

ESFRI SWG on Energy

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Outline

- I apologies for not being with you due to a commitment taken before accepting this talk
- The activities of the ESFRI-SWG on energy
- MQT personal view on Energy and Social Science and (H)

it is important to include Humanities, because many of the studies about people's behaviour and understanding are actually humanistic

ESFRI SWG on Energy (1)

- As many other SWGs, our activities cover
 - ✓ Evaluation of new proposal submitted to ESFRI in the field of Energy
 - ✓ Assessment of past programme
 - ✓ Preparation of the Landscape analysis

ESFRI SWG on Energy (2)

- Activities in 2017:
 - ✓ Assessment of 2008 and 2010 projects
 - ✓ Preparation of the landscape analysis
 - ✓ Assessment of 2018 projects (could be in collaboration with other SWG groups)
- ◆ Criteria
 - **scientific case** of RI/projects:
 - Evaluate if minimal key requirements along the four dimensions of the scientific case are met (scientific excellence; pan-European relevance; **socio-economic impact**; e-needs in collaboration with e Group)
 - Assessment of future scientific plans
 - Management and cost not included in our ToR

ESFRI SWG on Energy (3)

- What are the socio parts?
 - Mid and Long term social impact of replacing old technologies
 - Social innovation of the RI

My personal view (1)

- Disclaimer: I have no education in the field of social science or humanities or economics. I can only mention my view based on my fusion life
- My only experience was through my work as EFDA Leader with some supervision role of the Task on socio-economics in the frame of the fusion programme
- ✓ Economic of fusion: Cost of electricity, including external costs; condition for penetration of fusion in the electricity market (Time Markal)

My personal view (2)

- We need economics studies since:
 - ✓ Many non-evolutionary (as opposed to incremental) energy technologies are usually not deployed or still have low Technology Readiness Level (TRL)
 - ✓ The inclusion of externalities and its “moneytarization” leads to economics BUT also SSH needs in their assessment

My personal view (3)

- ✓ Social innovation: is it possible to tell what innovation is in this context? most people will accept innovation if it is for the better, but of course there is always pro and con: Windmills and solar cells are examples from my field: how would the population accept ITER siting in the area; acceptance of innovation; how to dialog with the population?
- ✓ A digression on the last point: The scientific community needs to understand that SSH research helps us grasping what are the issues from the society in front of a novel point (e.g. fusion), but by no means use the social researchers as “propagandists”

My personal view (4)

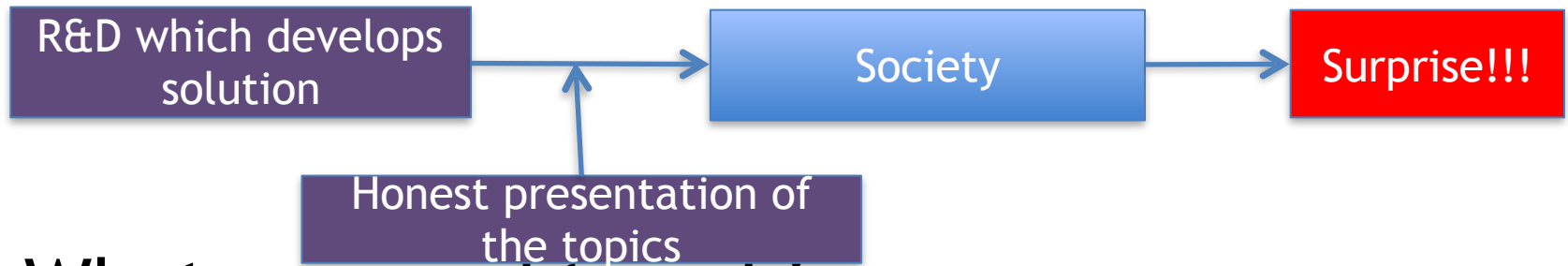
- The energy challenge requires innovations, with diverse aspects which are also contradictory and may lead to their rejection by the Society: We scientists cannot just develop solutions and neglect how the Society will respond to them.

