# User engagement in Climate Services Lessons learnt

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inDust GA, 25-26 October, Cyprus

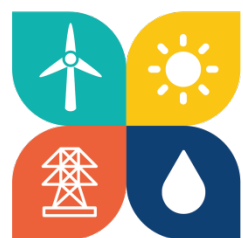# Earth System services group

- Renewable energy
- Agriculture
- Insurance
- Water management
- Forest fires

# iD Earth System services group

http://ess.bsc.es/

# Lesson learnt 1
## Spend time understanding the "user"
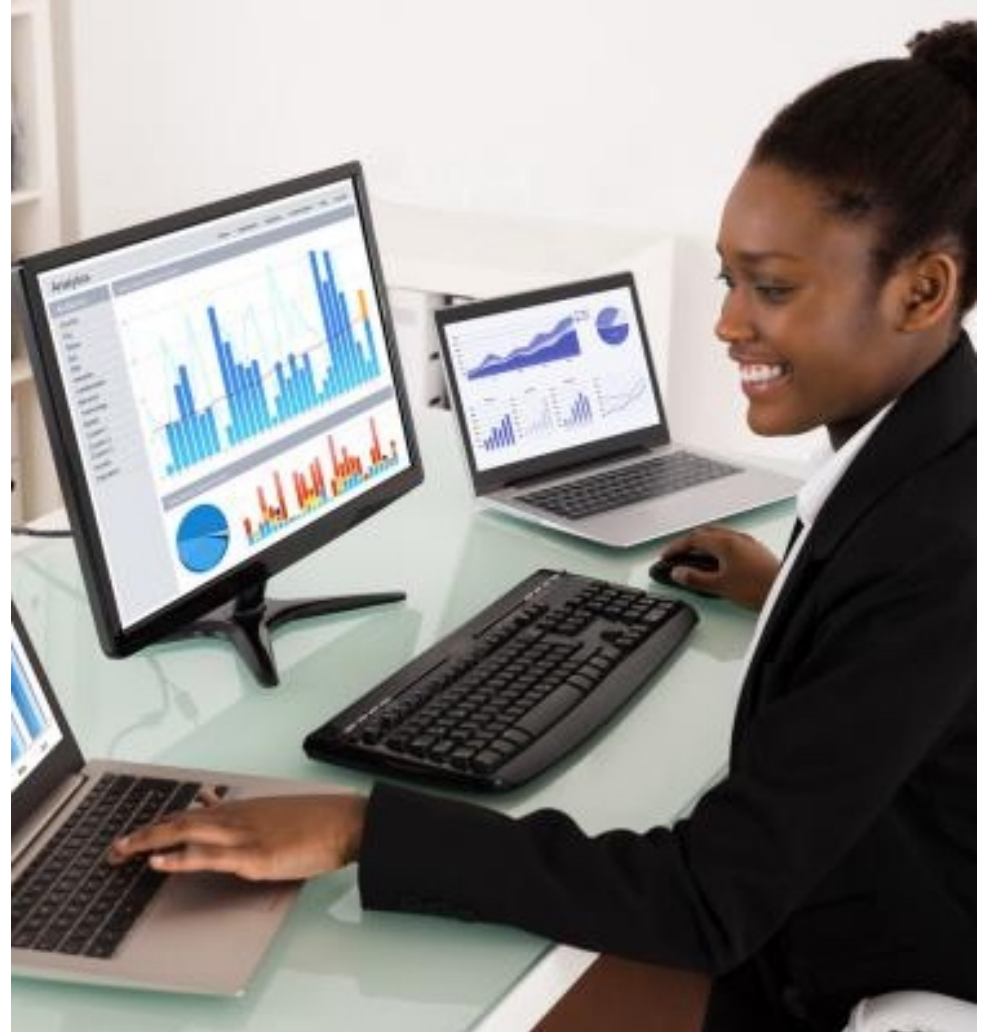
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# Typologies of organisations

