

*1897-1997*  
*FAST*  
*Turns One Hundred*



1997, Milan

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Special thanks to, *inter alia*:

Electrotechnical and Electronic Association

Milan Chamber of Commerce

Board of Engineers and Architects, Milan

Falck Industries

Milan Polytechnic

Italian Chemical Society, Milan branch

Società del Giardino



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*FAST logo was designed by the sculptor Giacomo Manzù in 1962.  
The papyrus represents the spreading of knowledge; its branches  
symbolize the associations which form the Federation.*

# Foreword

## *Concordia parvae res crescunt*



The Federation of Scientific and Technical Associations was established in 1897. This was a year which was symbolically rich in scientific events: Thomson and Wien confirmed the theory of electricity's atomic structure thanks to their discovery of the free electron; Marie Curie identified radium by processing uranium; Guglielmo Marconi received wireless remote signals. Milan was going through an industrial expansion, the fad of the time was to group into associations, often with a political component, following the Anglo-Saxon lead.

The Federation set off to an excellent start: its founders were Giuseppe Colombo, author of the Engineer's Manual; Giuseppe Battista Pirelli, founder of the Pirelli industrial group; Cesare Saldini, President of the Milan Board of Engineers and Architects. Its headquarters was at Palazzo Spinola, via S. Paolo, in Milan.

The underlying reasons too were sound and far-sighted: boosting Milan, enhancing engineering, creating lasting international relations. All the aforementioned founders, after successfully completing their education at the Higher Technical Institute (later to become the Milan Polytechnic), travelled abroad to perfect their training.

As for the development of the Federation, the following figures are self-explanatory: 100 years ago it enlisted 4 member associations and 800 members; today it includes 35 associations and 55,000 members.



It is not easy to draw a balance of FAST's (as it has been called since 1961) first century in operation in that many deeds and documents were lost during the 1943 bombing, and a thorough historical analysis should be undertaken to fill the many blanks left in the first few decades of activity. Conversely, it is a lot easier to get hold of documents from 1946 onward, i.e. the year when the Federation was re-established thanks to the commitment of the Italian Electrotechnical Association, the Italian Chemical Society and the Italian Metallurgy Association.

In 1950 Luigi Morandi launched a phase of massive development, and this time he was supported by Italian businessmen who were convinced that the national industry would not be able to compete with other countries without creating the necessary scientific and technical infrastructure.



Going back one hundred years into the Federation's history, and reviewing all that has been achieved, the commitment of its members, and considering the deep-felt principles which inspired it, one feels the weight of the responsibility of such an important heritage.

This is a very sensitive time: we are on the eve not just of a new century, but of the third millennium. It is not easy to live up to the task. We are faced with a complex challenge. Some can not choose what to do, and are forced to stay in Europe, competing with the globalisation of markets and technology, digital and multimedia revolution, the internationalisation of scientific culture and vocational training.

It is even more difficult to foresee what the future holds in store for us. When things change too quickly, the horizon tends to grow narrower. Waiting another one hundred years is just not likely.



In the meantime, past and present experience have taught FAST how to supplement daily work by strengthening specific actions, and launching additional challenges. Looking into the future, once again the next century appears to be an opportunity to promote the growth of technological know-how which proves how irreplaceable engineering is for problem-solving. We have to further pool our efforts and technical skills, and proactively enhance professionalism, identifying the right places for institutionally representing scientists.

Of course the challenge is to join Europe, via exchanges with international organisations, by fostering the role of the Milan region, which is a real bridge between Europe and the Mediterranean.

At FAST, our aim is to be a permanent study centre and focus for ongoing technological development in Italy against the European background, mainly for big industrial sectors. "Friends of FAST" is an association which groups all those who work in organisations, industries, universities and service firms to improve the relations between society and technology. The Federation, then, is open to new disciplines and to acquire new members active in the leading sectors.



Over the past one hundred years the Federation has developed on sound and well-defined foundations. All the activities which are undertaken today bear witness to its lively association spirit. I am convinced that this spirit, which is often discussed pessimistically, is still there, and it will still be there on condition that the members of the 35 associations which make up FAST, and all those that will join it in the next few years, are given freedom of action and practical opportunities in which we all feel active and driving players.

**Walter Nicodemi**  
*President*

# 1897: The start

**18 June 1897:** the Federation of Scientific and Technical Associations was born. The idea of establishing a joint venue for a Federation grouping scientific organisations was launched by Giuseppe Colombo and Cesare Saldini, members of the Milan Board of Engineers and Architects, with the support of the academic and business communities of the time, featuring *inter alia* Galileo Ferraris and Giovanni Battista Pirelli. The aims underlying the initiative included the need to strengthen and highlight the scientific research undertaken in Milan within the Italian cultural scenario through stronger coordination, cooperation and communication between the city's institutions.

In addition to the Board of Engineers and Architects, FAST founders included the Milan Chemical Society, the Milan branch of the Electrotechnical Association, the Royal Hygiene Society. One year later, the Metallurgy Association and the Milan Health Association became members of the Federation, as did the Pharmaceutical Society in 1899. When the founding associations set

## A life devoted to engineering

Giuseppe Colombo (1836-1921), a mathematics and engineering university graduate, taught at the Milan Polytechnic since its establishment. He was the promoter and organiser of the courses offered by the industrial department. He taught



industrial mechanics, machinery design, mechanical technology, theory of machinery. He contributed to the creation of industrial engineering in Italy by training a whole generation of engineers. His background came from his travels and visits to the manufacturing plants of the countries which led industrial development, in particular the United States. He played a fundamental role in fostering the growing Italian industry, which resulted in the creation of Edison; he held a managing position in numerous companies and firms. He was also a politician: MP, President of the Lower House, minister, senator of the kingdom. He was chairman of the Lombardy Science and Literary Institute, President of the Electrotechnical Association from its beginning, President of the National Scientific and Technical Committee for the development and enhancement of Lombardy industry, and of many government and parliament research commissions.

up the Federation they were real landmarks within the Italian scientific arena. Each of them was the first Italian association in a given field, closely following the lead of Northern European countries.

The publication of journals or bulletins was their main tool for disseminating European scientific developments and new technological breakthroughs.

Within the Federation, each body was free and independent from the others. Their joint activities took place in the so-called “common” premises: the conference hall, the reading rooms and lobbies.

Here discussions and debates were held either as true conferences and “round tables”, or as one-on-one meetings. Until 1956 the headquarters of the Federation of Scientific and Technical Associations was in Milan, at 10 via S. Paolo.

### The headquarters

The Federation decided to locate its headquarters in the huge Palazzo Spinola. Still today it is owned by the Società del Giardino, which bought it in 1818. It is located at via S. Paolo, near to Piazza Duomo. Its façade looks different now, due to the damage suffered during the Second World War.

The Federation took up two floors in the building. A large stairway led to the entrance hall, which was divided into two premises by a wooden partition. On one side, next to the entrance hall, there was a wardrobe; on the other, the so-called “lost step room”, which was used for conversation. Then there was the large “meeting hall” and the “reading room”. The latter featured newspapers, the library of the Board of Engineers and Architects, and the magazines of the Chemical Society and of the Electrotechnical Association. The “reading room” opened into the last public premise on this floor, i.e. the library of the Hygiene Society. On this same floor were the private offices of the Electrotechnical Association, the Hygiene Society and the Board of

Engineers, the Health Association, the Metallurgy Association and the Pharmaceutical Society. The offices of the Chemical Society were on the first floor.



