

**ANNUAL
REPORT
2010**



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ENRICO MATTEI



FEEM is entitled to Enrico Mattei, the founder of Eni and an economic leader in the national industrial system and international relations of the post-war period.

Born in Acqualagna (Pesaro) on April 29, 1906, Enrico Mattei became one of the leaders of the antifascist resistance movement in Northern Italy during World War II. After the peace declaration in 1945, Mattei was appointed by the government bankruptcy trustee of the distressed state-owned oil company Agip.

Instead of liquidating the company, Mattei successfully developed its business, starting an involvement with energy markets lasting 18 years. The unexpected discovery of natural gas in the Po Valley, the development of the business of extracting and marketing it, and his dedication to promoting legislation to regulate domestic energy markets constitute the most salient aspects of Mattei's early activities. In 1953, he was appointed Chairman of Ente Nazionale Idrocarburi (Eni), the state-owned energy company that he forcefully wanted and contributed to establish.

Mattei led the Eni group combining vision with pragmatism: the new terms of association offered to oil producing countries, the measures taken to contain the final energy prices to consumers, the launch of a large and modern domestic petrochemical and nuclear industry, the off-shoring of qualified engineering expertise to operations abroad, the focus on research, innovation and meritocracy witness his managerial skills, combined with a genuine commitment to economic and social progress.

During the expansion phase in Eni's history, Mattei died tragically in an aircraft crash on October 27, 1962 in the skies of Bascapè (Pavia). The key role he had assigned to culture, research, and cooperation represent the most valuable legacy for the Foundation that carries his name.

MISSION



FEEM is a nonprofit, nonpartisan research institution devoted to the study of sustainable development. Founded by the Eni group, officially recognized by the President of the Italian Republic in 1989, and in full operation since 1990, FEEM has grown to become a leading research centre, providing timely and objective analysis on a wide range of environmental, energy and global economic issues.

FEEM's mission is to improve through research the quality of decision-making in public and private spheres. This goal is achieved by creating an international and multidisciplinary network of researchers working on several innovative projects, by providing and promoting training in specialized areas of research, by disseminating research results through a wide range of outreach activities, and by delivering directly to policy makers via participation in various institutional fora.

FEEM's operations are inspired by some guiding principles. FEEM sets a bold research agenda addressing big questions and emerging issues in the economic and social context. While strictly linked with the academic community, it embraces intellectual curiosity and supports risk-taking in pursuing research. Its agenda emphasizes "real world" issues and the policy relevance of the outputs.

FEEM brings together researchers from various fields at different levels of experience, in order to fertilize ideas and foster the accumulation of human capital inside and outside the organization.

FEEM promotes excellence, boldness of ideas and creativeness, but quality, rigor and impact remain the distinctive features of its activity. Research outputs are theoretically sound, fact-based, and generally validated by the scientific community through peer review processes. FEEM aims at translating analyses into practical ideas, and at presenting them in user-friendly formats to inform and shape the public debate.

While remaining thoroughly Italian in location and perspective, FEEM promotes the international dimension of its activities by selecting topics of global relevance, by creating networks and partnerships in various countries, and by attracting researchers trained and working abroad.

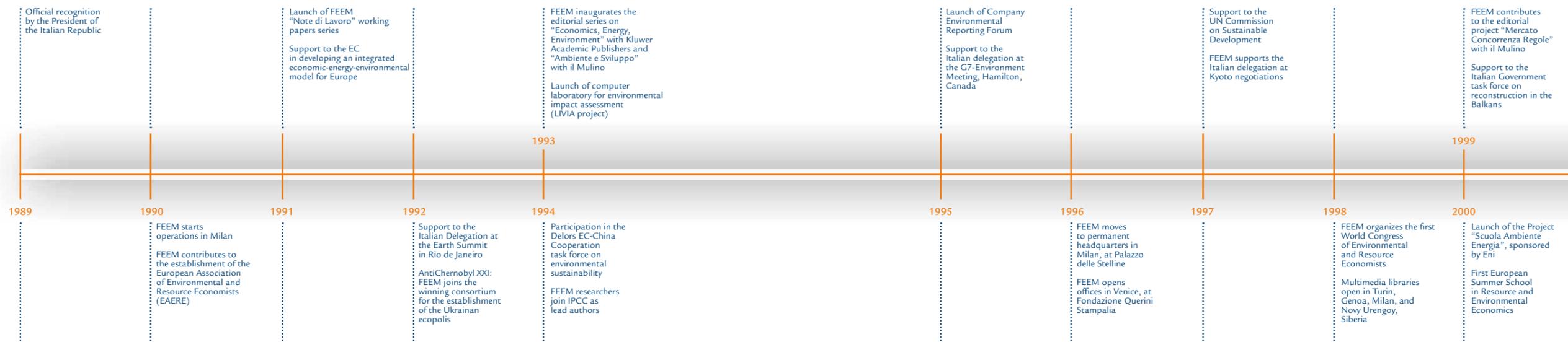
OUR HISTORY

The formal date of establishment is June 7, 1989, when the President of the Republic officially recognized FEEM's legal status. However, the project of establishing a research foundation entitled to Enrico Mattei was drafted by a commission of Eni executives and external experts in 1982, and finally endorsed in 1986.

The relationship between the economy, energy and the environment has always been the main focus of FEEM research activities. Today, FEEM has grown to become a leading international research center in economics, providing timely and objective analysis on a wide range of environmental, energy and global economic issues.

The first board meeting took place in 1987, and set down the landmark principles for future activities. FEEM would have an international profile in terms of researchers involved, topics addressed, quality of output and networks. Furthermore, it would not operate as a grant-making institution, but it would conduct independent research with its own human capital and coordinated programmes. In its long-standing activity FEEM has remained faithful to these principles.

Sustainable economic development is an area where FEEM has gained a strong reputation in the academic community and policy spheres. In the early 90s FEEM researchers started analyzing the interaction between finance and the environment and the innovative (and now widely used) instruments such as emission permits and catastrophe bonds in the context of international and intergenerational risk-sharing. The international and strategic dimension of environmental issues has also been the focus of extensive investigation. As the story of the Kyoto protocol shows, environmental issues are global and must be addressed at a global level. FEEM researchers had foreshadowed the difficulties of inking international climate agreements, suggesting that issue-linkage, i.e. increasing the items in the negotiations agenda, could lead to more efficient solutions.



These initial intuitions prompted new strands of environmental research, ranging from sustainable energy to natural resources management and biodiversity.

The expertise gained in this field over the years has led FEEM to contribute to the prestigious and important scientific work carried out by the IPCC (Intergovernmental Panel on Climate Change) and to provide technical support to entities and institutions, such as the Italian national and regional governments, the United Nations, the European Commission and the European Environmental Agency.

FEEM research on economic development has explored other key aspects, such as knowledge and human capital. Over the years research in this area broadened its scope to cover a variety of issues ranging from R&D, education and human capital, knowledge creation and diffusion, to multiculturalism and economic growth, tackling topics such as the emerging global urban system, the new sources of competitiveness in the global economy, and culture and diversity in capitalism.

FEEM has support-to-policy in its DNA. However, useful advice to decision makers is seldom delivered by the research community if incentives and institutional constraints are not taken into account. Embracing a “political economy” approach is essential, and FEEM has promoted studies in this field, addressing issues such as incentives, information and market failures, the role of lobbies and organized interests in collective decision-making, and the mechanics of self-regulation in financial markets, anticipating the critical issues of the financial crisis. Within this strand of research, FEEM has developed a series of cutting-edge projects, which consolidated its scientific reputation in corporate governance, privatization, and regulation. Today, FEEM is considered one of the most authoritative sources on privatization, and sought for advice by international organizations and governments.

Since the early 90s FEEM also started investigating the relationship between the firm and its stakeholders, well before “corporate social responsibility” became one of the buzzwords in the business sphere. In this early

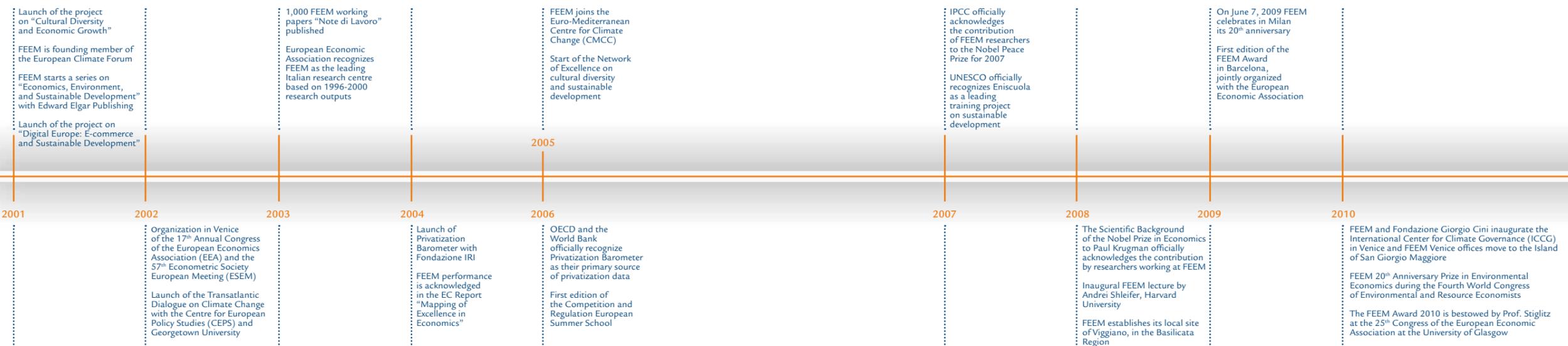
stage, FEEM developed path-breaking methodologies to assess the environmental and social impact of activities in the balance sheets, and assisted several companies in drafting innovative reports, including its founder Eni.

Successful research is primarily a cooperative venture, and FEEM has always strived to create strong links with the international scientific community and partnerships with leading institutions. The reader can find a comprehensive list of our main partners in our chronology. Worthy to mention is the collaboration with the European Economic Association in the organization of landmark events, such as the launch of the FEEM Award, the prize for young economists.

More recently FEEM established a partnership with the Fondazione Giorgio Cini for the creation of the International Center for Climate Governance (ICCG) aimed at fostering links between the scientific community and the policy sphere to improve decision making on climate change.

In June 2009 FEEM celebrated its 20th anniversary and established the FEEM 20th Anniversary Prize in Environmental Economics to reward researchers who have most significantly contributed to the development of the field of environmental and resource economics over the last 20 years.

At the end of 2010 FEEM consolidated its research activities around two main research programmes: “Climate Change and Sustainable Development” and “Energy: Resources and Markets”. A third strand of research is devoted to “Economy and Society”. The “Report on Activities” section describes them in greater detail.



GOVERNANCE AND ORGANIZATION

FEEM is an independent foundation officially recognized by the President of the Italian Republic in 1989. FEEM has been founded by Eni and 9 of its subsidiaries with an initial endowment of 13 million Euros.

The governance rules, functions and powers of FEEM bodies are set out by the Statute. FEEM is guided by a Board of Directors with complete powers for the ordinary and extraordinary administration. The Board is composed of fifteen members – seven of whom are independent – and it is chaired by Paolo Scaroni, CEO of Eni. The Board of Directors is committed to overseeing the main activities of the Foundation, approving the annual budget and related activities.

FEEM bodies also include the Scientific Advisory Board (Comitato Scientifico), made of seven qualified experts from the scientific, academic and cultural communities and appointed by the Board of Directors. The Scientific Advisory Board provides recommendations on research activities and oversees the work in progress.

The Audit Committee (Collegio dei Revisori), in compliance with the Italian legislation, is composed of three qualified and certified accountants and its Chairman is appointed by the Italian Minister for Economic Development.

The Executive Director enacts the decisions of the Board of Directors, managing and coordinating the activities of the Foundation, including its offices and staff.



In 2007 FEEM voluntarily adopted an organizational, management and control Model pursuant to Legislative Decree 231/2001 and established a Surveillance Body (Organismo di Vigilanza) for its implementation and subsequent updates. In 2008 and 2009 FEEM reviewed its organization and implemented a new Model. Within this process, FEEM also defined the key values and principles for its external and internal activities and drafted a Code of Conduct as an integral part of the Model.

