



#### Establishing an academic student environment conducive to entrepreneurship and innovation in the region of Crete

V. C. Kelessidis & A. Saitakis Technical University of Crete & Science and Technology Park of Crete International Conference for Entrepreneurship, Innovation and Regional Development 24-25 April, 2009, Thessaloniki



# Summary of the presentation

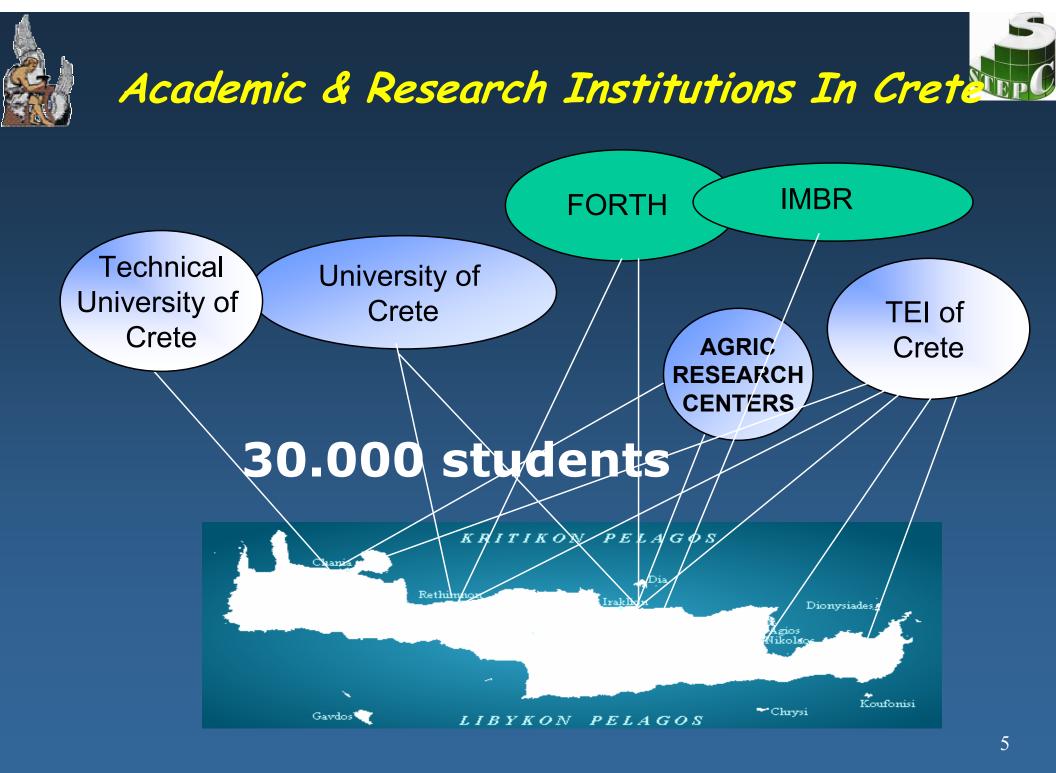
- TUC & STEP-C
- Innovation, Entrepreneurship and Regional Development
- Universities and Entrepreneurs
- UNISTEP Approach
- PREMIO Project
- Future Steps
- Conclusions



#### Why in Crete ?









# **Technical University of Crete**

- Established in 1984
- Has six Engineering Departments
  - Management and Production
  - Mineral Resources
  - Electronic and Computer
  - Environmental
  - Architectural
  - Sciences
  - Civil
  - Fine Arts



# Technical University of Crete Campus C



















- About 2600 undergraduate and 600 graduate students
- 110 professors
- 57 very well equipped laboratories
- Industry liaison office
- Innovation promotion and value creation projects (CRINNO, i4Crete, UNISTEP, PREMIO, Innovative ideas prize, TOUREG)







FORTH: The largest Research Organization in the country (~1000 employees)

7 Institutes : Crete, Patras, Ioannina (in the periphery of the country) **OInstitute of Molecular Biology Biotechnology OInstitute of Electronic Structure & Laser OInstitute of Computer Science Institute of Applied Mathematics OInstitute of Mediterranean Studies**  Institute of Chem. Eng. & High Temperature Processes **OInstitute of Biomedical Research** 1 Science Park (STEP-C) (+ 2 established in Patras, Thessaloniki)