*Cesare Saldini (1848-1922), an industrial engineer, plant designer, and dean of the Milan Polytechnic as of 1911. He was one of the founding fathers of the Federation.*

### Jointly contributing to development

*From a speech by Cesare Saldini held on 18 June 1897: “... The new body has been presented. Its members are institutions featuring specific scientific and technical objectives, each of which keeps its organisation, management and independence unchanged. They are united under a single roof first and foremost to establish their*



*Galleria  
Vittorio  
Emanuele in  
Milan,  
electrically lit  
at the end of  
the XIX  
century  
thanks to the  
Edison  
company,  
founded by  
Giuseppe  
Colombo.*



### **Extensive press coverage**

The Federation was fostered by important scientific and technical scholars. A prestigious venue was chosen as its headquarters. Its aims were ambitious. And the press bore witness to the start. The main national newspapers covered the event, starting from the opening ceremony held on Friday, 18 June 1897. By way of example, the article published in “Il Corriere della Sera” on 19-20 June 1897 is reported below. Its title: “*The Federation of Scientific and Technical Associations opens in Milan.*”

*“Milan is little known as a study centre, as a think tank. On the contrary, it is often said that it is the centre of utilitarian material life and, the less benevolent*

headquarters, to get to know one another better, to meet for an hour of friendly, pleasant and intellectual conversation, to pool their investigation means and also because they are aware that they should have a say in the city in which they live, the city they love, and they intend to cast their vote on all those issues which are of great interest to the

city itself, except for politics, which is barred by the Federation aims. They have united because they intend to get more clearly and soundly established than in the past, and to do this they do not want to resort to any other means than their work, their commitment and their accordance on the common goal of research and development.

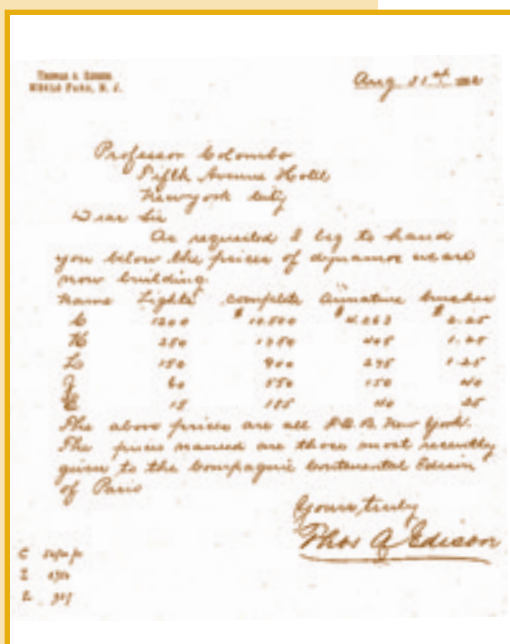


Technical science and industry made progress together. Inside the Breda plant in Milan.

add, it is devoid of any ideals, crystallised over business. This accusation is unjust and undeserved."

With these words Engineer Saldini last night introduced his keynote address to the Federation of Scientific and Technical Associations in Milan.

This illustrious speaker struck the right chord, as was clearly demonstrated by the roaring applause from all the participants. Milan is not only a city devoted to work, it studies hard and tirelessly, as proven by its highly valuable people and entities geared to art and science, and the many institutions committed to the highest cultural and civil progress ideals. However, new ways of expressing these activities were



Letter signed by Thomas A. Edison. It was addressed to Giuseppe Colombo, one of the promoters of electrical lighting in Milan. He placed the orders for the materials needed directly in the United States.

## Industry's focus



Giovanni Battista Pirelli was born in Varenna (Como) in 1848 and died in Milan in 1932. He was educated in France. In 1872 he founded Pirelli, a company which was to become one of the major industrial and financial groups. He took part in Milan's public life: in 1902 he was appointed Knight of Labour, in 1909 was elected senator, and he held numerous positions in industries and banks; he was the first Confindustria President.

His presence in the first few years of the Federation's life bore witness to the strong link between science and engineering, academy and industry, which characterised the whole century of activity.

*needed, as was the pooling of all the forces which until now have been operating on their own.*

*To this end, this new Federation of associations was founded in order to achieve specific scientific and engineering objectives, with the Board of Engineers and Architects, the Chemical Society, the Hygiene Society, the Electrotechnical Association.*

*By pooling their efforts, these associations will therefore foster the progress of scientific culture in Milan and influence, also directly, issues which they are competent in.*

*A number of well-known Milanese personalities took part in the opening ceremony*

*Palazzo  
Spinola at the  
end of the XIX  
century, the  
first  
headquarters  
of the  
Federation.  
Façade on via  
S. Paolo.*



*which started with the highly appreciated speech by Engineer Saldini, including Prefect Winspeare, Alderman Radius, Professor Bordoni Uffreduzzi, Engineer Pirelli, Alderman Corbetta on behalf of the Municipality, Professor Lanzillotti Buonsanti, Dean of the Veterinary School, etc. Many members of the Board of Engineers, of the Chemical Society and of the Electrotechnical Association were also present. The headquarters of the new Federation is located where the Artistic Family used to be, at 10 via S. Paolo.*

*The opening party went on till about midnight.*

### **The Federation's by laws: approved on 4 July 1897**

**Art. 1** - The Federation of Scientific and Technical Associations is established in Milan together with the following four entities:

1. Board of Engineers and Architects;
2. Royal Italian Hygiene Society;
3. Milan Chemical Society;
4. Electrotechnical Association, Milan branch.

The Federation is open for membership to other scientific and technical associations ...

**Art. 2** - The aim of the Federation is to provide each member Association with greater development and a more active and fruitful life and, at the same time, to contribute to the creation of a common cultural environment via pooled efforts and to bring before the public debate the most important scientific and technical issues during meetings and conferences. Each Association is to remain an independent body.

**Art. 3** - The premises of the Federation are divided into common and private rooms.

**Art. 4** - The common premises include the meeting hall, the reading room and the lobbies. The hall is used in turns by each Association according to a schedule which is drawn up at the beginning of the year. When

not in use, each Association can book the hall with two day notice to the Federation council.

**Art. 5** - When there are no meetings in progress, the hall is turned into a conversation room. All members have the right to use it, whatever the Association they belong to.

**Art. 6** - The hall can not be used by any Association not belonging to the Federation.

**Art. 7** - All Federation members can take part in all of the conferences and public meetings organised by each Association, although with no right to vote. There will also be conferences and meetings jointly organised by all the member Associations.

**Art. 9** - As a rule, the common and private premises of the Federation are open to members from noon to 18:00 and from 20:00 to 24:00 daily.

**Art. 11** - A Council has been set up for managing the fees paid by each Association, performing the services and complying with the regulations. Such a Council consists of the President, vice-President and Secretary of each Association. Every year the Council designates one of the Presidents, on a rotation basis, to represent it before the members for ordinary administration issues.

# The first fifty years

During the first fifty years, the Federation was deeply involved in many activities which were perfectly in line with its guidelines. Probing and disseminating scientific knowledge in connection with and fully in line with the most advanced countries, the willingness to cooperate with the industrial community, the notion of an ensemble of scientific disciplines were at the basis of the operational decisions made by its management.

