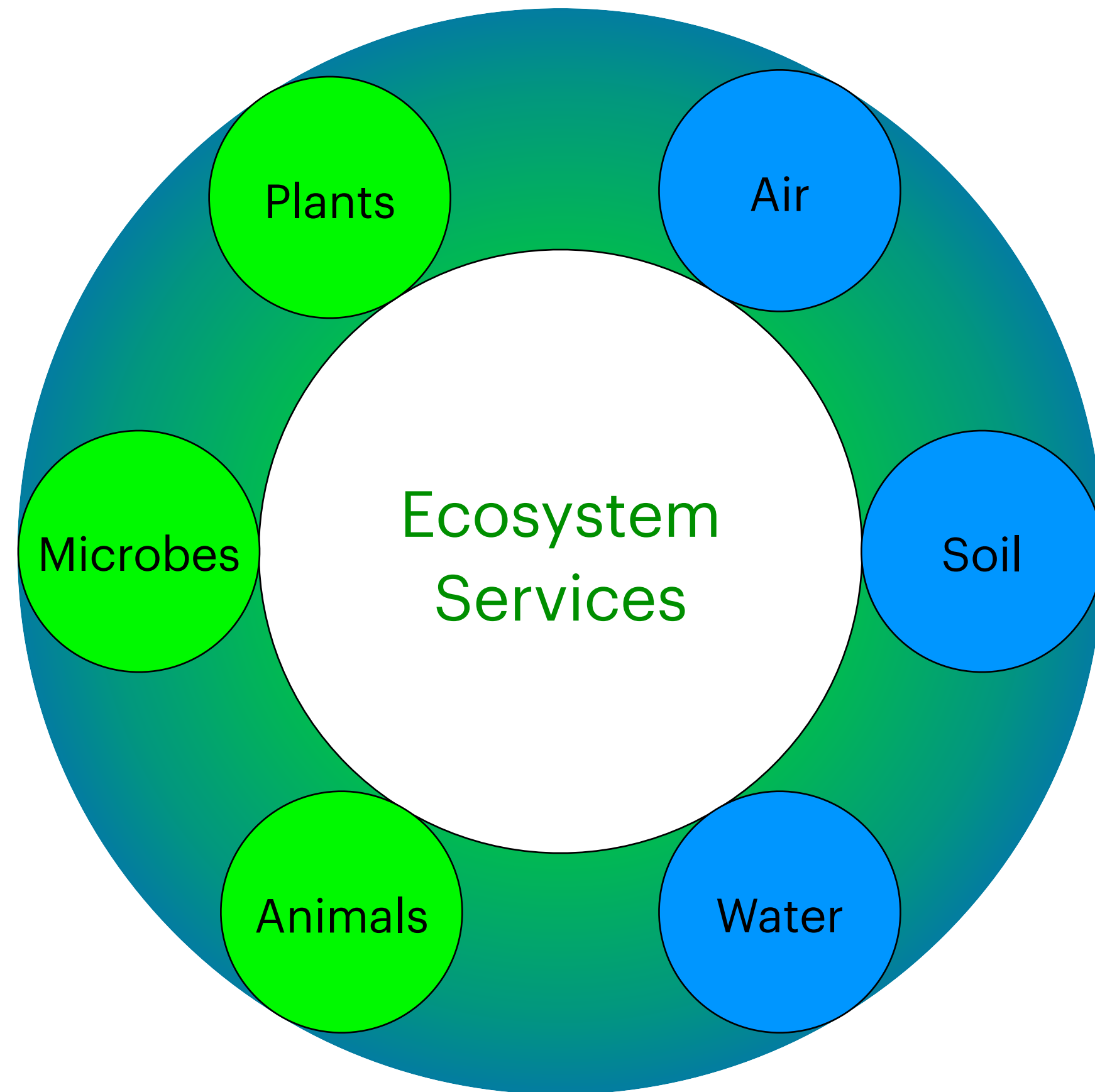


# Contributing to a Vision for Cross-Disciplinary Informatics

Ruth Duerr, December 2021

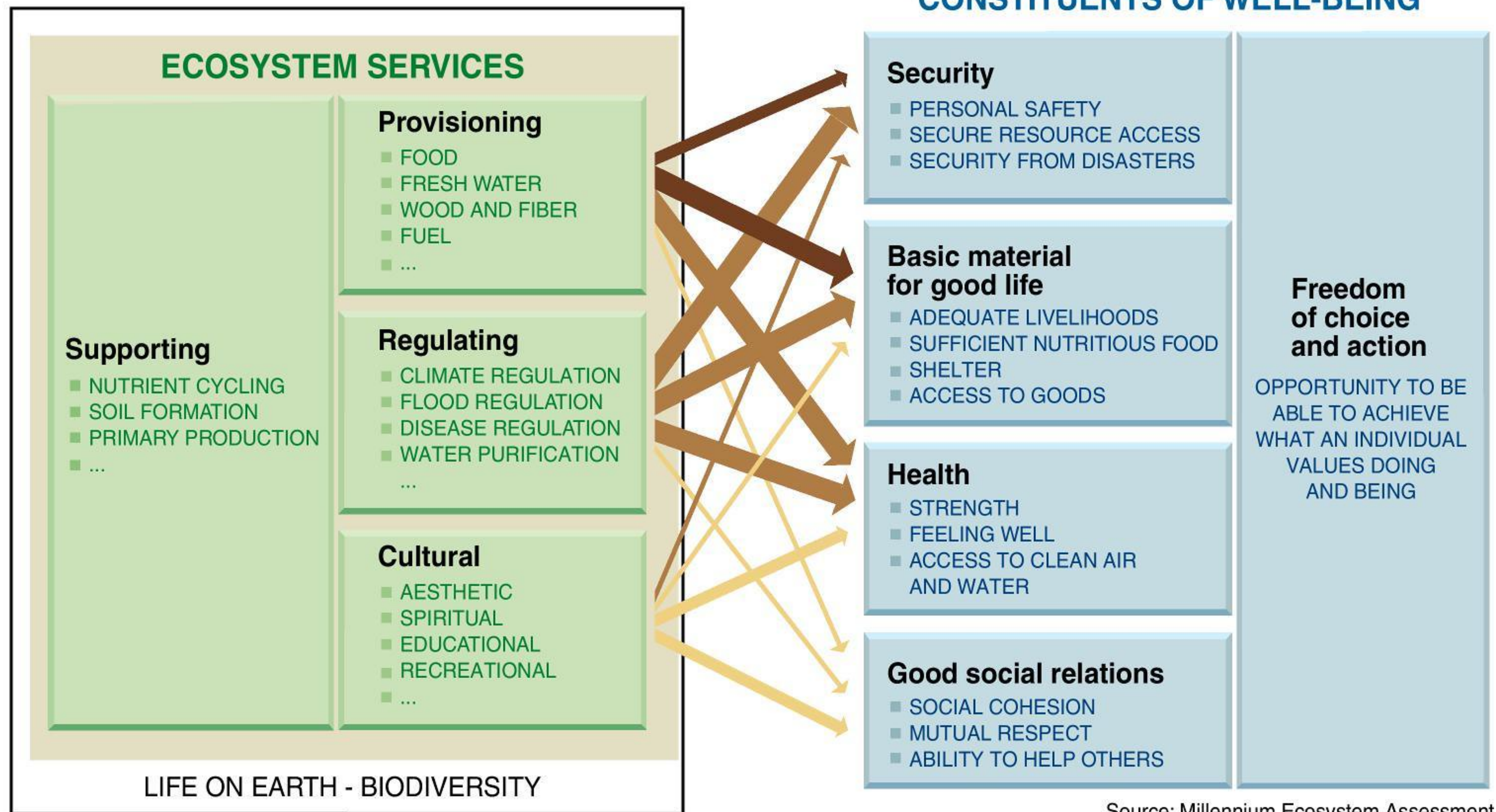
# Humanity's well being depends on Ecosystem Services



## Some ecosystem services:

- Fresh water
- Food
- Fiber
- Habitat
- Recreation and tourism
- Spiritual health
- Cultural identity
- Pollination
- Pest and disease management
- Erosion prevention
- Protection from natural disasters
- Carbon sequestration and storage
- Air and water pollution control
- Nutrient cycling
- Soil fertility





