MALTA COUNCIL FOR SCIENCE & TECHNOLOGY

ANNUAL REPORT

2010

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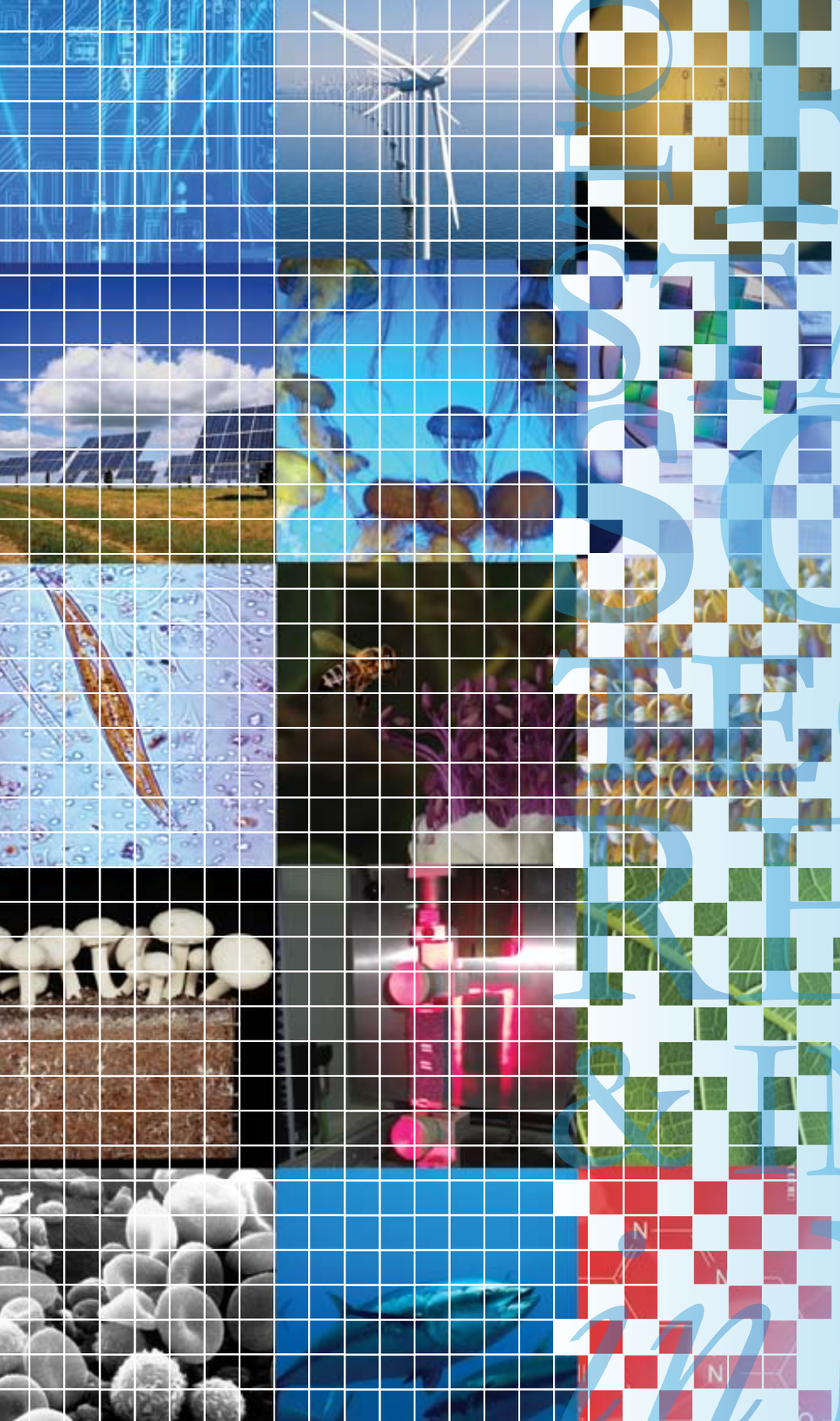

Mission Statement

To raise the standard and profile of Science, Technology, Research and Innovation in Malta

Message by Chairman

When, earlier this year, the Prime Minister asked me to take the helm of the Malta Council for Science and Technology's board of directors, I was unsure of what this would entail. While knowing of this entity, I did not make the association with the acronym. He went on to explain my role further and I realised how apt my mission was. I was asked to raise the profile of the The Malta Council for Science and Technology, make science popular by engaging more children and young adults, and to facilitate research in Malta. In fact, as chairman, I emphasise the fact that it is not just the The Council that needs to be given a higher profile in Malta, but also science and science-related matters.

At the time I was very excited and over the past few months my excitement has only grown. It is a very interesting job and we have succeeded in building a fine team. The Malta Council for Science and Technology has grown substantially of late, one of the reasons being the National Interactive Science Centre. Work is well underway, with the added benefit of restoring a site that is in a state of disrepair. An outline development permit has been obtained and The Council is in the process of selecting hands-on exhibits and activities for the Centre. Our main aim through the National Interactive Science Centre is making school-aged children realise that science is fun and relevant to their everyday lives. They are given the impression, both by parents and guidance teachers, that science is difficult. Science is not just about exams, it is part of every activity that each one of us does everyday. The project is headed out of the Science Popularisation Unit at the The Malta Council for Science and Technology who have also obtained funding through the European Social Fund for other initiatives which were all aimed at exposing school children to the sciences. Approximately ten thousand children attended each of the 2009 and 2010 Science & Technology Festivals, a 'Roving Science Fair' featured at the 10 colleges, 'Science in the Community' events were held at 6 local councils in Malta and Gozo and Arki, the robot mascot of the science-based mini-series, was aired on local T.V. stations. The Science Popularisation Unit also trained 17 individuals, mostly science teachers, in science animation skills.

[....as chairman, I emphasise the fact that it is not just the The Malta Council for Science and Technology that needs to be given a higher profile in Malta, but also science and science-related matters.]

Our primary role is that of an advisory body to Government on science and technology policy. As part of the renewal of the Research & Innovation (R&I) Strategy the Policy Unit at The Council has been heavily involved with the Ministry of Education in an effort to improve the quality of the National curriculum and attract students into the right areas at the right levels – secondary, tertiary and beyond. One such proposal is a new post-doctoral scheme to complement existing schemes such as MGSS, STEPS and preferential stipends. Through the renewed Strategy, the The Malta Council for Science and Technology will also provide a greater focus within the four priority areas of Health & Biotechnology, Value-Added Manufacturing, ICT and Energy & Environment, to generate the human resources required to sustain the intended economic growth in Malta in these areas.

On the subject of developing synergies, I am a strong believer in taking a holistic approach by collaborating with all stakeholders. The Malta Council for Science and Technology strives to work closely and maintain open relationships with the likes of the Ministry of Education, University of Malta, Malta College for Arts, Science and Technology (MCAST) and Malta Enterprise, Chamber of Engineers, Malta Chamber of Commerce, Enterprise and Industry, MIMCOL and Gozo Business Chamber. Our relationships with other entities, however, are not limited to our shores. We are in the process of setting up a bilateral collaboration agreement with Jordan and finalising a memorandum of understanding with China with the goal of encouraging technology transfer in science and technology based R&I.

As The Malta Council for Science and Technology, we are also responsible for awarding local funds through the National R&I Programme and enticing the local community to apply for funds under the 7th Framework Programme. Apart from the intended effect of contributing towards building a knowledge-based economy, these funds support many individuals in obtaining a Master's or Doctorate degree by participating in projects funded through these mechanisms.

The National R&I Programme, administered by the National Funding Unit, for example, requires industry-academia collaborations. This means that education is not restricted to schools, colleges and university but goes as far as creating skills within the workforce. The Programme also gives researchers and employees the possibility to go through the motions of executing an externally funded project, which helps researchers considerably in accessing the larger EU funds. Through the auditing procedure, we are then able to monitor the success of the Programme in impacting the national strategies, which in turn allows us to constantly improve the Programme to address the country's needs. The Manufacturing Research Platform, a European Regional Development Funded project led by the same unit, promotes research in the area of higher value-added manufacturing. The aim of this project is to show local companies how accessible and important research is in providing a competitive edge. Again, this works towards developing a more skilled workforce while also generating highly applicable research matter due to its being industry-driven.

My position as a standing and acting member of parliament is an advantage for The Malta Council for Science and Technology. It ensures that I am regularly in direct contact with other key figureheads which helps us get the ball rolling in a number of areas. All my colleagues have shown great support, one example being the 57% increase in the budget for the National R&I Programme 2011, bringing it up to € 1.1 million.

I also have the good fortune of working with a very varied and enthusiastic board of directors. We have high level representation from local higher education institutes, Malta Enterprise, local industry and other scientifically-oriented professionals. The members are very active, focused and give constructive input.

There is always more to be done, however, as you read through this Annual Report for 2010, I have no doubt you will agree that much has been achieved in spite of the budgetary constraints. Without me blowing our collective trumpets, I can say, hand on heart, that we are doing our best! My objective, and also that of the The Malta Council for Science and Technology as an entity, is the one given to me by the Prime Minister – making science more popular and establishing the Interactive Science Centre – while always insisting on the highest standards. I am satisfied with the support we are getting, and will hopefully continue to get, in every respect. As we look forward to 2011, we are committed to our efforts with the National Interactive Science Centre and carrying out the sterling work in supporting researchers.

Message by The Vice Chairman & CEO

The Malta Council for Science and Technology is now receiving unprecedented attention and support. As the organisation has grown three-fold in the space of a few months, and is already starting to deliver results to show for it, I am more and more pleased with my decision to accept the challenge of revamping the organisation.
The recent restructuring of the entity has increased the operational capacity of the existing units within the Malta Council for Science and Technology and brought about an entirely new Science Popularisation Unit. The latter, having organised several science popularisation events, will soon comprise a total of six full-time and 4 part-time employees who will focus their attention solely on the National Interactive Science Centre after being allocated an initial fund of €1.5 million to kick-start the effort. Apart from allowing for the recruitment of additional staff, the fund covers initial studies, researching and designing content for the centre, issuing tenders and so on.

Advising government on science and technology policy being one of the main remits of the Malta Council for Science and Technology, the Policy and Strategy Unit has been strengthened to include another full-time employee. Apart from the tremendous work being executed on the renewed National R&I Strategy, there are now the resources available to delve further into the details of developing a new Innovation Strategy and for improved ratings in the European Innovation Scoreboard. Malta has registered an improvement in its innovation performance when compared to the previous year, moving from the 4th category of 'catching up countries' to the 3rd category of 'moderate innovators'. Having an average rate of improvement above that of the EU27, Malta's relative strengths lie in Finance and support, and Economic effects.

As part of this work, the econometric workings behind the national target presented through the Innovation Union initiative were developed. In parallel, the unit has also started working on a dedicated Health Research Strategy, being one of the four priority areas for Malta.

The project ERA-PRISM taking place in 9 countries with a budget of over €1 million, which aims to recommend more tailored solutions for R&I policy across the EU member states, is also being coordinated by the Policy & Strategy Unit.

The National Funding Unit was also increased by one full-time member of staff. In 2010 the unit financed the first tranche for the three projects awarded through the 2009 Programme and awarded five projects through the 2010 Programme. The Malta Council for Science and Technology has secured a substantial increase in allocation for the 2011 edition and has also set up a new standard schedule for the Programme, increasing its efficiency. In an effort to offer a more comprehensive service, we are in the process of investigating the options for a Commercialisation Programme that aims to take successful research to market increasing the opportunity for reaping the economic benefits. This unit is also leading the Manufacturing Research Platform, which, apart from carrying out research in highly applicable areas related to manufacturing, will develop a Manufacturing Research Strategy for Malta. Again, this is one of Malta's four priority areas especially in the case of high value added manufacturing and deserves due attention.

The FP Funding Unit has been expanded to include an additional two full-timers and four part-timers. The FP7 fund, a fantastic opportunity for local researchers and businesses to tap into, is heavily promoted and supported by this unit. To date, projects funded through the Seventh Framework Programme (FP7) have brought over 8 million Euros to Malta and range from robots for picking mushrooms to tactile displays for the visually impaired, micro combined heat and power systems to multiparametrical monitoring of patients. However, given that the EU distributes €50 billion through this Programme, there is certainly an opening for increasing the level of local participation.

As we are committed to reaching the objectives set out for us, we have given the raising of the Council's profile much importance. The new year will bring a new identity through re-branding and a revamped, more interactive website. Efforts to increase the press coverage received by the Malta Council for Science and Technology and its success stories is already underway.

The Malta Council for Science and Technology is not only figuratively increasing its presence in science-related matters in Malta, it has also opened up the doors of the beautiful Villa Bighi to host a number of events. Two CERN workshops were also held here for which the topics of discussion were the road map for the continuation of the EU-CARD project and the official kick-off for planning the upgrade of CERN's Large Hadron Collider. This meeting, now known as the 'Malta Workshop' was attended by world-class scientists in the area representing laboratories like Berkley Lab (U.S.), Fermilab (U.S.), Brookhaven National Laboratory (U.S.), DESY (Germany), CEA (France) and J-PARC (Japan). In addition, Dr. Anneli Pauli, Deputy Director-General for Research in the EC, visited Malta for a working session on how to boost research in Malta through the European Research Area.

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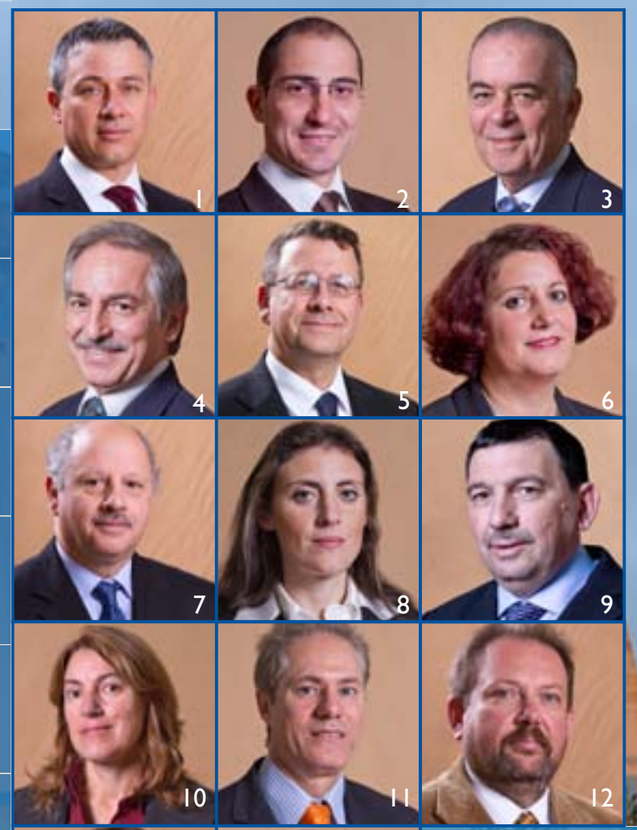
The Malta Council for Science and Technology is also working to allow Maltese researchers to participate in top notch research and gain access to world renowned research infrastructures. These particularly include the European Organisation for Nuclear Research (CERN), the European Space Agency (ESA), the European Molecular Biology Laboratory (EMBL), The European Southern Observatory (ESO) and the International Thermonuclear Experimental Reactor (ITER) amongst others.

Apart from the core work being carried out by the different units, the Malta Council for Science and Technology participates in a myriad of other projects which form an important part of policy-making and the R&I ecosystem. Through such projects, for example, the Malta Council for Science and Technology represents Malta abroad in the various committees and international meetings. These include, but are not limited to the, European Research Area Committee, Enterprise Policy Group, Steering Group on Human Resources and Mobility, European Strategic Forum on Research Infrastructures, High-Level Group on Joint Programming, Strategic Forum on International Scientific and Technological Cooperation and many more. We have also recently placed a larger focus on the COST Programme. Once the Malta Council for Science and Technology fostered COST and allocated the proper resources, the local participation in the Programme saw a ten-fold increase in 2010 versus 2007.

I am very proud to be part of the leadership of this entity and of the progress it has made in the last 12 months. As I look forward to 2011, the limelight will be on the renewed National R&I Strategy, Research Infrastructures, the National Interactive Science Centre and the Commercialisation Programme, for which I have no doubt we will be able to carry the same momentum into the year ahead.

