

# L'Industria Impiantistica incontra Giovani Ingegneri

Aziende  
Coinvolte

**ABB**

**BOMBARDIER**

**DANIELI**

CENTRO COMBUSTION

**Duferco  
Engineering**

**FISIA ITALIMPIANTI**  
Gruppo BPIEGLO

**PAUL WURTH**

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# WELCOME

## Meeting Program

[www.itim.unige.it/cs/plants/2012/feb2012.html](http://www.itim.unige.it/cs/plants/2012/feb2012.html)

**February 24th 2012, 10:00 am - 12:00**

**Villa Cambiaso, Salone Piano Nobile  
via Montalegre 1, Genoa, Italy**

- |              |   |
|--------------|---|
| <b>10:00</b> | <b>Benvenuto</b>  |
| <b>10:10</b> | <b>Lo scenario Internazionale e le Iniziative Impiantistiche</b>  |
| <b>10:30</b> | <b>Responsabili di Aziende Leader a livello Mondiale<br/>evidenziano le Sfide e le Opportunita' per Aziende e Giovani</b> |
| <b>11:15</b> | <b>Incontro diretto con le Aziende e Colloqui Preliminari</b>   |
| <b>12:30</b> | <b>Chiusura e prosecuzione dei colloqui</b>   |

[www.itim.unige.it/mipet](http://www.itim.unige.it/mipet)





# L'Industria Impiantistica incontra Giovani Ingegneri: Sfide e Opportunità per Aziende e Giovani Ingegneri

[www.itim.unige.it/cs/plants](http://www.itim.unige.it/cs/plants)

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**I GIOVANI INGEGNERI,  
STUDENTI DI  
INGEGNERIA & AZIENDE**

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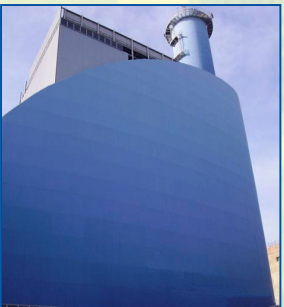
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# Intellectual Capital for Future of Engineering

*Jack Welch (GE CEO 1981-2001 from \$14 billions market value to over \$410 billions): Globalization has changed us into a company that searches the world, not just to sell or to source, but to find Intellectual Capital: the World's Best Talents and Greatest Ideas*



**Scientists investigate that which already is; Engineers create that which has never been**  
*Albert Einstein, Physics Nobel Price 1921*

# A Two-Speed World

The crisis pointed out by Media is very relative in term of Geographic/Temporal Coordinates for Instance:

- **Automotive Vehicles: +17% Worldwide from 2006 to 2010**
- **Shipbuilding:**  
Europe from 8% of World Market to 3% (-60%)  
2011: 200 Ship in Construction just in Shanghai Area

## GDP Trends:

2010: Europe	1.5%	Italy	1.3%
USA	2.8%	Canada	3.1%
China	10.3%	India	10.4%
Brazil	7.5%	Chile	5.3%



Car Production 2006 to 2010

1	China	351.5%
2	Argentina	178.2%
3	Slovakia	155.1%
4	India	122.7%
5	Indonesia	112.7%
6	Thailand	99.7%
7	Egypt	92.0%
8	Iran	88.6%
9	Romania	85.4%
10	Czech	78.4%
11	Uzbekistan	49.0%
12	Poland	45.4%
13	Slovenia	45.3%
14	Brazil	40.7%
15	Mexico	40.4%
16	Serbia	38.3%
17	Turkey	33.0%
18	Malaysia	29.0%
19	Other	22.8%
20	South Korea	15.2%
21	Russia	13.1%
22	Hungary	11.1%
23	Germany	3.8%
24	Japan	-7.9%
25	Spain	-8.8%
26	South Africa	-9.1%
27	Portugal	-16.7%
28	UK	-20.4%
29	Italy	-21.0%
30	Taiwan	-22.3%
31	Canada	-28.6%
32	Australia	-35.1%
33	USA	-36.8%
34	France	-38.2%
35	Sweden	-38.7%
36	Belgium	-40.9%
37	Netherlands	-58.3%
38	Ukraine	-61.7%
39	Austria	-62.6%
40	Finland	-69.9%



# Global 500 Companies in Italy: Challenges and Opportunities

Companies in Italy/Europe have to face these challenges, therefore some results are interesting and there are opportunities everywhere and in any moment if decision making is effective and efficient:

ENI	Revenues +12%	Profits 8.3GUSD	+37%	23rd World Company (previously 24th)
Generali	Revenues -4.6	Profits 2.2GUSD	+23%	33rd World Company (previously 19th)
ENEL	Revenues +8%	Profits 5.8GUSD	-22%	56th World Company (previously 60th)
EXOR/FIAT	Revenues +7%	Profits 181MUSD	na	83rd World Company (NA)

TOP 4 Italian Company Worldwide in term of World Sales





# Big Industrial Plants as Requirement for Country Development

Industrial Plants are basics for Development and the Emerging Countries are pushing forward this Business Sector and related applications

Industrial Plants Areas: [World Trends %]			
Power & Energy	+	5%	/Year Worldwide
Iron & Steel	+	8%	/Year Worldwide
Chemical Industries	+	9%	/Year Worldwide
Water Demand	+	2%	/Year Worldwide

World Areas	[GDP %]	
World GDP	+	3.0% /Year Worldwide
Brazil	+	7.4% /Year Worldwide
Russia	+	4.0% /Year Worldwide
India	+	11.1% /Year Worldwide
China	+	10.3% /Year Worldwide
Italy	+	1.2% /Year Worldwide





# Humans & Globalization

Workers, Employers, Engineers & Managers are people and subjected to the world market evolution; therefore the capability to move and reorganize effectively these assets provide very big opportunities and it is necessary to be able to *Ride the Waves*

**Plant Engineering Prices**

**Ship Construction Yard Workers**

**Italy vs. India vs. Brazil vs. ....**

**Italy vs. Korea vs. China vs. Philippines vs. ...**





# Human Capital is becoming Even more Important

The Evolution of Education in Universities is providing an unique opportunity to improve the Capabilities of high qualified people: scientists, researchers, technicians and engineers







# Impiantistica e Ingegneria a Genova

In Genoa University several groups are active in Industrial Plant Engineering; for instance the MISS DIPTM resulted as evolution of the Institute of Technology and Industrial Plant Engineering & Management (ITIM) that was focused on these issues since '60. In addition, DIST, DICHEP, DINAEL and other Engineering Departments are active on these subjects from several years. In fact the Genoa University is involved on several R&D activities on Plant & Process Engineering as well as in Undergraduate, Postgraduate and Continuous Education related to this area. As example the Simulation Team MISS DIPTM co-operates actively with major Excellence Centers World-Wide on using M&S in Industry







# Simulation Team MISS DIPTM

The Simulation Team - MISS DIPTM carried out many industrial R&D projects in cooperation with the Large Corporations, Small and Medium sized Enterprises, Agencies and Institutions; some example of industrial simulation initiatives are following:



**Polimeri  
Europa ENI**

**Fleet Management Planning & Scheduling  
Chemical Plant Logistics Optimization**



**Ansaldo**

**Service and Optimization  
for Power Plant Design**



**LAMCE  
Petrobras**

**Oil Platform Simulation  
and Augmented Reality**



**EDA**

**Decision Support for  
Country Reconstruction Activity Planning**



**Cetena  
Fincantieri**

**Simulation for Life Cycle Assessment  
of New Vessels**



Members of Simulation Team are appointed in several positions in simulation community such as:

- General Director M&S Net (34 M&S Centers worldwide)
- Associate Vice President of SCS and Chairman of Technical Chapter
- Member of NATO SAS and MSG
- Italian Point of Contact of ISAG (International Simulation Advisory Group)



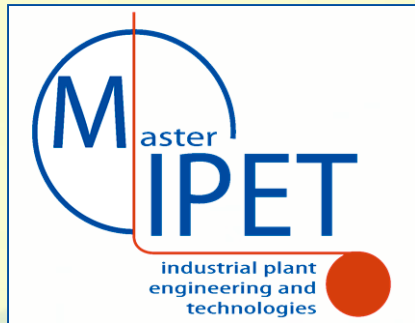
**DIPTM  
Università di Genova**



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# MIPET

## Master in Industrial Plant Engineering & Technologies



MIPET Master is devoted to prepare on Industrial Plants Technical Issues, with special attention to Engineering. The goal is to organize a Master Program based on strong cooperation between Academic and Technical Experts coming from Leading Universities and Companies operating in this area with special attention to Engineering and Construction in Power Generation, Iron & Steel and Environment.