**ARROW'S COLOR**  
Potential for mediation by socioeconomic factors

- Low
- Medium
- High

**ARROW'S WIDTH**  
Intensity of linkages between ecosystem services and human well-being

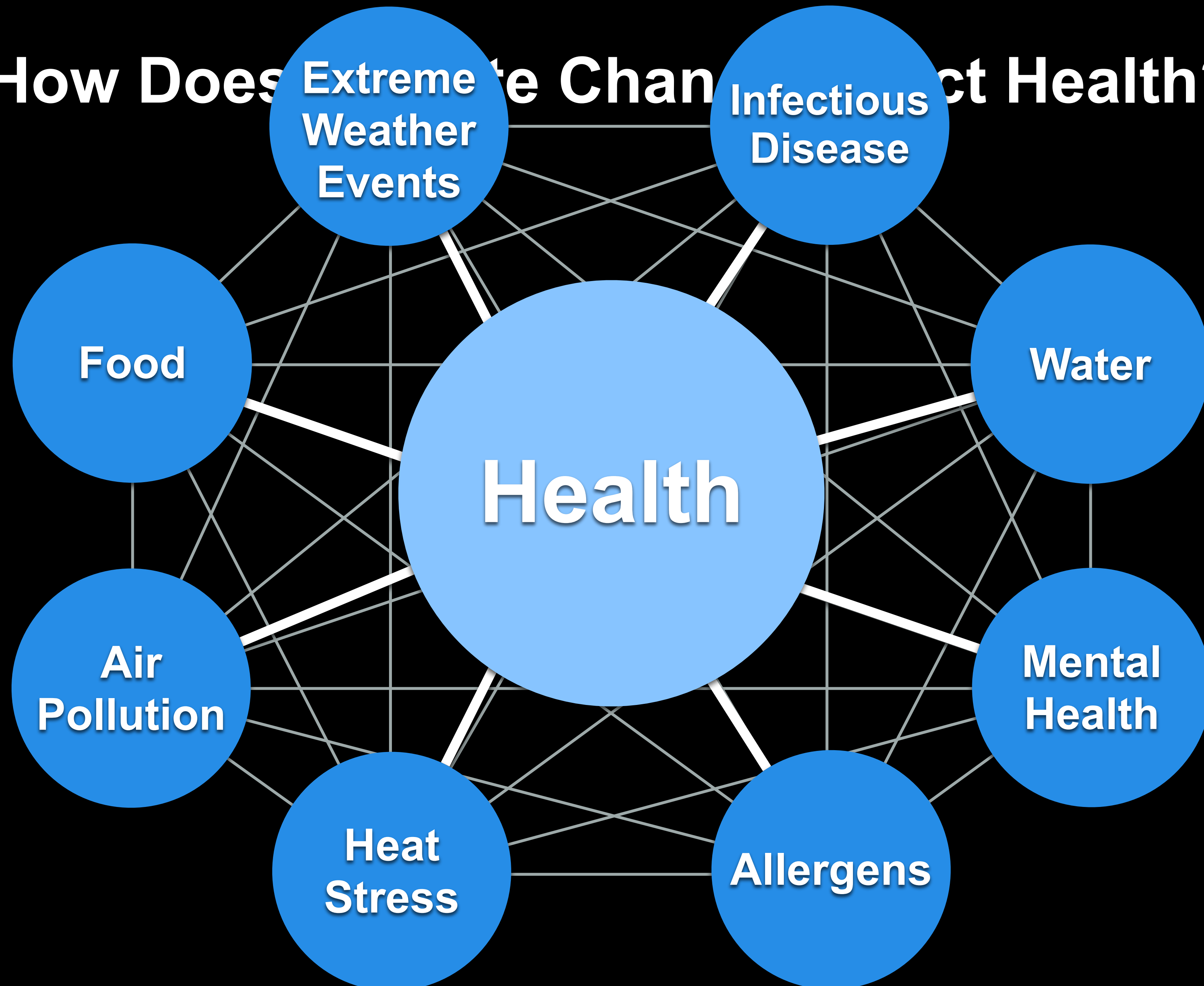
- Weak
- Medium
- Strong



# How Does Climate Change Affect Health?

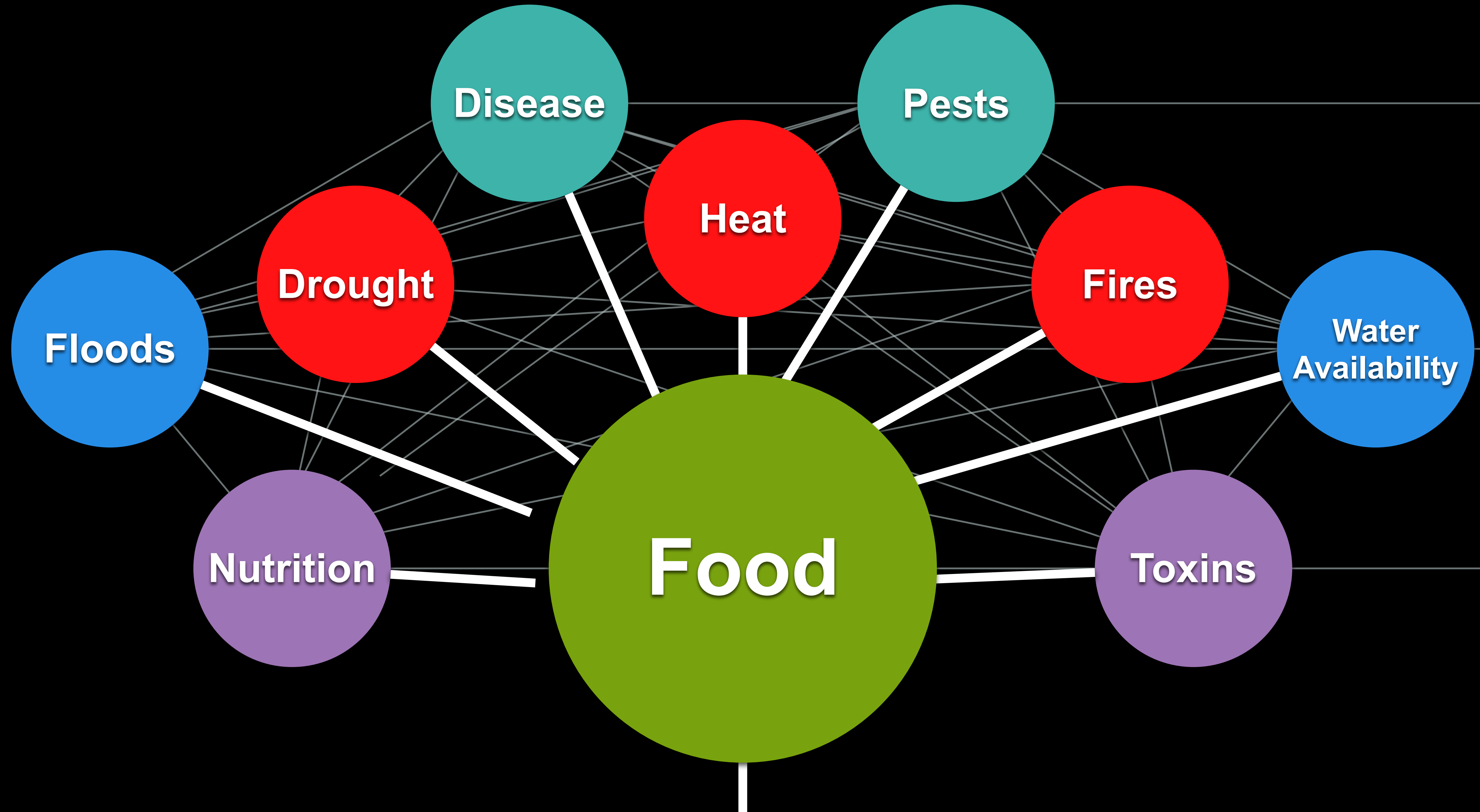
```
graph TD; Health((Health)) --- ExtremeWeatherEvents((Extreme Weather Events)); Health --- InfectiousDisease((Infectious Disease)); Health --- Water((Water)); Health --- MentalHealth((Mental Health)); Health --- Allergens((Allergens)); Health --- HeatStress((Heat Stress)); Health --- AirPollution((Air Pollution)); Health --- Food((Food)); ExtremeWeatherEvents --- InfectiousDisease; InfectiousDisease --- Water; Water --- MentalHealth; MentalHealth --- Allergens; Allergens --- HeatStress; HeatStress --- AirPollution; AirPollution --- Food; Food --- ExtremeWeatherEvents; ExtremeWeatherEvents --- Water; InfectiousDisease --- HeatStress; Water --- AirPollution; MentalHealth --- Food; Allergens --- ExtremeWeatherEvents; HeatStress --- InfectiousDisease; AirPollution --- MentalHealth; Food --- HeatStress;
```

