Reanalysis session - Introduction

1. Reminder on the users

2. What kind of information do we have?
   At which scales (spatial and temporal)?
   What can we learn from comparing with observations?

3. How to provide users with uncertainty information such that they can account for it in their applications?

Reminder on the users

Where do they come from? What do they know? What do they need?

User questionnaire resulting in 1700+ answers

Reanalysis.org (closing 28 February 2014)

Public sector; R&D	47%
Education sector	36%
Private sector	7%

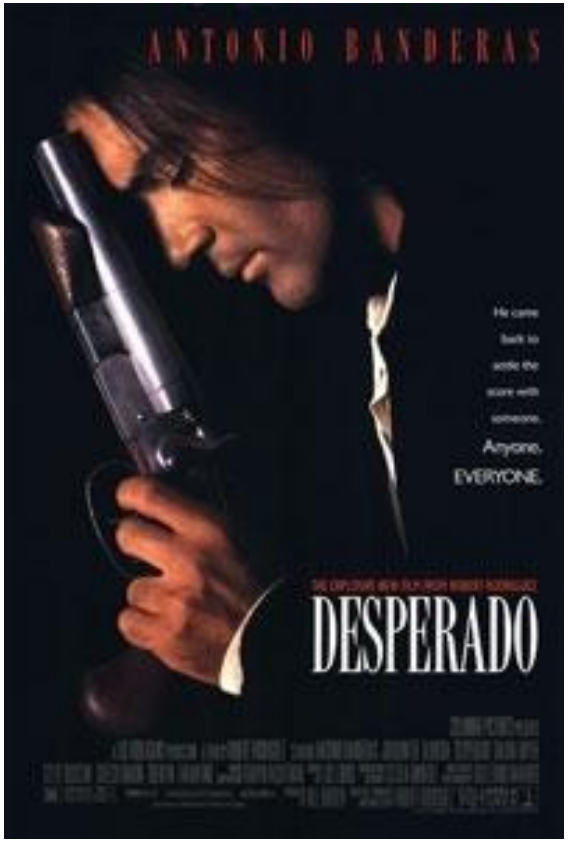
User communities:

Scientific modelling community (want reanalysis data as proxy for „truth“, want it for initialization, or as boundary conditions)

