Copenhagen Business School

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CBS Performance: 1. Year

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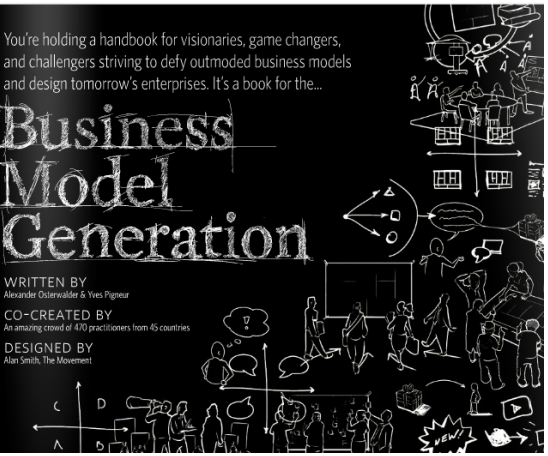
CBS: DENMARK-BRAZIL:
7 persons, 14 months, 3 reports

Business and Innovation Opportunities for Danish SME's in the Waste and Clean Technology Industry of Rio de Janeiro, Brazil



Opportunities for Business Model Innovation in Curitiba (Brazil) for Danish SME's within the Biotechnology Industry

Sustainable Construction in Brazil

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Roadmap for Innovation and Entrepreneurship (ver 0.0)

Philosophy	Systems Thinking	Our Credo	Methodology
Pragmatics	Imple-menting	Co-Creating	• ICT for Design, Innovation and Entrepreneurship • Strategy as Guiding Principles for Action
Ethics (Progress)	Improve-ment	Value	• Value Network Analysis • Knowledge-/Fitness Landscapes
Ontology	Social Reality	Partnering	• PentaHelix Model • Knowledge Based Communities of Practice
Episte-mology	Best available method of inquiry	Inquiring Systems	• Generative Themes in Transformative Learning • Social Learning Cycles and Narra-tives as Knowledge Enabling

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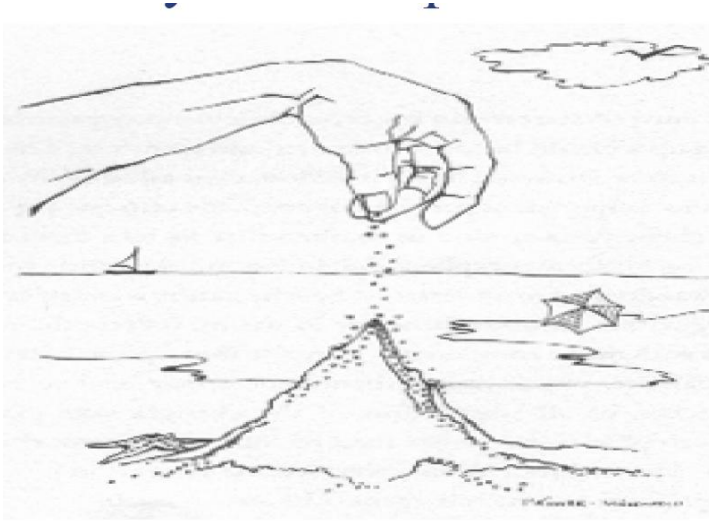
Roadmap for Innovation and Entrepreneurship (ver.1)

- Penta Helix Model
- Knowledge Based Communities of Practice
- Transformative Learning, Generative Themes
- Narratives, Social Learning Curve
- Value Network Analysis
- Knowledge Landscapes, Fitness Landscapes
- ICT, design, innovation, entrepreneurskab
- Guiding Principles for Action: local, regional development



Roadmap for Innovation and Entrepreneurship

(current version)

- Frame of understanding (philosophy)
- Penta Helix Model
- Knowledge Based Communities of Practice
- Transformative Learning, Generative Themes
- Narratives, Social Learning Curve
- Social and Value Network Analysis
- Knowledge Landscapes, Fitness Landscapes (Big Data)
- Design, Business Modeling, Innovation, Entrepreneurship
- Project-Port-Folio – Strategy as guiding principle: local regional, national, smarter more inclusive and sustainable society)
- Action

CBS Performance: Tasks Ahead

Task 1.

