



ORDEM
DOS
ENGENHEIROS

ECCE | OE CONFERENCE CHANGES IN CIVIL ENGINEERING

FRIDAY, 31ST MAY 2013

ORDEM DOS ENGENHEIROS, PORTUGAL



Innovation The Portuguese Construction Technology Platform

**Rita Moura
Teixeira Duarte - PTPC**

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PTPC – SOCIAL BODIES

Assembleia Geral:

Presidente

InCI - Construção e do Imobiliário, I.P. - Dr. Fernando Silva

Vice-Presidente

SETH – Sociedade de Empreitadas e Trabalhos Hidráulicos, SA– Eng^a Cláudia Félix da Costa

Secretariado

AFAPLAN – Planeamento e Gestão de Projetos, SA – Eng^o Tomás Mendes

Conselho Fiscal:

Presidente

CASAIS – Engenharia e Construção, SA – Eng^o Abel Mota Campos

Vogal

ABB - Alexandre Barbosa Borges, SA – Eng^o Paulo Ferreira

PROMAN – Centro de Estudos e Projectos, SA – Eng^o Fernando Serra

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PTPC – SOCIAL BODIES

Conselho Estratégico:

Presidente

- TEIXEIRA DUARTE - Eng.^a Rita Moura

Conselheiros

- COBA –	Eng. ^o Alexandre Portugal
- EDIFER –	Eng. ^o Sebastião Gaiolas
- EPUL –	Arq. ^a Margarida SAVEDRA
- U. DO MINHO –	Prof. Luís Bragança
- FEUP –	Prof. Hipólito de Sousa
- FASE –	Eng. ^o Alfredo Pereira da Costa
- LNEC –	Eng. ^o José Manuel Catarino
- IST –	Prof. Fernando Branco
- MONTE-ADRIANO –	Eng. ^o Paulo Fonseca
- MOTA-ENGIL –	Eng. ^o Rui Campos
- MSF –	Eng. ^o Fernando Castelo Branco
- SECIL –	Eng. ^o Gonçalo de Castro Salazar Leite
- SPI –	Dr. Miguel Taborda
- SOMAGUE –	Eng. ^o José Bizarro

Comissão executiva:

Presidente

- TEIXEIRA DUARTE – Eng.^a Rita Moura

Vice-Presidente

- MOTA-ENGIL – Eng.^o Rui Campos

Vogais

- EDIFER –	Eng. ^o Sebastião Gaiolas
- LNEC –	Eng. ^o José Manuel Catarino
- SOMAGUE –	Eng. ^o José Bizarro



Mission



Promote the reflection and implementation of initiatives and research and development projects, leading to **innovation** in the construction industry, contributing to the increase of **competitiveness**, promoting the **cooperation** between different stakeholders.



Competitiveness



Characteristic or ability of an organization to **fulfill** its mission, more successfully than other competing organizations.

Ability to meet the needs and expectations of **customers**.

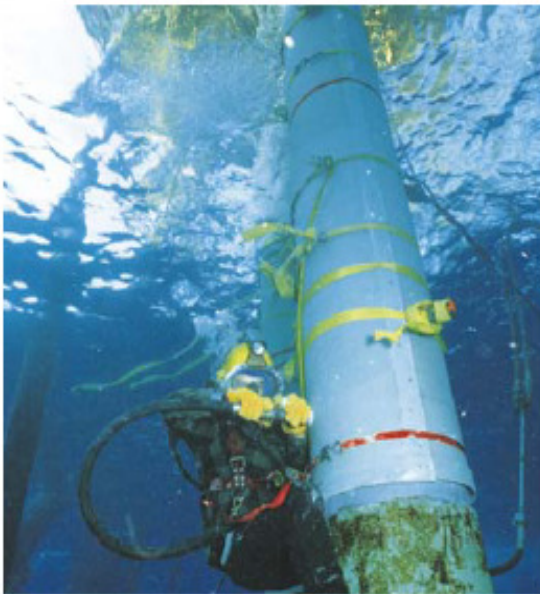
Business competitiveness - getting more **cost effective** than competing firms.