## Books and periodicals

Each association featured a periodical which enabled very wide-spread information dissemination:

- Journal and Proceedings of the Royal Society of Hygiene, started in 1879.

### Scientific publications

In the last decades of the XIX century, many publications were launched which were aimed at providing a sound scientific and technical background to the growing industrial community. Publishers Vallardi, Bernardoni and Treves established themselves in this area. In addition, special mention should be made of the work of Ulrico Hoepli, who in 1871 started a publishing house in Milan. Starting from 1875, his "Manuals" are extremely successful works covering all new technological areas.



*The Engineer's Manual by Giuseppe Colombo was first published in 1877. This manual reached 80 editions, going from 260 pages in the first edition which was completely edited by Engineer Colombo himself to a few thousand in the last one, by then a real encyclopaedia resulting from the contribution of many authors.*





- Proceedings of the Electrotechnical Association, from 1898. In 1914 its name was changed to *Elettrotecnica* (Electrotechnics).
- *Politecnico* (Polytechnic) - Journal of Engineers and Architects, from 1869 (the continuation of Carlo Cattaneo Politecnico).
- Bulletin of the Milan Health Society.
- Chemical and Pharmaceutical Bulletin.

In addition to the reading hall, journals and periodicals published by individual organisations were available to all Federation members. In 1897, readers had 124 Italian periodicals and 139 foreign periodicals at their disposal.

To increasingly broaden its field of action, the Federation fostered exchanges with other associations both in Italy and abroad, in addition to acquiring new members.

The library too was boosted and grew over the years, with avant-garde books covering the areas of interest to individual Federation members.

### Significant events of the fifty year period

**1897** - First Electrotechnical annual meeting

**1899** - First electricians national meeting and commemoration of Alessandro Volta

**1903** - Speech by Guglielmo Marconi in Rome at Campidoglio before the Royal Family.

**1906** - Milan International Exhibition (visit and conference for chemical experts)

**1906** - International Hygiene Congress held in Milan by the

Hygiene Society and the Federation

**1913** - From Milan to Venice: a navigable line, held in the Golden Hall of the Società del Giardino (organised by the Board of Engineers) and again in Venice in the Maggiore Hall at the Fenice theatre.

**1924** - First Italian Congress of Social Eugenics, fostered by the Italian Hygiene Society. Chairman of the conference is Leonard Darwin, Charles' son.

*First Electrotechnical annual meeting: electrical equipment on display in the Federation premises during the meeting held from 24 to 26 October 1897. Approximately 30 firms from around Milan exhibited their products, including Edison, Ceretti and Tafani, Richard Ginori, North Italy Telephone Company.*

## Conferences and meetings

The first important event was held in October 1897, which was a testimony of how the Federation had always been active in this field.

The location at via S. Paolo in Milan featured a large hall seating 300 people and, in case of greater attendance, the Golden Hall, a more imposing and much larger hall, could be used. Conferences and meetings turned into scientific and technical debates closely connected with industrial activities.

For this reason, conferences were very often organised simultaneously with exhibitions of new products and technical features, as well as visits to facilities and plants.



*Queen Elena opened the fifth Milan Trade Fair on 27 April 1924. The exhibition of the Industrial Chemistry Conference was held in the chemical industries hall. Scientific and technical conferences were held at the old Polytechnic, at Piazza Cavour.*

**1929** - Specific radiotelephony issues. Modern receivers, conference held at the headquarters of the Federation.

**1930/35** - An ad hoc Committee was set up within the Electrotechnical Association (chaired by Renzo Norsa) promoting conferences and technical visits in the electrical communications area.

**1938** - 10th Chemical Conference held in Rome, with a high

number of participants from Lombardy.

**1946** - First chemical meeting held after the Second World War. Organised by the Chemical Society and held at the Fair District.

**1946** - 47th Electrotechnical meeting held in Milan.

**1946** - First conference of the Italian Metallurgy Association held in the Main Hall of Milan Polytechnic.



*The Golden Hall at the Società del Giardino, where the Federation organized its most important conferences, since its foundation in 1897.*

### **International relations**

Throughout these fifty years, there was great interest in the European and world (US) scientific and technical arena. This brought about the participation in congresses and events abroad, and conferences and presentations held at the Milan headquarters on international “novelties”, with the frequent exchange of delegation visits and, on a personal level, in-depth studies in other countries. Amongst the many significant examples it is worth mentioning the “Excursion to America” made by electricity experts in 1904, who met President Theodore Roosevelt, and the 8th International Pure and Applied Chemistry Conference, held in Madrid in 1934. On that occasion, the President of the Chemical Society, Nicola Parravano, was awarded a *Honoris Causa* degree.



## International relations

**1903** - International Chemical Conference held in Berlin. Large attendance of the Milan contingent; Stefano Fachini reported back to headquarters.

**1904** - The Electrotechnical Association organised a trip to America in accordance with the American Institute of Electrical Engineers (participants met with President Roosevelt).

**1905** - A delegation of French chemists paid a visit to the Chemical Society in Milan.

**1909** - International Applied Chemistry meeting in London, over two thousand people were present. Eighteen young Italians took part in this event thanks to grants (including Angelo Coppadoro, who was to become one of the association's Presidents). Roberto Lepetit reported extensively to Milanese members.

**1911** - The Chemical Society and its branches became members of the International Association of Chemical Societies.

**1913** - Urban traffic problems and underground systems in the United States, report presented by Renzo Norsa of the Board of Engineers, following his stay in the USA.

**1914** - Trip to Norway by the Electrotechnical Association.

**1926** - Members of the Electrotechnical Association took part in the International Electrotechnical Commission meetings in New York.

**1934** - Important Italian participation in the Ninth International Conference of Pure and Applied Chemistry.



*Nicola Parravano was awarded a Honoris Causa degree in Madrid in 1934.*

## The Federation and the city of Milan

*“Thus we will take part in the defence of our city, we will be able to win back the pride of that genial culture, of imaginative thinking, of often disinterested, therefore more selective, activity which today someone is trying to challenge.”* On 18 June 1897 Cesare Saldini pinpointed the strong willingness of the Federation to build and strengthen its relations with the city of Milan.

The Federation, through its member associations, was called upon and played an active role in the debate on some of the most important issues in town-planning development. By way of example, the Electrotechnical Association was involved, as of 1897, in the telephone service and training of technical staff for telegraph and telephone services.


In 1898, the Board of Engineers took part in the drawing up of the



*National Industrial Chemistry conference, Milan 13-18 April 1924. The opening session was held in the Golden Hall of the Società del Giardino, headquarters of the Federation of Scientific and Technical Associations. There were 743 participants which included 106 ladies.*

“Municipal Hygiene Regulations” concerning soil and inhabitants. Later, in 1910, almost all of the Federation members (Board of Engineers, Hygiene and Health Societies) initiated the study of the “Technical part of Milan Hospitals”, based on the view that a number of decentralised facilities were needed in order to reduce the patient load at Milan’s Ospedale Maggiore. From 1930, the Electrotechnical Association took care of the drawing up of new safety regulations for electrical systems which were then to be applied nation-wide.

