

THE GRAND CHALLENGE OF GETTING USEFUL KNOWLEDGE UNDER A CHANGING CLIMATE

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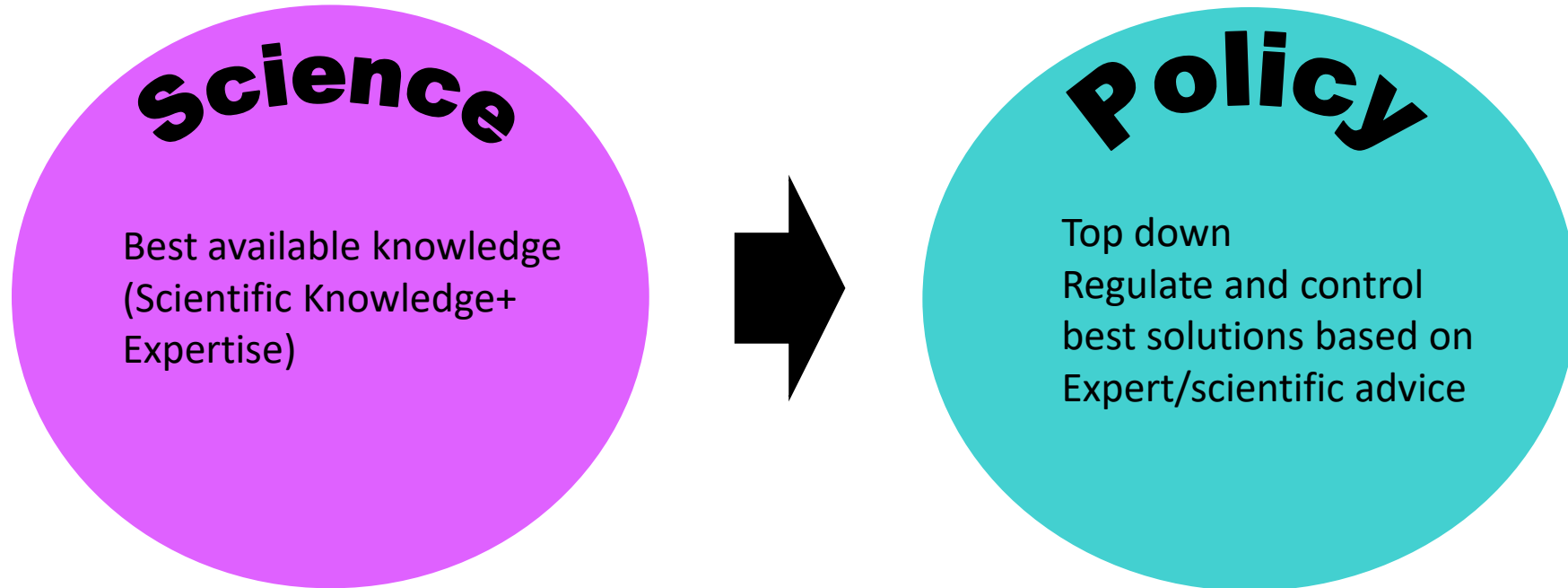
Global Forum and Water and Humanity: "Digital Dynamics and Global Societal Challenges, New Realities of Disruption and Resilience"

