

# ANNUAL REPORT 2015







### TABLE OF CONTENTS



- CMCC after Paris
- Mission
- Values

#### **CMCC** Foundation

- CMCC: origins and aims
- The network
- Governance
- Scientific research
- Research divisions
- Supercomputing Center

#### **Facts and Figures**

- People
- People at CMCC
- Research projects
- Publications
- Training programs
- Events
- Web & media
- Financial report

### **CMCC** after Paris

The world after Paris will be intriguing, exciting, and stimulating for climate change scientific research. Yet, it will also be a world that will bring on new challenges, probably more demanding than past ones, for the sciences involved in climate change that must be addressed with a stronger sense of interdisciplinarity. This is a glimpse towards the future that 2015 has prepared for us.

2015 will be remembered as the year of the Agreement on Climate. The COP21 in Paris was in December, yet it was present in every speech regarding climate-related sciences throughout the entire year. In the process, CMCC has done its part. We have contributed with our participation in numerous workshops, scientific meetings, and events where the technical aspects of the complex issues were discussed.

The Conference ended with an agreement that was expected by the international community. Obviously, the final text registered positive and negative remarks, optimistic and pessimistic comments, but it certainly represented a step forward on the path of knowledge and the search for solutions to the problems that arise from the interaction of the climatic system with society, economies, and the environment.

Scientific research has had a decisive, fundamental role in this long and complex process. Every step forward taken in the field of climate policies and the raising awareness of a very complex issue such as climate change, leads science to have an increasingly important role. On one hand, it is the most recent and in-depth scientific findings produced by the international community that provide the information on which the discussions are based involving public and private decision makers, the civil society, and public opinion, on all levels, from global to regional. On the other hand, the year that has come to an end with the Paris Agreement, opens a new page for research that, more than ever, is called upon to provide the knowledge required to build the tools useful in reaching the goals that the international community has established for itself.

2015 ended by opening a new, engaging challenge in the field of climate research: facing this challenge will mean working with efficient technologies and fresh innovations that can only arise from an interdisciplinary collaboration among different expertise and know-how. In order to be ready to best face this challenge, CMCC has developed a series modifications with the objective of making our scientific research effort even more efficient and effective than it has been so far.

Since December 10<sup>th</sup>, 2015, CMCC has finally acquired the legal status of CMCC Foundation – Euro-Mediterranean Center on Climate Change. This new legal status will allow the Center to operate in an improved and steadier manner, in accordance with its own statuary goals and also broaden the spectrum of collaborations with institutional and private entities.

CMCC's organizational structure was arranged in a way to make activities, skills, and responsibilities on a strategic level more evident than they were in the past, with regard to scientific operability and the production of research services. This new organization will enable us to best implement the interdisciplinary dimension that is indispensable for research regarding climate change and that has been a hallmark for CMCC since its foundation.

In this report, we propose a snapshot of our 2015. A year that has witnessed the Center's ongoing commitment by undertaking research projects for Horizon 2020, as well as grow in the number of papers published in important journals, and improve its position on climate research within the international community.

We are confident that the changes introduced in 2015 will allow us to improve further on this path and be part of one of the most innovative challenges that the history of sciences and policies regarding climate has ever experienced. The world after Paris will be exciting and challenging. Science will be called upon to provide the knowledge required to produce effective tools and support informed decisions. CMCC will be there to make its contribution.

Antonio Navarra

President of the Euro-Mediterranean Centre on Climate Change

# VALUES

**CMCC** is committed to encourage discipline convergence to promote new and creative ideas and to ensure that environmental observations, analyses, predictions, and services effectively meet the needs of society.

#### **CMCC** is

committed to inform and facilitate the dialogue between scientists, decision makers, and the general public to support decisions and actions for the benefit of society and the environment.

> **CMCC** is a non-advocacy institution.

#### **CMCC** is

committed to scientific integrity and independence, to foster scientific progress and innovation.

#### **CMCC** is

an equal opportunity employer, actively promoting diversity in the workplace.