The diagram illustrates the interconnectedness of various health factors influenced by climate change. The central node, **Health**, is linked to seven other nodes: **Extreme Weather Events**, **Infectious Disease**, **Water**, **Mental Health**, **Allergens**, **Heat Stress**, and **Air Pollution**. Additionally, a node for **Food** is present but not directly connected to the central **Health** node. All nodes are interconnected by a network of lines, representing the complex and multifaceted nature of these health impacts.

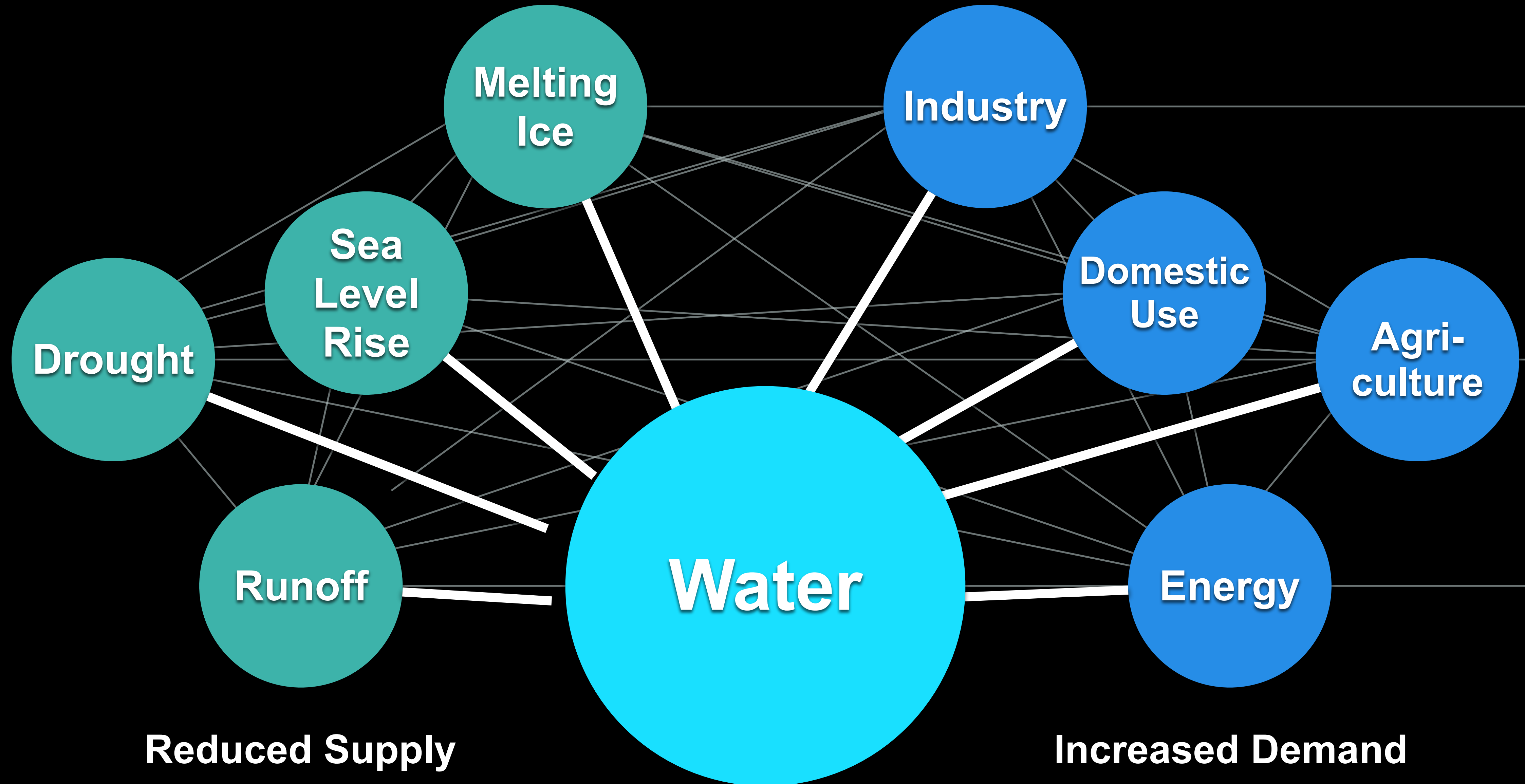




# How Does Climate Change Affect Food Supply?

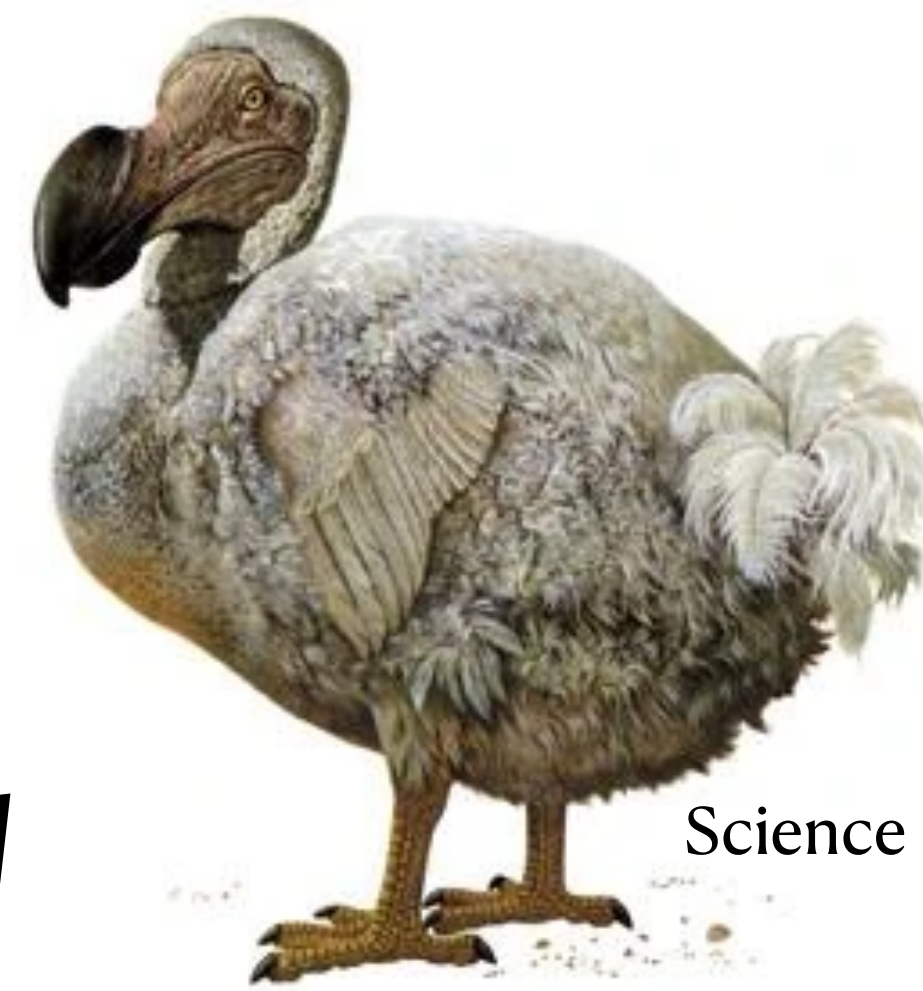