Competitive advantage - what customers are willing to pay: **cost leadership, differentiation.**



Innovation

Selecting the most appropriate opportunities -
strengths



Focus on the **market**

Cooperation and sharing - transmission of
knowledge

Interdisciplinary teams - new forms of dialogue

Open Innovation – use of external sources of
knowledge

Partnerships with technologically advanced
enterprises and entities

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NEWSLETTER

INFORMAÇÃO TECNOLÓGICA DA CONSTRUÇÃO

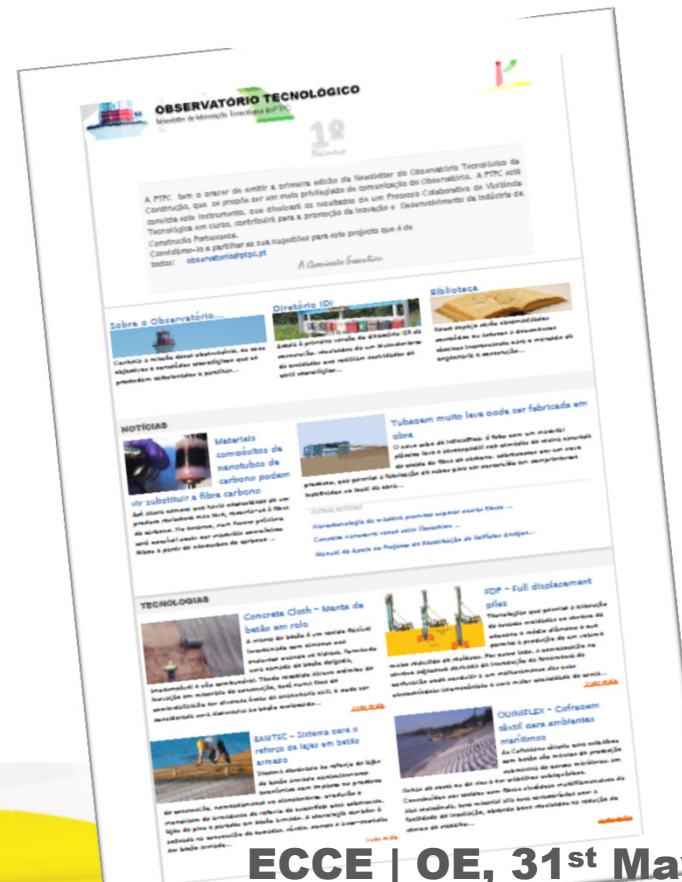
Âmbito Geral



OBSERVATÓRIO TECNOLÓGICO

Newsletter de Informação Tecnológica da PTPC

Âmbito Observatório



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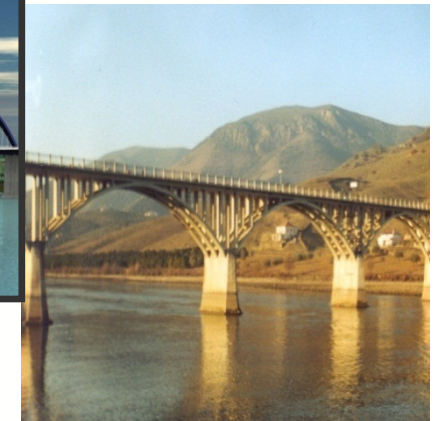
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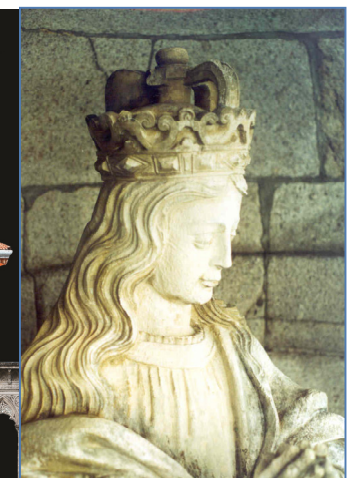
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Competitiveness
- High-Profit