Observation community who want to use reanalysis for data quality monitoring

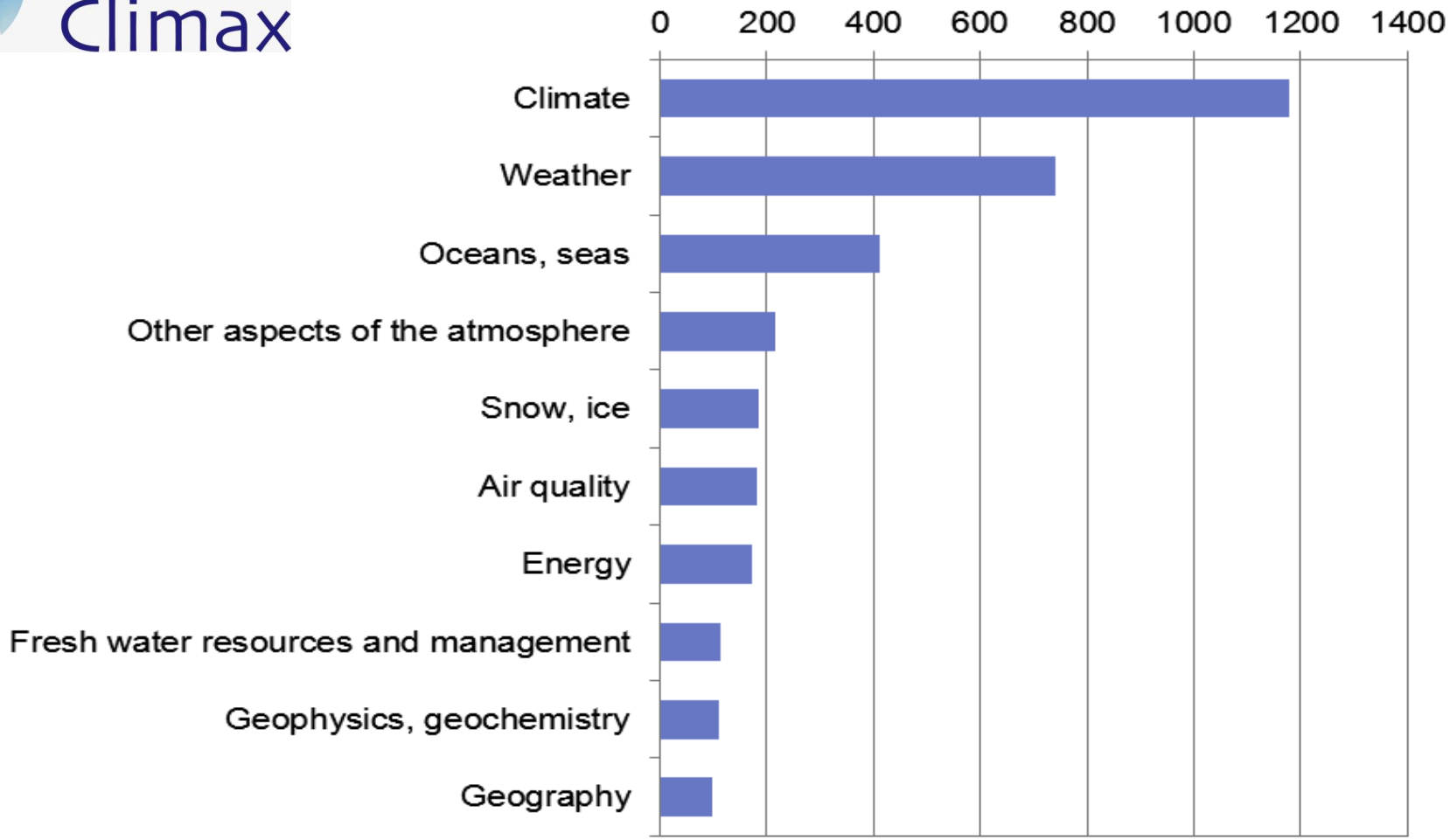
Scientific analysers (process studies, time series analysis)

Desperados (need data where none are observed)



Core Climax

Users come from:



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*"I work with this **variable** and use / do not use reanalysis data for this"*

TOP5

Atmospheric surface:	Air temperature	1212 (75%)
	Wind speed and direction	1194 (73%)
	Pressure	1115 (69%)
Atmospheric upper air:	Temperature	929 (57%)
	Wind speed and direction	923 (57%)

TOP5

Atmospheric surface:	Precipitation	895 (55%)	282 (17%)
Oceanic surface:	Sea-surface temperature	691 (43%)	246 (15%)
Terrestial:	River discharge	134 (8%)	218 (13%)
Atmospheric surface:	Surface radiation budget	555 (34%)	210 (13%)
Atmospheric upper air:	Cloud properties	397 (24%)	199 (12%)

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What do they know?

	fully or somewhat agree	in between or did not answer	fully or somewhat disagree
I know how much their spatial true (feature) resolution differs from the nominal resolution	467	760	339
I know how much the temporal true (feature) resolution differs from the nominal resolution in time	436	763	367

I know enough to work with the data	851	546	169

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Uncertainties

	fully or somewhat agree	in between or did not answer	fully or somewhat disagree
The uncertainties are well characterized	352	888	326

Wanted: research on and communication of uncertainties

Reanalysis session - Discussion

2. Which kind of information do we have?
   At which scales (spatial and temporal)?
   What can we learn from comparing with (dependent/independent) observations?

3. How to provide users with uncertainty information such that they can account for it in their applications?