HELP-FORWARD Network (in collaboration with the Greek <sup>9</sup> Industries Association)



# Science & Technology Park of Cret

# FORTH's conception of the Park: Late 80s

Construction of the buildings : 90s Managing Company : Established Dec. 1993

Mission:

- Make available FORTH's and other academic communities research results for Regional development
- Become the 3rd development pole next to agriculture and tourism
- Attract companies and support them to become major vehicles of the Technology Transfer
- Become a Center of Learning
- > Contribute to regional development

Main competences: ICT - Biotechnology/Biomedicine -Materials & Laser applications<sub>10</sub> Applied & Computational Mathematic



# Science & Technology Park of Creter

#### Incubator

- More than 100 offices and flexible lab space (~4000 sq.m)
- Financing: EU, National & Regional funds
- Incentives offered by FORTH
- Incentives offered by the National Government (spin-offs, Incubators, Technology Transfer)
- June 2008 : 18 tenants, >600 new jobs created

>60 new companies since 1996

MANAGING COMPANY S.A. (EDAP)

• Est. 1993, 22 shareholders

Main shareholders:

- FORTH & Bank of Piraeus
- Staff: 6 people





## Entrepreneurship, Innovation and Regional Development

STEPC

- Entrepreneurship Action Plan
- Good Practices
- Higher Education can be the source
- Not happening WHY ??
- Low Motivation
- Teaching not integrated
- Fear of failure
- Training and mentoring is essential







- Need to create more favorable environment
- Remove obstacles for business creation
- Take into account cultural aspects
- Entrepreneurship integration into curriculum of sciences, arts and engineering
- In Greece How will it be implemented ? - Cultural aspects



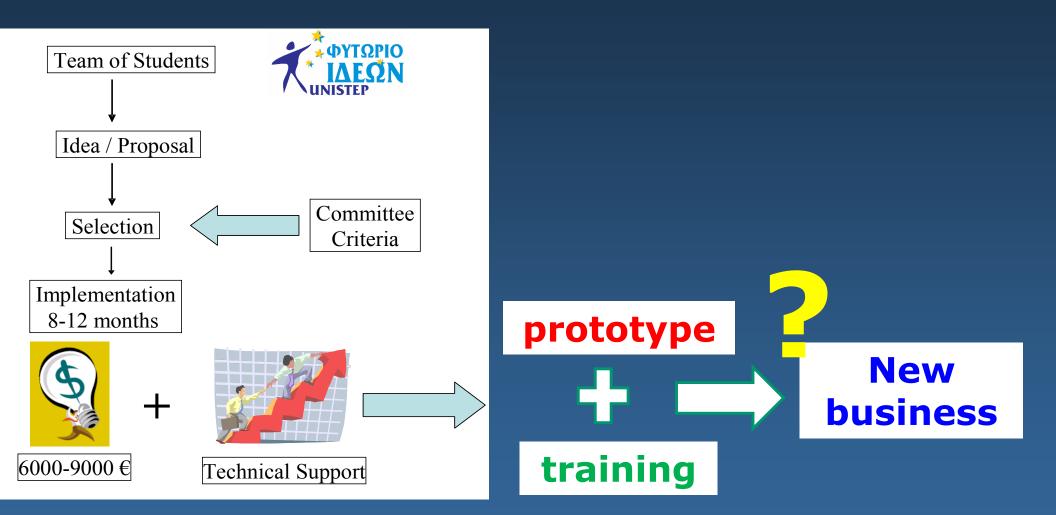




- TUC & STEP-C work together towards creating favorable environment for entrepreneurship
- Innovation promotion, technology transfer, business start-up training
- UNISTEP, UNISTEP+, PREMIO, ENTER
- Exploit Academic Knowledge, Lab Infrastructure



