



# AN ENTREPRENEURIAL ACTIVITY IN UNIVERSITIES: PRE-INCUBATION CENTERS LESSONS FROM EUROPEAN AND TURKISH CASES

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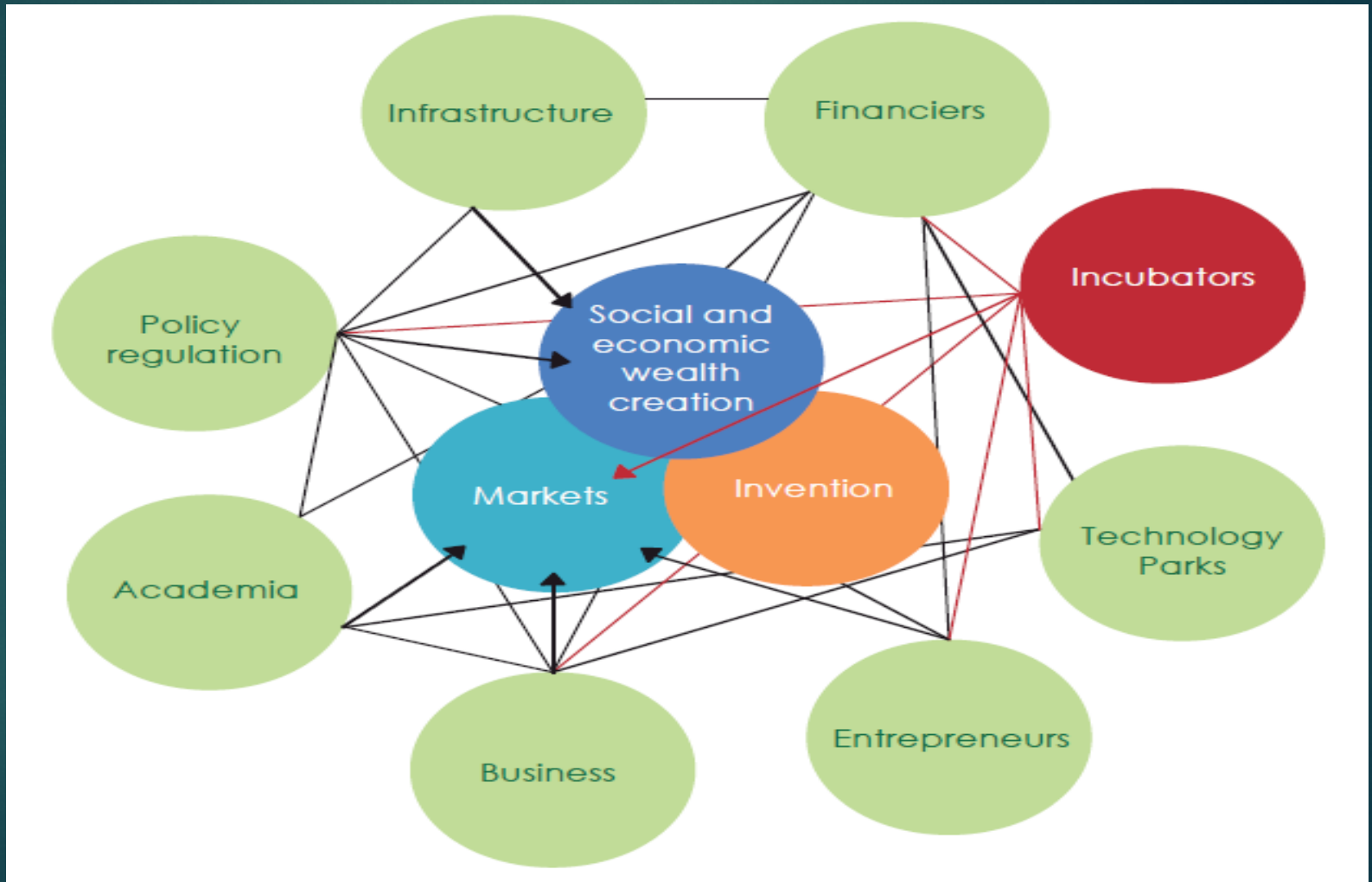
# AGE OF ENTREPRENEURSHIP

▶ During the last decade this evolving digital economy has been the preeminent driver of structural change and economic growth at both the national and the regional level in the developed, industrialized economies.



