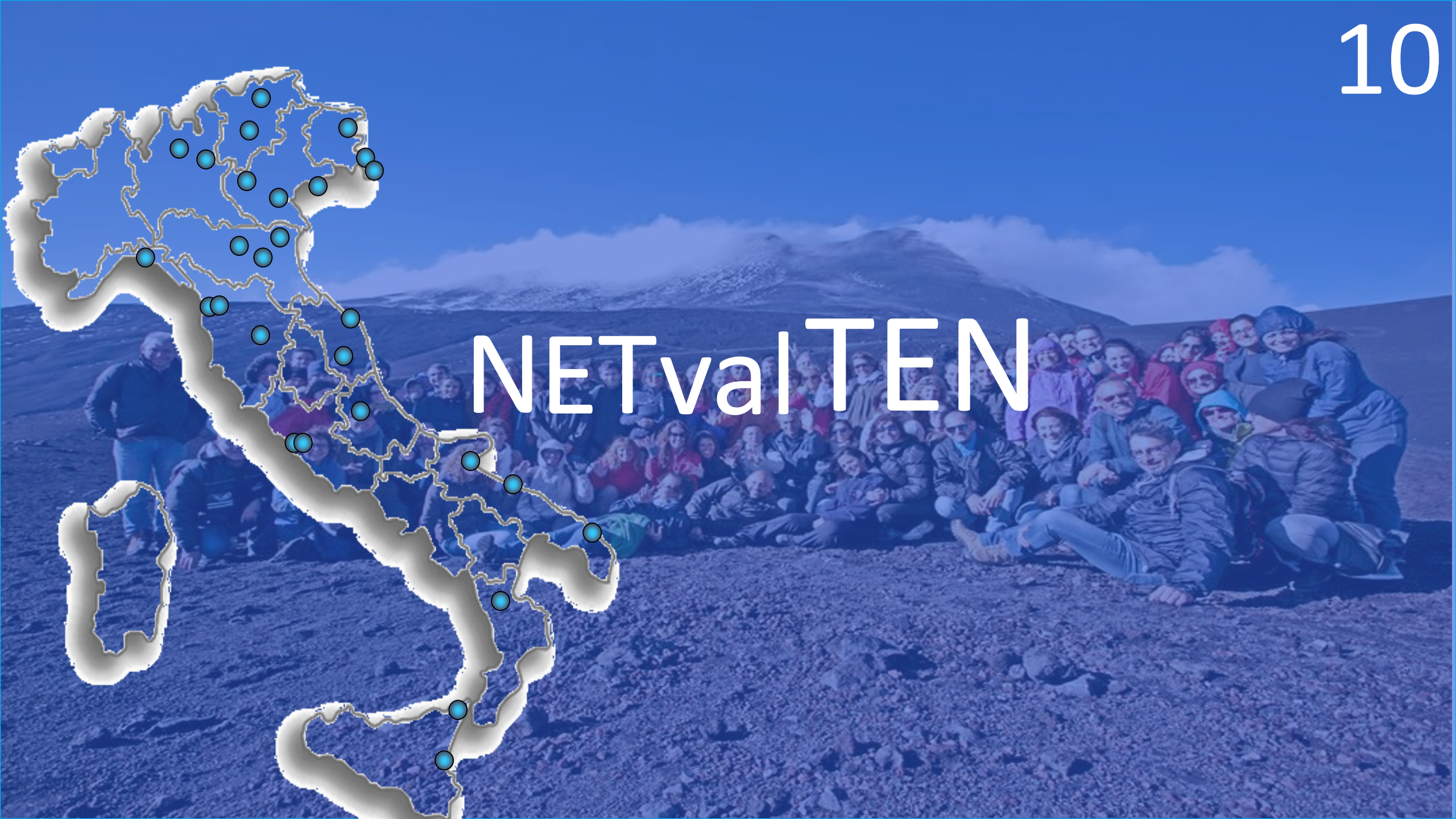


# NETvalTEN





Netval is the Italian association for the valorisation of results from public research.

It is a network of Technology Transfer Offices (TTOs) from universities and public research centres.

It was founded in 2002 as a network and then became an association in 2007.

Netval's **mission** is the valorisation of research results through the network of TTOs of universities and PROs, within the innovation ecosystem made of companies, institutions, VCs, regional governments, ministries, etc.

# Mission & goals



Area Science Park  
 CIRA  
 Città della Scienza  
 CREA  
 CNR  
 Centro di Riferimento Oncologico (IRCCS)  
 ENEA  
 Fondazione Ca' Granda - Policlinico di  
 Milano (IRCCS)  
 IIT - Istituto Italiano di Tecnologia  
 INFN - Istituto Nazionale di Fisica  
 Nucleare  
 Istituto Nazionale Tumori "Fondazione  
 G.Pascale" (IRCCS)  
 SDN - Istituto di Ricerca Diagnostica e  
 Nucleare (IRCCS)  
 Istituto Rizzoli di Bologna (IRCCS)  
 IRCCS materno infantile Burlo Garofolo  
 ItaliaCamp  
 ARTI Puglia  
 Università dell'Aquila  
 Politecnico di Bari  
 Università Cattolica  
 Università di Bari  
 Università di Bergamo  
 Università di Bologna  
 Libera Università di Bolzano  
 Università di Brescia

Università di Cagliari  
 Università della Calabria  
 Università dell'Insubria  
 Università di Reggio Calabria  
 Università di Camerino  
 Università di Cassino  
 Università di Catania  
 Università Chieti-Pescara  
 Università di Ferrara  
 Università di Firenze  
 Università di Foggia  
 Università di Genova  
 IMT Lucca  
 Università LIUC  
 Politecnica delle Marche  
 Università di Messina  
 Politecnico di Milano  
 Università di Milano  
 Università di Milano Bicocca  
 Università di Modena e Reggio  
 Università di Napoli Federico II