# *Under Luigi Morandi's presidency*

 In 1950 Luigi Morandi, Chairman of the Italian Chemical Society, Milan branch was appointed President of the Federation of Scientific and Technical Associations, a post he held until 1968. It was the beginning of the recovery period, following a break in the activities due to the war; new offices had to be found since the previous headquarters suffered serious damage as a result of the 1943 bombing. Finally, in 1961 the Milan headquarters had opened at 2 piazza Morandi,

## **Luigi Morandi**

Born in Milan on 15 May 1898, he graduated in chemistry and got his PhD in electrochemical engineering from the "Ecole Polytechnique" in Paris. He was a professor and entrepreneur. In 1939 he joined Montecatini, to become later vice-President, an office he then held at Montedison as well.

Under his Presidency, from 1950 to 1968, the Federation was enlivened and became the House of science and engineering.

An attentive scholar interested in social phenomena, from 1964 to 1977 he was the chairman of Censis. He took on numerous posts and was given many awards. These included, abroad: President of the Italian Committee of the "Fondation de la Maison de l'Italie" in Paris; permanent representative at the Research Committee of the Organisation for European Economic Cooperation (OEEC); "Officier de la Légion d'Honneur" and member of the "Société des Ingénieurs Civils de France".

In Italy he founded the association Friends of the "Accademia Nazionale dei Lincei"; he was member of the Executive Committee of the Society for Arts and Trades of Milan; he chaired the National Commission for Industrial Research of the National Research Council until 1961; he chaired the Milan Exhibition Board (now Fiera Milano - Milan Trade Fair) until 1958, and the Experimental Institute for Light Metals until 1969; he was awarded the medal of merit by the Province of Milan.



### Europe is our future

*Taken from Morandi's speech delivered on 25 November 1961:*

If Europe aims at getting back the prestige it once had, we must become convinced that today not one of our small nations is capable of making, alone, the scientific and technical efforts required to make progress. Against this background, which we see as based on sound ideas, we would like to stimulate the debate on our international

goals. But we have other ambitions as well, e.g. we would like, through our activity, to urge the creation of a European scientific and technical organisation.

That's why we are going to carry on with our recently started initiative by cooperating in the research field with institutions from other countries on some of the big issues in which we are jointly and, at the same time, individually interested in.

the so-called House of scientific and technical associations, in a building which is still Fast headquarters. This was the most active and fruitful period for the organisation; no issue was left out. Research and technological innovation, energy, training, chemistry, environment, automation were the most appealing topics which involved generations of experts and which made this institution a very important landmark in Italy.

### 25 November 1961: a dream came true

Like in 1897, in 1961 dailies and periodicals covered the opening of the new headquarters extensively. By way of example, below is a piece from *Il Corriere della Sera* of 26 November 1961. "... *From the Station the President of the Republic (Giovanni Gronchi) went straight to via del Politecnico, where the deputy chairman of the Senate, Tibaldi, the deputy chairman of the House of Representatives, Bucciarelli Ducci, MP Bosco and other local authorities (the*

### The House of scientific and technical associations in 1961

*From a speech by Luigi Morandi during the opening ceremony on 25 November 1961 in Milan.*  
The House features a total

surface areas of 4,000 sqm. The basement consists of large rooms used as storage for books and the exhibition of scientific equipment. The ground floor includes a library, with over 2,000 books and 500 magazines (in the Internet era the computer replaces the library); the Main Hall, supplied with projectors, 6-language simultaneous translation booths, and over 300 seats; the Enrico Morandi Hall, with more than



*The Main Hall in 1961*

mayor Professor Cassinis) welcomed him to the House of the scientific and technical associations. ... Dr Morandi talked about the aims of the House, which groups eight strictly cultural associations active in the area of physical knowledge. If specialisation is a strength, he said, the lack of coordination is a weakness. A scientist, even more than an engineer, on top of the necessary know-how should develop new and in-depth knowledge of the relations that exist between disciplines and their applications. The aim of this institution is to develop this new concept at this venue, which includes meeting rooms, secretariats, halls, exhibition areas for the most sophisticated equipment, as well as a library.

### The associations

In 1946, on the wake of the recovery following the Second World War, three associations pooled their efforts to boost the Federation again: the Italian Chemical Society, Lombardy branch (SCI), the Electrotechnical Association, Milan branch (AEI), and the Italian Metallurgy Association (AIM). Their primary objective was to set up offices together, which they shared with an increasingly growing number of members. In 1946, when AIM was founded, the association was already interested in becoming a member of the Federation, and its formal membership, including the sharing of the office space, took place toward the end of the following year. In 1961, when the House was opened, there were 8 member associations. Total members reached 8,000. The National Research Council (CNR), although not a member, fostered and supported the Federation.



*The headquarters of the Federation (1961 picture) remained open in the evening to allow access to the halls and library.*

100 seats. The first floor features many meeting rooms, large and small, totalling an additional 300 seats. The building also includes the offices of member associations, which together account for

approximately 7,500 members. The House is a stern however hospitable building, suitable for studying and recollection, based on respect for the associations' independence and the community at large.

## 20 years of fruitful work

From the start, Morandi's FAST focused mostly on important issues such as energy, automation, research, chemistry, etc. The Italian engineers involved in these sectors, which were the driving force of domestic industry, were renowned internationally thanks to them having trained in some of the best known foreign institutions. The list shown below is a brief overview of the efforts made in those years.



**1956** - BIAS, the first International Automation and Equipment Exhibition (both a conference and show). It was held at the Milan Fair Grounds, and it mirrored other such shows held in France, West Germany and the United Kingdom. ANIPLA played the driving role there.

**1956** - Working Group on Water. It was set up within SCI, then it became a permanent body at FAST. It was an interdisciplinary initiative focusing on industrial development. Many events ensued from it.

**1957** - Conference on Cattle Feed held at the fair grounds. A Nobel Prize winner took part in it. International Nuclear Energy Days, a biennial event.



**1958** - Third Meeting on Automation and Equipment.

**1959** - 4th Symposium on Applied Metallurgy.

In the 1960s, FAST and CENSIS (recently established and under the leadership of Giuseppe De Rita) drew up the *white paper* on scientific and technological research.

Morandi involved highly skilled people in order to promote a policy based on technological innovation, and to raise the awareness of institutions on



*The  
headquarters  
of the  
Federation  
in 1961.*

the fundamental decisions that were needed for placing the country within an international framework.

**1963** - RICH, 1st Chemical Meeting and Exhibition, held at the Museum of Science and Engineering.

**1963** - The President of the Republic, Giuseppe Saragat, paid a visit.

FOIST, Foundation for the development and dissemination of education, and scientific and technical culture was opened.

**1967** - Meeting on *Industrial Research for Italy's Future*, which brought about the creation of the IMI fund for applied research.



*In 1978 FAST and CENSIS published a collection of works dedicated to Luigi Morandi's eighty years. The works were written by influential representatives of industry, research, finance and culture. They were all witnesses of his intense and positive professional experience for Italy.*

## **Stimulating independence**

Ever since its inception in 1897, but also after it was spruced up in 1961, and in spite of its many representatives filling important institutional posts, FAST has always been, both in principle and in practice, independent of any political interference.

Many consider this extreme protection of its own independence one of the Federation's most significant assets, which has allowed it to celebrate one hundred years of activity and which also paves the way to a promising future.

This did not prevent FAST from shifting gradually from the promotion of culture amongst member associations to playing a publicly useful role. Through its national and international action it was a stimulating and inspiring player also with regard to the political power.

This took place alongside the growing awareness within the national community of the key role scientific and technological research would play for Italy's development, of the utmost importance of environmental protection, and of the need to modernise industry.