# User ≠ Decision maker

# Typologies of Decision makers

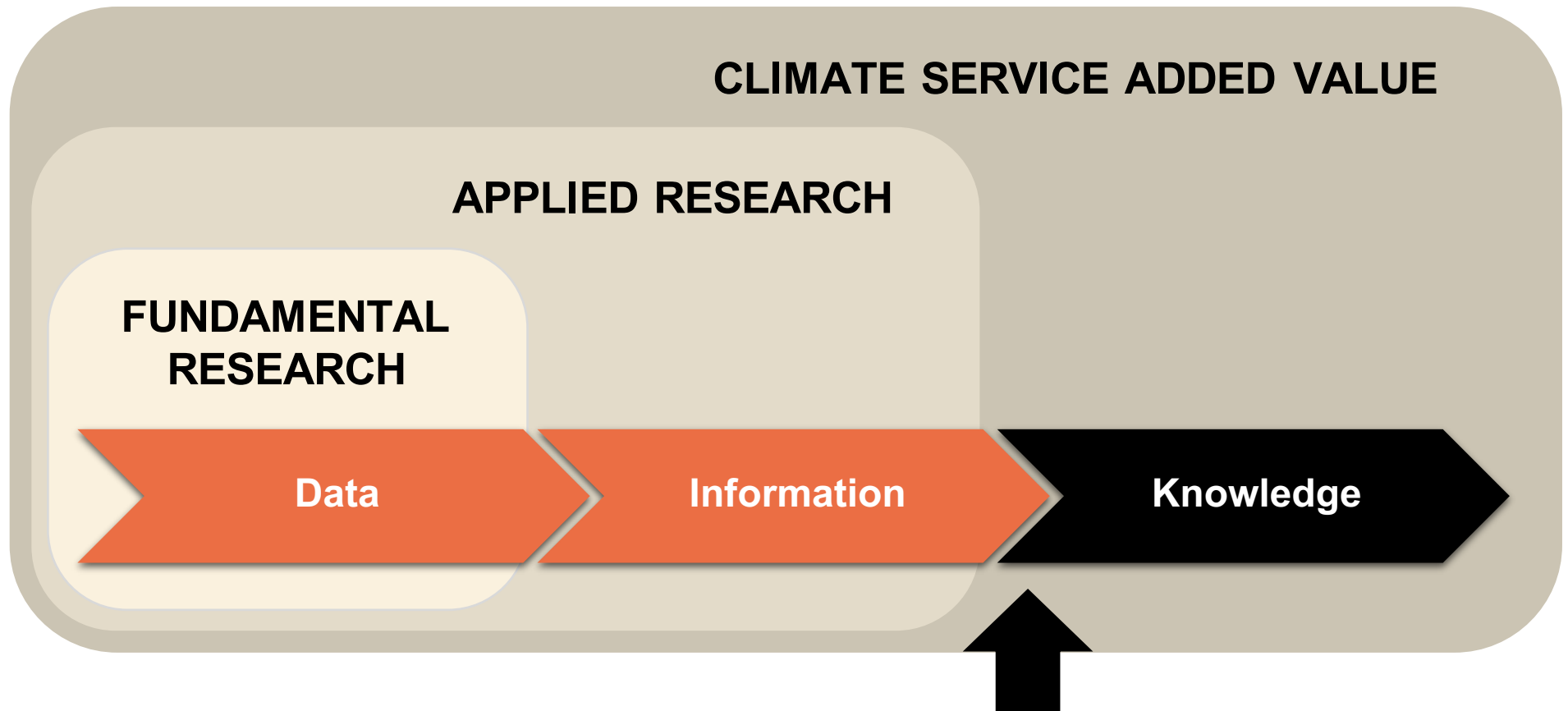# Understand motivations

- Planning budget

- Reduced losses/costs

- Increased revenues

# Lesson learnt 2
## TRUST is crucial

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Classical understanding of user engagement:

CLIMATE SERVICE ADDED VALUE

APPLIED RESEARCH

FUNDAMENTAL RESEARCH

Data → Information → Knowledge

- NOT unidirectional
- NOT a linear process
- Psicology is underestimated

# Lesson learnt 3

Language matters

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EUPORIAS

European Provision Of Regional Impacts
Assessments on Seasonal and Decadal
Timescales

## Uncertainty

means lack of precision or that **the exact value for a given time is not predictable, but it does not usually imply lack of knowledge**. Often, the future state of a process may not be predictable, such as a roll with dice, but the probability of finding it in a certain state may be well known (the probability of rolling a six is 1/6, and flipping tails with a coin is 1/2). In climate science, the dice may be loaded, and we may refer to uncertainties even with perfect knowledge of the odds. Uncertainties can be modelled statistically in terms of pdfs, extreme value theory and stochastic time series models.

**USERS**

## Uncertainty

Uncertainty is a situation which involves **imperfect or unknown information**. It applies to predictions of future events, to physical measurements that are already made, or to the unknown. Uncertainty arises in partially observable and/or stochastic environments, as well as due to ignorance, indolence, or both.