- The new economic activities requires some crucial changes on all actors of the system; firms, government, human people as workforce...etc.
- Firms: The transition from the machine-age to the knowledge-age has raised an awareness of the need to transform the firms to more flexible, more specialized to nish markets.
- Workforce: more flexible and more adaptive and highly skilled.
- Governments: more interested in innovation policies.

- ▶ We believe that innovations mainly result from increasingly complex interactions among individuals, different kinds of enterprises and different kinds of knowledge institutions; like universities.



# *The role of universities in globalized knowledge economy has changed...*

- ▶ World-wide shift of university from traditional roles of education provider and knowledge creators to incorporate additional role of commercialization of knowledge, contribution to development of private enterprises and regional economy greater imperative to shift to entrepreneurial model in the context of Newly Industrialized Economies (Etzkowitz, 2002).
- ▶ Cole states that there has been an increasing dependence on knowledge as the source of social and economic advance and youth people should be trained even beyond traditional undergraduate education (Cole,2009).
- ▶ The main purpose of any university is to act as a centre for higher learning in various fields and build academic foundations. But,now, they have been are now increasingly recognized to have a broader role in the economic development and entrepreneurship activities.

# New Role of University in the Globalized Knowledge Economy

The universities as knowledge factories have some primary roles/duties in this new era;

- the promotion of entrepreneurial training and practice and the direction of society towards a better life from the body of knowledge accrued to man from studies, learning, experience and research findings and innovations (OECD,2012)
- hosting of young talented minds in order to stimulate their innovative ideas and transform them to valuable assets for the society.

# New Role of University in Entrepreneurial Society

- ▶ Facilitate knowledge spillovers from university.
- ▶ University as solution provider – user oriented fields and programs (i.e. biochemistry, informatics).
- ▶ Demand orientation rather than “knowledge for its own sake”.
- ▶ Flexibility in university governance, diverse orientation, cultural norms & increased heterogeneity and specialization of faculty & staff.
- ▶ Provision of conduits for knowledge spillovers – technology transfer offices, incubators, science parks, sponsored research, research centers...

# UNIVERSITY-ENTREPRENEURSHIP



- ▶ Better-educated individuals raise the potential to start new businesses. Investment in tertiary education ought to be diverted toward innovative educational institutions that allow people to acquire skills they need to recognize and pursue business opportunities.
- ▶ Besides, these institutions harvest, in the marketplace, the fruits of university research, capitalize on business development thanks to the know how of professors, researchers, graduates and students, and provokes new company formation in the knowledge-based industries.

# Creativity-Innovation and Entrepreneurship


- ▶ Creative performance involves a similar process that is directed toward the production and evaluation of novel and useful ideas rather than skills. Entrepreneurial undertakings require rapid learning in service of nimble creativity in order to succeed in dynamic and complex business environments. In essence, entrepreneurial creativity is the development of novel and useful products, services, or business models in the establishment of a new venture.
- ▶ In entrepreneurial ventures, implementation of the end product serves as a touchstone for each stage of the creative process, providing guidance and correction as ideas are developed, tested, rejected, and finally come to fruition. Learning is heavily involved throughout.
- ▶ Therefore, by understanding the process of creativity through the lens of learning, entrepreneurs (and entrepreneurial managers in more established organizations.



# The university...

- ...is committed to collaboration and knowledge exchange with industry, society and the public sector.
- ...demonstrates active involvement in partnerships and relationships with a wide range of stakeholders.
- ...has strong links with incubators, science parks and other external initiatives, creating opportunities for dynamic knowledge exchange.





One of the big issues facing growing businesses is where you get the talent and ideas from. There is entrepreneurial talent waiting to be liberated in higher education institutions (HEIs) up and down the country.

They support entrepreneurship education and training and engage in a variety of knowledge transfer activities that promote entrepreneurship, either directly (as in academic spin-offs) or indirectly (through research, training and education).

