

Industrial innovation and environmental protection are incompatible?



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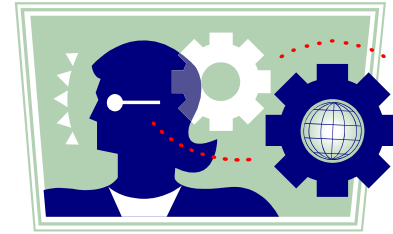


Overview



1. Innovation and technological innovation
2. Innovation and environmental protection - a priority of European policy
3. Environment protection and Technology Innovation:
A win-win story in Romania?

“Everything starts with clever people”



«Innovation is everywhere ... a driver for growth» (1)

What is the INNOVATION?

- Is it a New Idea?
- Is it a New Concept?
- Is it a Patent ?
- Is it a Solution? **When does it occur ?**
- While responding to an identified need?
- While doing Fundamental Research? Applied?

CREATIVITY INNOVATION = CREATIVITY + VALUE (Recognized by a Market) (2)

(1) 2003 Erkki Liikanen (commissaire européen chargé des entreprises et la société de l'information) dans Communication on Innovation Policy;

(2) Hauschildt, J. and Salomo, S. Innovationsmanagement. München. (2007);

(3) Chesbrough, E. B. Managing invention and innovation. Research-Technology Management, (2007). 50 (1): 35-54.

Technology place in innovation

1. there is no recipe for success applicable to any situation
2. Technologie + business model + market = catalyseur de l'innovation (1)