In the meeting of November 2009, the FEEM Board of Directors formally approved the new Model and the FEEM Code of Conduct.

Everyday activities are organized and carried out within four main areas operated by permanent staff: (i) Administration, Finance and HR; (ii) Communication and External Relations; (iii) Research, and (iv) Special Projects.

FEEM's headquarters are located in Milan, in an aisle of Palazzo delle Stelline, a former XV Century monastery fully restored in 1998. This is where the head office, the library and the facilities for events and seminars are located, and most of the staff and residential researchers work. Since 1996 FEEM holds offices also in Venice, where important research projects, congresses and seminars are carried out. In 2010 FEEM moved from Palazzo Querini Stampalia and inaugurated new prestigious offices on the Island of San Giorgio Maggiore just in front of St. Mark's Square. In 2008 FEEM also established the local site of Viggiano, in the Basilicata region.

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As of June 2011

As of June 2011

Note: Researchers and Special Projects collaborators are listed in the specific sections of the Annual Report.

INAUGURATION OF THE INTERNATIONAL CENTER FOR CLIMATE GOVERNANCE

In 2010 FEEM and Fondazione Giorgio Cini inaugurated the International Center for Climate Governance and launched a new partnership with the Climate Policy Initiative in Venice.

On April 15, 2010 in Venice at the new headquarters of Fondazione Eni Enrico Mattei on the Island of San Giorgio Maggiore, the Chairman of Fondazione Giorgio Cini, Giovanni Bazoli, the Chairman of Fondazione Eni Enrico Mattei, Paolo Scaroni, the founder of Climate Policy Initiative, George Soros and the Executive Director, Thomas Heller, presented a new international initiative to encourage dialogue between science and institutions on climate change.

The initiative encompassed two complementary aspects. First, FEEM and Fondazione Giorgio Cini founded the International Center for Climate Governance (ICCG), a joint initiative with the aim of contributing to the study and development of future policies for global climate control. Second, FEEM and the International Center for Climate Governance began an important collaboration with the Climate Policy Initiative (CPI), a new organization created to evaluate the effectiveness of energy and climate policies through dialogue with the world of business and finance with policymakers.



While FEEM contributes to frontier research in climate change modeling and policy essentially from the perspective of economics, the ICCG investigates the design of climate policy institutions and alternative frameworks for climate governance, relying on multidisciplinary competences. ICCG researchers, with backgrounds mainly in economics and political sciences, explore the interdependencies between the economic, social, cultural, religious and political aspects of climate governance, promoting initiatives designed to mitigate and adapt to climate change with special emphasis on developing countries. Finally, the CPI provides analysis and consultation on low-carbon policies to policy makers, and completes this picture from a policy implementation perspective.

CPI activities tend to involve key actors on the climate scene, from the academic, business as well as policy communities, thus providing precious insights and guiding research in the complex domain of climate change.

The newly inaugurated offices of FEEM, ICCG and CPI in Venice and the creation of this international centre of excellence, mark the beginning of a unique collaboration in the field of climate change that brings together high level research competences developed from multidisciplinary perspectives. This partnership, indeed, puts together valuable and well-established experience of research on climate science with market knowledge and institutional relations.

SECURITY OF ENERGY CONSIDERING ITS UNCERTAINTY RISK AND ECONOMIC IMPLICATIONS



In December 2010 the three-year SECURE project was finalized. This was the largest research project on energy security of supply funded by the European Commission under the 7th Framework Programme. It was carried out by a consortium of 15 prestigious and leading research institutions. FEEM was the scientific coordinator.

The SECURE project* was aimed at building a comprehensive framework covering most of the issues related to energy security of supply and designed to provide the European Commission, EU governments and regulators, with facts and methodologies to support their decision-making process for the definition of energy policies and strategies. The main objectives were to define an energy mix reconciling energy security and sustainability requirements; to develop stable relations with energy-exporting countries and external partners; and to optimize the synergies between member states to improve security of supply. The analysis also integrated demand issues related to energy security. Stakeholders' consultation was an important element of the project and several workshops were organized in Europe and in the main regions that supply energy to Europe (Russia, North Africa and Persian/Arabic Gulf) in order to discuss and test draft project results.

The project has shown that ensuring and improving security of supply is a combination of a number of policies and recommendations, some of which are described here below.

Security of supply should be addressed within a wider approach that integrates the other two pillars of EU energy policy: sustainability and competitiveness. "Smart" energy policies must combine these three dimensions without neglecting the international relations context.

European climate policies bring a significant double dividend in terms of reduced vulnerability to energy shocks. However, energy scenarios opening the path to low-carbon energy systems require an improved framework and incentives for electricity investment (including renewable), a high degree of integration of the European electricity systems, a favorable institutional and regulatory framework for Carbon Capture Transport and Storage (CCTS), no a priori foreclosure towards nuclear development and full recognition of the intrinsic assets provided by natural gas. Demand policies must also be strongly pursued.

Since none of the above requisites are self-evident, should low-carbon technologies fail to be available in time, the transition path to a low-carbon economy is likely to be at risk. Governments might thus be required to step in and provide support. The most efficient way for the EU to develop cost-effective low-carbon energy use is to have a generalized and viable EU-wide emission trading system capable of delivering standardized carbon prices or an effective EU-wide carbon tax.

This is an example of convergence between energy security of supply and market development. Integration of markets by developing regulatory policies, which enhance interconnections in gas and electricity infrastructure and thus foster competition, would be another step in the right direction for European security of supply. The unsatisfactory functioning of the international oil markets and the uncertainty and volatility in oil prices is the main security threat for future oil supplies because it hinders investment. Measures to reduce the increasing volatility should be envisaged.

Climate policies strongly influence the menu of policy solutions to energy security problems and illustrate the type of uncertainties that the EU and its energy suppliers will have to face in the next decades. Efforts are thus needed to combine institutional solutions with a dialogue with EU partners on a medium-term programming of investments in the energy sector, in a balanced perspective of mutual understanding.

* More information on the SECURE project is available at www.secure-ec.eu

INNOVATION FOR CLIMATE CHANGE MITIGATION: A STUDY OF ENERGY R&D

Much has been said on how to reduce current anthropogenic emissions with the aid of a portfolio of existing technologies. However, stabilization of atmospheric concentrations of greenhouse gases to a safe level can only be achieved if, over time, net emissions fall to zero.

There is only one way to achieve this goal in a manner acceptable to the majority of the world's citizens, feeding the hunger for energy of both the developed and less developed world: through some kind of technological revolution, that undeniably requires adequate Research & Development (R&D) investment.

New technological options to meet this increasing demand with less pressure on the environment are needed, but their development and deployment are first of all conditional on R&D. Understanding the dynamics of R&D in the energy sector is the core objective of the ICARUS project, a three-year (2010-2012) European Research Council (ERC) Starting Grant funded by the European Commission under the umbrella of the 7th Framework Programme, coordinated by Valentina Bosetti - FEEM senior researcher who was assigned the prestigious grant – and carried out at the premises of FEEM in Milan.

The research touches upon key issues, such as climate change and energy security, and aims at producing an unprecedented analysis of energy-related innovation mechanisms with the potential of contributing to the policy debate at the European and global level.



From a broad perspective, understanding the dynamics of innovation in the energy sector has relevance to four main issues: *i)* environmental concerns, because new and more efficient energy technologies can reduce the impact of human activities on the climate; *ii)* energy security, because renewable resources and paths towards reduced dependence on fossil fuels are today a crucial governmental concern; *iii)* complexity of energy systems, since long-term investments in energy technologies have inter-temporal and often inter-generational effects; *iv)* economic efficiency, given that climate change is a challenge that needs to be tackled at a reasonable cost.

In order to investigate how R&D stimulates innovation in the energy sector, the ICARUS project will therefore:

- *learn from the past*, by running empirical analyses on existing databases and collecting new data;
- *learn from the experts*, by applying expert elicitation methods to better assess technology-specific uncertain effectiveness of R&D programs;
- *project into the future*, by using the empirical analyses and the expert elicitations' results as building blocks to improve the simulation models that will be used to produce quantitative grounded results.

Summa of the analyses will be projections for optimal public and private energy R&D and the definition of investment strategies for energy technologies as a product of a cost-effectiveness analysis of a stringent climate stabilization target.

The project's intermediate results will be presented at an international workshop organized at FEEM in Milan in January 2012.

The ICARUS web-site (<http://www.icarus-project.org/>) will be continuously updated with the latest project's research results and publications.

THE STATE OF INTERNATIONAL CLIMATE FINANCE: IS IT ADEQUATE AND IS IT PRODUCTIVE?

Climate finance has gained a prominent role in world governments' agenda, given the priority of securing funds to control climate change while ensuring energy for development and growth.

Climate finance was indeed the core theme of the international workshop on "The state of international climate finance: is it adequate and is it productive?" organized by FEEM in Venice on October 14, 2010. The workshop gathered eminent experts from the business, institutional and scientific community to discuss the state of play and crucial issues in climate finance, anticipating some of the key recommendations put forward just a few weeks later by the UN High Level Advisory Group on Climate Financing, and acknowledged in the Cancun Agreement in December 2010.

The main insights that emerged at the workshop can be summed up as follows:

- *On the fast-start and long-term finance targets:* the availability of *fast-start* financial resources (30 billion US\$ between 2010-2012) is not a big challenge. Much more uncertain is the *long-term* finance target (100 billion US\$ per year by 2030), that is very ambitious and will clearly depend on political decisions. The real challenge, however, particularly in the short-medium term, is to guarantee the additionality of climate finance with respect to development funds. It is in fact expected that many donor countries will deviate a sizeable part – up to 70-80% – of their ODA (*Official Development Assistance*) funds to mitigation, devoting the remaining funds to investments in capacity-building or individual projects, addressing adaptation among other goals.
- *On equity:* the primary objectives of fast-growing countries, such as China, India and Brazil, are economic growth and development, energy security and the environment, and these countries are already investing in energy security and renewable energy sources.

These countries, with overheated financial markets, may not be interested in additional finance, which on the other hand is greatly needed in the poorest developing regions. Equity in the allocation of funds thus becomes crucial and should be guaranteed.

- *On data and methods:* there is a need for a clearer and shared definition of climate finance, and for more accurate and homogeneous methods to monitor climate finance flows. Existing databases are often not comparable, while it is crucial to be able to measure what is effectively spendable.
- *On institutions & governance:* there is a need to improve coordination among the institutions that mobilize, manage and monitor climate finance and to foster dialogue among these institutions, decision makers, and key actors working in the field.
- *On the carbon market and the mix between private and public finance:* should the USA decide not to commit to binding emissions reductions, the existence of a carbon market post-2012 would be very unlikely. The USA participation in a global agreement is crucial to mobilize the financial resources needed to achieve a strict stabilization target. With respect to the optimal mix between public and private finance, given the volatility of private financial flows, public finance is advocated and preferred by many developing countries, because it is more reliable and easier to measure.

Despite the complexity of the debate, the workshop clearly highlighted the intrinsic political nature of the key climate finance issues: from the signature of a global agreement on an international carbon market, to the important role of public finance in supporting private flows, and to the capacity of governments and international public institutions to guarantee the additionality of climate funds and their equitable allocation. Finance and climate thus represent two big unsolved and urgent challenges for world governments, calling for dialogue and better coordination among existing institutions and key actors in the public and private sectors.



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FINANCIAL SPECULATION IN THE OIL MARKET



Financial trading and speculation in the oil market are relatively recent and well-documented phenomena. Theory suggests that the creation of a financial demand for a specific commodity (e.g. oil) can have a relevant impact on the determination of the spot price for that commodity. Its actual price corresponds to the maximum difference between the physical and the financial price.

As a consequence, it is extremely important to study the behavior of financial trading and speculation in the oil market and to analyze the effects on producers and investors, in order to answer relevant questions, such as: Is it possible to identify a long-run equilibrium oil price? Are the correlations between the price of oil and relevant macroeconomic variables (exchange rates, interest rates, stock market indices) stable? Is it possible to define and measure speculation? Is speculation correlated to oil futures price dynamics and volatility?

