

Life is a Balancing Act

Valentina Bosetti
Bocconi University, FEEM, CMCC
Web seminar Erasmus+ NECST

IPCC reports: the result of extensive work of many scientists

1 Summary for Policymakers

1 Technical Summary

16 Chapters

235 Authors

800+ Reviewers

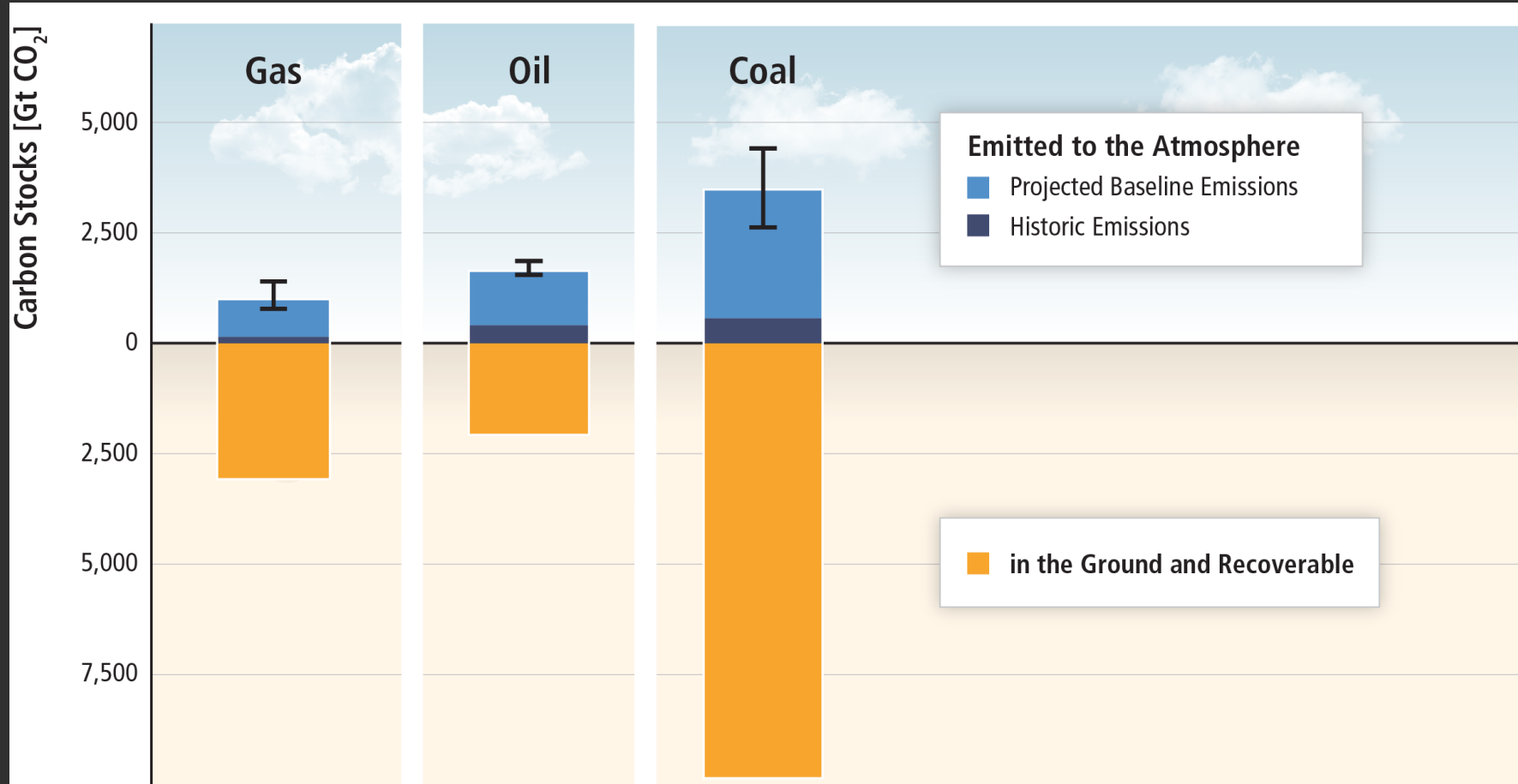
Close to 1500 pages

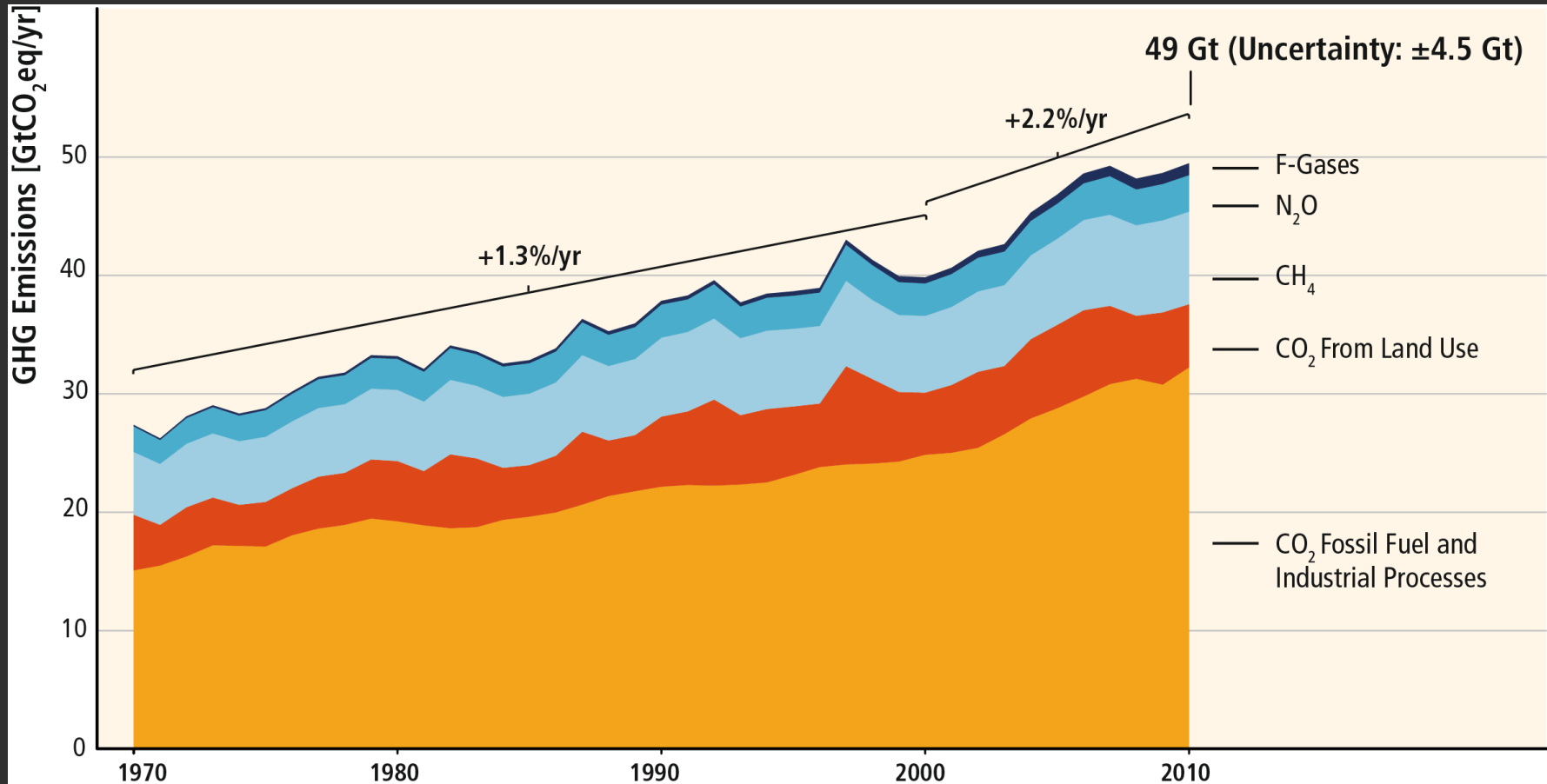
Close to 10,000 references

More than 38,000 comments