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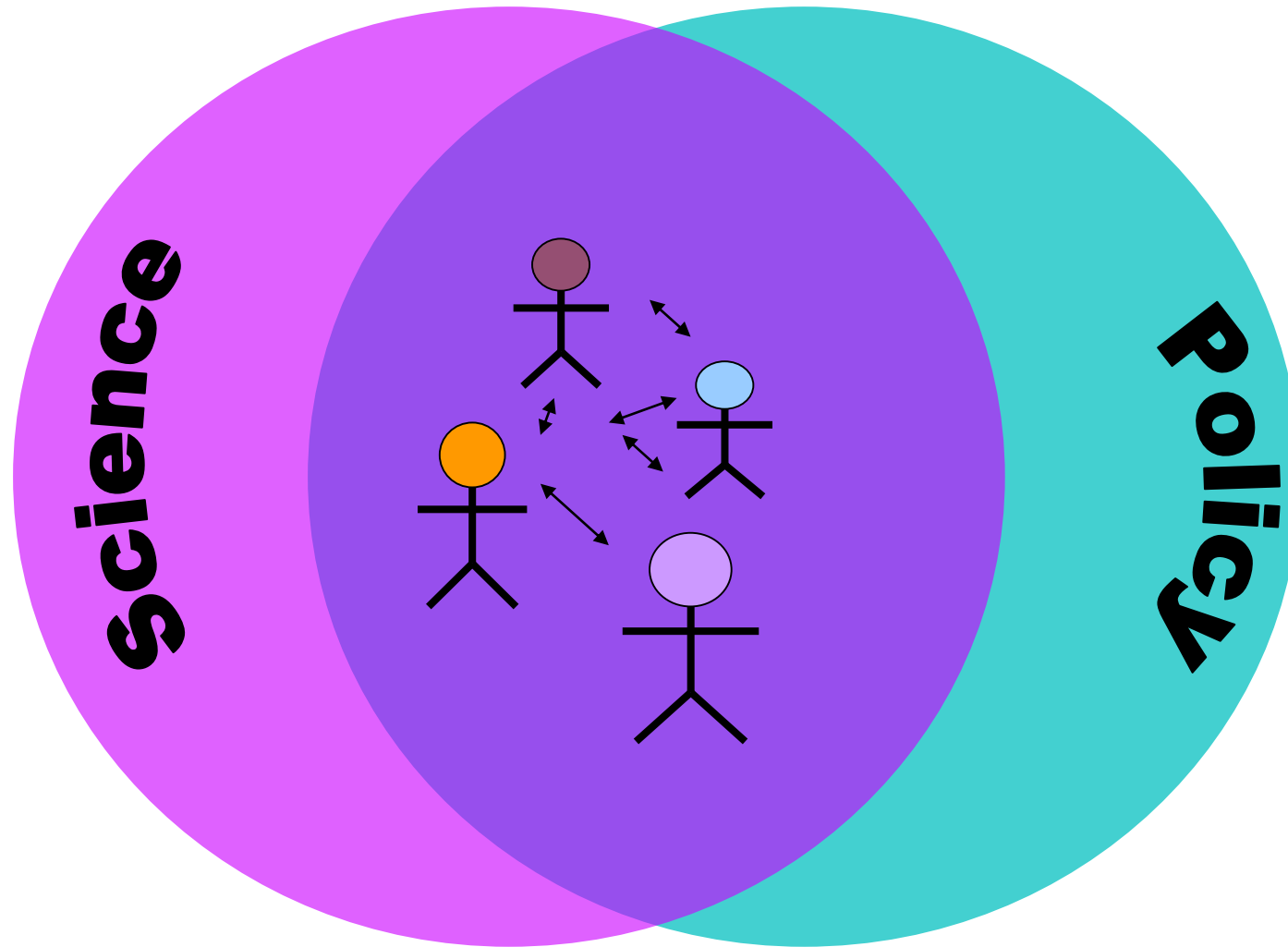
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KNOWLEDGE = SCIENCE



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What kind of knowledge should be produced?
How we should do it?

Securing food and water for humanity
Energy transitions
Adaptation of agriculture to extreme events
Social justice
Equity
.....etc.....

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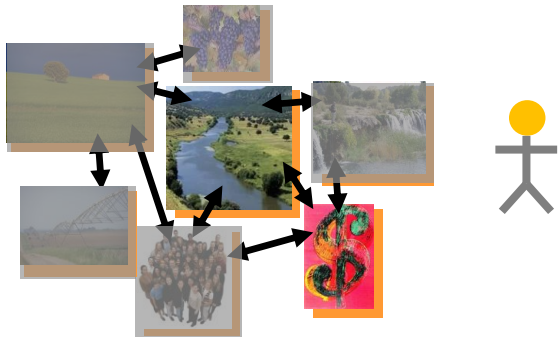
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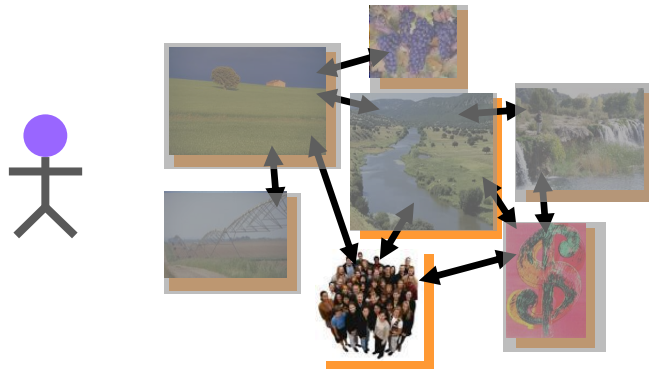
There are many different ways of knowing and framing problems (including local knowledge forms) and networks of actors concerning about them





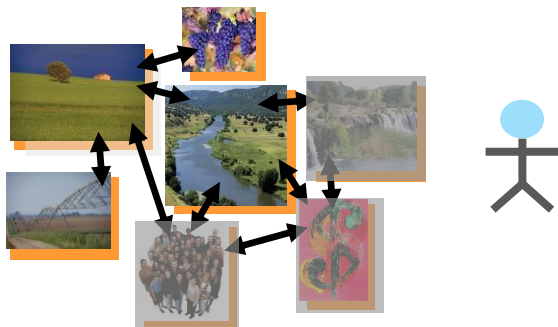
Farmers

"insufficient water supply"



Environmentalists

"excessive water consumption"



River Basin Authority

"illegal water abstractions"

Situation of water deficiency example Guadiana River Basin, Spain

The encounter of multiple frames that are incompatible or are not in complete agreement



Ambiguity

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Ambiguity indicates a degree of confusion that results from the existence of too many possible interpretations (Weick 1995)

Weick K (1995) Sensemaking in organizations. Sage Publications, Thousand Oaks, CA, USA. 