Mapping of technologies in EU that are able to handle challenges from ceramic filters and membranes.

CBS contribution: Visualizing through knowledge landscapes and Networks of companies and persons.

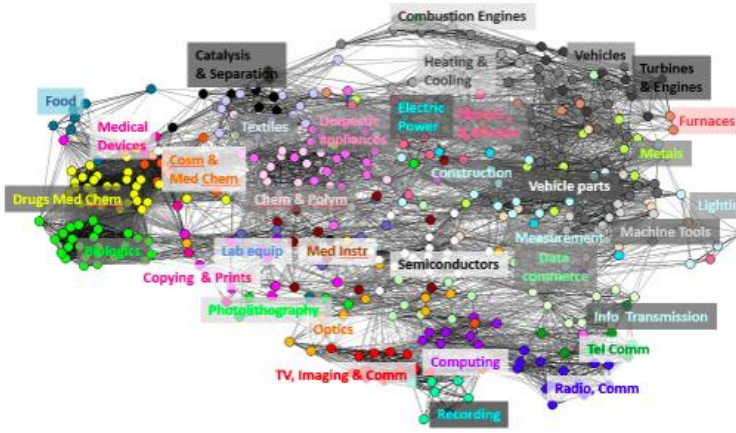
PRECONDITION: Partners deliver data

Based on: Sub-task 2.1.2: Environment (CBS, ADRAM): Focused on ceramic filters and membranes used to remove pollutants from aqueous waste streams in water treatment contaminants from gaseous emissions, as in diesel engines and fossi

Manufacture of MACs using minerals that tend to be radiologically and prospect of waste disposal problems. Emerging applications in wind t

Who, what, when?

- **Contribution to Deliverable: Not specified**



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CBS Performance: Tasks Ahead

Task 2.

Develop and qualify systemic methodologies and tools for Co-operative Innovation.

- **Based on: Task 2.2. Develop and qualify methods and techniques in co-creating innovation (CBS, UNLu, ADRAM) based on local and regional community building to identify the eight interrelated actors: (1) The PentaHelix Model; (2) Knowledge Based Communities of Practice; (3) Value Network Analysis for Innovation Potentials; (4) Generative Themes in Transformative Learning, (5) Social Learning and Narratives as Knowledge Enabling; (6) Knowledge and Fitness Landscapes; (7) ICT for Design, Innovation and Entrepreneurship; (8) Strategy as Guiding Principles for Action. Such methods and techniques will be applied on the context of EU-LA countries concerning the potential of the identified sectors.**
- **CBS workshop for partners to be held in project year 2 and 3. DATE? PLACE?**
- **Contribution to Deliverable: D2.1 Methods for co-creating innovation on MACs applied to environment, health and aeronautics (Deadline: M24)**

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CBS Performance: Tasks Ahead

Task 3.

Development and qualification of the Penta Helix model for actor participation in praxis in the potentials in society of ceramic materials

- **Based on TASK 2.3: Road map from idea generation and conceptualization to development (CERCAL, UNLu, CBS, ADRAM, SENAI) of more effective MACs, through the exchange of knowledge, capital and labor on a cross-disciplinary, cross-institutional and cross-cultural in co-operation between Companies, Citizens, Humanities, Natural sciences, NGO's, Public Institutions and Social sciences. Use and evaluation of the Penta Helix Model based methodology.**
- **CBS workshop for partners to be held in project year 2 and 3.**
- **Contribution to Deliverable: D2.2 Road map to speed up the process from idea generation to implementation of MACs in the addressed sectors (Deadline: M36)**

CBS Performance: Tasks Ahead

Task 4.

Evaluation of advanced ceramic materials importance (impact) in society (potential employment, start-ups, sustainable development, cf. EU's smarter, more inclusive and sustainable society/Horizon2020).

The evaluation shall be based on literature in combination with knowledge from relevant actors.

Based on TASK 3.1: Evaluation of the impact of advanced ceramic materials expressed in research publications and economic terms (CERCAL, ADRAM, CBS) through bibliographic consultations (science, technology and economy), internet facilities, consultations with national chambers of industry, AR-BR-CL industrial associations, Eurochamber, NETs, international programmes (EC and others), OECD reports etc. Who, what, when?

