

**CERIC**

**PaGES<sup>4</sup>**

Pianificazione,  
Gestione ed  
esecuzione di un  
Esperimento Scientifico in  
un centro di ricerca  
internazionale

# How to generate value from the knowledge?

**Raffaella Geometrante**

Kyma S.r.l.

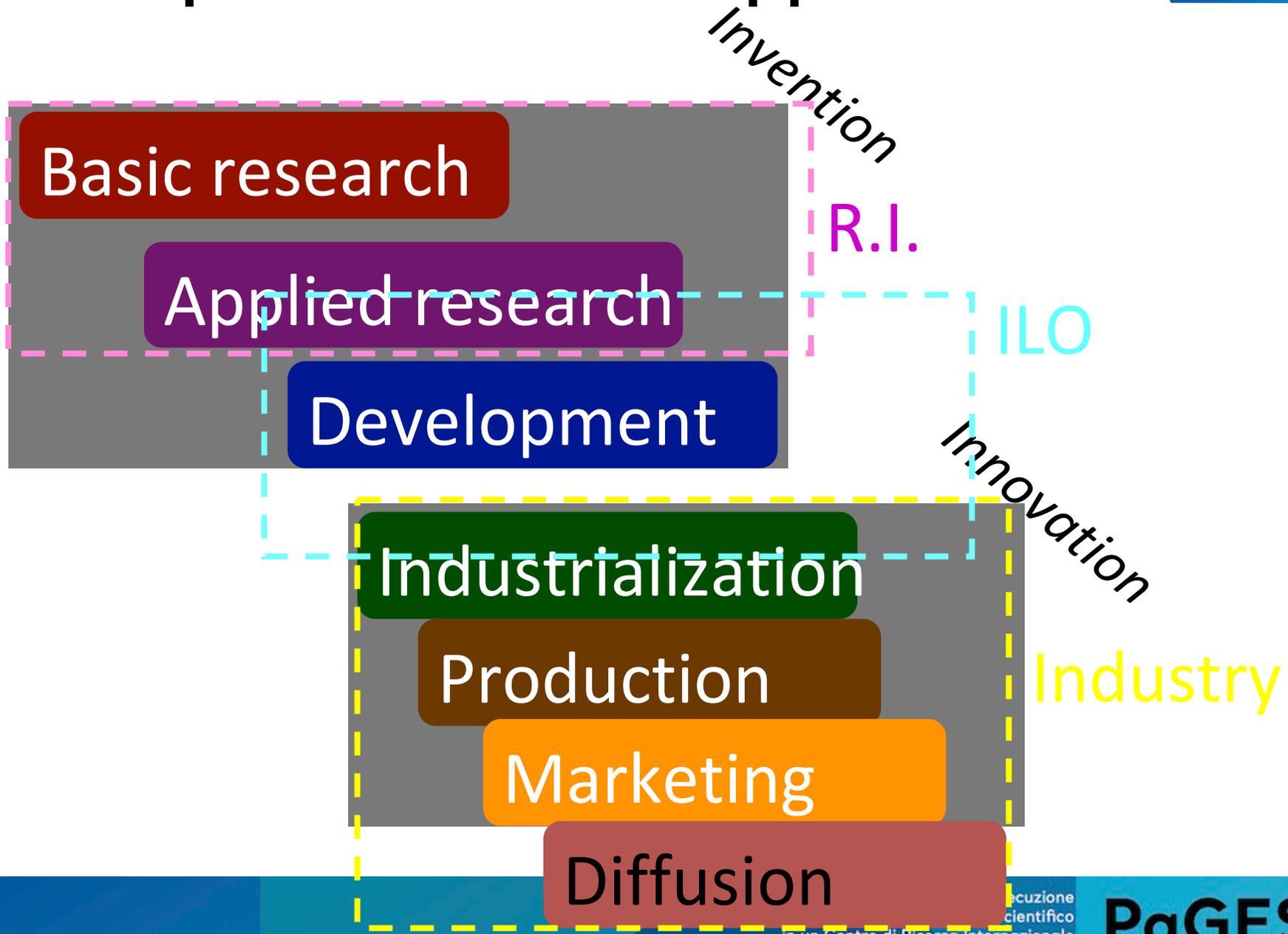
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# The path to industrial applications