The project on “Financial speculation in the oil markets” at FEEM aims at investigating these issues and is articulated in four parts:

- Conducting a descriptive analysis of the role of speculation in the oil derivatives market over the 1990-2010 period.
- Modeling the relationship between financial trading activity and futures price volatility in energy markets.
- Exploring the relationship between risk premium in energy and non-energy commodities futures prices and financial speculation.
- Explaining the determinants of the price of oil with a large-scale macro-econometric model.

The main goals of the project, launched in September 2010 and expected to end in December 2011, are:

- To provide a thorough vision of the most recent research frontier on the oil and commodities markets.
- To consolidate FEEM research competence on energy markets, by strengthening its links with leading international researchers and building up a team of junior researchers with strong quantitative skills.
- To organize a permanent observatory on the dynamics of the price of oil as well as the price of other relevant commodities. The observatory would draw upon a selected number of econometric models and the systematic study of the available market data.

The project’s results will be presented at an international conference, which will bring together top-level academics and analysts of the oil market to discuss recent methodological approaches and results on the role of financial speculation in the oil market. The conference will be held at the premises of FEEM in Milan, around mid January 2012.

**FEEM
20TH
ANNIVERSARY
PRIZE IN
ENVIRONMENTAL
ECONOMICS**

In 2009 FEEM celebrated its 20th anniversary. This important milestone in FEEM's history prompted the establishment of the FEEM 20th Anniversary Prize in Environmental Economics.

The prize was established to celebrate 20 years of leading research on the environment, energy and the economy, with the aim to reward a researcher or a group of researchers from anywhere in the world who have most significantly contributed to the development of the field of environmental and resource economics over the last two decades.

The prize was conferred on June 30, 2010, during a plenary session of the Fourth World Congress of Environmental and Resource Economists in Montreal, to Martin L. Weitzman, professor of economics at Harvard University, and Resources for the Future (RFF).

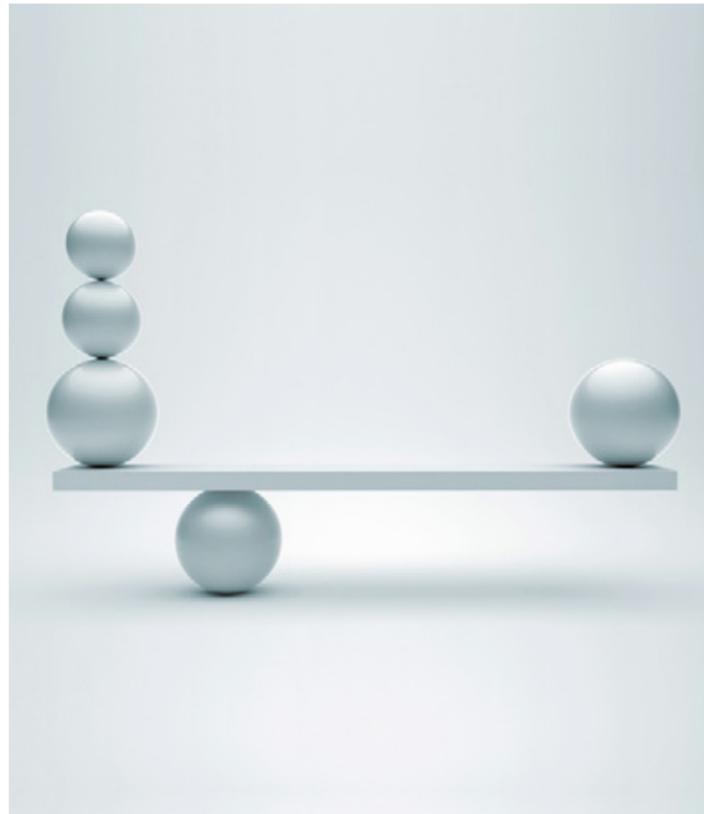


Professor Martin L. Weitzman was acknowledged to be one of the most important economists working in the field of environmental economics, and among the most influential economists in the world in a range of theoretical issues applied also to the environmental field.

Resources for the Future (RFF) was recognized as a leading think tank on natural resources and environmental economics worldwide, providing in particular an important contribution to the design and implementation of environmental and economic policies. Acknowledged as the organization that got environmental and resource economics off the ground in the 50s and 60s, RFF remains highly influential and productive in the field of research, acting as an effective interface between research, policy and capacity-building.

The two prize winners were unanimously selected among over 90 nominations by the Prize Scientific Committee, composed of seven distinguished representatives of the international scientific community, and chaired by Prof. Carlo Carraro.

SECOND
EDITION
OF THE
**FEEM
AWARD**
A PRIZE
FOR ECONOMIC
IDEAS



Fostering the investment in human capital in order to advance the frontiers of knowledge is our ultimate objective. The FEEM Award, a prize for the most innovative ideas by young economists, yields a double dividend: rewarding scientific discovery and promising young scholars.

The FEEM Award is organized jointly with the European Economic Association (EEA) and aims to reward new ideas addressing key economic issues at the European and global scale. Both theoretical and empirical papers are considered without any restriction of topics.

The award is given to the authors of the three best papers presented by young economists at the Annual Congress of the EEA. Eligible candidates should be less than 30 years of age and no more than 3 years past a PhD defense. The selection committee consists of the Program Chairman of the Annual Congress of the EEA, one member nominated by the Executive Committee of the EEA, and one by FEEM.

The 2010 FEEM Award ceremony took place on 24 August 2010 before the Adam Smith Lecture by Nobel laureate Joseph Stiglitz at the 25th EEA congress at the University of Glasgow.

The prizes were bestowed by Prof. Stiglitz, at the presence of EEA president Timothy Besley, and former FEEM executive director Bernardo Bortolotti.

Over 600 papers meeting the eligibility requirements were submitted. The selection process was conducted by the FEEM Award Commission, composed of Antonio Ciccone (Pompeu Fabra University), Fausto Panunzi (FEEM and Bocconi University) and David Stromberg (Stockholm University and EEA Program Chair). The three winners of the second edition of the FEEM Award were:

- Benjamin Elsner with a paper entitled “Does emigration benefit the stayers? The EU enlargement as a natural experiment. Evidence from Lithuania”
- Nina Guyon with a paper entitled “The effect of tracking students by ability into different schools: a natural experiment”
- Florian Mayneris with a paper entitled “Entry on export markets and firm-level performance growth: intra-industrial convergence or divergence”

The papers have been published as *Note di Lavoro*, the FEEM working paper series.

CLIMATE
SCIENCE
AND POLICY:
FEEM
AND THE
EURO-MEDITERRANEAN
CENTRE FOR
CLIMATE
CHANGE

Year 2010 marks the fifth anniversary of an important partnership established by FEEM in 2005 with the National Institute of Geophysics and Vulcanology (INGV) and the University of Salento in Lecce, for the creation of the Euro-Mediterranean Centre for Climate Change (CMCC).

The CMCC is the Italian research centre on climate science and policy established by the Italian Government with the aim to improve the understanding of the nature and the mechanisms of climate variability, its causes and impacts, with a special emphasis on the Mediterranean area and its interactions with the global climate.

Within this partnership, FEEM coordinates the CMCC Climate Impacts and Policy Division and develops economic models that produce emissions scenarios and estimates of the socio-economic impacts of climate change at the world and regional levels, in synergy with dynamic climate models developed by other partners.

2010 was a special year for CMCC. Indeed, the Centre received the confirmation of the support of the Italian Government for the next three years and successfully concluded its start-up stage with the setting up of the innovative Supercomputing Infrastructure and the establishment of a multidisciplinary research agenda*. The renewed ministerial funding will enhance CMCC's research impact on both the public and private spheres, through the development of projects related to the main climate issues.

During its first 5 years of activity CMCC developed 53 projects, with a total budget of more than 20 million euro, the majority of which funded by the European Commission and the Italian Ministry for the Environment. Other important international and national sponsors include the World Bank, Ras Allianz and the Asian Development Bank.

** More information on CMCC and the Supercomputing Infrastructure are available at www.cmcc.it and <http://www.cmcc.it/research/computing-center>*



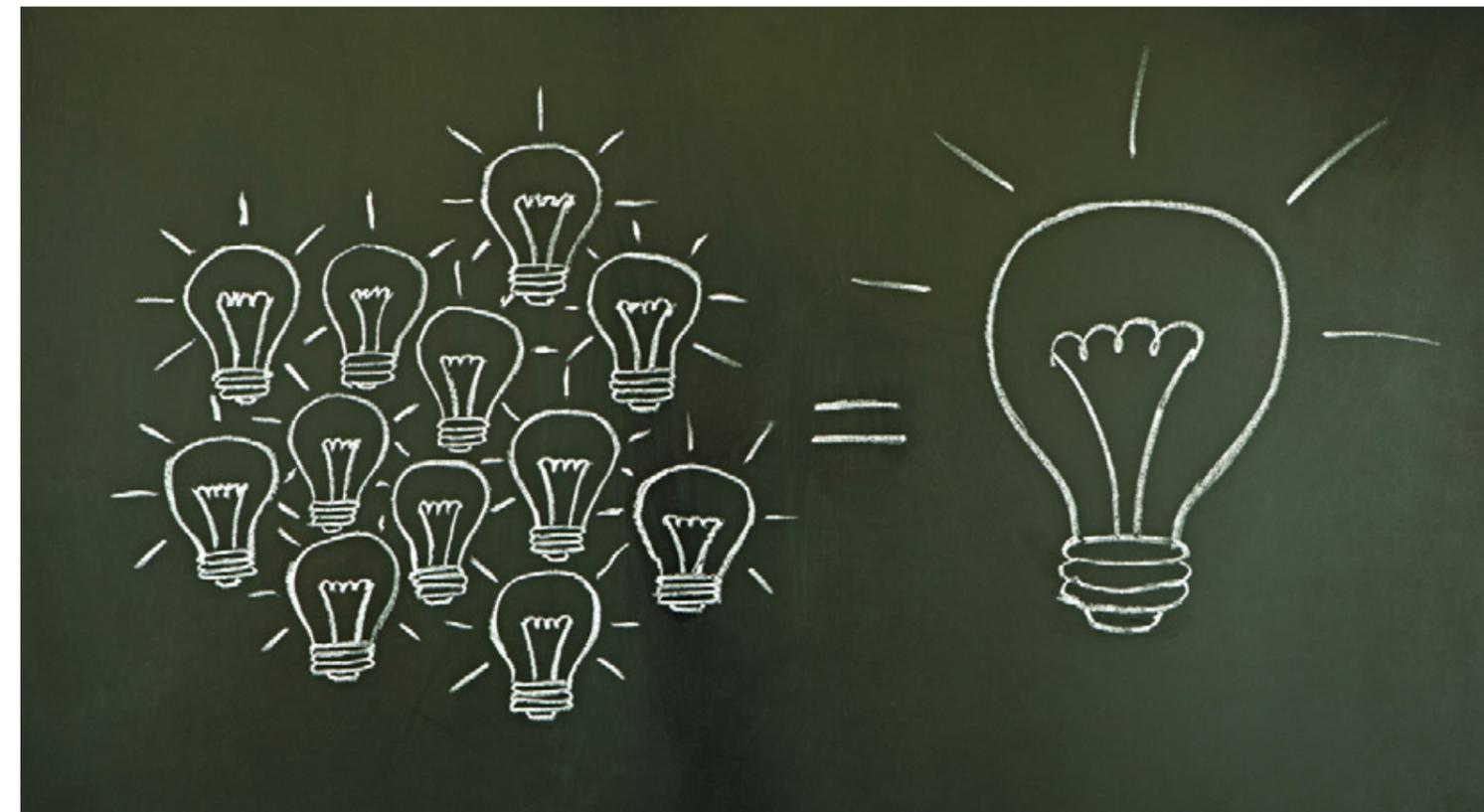
RESEARCH

Overview

FEEM conducts research on a wide range of climate change and sustainability, energy and economic issues. The starting point of FEEM research is the realization of the high level of complexity of the problems emerging in the global economy, and more particularly the need to foster awareness on the interaction between the firm and the environment, the economy and energy scenarios, corporate and cultural responsibility.