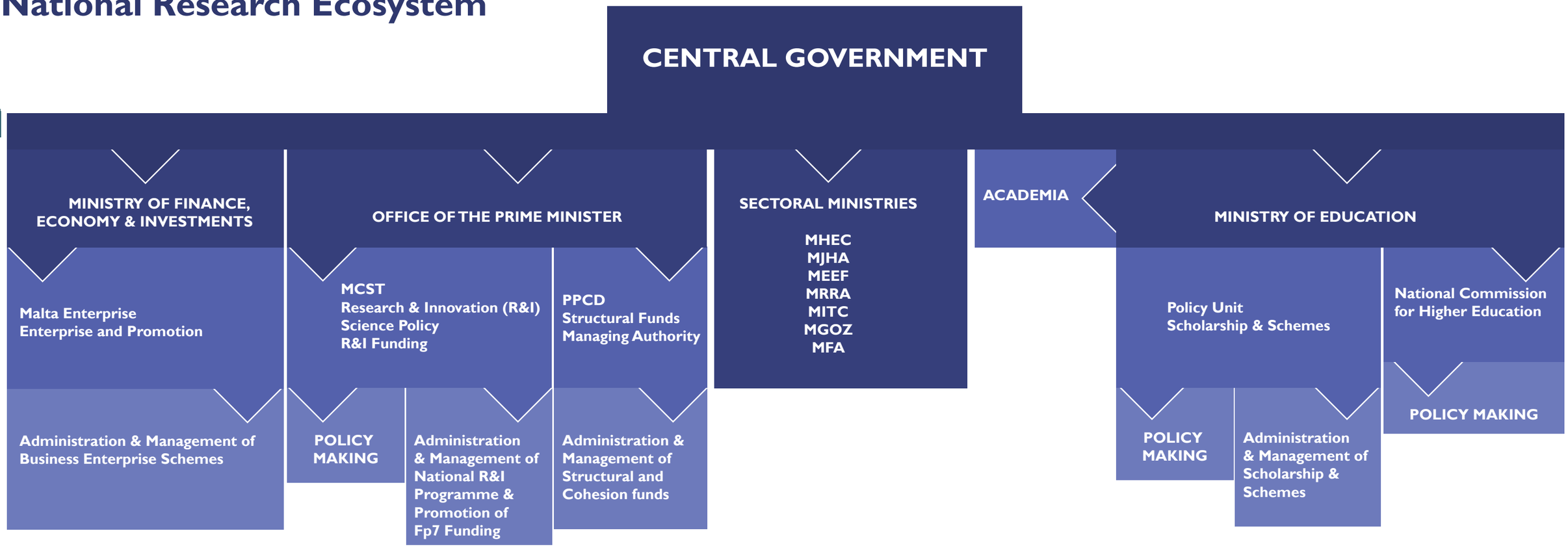
The Board of Directors



Chairman 1. Hon. Dr. Jeffrey Pullicino Orlando
Vice Chairman & CEO 2. Dr. Ing. Nicholas Sammut
Members 3. Mr. Anthony Tabone
4. Prof. Maurice Grech
5. Ing. Joseph Sammut
6. Dr. Susanne Gatt
7. Prof. Alfred Vella
8. Dr. Marisa Cassar
9. Mr. Charles Saliba
10. Dr. Claire Bartolo
11. Dr. Alec Lapira
12. Mr. Charles Theuma
13. Ing. Silvana Falzon

Board Secretary 14. Dr. Alex Perici Calascione

National Research Ecosystem



The national ecosystem for research and innovation, related setup and structures for nurturing that system have undergone considerable change in the last decade but the Malta Council for Science and Technology has consistently played a pivotal role in steering the R&I capacity-building process.

Set up in 1988, the Malta Council for Science and Technology is the national advisory body to Government on science and technology policy, with an emphasis on research and innovation, and currently forms part of the Prime Minister's portfolio. This signifies the high profile assigned to research and innovation by Government.

Over the years The Malta Council for Science and Technology has played an important function in identifying research and innovation approaches to address national challenges, with the setting up of public-private networks in the area of information and communications technologies, water, marine sciences, energy, and industrial applications. These networks and the vision conferences which some of them instituted, were ahead of their time, and lead to foresight-type open approaches to the development of long-term strategies. A particular success story is the National Strategy for Information Technology, a comprehensive exercise lasting almost a year, which led to a coordinated set of policy initiatives implemented in the telecommunications, education and business sectors.

Another important milestone was the launch of the first National Science and Technology Policy Document endorsed by the Maltese Government in 1994 detailing a list of priority areas and themes and a number of cross-cutting issues. This year was also significant as The Malta Council for Science and Technology was granted a more permanent seat at Villa Bighi in Kalkara.

In 2000, The Malta Council for Science and Technology embarked on a major effort to upgrade its policy and foresight capacity and the National Research, Technological and Innovation Audit was launched aimed at developing a more in-depth snapshot of R&I capacity. A parallel technology foresight exercise was launched addressing the areas of the knowledge society, biotechnology and marine sciences. The results of this work provided an input for the first RTDI Strategy launched by The Malta Council for Science and Technology in 2003 which lead to the setting up of the National RTDI Programme. The latter has proven highly successful and is significantly over-subscribed.

A number of strategic changes to improve R&I governance and institutional structures were introduced in 2005 which gave research and innovation a much-needed higher profile on the national agenda. In 2006 a major consultation process was started to prepare for the launch of the National Strategic Plan for R&I for 2007-2010, featuring over 65 recommendations and a number of key performance indicators which were approved by Government in July 2006. This Plan featured a strong business orientation and the focus of R&I investments on a reduced set of national priorities, namely ICT, health and biotechnology, energy and environment and value-added manufacturing and services.

The Council's role has grown over the years due to EU accession and the growing agenda for R&I. The Malta Council for Science and Technology is currently responsible for R&I policy and for advising government on Science and Technology policy. It also manages the National R&I Funding Programme and is the National Contact Organisation for the EU's 7th Research and Development Framework Programme (FP7). The Malta Council for Science and Technology plays a key role in the preparation of national strategic documents and has recently embarked on a broad consultation and reflection process to formulate the National Strategy for R&I (2011-2020). The Malta Council for Science and Technology works closely with other players in the research and innovation ecosystem to design effective joint policies.

The Team

Advisory Board of Directors

Hon. Dr. Jeffrey Pullicino Orlando (Chairman)
Dr. Ing. Nicholas J. Sammut (Vice Chairman)
Dr. Alex Perici Calascione (Board Secretary)
Prof. Maurice Grech (Principal MCAST)
Prof. Alfred Vella (Pro-Rector UoM)
Mr. Anthony Tabone (Malta Chamber of Commerce, Enterprise & Industry)
Mr. Charles Theuma (Principal St. Martins Institute)
Dr. Marisa Cassar (Industry)
Dr. Claire Bartolo (Industry)
Dr. Suzanne Gatt (UoM)
Ing. Silvana Falzon (Industry)
Dr. Alec Lapira (Medicine)
Charles Saliba (Industry)
Ing. Joseph Sammut (Malta Enterprze)

CEO
Dr. Ing. Nicholas J. Sammut

Contractors

Prof. Chris Scerri – Health R&I Strategy
Dr. Gordon Cordina – Health R&I Strategy

Assistant to Chairman
Nicholas Schembri

Geological Service
Peter Gatt (studying abroad)

Director Strategy, Policy & FP Funding
Dr. Jennifer Cassingena Harper

Strategy and Policy

Executive S&T Officer
Ramona Saliba Scerri

Economist / Innovation Policy Executive
Christine Perici

National Delegates

Dr. Janet Mifsud – COST National Coordinator
Dr. Ing. John Betts - Space
Prof. Ing. Joseph Micallef – ESFRI and ERIC
Prof. Salvinu Busuttil - EUROCEAN
Dr. Ing. Anton Bartolo – ERAC Knowledge Transfer Group and GPC
Christine Scholz – ERAC SGHRM
Dr. Brian Warrington - ERAC SGHRM
Jacqueline Fenech – ERAC SGHRM
Dr. Aldo Drago – GMES Committee
Dr. Marion Zammit Mangion – Women in Science

FP Funding

FP7 National Coordinator
Anthea Fabri

FP7 Executive
Diana Spiteri
Marie Claire Tonna

Ing. Alexandra Camilleri (PT)
Ian Gauci Borda (PT)
Prof. Ing. Jonathan Borg (PT)
Dr. Ing. Carl Debono (PT)
Karen Fiorini (PT)
Joanna Pullicino (PT)
Dr. Brian Warrington (PT)
Moira Dillon (PT)
Stephanie Vella (PT)
John Paul Borg (PT)
Dr. Mark Mifsud (PT)

Affiliates

Mark Azzopardi (Expert)
Johan Caruana
Dr. Ing. Saviour Zammit (FP 7 & ERIC)
Dr. Maria Attard JRC NCP (Expert)
Dr. Ing. David Zammit Mangion

Director National Funding
Eric Flask

National Funding

Executive S&T Officer
Martina Eggert

ERDF (Manufacturing Platform)
Jonathan Borg (PT)

Director Science Popularisation
Melanie Giorgi

Science Popularisation

Interactive Science Centre
Executive S&T Officers
Christopher Bugeja
Martina Castillo
Elena Yasnetskaya
Elaine Manicaro
Isabelle Fereday (PT)
Rachel Blackburn (PT)
Elton Micallef (PT)
Emily Tozzi (PT)

Financial Controller
Charles Attard Bezzina

Finance

Accounts Executive
Rosanna Schembri

CEO's Office

Administration

Personal Assistant
Christine Grixti

Receptionist/Secretary
Marion Attard Bezzina

Marketing & PR Executive
David Micallef St. John

Assistant Administration Executive
Joseph Borg Camilleri

Support staff

Gianni Baldacchino (Messenger)
George Mifsud (Forman)
Alan Ellul (Maintenance)
Mario Falzon (Maintenance)
Jesmond Fava (Maintenance)
Tarcisio Fenech (Maintenance)
Emmanuel Seychell (Maintenance)
Joseph Ellul (Maintenance)
Vanessa Borg (Cleaner)

Policy & Strategy

1. Dr Jennifer Cassingena Harper - Director
2. Ms Christine Perici - Executive Officer - Innovation Policy
3. Ms Ramona Saliba Scerri - Executive Officer - Research Policy
4. Mr Ian Gauci Borda (PT)

Policy & Strategy Unit

The main objectives of the Policy and Strategy Unit are:

- to evaluate policies for R&D and Innovation;
- to draft strategies for R&D and Innovation;
- to monitor policy developments at EU level, participation in EU forums and provision of support to participation at the Ministerial level.
- to support other Ministries in R&I policy issues which are of relevance to them, for example the National Reform Programme.

The Unit is headed by Dr Jennifer Cassingena Harper. The members of the Unit are Ms Ramona Saliba Scerri (Executive Officer – Research Policy) and Ms Christine Perici who joined the unit in mid-2010 as the Executive Officer responsible for Innovation Policy, thus strengthening capacity in innovation policy and strategy at The Malta Council for Science and Technology. Support is also provided by Mr Ian Gauci Borda, Dr Brian Warrington, Dr Ing Anton Bartolo, Prof Joseph Micallef, Dr John Betts, Ms Stephanie Vella and Ms Joanna Pullicino.

Participation in the European R&D and Innovation Policy Sphere

Representation in and Support to Council

During 2010, the Policy and Strategy Unit within The Malta Council for Science and Technology continued its work of providing policy advice to government on research and innovation issues and the relevant preparation of official positions. The Unit provided support to the development of a national position on policy issues debated in various Council formations, in particular the Research Working Party and the Competitiveness Council. The launch of the Flagship Initiative "Innovation Union" was a key development during this year and the Policy and Strategy Unit undertook several consultations with stakeholders in relation to this dossier. The Europe 2020 Strategy defines three mutually reinforcing priorities which should be the basis for further growth, namely smart, sustainable and inclusive growth. Research and innovation supports smart growth through the development of an economy which is based on knowledge and innovation by improving the quality of education, strengthening research performance, promoting innovation and knowledge transfer, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges.

Representation in Other Groups

Besides representation in the Research Working Party and provision of support for COREPER and Council, the Policy and Strategy Unit represented the Maltese Government in several other European forums.

European Research Area Committee (former "CREST" - ERAC)

A strategic policy advisory body set up as 'CREST in the early 1970s. In 2010, the Council revised CREST's mandate and renamed it as ERAC. ERAC's aim is to assist the European Commission and the Council of the European Union in performing the tasks incumbent on them in the sphere of R&D and Innovation. In 2010, ERAC worked, among other issues, on ERA instruments and synergies, indicators and the FP7 interim evaluation. Malta's delegates to ERAC are Dr Ing. Nicholas Sammut and Dr Jennifer Cassingena Harper. The alternate ERAC delegates are Ms Ramona Saliba Scerri and Mr Ian Gauci Borda.

European Research Area

Enterprise Policy Group (EPG) sub-group on Innovation

In 2010, Dr Jennifer Cassingena Harper represented Malta on the EU EPG sub-group on innovation. The Enterprise Policy Group was set up by Commission Decision 2000/690/EC in order to provide the Commission with specialist expertise on enterprise and industrial policy issues. It consists of two chambers, the first comprising representatives from the Member States, the second comprising eminent persons from business. The sub-group on innovation provides specialist advice on innovation policy issues in particular the Lead Markets Initiative and, more recently, the Innovation Union.

Steering Group on Human Resources and Mobility (SGHRM)
The SGHRM has been active since 2002 and is tasked with the responsibility to promote, monitor and report on the implementation of the Researchers' Partnership at EU and national levels and on other ongoing researchers-related activities (e.g. EURAXESS activities, the European Charter and Code of Conduct for the Recruitment of Researchers, and the "Scientific Visa"). In 2010, a key area of activity was the redevelopment and enhancement of the EURAXESS portal, automatic harvesting of job posting from other portals and activities aimed at promoting the portal. Other initiatives include the publication of the European Framework for Research Careers and the Mapping Exercise on Doctoral Training. Malta's representative to the SGHRM is Dr Brian Warrington.

European Strategic Forum on Research Infrastructures (ESFRI)
ESFRI was set up in 2002 by the Competitiveness Council, initially for informal consultations on strategic issues related to Research Infrastructures. ESFRI was mandated in 2004 to prepare a European Strategic Road map for Research Infrastructures. In 2006 a list of 35 Research Infrastructure proposals was presented, updated to 44 proposals in 2008. ESFRI has five thematic working groups: 'Physical Sciences and Engineering'; 'Biological and Medical Sciences'; 'Social Sciences and Humanities; 'Environmental Science'; 'Energy' and the 'e-Infrastructure Reflection Group'. During 2010 the second update of the European Road map for Research Infrastructures was undertaken with the aim of describing the infrastructural needs of Europe for the next 10 to 20 years and identifying vital new European research infrastructures, including medium-sized infrastructures. A further update of the ESFRI Road map for 'Energy', 'Food' and 'Biology' was also undertaken. Malta's delegate to the ESFRI is Prof Joseph Micallef.

The European Research Infrastructures Consortium (ERIC) Committee
The ERIC Committee was set up by Article 20 of Council Regulation 723/2009. This regulation seeks to facilitate the joint establishment and operation of European research facilities while enjoying many of the advantages and tax exemptions applicable to international organisations. Members of an ERIC can be states and intergovernmental organisations. At least three Member States must agree to establish and operate together a research infrastructure. The members of an ERIC establish statutes ruling governance, IPR policy, financing, etc. of the ERIC. During 2010, the ERIC Committee held discussions on the establishment of the first ERIC, to be formally established in early 2011. This ERIC (entitled SHARE) will be a cross-border databank focussing on population ageing. Malta's delegate to the ERIC Committee is Prof Joseph Micallef.

The ERAC Working Group on Knowledge Transfer
This group was set up as a result of the Council Resolution on the management of intellectual property in knowledge transfer (KT) activities and Code of Practice for universities and other public research organisations – "IP Charter initiative" which was adopted on the 30th May 2008. The main aims of the group are to exchange information on the status and progress of national and Commission policies and initiatives to promote and enhance knowledge transfer. The group also strives to identify and disseminate good practices relating to policies and programmes for improving knowledge transfer and the management of intellectual property, both at a national level and across borders. During the first two years since the group was set up various works were undertaken in order to identify indicators for measuring progress in implementing the Recommendation and Code of Practice. In this regard a number of reviews were carried out on initiatives taken at national levels to implement the Recommendation and Code of Practice. In addition, the working group also identified specific issues related to international knowledge transfer (i.e. beyond the EU) and worked on the development of practical guidelines where appropriate. A draft of the guidelines for stakeholders for the management of IP in cooperation with non European partners was prepared during 2010. In addition, a substantial amount of work was undertaken in terms of indicators which will provide feedback and facilitate the Commission's study on monitoring the implementation of the KT Recommendation. During the same year the group also presented a 'Draft Report of ERAC Working Group' focusing on the implementation of the IP-Recommendation within the different Member States. Malta's delegates for the Working Group on Knowledge Transfer are Ms Christine Perici and Dr Ing Anton Bartolo.

High-Level Group on Joint Programming
Research effort needs to be tailored to addressing major societal challenges, such as food security, climate change and water. Given their magnitude, these challenges cannot be addressed effectively by Member States individually and a concerted approach which minimizes fragmentation in research efforts is needed. This group seeks to address this matter. By the end of 2010, this group had identified 9 themes and had agreed on nonbinding framework conditions. The Policy and Strategy Unit was responsible for disseminating information on emerging themes and initiatives to potentially interested public entities and followed up in providing additional information and support. These efforts helped Malta (represented by Transport Malta) to eventually join one Joint Programming Initiative (JPI) entitled 'Urban Europe'. The aim of this JPI is to rethink and manage the dynamics of urban development in Europe in order to sustain and enhance urban areas. This JPI aims to tackle some of the fundamental problems modern economies and societies living in cities are facing today. Until September 2010, Malta's delegate to the GPC was Ms Ramona Saliba Scerri. Dr Ing Anton Bartolo and Mr Eric Flask were appointed GPC delegates in September 2010.