# What is TT?

- The process of transferring scientific findings from one organization to another for the purpose of further development and commercialization
- Often call “Spin-off”
- Different meanings in different situations:
  - Transfer of legal rights (Patent title, license, etc.)
  - Informal movement of information, knowledge, skills through person-to-person interaction

*Congressional Research Service*

**Technology Transfer: Use of Federally Funded Research and Development**

Wendy H. Schacht

Specialist in Science and Technology Policy

December 3, 2012

# Technology Transfer vs. Knowledge Management

... but basically we have to transfer

**Knowledge**

# Technology Transfer vs. Knowledge Management

- What is *"Technology"* ?
- What shall we actually *"Transfer"* ?
- We can transfer:
  - ✓ Prototypes
  - ✓ Equipment
  - ✓ Materials and components
  - ✓ People
  - ✓ .....

# Why?

- Give a man a fish and you feed him for a day.
- Give a man a fishing rod, and he feeds himself and his family for as long as the rod lasts.
- Help a man develop the knowledge and means to improve the fishing rod and to design and produce new ones, and he may feed himself and his society for years to come.

# Different mechanisms for TT

## EDUCATED-ORIENTED

- ❖ Didactic activities
- ❖ Scientific publications
- ❖ Mobility of researchers
- ❖ Outplacement of students
- ❖ Academic networks
- ❖ Participation to conferences, meetings, fairs
- ❖ Postdoc masters (also for workers)

## MARKET-ORIENTED

- ❖ Research contracts
- ❖ Co-operative research programs
- ❖ R&D consortia
- ❖ Shared laboratories
- ❖ Sell of intellectual property
- ❖ Spin-off creation
- ❖ Services for tests and analysis
- ❖ Technological consultancy
- ❖ Accreditation and certification activities