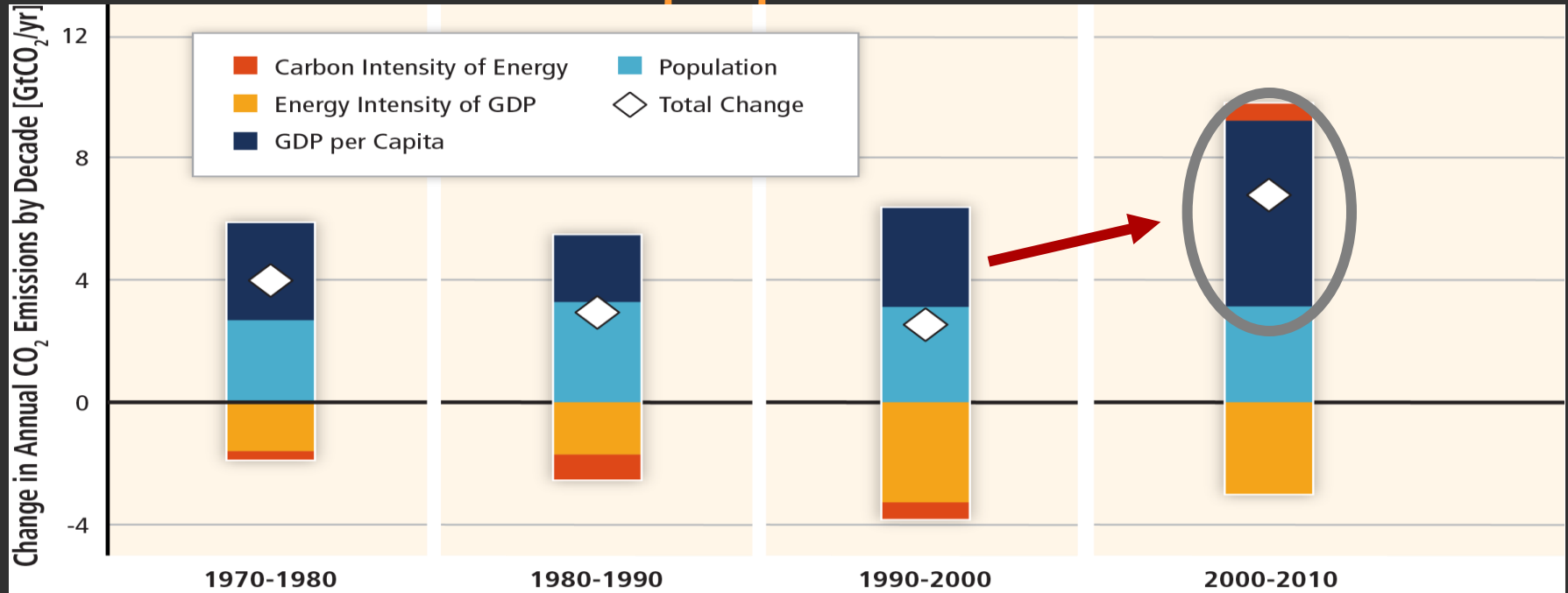


Climate Change: Our Impact

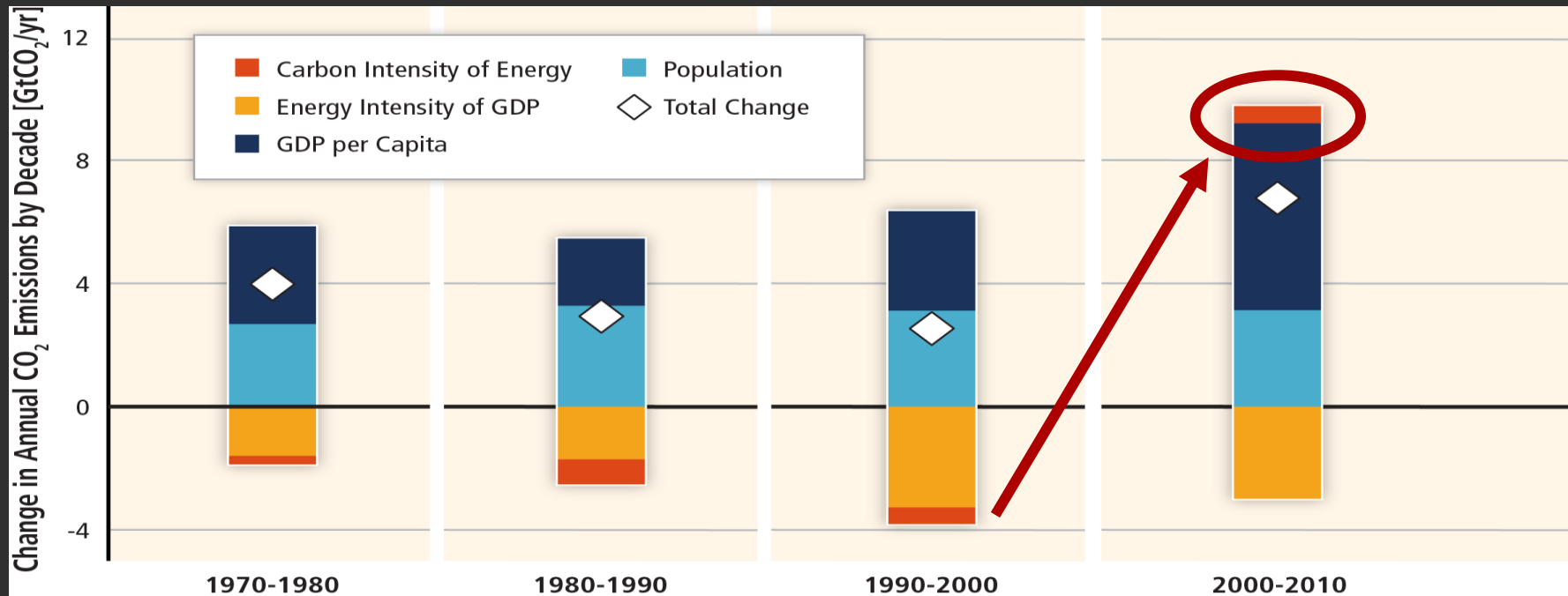




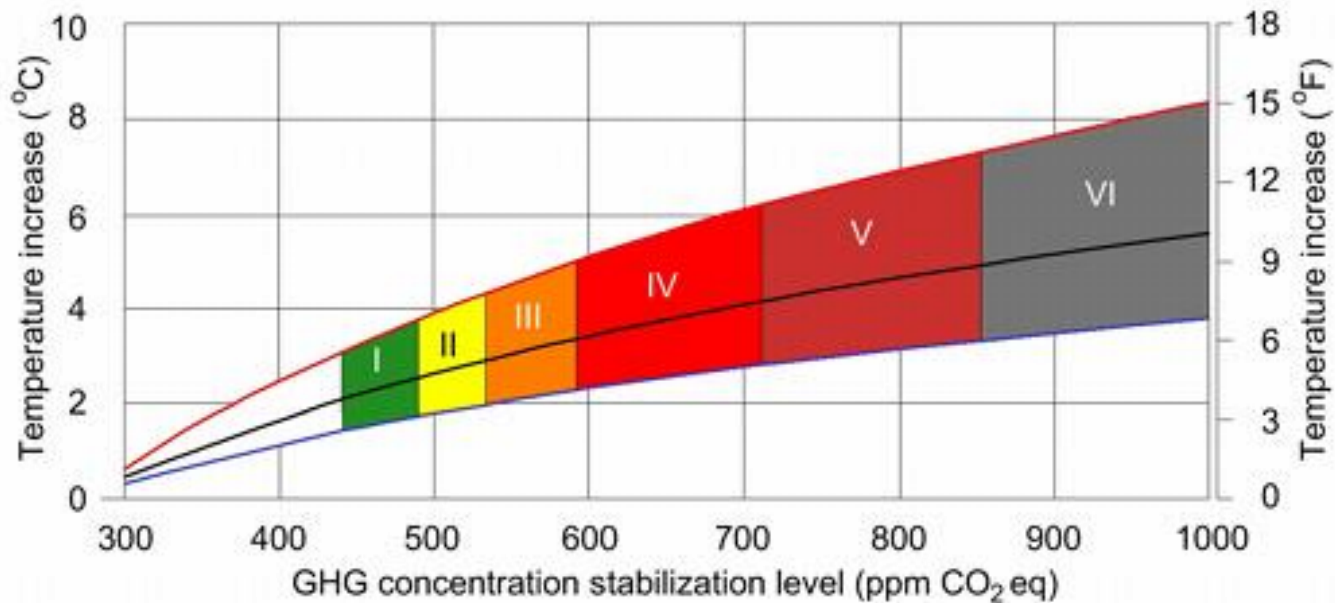
GHG emissions rise with growth in GDP and population