Università della Campania "Luigi  
 Vanvitelli"  
 Università di Padova  
 Università di Palermo  
 Università di Parma  
 Università di Pavia  
 Università di Perugia  
 Università per Stranieri di Perugia  
 Scuola Normale Superiore di Pisa  
 Scuola Superiore S. Anna  
 Università di Pisa  
 Università del Piemonte Orientale  
 Campus Bio-Medico di Roma  
 Università di Roma "Tor Vergata"  
 Università del Sannio  
 Università del Salento  
 Università di Salerno  
 Università di Sassari  
 Università di Siena  
 Politecnico di Torino  
 Università di Torino  
 Università di Trento  
 SISSA  
 Università di Trieste  
 Università di Udine  
 Università di Urbino  
 Università di Verona  
 Università Ca' Foscari di Venezia

**56 universities, 7 PROs, 6 IRCCS, 2  
 Foundations, 1 Agency**  
 58.8% of Italian universities  
 75.5% of Italian students  
 85.7% of university professors



Back in 2001, in Italy, a crucial law regarding the ownership of university inventions was changed (professor's privilege).

We did not then, and still do not like that law, but we have it to thank for triggering the foundation of Netval.

The first pioneering professionals with a bottom up approach promoted the first network.

01 About us – back in 2001



The valorisation of research is an obligation and not an optional extra.

The valorisation of research implies taking care of researchers and their inventions.

The generation of revenues must not be the main motivation for university TT

A good TTO is a crucial element (but not the only one) in the complex process from invention to innovation.

01 About us – what we believe in





01 The magic recipe – share share share



Share, share, share

Professors and TT managers together

Companies that appreciate the professionalism of TTOs

Make your researchers and professors happy

Comets appear in the sky, and then disappear. Be patient.

01 About us – the magic recipe



Sense of community and volunteering. Bottom up approach. Have fun

Strong sense of belonging to the public research system

Training (for professionalism and networking)

Not wasting associates' money

Convincing associates that it is worth paying the annual fee

Buying services for associates

01 About us - we are rather good at...





01 ...building a sense of community





01 We are rather good at – having fun





01 We are rather good at – training





## The Assembly

The Assembly is made up of the legal representatives (or their delegates) of all the associates.

There are 72 associates (data at December 31, 2017).



## Board members

The Board is composed of nine members.

It is chaired by the President and lasts for a period of three years.

The President and Vice President of Netval are elected by the Assembly from among the members of the Board, for a period of three years. The mandate is renewable only once for an identical period of time.



**Prof. Riccardo  
Pietrabissa**



**Prof. Andrea Piccaluga**  
President



**Ing. Giuseppe Conti**  
Vice-President



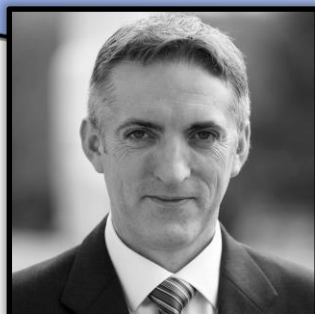
**Dr. Loredana  
Pastore**



**Prof. Fabrizio  
Dughiero**



**Dr. Laura  
Spinardi**



**Mr. Stephen  
Taylor**



**Dr. Shiva  
Loccisano**



**Prof. Massimiliano  
Granieri**

# **Board 2017-2019**





## Delegation

The President can “informally” delegate specific tasks to representatives that voluntarily give time to support a specific activity from an operational point of view.

# Netval

Network for the Valorisation of Research

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*03. Activities & services*





## TT education

- Training activities in intellectual property, patenting, licensing, research and know-how contracts and university research spin-off creation.
- Networking among all the associates (staff exchange programmes, working groups and workshops).

## Promotion of tools and practices

Sharing of best practices and tech transfer process analysis are two of the main themes of Netval's seminars and the focus of the annual Netval Summer School.

## Monitoring and reports

## Institutional links & relationships

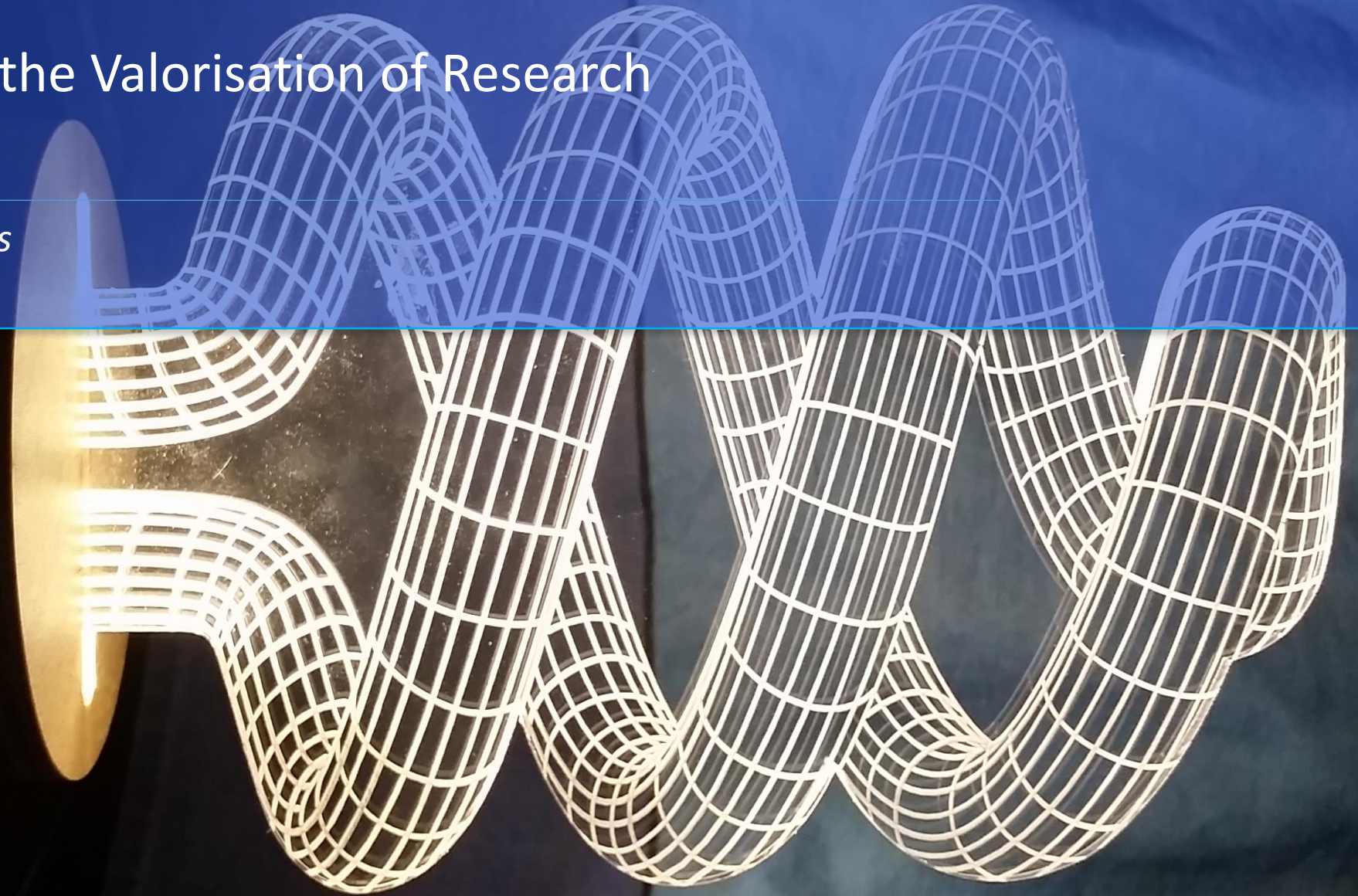
## Special projects: Knowledge share platform



