



# HORIZON 2020

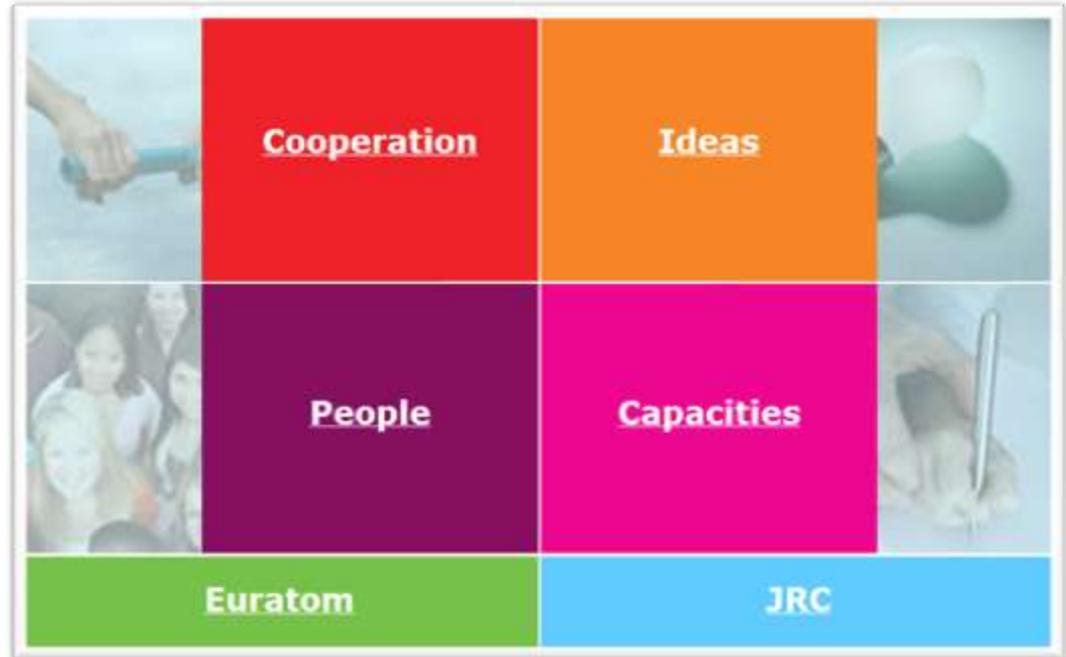
## Opportunità e finanziamenti a favore di ricerca e innovazione

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Delegato per la ricerca Università degli Studi di Udine