# CMCC: origins and aims

Cutting-edge research to investigate and to address the Climate Change Challenge CMCC Foundation (Fondazione CMCC Centro Euro-Mediterraneo sui Cambiamenti Climatici – Euro-Mediterranean Center on Climate Change) is a research organization that conducts and promotes scientific and applied activities within the scope of international climate change research. CMCC aims to gain in-depth knowledge on climate variability, its causes and its consequences, through the development of high-resolution simulations using global models of the Earth System as well as regional models, focusing in particular on the Mediterranean area.

The specific objective of these research studies is to provide scientifically reliable, rigorous and updated results that will help to investigate, understand and represent the interactions between the climate system, the marine and terrestrial ecosystems, and society.

CMCC was created in 2005 with the financial support of the Ministry of Education, University and Research (Ministero dell'Istruzione, dell'Università e della Ricerca - MIUR), the Ministry of the Environment, Land and Sea (Ministero dell'Ambiente e della Tutela del Territorio e del Mare - MATTM), the Ministry for Agricultural and Forestry Policies (Ministero delle Politiche Agricole e Forestali - MIPAF) and the Ministry of Finance (Ministero delle Finanze - MEF). It is a non-profit research center that acts as an institutional reference point, both at national and at international level, for policy decision makers, public bodies as well as public and private entities, whenever they require technical-scientific support.

On 10th December 2015 the Center became a Foundation therefore representing CMCC's legal status, its contents, aims and operational modalities.

# The NETWORK

The Center is organized in the form of a network distributed throughout the country with locations in Lecce, Bologna, Capua, Milano, Sassari, Venezia, Viterbo and Benevento, which involves and connects public and private entities working together on multidisciplinary studies concerning issues of interest to the climate sciences.



## GOVERNANCE

The CMCC Foundation's research lines and activities are implemented through the active involvement of the CMCC's consortium members and through the sharing of their internal resources.

The CMCC Foundation relies on the extensive and established research experience of the eight members and institutional partners:



The general meeting of Shareholders appoints:

- Board of Directors (Board). with ordinary and extraordinary management powers, which has a three-year term of office and is composed of 9 members

- the **Executive Committee**, to which the Board delegates technical and financial matters

#### **Board of Directors**

Dr. Antonio Navarra – INGV (Chair) Dr. Giorgiana De Franceschi - INGV Dr. Massimo Ghilardi - INGV Prof. Antonio Marcomini – Università Ca' Foscari Venezia Prof. Carlo Carraro – Università Ca' Foscari Venezia Prof. Riccardo Valentini - Università degli Studi della Tuscia Dr. Alessandro Coletta – Agenzia Spaziale Italiana Prof. Piero Lionello – Università del Salento Prof. Giovanni Aloisio – Università del Salento

#### **Executive Committee**

Prof. Giovanni Aloisio Prof. Carlo Carraro Dott. Massimo Ghilardi Dr. Antonio Navarra

the governing bodies.

**Executive Director** Dr. Laura Panzera

The **Executive Director** oversees the administration and implements the resolutions of



CMCC has obtained and implemented a Quality Management System which complies with standards of UNI EN ISO 9001:2008 for the activities concerning the Administrative management of research projects relating to climate change". Certificate N. 18049

### Administration and Managment

### Scientific Organization





### SCIENTIFIC RESEARCH

The CMCC Scientific organization aims at enhancing the integration and collaboration among interdisciplinary skills needed to deal with climate sciences related topics.

The Scientific Advisory Panel (SAP) provides advice on CMCC's research activities, strategic plan and organization, as well as support on specific matters raised by the Chairman of the Board. It is appointed by the Board and is made up of eight highly qualified experts selected among the international scientific and academic community. Members of the SAP are appointed with a rotation mechanism: every three years, four new members are appointed, four of the old members are confirmed and the four old members not confirmed are appointed as "Honorary Fellows".