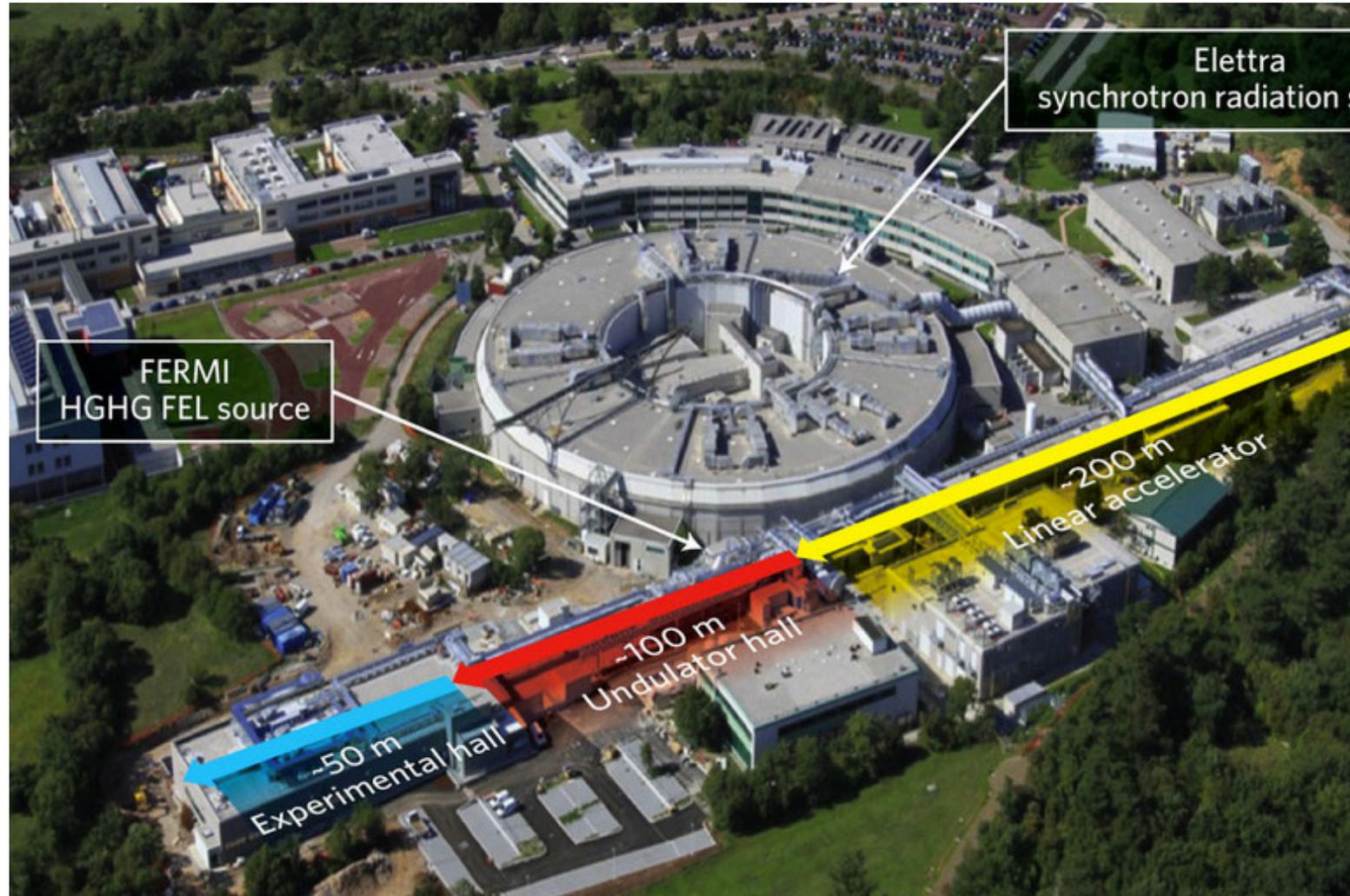
# Tools to promote TT

- Scientific parks
- Innovation districts
- Business incubators
- Industrial Liaison Offices (ILO)
- Patents
- STTR (Small Business Technology Transfer Program) SBIR (Small Business Innovation Research)
  - *SBA\_SBIR-STTR\_Overview\_October\_2015.ppt*

# Technology transfer: from research to market



- Universities and Research Centers do not have appropriate resources and sufficient competences and even culture to exploit an opportunity from the commercial point of view
- For enterprises it is almost impossible to cover all the different disciplines and relevant knowledge that are often necessary to conceive and set up a new technology and/or a new product

