



## **Multi-disciplinary interoperability challenges (Ian McHarg Medal Lecture)**

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Global sustainability research requires multi-disciplinary efforts to address the key research challenges to increase our understanding of the complex relationships between environment and society.

For this reason dependence on ICT systems interoperability is rapidly growing but, despite some relevant technological improvement is observed, in practice operational interoperable solutions are still lacking.

Among the causes is the absence of a generally accepted definition of “interoperability” in all its broader aspects. In fact the concept of interoperability is just a concept and the more popular definitions are not addressing all challenges to realize operational interoperable solutions.

The problem become even more complex when multi-disciplinary interoperability is required because in that case solutions for interoperability of different interoperable solution should be envisaged.

In this lecture the following definition will be used: “interoperability is the ability to exchange information and to use it”.

In the lecture the main challenges for addressing multi-disciplinary interoperability will be presented and a set of proposed approaches/solutions shortly introduced.