#### **Scientific Advisory Panel**

- Dr. Almut Arneth Karlsruhe Institute of Technology, Germany
- Dr. Ghassem Asrar Joint Global Change Research Institute, USA
- Dr. Giulio Boccaletti The Nature Conservancy, USA
- Dr. Nadim Farrokh International Centre for Geohazards, Oslo
- Dr. Jean-Charles Hourcade CNRS. France
- Dr. Daniela Jacob Climate Service Center, Germany
- Dr. Paul Messina Argonne Leadership Computing Facility, USA
- Dr. Sabrina Speich Ecole Normale Supérieure France
- Dr. Ottmar Edenhofer Potsdam Institute for Climate Impact Research, Germany (Honorary Fellow)
- Prof. Robert Socolow Princeton University, Usa (Honorary Fellow)

Prof. Laurence Tubiana – Institute of Sustainable Development and International Relations, France (Honorary Fellow)

The Strategic Council has a function of strategic direction and supervision. Composed of the Scientific Coordinators of CMCC, the Strategic Council defines scientific strategies and new subject areas and problems, contributing with the experience, creativity and international network of relations of its members. The Strategic Council is appointed by the Board of Directors and identifies its coordinator from within. One of the main tasks of the Strategic Council is to define on a three-year basis CMCC's Strategic Projects.

#### **Strategic Council Members**

Prof. Giovanni Aloisio Prof. Carlo Carraro Dr. Alessandro Lanza Prof. Antonio Marcomini Dr. Antonio Navarra Prof. Nadia Pinardi Dr. Pasquale Schiano Prof. Donatella Spano Prof. Riccardo Valentini

The **Division Directors Committee** is composed of the Division Directors, who meet on a monthly basis to coordinate their operations. The group appoints a coordinator from within. The Leadership Group relies on the Strategic Council.

#### **Division Directors Committee**

Sandro Fiore – Advanced Scientific Computing Silvio Gualdi - Climate Simulation and Prediction Simona Masina - Ocean modeling and Data Assimilation Giovanni Coppini – Ocean Predictions and Applications Jaroslav Mysiak - Risk Assessment and Adaptation Strategies Silvia Torresan - Risk Assessment and Adaptation Strategies Paola Mercogliano - Regional Models and Hydrogeological Impacts

- Francesco Bosello Economic analysis of Climate Impacts and Policy
- Monia Santini Impacts on Agriculture, Forests and Ecosystem Services
- Valentina Bacciu Impacts on Agriculture, Forests and Ecosystem Services

### RESEARCH DIVISIONS

In 2015, CMCC reorganized its scientific structure with the aim of enhancing the integration and collaboration among interdisciplinary skills needed to deal with climate sciences related topics. Originally made of six research divisions, in 2015 the research network is distributed among eight research divisions that share different knowledge and skills in the field of climate sciences.

#### **Advanced Scientific Computing**

The Advanced Scientific Computing (ASC) Division carries out R&D activities on Computational Science applied to the Climate Change domain. In particular, it focuses on the optimization of numerical models on HPC architectures and the management of large volumes of scientific data looking forward at exascale scenarios.

The main objectives of the research activities are: the optimization and the parallelization of the numerical models for climate change simulations (both climate and impacts models), and the design and implementation of open source solutions addressing efficient access, analysis and mining of scientific data in the climate change domain.

#### **Climate Simulation and Predictions**

The Climate Simulation and Predictions (CSP) Division contributes to the development of the CMCC Climate and Earth System Models, and uses them to explore and improve our understanding of the mechanisms underpinning climate variability, climate predictability and climate change, by means of numerical simulations. In collaboration with the ODA Division, CSP produces climate change scenarios, contributing to the World Climate Research Programme (WCRP)'s Coupled Model Intercomparison Project (CMIP) project, to inform the Intergovernmental Panel on Climate Change (IPCC) assessments and in support of emerging climate service activities. Furthermore, CSP produces operational climate forecasts from seasonal to multi-annual time scales.