# How Does Climate Change Affect Water Availability?





What future are you working towards?



Science Photo Library

What future are you working towards?




# What Are the Climate “Tipping Points”?



Permafrost thaw  
and methane  
release



Coral reef  
die-off



Amazon shift  
from rainforest to  
savannah



Boreal forest  
northward shift



West African  
monsoon shift



Indian  
monsoon shift



Shutdown of the  
ocean conveyor  
belt



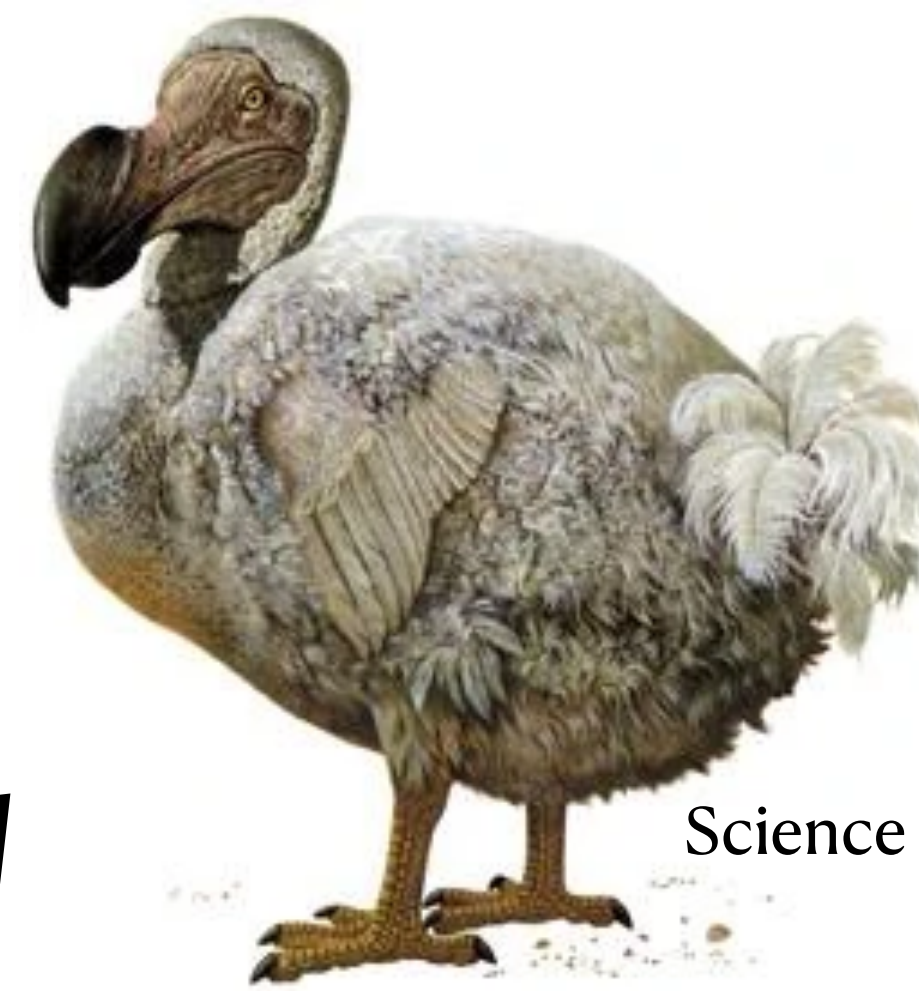
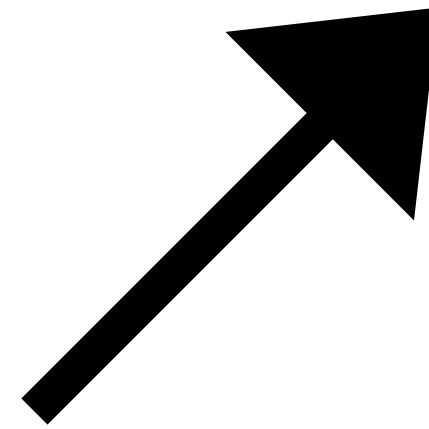
West Antarctica  
ice sheet  
disintegration



