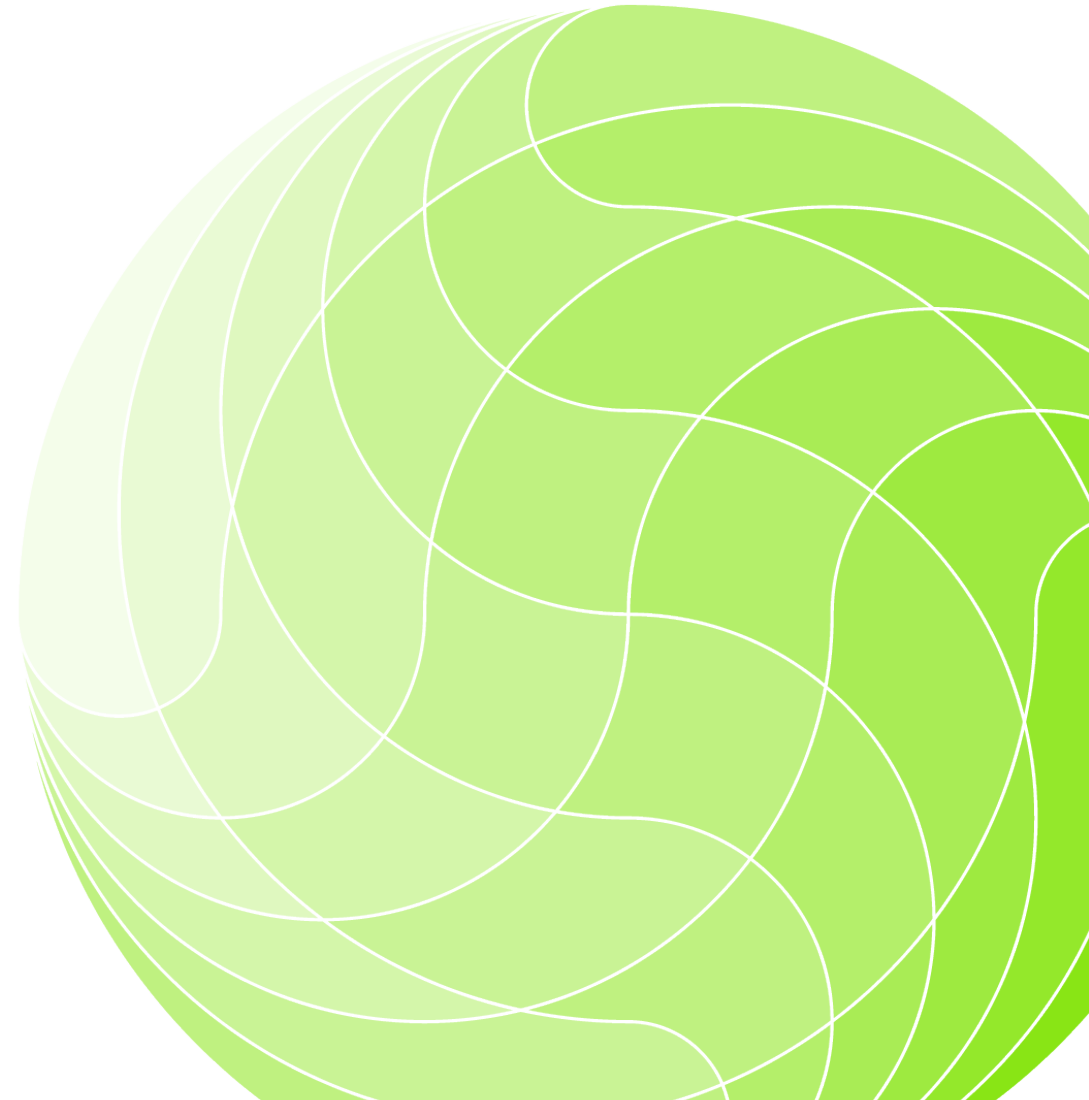
An abstract graphic on the left side of the slide. It features a sphere with a green-to-yellow gradient. Overlaid on the sphere are several black, curved lines that intersect to form a complex, web-like pattern, resembling a stylized globe or a network diagram.