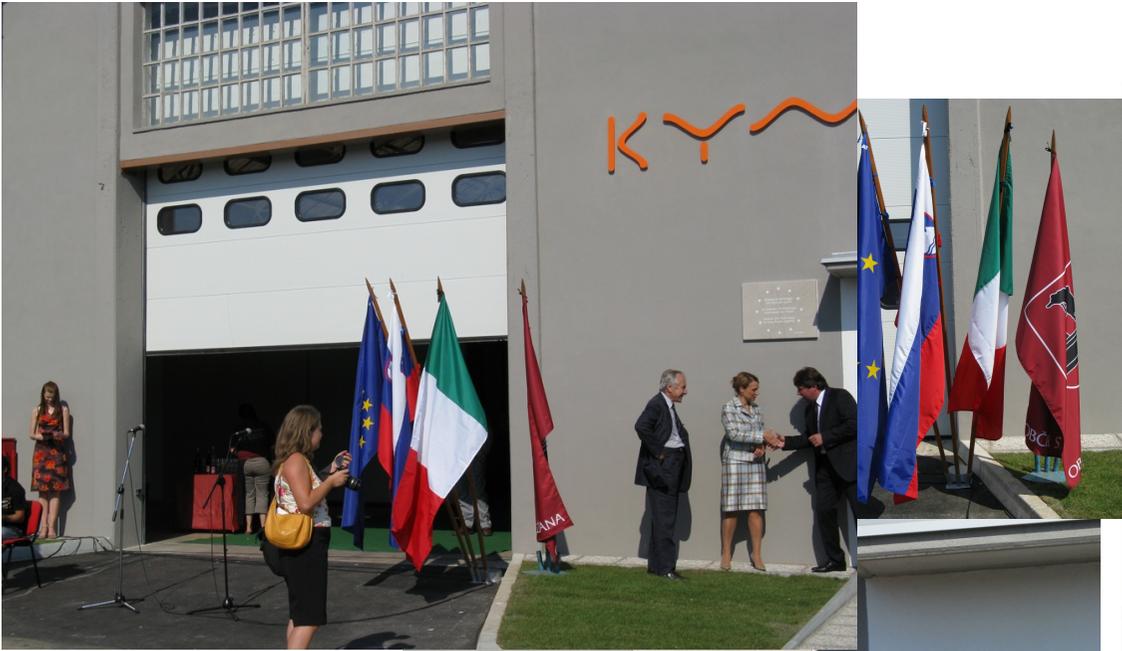


## Technology transfer: Kyma example

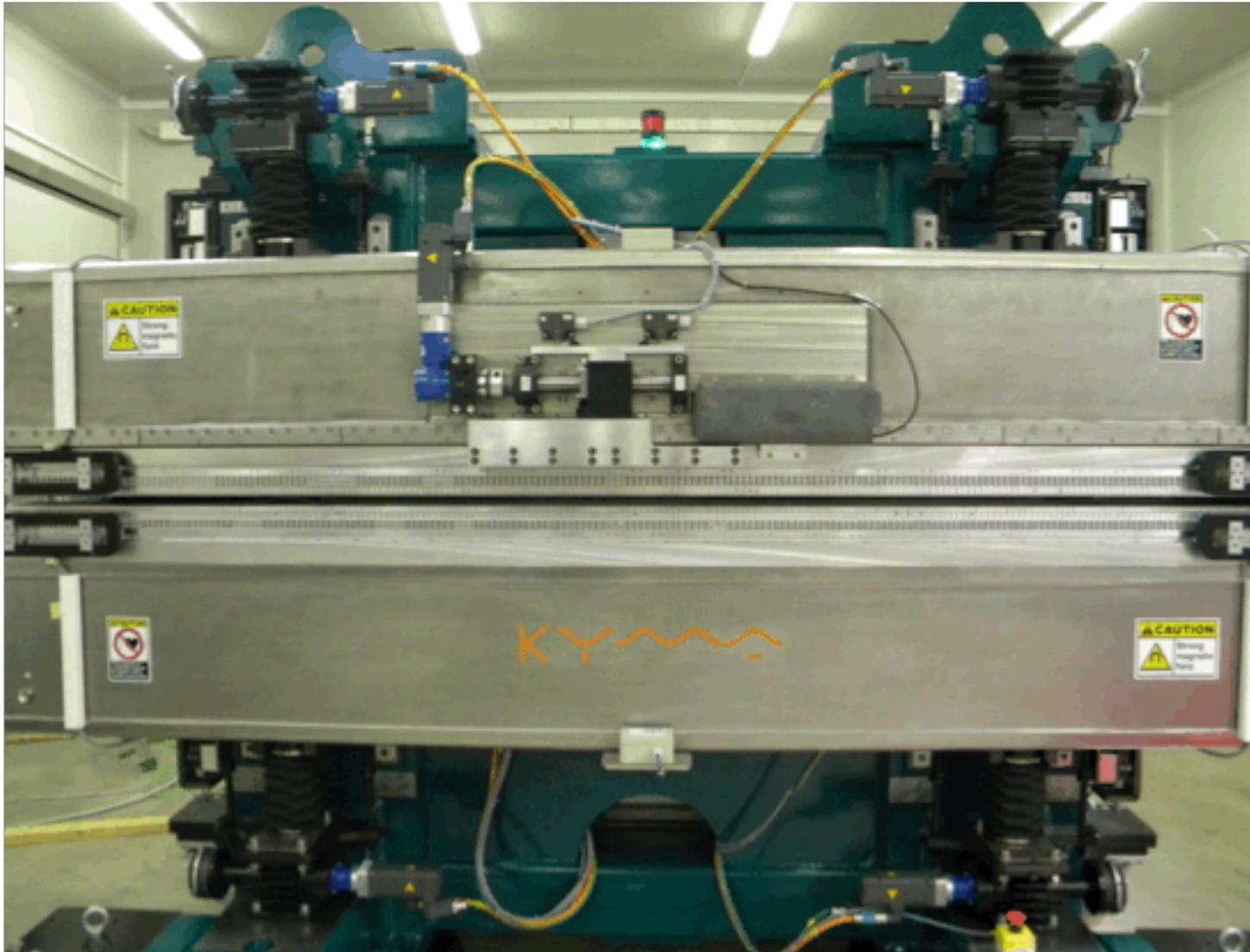
- ✓ Kyma was established as a spin-off of Elettra - Sincrotrone Trieste to design, realize and install all the 18 undulators for FERMI@Elettra project.
- ✓ An open European tender issued by end 2006 with the purpose to find potential partners for realizing the undulators.
  - Potential partners were required to set up a new company to that purpose, together with Elettra.
  - The capital of the company was formed by 51% of shares of the NewCo as **intangible assets** supplied by Elettra - Sincrotrone Trieste and 49% of liquid capital supplied by the partners.
  - Elettra had to contribute transferring to the NewCo its know-how on undulators. **Knowledge Transfer monetarily evaluated.**