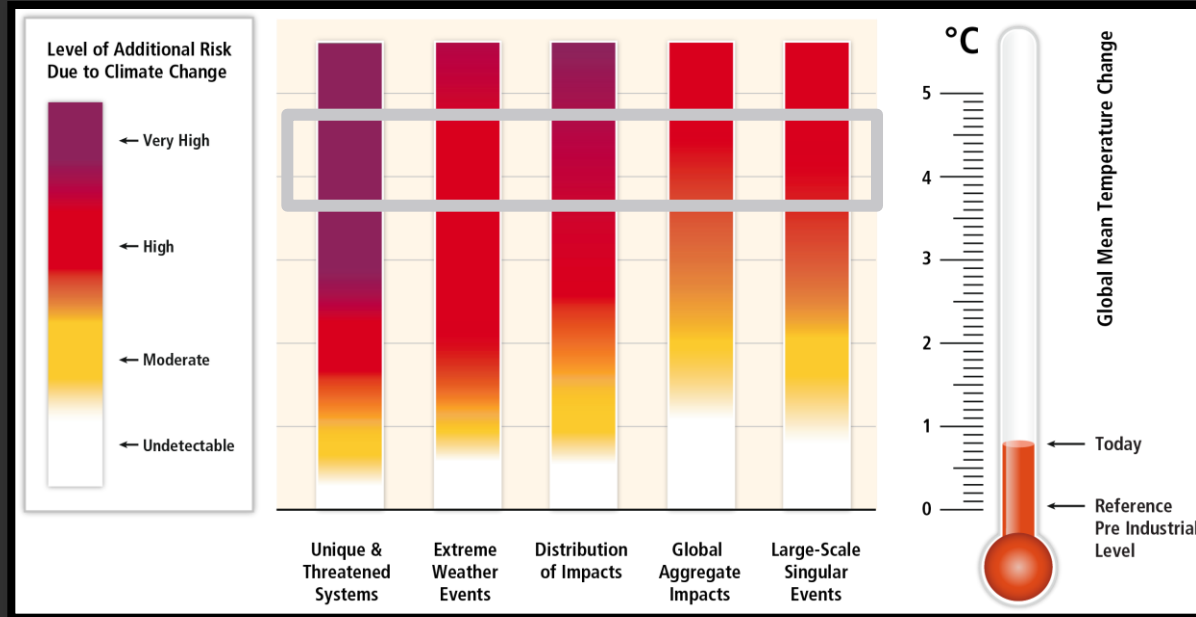
The long-standing trend of decarbonization has reversed



Equilibrium global mean temperature increase above preindustrial



Global mean surface temperature is projected to increase by 3.7 to 4.8°C over the 21st century.



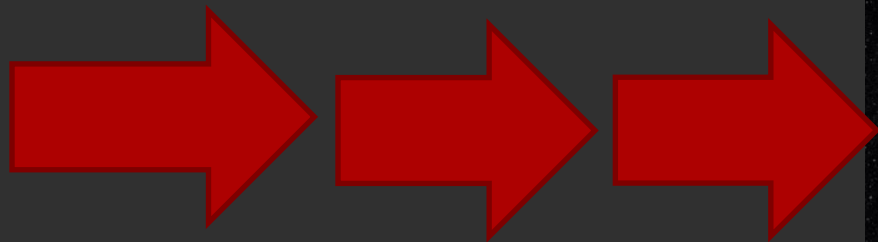
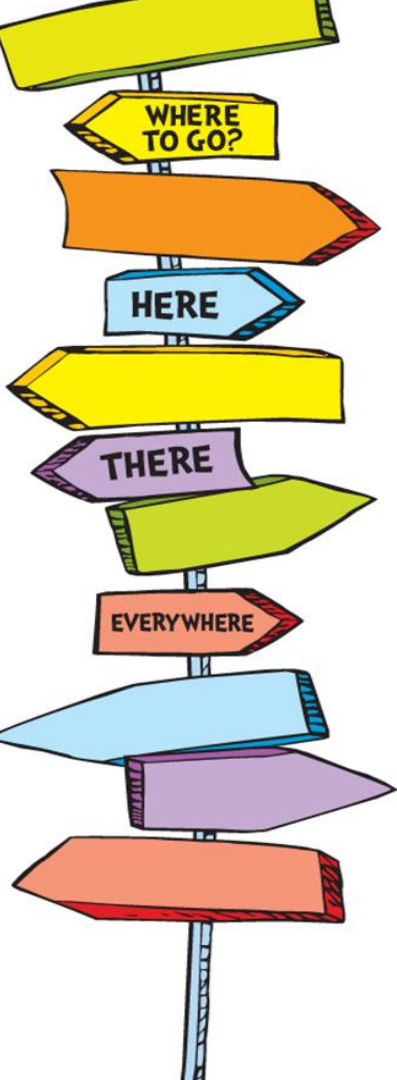


