



Fostering sediment issues into the policy agenda: who, how and when?

Mafalda Carapuço, Rui Taborda, César Andrade & Victor N. de Jonge

10th International SedNet Conference

14-17 June 2017 | Genova | Italy



Motivation

Take home message

Sed
Net

- Share and exchange knowledge
- Holistic approach required

9th International SedNet Conference

Motivation

- ❖ Sustainable sediment management requires the integration of scientific knowledge in the understanding of sediment balance
- ❖ Scientific knowledge has not been widely used to develop science-based policies and management strategies
- ❖ Ineffective scientific knowledge transfer arises as the major obstacle
- ❖ Several reasons for ineffectiveness of knowledge transfer have been suggested in the literature
- ❖ Communication gaps between scientists and non-scientists

***Fostering sediment issues into the
policy agenda?
who, how and when?***

Who?

- ❖ Scientists: to foster the integration of scientific knowledge into policy, scientists need to play an active role
- ❖ To whom? two key actors arise as audience: policy-makers and managers, and society
- ❖ Policy-makers and managers: responsible for establishing and implementing the policy framework for sediment management
- ❖ Society: is affected by the decisions taken by policy-makers and managers. Often regarded as a passive intervenient but the role of the public in the decision-making process is increasing



HOMES IN DANGER

Telegraph.co.uk/video

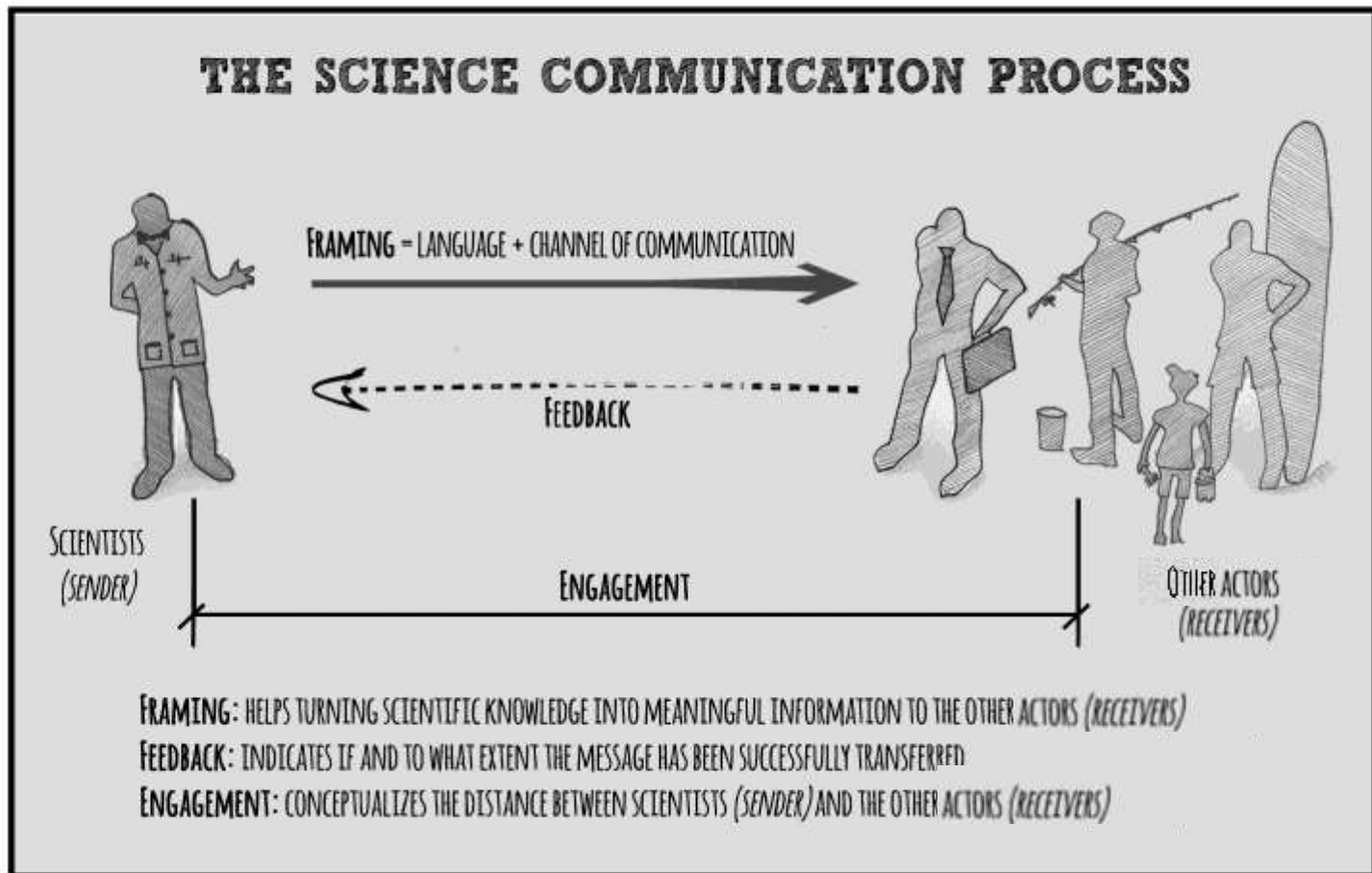
***“Politicians, whether we call them elected leaders,
are really elected followers”***