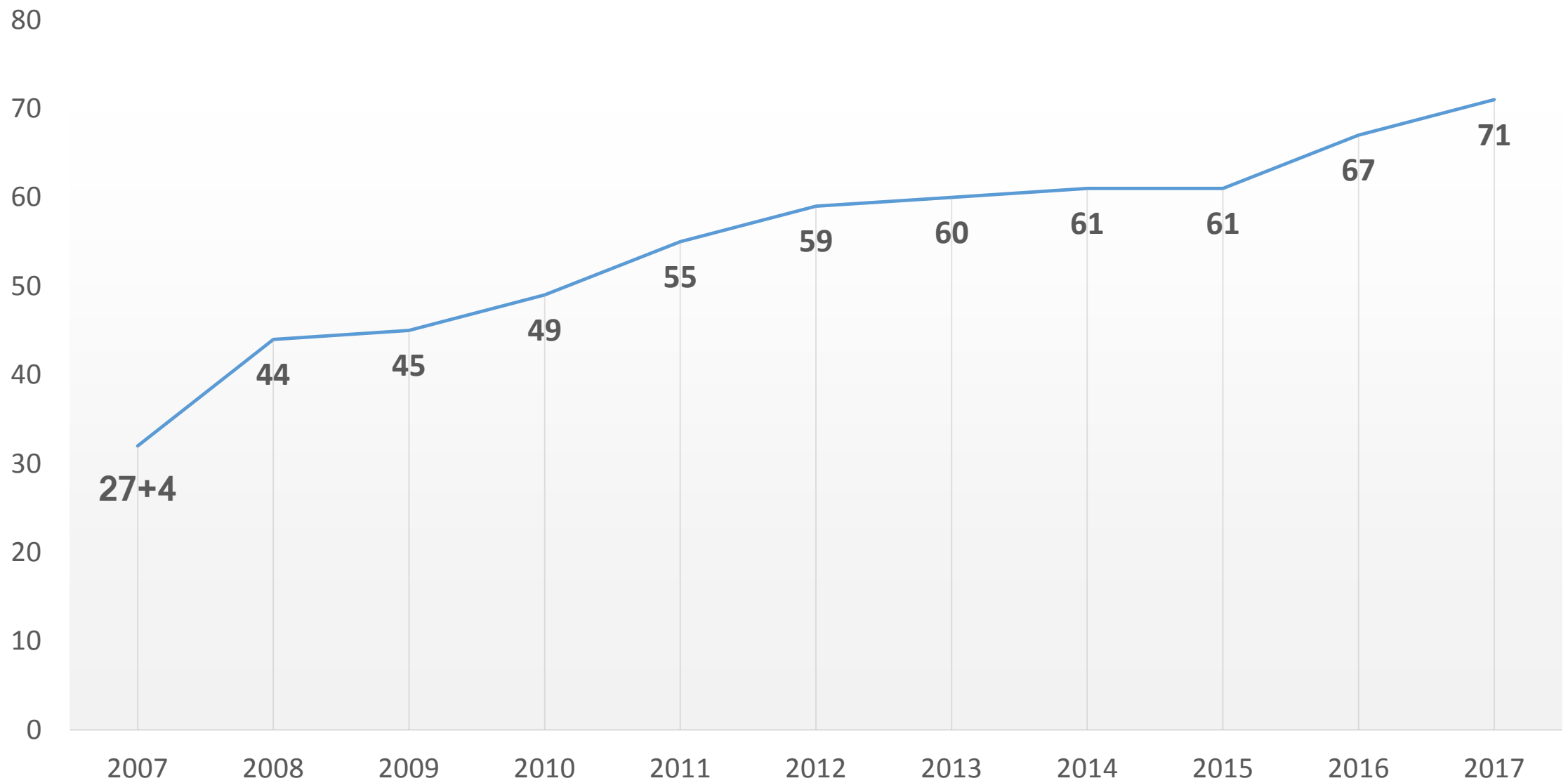
# Netval

Network for the Valorisation of Research

*04. Facts & figures*

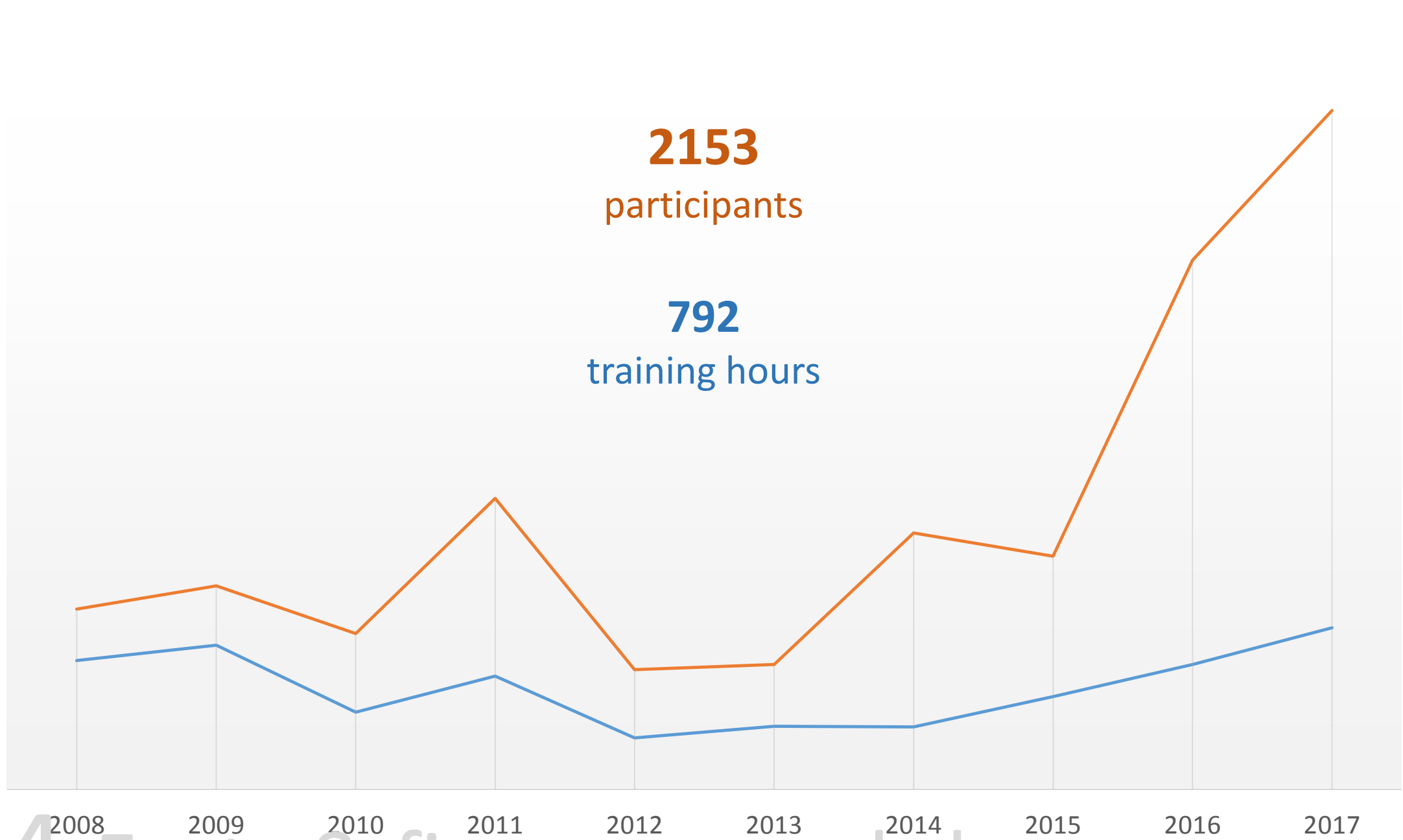


- 
- 265** Professionals (+140%)
  - 56** Technology Transfer Offices (+180%)
  - 3,115** Active Patent Portfolio (+162%)
    - 260 patents granted/year
    - 260 new patent/year
  - 1,254** Spin-off Portfolio (+120/year)



# 04 Facts & figures - members





47