### Sponsors



**BOMBARDIER**





# The Companies interested in Complex System Engineering attending these Events & ...



- Companies involving over 1000 Engineers just in Genoa Area
- Companies developing projects over the Globe
- Companies leading at International Level several areas in Industrial Plant Engineering & Technologies
- Interest on Talented Engineers with Strong Technical Background and Good Potential

# ...Young Engineers interested in Job Opportunities & Career Development in this area



## Different Profiles

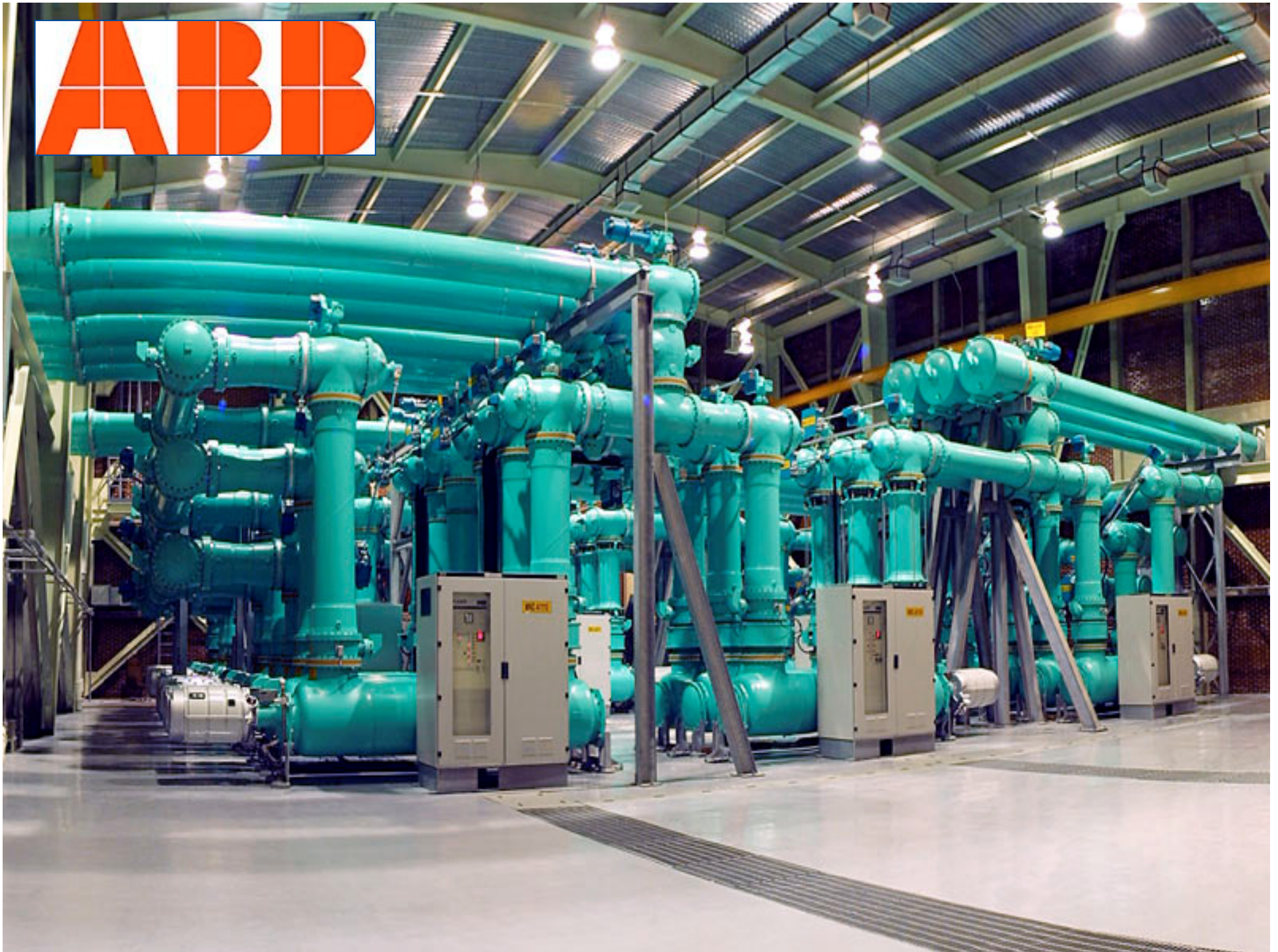
- Young Engineers with 2-5 Years of Experience interested in Career Development
- New Graduates looking for Job Opportunities
- Master Students in MIPET interested in Internship
- Engineering Students interested in Stages