# Areas of activity

The credibility gained by pooling the best professionals, the experience acquired by its staff, and the skills of its member associations enable FAST to tackle all technological innovation issues. Daily events and a review of the past decades provide the best evidence. Without FAST, Italian technology today would not be the same! As a community of researchers and engineers, FAST contributes to informing the members of its associations on research policy and encourages them to take part in the decision-making process at national, European and international level. FAST encourages public initiatives and studies in order to foster the transformation of research results into technological innovation for the manufacturing and service industries.

## Relations between technology and society

The increasingly rapid pace of technological development leads, both directly and indirectly, to profound economic and social changes. FAST contributes to the solution of problems derived from such changes at all levels by organising meetings between engineers, social scientists, economists and politicians, as well as undertaking ad hoc research work and studies. The progress of scientific and technological know-how is increasingly linked to a multi-disciplinary approach. FAST promotes the involvement of experts with different backgrounds and training in the studying and solving great economic and social interest problems.

*On 7 December 1967 the Municipality of Milan awarded FAST a gold medal for its utmost scientific rigor and the study of pressing issues in modern technology.*





*On 16 November 1971 Apollo 15's astronauts Scott, Vorden (picture) and Irwin took part in a round table on the scientific results of space missions. This topic was not new to the Federation: in 1968, astronaut Glen held a conference; in 1964 Nasa engineer Tischler anticipated all the most important steps of the July 1969 moon landing during a meeting.*

### **International links promoting science and technology**

The Federation boasts a whole host of international relations with similar institutions in leading countries both directly and via its member associations. Activities include technological weeks, seminars and visits.

Additionally, in order to encourage an ongoing exchange of ideas amongst engineers and researchers, FAST periodically organises international technical and scientific events. The most significant include: International Chemical Exhibition - RICH, launched in 1963; International Automation, Instrumentation and Microelectronics Conference and Exhibition - BIAS, launched in 1956.



## Information dissemination

Information dissemination is another asset for the Federation. Together with its members it publishes 41 periodicals. FAST has always been highly involved in this field since 1966, when UGIS (Union of Italian Scientific Journalists) was established, and even before then, in 1963, with its collaboration with *Sapere* and the scientific editors of *Il Corriere della Sera*.

From the fifties onward, FAST has always presented important events by holding press conferences for it believes that communication plays an indispensable role in understanding how complex technology works and in strengthening the consensus of public opinion on any development project.

## Energy

In the 1950s the Federation was already a world landmark thanks to its international nuclear energy days which were the main opportunities for debating and getting an update on technology and safety issues, featuring the participation of experts from bodies involved in Italy, United States, West Germany, France and Sweden,



*Ecology is one of the most-widely developed areas of work at FAST, and it features three main steps: Man and his environment, in 1970, in preparation for the Italian participation in the 1972 UN conference; the Massa Carrara land area, of 1987, within the EIA, environmental impact assessment, study initiated in the 1970s; Tourism and the Environment, of 1989, which opens up a new pathway with bound to produce profitable results in the 1990s, in collaboration with the European Commission.*

## The water resource

*Tomorrow's Water* was the topic of the meeting organised by FAST's Water Study Group in collaboration with the Milan Fair Board during the 1968 Trade Fair. International experts from the United States, the Soviet Union, United Kingdom, Switzerland, Germany, France, Belgium, Czechoslovakia, Italy or from international organisations such as the World Health Organisation, Euratom and the European Water Protection Federation (EWPF) reported on water supply sources, water consumption, pollution, organisation of scientific research on water, educational and dissemination activities on water supply throughout the world. This series of meetings organised with EWPF started in 1964 with the conference *Fresh Sea Water*, to continue in 1966 with the first survey on *Tomorrow's Water*, and in April 1969 with the conference on sea water pollution.

A meeting on the natural disasters caused by floods was held from 23 to 25 October 1970. Two hundred scientists from sixteen countries discussed the technical means to forecast, and possibly prevent, such catastrophes. Emergency action to be implemented in the event of such calamities were also reviewed together with first aid measures and damage repair.



*The first event within the framework of the Milan, City of Science and Technology programme took place from 11 to 13 November, 1990 with Milano meets the Nobel Prize Winners, organised by FAST under the aegis of the Municipality, Assolombarda (Lombardy Industrialists' Association) and the National Research Council. The picture shows the 7 Nobel Prize winners present: Lehn, Prigogine, Levi Montalcini, Yalow, Rubbia, Siegbahn, Lee. Dausset took part in the event via videoconference from Paris.*

and of international organisations. Later on, the energy issue was dealt with a more diversified and specialised approach, also in collaboration with the Electrotechnical and Thermotechnical Associations: energy saving, renewable energies, coal and hydrocarbons were issues habitually discussed in meetings, training courses and ad hoc studies.

Further to the involvement in 1991 in the OPET (Organisation for the Promotion of Energy Technologies) network within the THERMIE programme of DG XVII and in 1997 in the INNOVATION programme of DG XIII of the European Commission, activities are now mostly undertaken at international level.

## **Environment**

The ecology-environment issue has been an ever-recurring topic as of the mid-fifties, when the water study group was set up (1956). Commitment has kept growing, from hands-on training for senior high school students in the sixties on one side, to reviewing international issues in the seventies (1,600 people took part in the conference FAST organised in 1970 "Man and the environment. An institutional survey", in preparation for the 1972 UN Conference) on the other. The main issues dealt with in the eighties were environmental impact, environmental indicators, waste, important industrial risks, certification and control. Starting in 1995, DG XI of the European Commission, in accordance with the Ministry of the Environment, entrusts the Environmental Analysts Association, one of FAST member associations, jointly with the Federation with the undertaking and management of the Italian Environmental Impact Assessment Centre, a body representing Italy within the European EIA (Environmental Impact Assessment) centres network.



# *European cooperation*

FAST actively cooperates with Community institutions in the information, research and development, training and technological dissemination fields. It is committed to making the European Union and its programmes known in Italy, and to supporting Italian technology in Europe. All these activities have rapidly and significantly grown in importance.

## **Information dissemination**

FAST is committed to the dissemination of Community directives, to having them introduced and applied, particularly for environmental directives featuring important impacts on the public sector: the Seveso directive on considerable risks, environmental impact assessment,



*Technology transfer:  
MOEX '94,  
the stand  
organised by  
FAST in Malta  
for DG XVII  
of the  
European  
Commission.*



*Brussels, October 1992: FAST took part in the first OPET (Organisation for the Promotion of Energy Technologies) network exhibition. FAST has been a member of the OPET network ever since its establishment,*

manufacturer's liability, prevention and safety, etc. In 1988, Fast Eurowindow service was launched to provide information and to support players in the projects promoted and funded by the European Commission. The most important research programmes have been institutionally disseminated at FAST conference centre. DG XIII has decided to make FAST a member of CORDIS (Community Research and Development Information Service); for DG XII, FAST organises the Italian section of the EU Young Scientists Award; the Commission's publications are disseminated via its periodicals.

In 1995, the Association of Environmental Analysts and FAST were entrusted with the management of the Italian Environmental Impact Assessment Centre launched in that same year by DG XI (Environment), in accordance with the Ministry of the Environment. The Centre has acted as the Italian information and support body within the European network, which bears the same name.