Strategic Forum on International Scientific and Technological Cooperation (SFIC)
SFIC is a dedicated configuration of ERAC. Its objective is to facilitate the further development, implementation and monitoring of the international dimension of ERA. In practice, this means sharing information and consultation between the partners (Member States and the Commission) with a view to identifying common priorities which could lead to coordinated or joint initiatives. The group also aims at coordinating activities and positions vis-à-vis third countries and within international fora. The main achievements so far include the success of the first pilot initiative for cooperation with India. This will shortly translate into a dedicated program for cooperation on 'water' as a pilot initiative. Malta's delegate to SFIC is Mr Ian Gauci Borda.

High Level Space Policy Group
This group brings together representatives of the 29 ESA and/or EU member states, though not at the Ministerial level. The Group serves as a meeting point for discussing the practical implementation of the European Space policy and programme. The group also prepares the meetings of the Space Council. During 2010 the High Level Space Policy Group was involved in drafting the 7th Space Council Resolution which was signed at the Space Ministerial Council in November 2010. This resolution included issues concerning governance, partnership with Africa, a European vision on space exploration, security issues, the use of space for climate change, the successful and sustainable exploitation of the flagship programmes (GMES and GALILEO) and a strategy for further investment in space exploration. Malta's delegates to the High Level Space Policy Group are Dr Ing. Nicholas Sammut, Dr Ing. John Betts and Mr Ian Gauci Borda.

Fusion for Energy (F4E) Governing Board
The F4E Governing Board brings together representatives from all the members of F4E is responsible for taking a number of important decisions and supervising its activities. The Governing Board is responsible for the supervision of F4E in the implementation of its activities. It makes recommendations and takes decisions on a wide range of matters related mainly to Fusion and its main activity the ITER project. 2010 has been a decisive year for the ITER project and the Governing Board was heavily involved in preparing the backing needed for the Ministerial decision which decided that the ITER construction will be undertaken by the European Union as planned with a new ITER agreement which was also signed with the ITER International Partners. Malta's delegates for the Fusion for Energy Governing Board are Mr Ian Gauci Borda and Dr Ing. Nicholas Sammut.

Board of Governors of the Joint Research Centre
Dr Jennifer Cassingena Harper represents Malta on the EU Joint Research Centre (JRC) Board of Governors, which is composed of high level representatives from EU Member States and FP7 Associated States. The JRC Board advises the Director-General and the Commission on matters relating to the strategic role of the JRC and its scientific, technical and financial management. Individual members have also an important role in representing the interests of the JRC in their own country. In order to address in-depth more specific issues, the Board sets up "ad-hoc groups" which report their findings at the following plenary meetings. Dr Cassingena Harper has been active in the 'Corporate Strategy' ad hoc group and is currently a member of the 'Communications' ad hoc group.

The Monitoring Committee for Euro-Mediterranean Cooperation in RTD (MoCo)

This is a forum which brings together Senior Official representatives from the Mediterranean Partner Countries (MPC) and the EU Member States and Associated Countries, responsible for RTD issues. It has been established in the context of a Euro-Mediterranean Partnership and as a follow-up of the Barcelona Process, and plays a central role in monitoring and stimulating the Euro-Mediterranean cooperation in RTD. Last year the MoCo met once in Spain under the Spanish Presidency, where the main activity was the agreement on a Resolution on future and further Mediterranean cooperation in RTD. Malta's delegates for MoCo are Ms Joanna Pullicino and Mr Ian Gauci Borda.

The Policy and Strategy Unit was also responsible for organizing the visit to Malta of Dr Anneli Pauli, Deputy Director General at the European Commission's Directorate General for Research on June 25th 2010. The aim of the visit was that of discussing the five ERA initiatives and the overall Ljubljana Process to develop ERA vision and governance. Dr Pauli's visit to Malta on June 25th was based on the theme of the five ERA initiatives and a small Member State's perspective to active participation and involvement in making the ERA a reality. This approach was chosen by The Malta Council for Science and Technology as a means for using this visit as an opportunity to increase the European Commission's awareness of Malta's particular research and innovation context. During the meeting, The Council emphasised the national research and innovation landscape and challenges faced in relation to the various ERA initiatives, while Dr Pauli showed the Commission's work on ERA including human resources, infrastructures, joint programming, international cooperation and governance.

The EU 2020 Initiative and Malta's New R&D Target

In order to catalyse progress under each priority theme, the Europe 2020 Strategy puts forward seven flagship initiatives, one of which, the Innovation Union Flagship Initiative focuses specifically on innovation. The overarching objectives of this flagship is to re-focus R&D and innovation policy on the challenges society is facing, such as climate change, energy and resource efficiency, health and demographic change. Every link should be strengthened in the innovation chain, from 'blue sky' research to commercialisation. The Innovation Union seeks to utilise public sector intervention to stimulate the private sector as well as remove the bottlenecks which stop ideas reaching the market. These include lack of finance, fragmented research systems and markets, under-use of public procurement for innovation and slow standard setting.

In the Innovation Union Flagship Initiative, the Commission proposed the establishment of headline targets which should then translate into national targets and trajectories to reflect the current situation of each Member State. The EU headline target of 3% R&D expenditure as a percentage of GDP by 2020 was endorsed by the Heads of States at the European Council meeting of the 17th June 2010. The Policy and Strategy Unit was responsible, in collaboration with the Ministry for Finance, Economy and Investment, for working on the models which led to the setting of the national R&D target as part of the implementation of the Europe 2020 strategy. The Unit also worked on identifying and proposing measures to be included in the National Reform Programme 2011-2015, with the aim of working towards the achievement of this target.

Policy projects

ERA-PRISM

Dr Jennifer Cassingena Harper, is coordinating the EU FP7 project entitled 'Policies for Research and Innovation in Small Member States' (ERA-PRISM). The ERA-PRISM project addresses the need to move beyond a one-size-fits-all research and innovation policy mix for EU Member States and to take account of the inherent differences in context, resources and scale affecting small countries. The project brings together small European countries and larger Member States which have traditional/historical links in research and innovation with a view to developing collaborative policies and initiatives. Through the ERA-PRISM project, small countries aim, with the support of larger EU Member States, to work on defining small country-specific policy responses to the key emerging R&I policy challenges and developing an appropriate balance of demand and supply side policies. Efforts focus specifically on the lead markets initiative, innovative and green public procurement including pre-commercial public procurement, R&D indicators and frameworks for research funding. The project addresses these challenges through policy coordination activities and foresight approaches within the context of a mutual learning environment open to both active partners in the project and other member states and regions. A mutual learning platform was set up to maximize the beneficial exchanges. In 2010, the project's main work focused on organising a series of Policy Dialogue Workshops addressing key EU and small country concerns, namely ERA Indicators (Paris), Public Procurement for Research and Innovation (London), Innovation Policy (Riga) and Sustainability of R&I Public Funding systems (Tallinn). Briefs were prepared on each of these themes and discussed during the workshops. The surveys and reports on public procurement for R&I have been completed and a final report has been generated and circulated by DG Enterprise and DG Research and Innovation to their respective mailing lists. The main result was the development of a database of procurement case studies including a number from small countries. The Indicators work has produced a comprehensive report on input and output indicators for small countries, whilst the Funding Framework work has lead to the publication of country briefs for the small countries.

The partners in this project are Malta, UK, Estonia, Iceland, Slovenia, Sweden, Latvia, France and Luxembourg. The total project budget is €1,008,330 out of which Malta's budget is €159,368.

The Policy & Strategy Unit is also participating actively in a number of FP7 policy and foresight projects, with the support of the FP Unit.

The 'Common Impact Assessment for Optimizing the Policy Mix' (CIA4OPM) is an OMC-Net project aimed at establishing a network of policy actors from 15 European organisations (representing Belgium, France, Spain, Bulgaria, Turkey, Austria, Sweden, Iceland, Czech Republic and Malta) with the goals of information exchange and peer learning on the assessment of socio-economic impacts of public funding of Research, Technological Development and Innovation (RTDI) in the areas of: (i) enhancement of private R&D investment, (ii) improved cooperation between public research institutes and private enterprises, and (iii) improved management of research institutions and universities. The project sought to develop improved, harmonized methodologies for the alignment and coordination of impact assessment of public RTDI funding, as well as to assess the usefulness of impact assessment tools in the development of an appropriate policy mix. In this project, The Malta Council for Science and Technology was the Work Package leader of the 'Communication and Dissemination' Work Package. The final project conference was held in Brussels on 8th December 2010. The total budget received was €990,458 of which The Malta Council for Science and Technology's budget was €91,515.

The Malta Council for Science and Technology is participating in three foresight projects funded under the FP7 Blue Skies Programme. The CIVISTI (Citizen Visions on Science, Technology and Innovation) project is a European research foresight project funded by the Socioeconomic, Sciences and Humanities (SSH) Programme of FP7. The aim of the project is to identify new, emerging topics for the EU R&D policy by consulting citizens in 7 European countries (Denmark, Austria, Belgium, Finland, Malta, Bulgaria and Hungary). The CIVISTI project seeks to uncover European citizens' visions of the future and transforms these into relevant long-term science, technology and innovation issues. Two citizen consultations have been undertaken in Malta, the first in 2009 and the second in 2010. The total project budget is €910,000, of which the EC contribution is €714,000. The Malta Council for Science and Technology financial allocation under this project is €41,660.

The Malta Council for Science and Technology is also a partner in the SESTI Project (Scanning for Emerging Science and Technology Issues). SESTI aims to develop a mechanism for the early identification of newly emerging issues of importance to the European research infrastructure. By collecting weak signals and developing anticipatory intelligence, SESTI seeks to provide the means for proactively addressing these challenges at European and national level. The project builds on and adds value to existing national structures and competence in foresight and horizon scanning to create synergies and exploit complementaries. Malta's role in the project is related mainly to dissemination and reporting. Three workshops have been held to date and Maltese experts participated in these meetings. The project partners are the Netherlands, UK, Austria, Belgium and Malta. The total project budget is €733,727, out of which The Malta Council for Science and Technology's budget is €32,253.

The Malta Council for Science and Technology is also participating in the FARHORIZON project, which focuses on the use of foresight to align research with longer term policy needs in Europe. The project is aimed at addressing a perceived gap in alignment under present arrangements and argues that to develop, the European system needs a more content-oriented approach. It seeks to advance knowledge on differences across policy domains in the European Research and Innovation ecosystem in terms of the role and the integration of research agendas in long-term policies and vice-versa. It explores appropriate foresight designs needed to get engagement and secure follow-up across policy domains. The partners in the project are UK, Austria, the Netherlands and Malta. The total project budget was €282,532, out of which The Malta Council for Science and Technology had €19,028.

The 2009 Innovation Scoreboard

The results of the 2009 European Innovation Scoreboard (EIS) published in 2010, show that Malta registered an improvement in its innovation performance when compared to the previous year. Malta improved its ranking, leaving the group of catching up countries, where it was placed in 2008 and joining the 'moderate innovators' group.

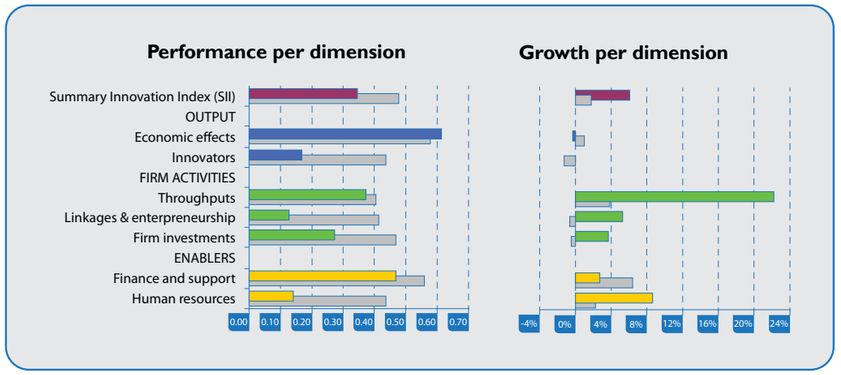
Malta's innovation performance was still below the EU27 average but its rate of improvement was above that of the EU27. Within the four identified country groups (innovation leaders, innovation followers, moderate innovators and catching up countries), growth performance is very different. The growth leaders in each group, namely Germany, Cyprus, Malta and Romania, were the EU27 countries displaying the largest improvement within their peer groups.

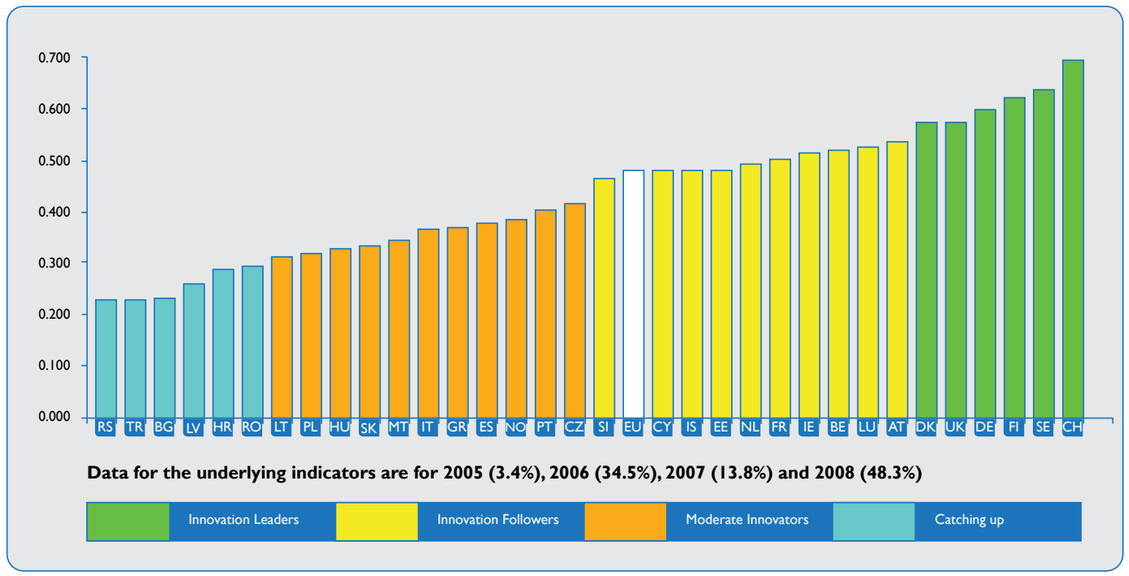
The EIS 2009 included 29 innovation related indicators with publicly available data from 2007/2008 and trend analyses for the EU27 Member States as well as for Croatia, Serbia, Turkey, Iceland, Norway and Switzerland. The 29 indicators are grouped around three categories, enablers (human resources, finance and support), firm activities (firm investments, linkages & entrepreneurship, throughputs) and outputs (innovators, economic effects).

Malta's relative strengths, compared to its average performance, were in 'finance and support' and 'economic effects' while relative weaknesses were in 'human resources', 'linkages & entrepreneurship' and 'innovators'.

Despite the relative weakness in 'human resources', Malta demonstrated an above EU27 rate of improvement and, together with Portugal, it had the overall highest rate of improvement among the moderate innovators. Malta's relative weakness in 'linkages & entrepreneurship' was offset by the fact that it was among the two Moderate innovators performing above average. With the exception of Spain, all moderate innovators showed an above EU27 rate of improvement, with Greece and Malta being among the fastest growers of all countries.

In economic effects, Malta retained above average performance. 'Throughputs' has over the last five years been the main driver of the improvement in innovation performance, in particular as a result from strong growth in EPO patents (16.2%), Community trademarks (16.5%), Community designs (23.5%) and technology balance of payment flows (33.6%). Performance in 'economic effects' has hardly grown, in particular due to a stronger decrease in new-to-firm sales (-18.4%) than the increase in new-to-market sales (16.3%). This drop in sales of new-to-firm products is due to a change in the methodology in the Maltese questionnaire.





Preparation of a New R&I Strategic Plan

With the coming to an end of the time period covered by the present National Research and Innovation Strategic Plan, the Unit has started work on the preparation of the new national R&I Strategic Plan during the second half of the year. It is envisaged that the new plan will take full consideration of policy developments in other thematic areas and policy developments at national, European and international level. Particular attention is being given to the strategic approach adopted in the EU Innovation Union, namely consideration to the whole cycle of innovation from blue sky to market. The plan will target innovation in the broadest conceptual understanding of the term by looking at the national framework conditions, societal challenges and the involvement of all actors.

To this end, the Policy Unit has embarked on a project which aims to identify those areas of the national innovation framework where added support would provide the greatest benefit for companies and for national competitiveness. In particular Malta's performance on the European Innovation Scoreboard was taken into consideration. Through an analysis of the Scoreboard indicators it will be possible to identify Malta's strengths and weaknesses in terms of innovation performance as well as establish new and potential areas which should be tapped in order to improve Malta's overall research and innovation performance. The insights gained through this exercise will also feed into the development of the new national research and innovation strategic plan.