***Gregory Mankiw
Harvard economics professor***

How?

- ❖ Scientists need to properly frame the message and foster engagement among key actors
- ❖ Framing the message helps turning scientific data into meaningful information for the target audience
- ❖ Engagement is grounded on empathy and goes beyond simple awareness of the problem

How?



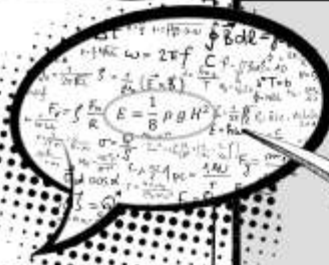
ONCE UPON A TIME
THERE WAS
A SCIENTIST...



CAN WE DO?



...SELF-MOTIVATED
OR DRIVEN BY OTHERS'
NEEDS OF INFORMATION
HE FINDS AN ANSWER...



...BUT IS SCIENCE ITSELF ENOUGH
TO DELIVER THAT ANSWER?

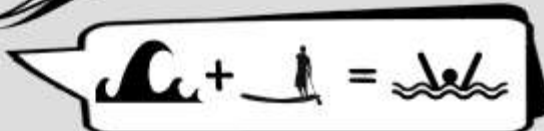
$$E = \frac{1}{8} \rho g H^2$$

WHAT?



Get the Message Across

FRAME THE MESSAGE



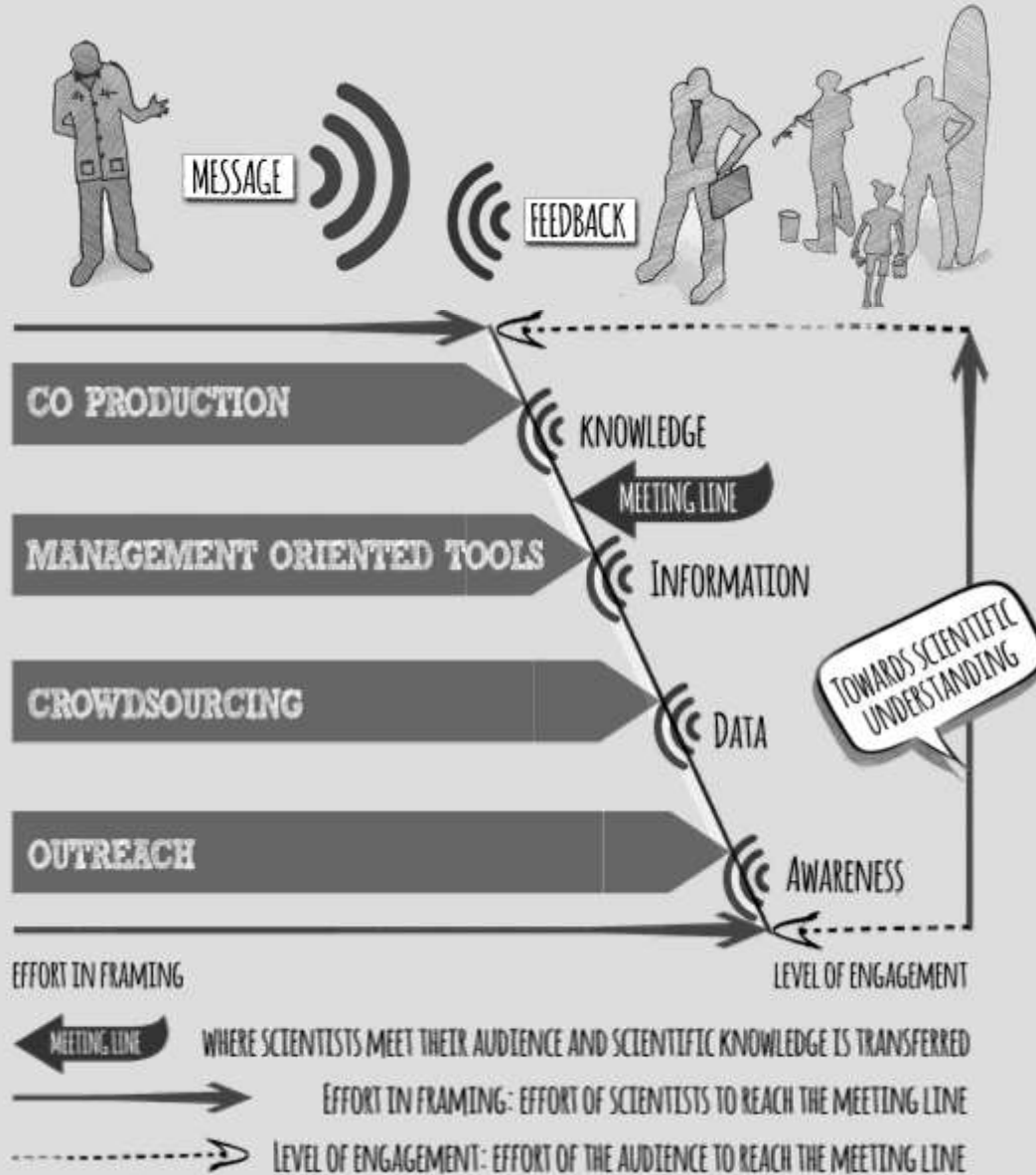
OKAY
MAKES
SENSE!

... I NEED HIM IN
THE NEXT MEETING

How?