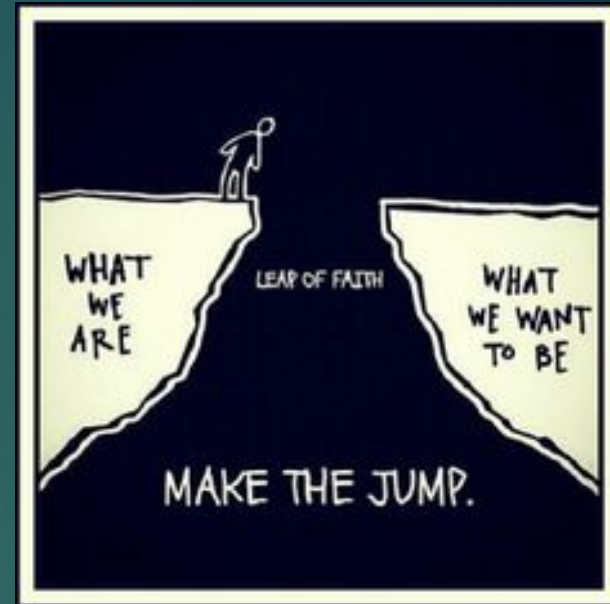
Increasingly, this occurs at the regional level where HEIs enter into different relationships with other stakeholders pursuing economic growth and competitiveness (OECD, 2008).

# Pre-Incubation Process



There are many crucial steps that the young entrepreneur have to take in the initiation phase([www.nbia.org](http://www.nbia.org)):

- ▶ Development of the idea for new product or service,
- ▶ Searching for the required resources (information, finance, and people)
- ▶ Development of business model
- ▶ Producing the product for the market
- ▶ Selling in the market



- All those steps are inevitably affected by the individual factors (like skills, motive) or grouping factors (team management), development phase (technical problems) or marketing process (interactions with venture capitalists or customers,...etc).

- In broad terms, a pre-incubation initiative offers infrastructural opportunities like office spaces, equipments, administrative facilities like fax, phone, internet...etc.
- It also offers training and educational workshops or seminars. And most important contribution is on networking.
- A pre-incubator as a facility for a very early stage of the start-ups that still have to formulate their business plans, develop a prototype, establish an entrepreneurial team and lead the embryonic business to an investment and or market ready stage.
- The access available to the tenants of the incubator to managers, administrative, management, financial, legal, insurance consultants as well as to scientists, academicians, prospective customers (Peters&Rice&Sundarajan, 2004).



- ▶ *The main role is to increase the experience and the competence of the entrepreneurs.*
- ▶ *University based incubators will be the best tool for meeting the requirements of entrepreneurs.*

-the possibility to test the market of a business idea before the company formation, therefore lowering the risk of market failure