- **Contribution toDeliverable: D3.1 Report of socioeconomic and environmental impact of MACs in EU-LA (Deadline M18)**

CBS Performance: Tasks Ahead

Task 5: As in task 4.

But with a cultural twist, discussing how mutual trust may enhance understanding among the actors participation in the development of nano-technologies

- **Based on Sub-task 3.1.2: In the EU (E, BE, DK and SW) (CERCAL & CBS) However the economical, social and environmental context would be different in EU, the questions raised and the methodology in this subtask will be similar to the previous one. Who, what, when?**

- **Contribution to Deliverable: D3.1 Report of socioeconomic**
- **and environmental impact of MACs in EU-LA (Deadline M18)**

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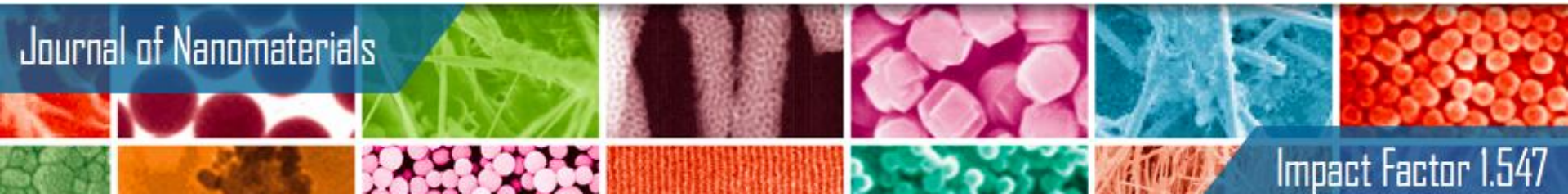
CBS Performance: Tasks Ahead

TASK 6:

SWOT analysis of the ceramic industry with focus on nano-ceramical materials

- **Based on TASK 3.2: SWOT Analysis and Employment in the advanced ceramic sector (ICMAB-CSIC, UAB, UNLu, ADRAM). The SWOT analysis will be introducing the socio-economic dimension for AR, BR and CL, as well as the partners of the EU and other relevant EU27 countries with strong industry in MAC, like Germany, France, Italy or UK.)**
- **+ Sub-task 3.2.3: Accurate SWOT analysis for the private sector and the Academia (ADRAM, CBS), regarding the competitive position of the EU-LA ceramics sector as a platform for discussing strategic options to meet the identified challenges. The four dimensions of SWOT will provide a framework for conducting a structured analysis of the competitive situation of the EU-LA ceramics sector.**

- **Contribution to Deliverable: D3.2 SWOT of the competitive position of EU-LA MACs sector (Deadline: M20)**



CBS Performance: Tasks Ahead

Task 7:

Mapping of employment in LA and EU (Denmark) in nano-ceramical materials industry

- Based on Sub-task 3.2.1: Mapping of employments in LA (AR, BR and CL) and EU (E, SW, BE, and DK) (CBS, ADRAM, SENAI) related to MACs and reveal relationships with other related domains of interest such us environment, health and aeronautics and their integration. Such sub task will be performed by the appropriate software. Subsequently an analysis of job distribution between SMEs and Large Enteprises will be performed. The analyses will focus specifically on the regions, which already have competences in ceramic technologies. The differences in terms of flexibility, qualitative and quantitative resources between SMEs and Large Enterprises would be stressed out. A study on their capacities to cope with a new technology and the fact of already dealing with the traditional ceramic production.

- Contribution to Deliverable: D3.2 SWOT of the competitive position of EU-LA MACs sector
- (Deadline: M20) + D3.3 Action and business plan on EU-LA MACs sector (Deadline: M44)

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CBS Performance: Tasks Ahead

Task 8:

Transfer of knowledge on EU-LA collaboration in general and in Nano-Sciences

- Based on TASK 4.3: Impacts for the EC Agreements in Science and Technology (All partners): In each agreement nano-sciences, nanotechnology and materials are included like important sectors for bilateral cooperation, as well as innovation and collaboration Academia-Industry. Training, Education and Technology Transfer are others important points in the 3 EU-LA agreements. All this points and activities are included in this proposal, including exchanges of researchers, technicians and administrative staff. In general the specific agreements EU-Third Countries in S&T are not well known by the scientist.)