#### Economic analysis of Climate Impacts and Policy

The Economic analysis of Climate Impacts and Policy (ECIP) Division aims to translate into economic values climate scenarios and the subsequent quantification of the impact of climate change, in collaboration with other divisions. The economic valuation is then the basis for designing the most appropriate policies to mitigate emissions and for adaptation to climate change.

The main objectives include: the development of the coupling among the economic, climate and land uses models of CMCC; the development of GHG emissions scenarios and low carbon scenarios; the assessment of the economic value of impacts of climate change at global and regional level, with a focus on extreme events; the analysis of mitigation and adaptation policies on climate change; research and networking activities on governance of climate change.

#### Impacts on Agriculture, Forests and Ecosystem Services

The Impacts on Agriculture, For the diagnosis and prediction of natural and semi-natural ecosys scale. The activities comprise b context of ecosystem services. Particular attention is paid to the water and nutrients' requiremer soil-water-vegetation-human er system; soil water balance and uses and services of water resc prevention, planning and manavulnerability and risk of vegetati danger. All these activities are supportin change.

#### **Ocean modeling and Data Assimilation**

The Ocean modeling and Data Assimilation (ODA) Division focuses on the development and improvement of the CMCC Earth System Model components with a particular emphasis on the physical and biogeochemical ocean models. Another major activity of the ODA Division is the development of data assimilation methods for the production of global marine reanalysis and forecasting. Finally, recently the ODA Division started to work also on ice-sheet and paleoclimate modeling.

#### Ocean Predictions and Applications

The Ocean Predictions and Applications (OPA) Division deals with the development of models and methods for interdisciplinary research on marine operational forecasting, on the interactions between coastal areas and the open ocean, on the development of services and applications for all maritime economy sectors, including transport, security and management of coastal areas and marine resources, in the context of climate change adaptation problems.

The Impacts on Agriculture, Forests and Ecosystem Services (IAFES) Division focuses on the diagnosis and prediction of the climate change impacts on agriculture and on terrestrial natural and semi-natural ecosystems, and on the services they provide, at local to global scale. The activities comprise basic and applied research, up to operational purposes in the context of ecosystem services.

Particular attention is paid to the monitoring, modeling and analysis of: agriculture and the water and nutrients' requirement, including the ecological footprint; carbon cycle through soil-water-vegetation-human environment dynamics, including their feedbacks to the climate system; soil water balance and hydrological cycle at different scales, considering the different uses and services of water resources; land use and land degradation up to desertification; prevention, planning and managing wild fires and the consequent emissions; exposure, vulnerability and risk of vegetation and rural-urban and forest-urban interfaces to the fire

All these activities are supporting strategies for the mitigation of an adaptation to climate

### THE SUPERCOMPUTING CENTER HIGH-PERFORMANCE COMPUTING TO UNDERSTAND THE CLIMATE OF THE FUTURE

#### **Risk Assessment and Adaptation Strategies**

The Division Risk Assessment and Adaptation Strategies (RAAS), brings together research groups with sizable expertise and long-standing experience in climate risk analysis and assessment, and development of adaptation strategies and policies, previously affiliated with other research divisions. The research priorities embrace three major themes that denote the main research units: economic analysis of risk and disaster risk reduction; environmental risk assessment and management; governance of climate related risks and adaptation.

#### **Regional Models and Hydrogeological Impacts**

The main activities of Regional Models and Hydrogeological Impacts (REMHI) Division include studies about: regionalization of the climatic signal through the development and use of statistical and dynamical downscaling approaches, and qualitative and quantitative evaluation of the effects of climate changes and anthropogenic pressure on the geo hydrological hazards (such as landslides, floods and droughts). Furthermore, the Division develops and implements procedures able to optimize the link between climate and impacts models, and tools for the correct quantification of the associated uncertainty.



Housed in the Ecotekne complex (Lecce), the CMCC's Supercomputing Center provides the technological infrastructure and the computational capabilities needed in order to develop simulations and models able to provide more accurate, detailed and better defined results.

