

TRAINING ON INNOVATION

NOVEMBER 25TH- 27TH 2015, NAPLES - ITALY

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MIDDLE EAST
RESEARCH AND INNOVATION
INITIATIVE



Training on Innovation

Date: 25-27 November 2015

Naples

*Innovation system and sustainability
(definition of sustainability and types of
innovation)*

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Summary

- Why is Innovation so important? A driver to economic and social growth, impact on employability.
- Research and Development VS Innovation
- Innovation and sustainability
- The different types of Innovation
- From research to innovation
- Conclusions



Research and Development VS Innovation

A few definitions

- **Research and Development**
 - **Basic, long term R&D: developing new knowledge in Science and Technology,**
 - **Applied R&D: developing new Knowledge leading to prototypes of new products, services and processes at precompetitive stage (i.e. further investment needed to bring them to the market.**
- **Innovation:**
 - **Bringing R&D results to the market. Issues:**
 - **Protection of Knowledge (Patents, copyright and IPR in general)**
 - **Deployment (pilots, in field tests)**
 - **Financial support (seed capital, venture capital, equity...)**
 - **Technology transfer (from R&D results to SMEs)**



Research and Development VS Innovation

A few definitions

The difference between

Technology (e.g. WIFI)

And

Application (Electronic Healthcare Record)

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Why is Innovation so important? A driver to economic and social growth, impact on employability.

- **Properly designed innovation support programmes can lead to:**
 - **Developing, implementing, testing new products/processes/services**
 - **Developing new social processes**
 - **Promote entrepreneurship, company creation**
 - **In summary, foster EMPLOYABILITY**



From research to innovation

- R&D activities must lead at some point in time to concrete usage of results
- Exploitation and sustainability are key factors AND evaluation criteria for EC
- Innovation in its own needs further support, but Public Funding can not support product development

This impediment is the reason why most Eu programmes require:

Co-financing

Dissemination



From research to innovation

- **Innovation content of projects needs:**
 - **Sound consortium building (industries AND CSO)**
 - **Elaboration of project Idea with exploitation in mind**
 - **Protection of Knowledge and IPR from the very beginning**
 - **External funding from private organisations.**