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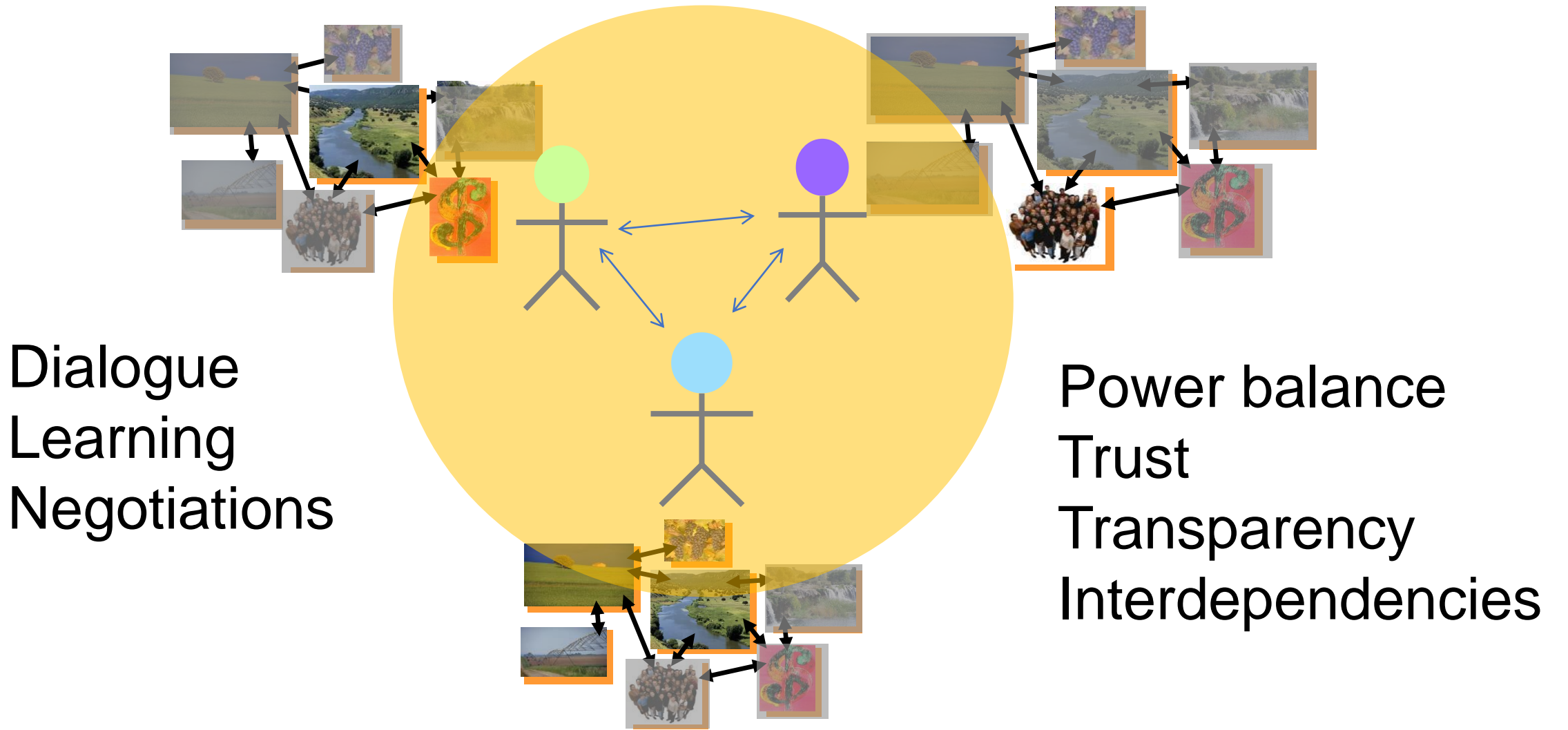


Under the presence of *ambiguity* may not be clear what the problem is, or how should it be solved or, whether or not there is any problem

For the Guadiana, is this a problem of insufficient water supply, or one of excessive water consumption, or lack of regulation of illegal water abstraction?



Taking into account ambiguities influences the type of knowledge that is relevant in decision making, and how this knowledge is (co)-produced



More scientific knowledge may not necessary be useful

Knowledge co-production

- Who is included, or excluded?
- Under which role and conditions actors participate?
- How much influence or authority are actors granted in their participation?
- How do actors interact with each other?
- What do they talk about?
- How they position themselves respect to others?
- How do they communicate?
- What expectations and assumptions do they have about others?
- Are there barriers of communication, distrust, misperception, stereotyping among actors?
- How do actors view the system at large?