# The Companies & Their Products





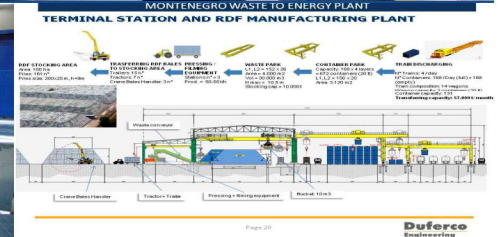




## BOMBARDIER











**PAUL WURTH**

## **Paul Wurth Italia S.p.A.**

## **Leading player in E&C**

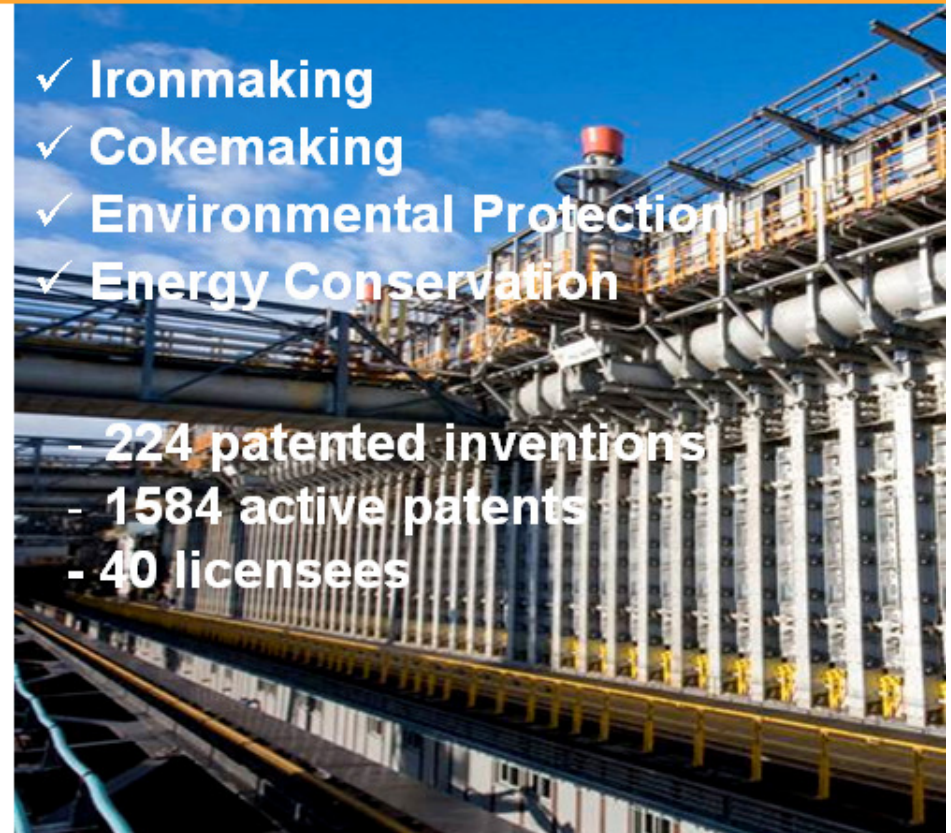
**Technology and Innovation is our life insurance in a global market**

**Recent orders in Brazil, Mexico, India, Germany, Japan, Korea, Russia, Taiwan**



- ✓ Ironmaking
- ✓ Cokemaking
- ✓ Environmental Protection
- ✓ Energy Conservation