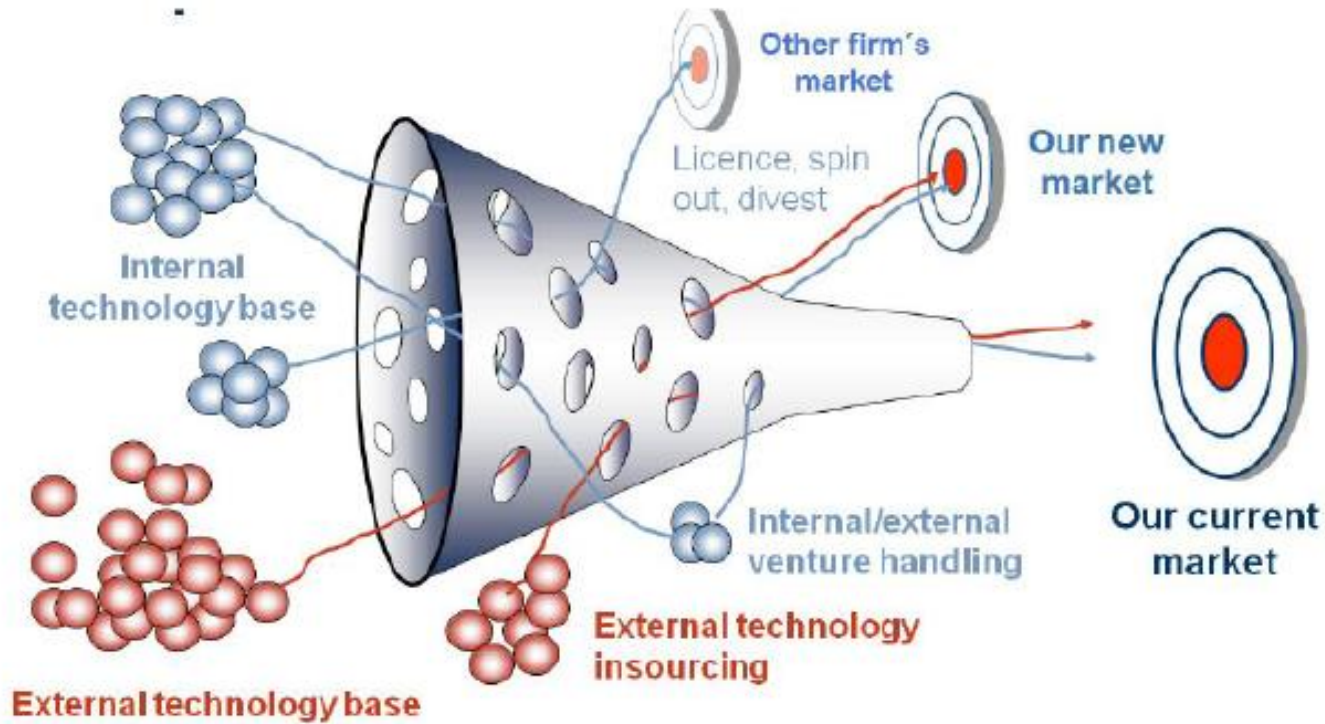
Change the game

«Innovation has nothing to do with how much R&D dollars you have. When Apple came up with Mac, IBM was spending at least 100 times more in R&D. It's not about money, It's about the **people** you have, how you're **led**, and how much you get it ». *Steve Jobs*

OPEN INNOVATION (2)

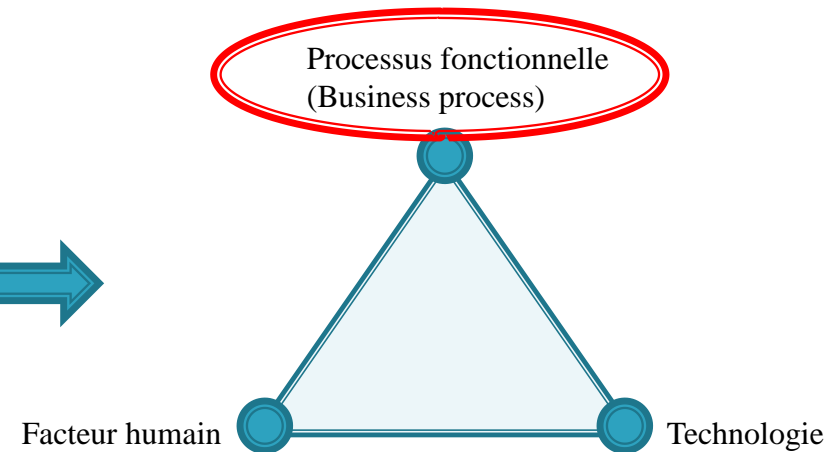
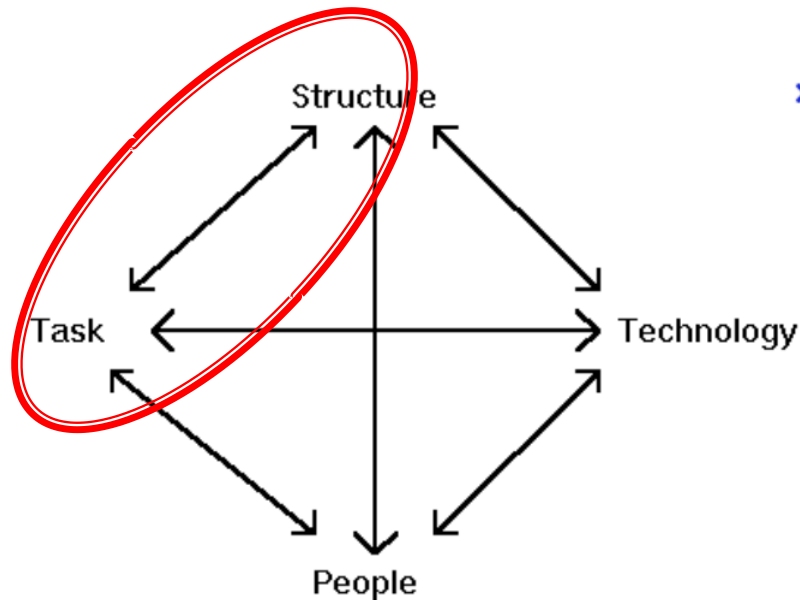
(1)Expanding the Innovation Horizon, THE IBM GLOBAL CEO STUDY 2006 © Copyright IBM Corporation, IBM Global Services Route 100 Somers, NY 10589 U.S.A. Produced in the United States of America 03-06 All Rights Reserved;
(2) Chesbrough, H. (2006), Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press, Boston, Massachusetts