FEEM has recently consolidated its research activities around two main research programmes: one on “Climate Change and Sustainable Development” and the other one on “Energy: Resources and Markets”. These two research programmes aim at promoting innovative research across the various dimensions of the global environmental and energy challenges, improving the analysis of the economics and policies of mitigation and adaptation to climate change and developing a strategic socio-economic analysis of the energy policies needed to support the transition to a low-carbon and more sustainable world.

A third strand of research is devoted to “Economy and Society”, promoting a multidisciplinary approach to scientific research on sustainability and to the study of the human and social dimension of economic progress and civilization.



Research programmes and related activities follow the strategic guidelines stated in FEEM’s mission. Ongoing research is thus rigorous, fact-based, interdisciplinary, and international in terms of the composition of research teams and topics addressed.

FEEM’s research staff includes research fellows, experienced international research leaders with key responsibility in the design and implementation of projects, senior and junior residential researchers working in the offices of Milan, Venice, and Viggiano, and research associates, typically affiliated to a university or to other research institutions and involved in specific projects.

In 2010, FEEM carried out 49 research projects, 30 of which financed by the European Commission or third parties. Related activities include the organization of 34 scientific conferences and workshops, 45 scientific seminars and 4 summer schools. Overall, these events attracted over 5,000 attendees. In 2010, FEEM published 160 working papers in the “Note di Lavoro” series, 7 books, 9 policy briefs and 2 series of reports. The FEEM website recorded over 550,000 single visitors and over 1.2 million document downloads.



“Climate Change and Sustainable Development” Programme

The research programme on Climate Change and Sustainable Development addresses the two intertwined issues of climate change and sustainable development and a corollary of key topics in the field of environmental economics.

The programme builds upon twenty years of successful FEEM research. In the specific area of climate change, FEEM has achieved a leading position in the international research community, as a result of the in-house development and application of several modeling tools for the economic analysis of policies aimed at climate change control.

FEEM models address world-wide vulnerability to changes in climatic conditions, and investigate the economics of mitigation and adaptation to these changes. In the specific area of sustainable development, FEEM research covers a variety of issues: sustainable management of natural resources, the economics of natural hazards and extreme events, and the use of indicators to measure sustainability and growth beyond GDP.

Research within this programme is currently aimed at improving and extending FEEM expertise in these fields by widening its scope to new themes, such as the interplay between mitigation and adaptation in climate policy, R&D and innovation in low-carbon technologies and technology transfer. The twofold goal is to contribute to science while guiding policies and informing the public debate.

Programme Coordinator

Carlo Carraro

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As of June 2011

Areas

Climate change integrated assessment modeling

Research on the economics of climate change at FEEM addresses both mitigation and adaptation issues, building upon consolidated modeling tools for climate policy analysis developed over more than twenty years of work. On the mitigation side, FEEM is positioned at the forefront of international research through the use of the energy-economy-climate WITCH model, specifically designed to assist in the study of the socio-economic dimensions of climate change and to help policy makers understand the economic consequences of climate policies. On the impact side, FEEM investigates climate change impacts on the world economy through the use of ICES, a model designed to assess the final welfare implication of climate change impacts, capturing the production and consumption substitution processes at play in the social-economic system as a response to climate shocks. Through modeling and policy analysis, this research area investigates the economic dimension of existing and new mitigation instruments and technologies for climate stabilization and assesses the full costs of climate change impacts and adaptation, aiming to provide a comprehensive integrated assessment of climate impacts and policies. The integrated assessment will soon also account for land use, forestry cover, atmosphere, biosphere modules,

and other complex feedback dimensions. Specific attention is going to be paid to the role of uncertainty in the mutual responses of climate and socio-economic systems.

Climate change policy and governance

The climate change policy research area investigates alternative options for future international climate agreements, with the goal of advancing knowledge in the area of coalition and network formation and of applying it to the analysis of the process of international climate negotiations. In particular this research area intends to improve the economic analysis of climate policy and governance, assessing the effectiveness of current governments' pledges in reaching the accepted stabilization targets and providing an overall economic valuation of possible international climate strategies. Also, this area of research focuses on climate finance, investigating the nature and amount of financial efforts needed to support the technological transformation towards a low-carbon economy and to adapt to the impacts of climate change, already tangible in many vulnerable and poorer regions of the world.

Climate-related innovation and technological change

Research on new energy technologies, innovation, and the

drivers of technological change is one of FEEM's leading research areas. Although crucial in the design of future scenarios, the dynamics of innovation, adoption and diffusion of energy technologies are yet to be fully understood. In particular, the lessons learned from the rich innovation literature, ranging from economics to engineering and history, need to be extended and confirmed with respect to technologies that can help ease the energy security issue, climate change and other environmental challenges.

FEEM research in this field aims to improve the dynamics of technological change in FEEM integrated assessment models, through the estimation of parameters that are crucial to the diffusion of different technologies and a better understanding of the role of institutional factors, such as IPR protection, in hindering or promoting different technologies. Modeling improvements in this field are supported by empirical work on patents and diffusion models, aiming to provide the data needed to address novel research questions on the peculiarities of innovation and diffusion dynamics in climate-related technologies. In addition, to predict the market penetration of new technologies, innovative instruments will be developed and used, such as electronic prediction markets, i.e. online markets where participants can trade virtual contracts whose payoffs are tied to a future event,

and experts elicitation techniques. Through the latter, judgments and information obtained from the experts allow the assessment of subjective probabilities of specific outcomes, such as the potential breakthrough on innovative technologies as a response to R&D programs.

Natural hazards and extreme climate-related events

Natural hazards are recurrent and ordinary phenomena triggered by atmospheric, geologic and hydrologic processes. They become disasters when the imposed hardship exceeds the affected community's ability to cope while relying on its own resources, strengths and upturn capability. Hence disasters are results of an inopportune combination of exposure to hazard, high vulnerability and limited coping capacity. Over the past decades, the world witnessed a striking increase of the economic losses caused by natural hazards. Although the observed increase in magnitude of the impacts of the disasters is primarily associated with increased wealth and population in risk-prone areas, indirect evidence suggests that greenhouse gas emissions play a role to some extent. In the coming decades, anthropogenic climate change will very likely lead to more frequent and intense meteorological and climate extreme events and thus further amplify the disaster losses, if no preventive actions are taken.

FEEM research in this field aims at analyzing the economics of natural hazards and extreme climate events, assessing the costs of inaction and of preventive actions.

Management of natural resources

Over the years FEEM research in the field of natural resources management has contributed to the development of an integrated – transdisciplinary – approach of science in support to policy and decision-making, a principle now deemed necessary to drive the integration of sectoral and national policies for a sustainable use of natural resources. FEEM research produced a decision support systems (DSS) tool made freely available through the internet and used by several researchers at FEEM and elsewhere. In particular, in the area of water management, FEEM researchers have developed a modular framework for managing participatory processes (PP) named NetSyMoD, “Network Analysis – Creative System Modelling – Decision Support”, which has found a number of interesting applications in supporting decision/policy making projects in various fields: integrated water resources management, climate change adaptation in coastal areas (sea level rise, Alpine regions (winter tourism), rural areas (irrigation management), etc.

A main focus of FEEM research in this field is on forestry land use

and land use cover, agriculture and food. From food to timber, from biofuels to afforestation, the recurring issue is land scarcity. Sustainable management of land becomes a factor of key relevance for its main implications and feedbacks on several sectors and environmental problems. FEEM aims to analyze these trade-offs, which are of critical importance in natural resources management, with specific attention to the problem of water scarcity.

Sustainability and growth beyond GDP

This research stream at FEEM pursues an integrated approach to the analysis of sustainable development issues, exploiting multidisciplinary research skills and analytical instruments developed over more than twenty years of work. Much of FEEM research in this area investigates sustainability indicators at the regional and local levels, addressing sustainability issues not only from the socio-economic and environmental perspectives, but also from a cultural and sociological perspective.

The FEEM sustainability index, a measure of current and projected sustainability of world's countries, is going to be improved through an extensive expert elicitation process in order to reflect the current consensus on future regional trends.



“Energy: Resources and Markets” Programme

The Research Programme on “Energy: Resources and Markets” carries out socio-economic analysis in a vital area which will become even more strategic in the coming decades.

Energy supply is adjusting to the globally rising population and standards of living. It must ensure development and growth where it is most needed, while pursuing the transition to a low-carbon economy. Current resources suffice to meet demand but research must look ahead. Where and how will the transition to a low-carbon economy occur? How can it be made safe, affordable, and sustainable? The deployment of efficient and clean technologies to produce sustainable energy must be supported by adequate institutional and market structures. Key issues to be considered for balanced energy policies are energy security, economic development and environmental protection. Despite a growing body of research, the need for economic analysis in the field of energy remains of prime importance.

FEEM aims at generating high-quality research on the economics of energy, taking the long-term perspective which characterizes public policy making and environmental management. It must also provide insight into the short-term perspective typical of markets and investors. The core activities of the “Energy: Resources and Markets” research programme focus on issues that are peculiar to the energy sector alone. Specific topics include the drivers of changes in demand and supply, the role of globally integrated markets in ensuring efficiency and stability, the interrelationship between energy and economic development and the role of governance and institutions of energy policy. At the same time, there is strong interaction between the research activities in this programme and in the “Climate Change and Sustainable Development” field.

Research in this programme has been organized into three areas that investigate energy resources, demand and supply from an economic, environmental, and policy and governance perspective.

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Areas

Energy and the economy

Energy is crucial to feed the rapid economic growth of emerging and developing economies and to maintain the high consumption standards in the developed world, while undergoing the technological 'revolution' needed to meet the climate challenge. Since different patterns of consumption and growth in emerging economies are likely to have important repercussions on the international energy markets and technology development, a better understanding of the drivers of energy demand at the global and regional levels is needed, and is one key focus of FEEM research in this area. Through quantitative instruments, FEEM research analyses the most important socio-economic determinants of energy consumption, such as demographic and urbanization dynamics, patterns of income growth and distribution, as well as changes in lifestyles and

market prices. On the supply side, research at FEEM investigates the main effects of the increasing integration of global energy markets, in terms of market efficiency, security of supply, decision-making processes and so forth, accounting for the supply of both conventional and unconventional fossil resources, as well as for uncertainty in technological innovation in the energy sector. In this regard, FEEM research also aims at developing an economic assessment of technological change and of the portfolio of investments in energy technologies needed under a set of plausible future scenarios.

Energy policy and governance

The globalization of energy markets, the urgency of global environmental problems such as climate and land use change, and the need to ensure the affordability and security of energy supply require an

increased level of cooperation between strategic players on the global scene. A successful and effective governance of energy policies is crucial to address these global challenges.

Research in this field at FEEM develops both at the international and at the European and country level. At the international level, research focuses on the scope for building institutions to manage more effectively the global energy challenges, helping to make progress also in international climate policy. The design of institutions for energy governance at the international level is obviously influenced by geopolitics – strongly driven by world countries' endowments in energy sources, that may vary with the development of more widely distributed sources such as non-conventional fossil fuels – and by the country level of economic development and associated democratization. The

inclusion of the issue of security of energy supply is central to research in this field given the high interdependence between energy policies and energy markets. Conversely, research in this field also investigates the effects of energy policies for economic growth and development, including for instance the economic analysis of programs such as the Chinese policy of securing energy markets in exchange for building the infrastructure needed for development, or the study of electrification programs for the rural poor in Africa. At the European level, the analysis focuses on the scope for collaboration and integration of the single member states through a common energy policy, taking into account issues such as energy markets' liberalization and competitiveness, security of supply and sustainability. The analysis extends beyond the EU

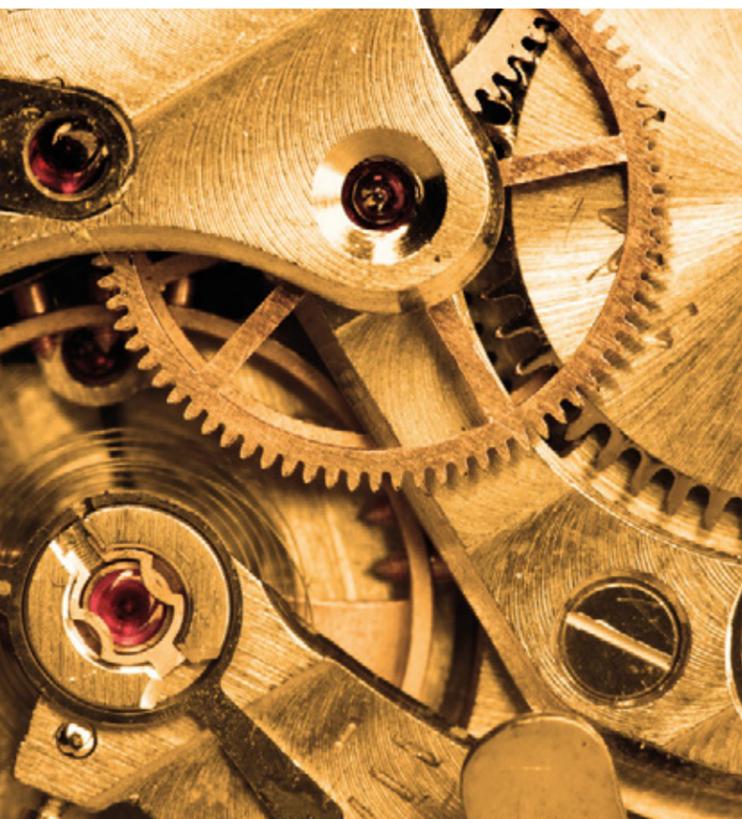
to include also other countries of the Mediterranean region, and their role in supplying both fossil and clean energy.