My personal view (5)

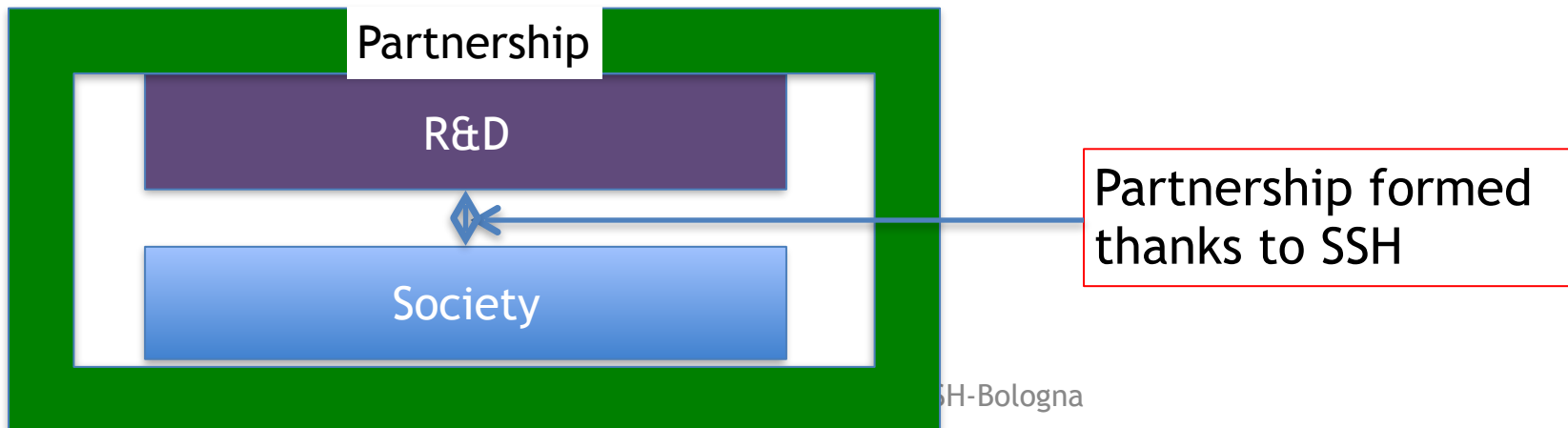
- The usual approach (“*the scientists will honestly explain the issues to the Society and they have done what is necessary*”) is not sufficient due to the lack of knowledge in the scientific fields by the Society, and of what the Society wishes to know to form its own opinion
- We need SSH to help to bring together the Society and the “Technologists”

My personal view (6)

- Old approach:

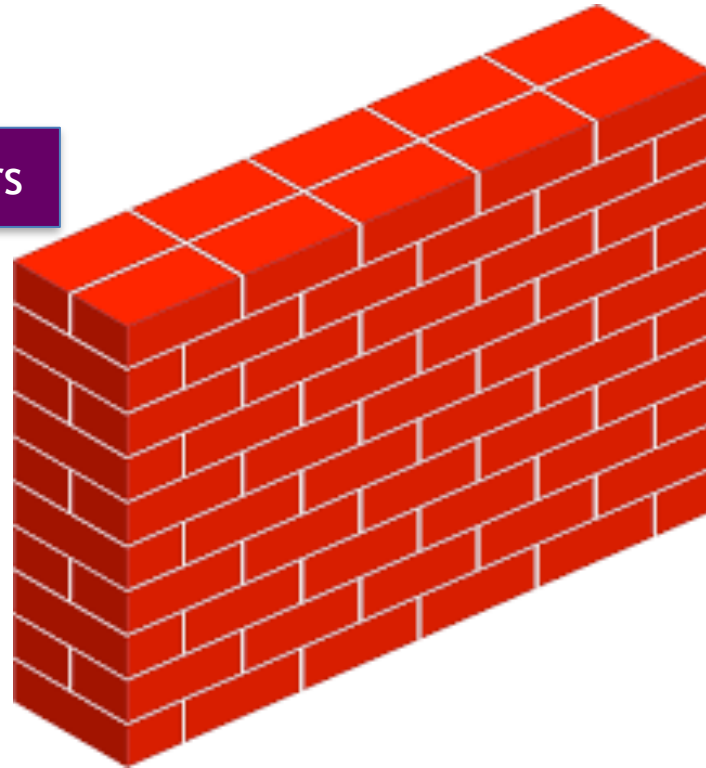


- What we need to achieve:



My personal view (7)

Scientist/Engineers



SSH experts

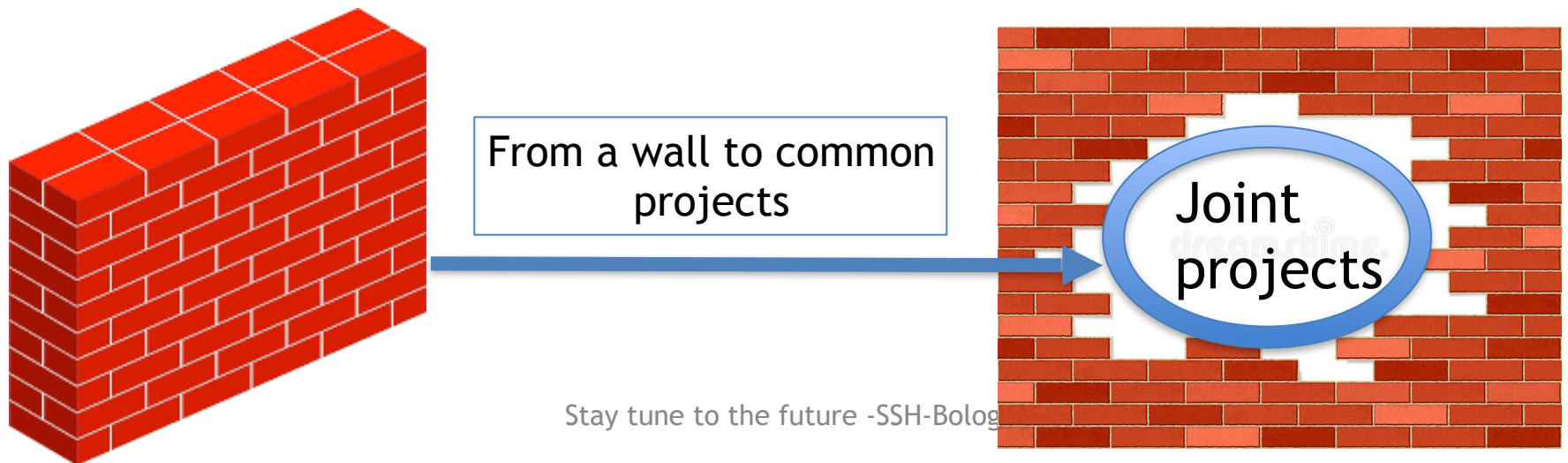
- Lack of knowledge of the other Communities
- Lack of common language

My personal view (8)

- What should we do?
 - ✓ Establish links between the 2 communities
 - ✓ Understand the methodologies (*e.g. a question from a physicist: how reliable is the results from focus groups?*) and languages of each communities
 - ✓ Organise common projects AND accept the results even if the SSH results are different from what the technological teams expect

My personal view (9)

- Difficulties
 - ✓ We do not know the other community
 - ✓ We do not have common language
- Could ESFRI projects be the starting point?



Conclusion

- In the future the energy sector will require innovation
- R&D and Society must be partners to avoid downstream rejection of projects by the Society
- My plea is that the “Hard Science” Community and the SSH one get together to know each other and to establish joint projects
- In view of the future Global Challenges, we need this approach

- Thank you for your attention
- I would be glad to discuss the topic with any interested SSH researchers
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