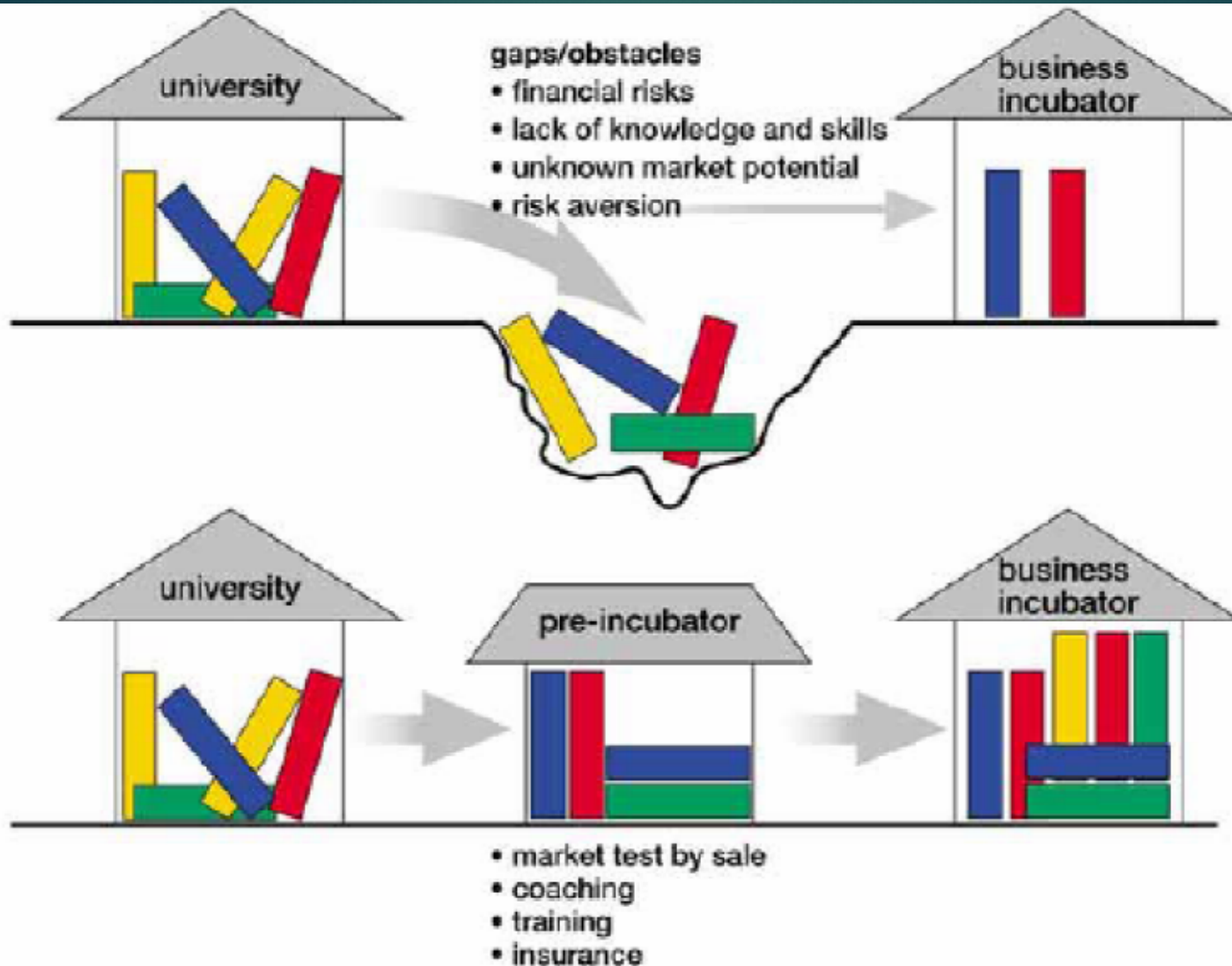



Figure 2: Pre-incubator is designed to fill the gap between the institute of higher education and the business incubator (Source: USINE 2005).

# *University Based Incubators...*

- ▶ University based incubators are a special type of business incubators that are located in universities.
- ▶ Universities have also played a significant role in establishing linkages with the industry so as to provide their faculty a platform to conduct research and an opportunity for their students to seek jobs (Huffman & Quigley, 2002). Apart from assisting students who seek jobs, these universities also run business incubators to support students starting their own ventures.
- ▶ Universities are having their own business incubators and encouraging enterprise development by using research leading to start-up and technology transfer, which is easily facilitated by a university based incubators.
- ▶ They possess access to technology, capital, and know-how that new knowledge-based start-ups can exploit and commercialise their offerings more rapidly. The networks facilitated by the university increases their knowledge and absorptive capacity, which in turn, helps them to overcome the twin challenges of newness and smallness (Baum, 1996).

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- ▶ Universities have attempted to take the lead, with many forming business incubators for would-be entrepreneurs.
  - ▶ Schools provide systematic operational and financial support to startups and early stage companies to help accelerate their growth and create jobs in communities and industries.
  - ▶ Even more, they can tap into their sponsor's business partnerships and alumni network, opening doors to potential funding sources.
  - ▶ Information on the business start-up and basic consultations on the entrepreneurship during the pre-incubation phase should be easy accessible at the places where the potential entrepreneurs might arise, such as university based start-up advisors.
  - ▶ By being surrounded by like-minded entrepreneurs in incubators, fledgling companies can draw best practices and inspiration from each other.



