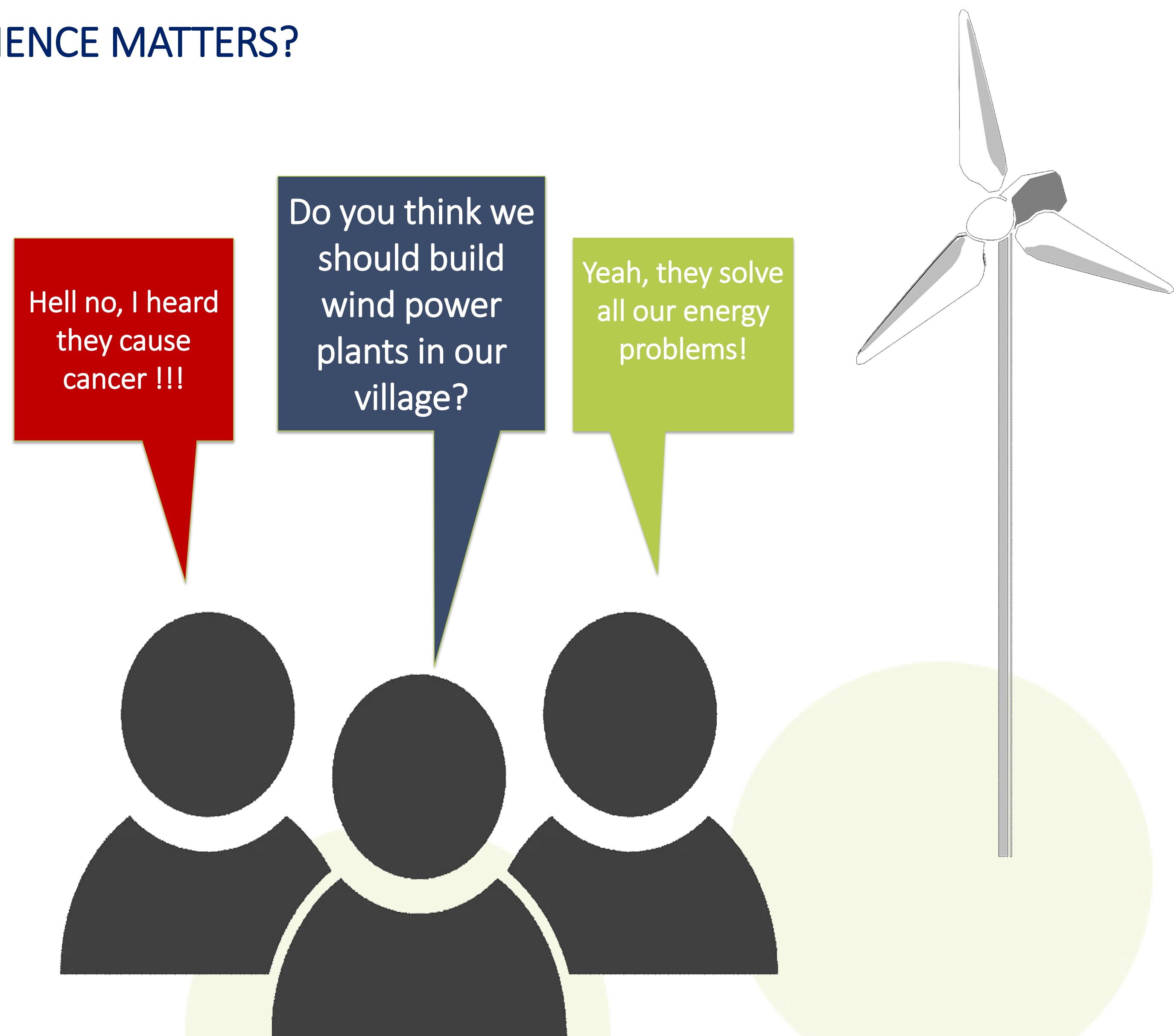


IO1: THE NATURE OF ENVIRONMENTAL SOCIO-SCIENTIFIC ISSUES

SCIENCE MATTERS?