Workshops

In partnership with

CRUI

CODAU

UIBM

MIN. HEALTH

All over ITALY



▲ Summer School	10
● Winter School	2
● Training course	22
■ Workshop	5
★ International Congress	1

04 Facts & figures - workshops

# Netval

Network for the valorisation of research

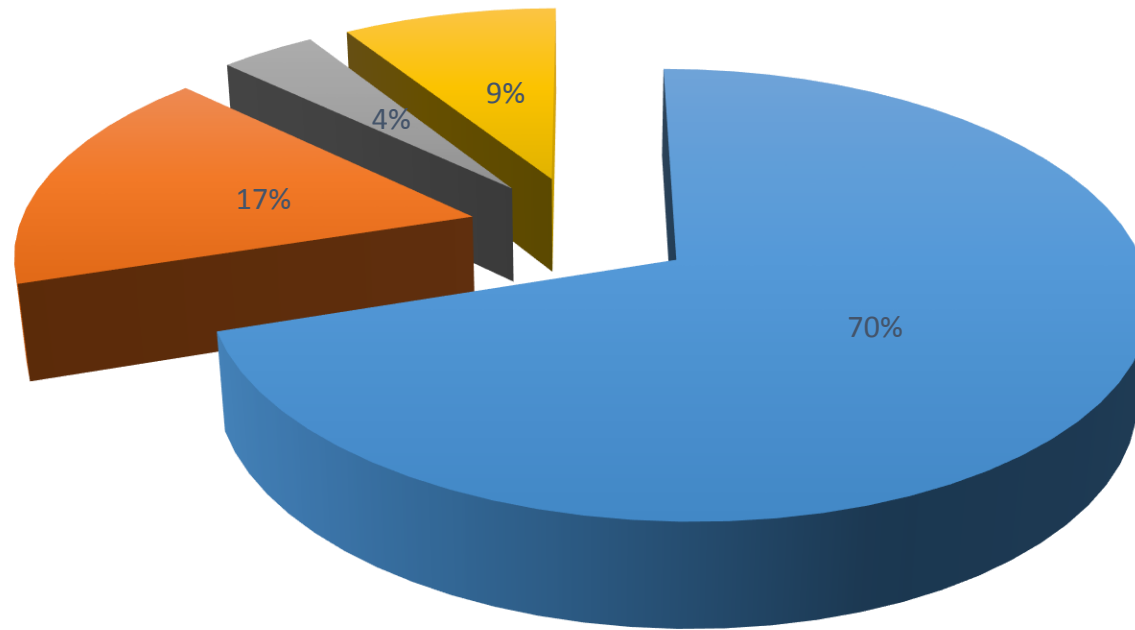
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## *06. Workshops & Schools*