#### UNISTEP Approach



#### TUC - FORTH/STEP-C - UoC - TEI-C 15





#### Results - UNISTEP

- Phase I 20 prototypes
  - Two companies created (STEP-C)
  - One to be created
  - Three major projects started
- Phase II 15 prototypes
  - 2 to 3 projects seem promising
  - Evaluation period
- Lessons Learned ?
  - Very first approach of this kind
  - Strong collaboration
  - Continuation, Gen. Secr. UNISTEP=Institution
  - 4<sup>th</sup> Step, Funding of business start-up







- Aid for the development of entrepreneurs
- Support from idea creation, to business establishment in a Park
- 10 partners, Portugal, Greece, Estonia, Romania
- Coordinator: Science and Technology Park of Maia (Oporto)
- Life Long Learning Program, FP7
- 2008 / 2009

# PREMIO – www.premio-project.eu

PRÉMIO. Promotion of Entrepreneurship and Innovation



QUOTES

"The best way to have a good idea is to have lots of ideas."

Linus Pauling

CHOOSE YOUR LANGUAGE



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#### Home

#### PREMIO - PROMOTION OF ENTREPRENEURSHIP AND INNOVATION

The Context

In a global economy where there is a high uncertainty on employability and company sustainability, the endeavour to create a new enterprise requires the knowledge and application of the best practices and the mastery of the most advanced enterprise management methods.

In this context, it becomes essential to develop innovation and entrepreneur abilities: a highly specialized and customised training plan is required to prepare the future entrepreneurs and innovaters for the challenge to manage a technological based business in its different dimensions.

Higher education, where some of the most advanced know-how in the scientific and technical fields exists, could be the ideal environment for nesting highly advanced technological and scientific entrepreneurship and innovation.

The Goal

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# PREMIO - www.premio-project.eu



promotion of entrepreneurs and innovaters from higher education environments (students, professors, researchers), since the initial phase of the motivation and idea, through the first steps of formation of the technological based company until it has a sustainable existence.

This objective will be reached by the following:

 definition and implementation of a training/mentoring course that will support the business ideas of the trainees;



Entrepreneurship Course Application

With the automation free Lifekong Learning Programme.

Educate insuing Programm

CRAMMIN of the Earthmetic Linux.

incubation in the project partners facilities (Science & Technology Parks) of the best business plans
resulting from the trainning course in very favourable condition;

- individual accompaniment throughout the enterprise forming stage by an international pool of experts;

The Actors

Premio is a transnational european project, developed by partners from Estonia, Greece, Romania and Portugal targeted to potential entrepreneurs and innovaters from these countries, with the support of the Lifelong Learning Programme Erasmus of the European Union.















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- Students, Researchers, Professors
- Train, interactively and on their own through a web based platform
- Modules:

COURSE ORGANIZATION

1. Duration: 200 hours, from September 2008 to May 2009;

2. Teaching Model: blended learning regime, with attending (20%) and online (80%) components;

3. Contents: eight modules distributed in two courses of 100 hours each:

	Courses	
	Context	Application/Implementation
Modules	1.Enterprise	5.Business Plan
	2.Financing	6.Innovation management
	3.Marketing	7.Project planning
	4.Internationalization	8.Intellectual property
	Business Plan preparation and presentation	

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- Each trainee, after training, proposes business plan for his idea
- Receives support by network of mentors
- Presents business plan to a forum
- Best business plans are given a prize (PREMIO) and are selected for Incubation in Science & Technology Park (Crete: STEP-C)