In order to drive this work on a new R&I strategic plan, a steering group involving key local stakeholders has been set up and initial meetings were held, both with each member individually as well as through meetings of the whole group. The members of the group include Prof Richard Muscat from the University of Malta, Ing. Vince Maione from MCAST and Ing Ray Muscat from the Malta Chamber of Commerce, Enterprise and Industry, besides members from the The Malta Council for Science and Technology Policy and Strategy Unit and The Malta Council for Science and Technology's CEO. The organisational setup for the preparation of the new strategy includes five thematic groups who were and will continue to be consulted on the themes of human resources, research infrastructures, international cooperation, funding and innovation. Each group includes members representing stakeholders in the field. Other work which was undertaken as part of the preparation of the new strategic plan was a review of the performance of the 2007-2010 Strategic Plan through the key performance indicators identified in the strategy document itself. This work will continue in 2011.

Preparation of a Health R&I Strategy

The National Research and Innovation Strategic Plan identified health as a priority area of research for Malta. To this end, The Malta Council for Science and Technology embarked on the preparation of a National Health Research and Innovation Strategy and has set up a dedicated steering group to steer this process. The Steering Group is chaired by Dr Alec Lapira (The Malta Council for Science and Technology Board Member) and its members include Dr Janet Mifsud, Prof Christian Scerri, Dr Gordon Cordina, Dr Ing. Nicholas Sammut, Dr Jennifer Cassingena Harper and Ms Ramona Saliba Scerri. Work on the development of a thematic research and innovation strategy for the health sector was launched mid-2010.

The over arching aims of the Health R&I Strategy are:

- Sustainable Healthcare: to identify areas and opportunities for undertaking health research in processes, diagnostics, treatments and delivery of health care services with the objective of improving the effectiveness and efficiency in this area and of achieving long-term sustainability;
- Research Strategy: to chart the way forward and identify areas where health research should be carried out in order to obtain maximum economic and social benefit;
- Action Plan: to identify possible actions and measures that will lead to increased levels of health research activity in Malta and to increase the potential for Maltese organisations and individuals for participating in EU funding programmes in the Health thematic area.

The Strategy is aimed to dovetail with related initiatives such as government's plans for developing the healthcare sector and in particular plans for Mater Dei Hospital. This will be ensured through participation of relevant policy owners in drawing up the Strategy.

The FP Funding Unit

1. Ms. Anthea Fabri FP7 National Coordinator
2. Ms. Diana Spiteri FP7 Executive
3. Ms. Marie Claire Tonna FP7 Executive
4. Prof. Ing. Jonathan Borg (PT)
5. Ms. Joanna Pullicino (PT)
6. Dr. Brian Warrington (PT)
7. Ing. Alexandra Camilleri (PT)
8. Ms. Karen Fiorini (PT)
9. Ms. Moira Dillon (PT)

(not pictured)
Dr. Ing. Carl Debono (PT)
Ms. Stephanie Vella (PT)
Mr. John Paul Borg (PT)
Dr. Mark Mifsud (PT)

Participation in the EU's Seventh Framework Programme for Research and Technological Development (FP7)

FP Funding Unit

2010 marked a major drive on the part of the FP Funding Unit to develop a more proactive FP7 strategy which entails a targeted approach to promote participation in research projects in areas of high national priority. Discussions with key players have led to the decision to take tailored approaches to address the three main pillars the public sector, industry (in particular Small and Medium-sized Enterprises) and academia and not depend on a one-size-fits-all approach. In order to focus better on these three pillars, The Malta Council for Science and Technology has strengthened its setup by recruiting two full-time FP7 Executives. This unit has taken over lead responsibility for the core national contact point duties with a view to developing dedicated action plans for each area.

Activities of the National Contact Points

Throughout 2010, the FP Funding Unit has worked on the extension and ongoing updating of the client database and related mailing list and introducing a grouping of organisations and individuals by theme and specific research interest. Our database currently has over 700 subscribers from all sectors, public, private and academia. Updated information from the Commission, publication of calls, notifications of meetings and conferences (both locally and abroad) and specific partner searchers from project consortia are circulated through this database.

As National Contact Points (NCP) for FP7, the FP Funding Unit continued to provide valuable advice and guidance to the research community on all aspects of the Framework Programme. The Unit focused on assisting clients in partner searches; and reviewing and evaluating applications for calls for proposals including a number of The Malta Council for Science and Technology projects. The FP7 Unit has also attended a number of NCP and Programme Committee meetings abroad.

During 2010, the FP7 Unit has also organised a number of information sessions tailored to meet the needs of the Maltese research community. The information sessions focused on specific FP7 Themes enabling the participants to get an insight into the requirements of each specific call.

Furthermore, the Unit has been participating in a number of NCP Thematic Networks funded by the Commission which aim to support NCPs through training and networking with other NCP counterparts abroad.

Efforts have also been directed to collaborating with national bodies in bridging resources, so as not to create a duplication of activities, particularly with regard to Small and Medium sized Enterprises (SME) programme. This programme is of interest to a large percentage of SMEs within the Maltese islands forming 99% of local companies, and has therefore been given particular priority. The Unit has also launched the 'Brokerage Events Funding Support Scheme' through which clients are supported by funds to attend brokerage events abroad.

SEVENTH FRAMEWORK PROGRAMME

2010 Activities: Researchers' Night

For the second consecutive year, the Malta Council for Science and Technology organised the Researchers' Night event which aimed at bridging the gap between researchers and the public through interactive activities. This year, the event was organised at The Malta Council for Science and Technology's premises in Villa Bighi on the 24th of September. The activities included a debate with researchers, an EU corner promoting Maltese companies which have benefited from FP7 funding, an educational play for children and a game show involving both local researchers and artists. The Researchers' Night was also aired on TVM between 20:40 and 23:00.

Areas : Cooperation

Health

The objective of Health research under FP7 is to improve the health of European citizens and boost the competitiveness of health-related industries and businesses, as well as address global health issues. The Health theme is a major theme of the Cooperation programme and the EU has earmarked a total of €6.1 billion for funding this theme over the duration of FP7.

Within Health, priority is given to biotechnology, generic tools and technologies for humans, translating research for human health, optimising the delivery of health care to European citizens, inclusion of 'high-tech' SMEs in most projects throughout the work programme as well as international cooperation.

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Food, Agriculture & Fisheries & Biotechnology

The primary aim of funding Food, Agriculture & Fisheries and Biotechnology research theme under the FP7 is to build a European Knowledge Based Bio-Economy (KBBE). The EU Member States have earmarked more than €1.9 billion for funding this theme over the duration of FP7. The 'Food, Agriculture & Fisheries, and Biotechnology' theme is built around three major activities:

- sustainable production and management of biological resources from land, forest and aquatic environments;
- fork to farm: food (including seafood), health and well-being;
- life sciences, biotechnology and biochemistry for sustainable non-food products and processes.

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Information and Communication Technologies (ICT)

The objective of ICT research under the EU's Seventh Framework Programme is to improve the competitiveness of European industry, as well as to enable Europe to master and shape the future developments of these technologies for the demands of its society and economy to be met.

FP7 research activities will strengthen Europe's scientific and technology base and ensure its global leadership in ICT, help drive and stimulate product, service and process innovation as well as creativity through ICT use, and therefore, ensure that ICT progress is rapidly transformed into benefits for Europe's citizens, businesses, industry and governments. The EU Member States have earmarked a total of €9.1 billion for funding ICT over the duration of FP7, therefore, making it the largest research theme in the Cooperation Programme, which is itself the largest specific programme of FP7 (64% of the total budget).

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Nanosciences, Nanotechnologies, Materials and New Production Technologies (NMP)

The core objective of the NMP theme is to improve the competitiveness of European industry by generating the knowledge required to transform it from a resource-intensive to a knowledge-intensive industry. NMP research also aims to strengthen the competitiveness of European industry by generating 'step changes' in a wide range of sectors and implementing decisive knowledge for new applications between different technologies and disciplines.

Funding the NMP research theme will benefit new, high-tech industries and higher-value, knowledge-based traditional industries, with a special focus on the appropriate dissemination of research results to SMEs.

The transformation of European industry into a knowledge-intensive one is essential in order to produce high added value products, which in turn is crucial to create new industries, and meet customer requirements as well as growth, environmental, health and other societal expectations. The EU Member States have earmarked a total of €3.5 billion for funding this theme over the duration of FP7.

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Energy

The objective of Energy research under FP7 is to aid the creation and establishment of the technologies necessary to adapt the current energy system into a more sustainable, competitive and secure one. It should also depend less on imported fuels and use a diverse mix of energy sources, in particular renewables, energy carriers and non polluting sources.

It is important, due to the growing global demand for energy to power economic development and growth demands through development of cost-effective technologies for a more sustainable energy economy for Europe (and world-wide), ensuring that the European industry can compete successfully on the global stage. In this context, the EU Member States and the European Parliament have earmarked a total of €2.35 billion for funding this theme over the duration of FP7.

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Environment

The main objective of research for the environment under FP7 is to promote the sustainable management of both the man-made and the natural environment and its resources. To this end, increased knowledge on the interaction between the climate, the biosphere, ecosystems and human activities is sought and new environmentally-friendly technologies, tools and services are developed.

As environmental problems extend beyond national borders and natural resources are under pressure, Europe needs a new sustainable relationship with the environment. Funding in this area will also improve competitiveness and strengthen the position of European industries in world markets for environmental technologies. The EU has earmarked a total of €1.9 billion for funding this theme over the duration of FP7.

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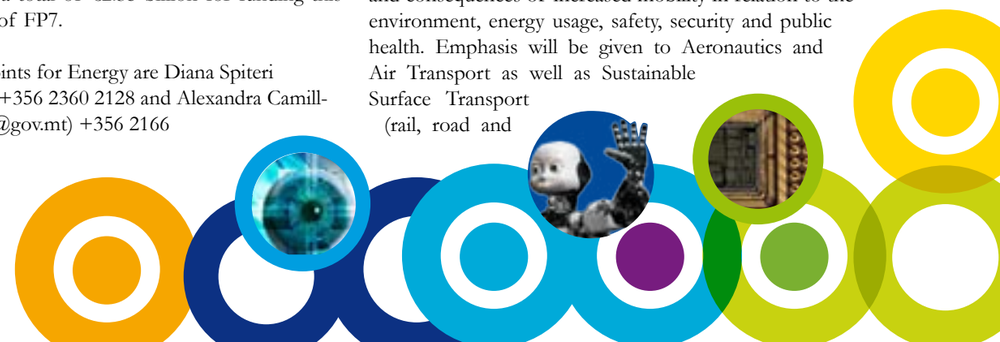
Transport

The central objective of Transport research under FP7 is to develop safer, greener and smarter transport systems for Europe that will benefit citizens, respect the environment, and increase the competitiveness of European industries in the global market.

While the European transport system has a crucial role in the transportation of people and goods and is essential to Europe's prosperity, ways must be found to mitigate the negative impacts and consequences of increased mobility in relation to the environment, energy usage, safety, security and public health. Emphasis will be given to Aeronautics and Air Transport as well as Sustainable Surface Transport (rail, road and



waterborne). The EU Member States have earmarked a total of €4.16 billion for funding this theme over the duration of FP7.

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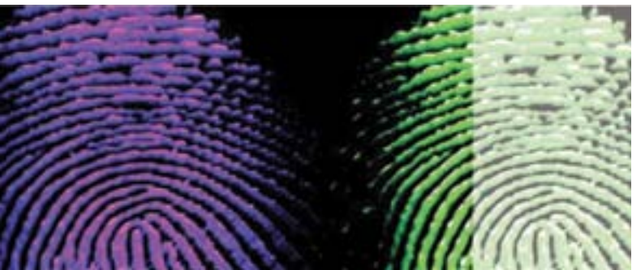
Socio-economic Sciences and Humanities (SSH)

The Socio-economic Sciences and Humanities theme aims to contribute to an in-depth, shared understanding of the complex and interrelated socio economic challenges confronting Europe. Research in this theme will help study and provide answers to questions related to:

- growth, employment and competitiveness;
- social cohesion, social, cultural and educational challenges in an enlarged EU;
- sustainability, environmental challenges, demographic change, migration and integration, quality of life and global interdependence.
- Emphasis will be given to the following areas:
- Growth, employment and competitiveness in a knowledge society;
- Combining economic, social and environmental objectives in a European perspective;
- Major trends in society and their implications;
- Europe in the world (covering a.o. migration, poverty, crime and conflict);
- The citizen in the European Union;
- Socioeconomic and scientific indicators;
- Foresight activities, such as the future implications of global knowledge, migration and ageing.

More than €610 million is foreseen for funding this theme over the duration of FP7.



The National Contact Point for Socio-economic Sciences and the Humanities is Anthea Fabri (anthea.fabri@gov.mt) +356 2360 2141.

Security

The objective of the Security theme is to develop the technologies and knowledge for building capabilities required to ensure the security of citizens from threats such as terrorism, natural disasters and crime, while respecting fundamental human rights including privacy:

- to ensure optimal and concerted use of available and evolving technologies to the benefit of civil European security;
- to stimulate the cooperation of providers and users for civil security solutions;
- improving the competitiveness of the European security industry and delivering mission-oriented research results to reduce security gaps.

The Security theme aims at meeting its main objectives. Improved security for the citizens and enhanced competitiveness for industry. As substantiated in the topics of its 'demonstration programmes' which will be the 'flagships' of the Security theme. Successful demonstration of the appropriateness and performance of novel solutions is a key factor for the take-up of the output of the research work and its implementation by security policies and measures. The Security theme should also support the (re)structuring of the European security sector. The EU Member States have earmarked €1.4 billion for research on security-related issues.

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Space

The aim of the Space theme under FP7 is to support a European Space Programme focusing on applications such as Global Monitoring for Environment and Security (GMES) with benefits for citizens and for the competitiveness of the European space industry. This will contribute to the development of a European space policy, complementing efforts by Member States and by other key players, including the European Space Agency (ESA).
In the last 40 years, Europe has built up excellent technological competence, both nationally and through ESA. Sustaining a competitive industry, including manufacturers, service providers and operators, requires new research and technologies. Space applications bring important benefits to citizens by virtue of technological spin-off effects and are indispensable in a high-tech society. The EU Member States have earmarked more than €1.4 billion for funding this theme over the duration of FP7.

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Ideas

The Ideas Programme supports "frontier research" solely on the basis of scientific excellence. Research may be carried out in any area of science and technology. In contrast with the Cooperation Programme, there is no obligation for cross-boarder partnerships. Projects are implemented by "individual teams" around a principal investigator. The European Research Council (ERC) is responsible to implement the Ideas Programme .

The ERC complements other funding activities in Europe such as those of the national research funding agencies, and is a flagship component of the European Union's Seventh Framework Programme with an overall budget of €7.5 billion over 7 years (2007-2013).

Being 'investigator-driven', or 'bottom-up', in nature, the ERC approach allows researchers to identify new opportunities and directions for research, rather than being led by priorities set by politicians. This approach ensures that funds are channelled into new and promising areas of research with a greater degree of flexibility.

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People

The People Programme provides support for researcher mobility and career development, both for researchers inside the EU and internationally. It is implemented by means of a set of Marie Curie Actions, providing fellowships and other measures to help researchers build their skills and competencies throughout their career:

- Initial training of researchers;
- Industry-academia partnerships and pathways;
- Individual fellowships (intra-European and International);
- Career integration grants;
- Cofounding of regional and national mobility programmes.

This Programme has a significant overall budget of more than €4.7 billion over a seven year period until 2013, which represents a 50% average annual increase over FP6.

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Capacities

Research Infrastructures

The overall objective is to optimise the use and development of the best research infrastructures existing in Europe. Furthermore, it aims to help to create new research infrastructures of pan-European interest in all fields of science and technology. The European scientific community needs these to remain at the forefront of the advancement of research, and they will help industry to strengthen its base of knowledge and technological know how.

Knowledge generation and, by implication, innovation, directly depend on the quality and availability of research infrastructures, which include facilities such as observatories, data banks, radiation sources and communication networks. Funding is available for new and existing research infrastructures, the construction of new infrastructures, design studies, policy development, programme implementation and support emerging needs.

In this context, EU Member States have earmarked about €1.8 billion for funding this theme over the duration of FP7.

The National Contact Points for Research Infrastructures are Diana Spiteri (diana.a.spiteri@gov.mt) +356 2360 2128 and Karen Fiorini (karen.fiorini@gov.mt) +356 2166 0340

Research for the Benefits of Small and Medium-sized Enterprises (SMEs)

The aim is to strengthen the 'innovation capacity' of small and medium-sized enterprises in Europe and their contribution to the development of new technology based products and markets. The programme will help them out source research, increase their research efforts, extend their networks, better exploit research results and acquire technological know-how, bridging the gap between research and innovation.

Representing 99% of all enterprises in Europe, they contribute more than two thirds of European GDP and provide 75 million jobs in the private sector. Therefore, they are key to implementation of the renewed Lisbon Strategy for economic growth and employment. The EU Member States have earmarked a total of €1,336 million for funding SME research support over the duration of FP7.

The National Contact Points for SMEs are Marie Claire Tonna (marie-claire.tonna@gov.mt) +356 2360 2143 and Karen Fiorini (karen.fiorini@gov.mt) +356 2166 0340.