Energy and the environment

Climate change is certainly one of the most studied environmental impacts of energy production and consumption, due to the fundamental role played by energy in generating greenhouse gas emissions. However, besides contributing to global warming, energy production and consumption impact on many other environmental factors such as local air pollution, land use and water utilization, enhancing environmental and socio-economic vulnerability particularly in the developing and fast-growing world. FEEM research in this area thus aims at providing an integrated assessment of the interaction between the energy system, the environment and the economy. It focuses on the environmental

impacts of energy consumption on CO2 emissions, soot, food and water quality, and the opportunities for effective mitigation strategies. From the perspective of energy supply, FEEM research aims at addressing the full social and environmental implications of energy resource management, accounting both for the increasing pressure of extractive industries on the environment, and for the external costs of energy technologies, including the environmental costs. In parallel, FEEM research investigates the governance and institutional settings needed to pursue cleaner and more efficient energy policies.

Overall, this research stream at FEEM helps inform decision makers on the full costs and potential trade-offs of different technology options and aims to improve the energy-environment-economy modeling by better representing the full costs of energy sources.



“Economy and Society” Research Area

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Research Area Officer
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As of June 2011

The research area “Economy and Society” promotes a multidisciplinary approach to scientific research on sustainability and on the human and social dimension of economic progress and civilization. It collects projects focused on the new challenges that the global economy poses to the traditional paradigms of economic analysis and on the social nature of economic activities.

Two fields of research within this area address the new sources of competitiveness in the global economy and the evolution of privatization processes around the world.

On the one side, the integration into global markets is a precondition for sustainable economic growth, and the competitiveness of regions, firms and industries in the global economy crucially depends on the ways economic activities are reorganizing worldwide. The aim of this particular strand of research is to study the role and strategies of enterprises, university research centers, governments or formal and informal institutions in order to assess the impact and implications for growth and competitiveness.

On the other, privatization is one of the most important and controversial economic policy issues of recent economic history with dramatic consequences on firms, social welfare and markets and FEEM researchers have developed the Privatization Barometer, a portal on global privatization deals, attracting a wide audience of researchers, media operators and investors.

Finally, the “Economy and Society” area investigates the evolution of the social responsibility (SR) concept, typically over-crossing environmental, social and economic issues. It aims at developing and implementing tools to integrate sustainability policies and measures within organizations and local contexts. FEEM has extended its research efforts in this area to the not for profit sector in its activities carried out in the Basilicata region. Focused on the third sector’s contribution to welfare progress and employment, the research projects in this field aim at promoting collaboration among public institutions, private sector and communities (see Special Projects section, FEEM in Basilicata).

SPECIAL PROJECTS

Special Projects Coordinator, Cristiano Re

FEEM in Basilicata

FEEM's office in the Basilicata region was opened in early 2008 in Viggiano, a town located in the heart of Val d'Agri, as part of an agreement signed by Eni for the exploitation of the oil&gas fields in the area. FEEM's mission was to contribute to the economic and social development of the region, and to support Eni in its plan to develop the local resources and skills through networking, research activities and advanced training. Human capital and innovation are key drivers of economic growth, and leveraging on the existing networks and skills is central to the process of local endogenous growth.

Activities in the Basilicata region are carried out by a staff of residential researchers and collaborators in coordination with FEEM headquarters and in close cooperation with private and public local institutions. Activities are focused on three main areas: (i) research, (ii) advanced training and education and (iii) support to policy.



FEEM's research efforts in the region are directed to the study of energy-related issues and to the analysis of sustainable tourism as an opportunity for local development.

In particular, research and consultancy projects are conducted to support the local institutions and companies involved in energy efficiency and renewable energy sources, through the development of integrated models of sustainable economic industrial growth and the exploitation and strengthening of existing production activities.

It is certainly noteworthy to mention that within the research initiatives carried out in the region in 2010 - the International Year of Biodiversity - on September 24, under the aegis of the Basilicata Regional Government, FEEM co-organized with the University of Basilicata and the support of Eni, the international conference on "biodiversity and ecosystems". The conference was held in Matera and on that occasion world-renowned experts analyzed the "ecosystemic approach" as a key to understand the relationship between human beings and environment.

The debate focused on how to improve integration among conservation, biodiversity and the equitable use of resources. The conference was part of a series of events on biodiversity and ecosystems, first launched in 2003 in Basilicata, which led to a number of projects in the Val d'Agri and the organization of meetings with local representatives, including the "Biodiversity in Val d'Agri" conference which was held in Potenza in 2009 in cooperation with the University of Basilicata.

In the field of sustainable tourism FEEM recently promoted a study on the correlation between tourism development and the local economy with a focus on two National Parks: Appennino Lucano and "Parco dell'Energia". Another project of this strand of research analyzes the impact of the movie industry as an innovative promotional tool for tourism in Basilicata, a region with a rich natural heritage. The first research on movie-induced tourism will evaluate the impact on this area of the popular Italian film "Basilicata coast to coast". The potential synergies between ecotourism and school tourism represent another field of investigation.

During the last three years, FEEM has joined forces with the University of Basilicata to promote education, training and human capital development. Several training initiatives for the dissemination of scientific knowledge are regularly promoted also among citizens and schools of all grades through the organization of seminars, workshops, e-learning courses, and science theatre events.

Moreover, FEEM regularly organizes "Learning Weeks", aimed at spreading among young students of secondary schools awareness and knowledge on energy and sustainability-related issues.

Since 2008 FEEM has become an established player able to foster the dialogue between local administrators, companies and the academic community. In this manner, FEEM also supports several local institutions such as the townships of Val d'Agri and Val Camastra in the promotion of the territory through communication activities and social reporting practices.

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Eni Award Scientific Secretariat

Since 2003 FEEM supports Eni by organizing the Scientific Secretariat of the prestigious Eni Award. The prize was officially launched in July 2007 to extend and replace the former Eni-Italgas Prize, which in 2006 had reached its XIX edition.

The Eni Award is promoted by Eni in order to encourage basic and applied scientific research within the national and international scientific community, to provide incentives for technological development and innovation, to promote a better use of energy sources and to help new generations of researchers emerge.

Over the years the prize has gained a solid reputation as one of the most important scientific prizes in the fields of energy and environment and today it is considered the “Nobel Prize for Energy” by the international scientific community for several reasons: the increasing number of projects submitted by researchers all over the world, the worldwide network of universities and research centers and the prestige of the Scientific Commission that includes renowned international scientists and two Nobel Prize Laureates.

The number of applications submitted in 2010 for Eni Award 2011 increased five-fold compared to the first edition. A total of 1,030 proposals were received, consolidating a network of high-profile researchers belonging to the international energy and environmental research elite. More information on the Eni Award is available at www.eniaward.net

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Eniscuola and Schoolnet

Since 2000 FEEM supports Eni in carrying out educational projects such as Eniscuola and Schoolnet. The projects aim at providing pupils and teachers of lower-middle schools with advanced teaching support on the subject of energy, sustainability and environment and at increasing the use of the internet as a fundamental tool for learning and acquiring information.

Both projects are web-based and use multimedia technology for dissemination. A broad range of learning support systems are provided and they can all be downloaded by the pupils.

Eniscuola's main tool is the www.eniscuola.net website. The website has over 3,000 pages with documents, pictures, graphs, charts, experiments, games and interviews with national and international scientists including Nobel Prize Laureates.

The Eniscuola project has been acknowledged by UNESCO's Italian National Commission and is part of the United Nation's Decade of Education for Sustainable Development, by contributing to spread its goals and ideals.

Project Managers, Benedetta Palazzo and Elisabetta Monistier

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Katia Gagliano
Davide Gorla
Benedetta Palazzo
Elisabetta Monistier
Andrea Portaluppi

PUBLICATIONS

FEEM has a broad range of publications addressed to both the academic and non academic readerships.

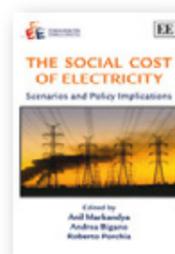
At present FEEM has two **Editorial Series**:

Edward Elgar Publishing, FEEM Series on “Economics, the Environment and Sustainable Development”

Editorial Board:
Carlo Carraro (Series Editor)
Kenneth Arrow
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Partha Dasgupta
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Recent Titles

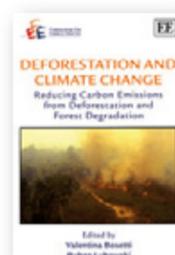
The Social Cost of Electricity. Scenarios and Policy Implications, edited by Anil Markandya, Andrea Bigano and Roberto Porchia



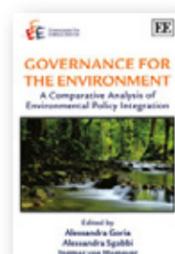
The Sustainability of Cultural Diversity. Nations, Cities and Organizations, edited by Maddy Janssens, Myriam Bechtoldt, Arie de Ruijter, Dino Pinelli, Giovanni Prarolo and Vanja M. K. Stenius



Deforestation and Climate Change. Reducing Carbon Emissions from Deforestation and Forest Degradation, edited by Valentina Bosetti and Ruben Lubowski



Governance for the Environment: A Comparative Analysis of Environmental Policy Integration, edited by Alessandra Gorla, Alessandra Sgobbi and Ingmar von Homeyer



Il Mulino, FEEM Series

Editorial Board:
Giuseppe Sammarco (Series Editor)
Geminello Alvi
Carlo Carraro
Gianmarco I.P. Ottaviano
Alberto Quadrio Curzio
Domenico Siniscalco
Guido Tabellini

Recent Titles

Partecipare in rete. Nuove pratiche per lo sviluppo locale e la gestione del territorio by Lorena Rocca



Neoliberalismo e neopopulismo in America Latina by Veronica Ronchi



Fede e mercato: verso una via islamica al capitalismo? by Daniele Atzori



In 2009 FEEM started to publish a series of short papers addressed to policy makers, the FEEM **Policy Briefs**, that concisely address key scientific and policy issues, building on the results of the projects carried out within FEEM's Research Programmes.



FEEM circulates a series of **Working Papers** in English (FEEM “Note di Lavoro”) collecting the output of research in the field of economics, energy and the environment. FEEM **Note di Lavoro** are included in the Social Science Research Network (SSRN), the electronic bibliography by the American Economic Association (EconLit), the Research Series in Agricultural and Applied Economics (AgEcon), the Research Papers Series in Economics (RePEc), the Berkeley University Press (BePress) and the German National Library of Economics (ZBW).



Since 1997, in cooperation with the publisher “il Mulino” FEEM publishes the journal for sustainable development **EQUILIBRI**, targeted to a broad audience of readers.