**“Metrology\*  
science of measurement and its  
application**

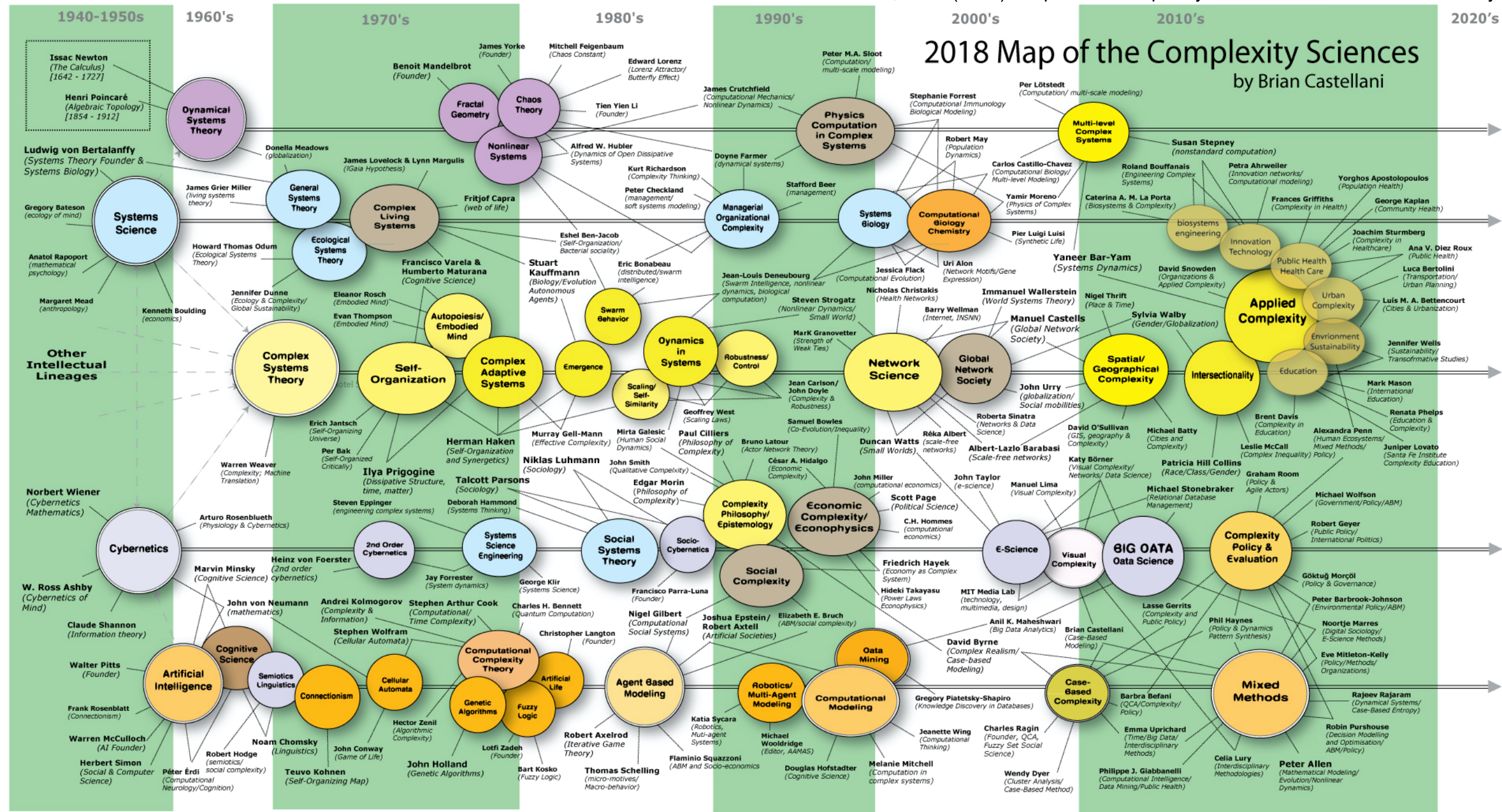
**Metrology includes all theoretical and  
practical  
aspects of measurement, whatever the  
measurement  
uncertainty and field of application”**