Regions of Knowledge

The 'Regions of Knowledge' initiative aims to strengthen the research potential of European regions, in particular by encouraging and supporting the development, across Europe, of regional 'research-driven clusters', associating universities, research centres, enterprises and regional authorities.

It will allow regions to intensify the role of research and technological development (RTD) into economic development and to invest better and more in RTD by cultivating innovative 'research-driven clusters' at a local and regional level. The aim is to increase the capacity of European regions to invest in and develop their commitment in research which can contribute significantly to economic development.

The actions undertaken in this area will enable European regions to strengthen their capacity for investing in and carrying out research activities, while maximising their potential for a successful involvement of their operators in European research projects. These activities will be implemented in close relationship with the EU's regional policy and the Competitiveness and Innovation Programme (CIP).

This activity will be implemented through Coordination and Support Actions to cover the following:

- analysis, development and implementation of research agendas for regional or cross-border clusters;
- mentoring of regions with a less-developed research profile by highly developed ones;
- initiatives to improve integration;
- dissemination activities such as conferences, workshops, publications, web-based initiatives.

The EU Member States have earmarked a total of € 126 million for funding this theme over the duration of FP7.

The National Contact Points for Regions of Knowledge and Research Potential are Christine Perici (christine.perici@gov.mt) +356 2360 2148 and Karen Fiorini (karen.fiorini@gov.mt) +356 2166 0340.

Research Potential on Convergence Regions

Stimulating the realisation of the full research potential of the enlarged European Union by unlocking and developing the research potential in the EU´s 'convergence regions' and outermost regions, and helping to strengthen the capacities of their researchers to successfully participate in research activities at EU level.

In order to support the realisation of the full research potential of the enlarged European Research Area, this action will seek to unlock the potential of research groups in the convergence regions and outermost regions of the EU.

FP7 will provide support for:

- trans-national two-way secondments of research staff in the convergence regions;
- the acquisition and development of research equipment in selected centres;
- the organisation of workshops and conferences to facilitate knowledge transfer;
- 'Evaluation facilities' for research centres in the 'Convergence regions' to obtain an international independent expert evaluation of their research quality and infrastructures.
- 'Research potential' is a bottom-up scheme, the projects may address any research theme of FP7.

The funding scheme for this activity will be 'Coordination and Support Actions' and the EU Member States have earmarked a total of €340 million for funding these activities over the duration of FP7.

The National Contact Points for Research Potential on Convergence Regions are Christine Perici (christine.perici@gov.mt) +356 2360 2148 and Karen Fiorini (karen.fiorini@gov.mt) +356 2166 0340.

Science in Society (SiS)

With a view to building an effective and democratic European knowledge-based society, the aim is to stimulate the harmonious integration of scientific and technological endeavour and associated research policies into European society.

The 'Science in society' initiative aims to stimulate a harmonious integration of scientific and technological endeavour and associated research policies in European society. It will encourage Europe-wide reflection and debate on science and technology and their relation with society and culture. This action line is based on the rationale that the ability of European societies to develop themselves in a positive and sustainable way depends, to a large extent, on their capacity to create and exploit knowledge and to innovate.

'Science in society' will be implemented through the following mix of initiatives:

- Policy-related actions and research supported directly from this theme;
- cooperation between EU Member States, identifying common goals, and reinforcing national practices, in the spirit of the open method of coordination;
- promoting, supporting and monitoring the uptake and impact of 'science in society' issues in other parts of the Seventh Framework Programme (FP7). The theme will also ensure overall coordination of issues related to 'Science in society' both across FP7 and within other relevant European Community activities (e.g. relating to education and culture).

The EU Member States have earmarked a total of €330 million for funding this theme over the duration of FP7.

The National Contact Points for SiS are Anthea Fabri (anthea.fabri@gov.mt) +356 2360 2141 and Marie Claire Tonna (marie-claire.tonna@gov.mt).

International Cooperation

To become more competitive and play a leading role globally, the European Community needs a strong and coherent international science and technology (S&T) policy.

The international competitiveness of modern economies is linked increasingly to their ability to generate, adapt and use new knowledge. Science and technology are considered to be key factors contributing to achieving sustainable development, prosperity and economic growth. S&T has also proved instrumental to enhancing and enriching many other policy areas with an impact on external relations: trade, development, environment, energy, telecommunications, etc.
Research theme-oriented international cooperation will be carried out under the Cooperation Programme, the People Programme, and the Capacities Programme. The EU Member States have earmarked a total of €180 million for funding these activities over the duration of FP7.

The National Contact Points for International Cooperation are Diana Spiteri (diana.a.spiteri@gov.mt) +356 2360 2128 and Ian Gauci Borda (ian.gauci-borda@gov.mt) +356 2166 0340

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The Joint Research Centre (JRC)

JRC provides customer-driven scientific and technical support to the conception, development, implementation and monitoring of EU policies. As the research 'arm' of the European Commission, the JRC is a reference centre for science and technology issues that serves the interests of the Member States while at the same time remaining independent of special interests.

The Commission's proposals for the Seventh Framework Programme aim to reinforce the JRC's customer-driven orientation and its already strong connections with the scientific community by taking an integrated approach to its main task, the provision of scientific and technological support to policies. In particular, it will engage in activities aimed at consolidating growth and security and ensuring sustainable development.

Under the Commission's amended FP7 proposals, the JRC will have a budget of €1.75 billion to carry out direct non-nuclear research under FP7 in four broad policy areas:

- prosperity in a knowledge-intensive society;
- solidarity and responsible resource management;
- security and freedom;
- europe as a world partner.

Priority areas include global security issues and development cooperation.

The National Contact Point for JRC is Maria Attard (maria.attard@um.edu.mt) +356 2166 0340.

JRC
EUROPEAN COMMISSION

EURATOM

Euratom energy research activities are carried out under the treaty with the same name, which in 1957 established the European Atomic Energy Community (Euratom).

In FP7 Euratom there are two associated specific programmes, one covering indirect actions in the fields of 'fusion energy research' and 'nuclear fission and radiation protection', the other covering direct actions in the 'nuclear field' undertaken by the Commission's Joint Research Centre (JRC).

The specific programmes allocate almost €2 billion to fusion energy research and €287 million for nuclear fission and radiation protection. €517 million are reserved for nuclear activities of the JRC. The JRC is also a partner in many of the consortia implementing indirect actions in the fission area.

FP7 Euratom aims to address the major issues and challenges in nuclear research and to contribute to the further consolidation of the European Research Area in the nuclear energy sector. It also supports existing Community policies while at the same time responding to new policy requirements.
This Framework Programme enhances the creation of a critical mass and new structures in key research fields at the European level as well as the promotion of the free movement of ideas, knowledge and researchers. In general terms, the Euratom research programme aims to develop and assemble knowledge and to improve scientific and technical competencies and know-how in support of safety, security, reliability, sustainability and cost-effectiveness of nuclear energy.

Brokerage Events

Six researchers have been supported financially by the Malta Council for Science and Technology to attend FP7 Brokerage Events organised in 2010. Four of the researchers were from the University of Malta and two from private organisations. The events covered were the following:

- Biomedica Summit;
- ICT Brokerage Event;
- Meetings for proposal preparation.

Success Stories

Champi-ON: Fully Automatic System for Picking and Handling Mushrooms for the Fresh Market: from the Growing Bed to the Cooling Storage (Champi-ON)

The white button mushroom (Agaricus bi-sporus) is the leading mushroom crop worldwide, with a staggering 965 million tonnes of these mushrooms having been produced in Europe over 2007. That said, maintaining competitiveness in this sector is surprisingly difficult due to the labour costs involved.

The FP7 Champi-ON project, is the third running project for Chadwick Mushroom Farm Ltd. under the direction of Mr Saviour Gauci who is intent on reducing the required labour costs for harvesting and handling fresh mushrooms by 80%. In order to achieve this, Mr Gauci has teamed up with a cohort of experts to develop a fully automated system for picking and handling mushrooms for the fresh market. This would allow for the mushrooms to be taken from the growing bed and transferred to the cooling storage piled in trays, without causing any damage or blemish to the white skinned mushroom.

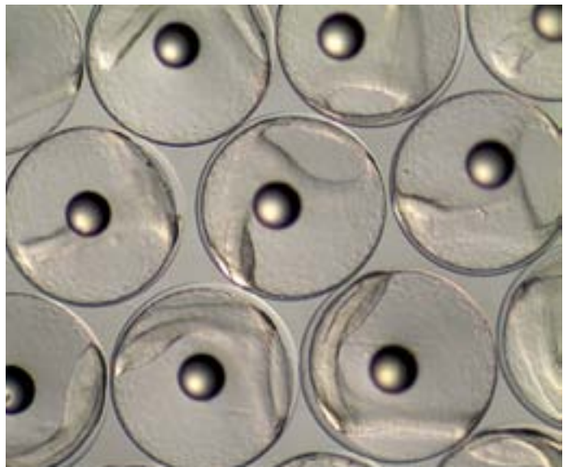
SELFDOTT: The Challenges of Domesticating Bluefin Tuna

Aquaculture is one of the fastest growing sectors within the food production industry and it aims to complement fishing by reducing over-fishing.

Continuing on the success of the 5th Framework Programme (FP5), REPRODOTT, which was the first ever study of the reproductive biology of the Atlantic bluefin tuna in captivity, the FP7 SELFDOTT project (from capture-based to self-sustained aquaculture and domestication of bluefin tuna, Thunnus thynnus) is implementing the knowledge on the reproduction of bluefin tuna in captivity. The Malta Aquaculture Research Centre based at Fort San Lucjan, under the direction of Dr Robert Vassallo Agius, is taking part in this project, which aims to increase knowledge for the domestication of this species.

TACMON: Interactive Graphical Tactile Display as An advanced User interface for the Visually Impaired

The aim of the TACMON project is to help the visually impaired to have access to graphical and text-oriented information. There are 7.4 million visually impaired people in the European Union. High unemployment amongst the disabled is a serious social and economic problem for the EU, as continued exclusion from productive activity requires increasing state-funded support for social programs. In this context, there is a need for effective assistive technology to facilitate employment of the visually impaired and for industry to better be able to meet anti-discrimination legislation. Furthermore, the EU is investing heavily in e-learning to modernize education and training, but locking out the visually impaired since information and communication technologies are heavily oriented to visual user interfaces. Electronic Systems Design Ltd. is the local partner involved in this project.



Smart Museum

Smart Museum involves the local partner Heritage Malta. The overall objective of this project is "to develop a platform for innovative services enhancing on-site personalised access to digital cultural heritage through adaptive and privacy preserving user profiling." This would then allow the visitors to interact with the cultural heritage objects before, during and after the cultural visit by selecting items of interest to be viewed either virtually (at home or on a portable device) or physically (at the museum) at the convenience of the visitor through a personal account.

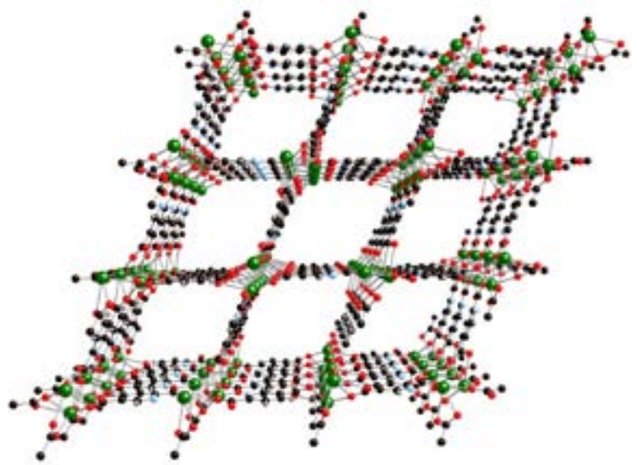
METABO

The aim of this project is to set up a comprehensive platform that will relate the clinical dimension of the patients with their daily life and reality through a "multi-parametric" monitoring system that will gather information of the metabolic status of patients. Through a web application physicians will access this data together with regular clinical parameters that are currently used. In a nutshell, patients would be able to self-regularise their health through a Portable Mobile Device (PMD) and synchronize this information through a central system that is shared by a network of medical experts, who can then assist in personalized treatment prescription and lifestyle recommendations. The local partner involved in METABO is an ICT company called World Match.

DiGeSPo

DiGeSPo, which stands for Distributed Combined Heat and Power (CHP) Generation from small size concentrated Solar Power, is one of the many projects funded by the Seventh Framework Programme under the thematic area, Energy. It has been awarded a total of €3.2 million and is a three year project, due to conclude in 2012.

DiGeSPo is working on a modular micro Combined Heat and Power (m-CHP) system – an extension of the idea of using a heat engine to simultaneously generate both electricity and useful heat to the family home or a small office building. The m-CHP is based on an innovative CSP, which involves the use of lenses or mirrors and tracking systems that focus a large area of sunlight onto a small area. The concentrated light is then used as heat or as a heat source for a conventional power plant. This small thermodynamic solar powered and hybrid system is designed to generate heat and electricity at minimal visual impact and is also anticipated to achieve 60-70% global efficiency in comparison to incident solar radiation. Projects in Motion (PIM) Ltd. Malta, in collaboration with European partners, are actively involved in demonstration activities for DiGeSPo, with the first generation CSP m-CHP system prototype having already been shipped to Malta to be installed on the roof of the Hilton. This entails that PIM are involved in the overall research and development of the m-CHP system, of novelty to Malta, as this is necessary for the incorporation of the prototype. PIM are also responsible for dissemination activities, which includes promoting the results of DiGeSPo.



Description of FP7 The Malta Council for Science and Technology Projects

PACE-NET

PACE-Net is a 3-year INCO-NET Coordination Action, supported by the European Commission (DG RTD-INCO), whose main goal is to strengthen bi-regional sustainable dialogue on Science and Technology between Europe and the Pacific. This is being implemented through the organisation of bi-regional platforms to bring together stakeholders from Europe and the Pacific to discuss common issues between them. Malta is the leader of a task to draw up recommendations for a code of ethics in the Pacific. Furthermore, Malta is also involved in encouraging local organisations to join the key stakeholders pool set up through the project with the aim of encouraging cooperation with new markets in the Pacific.

The total budget allocated to the Project is €1,399,476 and the budget allocated to The Malta Council for Science and Technology is €62, 274.

Black Sea ERA-NET

BS-ERA-NET is a networking project aimed at integrating the participating countries from the Black Sea extended region in the European Research Area by linking research activities within existing national, bilateral and regional RTD programmes managed by a consortium of 17 institutions from 13 European countries.

The duration of the project is 36 months (January 2009 – December 2011). The types of the activities that are planned during the implementation period of the project are as follows:

- information exchange between Member States, Candidate countries and with Black Sea Region countries promoting an effective and efficient international scientific EU cooperation strategy at EU level;
- definition and preparation of joint activities;
- implementation of the designed mechanisms and instruments in order to harmonize the stand alone activities at national and regional level.

The total budget allocated to the Project is €2,605,305.37 and the budget allocated to The Malta Council for Science and Technology is €108,712.

COSMOS

The COSMOS project will create a strong network of Space National Contact Points which will identify and exchange good practice, elaborate and conduct training courses for the NCP staff, gather and provide up-to-date information on Space and neighbouring topics and develop common concepts to raise awareness for the FP7 Space programme and the Space NCPs. Therefore, a more balanced high quality NCP service will be ensured for the benefit of new and experienced FP7 applicants.

The total budget allocated to the Project is €1,999,996 and the budget allocated to The Malta Council for Science and Technology is €74,080.

FP7 ENV-NCP- Together Project

As National Contact Points are the main partners for communication of the EC on executive matters and links to the scientific communities, a good functioning of this network is essential for having high quality project proposals submitted under future calls.

This project is designed not only to gather at the same table all EU Member States NCPs but also to integrate NCPs from International Cooperation Partner Countries (ICPC) where NCP networks or similar networks are established for dissemination of information on FP7 to improve skills that will boost the quality of services offered to potential FP7 proposers.
The main outcomes are:

- strengthening cooperation between NCPs across Europe by setting up new and effective communication means;
- improved NCPs skills;
- integration of other non-European Environment NCPs into the EU NCP as highly skilled partners that will promote participation of scientific communities to FP7 for mutual advantages.

The total budget allocated to the Project is €2,799.366 and the budget allocated to The Malta Council for Science and Technology is €49,800.

TransCoSME

The TransCoSME project has been set up to support the EU network of National Contact Points for the SME-specific measures of the Framework Programme. The objectives are to deliver better quality of the service provided, to increase the efficiency of the work and to enhance networking between NCPs in Europe.

The total budget allocated to the Project is €2,367,397 and the budget allocated to The Malta Council for Science and Technology is €17,923.

EuroRisNet

The overall objective of the project is to provide support through the Research Infrastructures (RIs) National Contact Points (NCPs) network for the efficient implementation of the RIs Programme and to promote the best possible utilisation of RIs, so that "economies of scale" at European level can be achieved, capabilities increased and European Research Area as well as EU competitiveness are strengthened.

The total budget allocated to the Project is €2,002,589 and the budget allocated to The Malta Council for Science and Technology is €25,398.

ResPotNet

The objective of the project is to support research and industrial communities in the EU's convergence and outermost regions to fully utilise their research potential and strengthen their capacities. The instrument to achieve this goal is the upgrading of the existing European Network of National Contact Points for the Research Potential Programme and the improvement of services and tools provided.