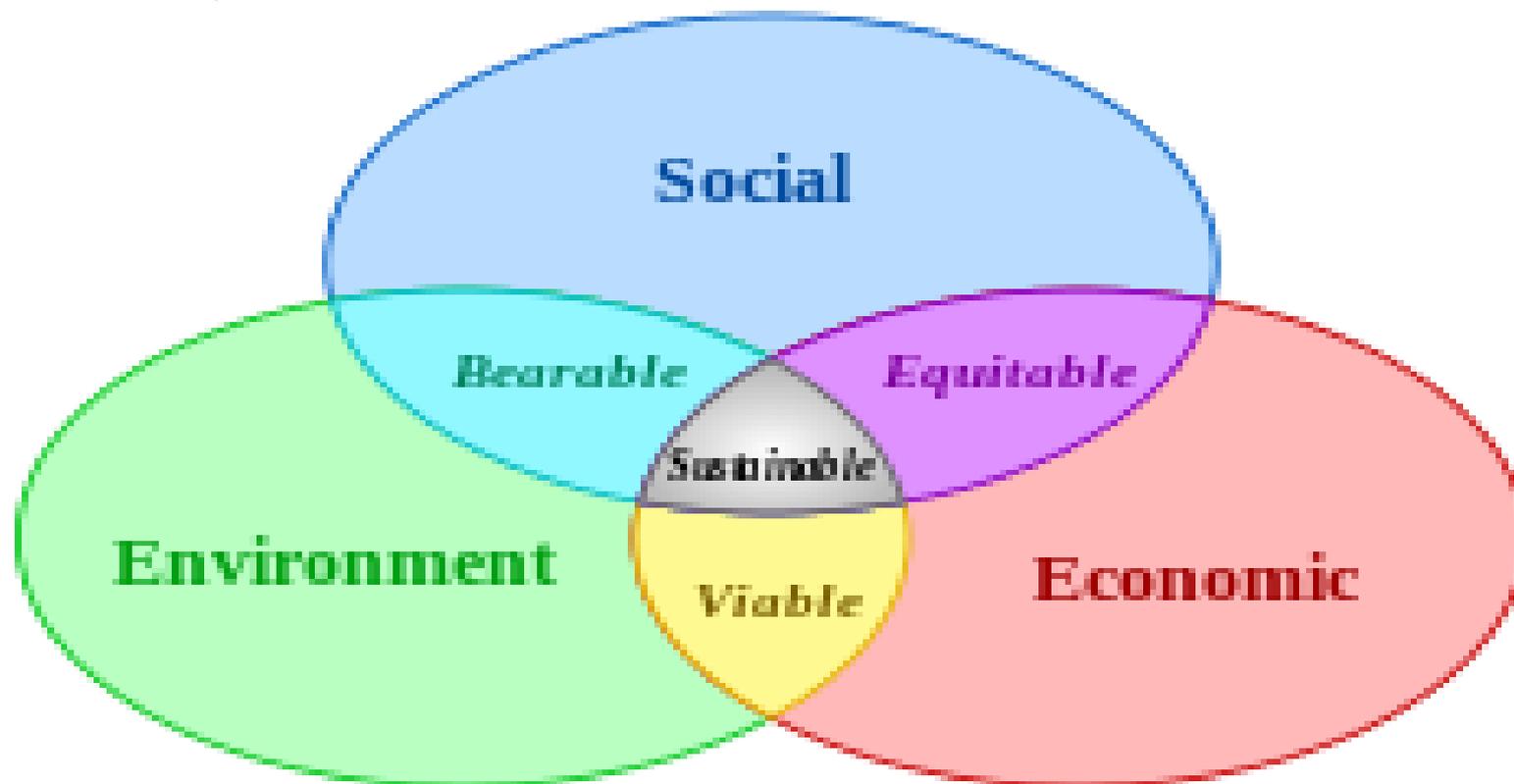
Innovation and sustainability

- Definition(s) of sustainability



- Sustainability definition
- *Sustainability* is the ability to continue a defined behavior indefinitely.
- For more practical detail the behavior you wish to continue indefinitely must be defined. For example:
- Environmental sustainability is the ability to maintain rates of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be continued indefinitely.
- Economic sustainability is the ability to support a defined level of economic production indefinitely.
- Social sustainability is the ability of a social system, such as a country, to function at a defined level of social well being indefinitely.

Sustainability



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Sustainable development definition (Brundtland, 1987)

- ***Sustainable development*** is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:
 - The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
 - The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

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Sustainability VS Innovation.

Main Concept:

The level of innovation brought to a developing country must be compatible with the sustainability dimension as regards the future years

This is not only a technological issue but also an organizational and social one

Example:

Digging a well, Spare parts, work to do, “Unemployment”

Renewable energy supply, maintenance



Sustainability VS Innovation.

How to demonstrate the sustainability of an innovative intervention?

Economic sustainability: the intervention generates the resources and skills needed to keep it alive (important issue; credibility of approach)

Environmental sustainability: the intervention does not have negative impacts on the environment or in the best case it has positive effects (e.g.: waste reuse for energy production)

Social Sustainability: no negative or positive impact on employment (mid- and long term)

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- The different types of Innovation
- Technological Innovation
- Process innovation
- Product innovation
- Social innovation:



- **Social innovations**
- are new strategies, concepts, ideas and organizations that meet the social needs of different elements which can be from working conditions and education to community development and health — they extend and strengthen civil society. Social innovation includes the social processes of innovation, such as open source methods and techniques and also the innovations which have a social purpose — like online volunteering, microcredit, or distance learning.
- Other examples:
 - Flexicurity
 - Social agriculture



- The concept of OPEN INNOVATION
 - Open Innovation can be described as: combining internal and external ideas as well as internal and external paths to market to advance the development of new technologies.
- This implies the involvement of a very wide range of actors In the implementation of Innovation actions, beyond the traditional ones (R&D institutions, academia, Industry):
 - Civil society organizations
 - Public administrations
 - Non profit associations....



- The Helix paradigms
- The Triple Helix innovation model focuses on university-industry-government relations.
- The Quadruple Helix embeds the Triple Helix by adding as a fourth helix the ‘media-based and culture-based public’ and ‘civil society’.
- The Quintuple Helix innovation model is even broader and more comprehensive by contextualizing the Quadruple Helix and by additionally adding the helix (and perspective) of the ‘natural environments of society’.

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- Different schemes for supporting innovation.
- Publicly funded programmes: eg
 - H2020
 - Cosme (indirect funding)
 - National schemes (eg. In Italy)
 - Pasri (Tunisia)
 - Srted (Jordan)
 - RDI (Egypt)
- Academia-industry cooperation
 - Incubators: pros and cons
 - Startups, Spin-offs
 - Science parks
 - Technology Transfer

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- Any questions?
- Thank you!
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