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**Reliable**

is a charactheristic of a forecast system for which **the probabilities issued for a specific event vary a proportion of times equal to the climatological frequency of the event**. A reliable system which predicts, for example  50% (or 20%,  or 73%) probability of rain, should, on averge,  be correct 50% (or 20%,  or 73%)  of the times, no more, no less.

Cambridge Dictionary

# reliable

*adjective* · UK 🔊 /rɪˈlaɪ.ə.bəl/ US 🔊 /rɪˈlaɪ.ə.bəl/

⭐ **B1** **Someone or something that is reliable can be trusted or believed because he, she, or it works or behaves well in the way you expect:**

*Is your watch reliable?*

*reliable information*

*Gideon is very reliable - if he says he'll do something, he'll do it.*

# Lesson learnt 4

Transdisciplinarity is not just a buzzword
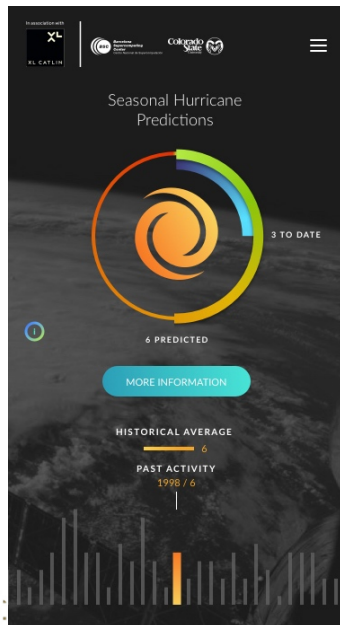
# Don't reinvent the wheel
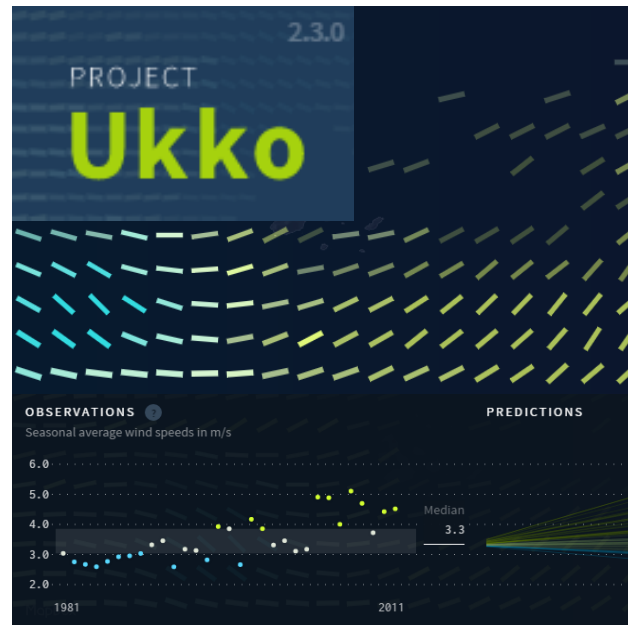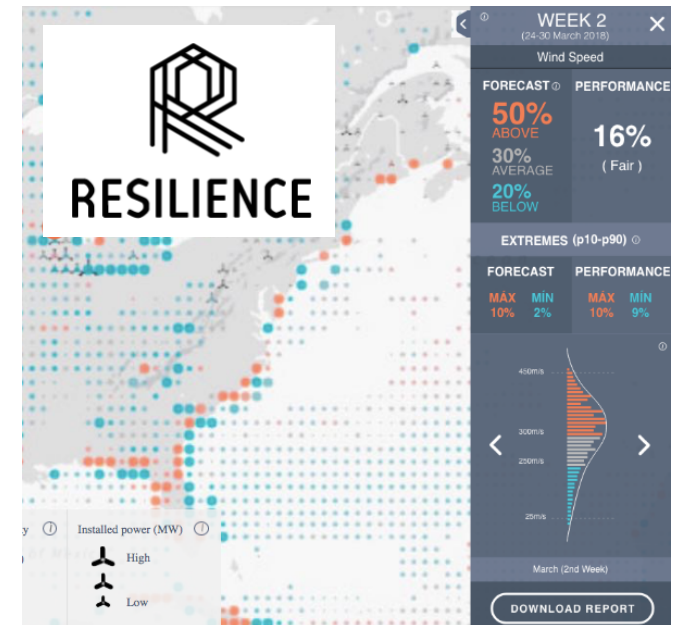
@iskiam            @moritz_stefaner  @FuturEverything            @thefercook

http://www.seasonalhurricanepredictions.org

http://www.project-ukko.net

https://ahv718.axshare.com

# Thanks!

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