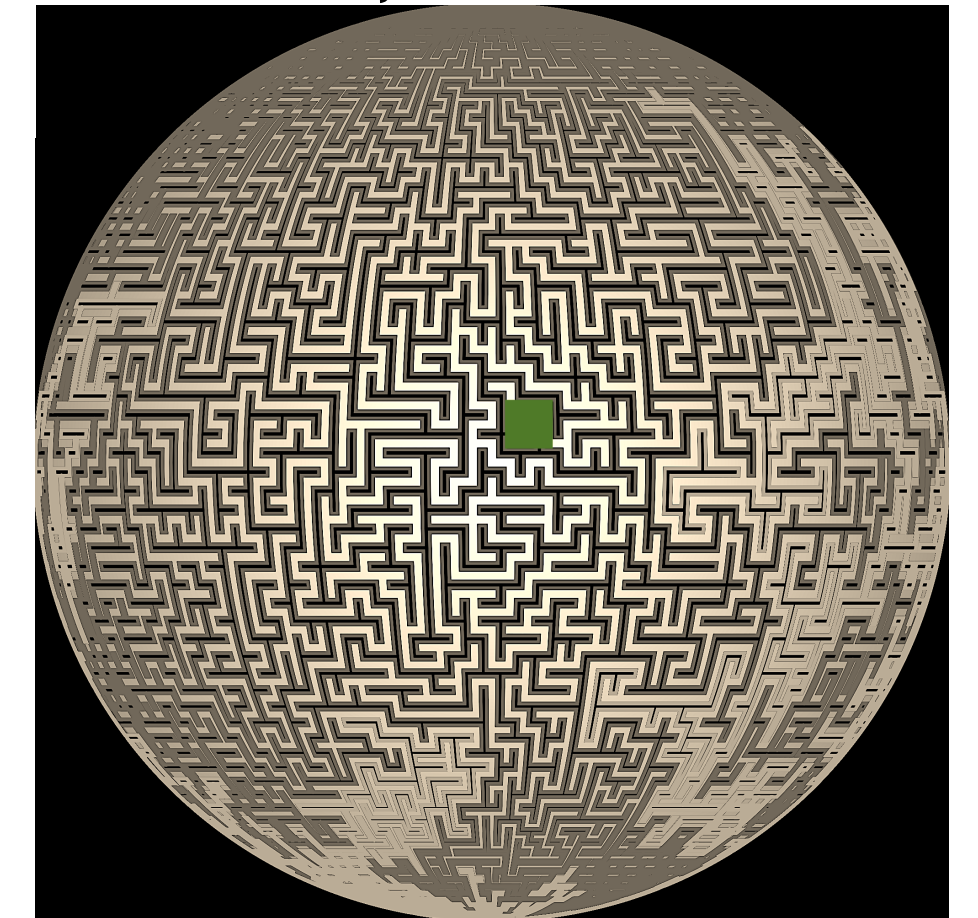
Greenland  
ice sheet  
disintegration



What future are you working towards?