**Metrology can help, but  
where and how?**

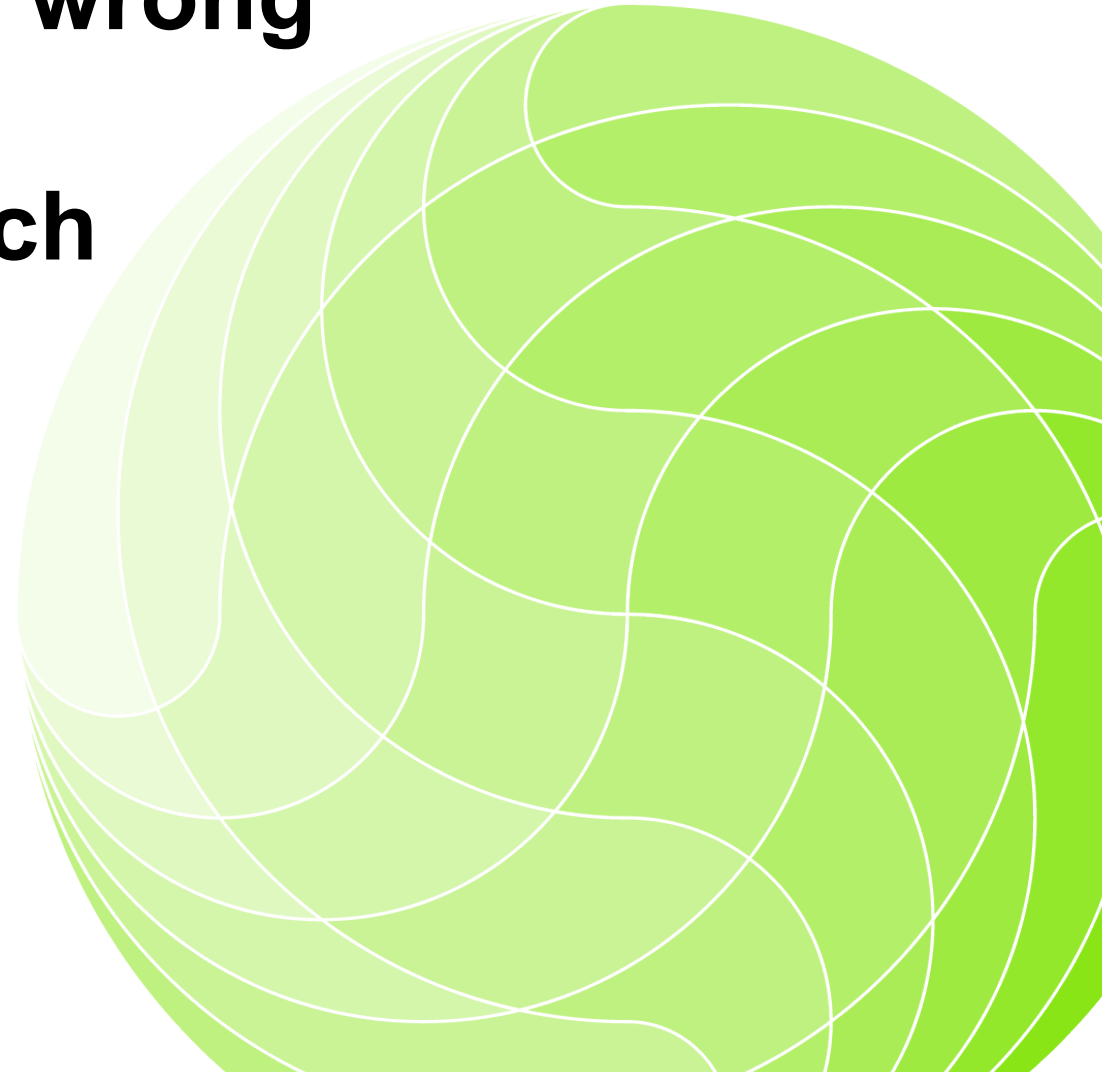






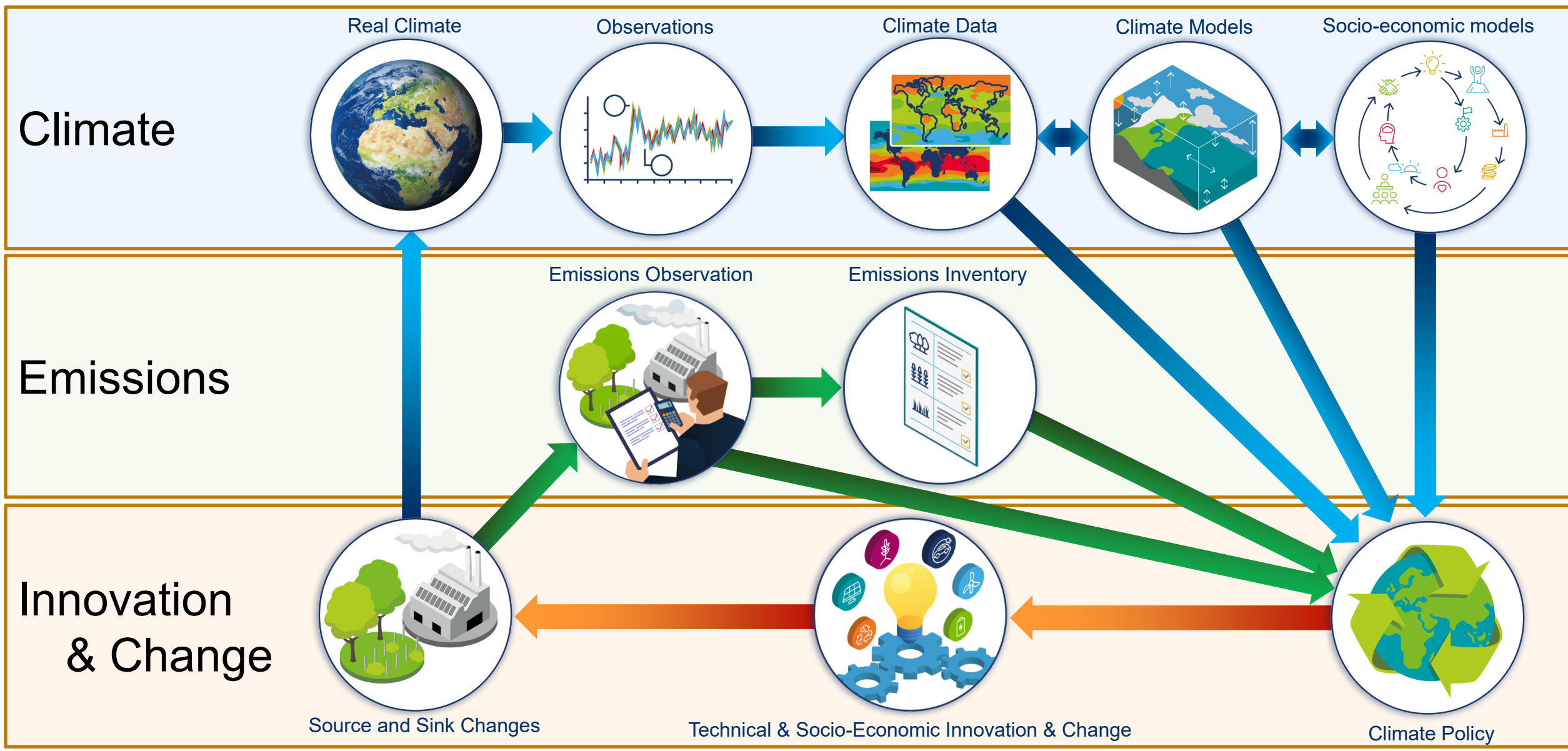


- 1. We cannot “design” the whole solution**
- 2. We going to get some things wrong**
- 3. We need an adaptive approach**
- 4. Feedback loops are key**