*5 December 1995. FAST President Walter Nicodemi opened the conference on European Research: Opportunities for Italy held by Professor Paolo Fasella, Director-General of DG XII of the European Commission.*



*decided by DG XVII within the framework of the action launched alongside the Thermie programme. Now the collaboration continues with DG XIII and the INNOVATION programme.*

## Europe: a growing and diversified commitment

The important role played by Europe was already apparent in 1961, when FAST opened its new headquarters.

Below is a brief summary of the main events organised since the early 1980s onward under the aegis of, in accordance with or funded by the European Commission.

In the 1990s, "European" action accounts for the predominant part of the Federation's activities.

**1981 19 January**

University and European Economic Community. Common curricula at EC universities.

**2 March** - EC research programmes and opportunities for access.

**1982 30 November**

Manned space stations: opportunities for use.

**1983 7 April**

Main investment projects in the natural gas field in Europe. Technical, economic and financial issues.

**1984 28 February**

Relaunching telecommunications in the European Community.

**1986 24 November**

Community research programmes: contents, funding, participation modalities.

**1987 4 November**

Biotechnology: present and future.

**1988 January**

FAST Eurowindow was launched  
**4 March** - The ESPRIT 2 Programme.

**18, 19, 20 April**

EUREKA Conference.

**5 May**

FAST project on technology forecast

**3 October** - BRITE Programme

**13-15 October** - EUSJA Conference.

**1989 January**

The European research task force was set up.

**1990 12 September**

APRE was established, i.e. the Agency for the Promotion of European Research.

**1991 1 January**

The OPET, Organisation for the Promotion of Energy Technologies, network was set under way.

The cooperation on advanced training programmes has grown wider.



### Supporting research

In 1989 FAST considerably contributed to the creation of the European Research Task Force at MURST (Ministry for University and Scientific and Technological Research).

This successful initiative led, one year later, to the setting up of APRE, Agency for the Promotion of European Research, of which the Federation was a founding member and supporter. After running the APRE office in Milan for three years, in 1994 UNIRE, the European Research Unit, was established. This is an ad hoc body providing Italian operators with specific information and technical assistance, and ensuring integrated and effective services.

The Federation undertakes studies and analyses on European research strategies and issues on account of DG XII.

### Promoting technology

On 1 January 1991 FAST became a member of OPET (Organisation for the Promotion of Energy Technologies), and since then it has been actively collaborating with DG XVII for Energy on the development of the European energy technology market and the transfer of the aforementioned technology to third world countries. In order to better fulfil the task assigned to it, in 1992 FAST founded a European economic interest group, and in 1993 the Brussels-based ETEC (European Technology Consulting group s.a.) jointly with five organisations from five countries.

The EC Energy Centre, a foundation incorporated under Russian law, was established together with Tüv Rheinland in St. Petersburg to support the THERMIE and TACIS programmes of the European Union within the Russian Federation. This centre immediately turned into one of the most important operations of the 14 entities launched in Central and Eastern European countries.



*Technology on display in the square in front of FAST building: petrol-fired engines converted to CNG-fired engines during the European Conference held on 13-15 May 1992.*



The integration of DG XVII's THERMIE programme and DG I's TACIS programme was a fact. Local authorities recognised this centre as the most effective representation of Community institutions within the Leningrad region. This was the first centre to be legally recognised as a foundation incorporated under Russian law.

Within the framework of the VALUE programme of DG XIII, FAST has been involved in the R&TD results dissemination project of the European Commission. The new INNOVATION programme launched by DG XIII again has made the Federation a protagonist within the LARICE consortium, an innovation centre operating in Lombardy and an active member of a network boasting 52 Relay centres in the 15 countries of the Union.

*From 1992 to 1995  
FAST was in charge of  
managing the St.  
Petersburg Energy  
Centre of DG XVII. A  
foundation  
incorporated under  
Russian law was set up  
for this purpose jointly  
with Tüv Rheinland.  
Picture: The office  
building in St.  
Petersburg.*



*Moscow, 1990. Renewing  
the collaboration  
agreements with SNIO,  
FAST homologous  
organisation in Russia.*





*20 March 1997: awards to the Italian winners of the 8th Young Scientists Contest of the European Union held in Helsinki.*



*Reception in the gardens of Palazzo Isimbardi, headquarters of the Province of Milan on the occasion of the European conference Renewable energy sources in the internal market held from 17 to 19 June 1996.*

### **Advanced training**

FAST undertakes and implements a number of pilot schemes and innovative training courses with the funds provided by the European Social Fund.

These courses include: technology management, high performance liquid chromatography, quality, innovation and internationalisation of SMEs.

It also takes part in numerous Community initiatives.

# *100 years later: FAST is...*

## **Same objectives as ever**

One hundred years in operation and FAST is still a free, non-profit making, non-political organisation. It was legally acknowledged by Decree dated 30 December 1995. It operates nationally and internationally, directly or through its member associations to foster cultural debates, information and scientific dissemination, training, knowledge in the political, science, research, technological and industrial development areas.

The Federation includes 35 independent scientific associations totalling almost 55,000 members, both individuals such as research workers and engineers working in companies, universities, public and private research centres, or free lance professionals; and entities such as firms, bodies and organisations with different legal statuses.

*Technical support to businesses by providing information on new technologies, Community funding, and international cooperation opportunities are amongst the main services offered by FAST.*



## **Concrete action for real needs**

The Federation is mostly focused on providing technical support, training and information and in undertaking studies and research work.

Business services include promotion and support to foster participation in international cooperation programmes; support to technology transfer; support to fund seeking; targeted professional refresher courses.

Research activities mainly cover the analysis of specific sectors, the trends



*Room A on the ground floor at FAST conference centre is designed to suit all needs. This picture shows the classroom set-up, during the 1994 European seminar on textile technology.*

in technological innovation, its applications, the relationships with the economy and society; feasibility studies, experimenting new project schemes and the implementation of projects thereof.

Training includes seminars, intensive updating courses for managers, engineers, research workers, etc.; long-term projects funded by the European Social Fund; active participation in innovative programmes undertaken within the Community and internationally.

Information is disseminated via:

- promotion and organisation of scientific meetings, study days, conferences;
- publication of trade magazines, bulletins, periodicals, columns, and proceedings of congresses and workshops by the Federation and its member associations;
- collaboration with the press and communications specialists.

*Room A as an exhibition area during the conference From Waste to Energy held on 29-30 June 1995.*





*Room A set up for a poster session during the European congress on new building & construction technology held in September 1992*

### **A flexible operative structure**

Although it is one century old, FAST boasts a highly flexible organisation and management which allows it to be ahead of its time and pay close attention to practical issues.

The Federation consists of almost 30 employees or full-time collaborators, all university graduates and excellent professionals, who contribute their experience to the tasks they have been assigned within the organisation.

#### *European office: UNIRE and OPET*

Through the UNIRE bureau, FAST promotes Italian participation in European research, development and innovation programmes in a number of technological sectors by disseminating information on funding and international cooperation opportunities. It is part of the European Relay Centres network.

The OPET (Organisation for the Promotion of Energy Technologies) office is part of a network of bodies with offices in all EU and Central and Eastern European countries.

It was launched by the Directorate General for Energy, DG XVII, within the framework of the THERMIE programme and by DG XIII through the INNOVATION programme.

#### *Environmental office*

In collaboration with AAA, the Association of Environmental Analysts, FAST runs the Italian EIA Centre, the Italian body in charge of environmental impact assessment launched by DG XI of the European Commission in accordance with the Ministry of the Environment.