Open Innovation Models



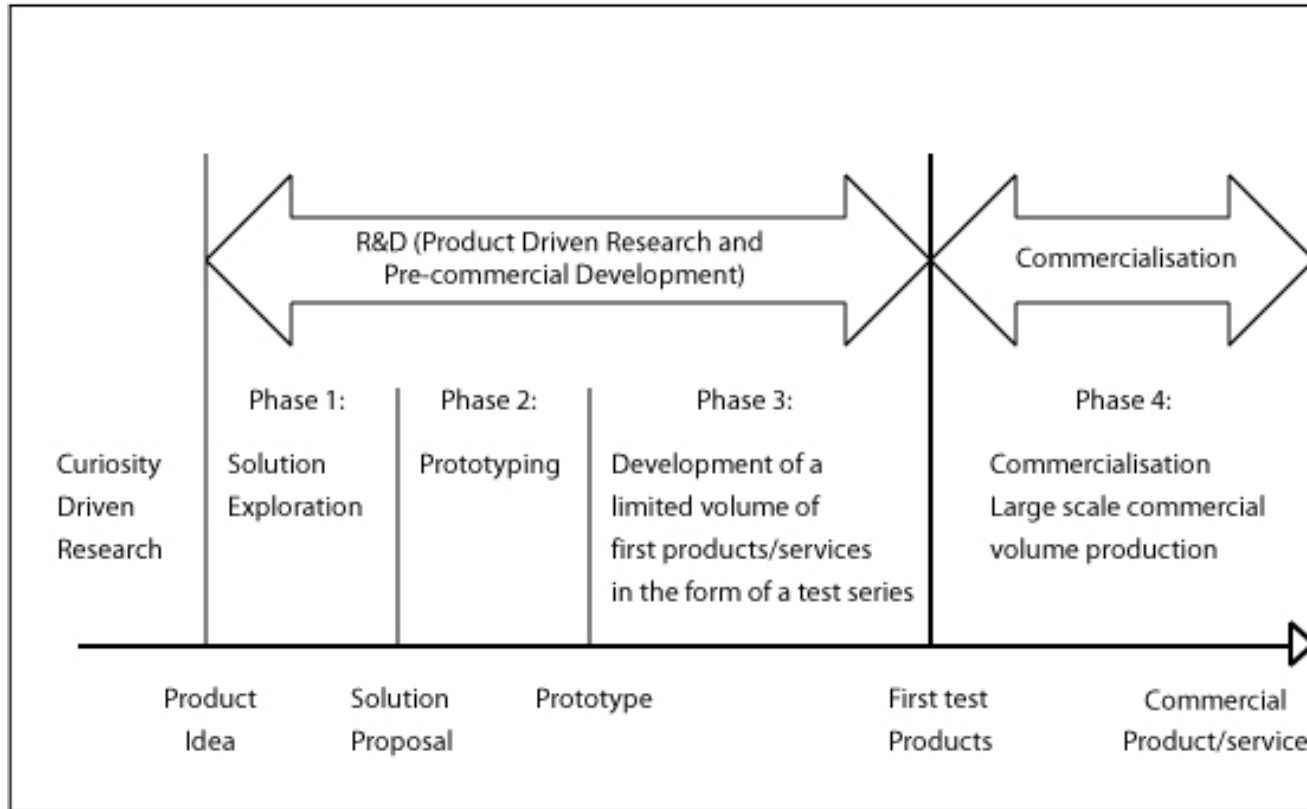
Technology place in innovation

Leavitt's Model



Now days

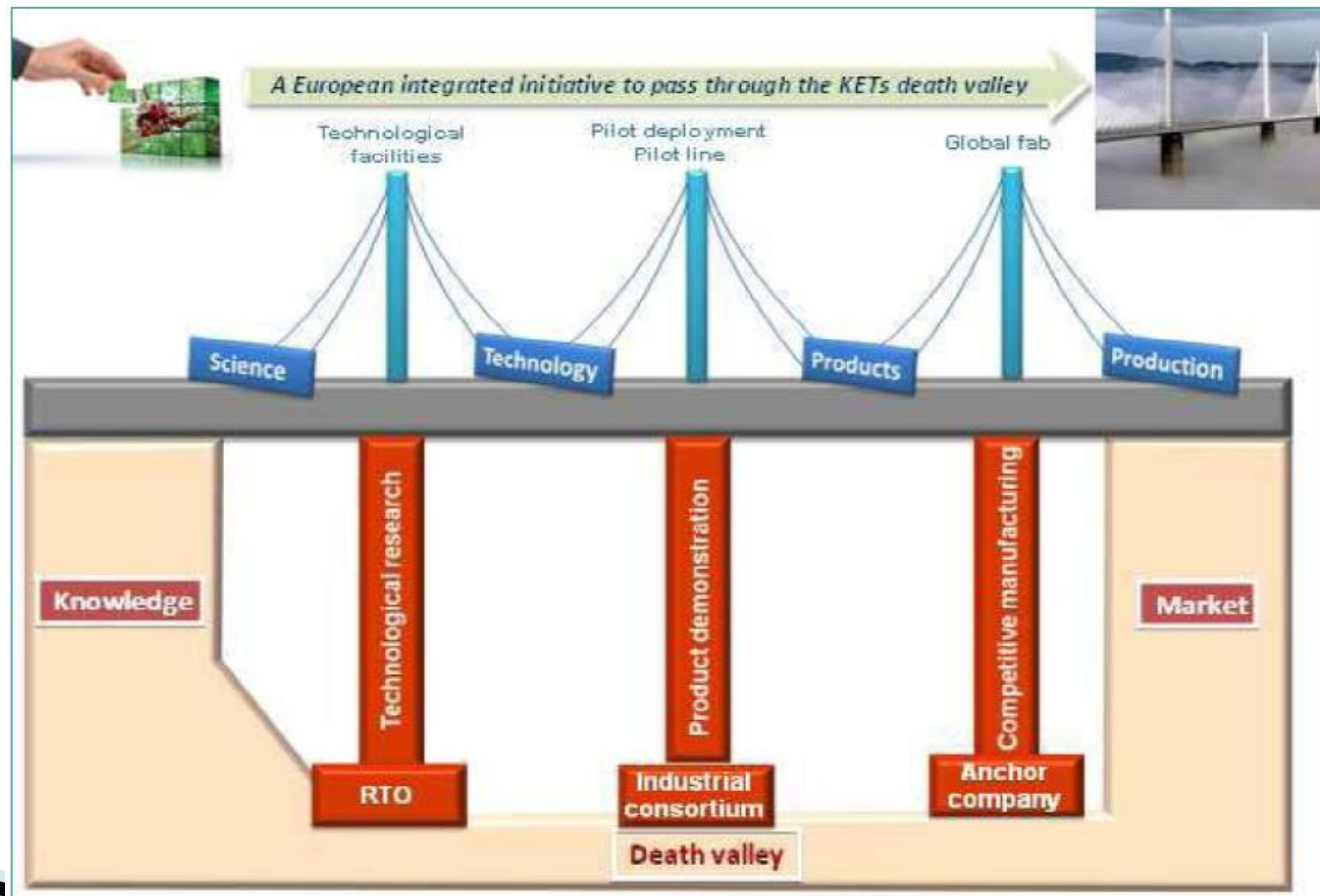
Innovation theoretical timing



Innovation – a priority of European policy

Competitiveness

Innovation is our best means to help put the European economy back on track and tackle societal challenges in the global economy



Conference « Research and Innovation », 2012 Romania


Translate-
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CONFERINȚA NAȚIONALĂ A CERCETĂRII ȘI INOVĂRII

Conferința Națională a Cercetării și Inovării 2012
București, 21-23 iunie 2012
Rolul cercetării și inovării în societatea modernă

Prezentare Program Multimedia Contact

Conducerea A.N.C.S. a decis amânarea Conferinței Naționale a Cercetării și Inovării CNCI pentru luna octombrie 2012. Vă informăm că perioada exactă de desfășurare a CNCI 2012 va fi comunicată cu cel puțin 30 de zile înainte. Între timp, în data de 2 iulie 2012, va avea loc o reuniune pregătitoare pentru a se elabora documentele de lucru ale CNCI 2012.




Vă multumim!