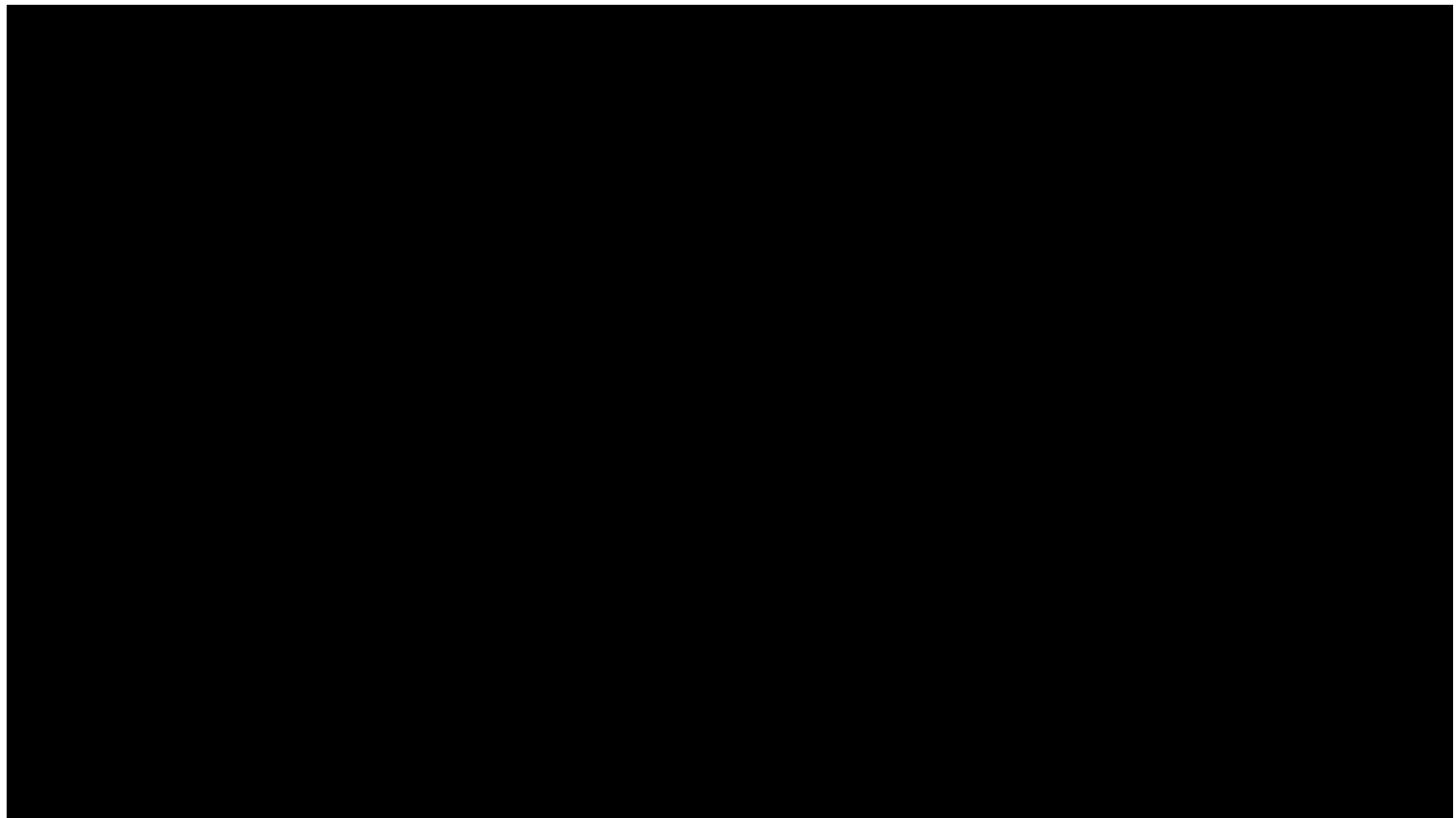
- ❖ ***Outreach***: aiming at raising public awareness and understanding of science
- ❖ ***Crowdsourcing***: involves a high number of people in the generation of large sets of data
- ❖ ***Management-oriented tools***: designed to support the generation of specific information, directly useful to policy-makers and managers
- ❖ ***Co-production***: a collaborative process among key actors bringing a plurality of knowledge types together to address a specific problem, aiming at building an integrated solution
- ❖ Each mechanism accounts for the **audience specificities** and conveys the message in a different way, leading to different types of feedback