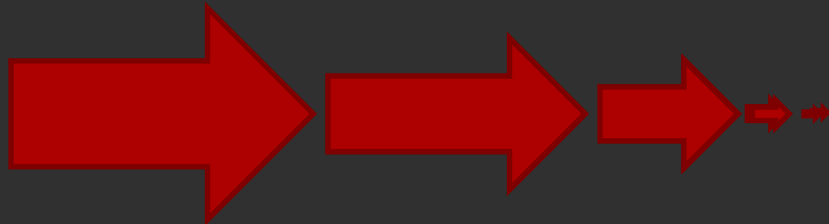
t



Climate Change: What we Can do about it







A Case Study:

The low carbon
Grandma



Climate Change is the Perfect Storm



Three Responses

1. Thinking fast
2. Ethical
3. Thinking slow: Trading off

1. Just Think about it!

Homo Sapiens is **NOT** primarily a creature of
rational deliberation

We are creatures of habit who learn best from **experience**

We use **associations,**

emotions,

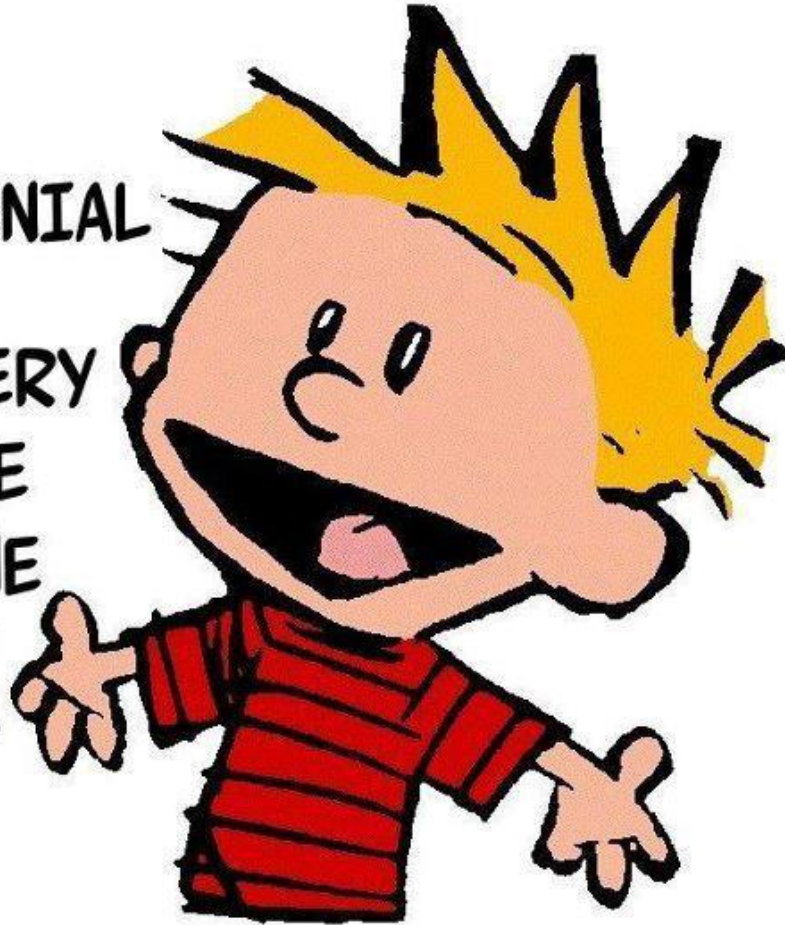
habits to guide our actions

We have **many goals,** often conflicting



IT'S NOT DENIAL

I'M JUST VERY
SELECTIVE
ABOUT THE
REALITY
I ACCEPT



1,2

1

0,8

0,6

0,4

0,2

0

2004Q1

200

8

7

6

5

4

3

2

1

0



There is some good to this

- Never waste a good crisis
- Default
- Risk Aversion
- Aversion for change

2. The Ethical Response

We should stop climate change because it is our duty (or inverse right argument) toward...

Narrative of many scientists, but not only

Pope Francis On the Care of our Shared Home

*Adesso, di fronte al deterioramento globale dell'ambiente, voglio rivolgermi a ogni persona che abita questo pianeta.
..dialogo con tutti riguardo alla nostra casa comune.*

Stewardship of the Planet
Alleviation of Inequality
By means of moral revolution



LETTERA ENCICLICA
LAUDATO SI'
DEL SANTO PADRE
FRANCESCO
SULLA CURA DELLA CASA COMUNE

What constitutes your Ethical View

- **Personal Experience**

- Pro-Environment Worldview**

- Self-Efficacy**

- Culture**

- **Belief in Free Market**

- Knowledge of CC Causes**

- Age**

- Gender**

- Politically Position**

- **Education**

The Ethical Response does not help in

- Crossing the tribal divide
- Choosing the right level of action
- We do little to alleviate poverty



There is some good to this

- Make the Process Ethical

3. Slowing down the Thinking

You need a good old MODEL.

You need to question and challenge the model.