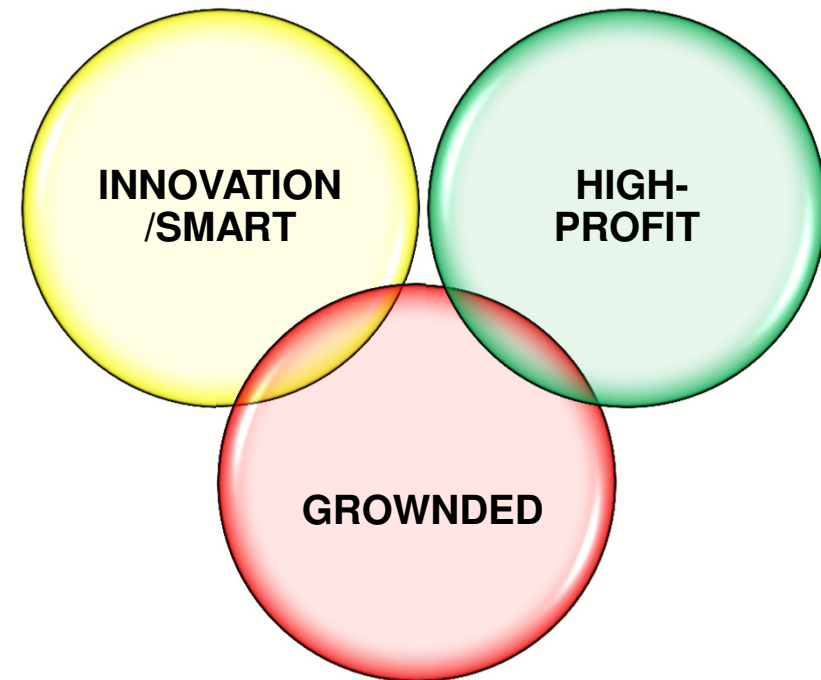
Quality – Durability – Heritage
Environment – Social Responsibility



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Competitiveness
Holistic approach



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MAIN GOALS



Promote Knowledge and Technology **Surveillance** through collaborative work between enterprises, universities and public entities.

Influence the agenda for Research & Development according to the actual **needs and challenges** of the Market;

Promoting Research & Development projects and help raising **funds**;

Influence policies related to the R&D Construction in Portugal and Europe through the European Construction Technology Platform – ECTP connection.