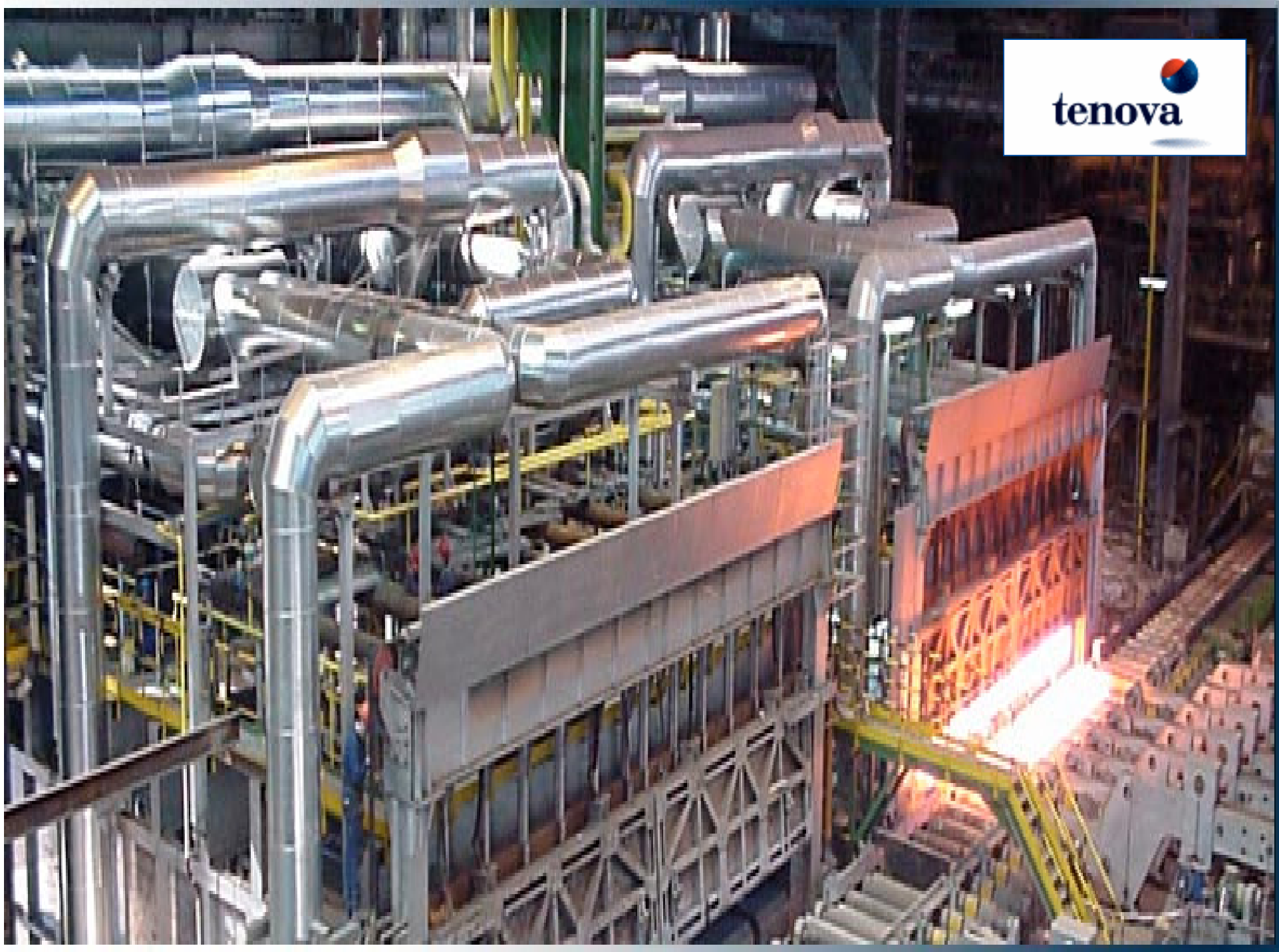
- 224 patented inventions
- 1584 active patents
- 40 licensees



**26 PW entities in 18 countries, totalling about 1600 people.**

**PW Italia, employing 208 people based in Genoa (65 hired in the last 4 years), is a prominent member of this group with its own long term tradition and a strong sense of belonging of the employees.**









## TOGETHER, WE CAN BUILD A SECURE ENERGY FUTURE.

DuPont is uniquely positioned to address the rising demand for secure, environmentally sustainable and affordable energy sources for a growing population.

*Welcome to The Global Collaboratory:*

To learn more, visit [dupont.com/collaboratory](http://dupont.com/collaboratory).



## TOGETHER, WE CAN MAKE THE WORLD A SAFER PLACE.

Solution-driven technologies from DuPont help organizations transform their workplaces, making them safer, more efficient and more environmentally sustainable.