CONCEPTUAL MODEL FOR SCIENTIFIC KNOWLEDGE TRANSFER



The Beaches of Cascais: past and present

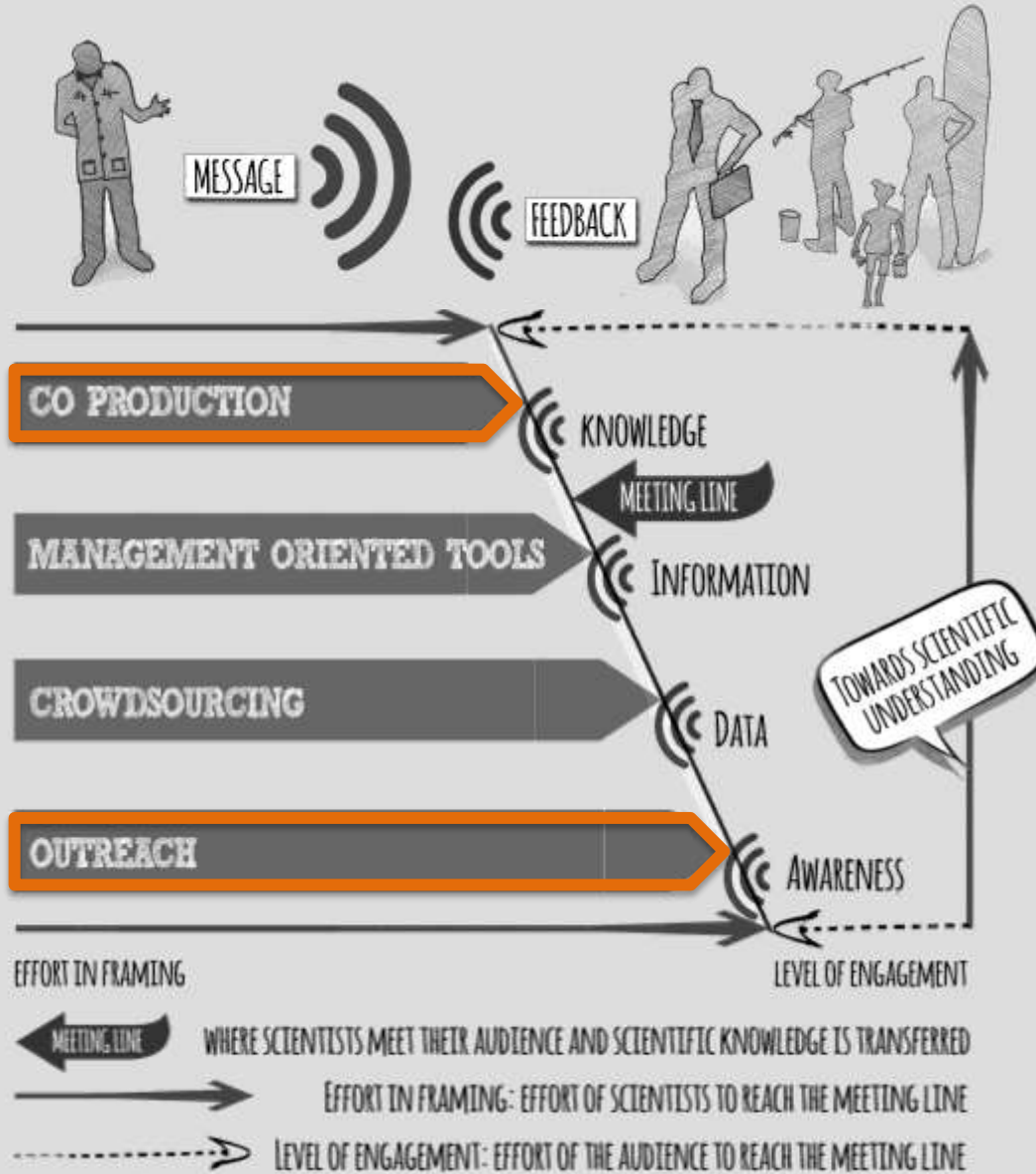
- ❖ **Outreach initiative** developed with the goal of upstream public engagement on coastal issues.



The Beaches of Cascais: past and present

- ❖ Highly valuable science outreach initiative as it contributed to raise public understanding about the coastal system
- ❖ This initiative also triggered for the development of a coastal monitoring program designed under the co-production approach (scientists and coastal managers)
- ❖ This highlights the importance of outreach in enabling conditions for fostering collaboration requiring higher levels of engagement

CONCEPTUAL MODEL FOR SCIENTIFIC KNOWLEDGE TRANSFER



Fostering sediment issues into the policy agenda:

- ❖ **Who:** scientists
- ❖ **How:** outreach, crowdsourcing, management-oriented tools and co-production
- ❖ **When:** scientists must always commit with knowledge transfer outside the scientific community. This is not only desirable but also a social responsibility of scientists

The last mile

- ❖ Scientists need to foster scientific knowledge transfer by the adoption of the proper mechanisms aiming at knowledge integration in policy
- ❖ Time-consuming and often challenge scientists to step outside their comfort zone: however, when scientists are able and willing to make these additional efforts, there is a positive feedback and science thrives
- ❖ Science is increasingly interdisciplinary and the ability to communicate more effectively across disciplines fosters scientists and institutions' collaboration, leading towards more sustainable sediment policies and management practices



Fostering sediment issues into the policy agenda: who, how and when?

Mafalda Carapuço^(*), Rui Taborda, César Andrade & Victor N. de Jonge

(*) mafalda.carapuco@ipma.pt

10th International SedNet Conference

14-17 June 2017 | Genova | Italy