Thanks to the experience gained to date, this office is equipped with top professionals, particularly in the following areas: water management, waste treatment, industrial risks, prevention and safety, environmental audit and certification.





### *SINTEC, the agency for innovation*

It acts as the interface between manufacturers and the scientific research arena in order to foster know-how transfer and the application of results. This office is a privileged spokesperson of small and medium-sized firms dealing with innovation issues. In addition, it operates in close connection with similar domestic and international organisations.

### *Intersectorial initiatives*

This office designs and implements big international events such as BIAS, a conference-exhibition on automation, and RICH on chemistry. It also





*Room B during a meeting of FAST's Executive Committee. Previous page: the coffee-house/restaurant opened in 1989.*

launches new interdisciplinary or experimental projects. It ensures the participation of institutions in which the Federation plays a role.

#### *The organising secretariat*

FAST organises approximately 80 events a year, including many international ones, study days, courses, seminars. Furthermore, it directly manages its own conference centre. Its 35 member associations have



*The European office at FAST. Left, a meeting concerning an international project.*

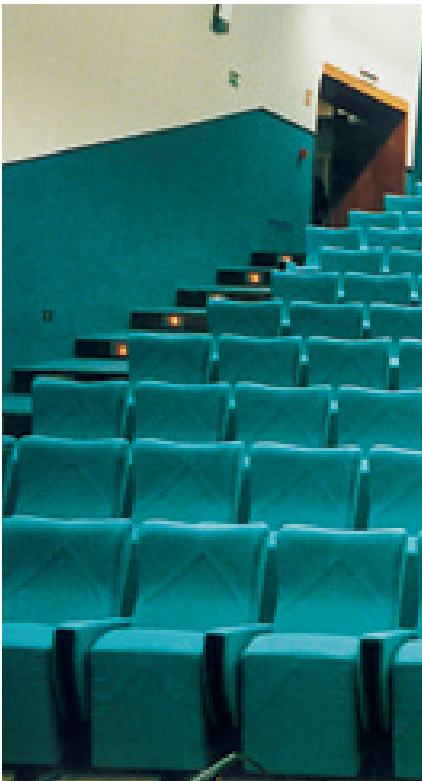
promoted over 600 initiatives, and more than 200 have been organised by outside organisations. This unique asset, backed by years of proven experience, make FAST and its organising secretariat a landmark for technical and scientific *turnkey* meetings, preferably held at the venue located at 2 piazzale Morandi in Milan.

**The main operative connections**

In order to cope with the growing demand for business support, to create synergy with other players in terms of skills and experience, to ensure a qualified international presence, etc., FAST contributes to the setting up



*The Main Hall at Fast conference centre: view from the speakers' table (large picture) and*





of ad hoc organisations, fosters the creation of trade consortia, ensures highly representative Italian participation in transnational networks and sits in the managing board of entities with which it actively collaborates. The best examples of such fruitful inputs are briefly described below. It must be remembered, *inter alia*, that in 1966 the Federation fostered the creation of UGIS, Union of Italian Scientific Journalists; it founded ICSTI, the Institute for International Scientific and Technical Cooperation, active until 1974; it started ISFOP, Higher Institute for Prevention Training, which was later handed over to AIAS; was one of the institutional promoters of NGV (Natural Gas Vehicle) System in Italy from 1992 to 1995.

*during recent international meetings. 250 seats fitted with small, fold-away tables.*



*AMITIÉ, Association for Managerial and Vocational Training in Software and Information Technology in Europe, Bologna*

FAST is a founding member

Founded in 1991 by FAST and Scierter, this association has been active in the field of EU training programmes held by highly qualified experts from various countries.

Its statutory aims include: identifying training needs; promoting software and information technology dissemination and ensuring an interface between industry and university.

*APE, Provincial Energy Agency*

Founding members: Province of Reggio Calabria and FAST

This consortium was founded on 12 April 1997 and deals with energy planning, connections with the European Union, economic and social development.

*APRE, Agency for the Promotion of European Research, Rome*

FAST is a founding member and supporter; as of 1996 it is an ordinary member

Set up on 12 September 1990, it offers information dissemination, documentation, support to improve the Italian participation in European research, development and technological innovation programmes.

The agency features 26 members which represent the Italian scientific, entrepreneurial, academic and financial systems.

*ARCHIA, Agggregate Architecture Investment*

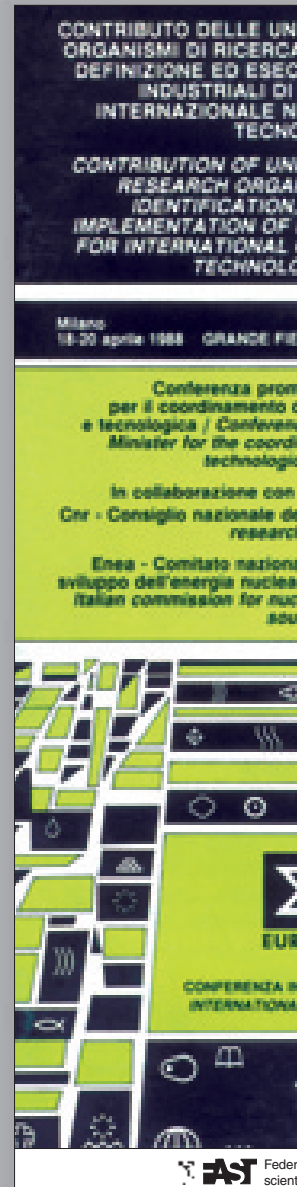
FAST is a founding member

This consortium was launched in 1997 and it aims at supporting economic and social development mainly within the province of Reggio Calabria by involving public and private players and by fostering partnerships.

*WSA, World Solar Academy*

FAST is a founding member

One of the most recent bodies within FAST, the academy deals with solar energy in its wider sense, following the indications of the World Solar Summit held in Harare in September 1996.



### *CISAI, Italian Council of Applied Science and Engineering*

This Council is directly linked to FAST and operatively represents Italy within EUROCASE. It was established on 26 February 1992 in order to: promote cooperation in the applied science and engineering fields; monitor and advise on the role to be played by the said sciences; evaluate the evolution of social and economic needs; foster and undertake studies.

### *EUROCASE, European Council of Applied Science and Engineering, Paris*

Established on 11 December 1992 on the basis of the agreement reached by 14 academies in EU and EFTA countries, the Council includes 19 countries and provides unbiased, independent and balanced opinions on research and development, and the technologies thereof, from a short, medium and long term perspective.

Eurocase launches and implements studies on engineering issues and related economic, social and political implications. Thanks to its interdisciplinary network it fosters international cooperation within the applied science and engineering fields; it ensures unbiased advice to EU institutions and it manages the European IT prize.

### *EUFORES, European Forum for Renewable Energy Sources, Luxembourg*

Following on from the 1994 Madrid conference on renewable energies, this association is involved in the promotion of such energy sources in all European countries.