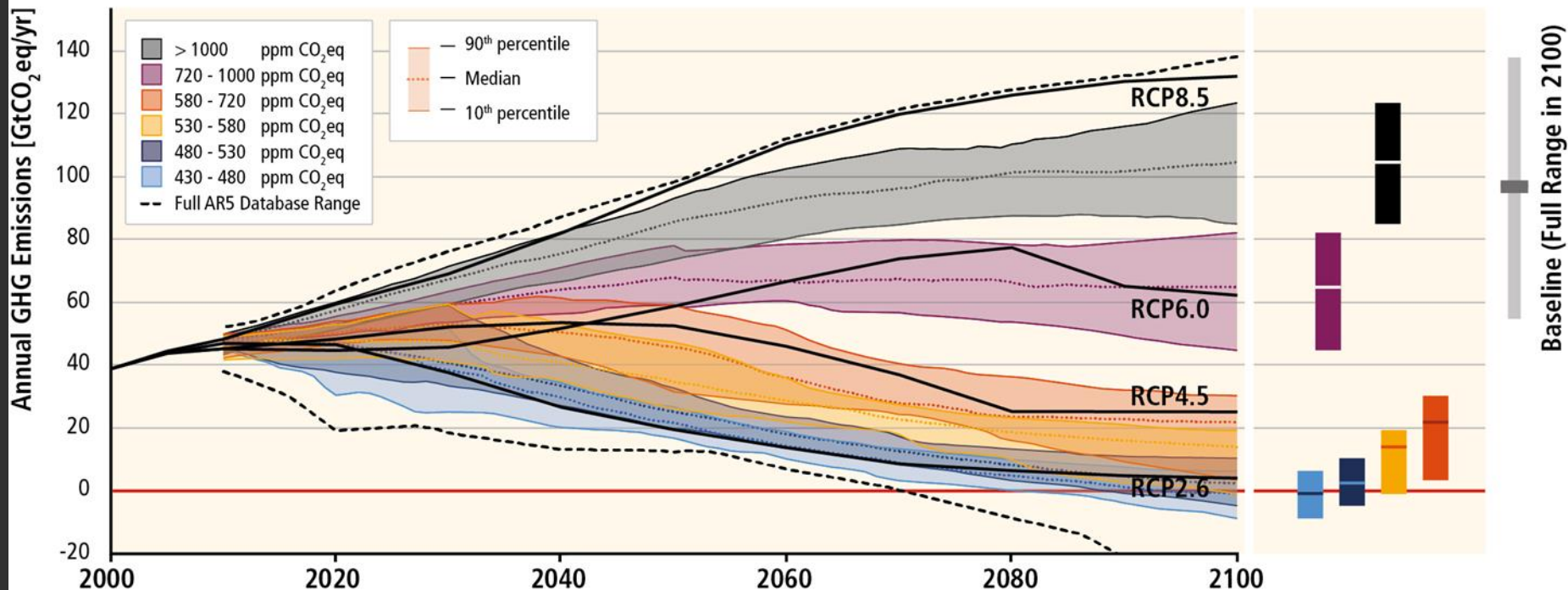
You need many models.