- Bidrag til deliverable: D4.1 Strategic plan for future cooperation and bilateral cooperation in FP7&FP8 with significant impact on ERA and EC agreements (Deadline M18) + D4.2 Workshops on nanotechnology, ceramics, applications and relationships academia & industry. (Deadline M40) + D4.3 Reports on impact to academia, private sector and civil society and related regional development of the R&D in MACs. (Deadline M42)

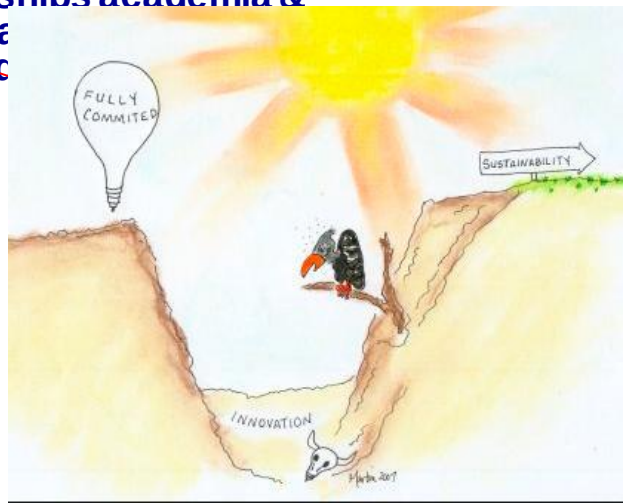
CBS Performance: Tasks Ahead

Task 9:

Transfer of knowledge on EU-LA collaboration between private sector and universities (overcomming the Valley of Death in nano-science)

- Based on TASK 4.5: Impacts to the private sector (SENAI, ADRAM and CBS): The previous studies carried out in 2008 and 2010 (CREST- Brazil Case study and Agreement on S&T between Mexico and the EU) shows important needs in S&T for the private sector and lack of fluid cooperation with the academia in order to solve the needs from the industry. For this reason SENAI (Servicio Nacional de Apredizaje Industrial) will report the relationships between academia-enterprises in the ceramic sector.

- Bidrag til deliverable: D4.1 Strategic plan for future cooperation and bilateral cooperation in FP7&FP8 with significant impact on ERA and EC agreements (Deadline M18) + D4.2 Workshops on nanotechnology, ceramics, applications and relationships academia & industry. (Deadline M40) + D4.3 Reports on impact to academia, priva
society and related regional development of the R&D in MACs. (Deac



CBS Performance: Tasks Ahead

Task 10:

Proposal for transfer of knowledge of results at international level

- Based on TAKS 5.1: Dissemination activities at international level (All partners) (especially within ERA), the strongest expected impact due to twining activities (exchanges, visits, training courses, seminars etc.) in order to expand Europe knowledge and expertise in AR-BR and CL and get information and knowledge from these countries. These activities will provide the opportunity for dissemination of professional knowledge (academic and technical) among top related researchers and high level technicians in charge of research or in management of proposals at national or international level (FP7 and FP8). Moreover, participation of partners in international conferences and meetings of the related ongoing projects (EULASUR etc.) will provide an opportunity to promote the deliverables and general results conducted by the NET. Project Website and published promotional materials will also serve as a tool for informing the scientific and non-scientific audience about the project development and disseminating project's results. Other important point is the promotion of the cooperation between EU-27 and LA in science and technology, the representative of the EU Parliament (Prof Brita Thomsen) in the Advisory Board can help in this issue.

CBS Performance: Tasks Ahead

Task 11:

Proposal for transfer of results on regional and national level

Based onTASK 5.2: Dissemination activities at regional and national level, (All partners) Planned at national (AR, BR, CL, E, BE, DK and SW) and regional level (LA Regions/States or EU regions) promotional and dissemination activities are dedicated to several stakeholders (other research units, universities, general public, industrial partners as well as authorities responsible for development national/regional strategies and setting policies related to research specific areas covered by the project).