AIMS OF SCIENCE AND MATHS EDUCATION IN EUROPE

The European Commission acknowledged the importance of mathematics and science education by making mathematical competence and competence in science, technology and engineering one of eight key competences. For each of these key competences not only knowledge but also skills and attitudes are considered to be important. The skills include

- critical reflection
- understanding inquiry-processes
- decision-making based on scientific evidence

SOCIO-SCIENTIFIC ISSUES (SSI)

Problems, as the wind power plant question, are called *Socio-Scientific Issues (SSIs)*. Socio Scientific questions are characterized as follows:

- Have a basis in science
- Require people to engage in dialogue, discussion, and debate.
- They are mainly controversial in nature.
- They require forming opinions and making decisions including moral, ethical or social reasoning issues



SSI'S IN MATHS AND SCIENCE EDUCATION

SSI's can be used in class

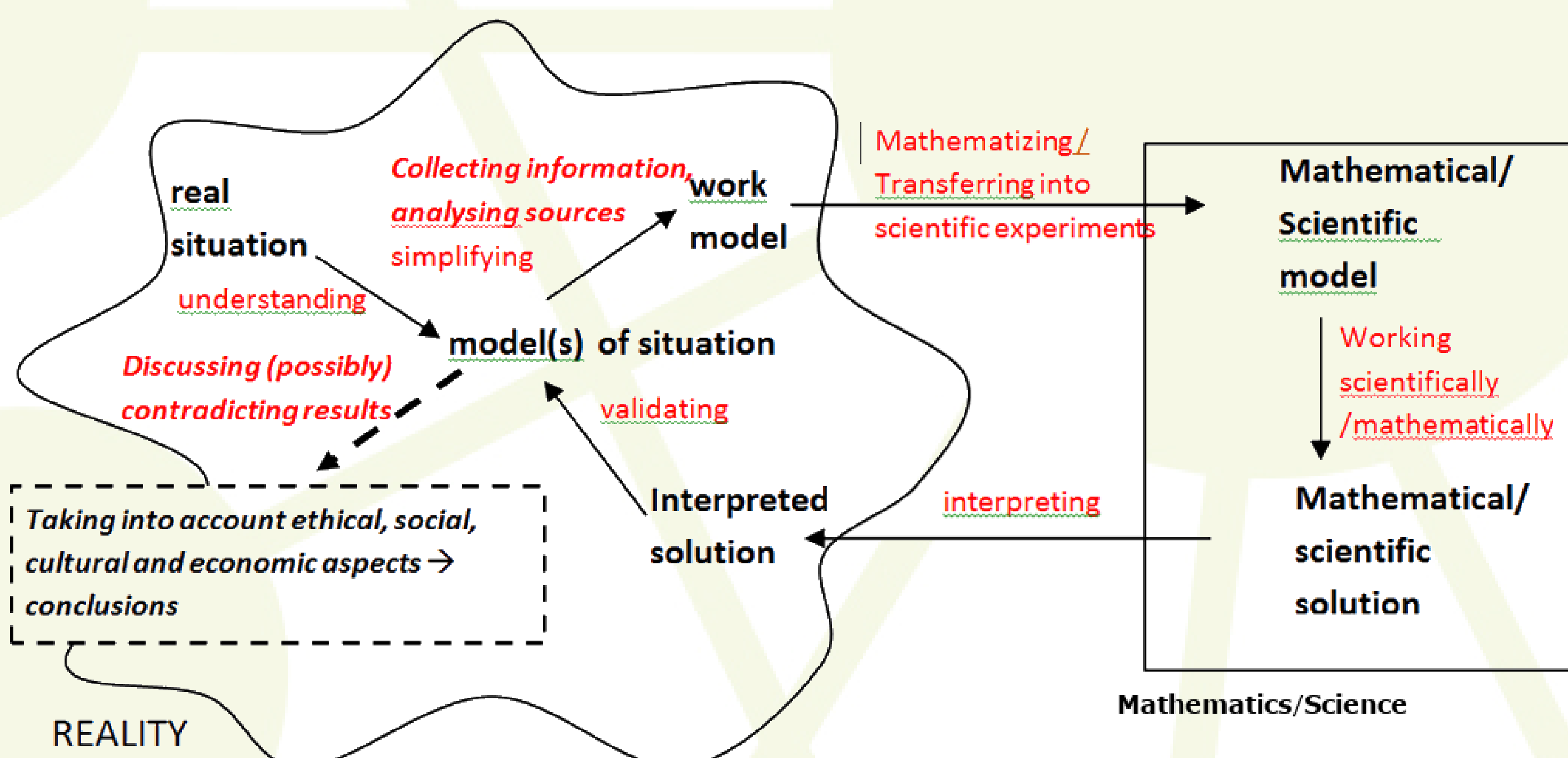
- as contexts for learning scientific content
- for understanding the nature of science
- for citizenship education

Important aspects when dealing with SSIs are:

- recognizing the inherent complexity of SSIs,
- examining issues from multiple perspectives,
- appreciating that SSIs are subject to ongoing inquiry,
- exhibiting skepticism when presented with potentially biased information.

DEALING WITH SOCIO-SCIENTIFIC ISSUES!

Maass, Doorman, Jonker, Wijers (2019)



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