# Between deficit and engagement: suggestions to improve science communication in Portugal

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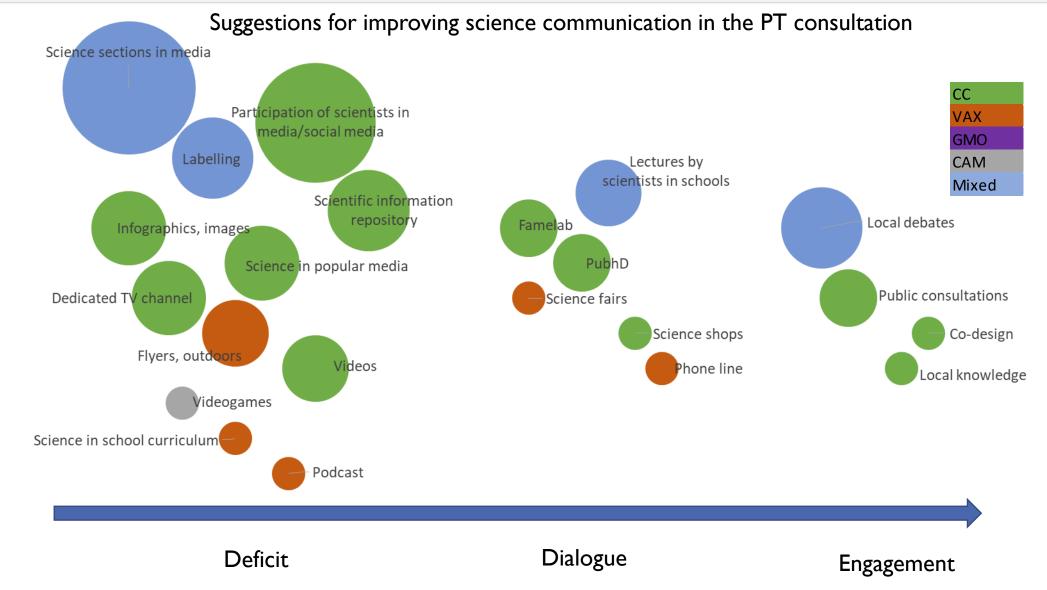
- CONCISE public consultations: not just a data collection tool but also an opportunity to **involve citizens** in improving science communication
- Objectives of the analysis: how citizens are informed, reliability of sources, and proposals to improve scientific communication
- Suggestions regarding content and **format** of science communication
- Analysis of the suggestions put forward in the Portuguese consultations, variations by model of science communication and topic

#### Models of science communication (Bucchi and Trench 2014)

**Deficit**: 'emphasis on the public's inability to understand the achievements of science – according to a model of linear, pedagogical and paternalistic communication'

**Dialogue**: involvement of the public in scientific issues but 'not genuinely two-way, in that the original sponsors of the communication (generally scientific or policy institutions) stay in control and the citizens taking part have no significant influence on the final outcomes' **Engagement**: 'an understanding of relations between the partners in the process as more equal and

more active'



Note: size of circles represents the number of mentions in the discussions

- **Deficit**: A health television! Everything that concerns our life, alternative medicines, health, GMOs ... a channel intended only for information (VAX)
- **Dialogue**: one of the ways in which I get information at home is through schools. My daughter brings information home. And, perhaps, some of you, children, grandchildren, nephews ... I think it was important that whoever studies this, in academic terms, should give mini conferences to schools! Because when we started to sort the garbage at home, a lot of that stimulus came from the children! (CC)
- Engagement: I think there is a lack of moments like this, when we have government officials, with scientists, with the communication people, with the guys who are on the ground with the communities, I think we have few moments of sharing, but active sharing, because it is not a forum for climate change, it is not going to hear the scientist talk about his study, no, it is real sharing, we will implement... we will design a strategy that makes sense in Loulé, which will not be the same strategy that makes sense in S. João da Madeira. (CC)

#### Discussion

- The public still perceives science communication through a predominantly 'deficit model' perspective: most suggestions concern one-way communication, from scientists to the public
- Citizens suggest what they know, what they have experienced; engagement suggestions only from citizens who participated in such events
- Some citizens do not distinguish science communication from science education
- Dominance of the CC topic in the discussions: most suggestions concern CC
- Recommendations: give the public what they want or what we believe is better for them?