The Supercomputing Center is composed of new next-generation IBM iDataplex supercomputer based on Intel E5-2670 multicore architecture and InfiniBand interconnection with the scalar system composed of IBM nodes based on Power6 processors. Currently, thanks to the use of highly advanced technologies, the CMCC's Supercomputing Center has a computing capability of over 160 TFlops (160,000 billion operations per second).

The system is integrated with two DDN sfa10000 storage subsystems in cluster architectures with an IBM GPFS file system to allow efficient and reliable access to data. The design of the computing architecture, comprised of the IBM dx360M4 server cluster, the InfiniBand interconnection network and the storage subsystem, accelerates research activities and improves the quality of research activities for the development of future climate change scenarios and impacts.

The activities and the infrastructure of the CMCC Super Computing Center are chaired by Prof. Giovanni Aloisio.





# PEOPLE

People working at CMCC are an essential resource that provides and ensures the quality of scientific research, the effective performance of administrative and organizational activities, and the maintenance and development of technological structures and equipment. Therefore, CMCC's main goal is to make the most of the potential and talents of those who work for the CMCC. The Center is also committed to developing and increasing the skills and knowledge of its employees in their respective areas, in order to achieve research objectives as well as to enrich the global community.

The Center structure and interdisciplinary activities carried out at CMCC, promote teamwork and intergration. A proactive and flexible spirit is encouraged by initiatives that include advanced training, brainstorming and group activities. The interdisciplinary approach that characterizes CMCC's work requires and contributes to the creation of specializations that are not easily available in the external market, and their growing value encourages the Center to make increasing investments in the quality of the processes related to the management of human resources.

Achieving a quantitative analysis of the staff who contributed to the activities of CMCC during 2013 means considering many types of contracts and collaborations whose duration does not always coincide with the calendar year. For this reason, in order to integrate this complexity into a coherent account with reality, we have perfected the calculation of full-time equivalent (FTE) considering a single number of hours per year for all types of contracts with CMCC employees<sup>\*</sup>.

During 2015, according to calculations made with the policy described above, the number of people who worked at CMCC is equal to 119 FTE, including both staff and collaborators.

People who carry out scientific and technical activities prevail, while more than 25% of the staff perform administrative roles and carry out communication activities. CMCC confirms its vocation as a research institution that places great confidence in the younger generation: in fact the percentage of people under age 40 is more than 68%, while those who are over 50 are just over 9%. The percentage of people holding PhDs is more then 46, which shows that CMCC is a research institution that has a young staff with high levels of training.

#### AREA

Administration, man Scientific / Technica

People at CMCC

#### AGE

Under 30 31 - 40 41 - 50 Over 50

#### NATIONALITY

Italian EU non Italian

Extra EU

POSITION

Senior

Junior

To submit a CV to the CMCC Human Resources Office, join the Job Application Manager:

#### www.cmcc.it/jam

\* The FTE is calculated by dividing the total number of hours worked by an employee with the number of hours a full-time employee would work in one year. For example, if 1,744 is the total number of hours a full-time employee would work in one year, an employee who works 872 hours would be a 0.5 FTE.

$\langle$	$\langle$	$\langle \rangle$	$\langle \rangle$	$\backslash$		$\mathbf{i}$	TOTAL	M	F
	$\overline{\ }$	$\overline{\ }$	$\overline{\ }$		$\setminus$	$\left\langle \right\rangle$	119	60	59

agement and comm	unication	30	11	19
		89	49	40

11	5	6
70	33	37
27	16	11
11	6	5

101	51	50
10	5	5
8	4	4

31	18	13
88	42	46

# PEOPLE AT CMCC







Age

**Position** 



**Geographical Distribution** 



### Women at CMCC are



# 49,6%

### **50,9**%

8.4% 6.8% UE non Italian Extra UE

### RESEARCH PRO, IE

At 31 December 2015, CMCC's project portfolio consists of 164 projects, 77 of which are coordinated by CMCC.