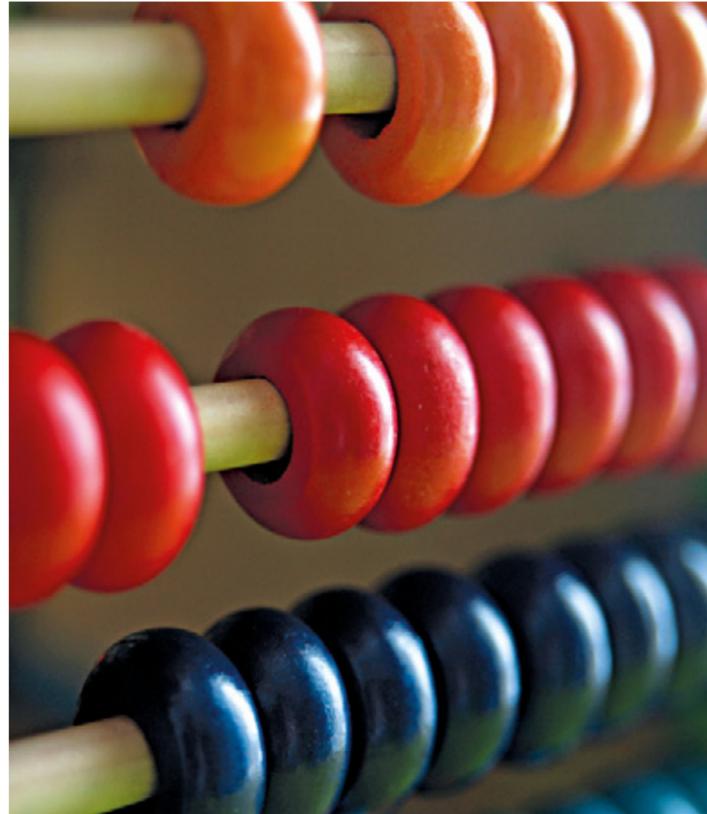
Editorial Board:
Giuseppe Sammarco (Editor)
Geminello Alvi
Carlo Carraro
Massimo Livi Bacci
Danilo Mainardi
Domenico Siniscalco



Since 2009, FEEM also publishes an electronic bi-monthly newsletter **FEEM News**, providing updates and highlights on research, events and publications.



INTRODUCTION



Accounting for the contribution to the cultural, scientific and economic progress of the society in which one operates is an interesting exercise for companies of all stripes. For non profit organizations utilizing private and public resources in the pursuit of their mission, “social” reporting and accounting is an imperative.

Indeed, conventional balance sheets and financial statements are fundamental reporting tools, but they fail to disclose the actual performance of non profit institutions in terms of impact and relevance for their respective stakeholders.

FEEM has been a frontrunner in company social reporting, and has applied best practices and principles in communication to stakeholders throughout its long-standing activity. For this reason, since 2008 FEEM decided to resume the publication of a fully-fledged social report.

Given the increase in the scope and quantity of activities, a social report is fundamental to provide not only qualitative and descriptive information, but also to provide objective indicators and statistics about the overall results from the operations. We claim that the numbers provided represent clearly not only the impact of activities, but also an overall evaluation of all the inputs that contribute to our productivity. Among them, human capital is obviously fundamentally important.

The social report aims at showing that during the 2008-2010 period FEEM has operated as a responsible organization towards all its major stakeholders: (i) our people; (ii) the research community; (iii) the policy sphere; (iv) young generations; and (v) the general public.

Our people

Human capital is without doubt the most important input for FEEM's activities. It is mainly composed of researchers, often with a post-graduate diploma, and classified in different categories according to career advancement and profile: *senior* researchers are defined as such when they have a Ph.D. and have performed research for at least 2 years under FEEM contracts or they have no Ph.D. but have performed research for 5 years under FEEM contracts; *research associates* are typically affiliated to a university or to other research institutions and are involved in contingent projects; *fellows* are experienced international research leaders with key responsibility in the design and implementation of projects. Staff includes full-time employees and non permanent staff involved in support activities for specific projects.

FEEM's operations include a much larger number of collaborators than full time employees. This organizational mode is typical in the non profit sector and in research institutions, as it allows flexibility and reflects the high turnover rate of young researchers, typically moving to other institutions after a successful training period in FEEM.

In the 2008-2010 period staff activities have been streamlined and reorganized with the creation of the FEEM staff register in 2008. Today, the 27 full-time employees provide efficient secretarial and administrative support, and communication services for the organization of events, media relations and publications.

The gender audit yields a balanced mix in the organization, with a prevalence of women. Interestingly, this pattern is observed across categories, confirming the same balance by gender among researchers, non permanent staff and employees. Over the last three years we can observe a slight increase in the international dimension (+5%), and the average age is well below 40 years.

FEEM People	2008	2009	2010
Total headcount	187	176	166
By categories:			
Researchers	124	110	103
<i>Junior Researchers</i>	49 (40%)	56 (51%)	43 (42%)
<i>Senior Researchers</i>	45 (35%)	27 (25%)	24 (23%)
<i>Research Associates</i>	21 (17%)	18 (16%)	24 (23%)
<i>Research Fellows</i>	9 (8%)	9 (8%)	12 (12%)
Collaborators	45	42	36
<i>Support activities</i>	30 (67%)	23 (55%)	16 (44%)
<i>Special projects</i>	15 (33%)	19 (45%)	20 (56%)
Full-time employees	18	24	27
By sex			
Male	85 (45%)	73 (41%)	70 (42%)
Female	102 (55%)	103 (59%)	96 (58%)
By nationality			
Italian	167 (89%)	152 (86%)	139 (84%)
Non-Italian	20 (11%)	24 (14%)	27 (16%)
Average age (years)	37	37	37

Overall the educational profile of FEEM's people is very high: in 2010, 89% have a graduate degree, and 48% also hold a post-graduate diploma. Among researchers, 76% hold a post-graduate degree. In particular, more than 54% of our researchers holds a Ph.D. which was obtained abroad in 52% of cases.

FEEM Researchers	2008	2009	2010
	124, of which	110, of which	103, of which
<i>Post-graduates</i>	94 (76%)	80 (73%)	79 (76%)
Master	51	40	42
<i>of which obtained abroad</i>	27 (53%)	23 (58%)	21 (50%)
Ph.D.	66	60	56
<i>of which obtained abroad</i>	34 (52%)	29 (48%)	29 (52%)

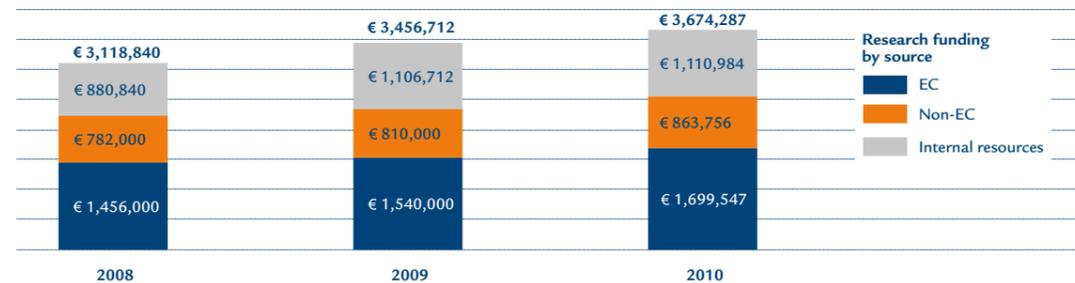
Research community

The research community is a primary stakeholder, which FEEM targets by carrying out research projects, by publishing high quality research, by organizing scientific events and training initiatives, and by managing large international networks.

Research projects

In 2010, FEEM has been actively working on 49 projects, 30 of which financed by third parties, and mainly by the European Commission.

Research projects	2008	2009	2010	2008-2010
Total research projects, of which	65	56	49	170
<i>funded by the EC</i>	30 (46%)	31 (55%)	20 (41%)	81 (48%)
<i>funded by others</i>	9 (14%)	6 (11%)	10 (20%)	25 (15%)
<i>funded with own resources</i>	26 (40%)	19 (34%)	19 (39%)	64 (38%)
Average project duration (in years)	2.8	3.3	3.0	3.0



Over the years FEEM has achieved a high success rate in research funding under the European Commission, and in particular under the EC 7th Framework Programme on Environment (EC FP7 - Environment, including climate change), ranking 5th among all the Italian research institutions applying in 2010. Within the FP7 specific programme “Environment” FEEM has recently been involved in 10 newly integrated and multidisciplinary research projects, being the leading partner and coordinator of three projects on water management and climate change modeling.

Scientific publications

Publications are one of the most important outlets for the dissemination and certification of the scientific quality of FEEM’s research output.

FEEM has two editorial series with Edward Elgar and il Mulino for books published in English and in Italian, respectively, and it circulates a series of working papers in English (FEEM “Note di Lavoro”) targeted to the international research community.

FEEM has published a total of 2,083 “Note di Lavoro” since the publication of its first working paper in 1993. FEEM “Note di Lavoro” are downloadable from FEEM’s website since 1998, and have been gradually included in other platforms such as AgEcon, the Social Science Research Network (SSRN), RePEc, Berkeley University Press, ZBW and EconLit.

Since 2008 the “Note di Lavoro” are distributed only electronically, with substantial cost savings and unscathed impact and visibility. 2010 marks another successful year for the “Note di Lavoro” series. The downloads from the Social Sciences Research Network SSRN have kept a steady rate and totaled 34,560, while those from Berkeley University Press hit an all-time record of 20,848. The downloads from RePEc and AgEcon have climbed to 17,410 and 16,933, respectively, a sign of the growing dissemination of FEEM research. In 2010 our website statistics confirm that the number of downloads has once more exceeded the figure of 2 million.

Publications	2008	2009	2010	2008-2010
FEEM working paper series “Note di Lavoro”	100	126	160	386
of which				
<i>with at least one FEEM author</i>	30%	31%	27%	29%
N. of downloads from the FEEM website	1,217,423	2,489,588	2,108,350	5,815,361
N. of downloads from other websites (*)	70,918	76,634	89,751	237,303
of which				
<i>Social Science Research Network SSRN</i>	33,892	34,913	34,560	103,365
<i>Berkeley University Press</i>	13,556	14,199	20,848	48,603
<i>RePEc</i>	16,262	17,336	17,410	51,008
<i>AgEcon</i>	8,917	10,186	16,933	36,036
Policy briefs	-	11	9	20
Books	2	3	7	12

(*) FEEM Note di Lavoro are included in the Economics Research Institutes Paper Series of Social Science Research Network SSRN, AgEcon, RePEc, Berkeley University Press, ZBW and EconLit. This table reports statistics from SSRN, BePress RePEc and AgEcon.

The percentage of Note di Lavoro authored by FEEM researchers in 2008-2009-2010 republished in peer-reviewed journals is equal to 29%.

In 2010 FEEM also published 7 books and 9 policy briefs.

Conferences and seminars for scholars

The organization of events is a fundamental activity for FEEM, since it allows the creation and maintenance of relationships with the scientific community at the national and international level. It also generates important spillovers in terms of research opportunities that can subsequently yield outputs in the form of projects, publications and networks.

Conferences are usually large-scale events on the topics of FEEM's research agenda, while workshops are typically used for the discussion of "work in progress" and brainstorming sessions. Seminars are primarily given by residential researchers and aimed at cross-fertilization between the different research areas and programmes. Seminars are also open to visiting scholars and to the local research community, and widely publicized through the web.

Over the 2008-2010 period, FEEM has organized a total of 244 scientific events for the research community, attracting over 12,000 registered participants.

Conferences and seminars for scholars	2008	2009	2010	2008-2010
Events for the research community	81	84	79	244
of which:				
Conferences, workshops and lectures	32 (39%)	37 (44%)	34 (41%)	103
Seminars	49 (61%)	47 (56%)	45 (59%)	141
Total events attendance	2,534	4,709	5,230	12,473
of which:				
Conferences and workshops attendance	1,710 (67%)	3,894 (82%)	4,490 (86%)	10,094 (81%)
Seminars attendance	824 (33%)	815 (17%)	740 (14%)	2,379 (19%)

Post-graduate training

Young researchers are very important stakeholders for FEEM and providing advanced training is thus one of the principal institutional activities. In this direction, FEEM organizes Marie Curie individual fellowships (sponsored by the EC), summer schools, and internships. Since 2000, FEEM organizes in co-operation with European Association of Environmental and Resource Economists (EAERE) and the Venice International University the "European Summer School in Environmental Economics" (EAERE-FEEM-VIU), attracting every year young researchers from a large number of international universities.