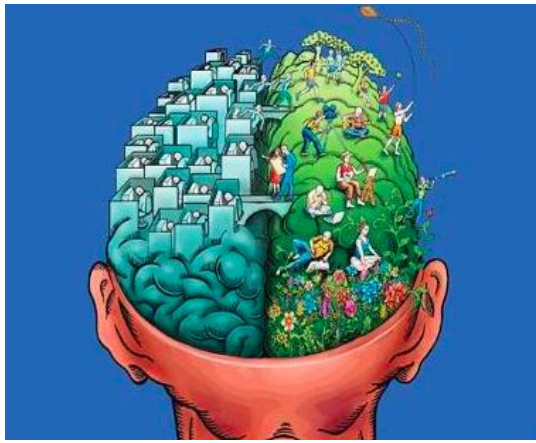
Focusing on: organization of seminars and workshops, training courses, launching and maintaining the website, participation in scientific events (conferences and/or courses) not included in the proposal, participation in scientific events for the civil society, preparation of diffusion materials on paper or by internet etc. Organization of scientific seminars and workshops will mainly contribute to the dissemination of the NET and new trends in MACs among other researchers from the region (LA and/or EU). Launching and maintenance of the Website will provide necessary information on the progress of the project as well as research conducted by the consortium. The promotion of the research activities and achievements will be performed by the consortium Website due to the blogs coordinated by researchers involved in the project. An innovative solution developed for the purpose of the spreading excellence and disseminating knowledge in MACs is a mobile exhibition (as a Pilot study in one LA country, for example BR-Santa Catarina-SENAI) consisting in the preparation of educational sets of presentation tools, samples (on MACs and its applications); the exhibition will be presented during some selected events (open days or similar) dedicated to various target groups: students, civil society, local authorities etc. Moreover, popular science publications (e.g. Educational Journals, Science Diffusion etc.) addressed to various groups of the non-scientific or scientific environment are one of the points of the promotion strategy. Additionally, a special care will be taken to inform the regional and national media (mainly in the LA countries) about all events organized within the project (newspapers, local-TV). Media coverage of events will provide a chance to disseminate, by other way, the diffusion of activities at national scale.

CBS Performance: Tasks Ahead

Task 8, 9, 10 and 11: combined into one task?

Proposal for transfer of:

- **knowledge on EU-LA collaboration in general and in Nano-Sciences**
- **knowledge on EU-LA collaboration between private sector and universities (overcomming the Valley of Death in nano-science)**
- **knowledge of results at international level**
- **results on regional and national level**



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CBS Performance: NEEDS and EXCHANGES

NEEDS:

- To get information from all partners in this project on potential ceramic materials that may be commercialized through business models

EXCHANGES in relation to Road Map:

- Penta Helix Model contribution
- Knowledge Based Communities of Practice
- Transformative learning, Generative Themes
- Narratives, Social Learning Curve
- Socal Network Analysis, Value Network Analysis
- Knowledge Landscapes, Fitness landscapes BIG DATA
- Design, Business Modeling, Innovation, Entrepreneurship
- Project port-folio, Strategy, Guiding priniciples for Action

PLEASE THINK OF THE FUTURE (HORIZON2020):

The investigations and analysis and the final ROAD MAP in EULA-NETCERMAT constitutes the basic material for a new HORIZON2020 application.


HORIZON2020
Cross- sectorial
Multi-disciplinary
Article 15: women
SOCIETAL SCIENCES
CONVERGING TECHNOLOGIES(Future Emerging Technologies)
Penta-Helix
CO-IN
HUMANITIES
IT
North Atlantic Ocean
South Atlantic Ocean
Mediterranean Sea
Bay of Biscay
Gulf of Mexico
Caribbean Sea
Gulf of Guinea
United Kingdom
Ireland
Denmark
Poland
Belarus
Germany
Ukraine
Austria
France
Romania
Italy
Spain
Greece
Turkey
Portugal
Syria
Iraq
Tunisia
Morocco
Algeria
Libya
Egypt
Western Sahara
Mauritania
Mali
Niger
Sudan
Burkina Faso
Guinea
Nigeria
Ghana
South Sudan
Ethiopia
Kenya
Gabon
DR Congo
Tanzania
Angola
Zambia
Mozambique
Namibia
Zimbabwe
Botswana
South Africa
Cuba
Puerto Rico
Guatemala
Nicaragua
Venezuela
Guyana
Suriname
Colombia
Ecuador
Peru
Brazil
Bolivia
Paraguay
Chile
1000 mi