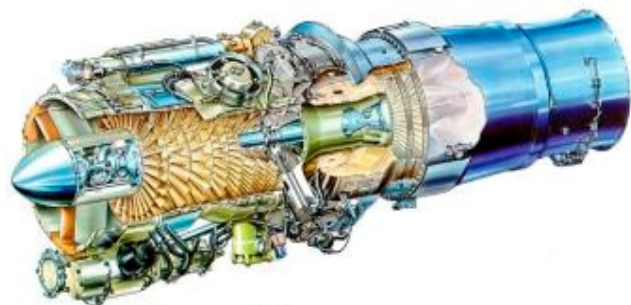
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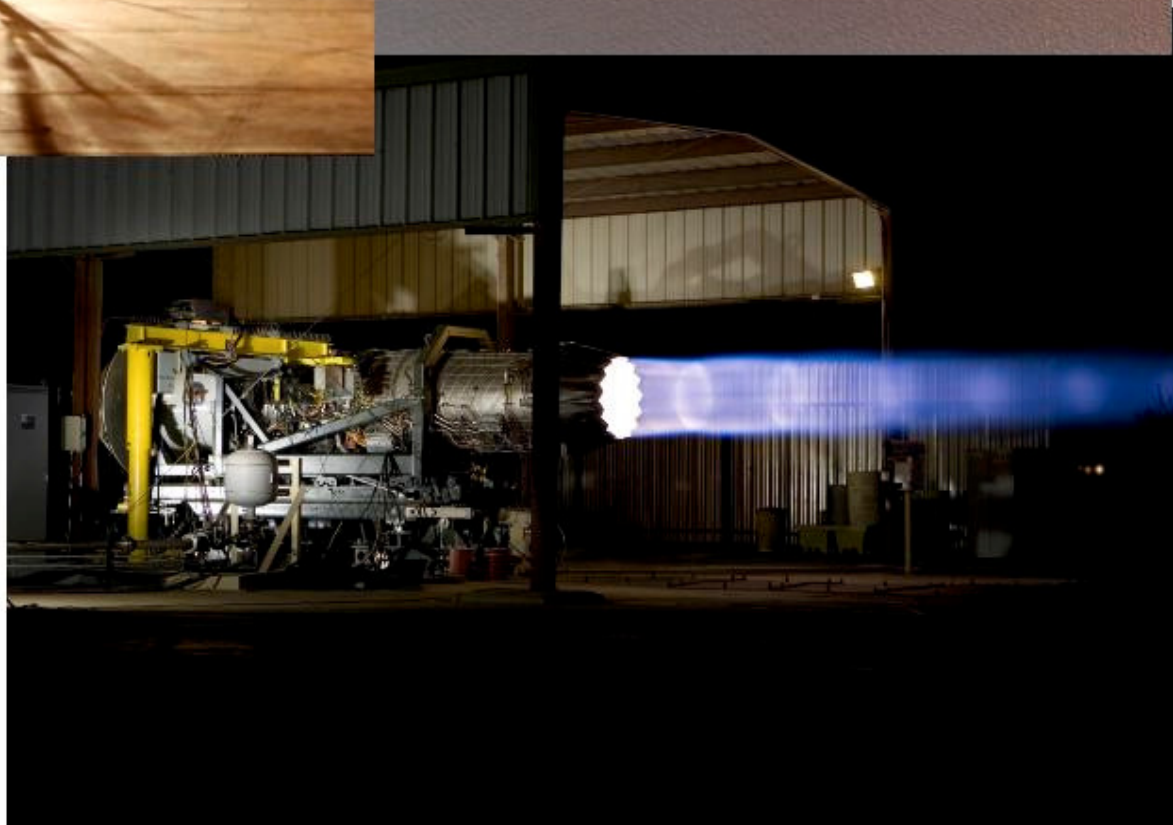


**PIAGGIO  
AERO**



**ROLLS-ROYCE**  
VIPER MK 632

Officina Tecnica e Assistenza Motori











**FISIA ITALIMPIANTI**

Gruppo IMPREGILO





**PMS**  
PREFORMAZIONE  
MATERIE SINTETICHE







**PRISMA**<sup>®</sup>

**Impianti**

Automation and Electrical Systems for a Hot-Dip Galvanizing Line



# Campus Interviewing & Free Discussion



**This Meeting was attended by over 100 people and the organizing companies had the opportunity to complete over 50 interviews each with young talented engineers**





# References

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*Vogliamo trasformare Giovani Ingegneri in Futuri Leader nel settore dell'Impiantistica tramite il Nostro Master Internazionale*



# Industrial Plant Engineering

[www.itim.unige.it/mipet](http://www.itim.unige.it/mipet)

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