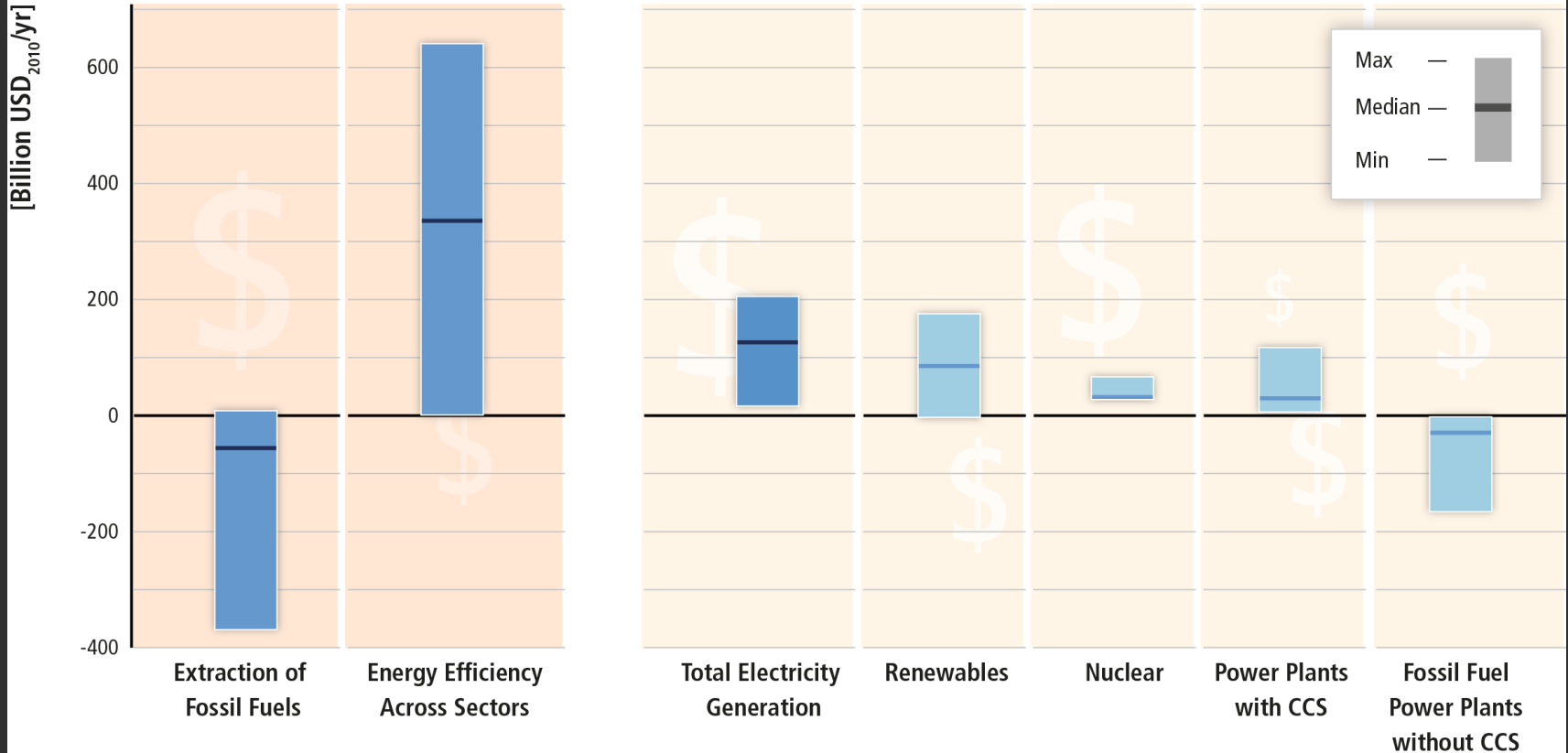
Pathways of our Futures

GHG Emission Pathways 2000-2100: All AR5 Scenarios

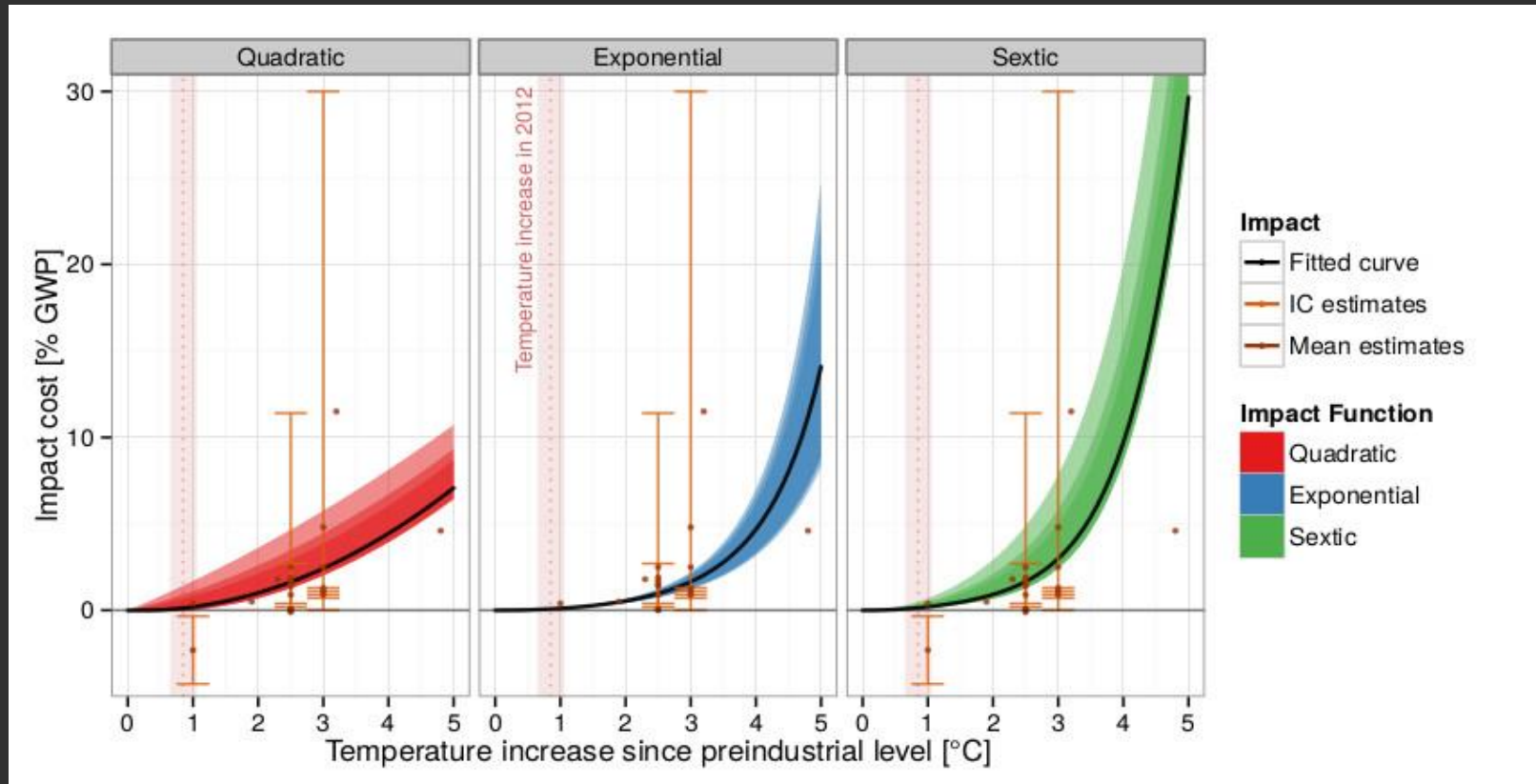


What do they require?