**Partecipazione dell'Università di Udine al 7 PQ:  
Lezioni per il futuro**

**Udine 11 febbraio 2014**

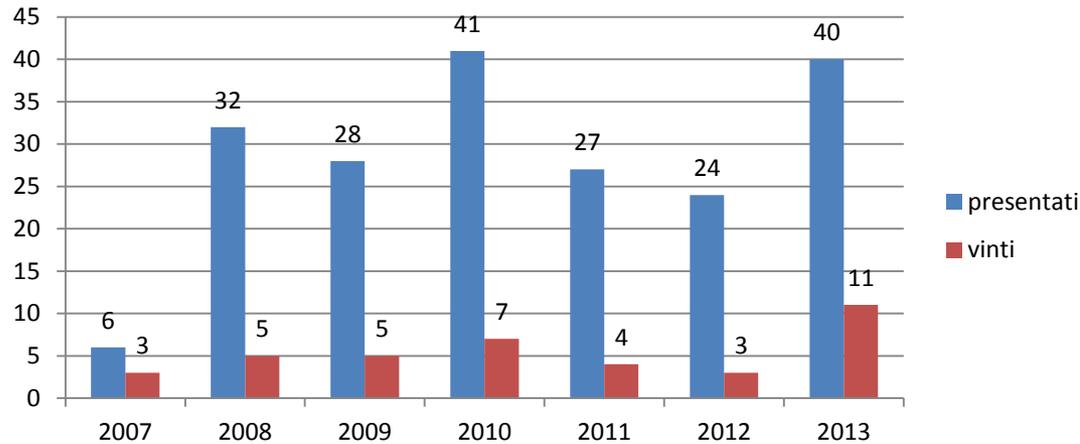
2007-2013



2014-2020

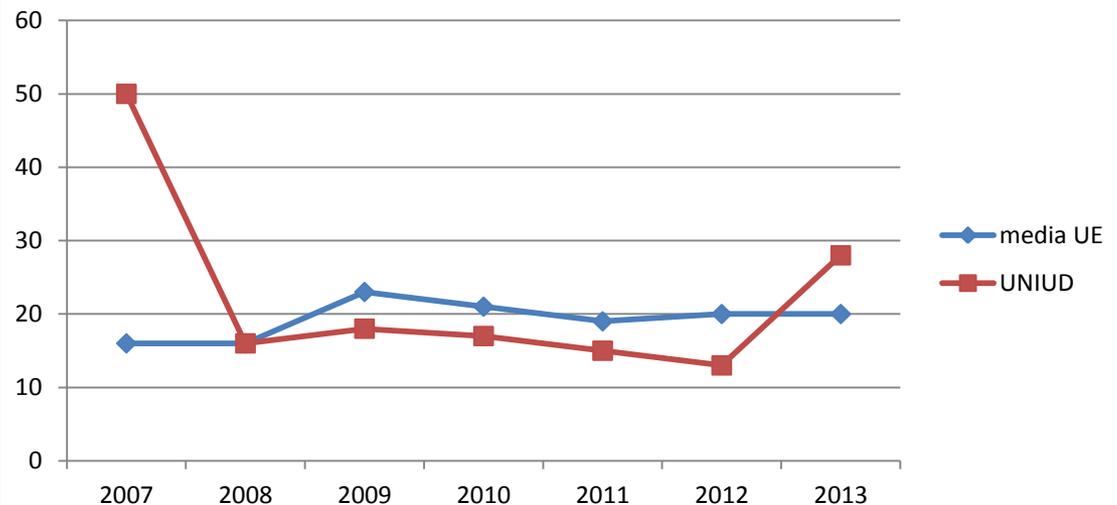


### Progetti presentati e vinti nel 7PQ da UNIUD

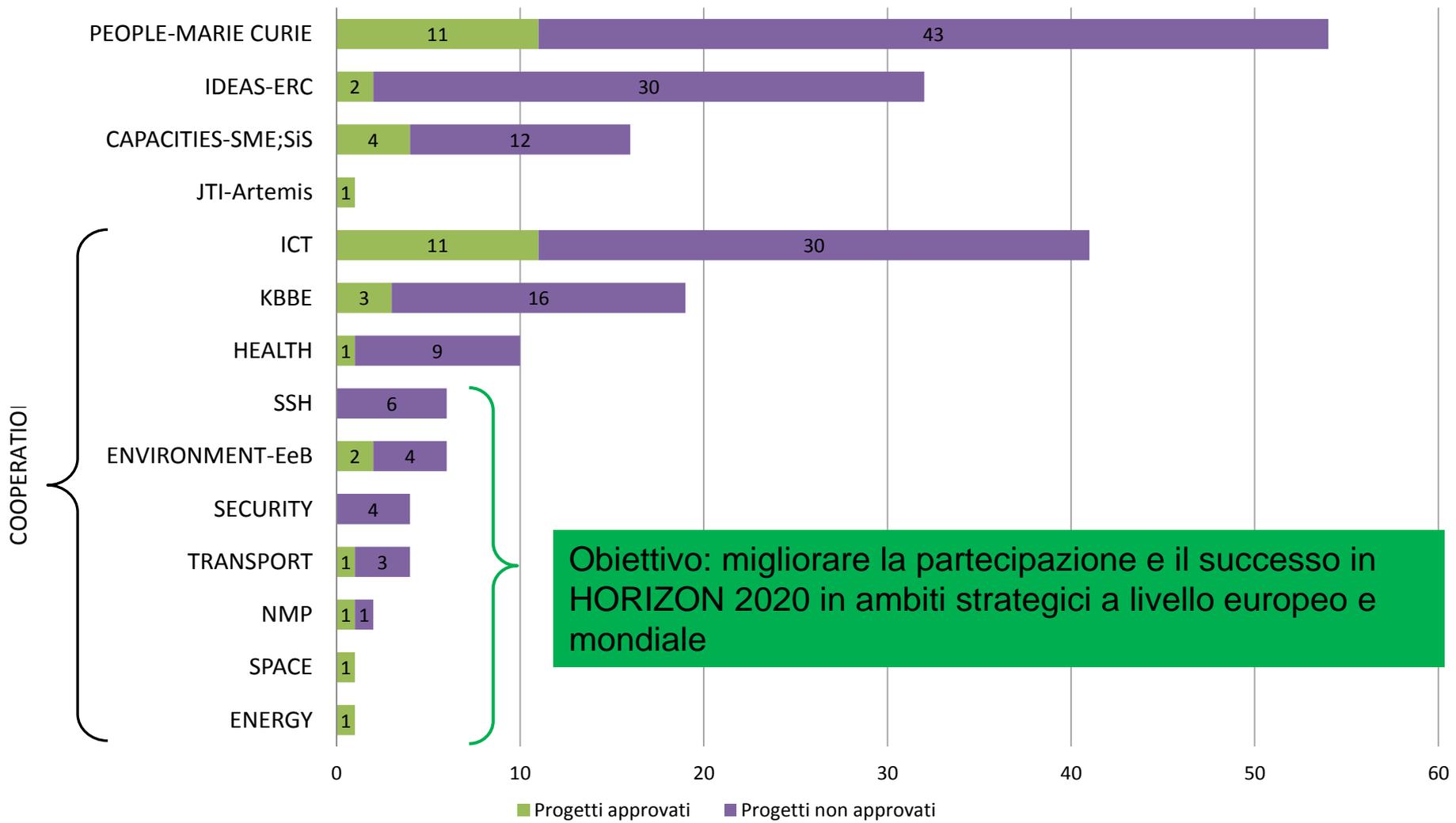


Alcuni dati sulla partecipazione dell'Università degli studi di Udine al 7PQ

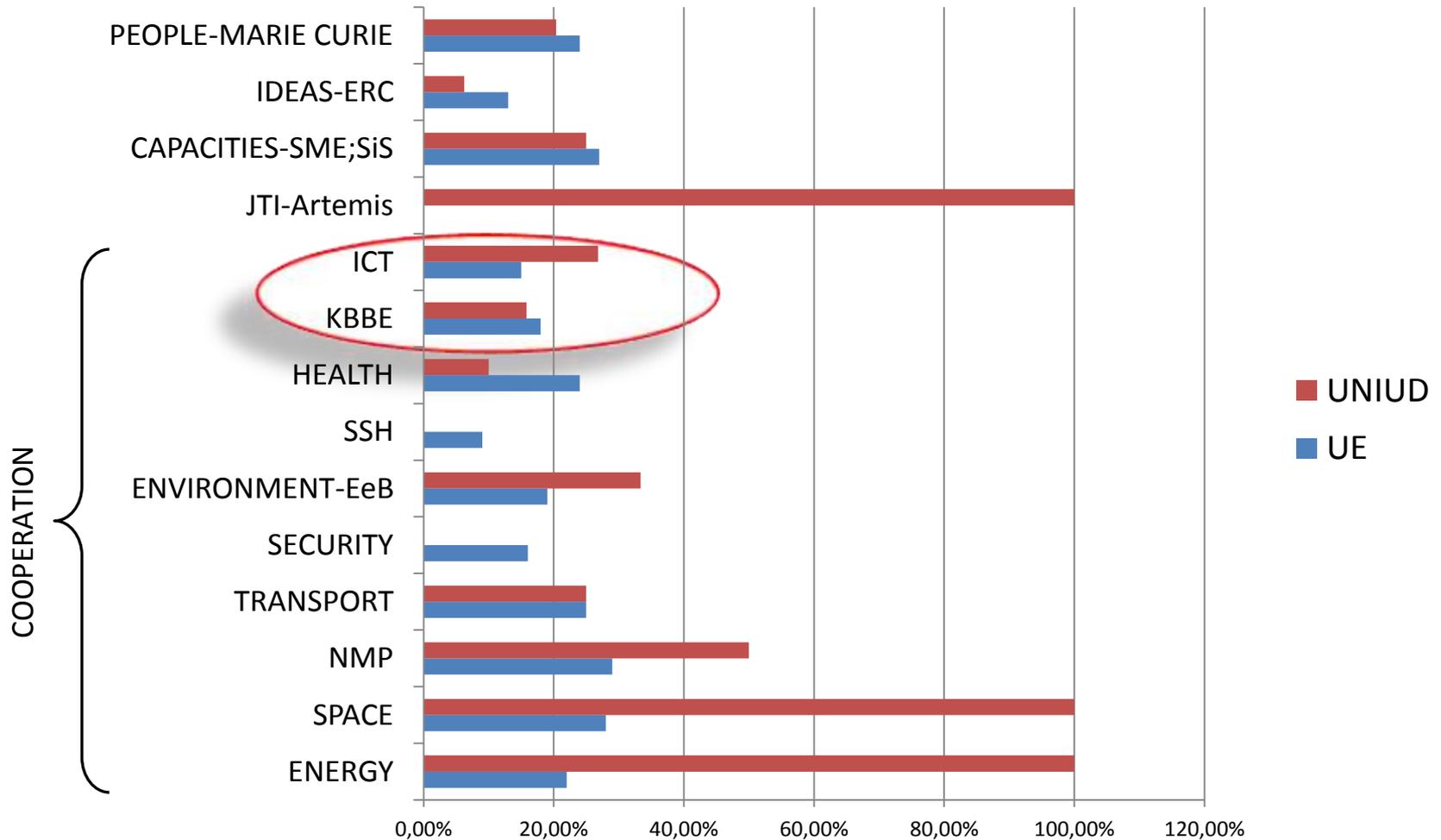
### % di successo progetti 7PQ 2007-2013: confronto UNIUD UE



## 7PQ: progetti UNIUD approvati e non approvati per programma e settore



## 7PQ: ratei di successo per programma e settore, confronto UNIUD con media UE



## Esempi di successo: fare rete

In ben 7 progetti finanziati UNIUD è parte terza del consorzio interuniversitario IUNET – Consorzio Nazionale Interuniversitario per la Nanoelettronica –

The screenshot shows the IUNET website interface. At the top right, there is a 'Consortium area' section with 'Login ...' and 'Password' input fields and an 'OK' button. Below this are the European Union flag and the 'SECURITY PARTNER' logo. The main header reads 'Technology CAD for III-V Semiconductor-based MOSFETs'. A large heatmap image is displayed below the header. On the left side, there is a navigation menu with 'Homepage', 'Partners', 'Agenda', 'Workpackages', and 'Dissemination'. The 'Partners' section is expanded, showing a list of partners with columns for Partner, Organisation, Acronym, and Country. A calendar for February 2014 is visible at the bottom left of the menu area.