### Some data

- Training courses held in 15 out of 20 regions
- Average participants per year 215
- Average speakers per year 40
- Average training hours per year 80

Netval activities are primarily funded by its members: income from the membership fees and from the training activities cover about 90% of Netval funding.



■ Membership fee      ■ Training activity for members  
■ Training activity for non-members      ■ Sponsorships&Contracts



# Netval

Network for the Valorisation of Research

## 05. Survey



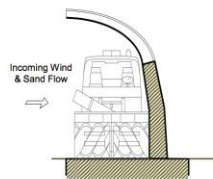


KNOWLEDGESHARE:  
CONDIVIDIAMO CONOSCENZA

07 Projects – knowledge share platform



## S.M.A.R.T. – BARRIERA PER MITIGAZIONE DELLA SABBIA



### DESCRIZIONE:

L'invenzione consiste in un deflettore della sabbia trasportata dal vento che sormonta differenti tipo di pareti piene utilizzate come misure di mitigazione. Il deflettore consiste in un pannello sottile opportunamente curvato ed orientato verso il flusso incidente di vento e sabbia. Il pannello sormonta l'estremo superiore del muro ed è supportato da montanti puntualmente vincolati alla testata del muro stesso.

Le dimensioni e la forma del pannello deflettore possono essere ottimizzate in rapporto alle condizioni del sito di costruzione (velocità del vento, rugosità aerodinamica del terreno, flusso di sabbia incidente) e alla geometria della parete (altezza, inclinazione della faccia sopravvento).



### VANTAGGI:

- Comportamento aerodinamico robusto
- Molto efficiente
- Manutenzione facile ed economica
- Flessibile (stessa forma, altezza variabile)
- Componenti durevoli
- Componenti e processo di costruzione semplici

### APPLICAZIONI:

- Infrastrutture:
  - Ferrovie & strade
  - Aeroporti
- Industria petrolifera:
  - Oleodotti & raffinerie
- Siti archeologici
- Fattorie
- Costruzioni civili

TRIN - Area Trasferimento Tecnologico e Relazioni con l'Industria

POLITECNICO DI TORINO

## S.M.A.R.T. – BARRIERA PER MITIGAZIONE DELLA SABBIA



**NUMERO DI PRIORITÀ:**  
2015WO-IT00129

### KEYWORDS:

Barriere anti-sabbia  
Infrastruttura ferroviaria  
Trasporti  
Opere civili  
Regioni aride



POLITECNICO  
DI TORINO



KNOWLEDGE-SHARE.EU

TRIN - Area Trasferimento Tecnologico e Relazioni con l'Industria

POLITECNICO DI TORINO



STABILIRE UNO STANDARD

L'INNOVAZIONE È SU KNOWLEDGESHARE



CREARE UN ECOSISTEMA

AZIENDE INNOVATIVE - UNIVERSITÀ



VALORIZZARE GLI INVESTIMENTI

TECNOLOGIE BREVETTATE

225 Patents

18 Universities/PROs

100 Daily contacts

15 New patents per month

07 Projects – knowledge share platform

Knowledgeshare aims to be the meeting point for Italian companies with the expertise developed by Italian universities and research centers.

It is a portal created to make available, in a clear and understandable way, information related to patents and technologies that represent the excellence of the scientific know-how of Italian universities and research centers.

The objective is to bring together research groups and companies so that industry can make use of these patents.



**POLITECNICO  
DI TORINO**







**Netval**, in collaboration with the Ministry of Economic Development - **Italian Patent and Trademark Office (UIBM)**, organized four days of training for university and PRO TTO personnel following the Call issued by the UIBM on 07/08/2015.

The courses, which were attended by 100 people, offered an overview on the topic of technology transfer and the Third Mission activities.

**Goals:** provide to TTO staff the skills necessary to operate efficiently and to share and strengthen skills in the field of the valorisation of research results.



## UIBM Call

Call to support the development and capacity building projects of the Technological Transfer Offices (TTO) of Italian universities and Public Research Organizations (PROs) in order to increase the efficacy of technology transfer flows towards industry.

38 university and PRO projects were funded in 2015 (each lasted for 2 years).





**CRUI** - The Conference of Italian University Rectors



**PNICube** - Association of University Incubators and Italian Academic Business Plan Competitions (Start Cup)



**AICIPI** - Association of Patent & Trademark Attorneys in Italian Companies



**ASTP-ProTon** - European Knowledge Transfer Association



**CODAU** – The Conference of General Managers of University Administrations

# Netval

Network for the valorisation of research

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## *08. International Partnerships*







# 08 International Partnerships - USA





February 2015, San Francisco, USA

**Goals:** entrepreneurial journey in which M31 staff present Silicon Valley and organise meetings with Venture Capitalists, startup founders, professors and technology transfer managers from local universities in order to share best practices and get to know the innovation ecosystem; visit incubators and research facilities; network with local innovators.