### *FEDARENE, European Federation of Regional Energy and Environmental Agencies, Brussels*

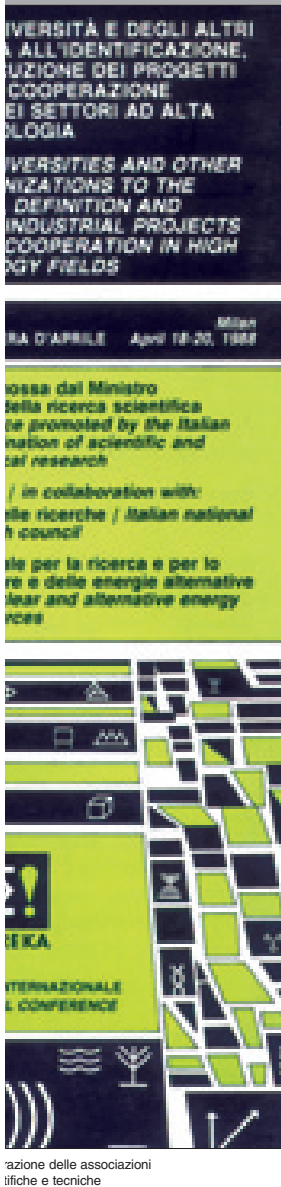
FAST has been an observer since 1994

Fedarene is a European network of regional agencies each of which is in charge of developing and promoting regional energy management, waste treatment and environmental protection policies via: exchange of inter-regional experiences; representation of its members within European institutions; support in the establishment of agencies for energy planning; projects and studies.

### *TII, Technology Innovation and Information, Brussels*

FAST has been an ordinary member as of 1995

It includes the best and more active European organisations in the technological innovation sector.



### 35 member associations

The Federation includes 35 cultural member associations, 30 national and 5 local branches; 16 of them have their main offices in the Federation's building. All are independent, non-profit making associations which undertake their activities within the scientific and technical areas and applications thereof (art. 5 of the By-laws). Through its member associations FAST is provided with extremely qualified skills in the technology fields.



#### The 35 member associations

**AEI** - Associazione elettrotecnica ed elettronica italiana. Sezione di Milano  
*Italian Electrotechnical and Electronic Association. Milan branch*

**AIM** - Associazione italiana di metallurgia  
*Italian Metallurgy Association*

**SCI** - Società chimica italiana. Sezione Lombardia  
*Italian Chemical Society. Lombardy branch*

**AAA** - Associazione analisti ambientali  
*Environmental Analyst Association*

**AEI** - Associazione elettrotecnica ed elettronica italiana. Ufficio centrale  
*Italian Electrotechnical and Electronic Association. Head office*

**AIAS** - Associazione italiana addetti alla sicurezza  
*Italian Association of Safety Specialists*

**AICA** - Associazione italiana per l'informatica e il calcolo automatico  
*Italian Association for IT and Automation Computing*

**AICQ** - Associazione italiana per la qualità  
*Italian Quality Association*

**AICQ** - Associazione italiana centronord per la qualità  
*North-Centre Italy Quality Association*

**AIDI** - Associazione italiana di illuminazione  
*Italian Lighting Association*

**AIDIC** - Associazione italiana di ingegneria chimica  
*Italian Chemical Engineering Association*

**AIIA** - Associazione italiana di ingegneria agraria  
*Italian Agricultural Engineering Association*

**AI\*IA** - Associazione italiana per l'intelligenza artificiale  
*Italian Association for Artificial Intelligence*

**AILOG** - Associazione italiana di logistica  
*Italian Logistics Association*

**AIMAN** - Associazione italiana fra i tecnici di manutenzione  
*Italian Maintenance Association*

**AIPND** - Associazione italiana prove non distruttive  
*Italian Non-Destructive Test Association*

**AIS** - Associazione italiana strumentisti  
*Italian Instrumentation Association*

**AIT** - Associazione italiana di telerilevamento  
*Italian Remote Sensing Association*

## The publications

Magazines, bulletins, newsletters and columns on technical periodicals published by FAST and its 35 member associations offer expert information addressing a highly specialised audience. Conference proceedings and reports, totalling over 250 a year, contribute to



the dissemination of scientific know-how, the promotion of technical standards, the dissemination of directives and initiatives of the EU and international organisations. In short, they are seen as one of the best tools for fostering innovation and technology. These 41 titles reach over 500 readers.

**AITA** - Associazione italiana tecnologie alimentari  
*Italian Food Technology Association*  
**AITIVA** - Associazione italiana tecnici industrie vernici e affini  
*Italian Association for Technicians in the Paint and Allied Industries*  
**AIV** - Associazione italiana del vuoto *Italian Vacuum Association*  
**ANIPLA** - Associazione nazionale italiana per l'automazione  
*Italian Association for Automation*  
**ANIPLA** - Associazione nazionale italiana per l'automazione. Sezione di Milano  
*Italian Association for Automation. Milan branch*  
**ATA** - Associazione tecnica dell'automobile  
*Car Engineering Association*  
**ATI** - Associazione termotecnica italiana  
*Italian Thermotechnical Association*  
**ATI** - Associazione termotecnica italiana. Sezione Lombardia  
*Italian Thermotechnical Association. Lombardy branch*

**ATIG** - Associazione tecnica italiana del gas  
*Italian Gas Technicians Association*  
**CIAM** - Collegio degli ingegneri e degli architetti di Milano  
*Milan Board of Engineers and Architects*  
**CTA** - Collegio tecnici dell'acciaio  
*Association of Steel Technicians*  
**SIAM** - Società di incoraggiamento d'arti e mestieri di Milano  
*Society for the Encouragement of Arts and Crafts of Milan*  
**SIFET** - Società italiana di fotogrammetria e topografia  
*Italian Photogrammetry and Topography Society*  
**SIG** - Società italiana gallerie  
*Italian Tunnel Society*  
**SIRI** - Associazione italiana di robotica  
*Italian Robotics Association*  
**SITE** - Società italiana di ecologia  
*Italian Ecology Society*  
**3ASI** - Associazione degli analisti di affidabilità e sicurezza Italia  
*Association of Italian Reliability and Safety Analysts*



### Affiliated members

FAST members include bodies and firms that offer their support to reach the aims of the Federation.

These include: AGIP; AIRI, Italian Industrial Research Association; ALPI,



Independent Test Lab Association; ANIE, National Federation of Electrotechnical and Electronic Companies; Assolombarda, Milan Industrialists' Association; Associazione Campo; CMG, Computer Measurement Group, Italy; ENEL; Solvay; Stazione sperimentale combustibili (Fuel Experimental Station); STET, Telephone Holding Company; Tecnopolis Csata Novus Ortus; Unichim.



### International connections

FAST boasts a long-standing tradition of relations with international institutions where it represents Italy on behalf of numerous bodies. The Federation is currently involved in over 20 large-scale projects, whereas its member associations are now working on more than one hundred projects. Technological issues and relations with third countries are favoured topics.



*17 June 1997: very important representatives of institutions, culture and education meet to celebrate FAST's one hundredth anniversary*

### **The conference centre**

Ever since its opening in 1961, FAST headquarters at 2 piazzale Morandi, in Milan has played a vital role as a conference centre for technical and scientific events, meetings and training courses, available to all those who wish to take advantage of a prestigious venue fitted with 6 meeting rooms, sophisticated equipment and exhibition areas.

### **FOIST**

FOIST, the Foundation for the Development and Dissemination of Education, and Scientific and Technical Culture, was acknowledged by Decree of the President of the Republic no. 86 dated 25 January 1965. FOIST is a subsidiary of FAST.

Its aims are: fostering the development of scientific and technical education, and disseminating scientific knowledge.

The Foundation organises instructional, perfection and updating courses, lectures and conferences, as well as seminars.