Since 2005, FEEM also regularly contributes to the scientific organization of the "European Summer School and Conference in competition and regulation" (CRESSE). Finally, since September 2010, FEEM jointly organizes with the EAERE and the Faculty of Agriculture of the University of Catania, the Belpasso International Summer School on Environmental and Resource Economics (Sicily, Italy).

In 2010 FEEM co-organized overall 4 summer schools and supported 2 Individual Marie Curie Fellowships and 2 internships.

Post-graduate training	2008	2009	2010	2008-2010
Summer Schools				
Number of Summer Schools organized	4	6*	4	14
Students	123	178	124	425
Graduate researchers trained at the Fondazione				
Internships	5	1	2	8
Marie Curie Individual Fellowships	2	4	2	8

* Including 2 Marie Curie Training Conferences.

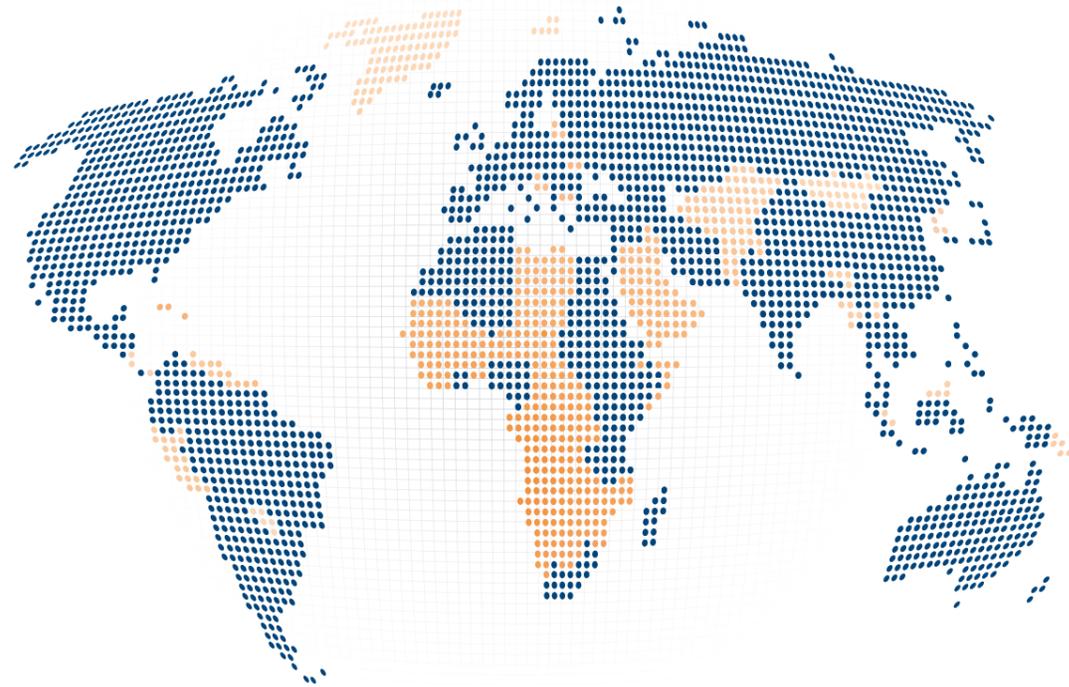
Fostering the investment in human capital in order to advance the frontiers of knowledge is FEEM's ultimate objective. For this reason, starting from 2009 FEEM regularly bestows a prize for the most innovative ideas by young economists. The prize (FEEM Award) is organized jointly with the European Economic Association (EEA) and yields a double dividend: rewarding scientific discovery and promising young scholars.

Networks

The international research network is certainly one of FEEM's most valuable intangible assets. Built up over the years by involving the best researchers and top research institutions on various projects, the network allows FEEM to remain acquainted with the state-of-the-art of scientific knowledge, to spread its results more widely and expose its human capital to international interaction. FEEM's global footprint is quite impressive: today, FEEM is linked via joint projects, partnerships or associations with over 600 research institutions operating in more than 80 countries around the world.

Over the years, FEEM has contributed to the creation of a number of thematic networks and associations, such as the Coalition Theory Network (CTN), the European Association of Environmental and Resource Economists (EAERE), Biodiversity and Economics for Conservation Economists (BIOECON), Climate Policy Network (CPN), European Climate Forum (ECF), Marine Biodiversity and Ecosystem Functioning EU Network of Excellence (MarBEF). In recent years FEEM has also become an institutional member of the European Economic Association (EEA), and has built new important partnerships with the Euro Mediterranean Centre for Climate Change (CMCC), with the Fondazione Giorgio Cini for the creation of the International Center for Climate Governance (ICCG) in Venice, and the Climate Policy Initiative (CPI). Finally, FEEM is also involved in the International Energy Workshop network (IEW), the Integrated Assessment Consortium (IAMC), and the Regional Modelling Exercise (RME) network.

FEEM Global Network



Albania	Ecuador	Lebanon	Slovak Republic
Algeria	Egypt	Liechtenstein	Slovenia
Argentina	Estonia	Lithuania	South Africa
Armenia	Ethiopia	Madagascar	Spain
Australia	Finland	Malta	Sri Lanka
Austria	France	Mexico	Sudan
Azerbaijan	Georgia	Morocco	Sweden
Belarus	Germany	Nepal	Switzerland
Belgium	Ghana	Netherlands	Syria
Bolivia	Greece	New Zealand	Tanzania
Brazil	Hong Kong	Nigeria	Thailand
Bulgaria	Hungary	Norway	Trinidad & Tobago
Cambodia	Iceland	Palestine	Tunisia
Canada	India	Philippines	Turkey
Chile	Indonesia	Poland	Ukraine
China	Iran	Portugal	United Kingdom
Colombia	Ireland	Republic of Korea	United States of America
Costa Rica	Israel	Romania	Uruguay
Cyprus	Italy	Russia	Vietnam
Czech Republic	Japan	Serbia	
Denmark	Kenya	Singapore	

Policy sphere

One of the characteristics of FEEM has always been the provision of technical assistance to national and international institutions.

The past twenty years have seen a strengthening of FEEM’s role as a provider of technical assistance to national and international institutions and policy makers. Indeed, through the rigor of its research, FEEM aims at improving the credibility and quality of decision-making in public and private spheres. This goal is achieved by creating an international and multidisciplinary network of researchers working on several innovative projects, by promoting training in specialized areas of research, by disseminating research results through a wide range of outreach activities, and by delivering directly to policy makers via participation in various institutional fora.

In 2010 the most significant and systematic collaborations have been:

At the international level, with:

- United Nations:
 - UN Environment Programme
 - UN Framework Convention on Climate Change
 - UN International Panel on Climate Change (IPCC)
- European Union:
 - European Commission:
 - DG Education and Culture, Unit “Culture Policy and Intercultural Dialogue”
 - DG Environment, European Research Council (ERC), DG Joint Research Centre Institute for Prospective Technological Studies (JRC-IPTS)
 - DG Humanitarian Aid and Civil Protection (ECHO)
 - DG Research, Socio-economic Sciences and the Humanities (SSH)
 - Economic and Financial Affairs, Brussels Economic Forum
 - European Environmental Agency (EEA)
 - European Parliament
 - Privatization Agencies and Ministries of the main CEEC Countries (Poland, Hungary, Czech Republic)
- Organization for Economic Co-operation and Development (OECD)
- The World Bank
- Ukrainian Ministry for Environmental Protection

At the national level, with:

- Bank of Italy
- Chamber of Commerce, Industry, Craft Trade and Agriculture of Milan
- City of Milan
- Confederation of Italian Industries (Confindustria)
- Italian Ministry for European Policy
- Italian Ministry for the Environment, Land and Sea
- Italian Ministry of Economy and Finance
- Italian Ministry of Economic Development
- Italian Ministry of Education, University and Research
- Italian Ministry of Foreign Affairs, Italian G8 Presidency
- Italian Institute for Environmental Protection and Research (ISPRA) and local public authorities for sustainable development matters (Lombardy Region; Lombardy Foundation for the Environment, FLA; Basilicata Region; Po River Basin Authority; City of Parma; Emilia Romagna Region)
- Local public authorities for matters concerning privatizations and liberalizations.

General public

FEEM aims at fostering and encouraging a broader awareness and understanding of economic, energy and environmental issues, also within the civil society. This objective is pursued by using a variety of communication tools and outlets, ranging from the web to non technical publications, the organization of public conferences and roundtables, and the free access to FEEM facilities such as the Library, with a view to reinforcing the commitment towards the economic and social development of the country.

In late 2009 FEEM completely renovated and enlarged its institutional website (launched in 1994). Today FEEM's website is user-friendly, making information accessible and clear also for the general public, and ensuring efficiency through a high-speed internet connection and dedicated line on the network of the Ministry for Higher Education and Scientific Research.

The statistics provided below are based on the first complete annual information recorded during 2010, one year after the launch of the new website.

Website, www.feem.it	2010
Visitors	557,109
Average visitors per day	1,522
Page views	1,679,846
Bookmarks	124,423
Downloads	1,258,890

In addition to the institutional website, FEEM has recently embraced some of the main web 2.0 tools such as video sharing and social networking sites, blogs, and web applications. FEEM has indeed launched a multimedia channel on You Tube (FEEM Channel), created a FEEM application for iPad, and joined the most well-known and globally used social networks on the web community, namely Facebook, Twitter and LinkedIn, aiming at opening new windows on FEEM research and exploiting additional instruments to provide information to the general public and to the community of both institutional peers and individuals with shared interests.

In the 2009-2010 period, e-documents and interviews posted on FEEM's multimedia Channel on You Tube registered more than 14,350 downloads and about 500 fans/followers joined FEEM on the web social networking communities.

In 2010 FEEM also continued the publication of the digital bi-monthly newsletter, *FEEM News*, launched in 2009. A complete archive of past newsletters is available online and on average each *FEEM news* issue is mailed to over 7,000 stakeholders and subscribers. A dedicated section of the website allows visitors to subscribe to the newsletter or other specific contents of interest, and subscribers can regularly receive updates on FEEM activities, events and publications by email or through *RSS feeds*.

Since 1997, FEEM regularly publishes the journal *Equilibri* with il Mulino. The journal is targeted to a broad audience of readers, and over the years it has contributed to the understanding of sustainable development, emphasizing its complex economic, social and political implications. Today, new trends are reshaping the world's economic and political balances. In the quest for new paradigms, *Equilibri* aims at dealing with these issues, keeping a constant eye on energy, the environment and future global challenges. The Journal's format has been renovated in 2009 and since then published with a modernized cover, different sections and a new editorial board. The three issues published in 2010 focused on three important themes: the debate on "beyond GDP" as an indicator of prosperity and well-being and the development of FEEM's Sustainability Index as a measure of the current and projected sustainability of the world's countries, the role of corporate social responsibility and how it is evolving as a result of the financial crisis, while the last issue was devoted to Africa's emerging economy.

Besides events targeted to the scientific community, FEEM also organizes roundtables, book presentations, conferences and lectures usually open to the general public on various issues broadly related to sustainable development.

Finally, FEEM also offers free access to its facilities and in particular to its Library in Milan. FEEM Library was opened to the public in 1997. Originally established for the needs of FEEM researchers, it has been enlarged over the years and now offers a collection of relevant interest for students and scholars. In the fields of natural resource economics, the holdings of the library are among the most updated in Italy, containing a great selection of books (5,277), scientific journals (754), electronic databases (11) and statistical yearbooks (14). In 2010 about 200 users had open access to the stacks. The reading rooms can seat 36 people.

The general public is usually reached by media operators, representing certainly an important stakeholder for FEEM. The interest of the press in FEEM's activities has been considerable and broadly increasing.