# Incubation in Europe

- ▶ First European pre-incubator was established in 1997 at the University of Bielefeld (USINE 2005). Thereafter, pre-incubation activities have spread their popularity rapidly: at the turn of the century entrepreneurial projects and pre-incubation activities have increased their number rather fast in the institutes of higher education.



There are lots of things from the UK experience which has stimulated from

- ▶ Historical policy evolution
- ▶ International comparative performance
- ▶ Support on regional and local performance
- ▶ Strong interest in national and regional/local innovative policy issues

The history of The UK experience is old

- ▶ 1970s 'policy off'
- ▶ 1980s 'enterprise', new business quantity
- ▶ 1990s (existing) 'business quality', 'growth potential'
- ▶ 2000s new start ups, productivity growth, 'market failure', targeting

-Andy Pike Entrepreneurship policy delivery: Key Issues and the UK experience  
<http://www.oecd.org/cfe/leed/38921219.pdf>



- ▶ According to Telefonica report (2014), London has 11 incubators and 24 accelerators. Moreover, the tech scene is also booming outside, in Bournemouth, Liverpool and Brighton (7 in total). With more than 500,000 companies that were created in 2013, the UK is becoming one of the world's most dynamic start-up clusters and the most prominent start-up ecosystem in Europe, a gateway to investments.
- ▶ Nearly a third of all startup programmes in the UK make pre-seed investments in their startups. Most investments range from £10,000 to £20,000 per team but some go into six figures.
- ▶ There has been a dramatic rise in the number of corporate-run accelerators and incubators in the UK, with the likes of Microsoft, Barclays and Telefónica UK entering the market in the last 3 years.
- ▶ Over 40% of startup programmes are privately run (but a third of these receive public funding) and nearly a quarter are run by universities and business schools.
- ▶ More details about those centers: <http://capitalenterprise.org/members/accelerators-and-incubators>



- ▶ The Finnish experience also comes from its history: Since the 1950s it has been recognized that innovation is central to economic growth.
- ▶ There are several policy actions to promote innovations and cooperation between universities, companies and public organisations. ([www.tekes.fi](http://www.tekes.fi)) Tekes is the main organization of Finnish innovation policy.
- ▶ In 2010, Research and Innovation Council published the Finnish Research and Innovation Policy Guidelines for 2011–2015 ([www.research.fi](http://www.research.fi)):
  - ▶ *universities, universities of applied sciences and research and development institutes are supported in raising their profiles and specialising in their fields of strength; the quality of research will be improved.*
  - ▶ *multilateral cooperation will be enhanced and the division of labour between higher education institutions, public research and development institutes and enterprises will be clarified.*
  - ▶ *the position of the small and medium enterprise sector within the innovation system will be strengthened.*



- ▶ The Finnish Foundation for Innovation's (FFI) objective is to help individuals and small and medium sized enterprises (SME) in protecting their intellectual property.
- ▶ There are 42 incubators/pre-incubators in Finland. (<http://www.spica-directory.net/centers/?c=19>)
- ▶ All those incubators run their businesses with strong collaboration ([www.start-smart.com](http://www.start-smart.com))



- ▶ German entrepreneurship support programme “Entrepreneurship in Germany” set up in early 2010 by the Federal Ministry of Economics and Technology involves several instruments related to pre-incubation phase of business ideas.
- ▶ At an early stage programme involves entrepreneurship education and competition for the school children. In order to support the entrepreneurial environment and spread the entrepreneurship in universities and other research institutions in Germany, the Federal Ministry of Economics and Technology is funding EXIST programme.
- ▶ EXIST supports students, graduates and scientists in preparing their innovative technology-oriented and knowledge-based start-up projects. In addition, it helps colleges and universities to establish a comprehensive university-wide start-up culture.



- ▶ Several nation wide business plan competitions are organized within a year.
- ▶ Pre-incubation support is provided by a range of innovation centres encompassing more than 300, technology and business incubation centres as well as science parks and similar institutions. The organization of pre-incubation services differs in many aspects: size, age, planned time horizon, and total financial volume.
- ▶ Entrepreneurship development programmes and support instruments are often implemented in cooperation among various stakeholders weather located at the same region or oriented toward similar industry.