#### Lessons learned

To develop and implement student entrepreneurship program - NEED

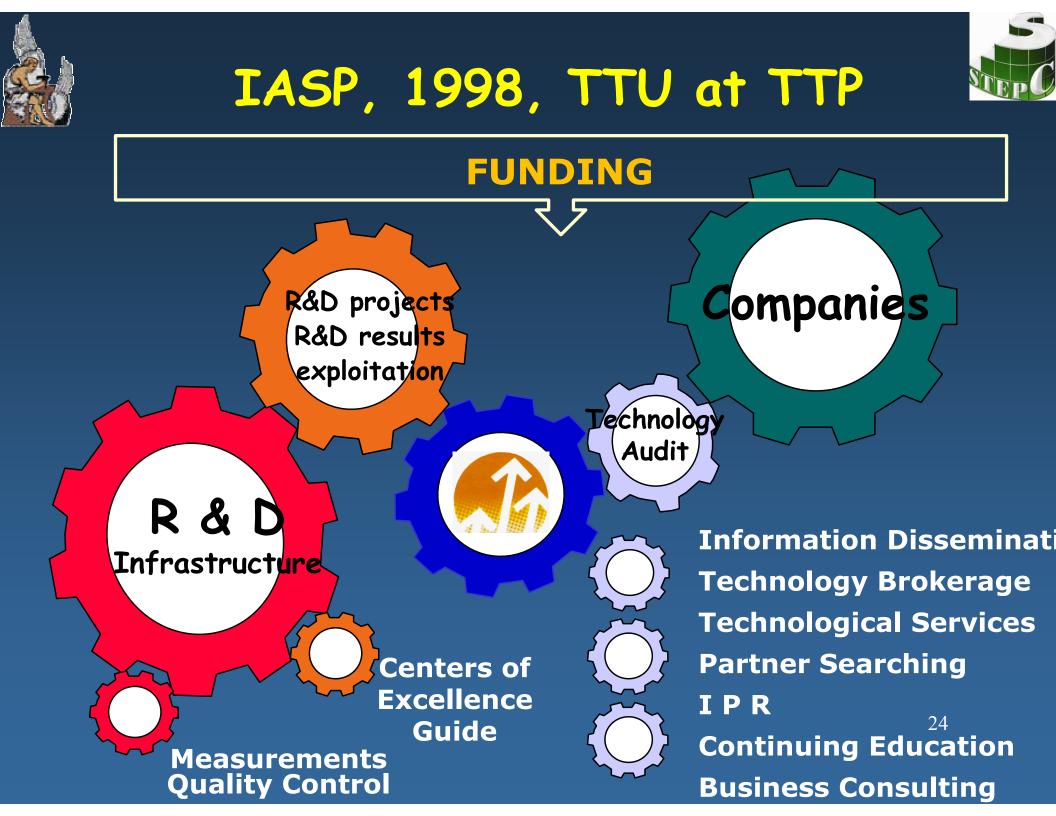
- Entrepreneurial attitude, students and academics
- Education and training
- Institutional support
- Intermediary organizations (Liaison, Incubator, Park)
- Simplified procedures for business start-up





#### Lessons learned

- Support of mobility of students and researchers
- Mentor network is very beneficial
- Funding for the next (4<sup>th</sup>) STEP !
- E-platform could be useful but ...difficult to enforce
- It is a JOINT EFFORT need for an integrated approach









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### Spin-offs at STEP-C established by Students & Researchers

- INFOCHARTALtd www.infocharta.gr
- CYTECH Ltd
- NOVELTECH Ltd
- BLUEBIRD Ltd
- TERN Ltd

- www.cytech.gr
- www.noveltech.gr
- www.bluevibe.net
- www.tern.gr
- · VIRTUAL TRIP Ltd www.v-trip.com (Graduated from the Incubator in 2007







- UNISTEP++ CrossBorder UNISTEP?
- PREMIO European integration, Continuation
- Mentoring, Consultation
- TUC
  - support business development after prototypes
  - Business idea competition -> Continue
- STEP-C offers space for establishment



### What's Next ??



Educational Programme - DASTA





- Innovation & Entrepreneurship UNIT
  - Integration of Entrepreneurship Course in Departmental Studies
- EC Report Interactive Learning  $\rightarrow$  PREMIO
- Funding Business Angels ?? Venture Capital
- New Period for Funding ESPA (2007-2013), National Program
- Regional Innovation Poles, Spin-Offs, Liaison Offices, Incubators







- Efforts to promote Student entrepreneurship in Crete
- Prototypes  $\rightarrow$  UNISTEP
- Business Training & Mentoring → PREMIO
- Need for the 4<sup>th</sup> STEP, Funding → Business Establishment
- Full exploitation of
  - upcoming Funding Opportunities
  - European Collaboration





# Congratulations Next Conference - Chania