The total budget allocated to the Project is €492,553 and the budget allocated to The Malta Council for Science and Technology is €25,038.

SEREN

The aim of the SEREN coordination action is to link the different National Contact Points of the Security research programme, to initiate coordination in the network, and to improve the quality of the network, as well as the ability of its members to deliver a high level of services to the community. Security research presents several specificities as compared to other Cooperation's thematic priorities. In consequence, perhaps more than in the other FP7 programmes and thematic priorities, there is a strong necessity to inform and support the European Security Research community to participate in FP7.

The total budget allocated to the Project is €557,692 and the budget allocated to The Malta Council for Science and Technology is €10,143.

SEREN 2

The aim of the SEREN2 is to continue the progress developed within SEREN. The main objective of this project is to continue promoting and enhancing trans-national cooperation amongst security National Contact Points, by reaching a balanced distribution of proficiency services to be delivered by security NCPs to their clients while assisting them to write high quality proposals to be submitted to the future calls.

The total budget allocated to the Project is €1,499,550 and the budget allocated to The Malta Council for Science and Technology is €18,699.

NET4SOCIETY

NET4SOCIETY will support the creation and establishment of a functional Network of Socioeconomic Sciences and the Humanities (SSH)-NCPs. NET4SOCIETY will offer specific high quality training sessions, dedicated workshops and mentoring and brokerage events. The project will provide targeted tools such as a best practice handbook and a database for the specific area of SSH. The Network consists of a total of 37 beneficiaries, including four NCPs from International Cooperation Partner Countries.

The total budget allocated to the Project is €2,600,000 and the budget allocated to The Malta Council for Science and Technology is €24,663.

NET4SOCIETY2

Through NET4SOCIETY the first network of SSH-NCPs was created. NET4SOCIETY ended in January 2011 and NET4SOCIETY2 is follow-up project. The project consists of over 60 SSH NCPs from 58 countries. NET4SOCIETY2 will play a vital role in preparing and supporting the SSH research community to respond to the "new approach" of the SSH programme.

The total budget allocated to the Project is: €1,799,745 and the budget allocated to The Malta Council for Science and Technology is: €21,091.

PEOPLENETWORK

PeopleNetwork aims at the development and implementation of a coordination mechanism for stimulating closer cooperation among National Contact Points for the PEOPLE programme in the Seventh Framework Programme. PeopleNetwork will facilitate the improvement of the overall quality of NCP services across Europe in the area of mobility and increase the transparency of EU fellowships and training opportunities to ensure equal access for all.

The total budget allocated to the Project is €1,980 000 and the budget allocated to The Malta Council for Science and Technology is €33,705

EUROSiS

EUROSiS brings together all the National Contact Points for the Science in Society program in order to create a network and continually improve their services thought the exchange of good practices, communication of all the representatives, the creation of a

well structure partner search tool. Furthermore, events are organised in order to train both the new NCPs as well as experienced NCPs.

The total budget allocated to the Project is €1,200 000 and the budget allocated to The Malta Council for Science and Technology is €18,725.

MIRA

The present Coordination Action (CA) aims at developing the objectives of the INCO-Net Mediterranean Partner Countries (MPC) action by:

- - creating a dialogue platform using the state of the art of the ICT technologies, which will enable the discussion between relevant stakeholders from both sides of the Mediterranean to improve the S&T cooperation by, among other means, connecting and facilitating the interaction between the dispersed S&T cooperation initiatives already existing supported by the Member States, the European Commission and other political bodies;
- addressing training activities to improve the quality of the participation and management of the partners of FP7 from the MPC;
- creating discussion platforms and organising meetings to monitor and discuss the content of the thematic priorities of FP7 in terms of the common interest of the EU and MPC;

- creating an Observatory of the EU-MPC S&T cooperation, which will agree on indicators for the monitoring of RTD cooperation activities;
- creating networks of research institutions and technological transfer services from both sides of the Mediterranean, to support strategic collaboration and provide a reference element for the development of the Euro-Mediterranean Innovation Space.

All these activities are aimed at providing a strong institutional basis for the EU-MPC S&T cooperation.

The total budget allocated to the Project is €3,991,044 and the budget allocated to The Malta Council for Science and Technology is €215,070.

Health NCP NET

This project is the network for Health National Contact Points. The activities in the context of this project are mainly benchmarking, networking, transnational brokerage events and the training programme. The main focus of the project is to share the existing know-how and to utilise already existing resources. Attention is given to less experienced NCPs as well as to Contact Points in ICPCs, for them to rapidly acquire the know-how accumulated in other countries to perform their work efficiently. An effort is devoted to identifying and involving all official FP7 contact points from the ICPCs and to promoting the enlargement of the network.

The total budget allocated to the Project is €1,999,973 and the budget allocated to The Malta Council for Science and Technology is €142,310.

BIO-NET

The BIO-NET project combines the efforts of National Contact Points for the FP7 Food, Agriculture & Fisheries and Biotechnology theme in all European countries. By joint collaboration in activities that have a high impact when performed on an international level, BIO-NET aims to provide high quality support for organisations that wish to participate in FP7 projects.

This project can help entrepreneurs and researchers get involved in FP7 by:

- providing information on FP7 through the organisation of dedicated info days. For newcomers this includes basic training sessions, particularly focused on SMEs and young researchers;
- helping clients on an individual basis and providing feedback on a project idea;
- helping to find project partners throughout Europe.

It is worth noting that BioNET has a database of high quality profiles of interested organisations.

The total budget allocated to the Project is €2,193,579 and the budget allocated to The Malta Council for Science and Technology is €30,559.

NMPTEAM Project

NMP TEAM is an FP7 NMP funded project concerned with improving the services of the NMP NCP Network through transnational activities. Therefore, the NCP TEAM project aims at achieving improved NMP NCP services across Europe resulting in simplifying access to FP7 calls, lowering the entry barriers for newcomers, and raising the average quality of submitted proposals through closer collaboration between the NMP NCPs. Its aim is also the normalisation of the differences in knowledge and quality of the services provided across the NCP Network in Europe and beyond. The Malta Council for Science and Technology is leading Work Package 2 (Training Activities) of the NMP TEAM project. Full details of this project are available on the following link: www.nmpteam.com/.

The total budget allocated to the Project is: €1,088,479 and the budget allocated to The Malta Council for Science and Technology is: €92,736.

Ideal-IST

Established in 1996 and funded through the European Commission's Framework Programme, Ideal-IST is an international ICT partner search network, with more than 65,000 contacts in line with the international cooperation strategy of the European Commission. With 15 years experience in the field, today the Ideal-IST network consists of 70 ICT national partners from EU and Non-EU Countries, including Associated Member States, Eastern European Partner Countries (EEPC) and Mediterranean Partner Countries and emerging countries like China, Brazil, India, and South Africa in line with the international cooperation strategy of the European Commission.

Ideal-IST offers high expertise in proposal writing and project management through a long-standing experience in EU Framework programmes.

It assists organisations including SMEs, Academia, NGOs, Public Organisations and Enterprises providing a number of services including:

- interpretation of the ICT Work Programme of FP;
- submission of project ideas in line with the Challenges & Objectives of FP;
- partner search assistance for new projects or on-going projects via competitive calls launched by project coordinators for their project.

The total budget allocated to the Project is €2,995,160 and the budget allocated to The Malta Council for Science and Technology is €17,955.

ICT-AGRI

On 1 May 2009 a new ERA-NET ICT-AGRI was initiated. ICT-AGRI is the acronym for the ERA-NET which has the full title "Coordination of European Research within ICT and Robotics in Agriculture and Related Environmental Issues". The overall goal of ICT-AGRI is to strengthen the European Research Area and

develop a common European research agenda concerning ICT and robotics in agriculture. ICT-AGRI is funded by the European Commission's ERA-NET scheme under the 7th Framework Programme for Research.

The total budget allocated to the Project is: €2,237,008.07 and the budget allocated to The Malta Council for Science and Technology is: €58,181.

C-Energy+

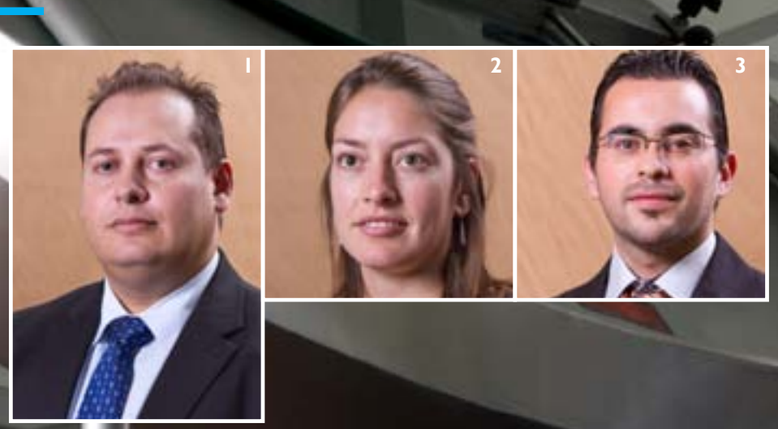
The efforts of C-ENERGY+ to improve and provide a more consistent level of NCP support services across Europe will lead to positive benefits for the entire European energy research community. Sharpening the skills of NCPs and placing strategic information and effective tools at their disposal will ultimately heighten the overall performance of NCPs, and in doing so, contribute to simplifying access to FP7 calls, lowering existing entry barriers for newcomers to the programme and raising the overall quality of proposals for funding.

The total budget allocated to the Project is €1,000,000 and the budget allocated to The Malta Council for Science and Technology is €21,142.

How can we help You?

The Malta Council for Science & Technology offers free advice and assistance to organisations and individuals to tap into the €50 billion available through the 7th Framework Programme.

The Council is the National Contact Point for information and free tailored consultation to address your needs and requirements. We offer one-to-one meetings to ensure that you tap into the right funding scheme that gives you the maximum benefits.



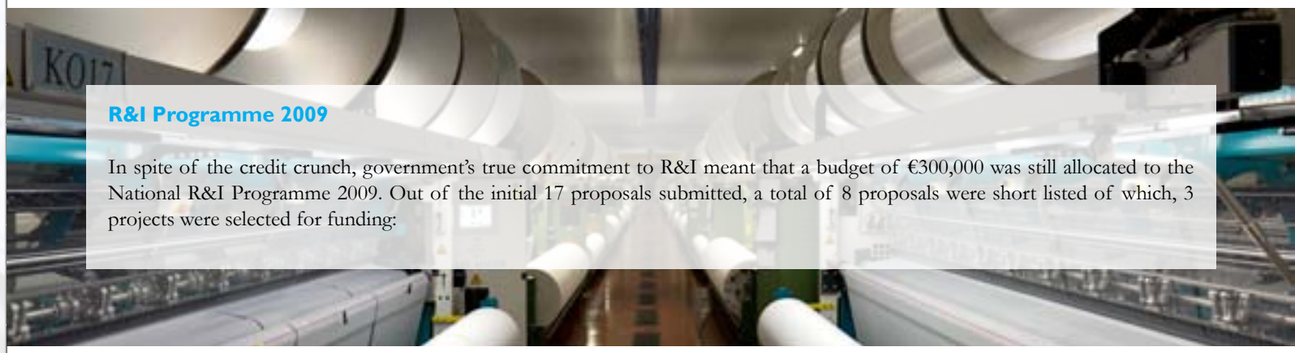
The National Funding Unit

1. Mr. Eric Flask - Director National Funding
2. Ms. Martina Eggert - Executive S&T Officer
3. Mr. Jonathan Borg (PT)

NATIONAL R&I PROGRAMME

The Malta Council for Science and Technology is the national funding research agency and manages the National Research & Innovation Programme. The Programme utilises national funds to encourage collaborative, close-to-market research by marrying academia and industry. The unit has recently grown to include an Executive Science & Technology Officer on a full-time basis. In addition, the National Funding Unit coordinates a recently awarded ERDF project, entitled 'Manufacturing Research Platform', which aims to promote the benefit of research in various manufacturing sectors in Malta.

The National R&I Programme is one of the instruments proposed in the National Strategic Plan for Research & Innovation in support of its aims. The Programme provides state financing in the form of grants for research, development and innovation in science and technology. The focus of the programme is technology transfer between academia and industry with specific focus on the four priority sectors identified in the National R&I Strategy namely Environment & Energy Resources, ICT, Value-Added Manufacturing and Health & Biotechnology



R&I Programme 2009

In spite of the credit crunch, government's true commitment to R&I meant that a budget of €300,000 was still allocated to the National R&I Programme 2009. Out of the initial 17 proposals submitted, a total of 8 proposals were short listed of which, 3 projects were selected for funding:

DOW
Design and Analysis of an Innovative Offshore Wind Turbine Support Structure for Deep Water Applications in the Maltese Islands.

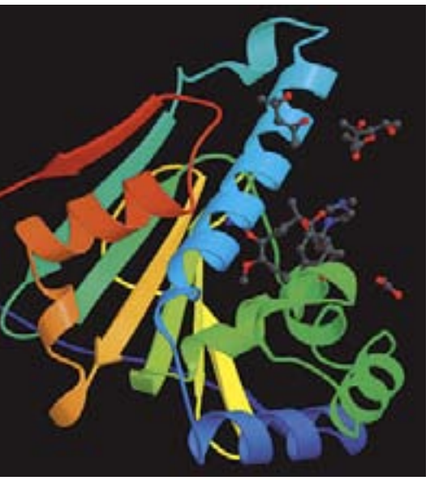
Consortium: Institute for Energy Technology at University of Malta, Global Renewable Energy Ltd – Ecofys, Honeycomb Services Ltd.
Area: Environment & Energy Resources

The DOW project will investigate the development of a novel deep water supporting structure for offshore wind turbines by assessing the technical requirements brought about by depths of 70 metres in Maltese wind and wave conditions. The project will evaluate the feasibility and costs of constructing such structures locally and developing a large offshore wind farm in the Maltese waters, a preliminary phase of a larger part of the country's strategic plan, with the potential of generating circa 33% of the current electricity demand.

HOTSPOTS
Investigation of Chaperone Modulators as Regulators of Diabetes, Cancer and Stem Cell Expansion

Consortium: Institute of Cellular Pharmacology (ICP), Department of Anatomy at University of Malta
Area: Health & Biotechnology

The HOTSPOTS project will leverage the University of Malta's expertise on stem cells, and cancer – in particular in relation to the use of biological extracts in these two pathological states – subsequently extending into the field of diabetic cellular research. It will use the patented products from ICP, which have been shown to stimulate heat shock protein production, to study the effects of such protein stimulants on the response of healthy adult cells, stem cells and cancer cells to stress such as chemotherapy. It is expected that this research will lead to novel ways of using the already patented products, allowing the SME to expand into new fields of therapeutics.



FiReCOMP
Innovative Fibre Reinforced Composites Designed for Higher Structural Performance

Consortium: Department of Mechanical Engineering at University of Malta, Composite Solutions Ltd.
Area: Value-Added Manufacturing

Composite materials offer an attractive alternative to metals in the automotive, aerospace, marine and civil industries. The correct combination of strong, high modulus properties of polymer/fibre reinforced composites allow for the production of light, yet strong assemblies. This project looks at a relatively new production process called structural reaction injection moulding to establish the optimum percentage composition of reactive thermoset resins and glass fibres through a series of material testing and finite element modelling. The aim is to develop and produce innovative fibre reinforced composites with high structural performance at minimal cost that can be used for manhole covers, gratings, fire hydrants and many other applications in the marine, civil, automotive and aerospace industries.

R&I Programme 2010

For the 2010 edition of the Programme, launched on 15th June 2010, the sum of €700,000 was allocated, doubling the fund from 2009. As with previous years, the project proposals submitted through this call typically had a duration of between one and three years and a budget of between €50,000 and €200,000.

A total of 40 proposals were submitted, ranging across all scientific fields requesting a total of € 5.8 million. Out of 40 proposals, a total of 23 proposals from across all priority sectors were short listed requesting a total budget of € 3.4 million. These 23 proposals were requested to submit a detailed proposal where they were evaluated and ranked by technical competence. The budget allocation could fund the top 5 projects. The consortia underwent a due diligence exercise and a negotiation stage before being awarded the fund.

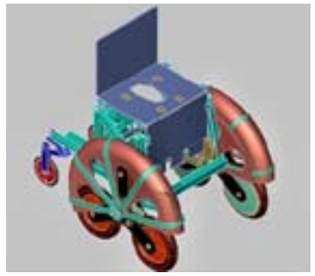
Submitted Proposals Breakdown by:

Sector	Number	% of Total
ICT	08	20%
Environment / Energy	16	40%
Manufacturing	10	25%
Health & Biotech	06	15%

Wheels for All
The Development of an Integrated Personal Mobility Device

Consortium: Malta College of Arts, Science & Technology (MCAST), Technoline Ltd., National Commission for Persons with Disability (KNPD)
Area: Value-Added Manufacturing

This project proposal entails the development of an Integrated Personal Mobility Device (IPMD) whose purpose is to provide an unparalleled level of independence to persons with severe physical disabilities. The physical difficulties together with the resulting social exclusion faced by persons with a disability often expose them and their families to an increased risk of material poverty. Through this device the user will be able to move both indoors and outdoors at a range of speeds which are suitable for his/her safety. The device would also enable the user to move independently in the house and have full independent access to the standard amenities including hanging cupboards, sanitary facilities, bath, and bed by the incorporation of an innovative docking mechanism. Furthermore, the vast potential of this device could be further extended in the future to enable the user to use independently an adapted stair escalator, generic public amenities and an adapted car.