- ▶ The business support system at central and regional levels includes a number of institutions, among which the key role is played by the Polish Agency for Enterprise Development. The Polish Agency for Enterprise Development (PARP) has been implementing measures supporting enterprises and development of entrepreneurship for over 10 years.
- ▶ Direct service providers, i.e. institutions and organisations specialised in the implementation of business support instruments, operate at the executive level. A special role in this system is played by the National SME Services Network (KSU). KSU is operating as a network of approximately 200 non-commercial organisations cooperating with each other.





- ▶ There are over 60 business and technology incubators operating in Poland. Business incubators are often located in university campuses and technology parks and offer a range of pre-incubation and incubation services.
- ▶ Academic Business Incubators is at present the largest academic initiative which strives to promote entrepreneurship among young Polish citizens. Academic Business Incubators operate on the premises of the 31 best universities in Poland. The Academic Business Incubators Network is the largest such institution in East-Central Europe. Over 1100 developing companies operate within its framework.



- ▶ Until 2000s, there were no clear innovation policy paper in Turkey. In 2001, the first strategic plan, Vision 2023, was published. The first policy plan on entrepreneurship was published in 2005.
- ▶ The Turkish startup ecosystem has been developing rapidly for the past few years. Especially, the number of science parks and technology based start-ups has raised exponentially.
- ▶ Animation Technologies and Game Development Center which is the first pre-incubation center of Turkey was established in 2008 and it was first and the only until 2011.
- ▶ In 2015, there is over 20!

# Limitations of the Turkish entrepreneurial university model


- ▶ There is no clear-cut model like the other 😊
- ▶ Significant economic and social returns but financial and private returns were frequently over-estimated by academicians
- ▶ The information problem for private sector – lack of knowledge about what academia can offer and how to access it
- ▶ Difficult for SMEs to connect with universities
- ▶ Lack of competences and relevant skills in business
- ▶ No strong link among pre-incubation/incubation centers


# We should build a connection university with local economic alignment

- ▶ Develop synergies with the local economy
- ▶ In knowledge generating locations
  - ▶ New industry formation based on novel technologies and university research
- ▶ In knowledge using locations
  - ▶ Diversification into technologically-related industries
  - ▶ Upgrading of existing industries: providing technical problem-solving advice and skills
- ▶ The educational system harnesses individuals with the requisite skills; then and only then can active government policies towards entrepreneurship have the wished for consequences.

# Conclusions...

- ▶ Role of university is evolving from tangential to key partner of business.
- ▶ Entrepreneurial university focuses on knowledge spillovers & commercialization of research.
- ▶ Role of university in entrepreneurial society is to be an effective partner in local, regional & national business ecosystems.
- ▶ Successful regions have vibrant university-business partnerships (London is a good case).
- ▶ To develop stronger linkages between the business pre-incubation process and higher education institutions and research centers. This would help to facilitate the commercialization of research findings, promote innovation transfer to the entrepreneurship and creation of spin-offs. At the same time it would help to develop entrepreneurial spirit among graduates of different university fields.

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- ▶ An entrepreneurial society refers to places where knowledge-based entrepreneurship has emerged as a driving force for economic growth, employment creation and competitiveness. In this context, entrepreneurial universities play an important role as both knowledge-producer and a disseminating institution.
  - ▶ University based incubation centers will be the key actors for promoting the entrepreneurial culture in the societies.
  - ▶ Government should take initiative to develop more business incubators in general and university-based business incubators in particular. These efforts could be directed to establish public-private partnerships, and financial sops to sustain them in early stages

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- ▶ Entrepreneurial behaviour is supported throughout the university experience; from creating awareness and stimulating ideas through to development and implementation. So, pre-incubation centers are good way to start.
  - ▶ There has been a strong debate on that there are a significant number of academics who feel that their academic freedom and the basic 'idea' of a university and its autonomy are being threatened by the pressures and particularly by the entrepreneurial activities.
  - ▶ The corporatization of universities lead to the decline of authority over the knowledge.

THANK YOU...

"Do... or do not.  
There is no try."





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