M31 incubator



Berkeley



Golden gate



Stanford



## Activities

- Workshops at M31's headquarters
- 3 incubators visited: Galvanize, Runway and USMAC Rocketspace
- Visit to the Berkeley IPIRA Office of IP & Industrial Research Alliances and UC and Stanford universities

## Lessons learned

- The importance of human resources in performing innovation
- Focus on achieving goals to solve solutions (People are very focussed on the objective, the only way to do it is do it)
- The importance of positivity, confidence and global thinking (setting up a business idea to be "great" is just the right away)
- Necessity of building an honest relationship and developing resilience capabilities
- Need to act with an impact-oriented approach (not just money)
- Innovation demands a high degree of uncertainty and failure

## Next Step

Looking for an Italian way to do innovation with the lessons learned.







# 08 International Partnerships - Iran

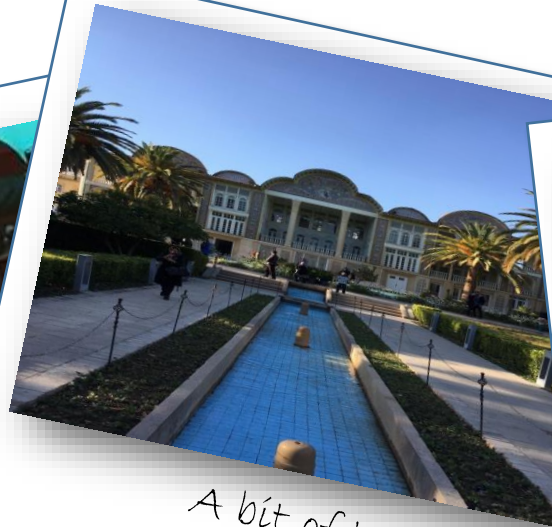


5- 9 December 2016, **Teheran**, Iran

**Goals:** Strengthen relationships between key Italian and Iranian representatives of innovation, from academia, companies and intermediaries. Participation of Netval delegation, representing Italy, the guest country of the IRAMOT Conference; site visit of incubation and research facilities; networking with key figures in the local innovation supply chain, investors, companies and institutions.



iramot conference



A bit of tourism



university TTO meeting



Food market

## **Activities** (Full report available on Netval website)

- Visit of the Pardis Science Park and learning about their TT model
- Workshop at the Innovation Prosperity Fund
- Participation at the IRAMOT Conference
- Visit of the research centre RIPI on technologies for oil extraction
- Signature of MoU between IRAMOT and Netval

## **Lessons learned**

TT models are very similar to the ones currently used in Italy, all key figures from the TT supply chain are present and working together. Challenges in Iran are mainly the attraction of foreign customers and partners and diversification from the oil industry. Collaboration between Italian companies and universities and corresponding local entities would be very worthwhile. Follow up is in progress for academic partnerships, but is a bit more complicated for companies.

## **Next steps**

Add specific activities to the MoU and use members of the Italian delegation as intermediaries for Italian companies trying to approach the Iranian market.







# 08 International Partnerships - Israel



May 2017, Tel Aviv, Jerusalem, Beersheba, Haifa, Israel

**Goals:** Strengthen relationships between key Italian and Israeli representatives of innovation and technology transfer, from academia to incubators, VCs and private companies devoted to boosting outlicensing. Participation of Netval, as part of the Italian delegation, hosted by the Israeli embassy, supporting the Italian embassy and the Italian Ministry.



Jerusalem



Technion



Tel Aviv  
incubator



Tel Aviv Promenade



Tel Aviv Airport

## **Activities** (Full report available on Netval website)

- Visits to the most relevant organizations dealing with TT
- Workshops with main stakeholders of Israeli TT ecosystem

## **Lessons learned** as universities and public bodies

- Must have IP rights, from the beginning, by law
- Have to provide proof of concept funds/opportunities
- Should monitor, evaluate and provide incentives to TT activities/results
- Should empower KTOs and professionals
- Should invest in training and raise awareness about TT

## **Next steps**

- To increase participation of Italian partners in joint competitive calls
- To establish strong links between Institutions
- To promote Israeli investment in Italian IP and spin-offs
- To replicate the road map promoting student entrepreneurship and related networking initiatives







February – April 2017 – Cuenca, Guayaquil, Quito

Goals: starting course on technology and knowledge transfer, intellectual property, patenting, licensing, management of research contracts and know-how and supporting the formation and growth of spin-off companies.



Meeting with Rectors  
and delegates



Technology transfer  
course



Panama hat factory



Entrepreneurship  
course



**Activities:** training course on “*Technology Transfer for the Universidad Politécnica Salesiana – UPS*”. The course was in two parts: the first was a series of lectures regarding the main basic concepts of University Technology Transfer and its evaluation, and the second in which three different conferences were organized in the three UPS campus in Quito, Cuenca e Guayaquil.

**Lessons learned:** the take home from this kind of experience is two-fold. On the one hand the Netval representatives had the opportunity to know something of the education system in Ecuador and its impact which is in part different from what we normally expect (e.g. the establishment of UPS’ campus in Guayaquil helped to regenerate a poor area of the city). On the other hand Netval demonstrated its competences and its capacity to deliver high quality training content and support the evolution of less advanced national technology transfer systems, as outlined in its statutory mandate.







09 The value of the NET is US





09 The value of the NET is US

A committed core team is fundamental

Mix professors and administrative staff

A national TT network is not expensive, but an annual fee has to be paid

Some choose to set up an elite network open only to a few...

We chose to become the network open to all.