Autoritatea Națională pentru Cercetare Științifică organizează prima Conferință Națională a Cercetării și Inovării din România – CNCI 2012. Tematica evenimentului se centrează pe Rolul cercetării și inovării în societatea modernă, cu obiectivul declarat de a evalua starea cercetării științifice actuale și de a-i spori contribuția la modernizarea României. Conferința își propune să definească termenii de referință pentru viitoarea Strategie Națională de Cercetare - Dezvoltare - Inovare, precum și a Planului Național de Cercetare, Dezvoltare și Inovare 2014-2020, în concordanță cu prioritățile Guvernului României și în complementaritate și sinergie cu cele definite de Uniunea Europeană.




Obiectivul transversal al evenimentului este acela de a poziționa strategic știința și tehnologia – ca motor al creșterii competitivității economice - pe agenda instituțională și publică a României, inclusiv în contextul inițiativei emblematică "Uniunea Inovării", în cadrul Strategiei Europa 2020.

La Conferința Națională a Cercetării și Inovării 2012 urmează să participe peste 450 de manageri de cercetare din mediul public și privat, academicieni, rectori, cercetători științifici din România și înalți oficiali ai Comisiei Europene, dar și reprezentanți ai mediului de afaceri și ai industriei din țara noastră.



Guvernul României - Ministerul Educației și Cercetării
Autoritatea Națională pentru Cercetare Științifică - 2012
www.anca.ro

Key environmental challenges: trends and projections without new policies

	 Red Light	 Yellow Light	 Green Light
Climate change	<ul style="list-style-type: none"> • Growing GHG emissions (especially energy-related CO₂); growing atmospheric concentrations of GHGs. • Increasing evidence of a changing climate and its effects. • Copenhagen/Cancun pledges fall short of a cost-efficient 2 °C pathway 	<ul style="list-style-type: none"> • Declining GHG emissions per unit of GDP (relative decoupling) in OECD and BRIICS. • Declining CO₂ emissions from land use change (mainly deforestation) in OECD and BRIICS. • Adaptation strategies being developed in many countries but not yet widely implemented. 	
Biodiversity	<ul style="list-style-type: none"> • Continued loss of biodiversity from growing pressures (e.g. land use change and climate change). • Steady decrease in primary (virgin) forest area. • Over-exploitation or depletion of fish stocks. • Invasion by alien species. 	<ul style="list-style-type: none"> • Protected area expansion, but under-representation of certain biomes and marine protected areas. • Forest area expanding mainly due to afforestation (e.g. plantations); deforestation rates slowing but still high. 	<ul style="list-style-type: none"> • Progress under the Convention on Biological Diversity in 2010 on the Strategic Plan for Biodiversity 2011-2020 and the Nagoya Protocol.
Water	<ul style="list-style-type: none"> • Increase in the number of people living in river basins under severe water stress. • Increase in groundwater pollution and depletion. • Deterioration of surface water quality in non-OECD countries; 	<ul style="list-style-type: none"> • Increase in water demand and competition among users, and need to reallocate water among users. • Increase in number of people at risk from floods. 	<ul style="list-style-type: none"> • Decrease in point-source water pollution in OECD countries (from industry, municipalities). • MDG on access to an improved water source likely to be met in BRICS

Organisation for Economic Co-operation and Development (OECD)

EU Strategy for the Danube Region

The **Danube Region** is a **major international hydrological basin and ecological corridor**. The Region is one interrelated and interdependent ecosystem, incorporating a **rich and unique flora and fauna**. It is diverse, including not only the river Danube, its tributaries, lowlands and the remarkable delta, but also the major part of the Carpathian Mountains, the Balkans and part of the Alps.

However, the **biodiversity and variety of ecosystems are being gradually reduced**. Species and living spaces, wetlands and floodplain areas are disappearing. Major problems such as untreated sewage and fertiliser and soil run-off make the Danube highly polluted. In addition, deforestation, land and air pollution increase.

The Danube Region is also facing growing environmental risks related to the increased frequency of **extreme weather phenomena and global climate change**. The frequency and severity of floods on the one hand, but also of storms, erosion, icing and water scarcity on the other hand, are likely to present major challenges in the coming years.