**Partners**

Partner	Organisation	Acronym	Country
1	<a href="#">Consorzio Nazionale Interuniversitario per la Nanoelettronica</a>	IUNET	Italy
2	<a href="#">Eidgenoessische Technische Hochschule Zurich</a>	ETH Zürich	Switzerland
3	<a href="#">Interuniversitair Micro-Electronica Centrum VZW</a>	IMEC	Belgium
4	<a href="#">IBM Research GMBH</a>	IBM	Switzerland
5	<a href="#">QuantumWise A/S</a>	QW	Denmark
6	<a href="#">GLOBALFOUNDRIES Dresden Module One LLC &amp; Co. KG</a>	GF	Germany
7	<a href="#">Synopsys Switzerland LLC</a>	SNPS-CH	Switzerland
8	<a href="#">Institut SiNANO Association</a>	SI	France

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## Esempi di successo: fare rete



Italian University NanoElectronics Team

Coinvolge nove atenei italiani: Bologna, Reggio Calabria, Ferrara, Modena e Reggio Emilia, Padova, Pisa, Roma, Udine, Politecnico di Milano.

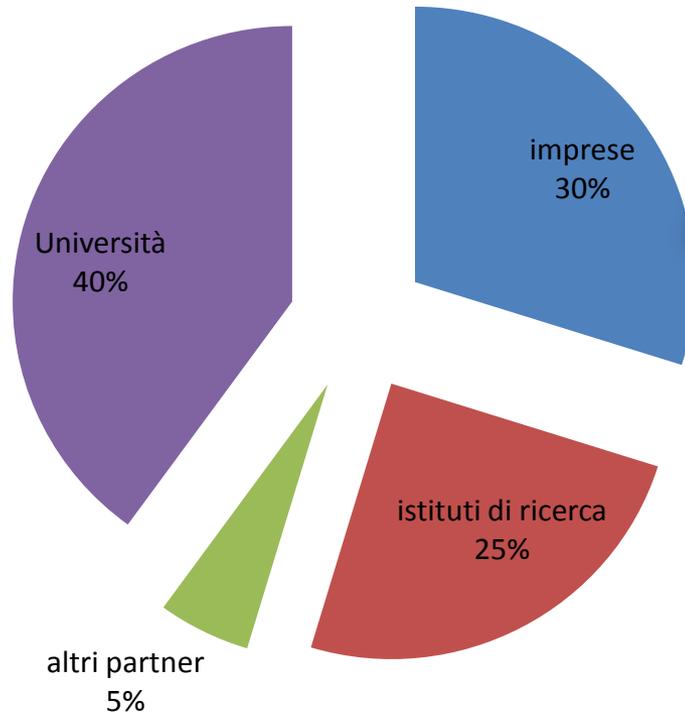
Il consorzio si presenta come partner «forte», in alcuni casi coordinatore di progetto e coinvolge gli atenei partner in funzione delle varie competenze come parti terze.

In questo modo non si moltiplicano i partner italiani ma si dà la possibilità a più enti/ricercatori di partecipare a progetti europei di livello

**Obiettivo: fare rete a livello regionale**

## Esempi di successo: collaborare con le imprese

Partner dei progetti cooperation e capacities del 7PQ finanziati a UNIUD: distribuzione per tipologia di partner



30% dei partner sono imprese

Obiettivo: collaborare con le imprese del territorio all'interno dei progetti Europei, considerato che non si possono «moltiplicare» troppo i partner di un paese?

# Ricerca a favore delle PMI: 2 progetti in cui UNIUD è RTD performer



Home » The Project

- ▼ The Project
  - The Need
  - **Key Concepts**
  - Objectives
- ▼ The Consortium
  - Description
  - SME Associations
  - SMEs
  - RTDPs
- ▼ Publications
  - Workpackages
  - Deliverables
  - Scientific Papers
- Media
- News
- Collaboration Area
- Contact

## Key Concepts

Companies can find the seeds of great ideas from any nook and yard of the world, and IT has dramatically reduced the cost of accessing them. Virtually no company should innovate on its own, and luckily there has been an enormous expansion of potential partners and ways to collaborate with them.

Yet whilst internet technologies are increasingly being applied by large companies to facilitate collaboration, trade, learn, manage company business processes and deliver services, there are significant barriers to web-tools and e-business adoption by SMEs. As a matter of fact, organizational processes, structures, and values can shorten the innovation circuit.