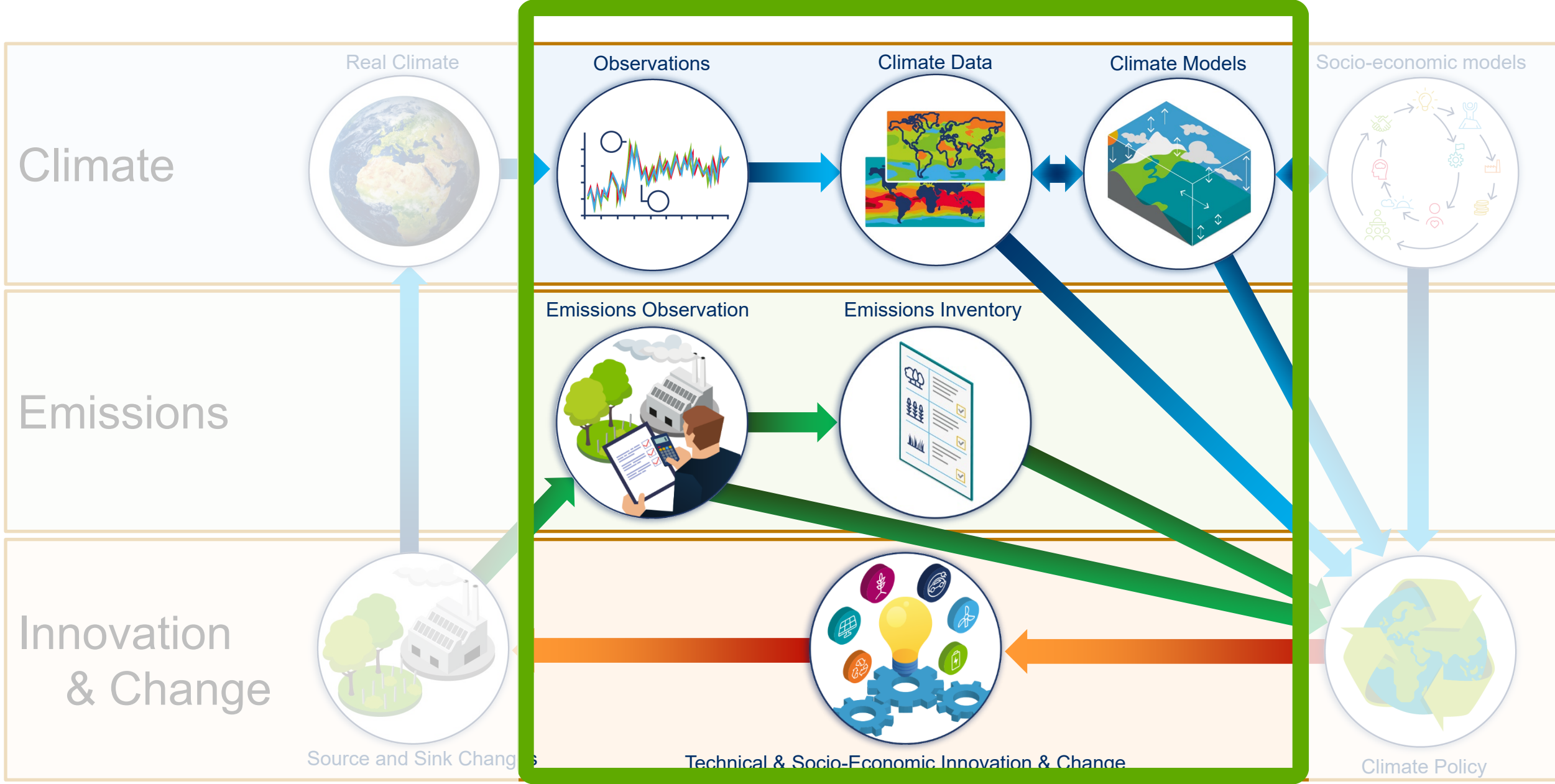




# A Systems Approach to Climate Action



# A Systems Approach to Climate Action





# Thank You



[npl.co.uk/  
measurement-for-our-planet](https://npl.co.uk/measurement-for-our-planet)