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Interfaces

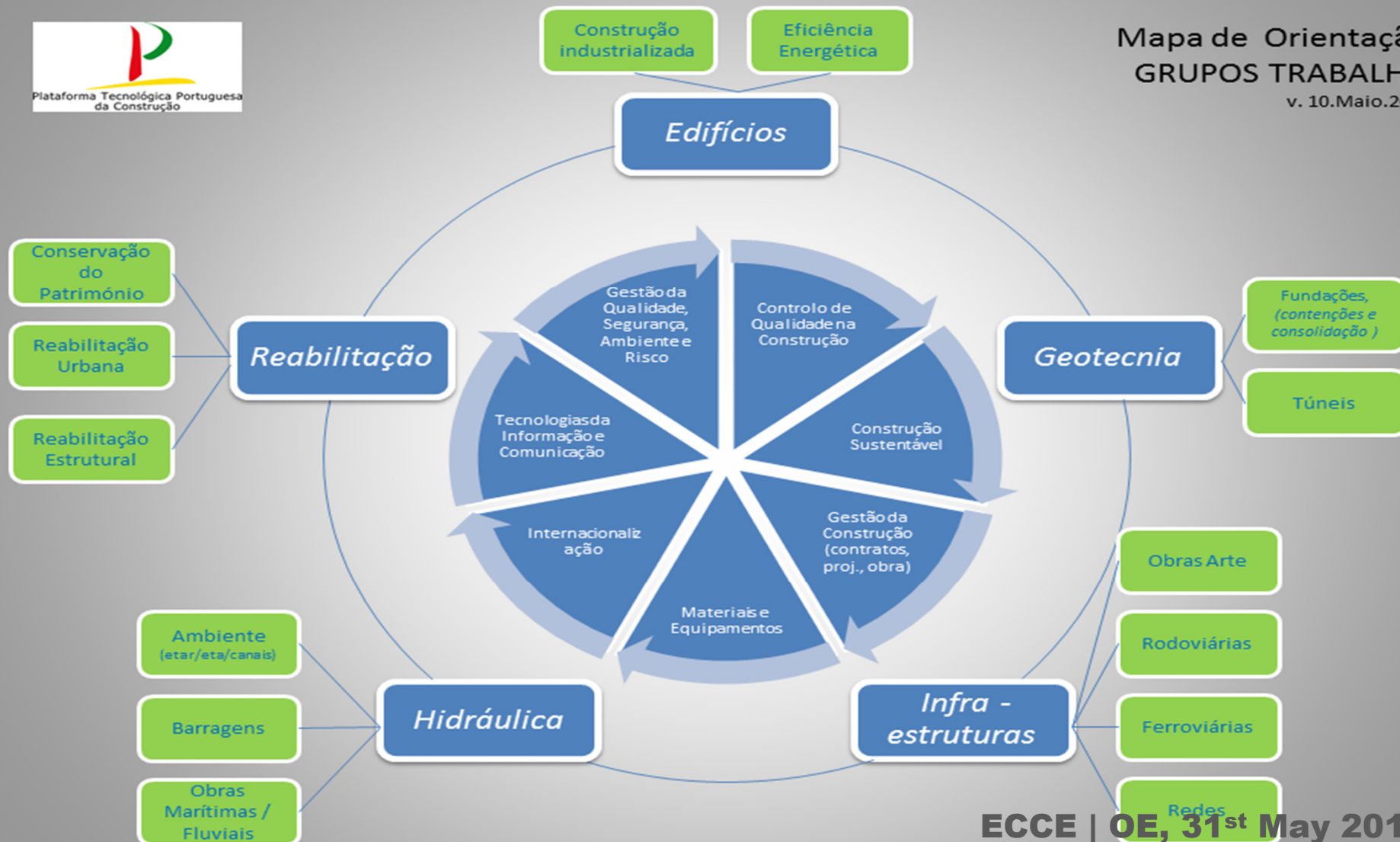


- Spanish Construction Technology Platform - PTEC
- European Construction Technology Platform – ECTP
- Research for Future Infrastructure Networks in Europe – ReFINE

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Mapa de Orientação
GRUPOS TRABALHO
v. 10.Maio.2012



Task Groups

- *BIM – Building Information Model*
- *Reabilitação*
- *Pavimentos Rodoviários*
- *Sistemas de Informação na Construção*
- *Barragens*
- *QSA – Qualidade, Segurança e Ambiente*
- *Geotecnia e Fundações*



Observatory



Technological **surveillance**

Selection and managing of the information

Dissemination of knowledge

R&D and Innovation Construction **Directory**

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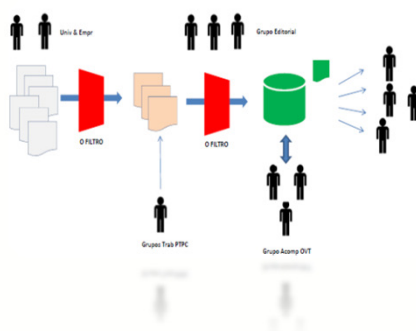
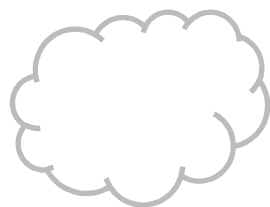
Observatório

Âmbito

Processo

Conteúdos

Meio



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Technological Observatory

Notícias

Informação de referência organizada



- INÍCIO
- OBSERVATÓRIO
- NOTÍCIAS
- NEWSLETTERS
- BIBLIOTECA
- DIRETÓRIO IDI
- GRUPOS
- TESES
- REPOSITÓRIOS
- REFERÊNCIAS

Informação para associados

Autenticação

Utilizador

Senha

Memorizar ☐



(página em desenvolvimento)



TECNOLOGIAS



ARTIGOS TÉCNICOS



PATENTES



EXPERIÊNCIAS

Conteúdos de vigilância tecnológica

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Relationship Universities -Enterprises



- PTPC Purpose: promote effective collaboration between companies and National Scientific and Technological Entities (Universities, Laboratories, etc...)
- PTPC identified a interlocutor of R&D in each entity and enterprise
- PTPC centralizes and disseminates dissertations proposals of interest for the construction industry
- Creating models facilitators for R&D and activities

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UNIVERSITY MODEL – “IDEA TO PAPER”

UNIVERSIDADE (FINANCIAMENTO – PROJECTO DE INVESTIGAÇÃO)