DIACOM
Investigation of Advanced Metal – Diamond Composites for Thermal Management Applications

Consortium: IMA Engineering Services Ltd., Faculty of Engineering at University of Malta, RHP Technology GmbH
Area: Value-Added Manufacturing

DIACOM focuses on the design of metal-diamond composites with high thermal conductivity and low thermal expansion. The realisation of materials with extraordinary thermal properties shall be achieved by the application of nanoscale coatings on diamond particles with functional layers leading to; thermal cycling stability, CTE matching, enhanced design, flexibility, higher power densities, increased lifetime and increased performance. DIACOM will use rapid manufacturing techniques to manufacture materials with improved thermo-physical properties which find their applications as heat spreaders in the micro-, opto and power-electronics fields.

Blue Ocean Energy
Conversion of Wave Energy in a Dexawave Scale Model Converter – Focusing on Mediterranean Region and Wave Climate

Consortium: Dexawave Energy Malta Ltd., IOI-Malta Operational Centre at University of Malta, Institute for Sustainable Energy at University of Malta
Area: Environment & Energy Resources

Malta is an island with no traditional energy resources, and with only one supply channel. Moreover there is a target of 10 % renewable energy use by 2020, posing the need for the country to go as green as possible - as fast as possible. The purpose of the Blue Ocean Energy ® project based on the Dexawave converter is to adapt at the Dexawave converter from North Sea conditions to Mediterranean conditions by constructing a 1:10 scale model. The proposal is to establish the extent to which the eventual full scale project is likely to meet the needs of its beneficiaries in terms of reliable and competitive, CO2 neutral, off-shore wave energy for Malta. This project will also provide the key stakeholders with sufficient information to justify acceptance, modification or rejection of the Dexawave converter for further financing.

MolCAMH
Molecular Characterization and Authentication of Maltese Honey

Consortium: Institute of Earth Systems at University of Malta, Golden Island Ltd.
Area: Health & Biotechnology

This project intends to enable the scientific evaluation of Maltese honeys, not only via internationally recognized standard techniques, but also to investigate and develop further novel techniques for improved honey authentication. A database derived from microscopic pollen analysis (melissopalynology) as well as the DNA pyrosequencing of all pollens contained in seasonal and regional local honeys will be developed. Through the creation of a DNA pollen database, this project will also help to map out the islands' best bee foraging areas, required to be safeguarded for future generations for honey production. In the long term, the results may be used as a basis for a national standard for Maltese Honey.

NEPTUME
No-Dishcarge Energy efficient Prototype for the Treatment of Urban Municipal Effluent

Consortium: Architecture Project (AP) Ltd., Water Services Corporation, Department of Biology and Argotti Botanical Gardens at University of Malta
Area: Environment & Energy Resources

Second class water produced from urban municipal waste has recognised potential for irrigation and other purposes, however, the transfer of wastewater across long distances for treatment is costly and inefficient. Sewage effluent may be sourced and treated locally, with specific on-site polishing of the resultant water. NEPTUME studies the treatment of municipal sewage using a compact ceramic membrane system with recognised advantages over conventional membrane systems. The treated effluent will be subjected to a follow-on ecological and low energy phytoremediation process, polishing the water for use in public spaces and for irrigation purposes, fountains and more. The project will set new standards for sustainability in landscaping schemes, agricultural activities, golf courses and recreational areas where sufficient water supply is not available. NEPTUME combines research into the latest developments in flat sheet ceramic membrane technology with the nutrient-removal potential of follow-on biological phytoremediation processes, studying the benefits in the context of the regeneration of the derelict inner-harbour area around Dock One, Cospicua. The project will assess the suitability of different macrophytic species, their ability to absorb specific excess nutrients from the water and their potential as a source of biomass for fuel. The physical and chemical parameters of the water will be monitored continually, with real time data ensuring the efficient processing and polishing of the water. The new Dock One Public gardens will be irrigated with treated water obtained from municipal waste sourced on site. Taking advantage of its town centre location, the process and its results will be fully accessible to the public.

R&I Programme 2011

During the budget announcement in October 2010, € 1.1 million were allocated for the R&I Programme 2011, an increase of 57% on the previous year. On the 26th November 2010 the R&I Programme 2011 was launched as per the standard schedule.

Standard Schedule

To date, annual R&I Programmes had been launched at varying times of the year resulting in a number of difficulties with effectively managing the Programme, namely:

- Applicants not being available to submit quality proposals due to clashing commitments such as exams, holidays or shut-downs;
- Calls for researchers not duly fitting with the scholastic year, hindering the recruitment process of researchers, and;
- Difficulty in coordinating with external evaluators.

The Unit has, therefore, created a new standard schedule to tackle these issues which will be applicable to all future R&I Programmes.

The table below outlines the key milestones to be used as of the R&I Programme 2011. In anticipation of the evaluation stage, the standard schedule has allowed the Unit to engage evaluators in advance. This will also allow the unit to communicate results to the consortia faster.

Milestone	Pilot Date	Standard Schedule
Budget Announcement	26 Oct 2010	Last week of October
Launch Announcement of Info. Session	26 Nov 2010	4th week of November
Pre-registration Deadline	13 Jan 2011	2nd week of January
First stage submission	03 Feb 2011	1st week of February
First stage evaluation results	10 Mar 2011	2nd week of March
Second stage submission	07 Apr 2011	1st week of April
Second stage evaluation results	07 Jun 2011	3rd week June
Signing of contract including IP agreement	11 Jul 2011	2nd week July

R&I Project Audits

The National funding Unit is starting to implement a formal and professional auditing procedure to ensure that the funds allocated were spent as agreed; that the funds, being public money, were used as effectively as possible and that each project made real tangible contributions to Malta's national strategies and research policy targets.

While some cross-checking must take place for internal quality control purposes, the audit primarily aims to support the projects. The Malta Council for Science and Technology will be able to keep close to the issues and stumbling blocks encountered during the project lifetime and in doing so can help the team to resolve issues in a timely manner; provide additional support, possibly external, to help the project progress and reduce the incidence of repeat issues; make investment in R&I more sustainable and improve the programme for future applicants.

ERDF083: MANUFACTURING RESEARCH PLATFORM

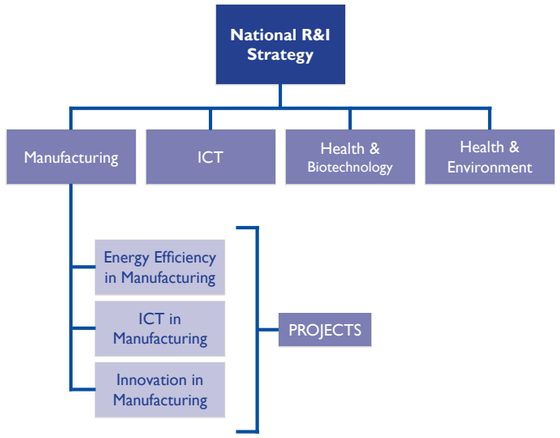
The Manufacturing Research Platform project establishes a platform in the area of manufacturing to facilitate and accelerate the transformation of local industry to higher value-added activity. The €710,000 project, funded under the European Regional Development Fund, will run until August 2012.

EUROPEAN REGIONAL DEVELOPMENT FUND
MALTA 2007-2013

Apart from developing a national strategy, the project has undertake three research projects in areas of general interest to a number of local enterprises to demonstrate the benefits of research and innovation, thus encouraging increased industry involvement in such activities.

The development of a national Manufacturing Research Strategy, in collaboration with the Policy & Strategy Unit at The Malta Council for Science and Technology, will identify how R&I can be best leveraged for economic growth and the steps to be taken to promote and facilitate R&I in the manufacturing sector. In particular, it will seek:

- To establish a strategic direction for growth in the manufacturing sector and to establish a clear road map of Malta's goals in the sector, and thereby provide a better footing to attract R&I oriented FDI as well as to stimulate local R&I industry growth;
- To identify weaknesses, issues and barriers and make appropriate recommendations that sync with the National Strategic Plan for R&I as well as with the National Strategy for Industry;
- To identify existing R&I activities and potential for increased levels of R&I and identify the areas for increased collaboration between industry and academia;
- To assess existing skills capacity and identify knowledge gaps and requirements in order to realize the established goals; and
- To identify any soft infrastructure requirements (legislation, etc); evaluate the availability of finance and identify financing scheme requirements for development of R&I.



The Manufacturing Research Projects underway fall under three thematic areas; energy efficiency, ICT and innovation. The project in each area is divided into 2 processes as follows:

Energy Efficiency in Manufacturing: this project will undertake research into a variety of processes and techniques for improving the efficiency of energy utilization and thus reducing energy consumption in industry.
Process 1: *Automatic Detection and Optimisation of NP-Hard Scheduling Problems in Manufacturing*
The aim of the project is to facilitate the adoption of energy saving measures on electric motors by the Maltese industry.
Process 2: *Increasing Energy Efficiency during Reliability Testing of Electrical/Electronic Equipment through Grid-Connected Load Units*
The aim of this project is to conserve the electrical energy used for testing by redirecting the energy drawn from the equipment back to the electrical supply grid by using developed power electronic loading unit.

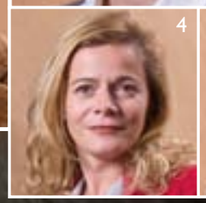
ICT in Manufacturing: this project will undertake research of ways in which ICT can be exploited in manufacturing (e.g. to improve efficiency, to support product development, the use of e-commerce, etc.) with the explicit aim of improving performance metric such as cost, time, quality and sustainability.
Process 1: *More Efficient Electric Motors for the Manufacturing Industry*
The aim of this study is to develop visual software tools that allow manufacturing concerns to model their productions lines and then search for near optimal scheduling of man and machine resources for pending orders.
Process 2: *Increasing Energy Efficiency during Reliability Testing of Electrical/Electronic Equipment through Grid-Connected Load Units*
This project aims to create a completely automated system that verifies that every production item is printed to a given quality standard. This will be achieved using various neural network architectures that will be trained to recognise substandard images and text.

Innovation in Manufacturing: this project will support research related to increasing innovation and creativity in manufacturing firms to help their products and/or processes become more high added-value.
Process 1: *Development of "An Industrial Collaboration Framework" for Amplifying Innovation in Manufacturing (Co-FAIM)*
Due to increasing product complexity, different product stakeholders have to regularly collaborate and/or communicate during product development to deliver products of good quality, with a competitive cost and in a short lead-time.
Process 2: *A "Life-Oriented Product Development Simulation Framework" for Amplifying Innovation in Manufacturing (LS-FAIM)*
The objective of this project is to develop a framework that can support decision making in the product development stages with the use of simulation and other techniques with the aim of amplifying innovation.

All Manufacturing Research Projects contribute to:

- Provide a detailed assessment of manufacturing research undertaken locally including sources of funding;
- Evaluate the current status of industry-academia collaboration, and propose measures to develop and enhance such collaboration;
- Assess the feasibility and advantages of attracting Foreign Direct Investment (FDI) focusing on research activities, and to propose actions and measures required to facilitate such investment; and
- Identify local and overseas case studies of how research has successfully contributed to competitive advantage and growth of manufacturing industry.

- Further information about the project can be obtained from the website www.manufacturingresearch.eu.



The Science Popularisation Unit

1. Ms. Melanie Giorgi - Director Science Popularisation
2. Ms. Martina Castillo - Executive - S&T Officer
3. Mr. Christopher Bugeja - Executive - S&T Officer
4. Ms. Isabelle Fereday (PT)
5. Ms. Rachel Blackburn (PT)

Not Pictured (joined in 2011)
Ms. Elena Yasnetskaya - S&T Officer
Ms. Elaine Manicaro - S&T Officer
Mr. Elton Micallef (PT)
Ms. Emily Tozzi (PT)

Science Popularisation Unit

To carry on with the science popularisation endeavours and complement The Malta Council for Science and Technology's strategy, the new Science Popularisation Unit was formally set up during the second half of 2010 as part of the restructuring process of The Malta Council for Science and Technology.

The Unit is made up of the Director and four Executive Science and Technology Officers (2 full and 2 part-time); the team will further expand in 2011 by engaging an additional five members of staff (3 full and 2 part time). This capacity building will be crucial to enable the Unit to carry out its remit in the most proficient and skilled manner.

The Science Popularisation Unit's responsibility is to set-up the National Interactive Science Centre. Complimenting science popularisation activities include: developing new project proposals, implementing current and future EU funded projects, as well as carrying out science popularisation activities in the community. Above all the remit of the Science Popularisation Unit is to promote the exciting field of science in order to engage, inspire and motivate children, youths and the public.

SCIENCE
is fun
is for everyone

Science Is Fun, Science Is For Everyone! ESF1.40 Project Science Popularisation Campaign

With the aim of making science more popular with students between the ages of 8 and 16 and the general public, The Malta Council for Science and Technology carried out in 2010 the last part of the Science Popularisation Campaign project worth €570,000, co-financed by the EU's European Social Fund. All the activities endeavoured to encourage youths / students to be more interested in and knowledgeable about science and technology.

The main components of this project were:

- Two large-scale Science & Technology Festivals (2009 and 2010)
- Six Science in the Community events (local councils which took part: San Gwann, Marsaskala, Mqabba, St. Paul's Bay, Xagħra (Gozo) and Mtarfa)
- Media campaign (TV mini series and radio spots)
- Training course in science animation (17 individuals were trained)
- Mobile science fair (10 colleges took part)

Each of the above mentioned activities presented science attractively and provided an informal inquiry-based path to learning. The intended outcome of the project was to create in the long term a positive impact on the take-up of science subjects in secondary schools and higher education and consequently increase the number of people engaged in science, engineering and technology careers in Malta. The project began in August 2008 and is due to close in March 2011.

Science & Technology Festivals

Two Science & Technology Festivals were held on campus at the University of Malta; the first from 23rd until 29th November 2009 and the second from 25th till 31st October 2010. Approximately 20,000 visitors per Festival were guided by animators around a wide range of locally manufactured hands-on science exhibits, local S&T entity stands and displays, science animation shows and live scientific experiments. During the week, school groups also visited the University's science laboratories and attended talks delivered by field experts, especially prepared for a student audience. The weekend's highlights included Robots Wars, a variety of public talks and night sky observations.

Science in the Community Events

Six Local Councils were selected to host a Science in the Community event, whose aim was to engage local communities in one-day activities aimed at popularising science in the form of a mini S&T Festival showcasing a selection of interactive science exhibits with the assistance of science animators who helped visitors engage with the content. Key S&T players from the locality, such as NGOs, government and private entities, associations, clubs and academia were brought together as exhibitors to raise the profile of science and technology.

The following localities held a Science in the Community Event in 2010: San Gwann, Marsaskala, Mqabba, St. Paul's Bay, Xagħra (Gozo) and Mtarfa.

Media Campaign

In addition to a radio campaign to publicise the project's calendar of events, a science popularisation communication campaign was launched on television and radio. The television campaign was in the form of a series of ten, five-minute episodes. The narrator, ARki, a high-tech interactive robot explained questions and interacted with the audience exploring the following topics: science in everyday life, transportation, food science, forensic science, marine biodiversity, the internet, scientists and careers in science.

Science Animation Training Programme

An intensive, tailor-made, science animation training programme was designed and delivered by local and international experts for potential science animators from 13th to 29th January 2010 at Villa Bighi, Kalkara.

The training agenda included presentations and workshops in science animation, communication skills, science updates, presentation and animation skills, and the training of trainers. The workshops taught the participants how to engage primary and secondary school students as well as the general public in communicating and explaining science in an entertaining way. Seventeen participants completed the programme and were awarded with a certificate of attendance.

Mobile Science Fair

The Malta Council for Science and Technology collaborated with the Ministry of Education to create a roving exhibition of the science exhibits procured through the project by taking them to the ten colleges. Each college was allocated a number of days where the exhibits were left in the care of the science teachers, thus providing them with the opportunity to integrate inquiry-based teaching tools in their lessons. Furthermore, the Ministry of Education also displayed these exhibits at the Science Centre in Pembroke so that students would have another opportunity to interact with them.

National Science Interactive Centre

As announced by the Prime Minister and the Minister of Finance in February 2010 and during the Budget Speech 2011, the Government has allocated €1.5 million to set up the National Interactive Science Centre at the Bighi Complex in Kalkara. The aim is to develop a permanent structure where students and the public will be able to immerse themselves in a unique interactive science experience.

Budget Speech 2011

'In order to sustain a knowledge-based economy and increase our country's economic competitiveness, it is essential to create a specialised, scientific workforce and strive towards achieving top research and innovation talent. Other important key drivers in our future growth include strengthening scientific knowledge, increasing the take-up of science-related careers and spurring the entrepreneurial spirit of our youths.