Given these challenges, **an innovation strategy embracing the concepts of collective intelligence and openness may enable organizations to surmount these hurdles.** We refer to this approach as **Collective Innovation** and define it as **a connected, open, and collaborative process that generates, develops, prioritizes, and executes new trends, ideas and products.**

Collective innovation can be fed by the emergence of a community, that we intend as a distributed and loosely connected one, in other words **the employees of the SME, the non-IT experts and web users could be connected in the iCommunity agora** in order to participate in an open and web-based Research and Development laboratory in the different areas of **foresight, creativity and design.**

Thus, the COLLECTIVE project wants to feed the innovation ecosystem. In fact, it is "one platform, many communities for many outputs (trends-ideas-products)", based on 3 key-concepts:

- **communities:** this is constituted by distributed and loosely connected networks of users, producers, dealers, partners, customers, more in general by the stakeholders of the innovation, and become the new organizational unit of analysis of the innovation process and define the ecosystem of innovation;
- **self-organization:** generation of innovative ideas, the development of new product and the diffusion of innovations are carried out in parallel by self-organizing communities of actors;
- **cognitive diversity:** the key aspect that will define success or failure in discontinuous innovation projects is the amount of cognitive diversity that networks (or group of firms) will be able to form and manage.

Progetto  
**Collective:**  
5 associazioni  
imprenditoriali;  
3 SME;  
6 RTD  
performers



The research leading to these results has received funding from the European Community's 7th Framework Programme managed by REA - Research Executive Agency <http://ec.europa.eu/research/REA> under Grant Agreement n° FP7 - SME - 2008 - 2 - 243593

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English &gt; Competencies &gt; Process technology &gt; 110\_ThermoGrind



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Dipl.-Ing. Maurice Herben

Fraunhofer Institute for  
Produktion Technology IPT

more info

## ThermoGrind

Fraunhofer Institute for Production Technology

### The EU "ThermoGrind" project

The market for discrete light emitting diodes (LEDs) is growing rapidly. Silicon carbide (SiC) and sapphire (AL2O3) wafers are used as the substrate materials for white and blue LEDs. Today, European companies, most of them SMEs, account for less than 5 percent of global wafer production. This low figure is due to the high manufacturing costs compared to the main producers in Russia, USA and Japan. The most time-consuming and therefore most expensive machining operations in the manufacture of sapphire wafers are the "lapping" and "polishing" processes. The manufacturing process can be significantly shortened by replacing the lapping process with a grinding process, as this technology is capable of producing much better surface qualities in far less time. The polishing time is also reduced. This will be a decisive step for European wafer manufacturers, enabling them to improve their share of a highly profitable market.

The Fraunhofer IPT is making progress in sapphire wafer manufacture and has concentrated on the development of the rotational grinding process. The institute initiated the EU "ThermoGrind" project that is funded by the European Commission (contract number: 232600) as part of the 7th Framework Programme's "Research for the benefit of SMEs" program.



Together with the Department of Electrical, Management and Mechanical Engineering (DIEGM) at the University of Udine, Italy, the Fraunhofer IPT is providing its research services to the following companies:

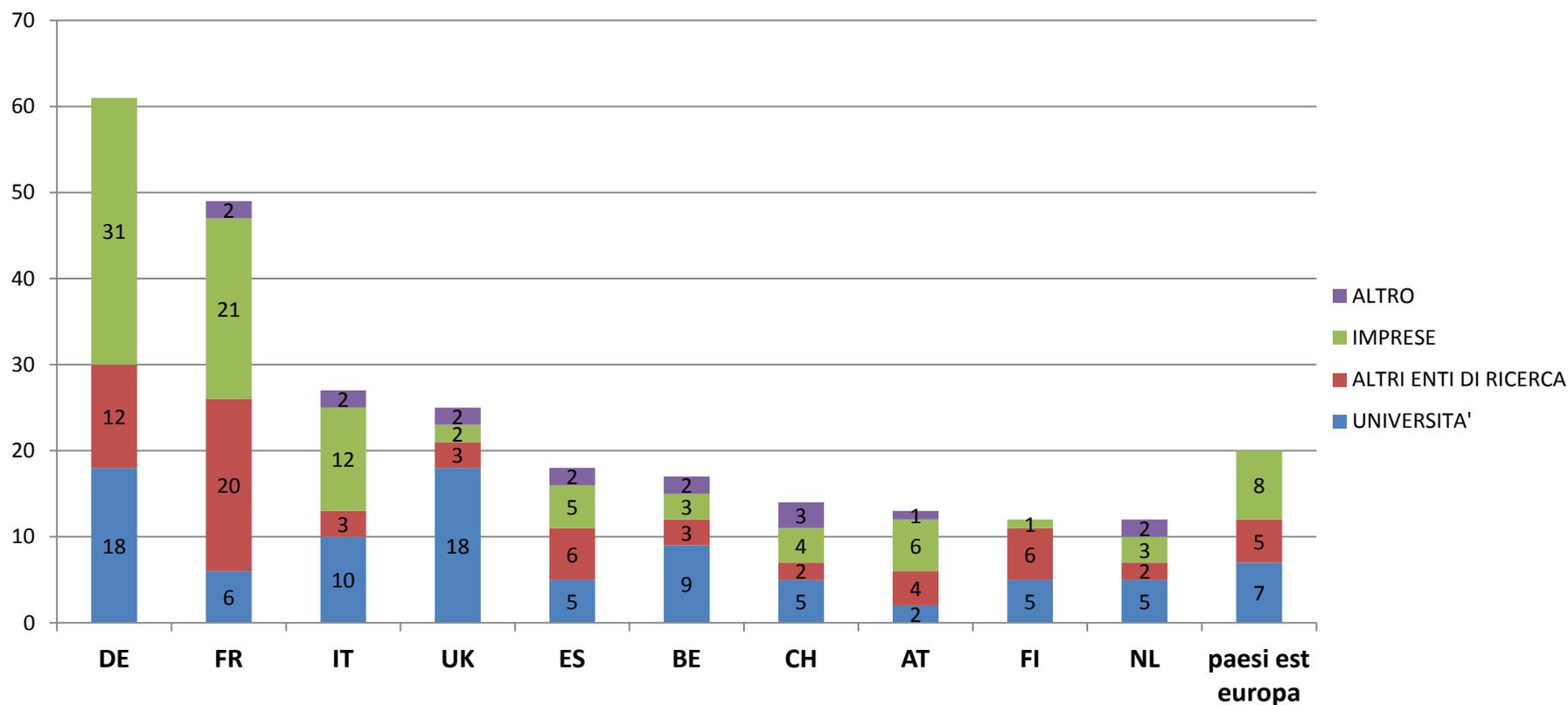
- G&N Genauigkeits Maschinenbau Nürnberg GmbH, Deutschland
- Atlantic Diamond Ltd, Ireland
- CrystalQ BV, Netherlands
- TKF Technische Keramik Frömmgen GmbH, Germany

Progetto  
**ThermoGrind:**  
4 SME;  
2 RTD  
performers

## Esempi di successo: collaborare con molti paesi

Nei progetti cooperation e capacities del 7PQ UNIUD ha collaborato con **355** partner, con una media di 16 partner per progetto. I partner provengono da 33 diversi paesi, alcuni anche non UE.

### Primi 10 paesi partner in progetti 7PQ UNIUD: per categorie di partner



Obiettivo: ampliare la partecipazione di partner dei paesi dell'est Europa

Nei nuovi regolamenti Horizon 2020 è **prevista un'opzione «per le Università che possono affidare a parti terze create, controllate o affiliate il coordinamento tecnico dei progetti** (nei confronti della CE rimane comunque responsabile l'Università)».

Una struttura comune fra gli enti regionali per la gestione dei progetti coordinati e per il supporto alla progettazione potrebbe aumentare la possibilità di accesso ai finanziamenti europei.