Scientific input in the form of data compilation, monitoring and foresight studies will be crucial to address these challenges and to better anticipate future problems.

Solutions?

- 1. Create economic growth together with sustaining natural protecting environment**
- 2. Economical growth in a environmental sustanable green way**

(Michael Koplovsky, Economic Counselor at the U.S. Mission to the OECD, stresses the importance of pursuing environmental sustainability and economic growth together on the margins of the OECD Environment Ministers Meeting "Making Green Growth Deliver," March 29-30, 2012)

- 1. Increased agricultural productivity, output, and resource efficiency**
- 2. Innovation in support of the bio-based economy**
- 3. Biodiversity, Ecosystem services, and soil functionality**
- 4. Innovative products and services for the integrated supply chain**

Brussels, 29.2.2012 COM(2012) COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the European Innovation Partnership 'Agricultural Productivity and Sustainability'

How to do it!

- ▶ integrative research (including societal issues);
- ▶ understand, what are the drivers of the

- loss of biodiversity

energy security

- change in the degradation of ecosystem services

human security

climate change–biodiversity

water security

Biodiversity–food security

Environment protection and Technology Innovation

Technology, a substitute for biodiversity?
Biodiversity Research is not anti-technology.
There is a role for technology for fixing some of the problems that we face today, but it's not a total role.

(Dr Robert Scholes, Chair of GEOBON Scientific Committee and Council for Scientific and Industrial Research, South Africa)

What we need to do now is to continue pursue the **technological breakthroughs**, but at the same time, we need to somehow, cap, at an absolute level, how far we can allow the increase in use of **ecological space**, and we've never done that. There is this schizophrenic perception about technology which is, I think something that we need to recognize, that it's good and bad. And somehow we need to make it good and good.

(Dr Johan Rockström, Executive Director of the Stockholm Resilience Centre and the Stockholm Environment Institute, Sweden)

Keeping a forest healthy will keep water-sheds healthy and supply water to cities; when those forests are available. Beijing has done that, New-York has done that, so let's go for the **nature-based solutions** when it's possible. If of course it's not possible, **technological solutions are also an option**. But up until now, we haven't really put the nature-based solutions on the table.

(Ms. Julia Marton-Lefèvre, Director General of the International Union for Conservation of Nature (IUCN), Switzerland)

Environment protection and Technology Innovation: A win-win story in Romania?



Environment protection and Technology

Innovation: A win-win story in Romania?

Delta is the interface, it collects everything that comes from Europe and turn everything coming from Europe in sediment



Sludge and algae from the Black Sea will be used as fertilizer

NIVA - Norway , "Ovidius" University
Constanta, Polytechnic University of Bucharest
and Constanta ECOM

NIVA: Norwegian Institute for Water Research
ECOM : Asociația de Protejarea a Omului și
Mediului pentru o Dezvoltare Durabilă în Lum

Biofuel from algae?



Environment protection and Technology Innovation: A win-win story in Romania?

Black Sea – water source



Capitalization and bring to light existing inventions and patents → improvement

Goustave Eiffel „, Young man, you were born 50 years before your generation!”.



10 january 1954, Radar

<http://www.jet100.com/>

Environment protection and Technology Innovation: A win-win story in Romania?



Une technopole pour
accueillir et accompagner
les activités technologiques

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Mehdi Hadj-Abed, l'inventeur d'une machine solaire à dessaler l'eau de mer.

ENVIRONNEMENT 0 COMMENTES

Energie renouvelable

Une équipe de l'IUT malouin dessale l'eau de mer avec l'énergie solaire

lundi 22 août 2011



Environment protection and Technology Innovation: A win-win story in Romania?



Innovative solution for the production of drinking water (ad 2011)

National Research and Development Institute for Electrical Engineering ICPE-CA

<http://www.ghidelectric.ro/stire-1211-Solutie-inovativa-de-producere-a-apei-potabile.html>



Houseboat on the Danube

12 Sep 2012

<http://www.antena3.ro/romania/a-avut-un-vis-si-l-a-transformat-in-realitate-romanul-care-locuieste-pe-apa-183726.html>

THINK TANK COMPETITION ON INNOVATION?



Thank you for your attention!