Press coverage	2008	2009	2010	2008-2010
N. of citations by typology				
Articles	96	336	346	778
Op-eds	5	11	10	26
Interviews	3	9	25	37
Total number of articles in national and local magazines and newspapers	104	356	381	841

In the last 3 years, FEEM activities have had a significant coverage in the traditional media, totaling overall about 841 citations or articles covering FEEM studies, research projects, events and other activities. In particular in 2009 and 2010 FEEM registered a strong boost in the number of articles published in national and international newspapers and reviews covering FEEM activities. The press review is downloadable from a new section of the website dedicated to the media, where journalists can find the updated and most significant articles and may subscribe to regular updates on FEEM research and related initiatives.

Young generations

FEEM supports Eni in the organization of two educational projects for the middle school, Eniscuola and Schoolnet.

FEEM Educational projects for the middle school - Schoolnet

Numbers involved at middle schools:	2008	2009	2010	2008-2010
N. of schools contacted	1,250	1,400	1,800	4,450
N. of educational seminars and laboratories	26	35	197	258
N. of students who attended direct teaching activities	3,755	4,350	8,180	16,285
N. of teachers who attended direct teaching activities	410	425	575	1,410
N. of teachers and students who attended e-learning projects	10,000	10,500	11,200	31,700

Both projects are based on the Internet and multimedia technology. Learning support systems are wide-ranging (text, images, graphs and charts, film clips, games, exercises, data bases and links to other sites) and can all be downloaded by pupils in order to conduct "multimedia research" or create their own site.

The Eniscuola project is based on a website (www.eniscuola.net) daily updated with over 3,000 pages with documents, pictures, graphs, charts, experiments, games, and interviews with national and international scientists including Nobel prize laureates such as Alan J. Heeger, Sir Harold W. Kroto, Theodor W. Hänsch and Robert Coleman Richardson and Eni Award winners from MIT, University of California (Berkeley), Norwegian University of Science and Technology, University of Picardie Jules Verne, such as Gregory Stephanopoulos, Gabor A. Somorjai, Martin Landrø and Jean-Marie Tarascon (Eni Award winners in 2011). In 2010, 650,000 single users visited approximately 7 million pages.

Eniscuola carries out its educational activities in cooperation with Regional School Departments, Universities and local government institutions. The project is also actively involved in the organization of numerous scientific and cultural events. Eniscuola regularly organizes seminars, laboratories and scientific theatre events in schools all over Italy. Since 2009, Eniscuola also began the educational activities in Sicily in collaboration with enimed spa.

The Eniscuola project has been acknowledged by UNESCO's Italian National Commission and is part of the United Nations Decade of Education for Sustainable Development, by contributing to spread its goals and ideals.

The main purpose of the Schoolnet project (www.schoolnet.eni.it) is to encourage the exchange of ideas and information among some of the schools of the areas where Eni operates, in Italy (Secondary Schools in Val d'Agri and Val Basento), Norway (Finnmark), Australia (Northern Territory), United States (Alaska), East Timor, Angola, Indonesia, Pakistan and Tunisia.

In 2010, students from the schools involved in the project were asked to write projects in electronic format to describe the culture, history and home environment of their country of origin, with the aim to promote knowledge and stimulate dialogue among different cultural identities. The theme of the project for the Schoolnet 2010-2011 edition was: "A universal language: music".

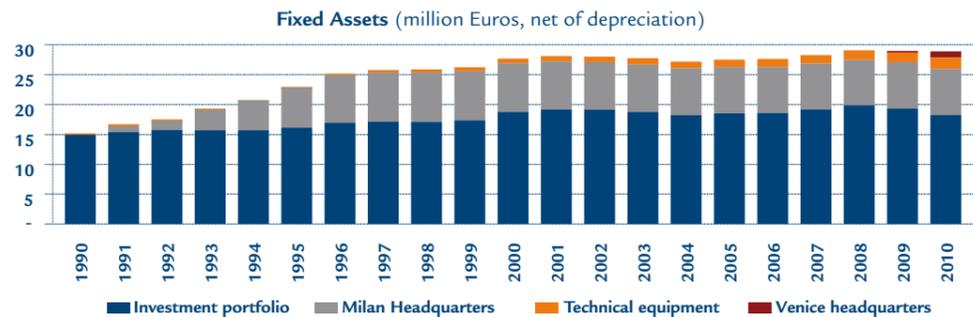
Through music it is possible to communicate the deepest values of a community, in a direct and immediate way, bridging gaps between distant cultures and populations. In this manner Schoolnet is an occasion to break down the barriers between nations, to know young generations from different countries, and learn more about their local traditions.

Endowment and asset growth

A key objective for the financial sustainability of FEEM activities is the conservation of its endowment and assets over time. Over the past twenty years, the assets of FEEM have grown from the initial endowment of 13.3 million Euros in 1989 to approximately 26.2 million Euros at year-end 2010. This increase is mainly attributable to the additional contributions from the founders, along with the inception and increase of the Studies and Research reserve fund in the early years, when receipts exceeded total costs. Returns from financial assets is another component of asset growth.

Contributions from the founders have financed in the early 90s the complete restructuring of FEEM's Milan headquarters at the prestigious Palazzo delle Stelline, while the Studies and Research reserve fund increased its capitalization, allowing the financing of extraordinary institutional activities.

The graph below shows the composition of FEEM's fixed assets net of depreciation. Over the past twenty years the overall value of the investment portfolio has grown from the initial 14.7 million Euros invested in 1989 to the present 18.3 million Euros, following a risk-adverse investment strategy. The value of the lease on the headquarters building increased until 1998, when the restructuring was completed. In 2010 FEEM completed the restructuring of its new local site in Venice, an aisle of an historic building located on the Island of San Giorgio Maggiore, started in 2009.



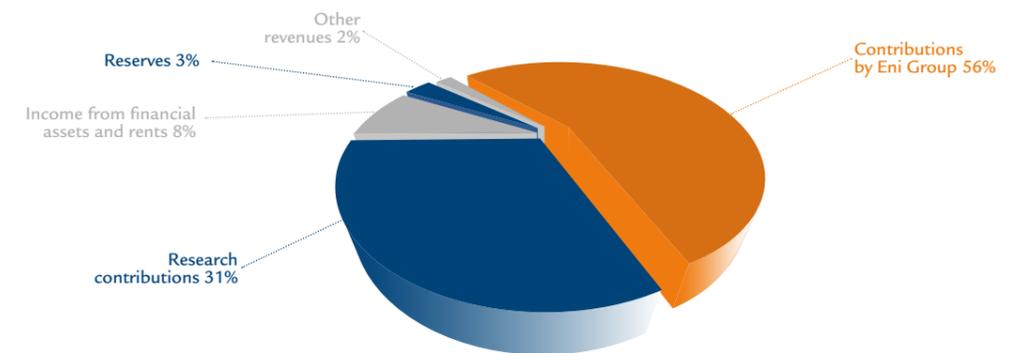
Revenues

Total revenues for 2010 amounted to 8,312,844 Euros. Contributions from Eni and from some of its subsidiaries (the Founders) represent the main source of funding for the annual budget, accounting for 56% of total revenues in 2010.

FEEM has developed a remarkable fundraising capability. External funding raised from third parties – mainly from the European Commission through the research framework programmes contributions, along with several domestic and international institutions – covers approximately 31% of FEEM's total revenues. In 2010 third party funding totaled 2.6 million Euros, increasing by 9% compared with 2009.

Returns from the investment portfolio and rents represent 8% of total revenues. Financial assets, managed by professional asset managers, provided an annual income of over 0.6 million Euros in 2010. The remaining 5% comes from the use of the reserve funds and other extraordinary items. The revenues breakdown for 2010 is shown in the graph below.

Breakdown of Revenues 2010



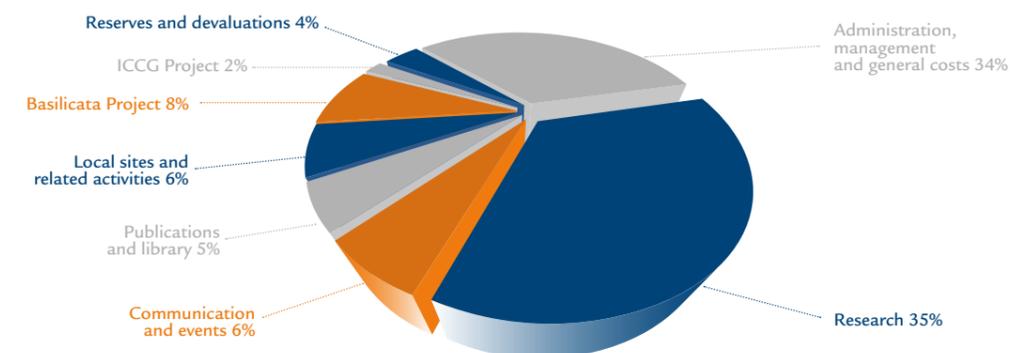
Spending

In 2010, expenditure for research projects and other institutional activities amounted to approximately 5.5 million Euros (66% of the total budget), whereas administration and management expenses amounted to 2.8 million Euros (34% of the total budget).

Although FEEM's institutional activities have significantly increased in recent years, the minimization of the fixed cost component and the flexibility of the organizational structure have allowed the allocation of the largest part of the annual spending to research and related activities, such as publications, communication, and dissemination initiatives. The increased personnel expenditure starting from 2009 is due to the implementation of an organizational restructuring plan effective from January 2009 with a two-fold effect: the consolidation in the staff of a limited number of direct employees in parallel with the minimization of contracted workforce hired for support activities.

The graph below shows the breakdown of expenditures in 2010 for administration/management (including also taxes, depreciation expenses and general costs) and for the institutional activities. The personnel expenditure has been classified accordingly.

Breakdown of Spending 2010



Financial statement
Balance sheet (Euros)

	31/12/2009	31/12/2010
FIXED ASSETS		
Tangible fixed assets	1,546,287	1,807,802
Intangible fixed assets	8,091,272	8,841,109
Financial assets	19,356,626	18,278,549
TOTAL FIXED ASSETS	28,994,186	28,927,461
CURRENT ASSETS		
Cash at bank and in hand	898,092	1,894,724
TOTAL CURRENT ASSETS	898,092	1,894,724
DEFERRED CHARGES	971,308	1,405,150
TOTAL ASSETS	30,863,586	32,227,335
	31/12/2009	31/12/2010
LIABILITIES		
Initial endowment	13,316,553	13,316,553
Grants from Founders	9,872,421	9,872,421
Studies and research fund	3,075,341	2,968,044
Surplus	7,658	7,000
TOTAL NET LIABILITIES	26,271,973	26,164,018
RESERVE FUNDS		
Investment portfolio fluctuation fund	755,453	755,453
Library fund	63,458	64,674
Reserve funds for future expenses	404,246	542,368
TOTAL RESERVE FUNDS	1,223,156	1,362,494
SEVERANCE INDEMNITY FOR PERSONNEL	36,864	88,811
DEBTS		
Suppliers	564,025	545,700
Other debts	460,463	336,918
TOTAL DEBTS	1,024,488	882,617
DEFERRED INCOME	2,307,105	3,729,395
TOTAL LIABILITIES	30,863,586	32,227,335

Profit and
Loss Account (Euros)

	31/12/2009	31/12/2010
REVENUES		
Income from financial assets	689,816	625,114
Rents	77,333	65,000
Contributions from founders and eni companies	4,645,000	4,645,000
Research contributions	2,321,679	2,563,303
Other revenues	121,265	135,965
Reserves	325,607	278,462
TOTAL REVENUES	8,180,701	8,312,844
	31/12/2009	31/12/2010
EXPENSES		
Personnel	1,358,078	1,576,321
Researchers and non permanent staff	3,337,326	2,925,559
Statutory bodies	268,952	308,952
Travel expenses	825,602	716,323
Consumables	128,766	160,365
Services	1,092,247	1,178,830
Insurances	35,889	43,804
Rent and shared ownership expenses	351,795	278,088
Taxes	256,853	198,362
Reserves and devaluations	69,843	302,845
Depreciation	261,819	447,598
Other charges	185,872	168,798
TOTAL EXPENSES	8,173,042	8,305,844
Surplus	7,658	7,000

Please note that in the present financial report, the 2009 balance sheet has been reclassified.

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