# 10 Starting new networks



# Netval

## Contact Details

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*c/o Università degli Studi di Pavia - Servizio Ricerca e Terza Missione*

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*27100 Pavia – Italy*

*Phone + 39 0382 984895*

*Email: [segreteria@netval.it](mailto:segreteria@netval.it)*

*Skype: [segreteria.netval](https://www.skype.com/people/segreteria.netval)*

*Twitter: [NetvalITA](https://twitter.com/NetvalITA)*

*Facebook: [associazionenetval](https://www.facebook.com/associazionenetval)*

*[www.netval.it](http://www.netval.it)*

# MaTeRiA

EU/National Funding

PON “Ricerca e Competitività” 2007 – 2013

*Scientific responsible: Prof. Mauro Ghedini*

## STAR-Lab@MaTeRiA

is a **new Research Infrastructure** inside the **University of Calabria** campus area

Partners: **UniCal**, University of Calabria & **CNISM**, Italian Consortium on Physical Sciences of Matter

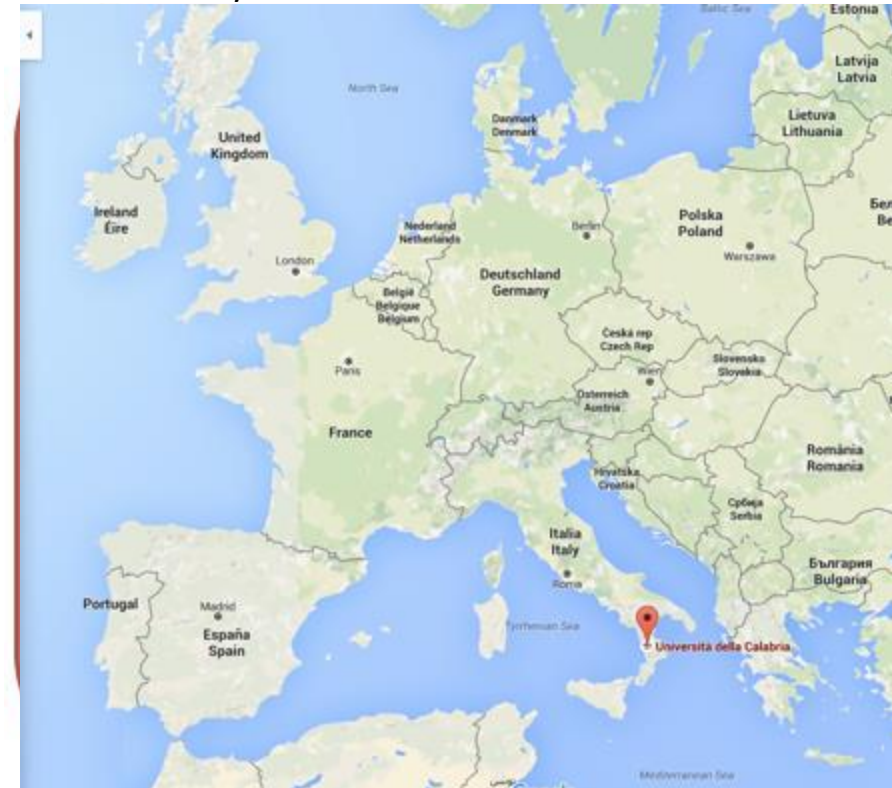
The highly specialized laboratories that constitute MaTeRiA are organized in three progressive levels

**First level.** **STAR** (Southern Europe Thomson Back-Scattering Source for Applied Research) equipped with the beam-line  $\mu$ Tomo.

**Second level** laboratories:

1. Preparation and characterization
2. Characterization of mechanical and other physical properties
3. Modeling and simulation
4. Prototyping
5. Advanced spectroscopy and microscopy

**Third level.** Network of existent departmental laboratories



UNIVERSITÀ DELLA CALABRIA




# STAR: X-ray beam features

**STAR\_2 source** operating modes:

- **high-flux / moderate-monochromaticity** → Medical imaging;
- **moderate-flux / monochromatic mode** → Better detection/dose performance;
- **short-and-monochromatic** → Pump-and-probe experiments.

**(Pseudo-)coherence** → Phase-contrast imaging and diffraction-enhanced imaging.

Operating modes	High-flux	Small-BW	Short-pulse
Photon energy (keV)	20-85 (170)*	20-85 (170)*	40-85 (170)*
Photons/s (@100 Hz)	$3 \cdot 10^9$	$3 \cdot 10^8$	$3 \cdot 10^6$
Bandwidth (rms)	10%	1%	1%
Rms Pulse lenght (ps)	1-5	1-5	<0.2