Therefore enhancing science-related education and training are crucial to increasing our country's competitiveness. To do this, the Government is investing in the construction of a new National Interactive Science Centre in Villa Bighi, Kalkara.

This National Interactive Science Centre will encompass more than 4,500 square metres of exhibition space. It will act as a medium to instil an active interest in research and innovation in our youth and encourage them to pursue a career in science and technology. In addition, it will give an alternative pathway to learning through interactivity; whereby students will interact with material covered through the various science-related curricula in a novel way while expanding learning opportunities to compliment formal learning.

The Interactive Science Centre will offer its visitors an exciting, highly interactive and educational experience as all exhibits will be state of the art and hands-on to spur curiosity and innovative thought.

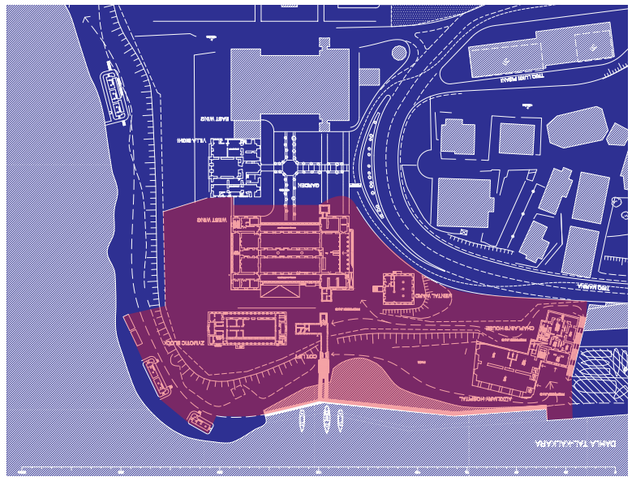
The National Interactive Science Centre will also serve as an entertainment and education platform (known as edutainment), to bring together student, parents, and professionals to expand the science, engineering and technology human capital base.'

There are now numerous science centres worldwide satisfying the push to enhance citizen's abilities in understanding the relevance and importance of science. Countries with new emerging economies are funding brand new state-of-the-art centres, whilst established centres are responding by re-inventing and upgrading the experiences they offer.

Science Centres can be a showcase for local talent, a learning facility, a place to debate, and a fun day out; but above all the common thread they share is the commitment to public engagement in all science topics.

The objectives of the National Interactive Science Centre are to:

- Motivate children and youths to learn science
- Inspire children and youths to appreciate the value of science and technology in everyday life
- Bridge the gap between science and the public
- Contribute towards innovation in the Maltese education system



The National Interactive Science Centre will cover more than 4,500 square metres of exhibition space, displaying multi—sensory interactive exhibits, presented in both in a thematic and conceptual way. This content will allow students to interact with some parts of the science-related curricula in a novel manner promoting inquiry-based learning. In addition, science educators will use the centr as a learning facility to support classroom teaching in the form of workshops and science shows.

The Centre will also serve as an edutainment platform, tackling science topics and making them accessible to the general public in the form of exhibitions, science shows, talks, discussions and debates, thus bridging the gap between the public and science.

The project was initiated during the second half of 2010. In view of this commitment, MSCT employed a designated team to compliment the Science Popularisation Unit made up of specialists in science communication and exhibition development. The role of this team is to lay the foundations for a world class science centre. The Science Popularisation Unit has proceeded by carrying out the following tasks:

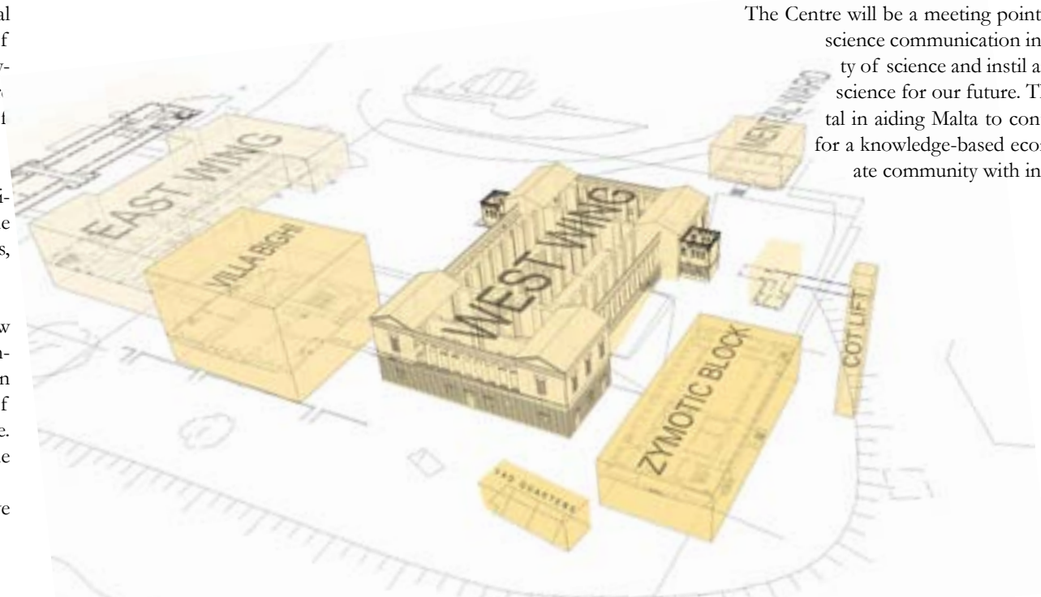
- Began evaluating the most prominent European Interactive Science Centres in order to prepare the ground work for the development of the National Interactive Science Centre. The research identified the different approaches taken by these centres in the presentation of scientific content. The National Interactive Science Centre content will reflect Malta's culture, national priorities and cultural nuances.
- Issued a number of tenders in order to engage the necessary consultants on board. This included the procurement of services to develop a Cost-Benefit Analysis and a Business Plan. A tender was also drafted to engage a team of architects, designers and interactive centre experts in order to restore, rehabilitate and reconstruct the existing buildings at the Bighi Complex. The team who will be awarded the tender will be instrumental in providing Malta with a successful and sustainable National Interactive Science Centre.
- Identified the published research in the field, in order for the team to acquaint itself with good practice in Science Centres. The research covers the best methods to build exhibitions for informal learning, changes in attitudes and aptitudes towards science subjects in students who visit science centres, economic impact on the community, and the multiplier effect of free style learning in the non-student public. Reference to research has been instrumental in making informed choices in order to build a centre that becomes a well respected national asset.
- Developed an umbrella of themes to consider developing into exhibitions. Started choosing generic types of exhibits to be displayed and becoming familiar with the more successful typical exhibits found in Science Centres. Taking into account the importance of creating a fun and exciting experience to entice visitors to return again and again.
- Began making contacts and networking with ECSITE (European Network of Science Centres and Museums) community, forging relationships with existing and new Science Centres in Europe as preparation for future partnerships.
- Discussed the Bighi Complex from the preliminary architectural drawing and started to ear mark the function of each of the areas. Listed the necessary spaces for a working Science Centre, such as storage, amenities, car park, restrooms, ticketing, schools entrance and so forth.

During 2011, with the assistance of the consultants and architects employed, a concrete plan will be devised as to how to restore and facilitate the Bighi Complex into Malta's National Interactive Science Centre.

This is a National project and as such will address the needs of the population as a whole without prejudice. In order to have a clear picture what the nation truly needs, in 2011 the Science Popularisation Unit has plans to hold consultations with numerous stakeholders, including local experts, hobbyists, teachers, parents, community groups, tourism specialists, children and many others.

Above all, it remains pertinent that the National Interactive Science Centre fulfils its mission to instigate and inspire science learners. Therefore in 2011 the Unit's education specialists will explore links to the science curricula and identify areas which can be interpreted and displayed in the content to compliment the education system. These can be in the form of exhibits, workshops, science shows, learning trails, and other innovative ways of delivery.

The Centre will be a meeting point for all audiences centering on science communication in Malta. It will expose the beauty of science and instil an interest in the importance of science for our future. This initiative will be fundamental in aiding Malta to continue building the foundations for a knowledge-based economy as well as a science literate community with innovation at its heart.



Janet Mifsud - Malta COST CNC CSO

Networking with international peers in research.

The Malta Council for Science and Technology is the managing authority for COST, www.cost.eu, which is an intergovernmental framework for European Cooperation in Science and Technology. COST contributes to reducing and opening the European Research Area to cooperation worldwide and thus makes it possible for various national facilities, institutes, universities and private industry to work jointly on a wide range of R&D activities. It thus anticipates and complements the activities of the EU Framework Programmes, constituting a "bridge" towards the scientific communities of emerging countries. It also increases the mobility of researchers across Europe. COST fosters the establishment of scientific excellence in the ten key domains:

- Biomedicine and Molecular Biosciences (BMBS)
- Chemistry and Molecular Sciences and Technologies (CMST)
- Earth System Science and Environmental Management (ESSEM)
- Food and Agriculture (FA)
- Forests, their Products and Services (FPS)
- Individuals, Societies, Cultures and Health (ISCH)
- Information and Communication Technologies (ICT)
- Materials, Physical and Nanosciences (MPNS)
- Transport and Urban Development (TUD)
- Transdomain Proposals Standing Assessment Body (TDP-SAB)

COST actions are thus 'bottom-up' approaches to research and will facilitate, networking and other events. There are no funds for research as such but researchers are reimbursed for expenses in conjunction with flights and accommodation to COST meetings – it also leads to excellent contacts and can also lead to preparation for future grant proposals e.g. as in FP. Meetings are held 2-3 times per year. It can also lead to publications and organisation of training schools. It is particularly suitable for young researchers as well and there is minimal administration involved.

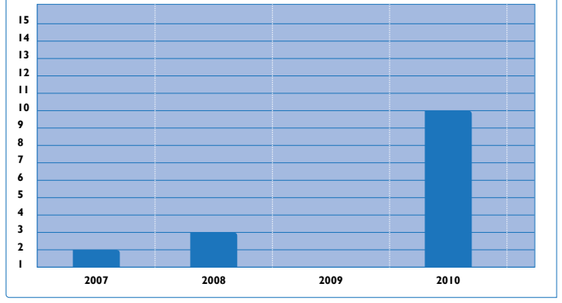
COST Programme finances coordination and management costs of the research Networks, known as Actions. These are networks of co-ordinated national research projects in fields, which are of interest to a minimum number of participants (at least five) from different member states. The aims, the work programme, the analytical budget and the duration of each Action are reported in the Memorandum of Understanding (MoU). The duration of an Action is usually 4 years. The financing of research activities which are implemented during a COST Action is covered either from own financing or within the framework of another Programme (eg. Seventh Framework Programme, National Programme). In every Action there is a number of Working Groups in which the researchers have the opportunity to participate. In these Groups the activities of the Action are allocated accordingly as they are described by the work programme.

COST has clearly shown its strength in bottom up noncompetitive research maximising European synergy and added-value in research co-operation. It is a useful tool to further European integration. Ease of access for institutions from non-member countries also makes COST a very interesting and successful tool for tackling topics of a truly global nature. The Programme gives the opportunity to researchers to discuss issues relative to their discipline. Participation in COST Actions enables the coordination of researchers Actions. This kind of cooperation fosters the submission of proposals relating to other European Programmes. Malta is presently participating in the following COST actions. Malta's participation in COST has increased several times fold since October 2010, especially since the procedure for the nomination of researchers to participate in the various actions and the process for the signing of the MOU by Malta, was greatly simplified by The Malta Council for Science and Technology.

Malta Participation in ongoing actions

COST	Action	End of action
BM0704	Emerging EMF Technologies and Health Risk Management	19/05/2012
IE0601	Wood Science for Conservation of Cultural Heritage (WoodCultHer)	17/10/2011
D40	Innovative Catalysis: New Processes and Selectivities	5/11/2011
CM0805	The Chemical Cosmos: Understanding Chemistry in Astronomical Environments	17/10/2011
IS0603	Health and Social Care for Migrants and Ethnic Minorities in Europe (HOME)	13/5/2011
IC0901	Rich-Model Toolkit - An Infrastructure for Reliable Computer Systems	29/10/2013
TU0901	Integrating and Harmonizing Sound Insulation Aspects in Sustainable Urban Housing Constructions	2/11/2013
FA0807	Integrated Management of Phytoplasma Epidemics in Different Crop Systems	10/05/2013
TU0701	Improving the Quality of Suburban Building Stocks	18/03/2012
TU0803	Cities Regrowing Smaller – Fostering Knowledge on Regeneration Strategies in Shrinking Cities across Europe	22/09/2013
C0801	Agreement Technologies	16/10/2012
ES0906	Seagrass Productivity: From Genes to Ecosystem Management	14/03/2014
TU0905	STRUCTURAL GLASS – Novel Design Methods and Next Generation Products	06/04/2014
IS0804	Language Impairment in a Multilingual Society: Linguistic patterns and the road to assessment	07/06/2013
ES1001	Mission Oceanographic Data Exploitation	13/01/2015
TD0902	Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf	03/11/2013
ES1003	Development and implementation of a pan-European Marine Biodiversity Observatory System	01/02/2015
FA 1002	Farm Animal Proteomics	23/11/2014
IC1003	European Network on Quality of Experience in Multimedia systems	07/11/2014
IC0904	Towards the Integration of Transectoral IT Design and Evaluation	25/11/2013
FP 1002	Pathway Evaluation and pest Risk Management In Transport	17/11/2014
IS1004	WEBDATANET	01/12/2014
BM0905	European Network for the Study of Gilles de la Tourette Syndrome	13/05/2014
MP1006	Fundamental Problems in Quantum Physics	01/12/2014
TD0901	Hypoxia sensing, signalling and adaptation	15/11/2013
MP0905	Black Holes in a Violent Universe	23/03/2014
TU0904	Integrated Fire Engineering and Response	28/03/2014
ES1006	European framework for online integrated air quality and meteorology modelling (EuMetChem)	01/12/2014

COST Actions - Participation since 2007



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Malta Representatives on COST Domain Committee

Finance & Administration

1. Ms. Marion Attard Bezzina
2. Ms. Christine Grixti
3. Ms. Rosanna Schembri
4. Mr. Charles Attard Bezzina
5. Mr. Joseph Borg Camilleri
6. Mr. David Micallef St John

With such rapid growth rates in the organisation, the administration head-count was naturally also increased from two to six full-timers. Apart from the need to support the additional staff and their activities, the Council is moving towards having more in-house expertise, especially with regards to financial management, procurement procedures, marketing and public relations.

Ms Christine Grixti, PA to the CEO and Chairman of the Council, is in charge of human resources which encompasses the management of recruitment, The Council's relationship with ETC, contractual agreements of engagement, employee attendance, leave records, internal employee relations, staff performance appraisals. Ms. Grixti also acts as liaising officer with the National Statistics Officer and the Office of the Prime Minister, for which she handles parliamentary questions and reports to the Management Personnel Office.

The role of the assistant administration executive recently taken over by Mr Joe Borg Camilleri involves, amongst other things, the general maintenance of the Council's premises, Villa Bighi. This is no meagre task, covering the coordination of: the maintenance team, security of the building, the inventory of assets, health and safety, internal support for events and MEPA permit applications. With all the new and exciting projects on the horizon, in-house expertise in procurement procedures is crucial for the smooth running of the organisation and its deliverables. Our activities are also being reinforced by the introduction of ISO standards and other reporting mechanisms.

Our receptionist, Ms Marion Attard Bezzina, looks after general office duties such as the management of the driver, low level procurement, travel bookings and reports, as well as appointments for the directors. Given that Villa Bighi is ideal for hosting events; namely conferences, workshops, exhibitions and meetings, Ms Attard Bezzina is also the contact point for this.

The finance office managed by Mr Charles Attard Bezzina and Ms Rosanna Schembri manages the central The Malta Council for Science and Technology accounts as well as the accounts of the Interactive Science Centre, the Research and Innovation Funds and no less than 35 projects in which the Malta Council for Science and Technology is involved.

During June of 2010, The Council issued a tender for a new website which will be designed in such way to increase interactivity with a number of new features. The new features include automated databases where scientists, researchers and industrialists could log in and receive information packs and newsletters. This website is also designed to extend interactivity with subscribers via links and ad hoc program plans which will be enabled upon subscribing.

The marketing efforts have also given priority during the end of 2010. A plan, which is purely made up of private alliances has been drawn and will extend throughout 2011. This consist of media alliances with the intent of pre-planned publication schedules with selected media. Alliances with reputable publications such as The Times of Malta, Engineering Today, Chamber of Commerce have been set and schedules are already proving successful. We have also included lifestyle magazines, such as The Circle and Money Magazine and also TV programmes.

During the last part of 2010 the Council has embarked on a marketing initiative starting with a focus group. This research study which involved elements from academia, industry, parents and young science students, gave clear indications that the Council needed to rebrand. The said research results gave a new perspective to the way the public perceived The Malta Council for Science & Technology in both positioning and definition. The research highlighted the need to detach the Council from "the run of the mill" Ministries. It reflected the "need" to make the Council dynamic looking and reflect the subjects it covers:

INNOVATION - SCIENCE - RESEARCH.

2013 in PICTURES

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