These funds are over and above the initial financing granted by: the Italian Ministry of the Environment, Land and Sea, the Ministry of Education, University and Research, the Ministry for Agricultural and Forestry Policies and the Ministry of Finance.

Origin Of Funding	Total	Coordinated	Ongoing	Closed	Budget (M€)
EU FP6	2	0	0	2	0.5
EU FP7	35	4	11	24	12.7
EU H2020	11	0	10	1	3.6
Other EU Funds	42	18	13	27	9.8
National Funds	40	28	10	28	19
Other Funds	34	27	6	27	2.4
Total	164	77	50	109	48.0

#### Origin of funding (per budget)



#### Trend Portfolio (per budget)



While the technical activities performed by CMCC (funded through service contracts) have been increasing over the last years, CMCC activities funded through research grants still represent CMCC's main source of funding.



#### CMCC contribution to Horizon 2020

2015 represents the first year for the start of projects funded under the European Horizon 2020 (H2020) programme. CMCC projects addressed the three pillars 'Excellent Science', 'Industrial Leadership' and 'Societal Challenges'.

#### **CMCC Participation into H2020 Pillars**



20%	3%	66%	
European Research Infrastructures (including e-Infrastructure)	Sec free and	ure Societies - protecting dom and security of Europe its citizens	
		Food security, sustainable ag forestry, marine and maritime water research and the bioe	griculture and e and inland conomy

	_	
Euro		48M Euro
4		2015

# PUBLICATIONS

CMCC's editorial production is addressed to a diverse audience that includes the scientific community, policy decision makers, opinion leaders, and a general public interested in staying abreast of issues related to climate change research and policies. Therefore, the different types of publications issued by CMCC take into account the different recipients of the published information in terms of form and content.

#### **Refereed papers**

Intended for an expert and specialized readership, scientific publications are one of the main tools used to disseminate the results of CMCC's activities among the international scientific community.

Works considered for publication include articles and papers published by CMCC researchers in peer reviewed journals, many of which are included in the Journal Citation Report (JCR). The selected papers represent a tangible indicator of the quality of the Center's scientific production, resulting from multidisciplinary interaction between research divisions and from collaborations with major international institutions.



#### **Research Papers**

As with the papers published in refereed journals, CMCC's Research Papers are intended for the scientific community and contain the results of research activities performed by the Center's divisions. These papers are published in a special collection available online at www.cmcc.it.



### TRAINING PROGRAMS

Education programs are a very important part of the wide range of activities carried out by CMCC. The Graduate Programs, as well as the summer schools and winter schools, have earned an outstanding reputation over time within the climate change scientific community, thanks to the high level and international breadth of their offering and to partnerships with European universities, international institutions and world famous experts participating as professors and guest speakers.

#### Graduate Programs

CMCC Graduate Programs were inaugurated in 2008, in collaboration with three Italian universities (Università Ca' Foscari Venezia, Università del Salento and Università di Sassari) with the objective of promoting and coordinating advanced studies on the impacts of climate change and climate policies. The programs offer advanced courses and research activities, with special focus on themes concerning innovative management strategies, both from a physical and a socioeconomic perspective, for phenomena related to the climate and its changes.

Salento).

Addressed to researchers already engaged in scientific activities with CMCC as well as to external students, the Center's educational initiatives aim to improve the participants' research performance, provide opportunities for professional growth and take full advantage of the energy and motivation of the younger generations - a valuable resource for an institution that operates in the area of advanced research.



The three universities contribute to the Graduate Programs through four distinct doctorate programmes; Science and Management of Climate Change (Università Ca' Foscari Venezia). Agrometereology and Ecophysiology of Agricultural and Forestry Eco-Systems (Università di Sassari). Energy Systems and Environment and Climate Change Sciences (Università del



### FVFNTS

CMCC organizes different types of events to build and maintain an active dialogue with interlocutors including the scientific community, students, policy decision makers, public bodies, companies, the public opinion in general, and the media.