PROBLEMA



IDEIA



**DESENV.
TÉCNICO**



**DIVULG.
ARTIGO
TÉCNICO**



PATENTES



**VIAB. ECON.
FINANCEIRA**



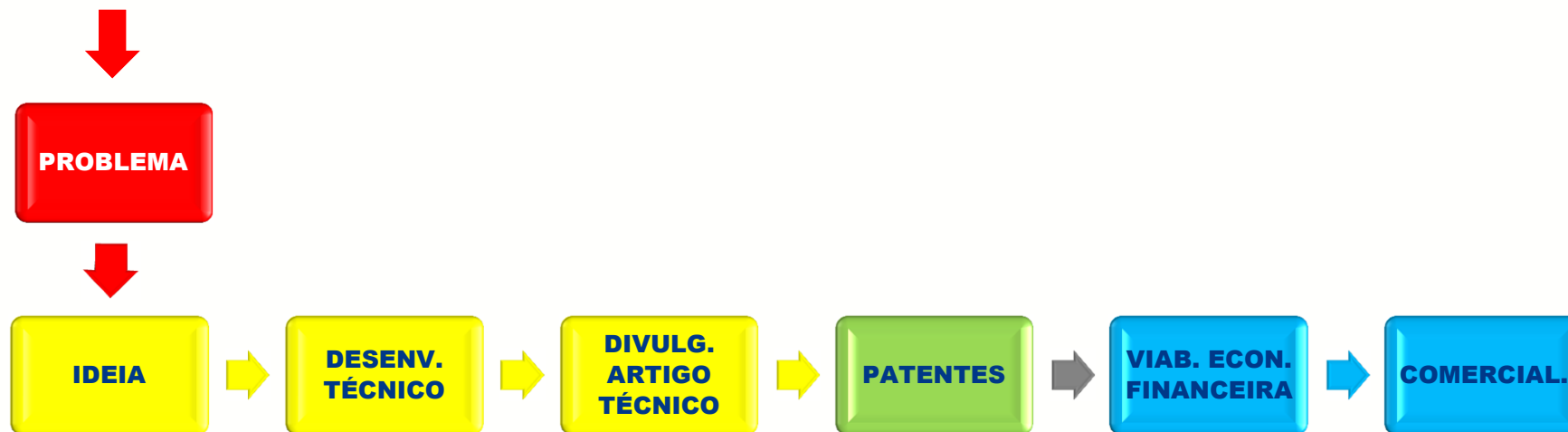
COMERCIAL.

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UNIVERSITY / ENTERPRISE MODEL I – “IDEA TO BUSINESS”

UNIVERSIDADE (FINANCIAMENTO – PROJECTO DE INVESTIGAÇÃO)