# Achievement in a nutshell

- Kyma Srl established in August 2007
- Kyma Tehnologija d.o.o. established in July 2008
- Operations started by end 2008
- All undulators for the FERMI@Elettra project delivered on spec, on time, on budget
- Supply of insertion devices to the light source market started in 2010
- Cooperation with major scientific institutions worldwide
- 2 M€ profit after taxation in fiscal years 2008 to 2013

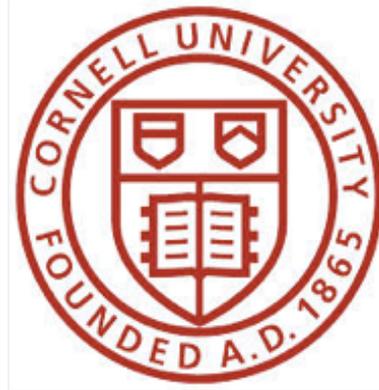


August 2008





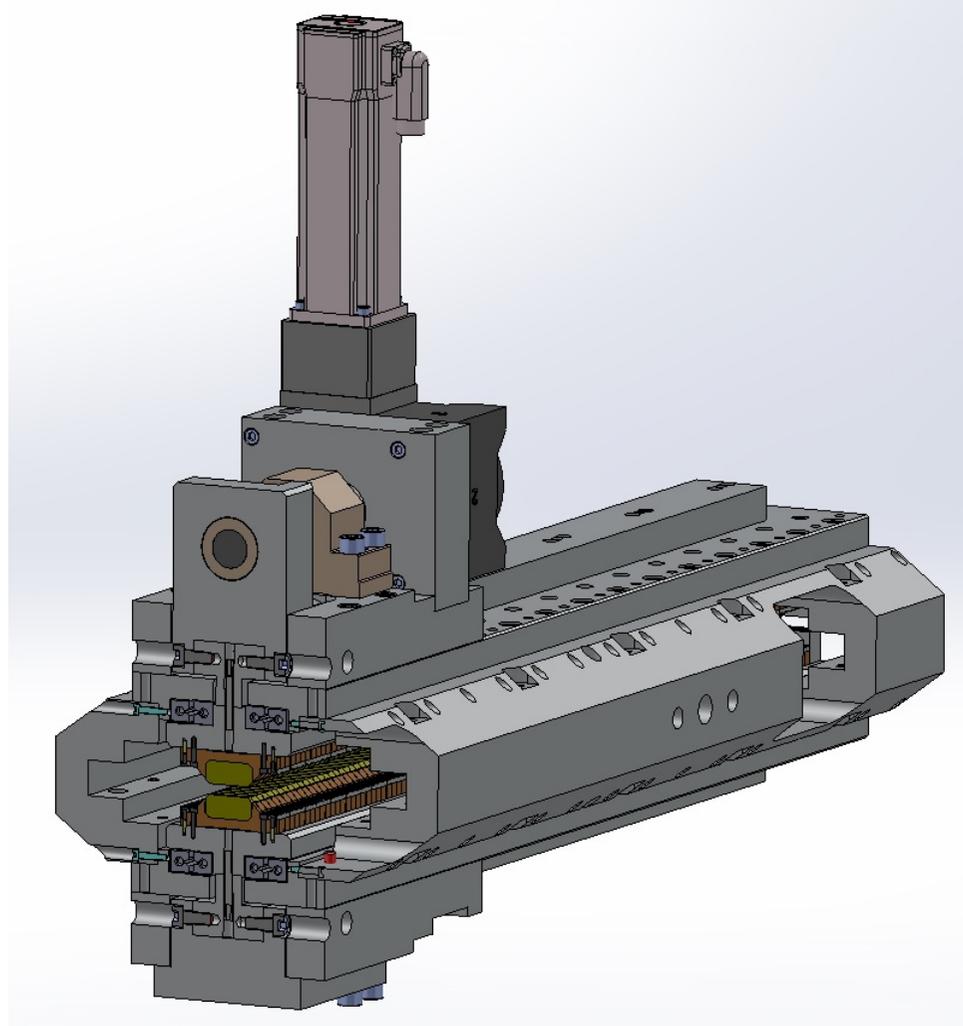
## The partnership with



**CORNELL UNIVERSITY**

Committed to develop  
new generations of IDs

# Fixed-gap, variable-phase, compact LPU



# BUSINESS PLAN

Business plans are **NOT**

Just for commercial sector

Just for start-ups

Just for MBAs

Just for top management

If you are moving

your team / group / department / division

beyond the hunter-gatherer science model

or into a new business area requiring significant resources

***you need a business plan***

Source: prof. William A. Barletta: *"Basic Concepts of Business Plans"*  
US Particle Accelerator School, Director