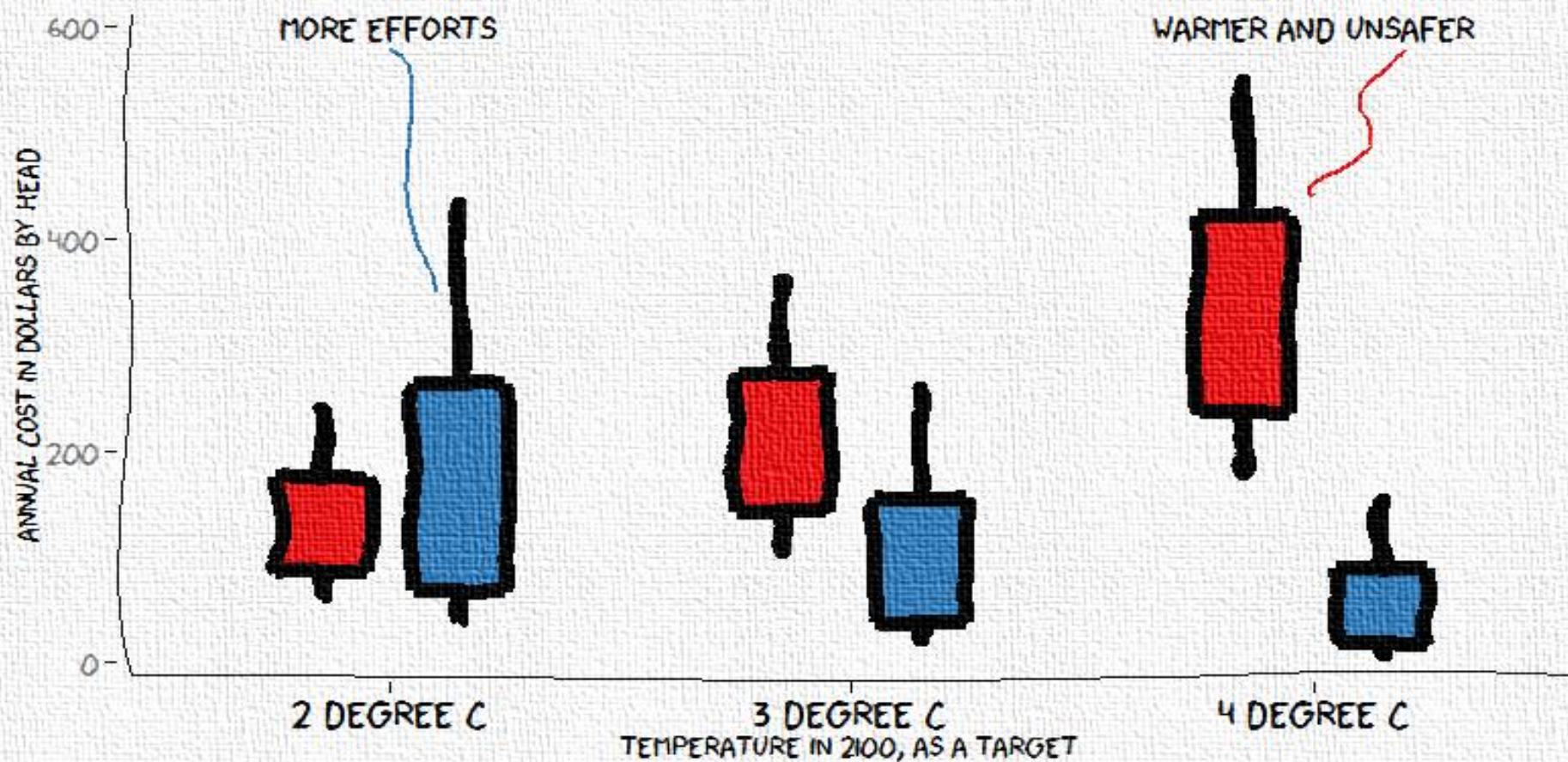
Average Changes in Annual Investment Flows from 2010 to 2029 (430–530 ppm CO₂eq Scenarios)



What damage might they imply?



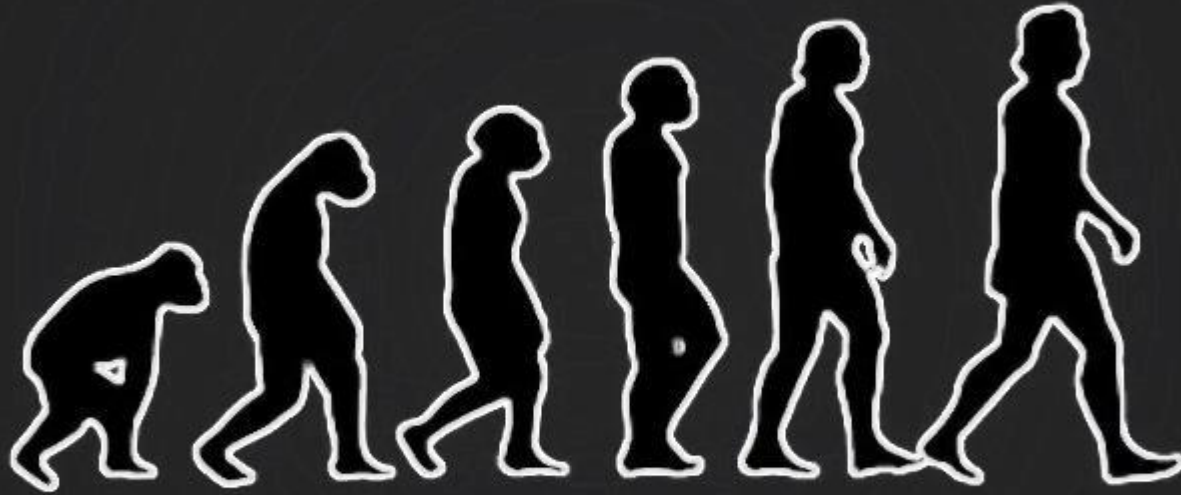
COST UNCERTAINTY ON ■ DAMAGE FROM CLIMATE CHANGE ■ MITIGATING CLIMATE CHANGE



Decision Making Under Uncertainty



Conclusions



Thank you!

- IPCC WGIII, 2014
- WITCH research group (www.witchmodel.org)
- Elke Weber, CRED Columbia University
- Max Tavoni, CASBS and Polimi
- The carbon free grandmother