Throughout the Center's activities, events have proven to be an excellent vehicle to disseminate the contents of research activities, exchange opinions with the outside world, find new themes and areas of interest, strengthen existing collaborative relationships and start new ones with national and international research centers.

#### Seminars

Intended mainly for a specialized audience, students of the Center's educational initiatives and the scientific community with the aim to encourage discussion and debate on frontier themes relating to climate research and policies.

#### Conferences

Large scale events addressed to the public at large, with the participation of renowned international speakers in the area of climate research and policies.

#### Meetings

Usually set up within the scope of scientific research and partnership projects, for the purpose of launching a project, defining technical aspects or disclosing scientific results.

#### Workshops

Dedicated to CMCC researchers, they offer opportunities for brainstorming and updates on ongoing activities.

> 69 the total number of Seminars, Conferences, Meetings, Vorkshops organized in 2015

WEB & MEDIA

visits on the website

+34% likes on the Facebook public page

**Official website** www.cmcc.it

#### Facebook

CMCCclimate www.facebook.com/CMCC-Climate-339966276040228/

**Twitter** @CmccClimate

YouTube Channel www.youtube.com/user/CMCCvideo

In 2015 CMCC consolidated its role in the field of communication and the media. CMCC was furthermore confirmed by the media as being among the most reliable authorities dealing with climate sciences and climate change interactions between society and the environment.





### 260.000 pages visited



### More than **35.000** visualization on the YouTube Channel

## FINANCIAL REPORT

BALANCE SHEET: ASSETS	2015	2014
A) Receivables from shareholders for contributions due	0	0
B) Fixed assets	2,274,962	3,610,799
I. Intangible fixed assets	90,414	151,710
II. Tangible fixed assets	2,086,306	3,360,708
III. Financial assets	98,242	98,381
C) Current Assets	23,832,747	39,429,607
I. Inventories (Work in Progress - WIP)	20,073,988	36,038,540
II. Receivables	1,096,927	493,551
III. Current financial assets	1,919,000	2,730,000
IV. Cash at hand	742,832	167,516
D) Prepayments and accrued income	95,313	30,644
TOTAL ASSETS	26,203,022	43,071,050
BALANCE SHEET: LIABILITIES	2015	2014
A) Net Liabilities	523,062	540,703
Capital	500,000	500,000
Reserve Funds	14,384	33,685
Profit for the year	8,678	7,018
B) Provisions for risks and charges	0	0
C) Employee Severance Indemnities	188,789	137,528
D) Payments from Clients	23,137,515	19,925,035
E) Accruals and deferred charges	2,353,656	22,467,784
TOTAL LIABILITIES	26,203,022	43,071,050

A) Revenue	3S
Revenues fr	om sales and services
Variations in	stocks (WIP)
Other reven	ues
B) Expense	es
Consumable	es
Services	
Leases	
Personnel	
Depreciation	ſ
Other Opera	ating Expenses
Difference	e between revenues and expenses (A-
C) Financia	I income and charges
D) Impairm	ent on financial assets
E) Extraord	linary income and charges
Results bet	fore taxes (A-B±C±D±E)
Income tax	expenses - current and deferred
a) Current ta	axes
b) Deferred	taxes
,	

2015	2014
11,572,545	13,425,935
956,931	378,219
-15,964,552	4,177,392
26,580,166	8,870,324
11,247,610	12,882,536
79,482	172,217
8,163,180	9,594,225
323,038	419,645
855,710	802,791
1,779,912	1,816,364
46,288	77,294
324,935	543,399
-292,310	-358,729
0	0
42,199	-59,264
74,824	125,406
66,146	118,388
66,146	110,688
0	7,700
8,678	7,018



#### **CMCC** Foundation

Centro Euro-Mediterraneo sui Cambiamenti Climatici

via Augusto Imperatore 16 73100 Lecce, Italy Phone: +39:0832.239650 Fax: +39:0832.277.603 info@emcc.it