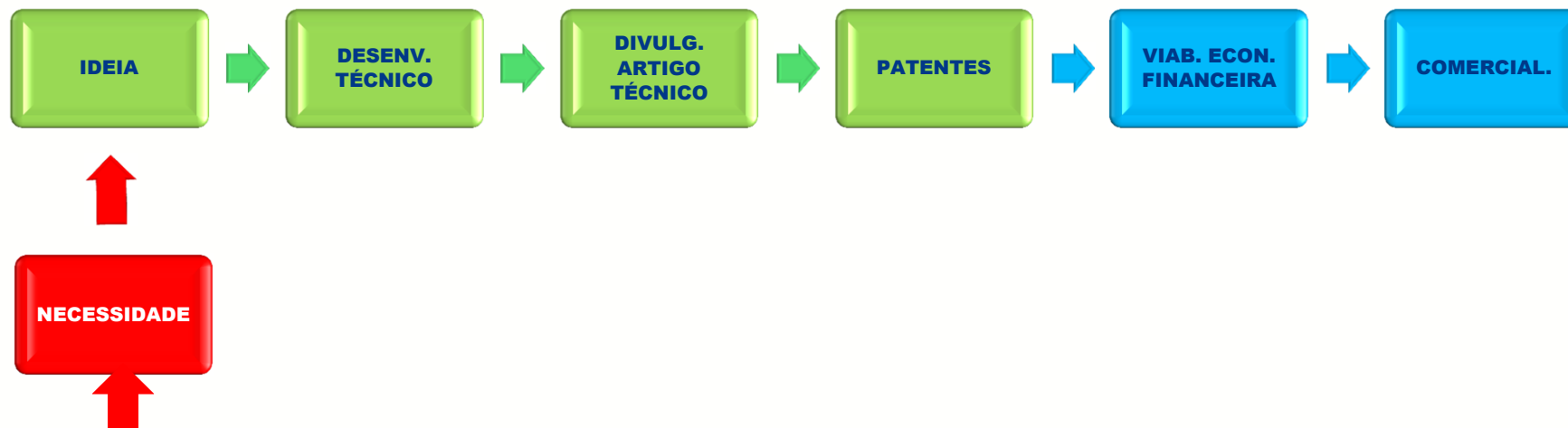
EMPRESA

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UNIVERSITY– ENTERPRISE - MODEL II – “IDEA TO BUSINESS”

UNIVERSIDADE



EMPRESA (FINANCIAMENTO - EMPRESA / PROJECTO DE INVESTIGAÇÃO)



Next PTPC Workshop (28th June 2013)

Innovative public procurement - Encourage Innovation and Development – allowing the presentation of alternative solutions VS enterprises accountability"

We intended to maximize the high technical value of our companies, **promoting innovation and development**, to the benefit of society, and discuss how to achieve a more profitable approach between public entities, associations and companies .

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PTPC - NETWORK



TÉCNICO
LISBOA



LABORATÓRIO NACIONAL
DE ENGENHARIA CIVIL



Universidade do Porto
Faculdade de Engenharia
FEUP

INCI
INSTITUTO DA CONSTRUÇÃO
E DO IMOBILIÁRIO



Universidade do Minho

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PTPC – Participation in reFINE project



Research for Future Infrastructure Networks in Europe - r e f i n e

Europe's Infrastructures are our Lifelines



There are unmistakable indicators that urban areas will keep growing - driven by the continuous relative and absolute population growth - regarding their economic, environmental and energetic impact. It is estimated that by the year 2020 ca.

70% of the world's population will be dwelling in urban areas. Hence, cities as systems will have to cope - more than ever before - to process, distribute and recycle resources and information.

Development of transport in Europe – Mobility in a perspective "Smart, Green and Integrate Transports“:

- Long distance corridors
- (roads, railways, etc)
- Nodal hubs (connections between airports, train stations, roads, ports, etc..)
- Urban mobility

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Participation of PTPC in REFINE Roadmap

TRANSVERSAL RESEARCH AREAS

TRANSVERSAL RESEARCH AREAS		COMPLETE ONLY THE GREEN BOXES		COMPLETE ONLY	
KEY RESEARCH AREAS	Importance	Topics		Timing	
TRANSVERSAL RESEARCH AREAS	(H=High, M=Medium, L=Low)			(S=Short Tem M=Medium Term, L=Long Term)	
RESEARCH AREA 1: FORESIGHT & ROADMAP	H	In order to define an pan-European futuristic vision towards “HLSI 2040”, there is a need to:			
		<ul style="list-style-type: none">Bring together all relevant stakeholders including buildings and infrastructure sector companies, process engineering specialists, equipment providers, RES providers and energy companies, ICT software companies, as well as local and regional authorities, to develop the notion of HLSI and the transition from current infrastructures to these drastically innovative concepts of HLSI in a holistic dimension;promote, through community building activities, a better understanding, a closer dialogue and a more active cooperation between researchers, end-users/practitioners, facilities owners, infrastructures builders as well as operators, technology-suppliers, software developers, etc., thus establishing multi-disciplinary and complementary communities for the evolution of the infrastructures domain towards a new generation of HLSI to be intensively deployed by 2040.			
		The <u>FORESIGHT</u> activity in reFINE indeed plans to rely on a critical thinking and shared formal approach so as to shape the future of infrastructures and networks , aiming at visionary scenarios including prospective evolution and profound transformations of infrastructures, based on large-scale changes induced by society and sustainability, and influencing on the long term public policy and strategic management and business in			

MHubs / UMob / LDCo / Transversal



Thank you

**Rita Moura
Teixeira Duarte - PTPC**