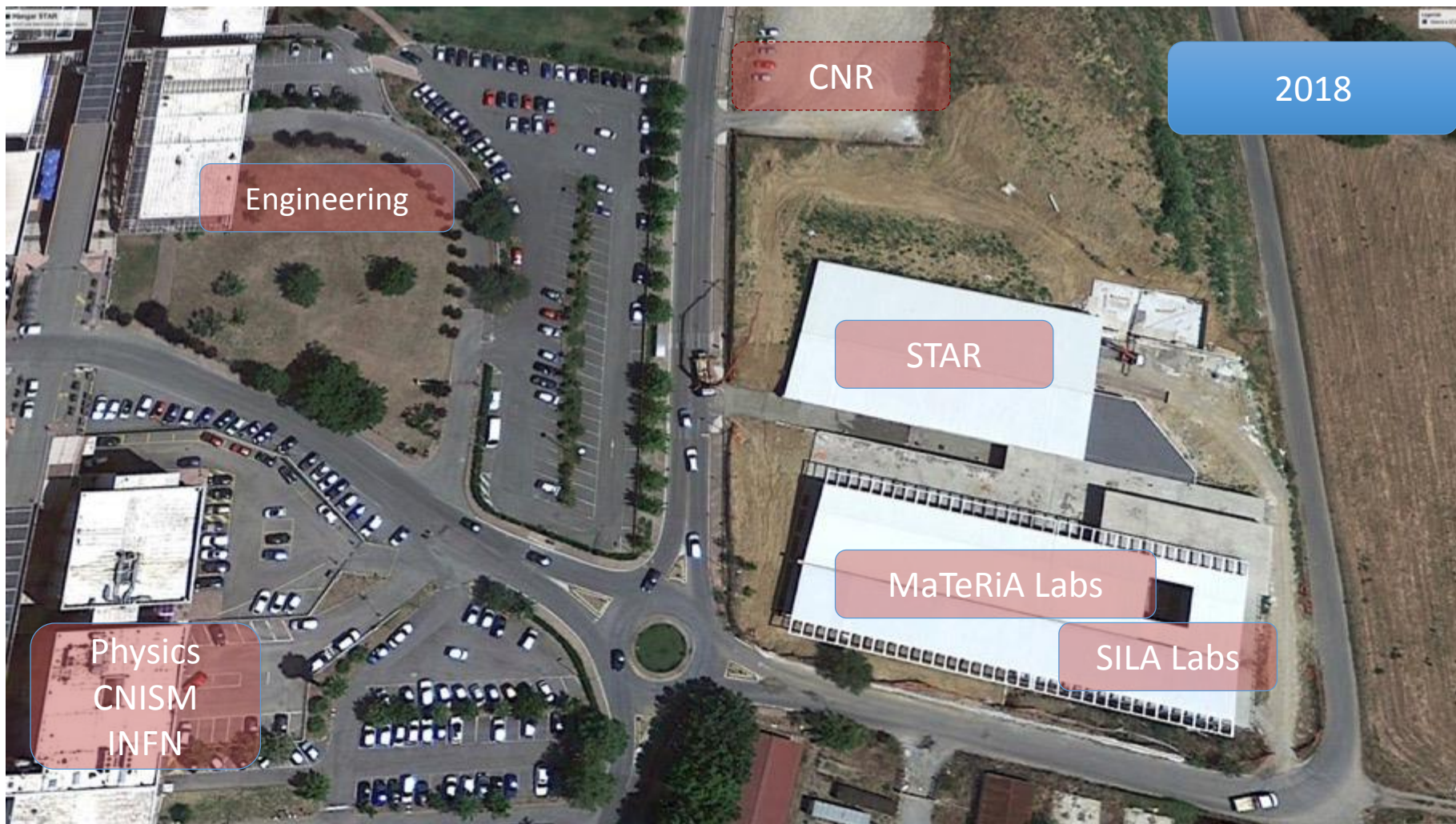
- X-ray energy **tuneable** on a wide range up to hard X-rays
- Controlled BW
- Low (controlled) divergence
- Time structure on the **ps-scale**
- Circular **μm-sized x-ray source**
- **Linear polarization** up to 99% switchable pulse to pulse (H vs. V)
- **Simple evolution to higher energies and fluxes**

- A. Bacci et al., *The Star project*, Proceedings of IPAC2014, Dresden, Germany
- A. Bacci et al., *Status of the Star project*, Proceedings of IPAC2016, Busan, Korea
- A. Bacci et al., *Photoinjector Emittance Measurement at STAR*, Proceedings of IPAC2017, Copenhagen, Denmark

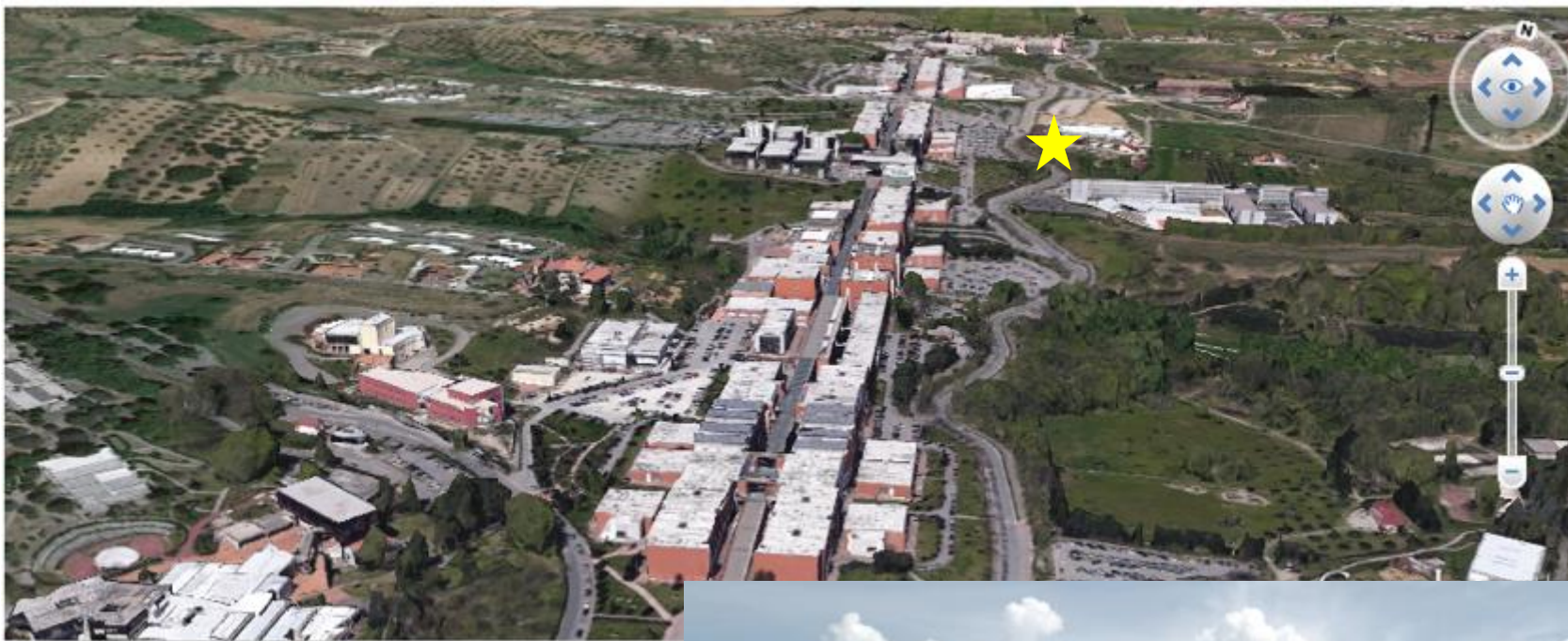




STAR → STAR\_2







**The Technological Pole  
@ Unical**