## Business Plan **SCRITTO**

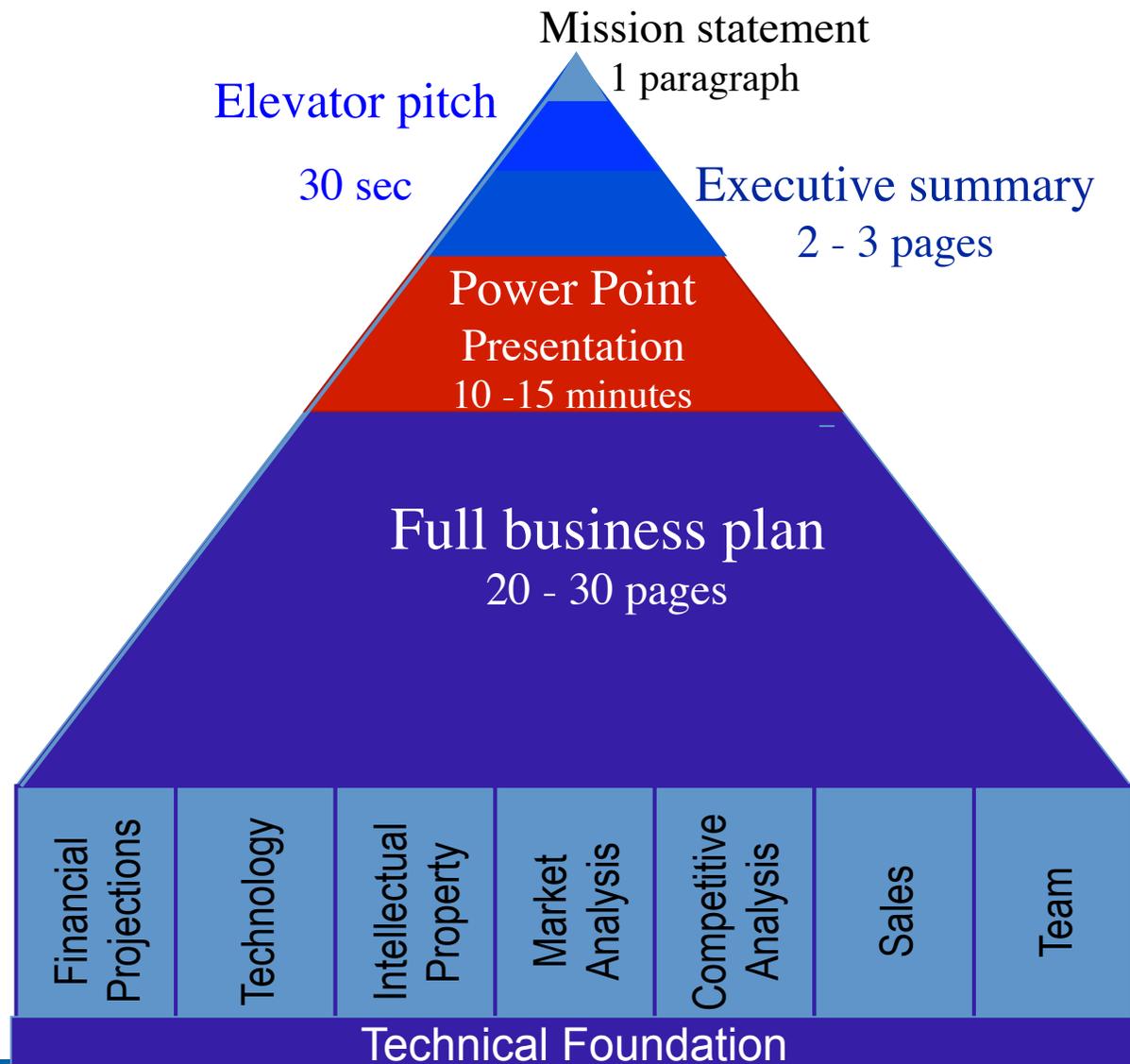
La scrittura è il banco di prova del tuo pensiero!

# What is a business plan?

- A written summary of your
  - Business model
  - Specific business goals
  - Roadmap to those goals
  - Required resources
    - What and when
  - Operating plan
    - How resources will be managed
  - Plan for assessing progress
    - Metrics
    - Schedule
- A selling document
  - Professional but not slick\*
  - Projects the character and excitement of the enterprise

slick: effective but not sincere or honest

## Business plan schematic: written and verbal



Source: J. Hadzima

# Is your plan attractive to investors?

- Who are your investors?
  - Yourself
  - Your team
  - Your university, laboratory or company
  - External investors
- How attractive is the plan?
  - Does it fulfill (or create) a need
  - What is unique about your product
  - What is its growth potential
  - Is it financially viable
  - Does it pass the reality check



# Thank you