Science Photo Library



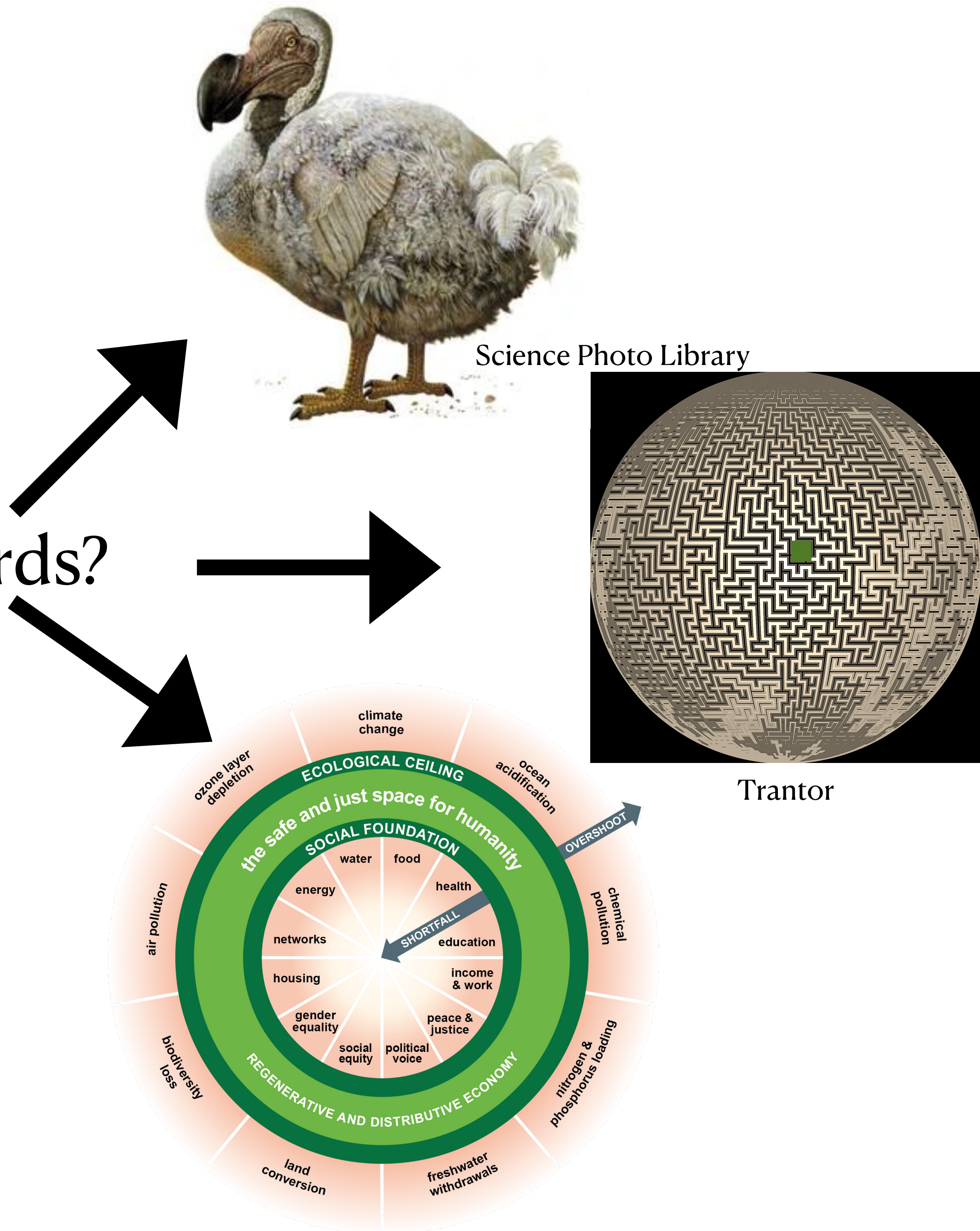
Trantor





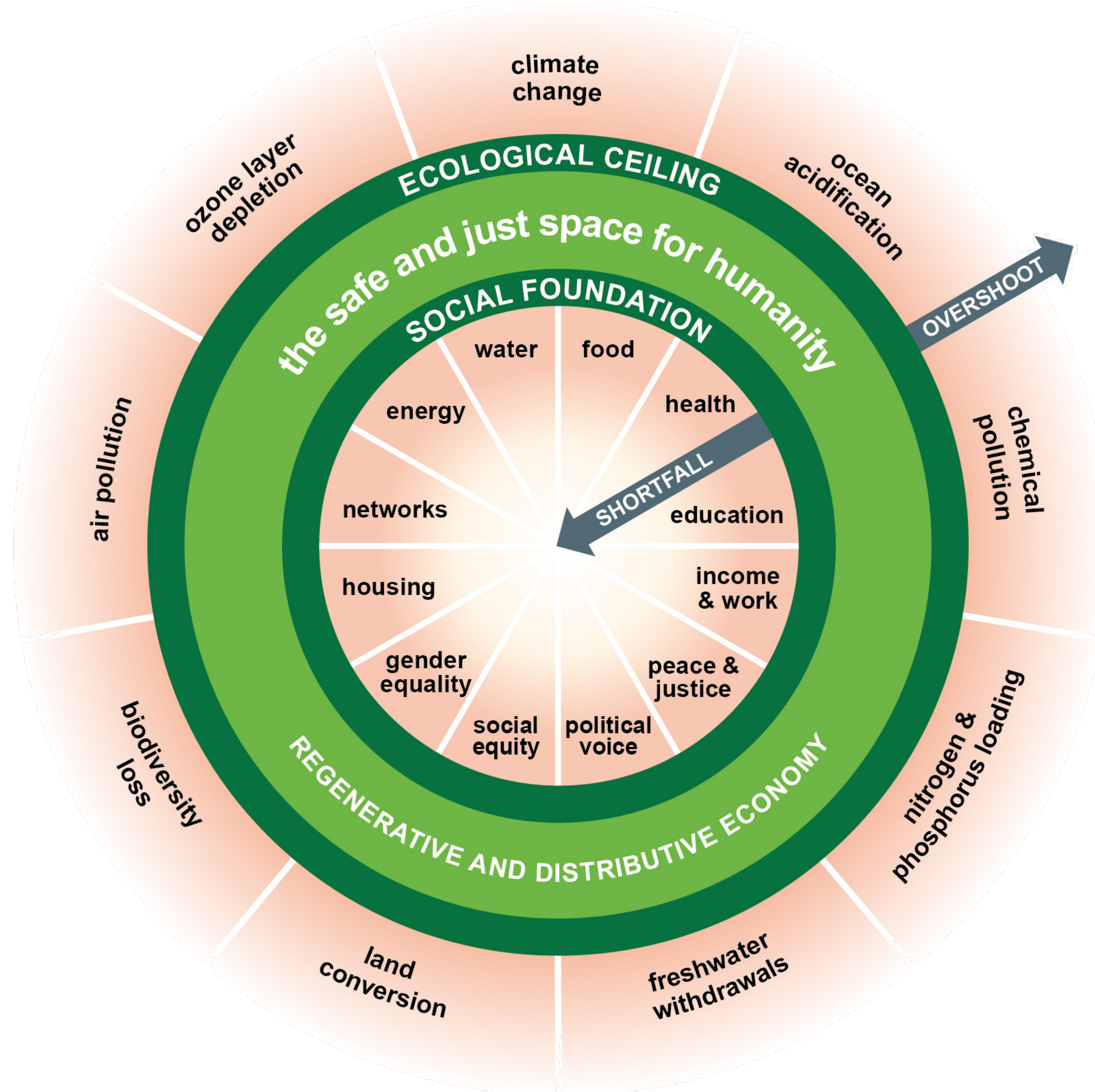


What future are you working towards?





# The donut economy





# More than just FAIR, you have to CARE



# Language Matters

(Or is that Community matters?)





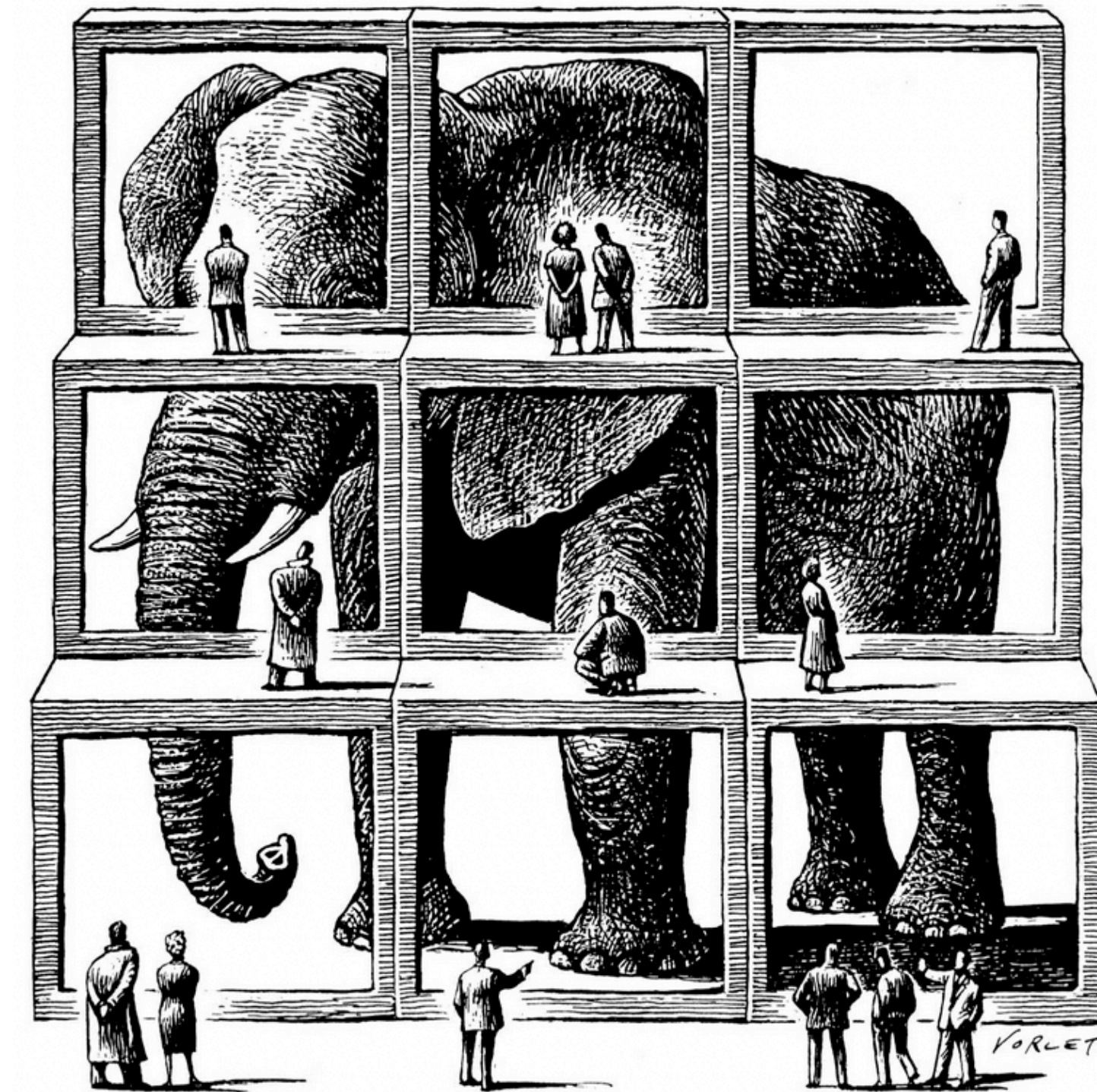
# Content without context is useless!



By ziliun.com - <https://teacherhead.com/2017/05/12/context-is-king-shortblog/>, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=64372250>

**Without context, a piece of information is just a dot. It floats in your brain with a lot of other dots and doesn't mean a damn thing. Knowledge is information-in-context ... connecting the dots.**

**- Michael Ventura**



by elizaveta anatskaya



# There are no silver bullets!



# In Summary

