



The Malta Council for Science & Technology - The Nation's investment for tomorrow.

Minister for Education & Employment
The Hon. Evarist Bartolo

As Minister responsible for the education sector we are very much an investment institution more than anything else. Instead of shares and stocks, we look at providing the necessary tools and the right environment for people to be able to achieve their aspirations. We are, ultimately, investing our resources in people.

Unlike roads or buildings, an investment in an individual is truly long-term and provides added effect through time. Being a platform for researchers and innovators alike is crucial, because when you invest in an individual, his work and his ideas you are investing for tomorrow.

But this should not be seen as an economic exercise. It goes beyond that. It means reaching our potential as a country and as a people and with the limited natural resources we have, the importance of human capital is multiplied.

The work being done by The Malta Council for Science and Technology is part of the government's push to create the pillars needed in this sector. Local researchers have found, through The Council, an important partner in developing their aspirations and work.

The recently launched Research and Innovation Strategy also plays a crucial role in strengthening this sector for the future of our country and guarantee the right investment in our best resource – our people.

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When you invest in an individual, his work and his ideas you are investing for tomorrow.

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Science Technology and The Nation's Economy

Parliamentary Secretary
The Hon. Chris Agius

Innovation is the key to the achievement of economic, social and environmental objectives. Investing in enabling innovation is paramount to the achievement of these objectives leading to a sustained innovation culture and a strong innovation ecosystem.

Enabling innovation means not only investing in researchers and infrastructures but also in those elements that enable the transformation of a good idea into a commercial and marketable product or service. Such elements range from human capital and access to financing to intellectual property management, and span across a variety of industries and stakeholders. They rest on strong collaboration and partnerships.

Our mandate as a government is to encourage these partnerships as part of a broader effort to create an innovation mind-set that is supported by the right conditions under which ideas can be developed. We believe that to be innovative, one has to scale fast and encourage innovation at all levels.

In 2014, the Government has reiterated its commitment on research and innovation by launching the new National R&I Strategy 2020. We have set the bar very high. We have promised to increase our R&D expenditure from the current target of 0.67% to 2% of GDP by 2020. The government is committed to create the right context to meet these challenging targets.

Indeed it is my pleasure to contribute to this 2013 annual report of the Malta Council for Science and Technology, which provides an extensive overview of the Council's work in facilitating and making this goal a reality.

The Malta Council for Science and Technology is the coordination public entity responsible for science, technology, research and innovation. Their work spreads over a number of areas, from strategy and policy, to support to access EU funding, to management of national funds and science communication and involves collaborative partnerships.

The Malta Council for Science and Technology is already providing support to academia and private sector entities to undertake R&I activities. Various instruments are in place to this end, and in 2013 the Council worked to improve upon or reorganise existing support measures to improve the support provided.

Support instruments managed by the Council including the National Contact Point Organisation system for Horizon 2020, the Technology Development Programme and the Commercialisation Voucher Programme.

These instruments form part of a wider, national ecosystem of support which is being developed over time as envisaged in the first goal of Malta's new national R&I Strategy and need to be complemented by other instruments managed by other players in the R&I arena.

Indeed, the Strategy specifically identifies the need to increase the effectiveness of the delivery system of R&I support measures through up-scaling, extending and coordinating the level of support provided to business.

There is therefore a clear mandate for public providers of R&I support measures to work together towards a seamless ecosystem which facilitates applicants' understanding of different support mechanisms.

In focussing on the development of the National Interactive Science Centre, the Council's work complements that of the formal education system by providing an informal, entertaining environment for students and families in general to familiarise themselves with science and technology and better appreciate their relevance to everyday life.

The significant developments in the implementation of this project during 2013 are indeed noteworthy, and I am positive that this new Centre will prove a worthy investment in our future generations.

We will continue to build on these achievements by catalysing more growth and expand investment in our innovation ecosystem and encourage more partnerships for effective cooperation in the sharing of knowledge, resources, talent and practical experience. This marks the beginning of a long journey ahead. I invite everyone to become part of this success story. My commitment and that of the Government are assured.





Villa Bighi; Where Science Interacts with Malta's Future.

Executive Chairman
Dr Jeffrey Pullicino Orlando

The preparation of the annual report provides a yearly opportunity to take stock of the Malta Council for Science and Technology's activities and showcase our achievements and progress. This year is no exception. Indeed 2013 has been another busy year for the Council, with a new Board of Directors and tangible progress on the Council's main areas of activity, from strategy development to FP7 support to national funding to science communication.

The Malta Council for Science and Technology continued to provide input to the policy development processes at European level, which in 2013 were dominated by the negotiations on Horizon 2020, the new European funding programme for research and innovation. As the National Contact Point Organisation for FP7 and Horizon 2020, the Council had a very strong role to play in shaping Malta's negotiating position on this crucial dossier. Now that negotiations are finalised, the Malta Council for Science and Technology will be looking at continuing and improving its support services to potential Horizon 2020 participants.

In 2013, such support included the Brokerage Event Scheme, which aimed at facilitating participation in Horizon 2020 through participation in brokerage events and meetings held in preparation of project proposals. Through this scheme, 13 researchers were supported to attend brokerage events and consortium meetings in various places around Europe.

In addition to its role in supporting international research cooperation and access to European R&I Funds, the Council in 2013 has also continued with its work on the management of national funds for R&I through the 2013 call under the National Research and Innovation Programme (re-named the Technology Development Programme) as

well as the launch of a new support measure – the Commercialisation Voucher Programme. This programme was launched in October 2013 with the aim of supporting the evaluation of the commercialisation potential of new ideas at the earliest of stages in order to guide efficient and effective use of available funds.

In addition, in 2013, Malta continued its participation in the ENIAC Joint Undertaking. Malta successfully applied for, and will be participating in, the 'Lab4MEMs 2' project, a follow up to the Lab4MEMs project in which Malta is already a participant. The Malta Council for Science and Technology was instrumental in supporting participation in ENIAC.

Another important development in the Malta Council for Science and Technology's efforts to internationalise Malta's R&I activities relates to the proposal for the submission of an application for a Knowledge and Innovation Community. In 2013, Malta joined a consortium led by Leuphana University of Lüneburg, Germany, to submit a proposal for a Knowledge and Innovation Community in the area of healthy living and active ageing. The Malta Council for Science and Technology is coordinating Malta's efforts in this regard. If successful, this application could leverage a total of €1.3 billion.

In addition to supporting research and innovation activities on various fronts, the Malta Council for Science and Technology has continued with its work to raise the profile of science and technology among the general public.

With the securing of EU funding, 2013 marked a turning point in the implementation of the Council's flagship project in science communication - the National Interactive Science Centre (NISC). This triggered a step change for the Council; from project planning to project execution and was managed through an intensive management capacity building training project. Significant progress was also registered in tenders for civil and infrastructural work as well as progress on branding and publicity.

However the Malta Council for Science and Technology's science communication activities go beyond the development of the NISC. In 2013, the Council once again participated actively in Researchers' Night, while other new outreach activities are also planned and will be underpinned by the eventual development of a national science communication strategy.

In the long term, knowledge and innovation driven economies are sustained through an ambitious vision which is shared by all and is based on sustained investments. This entails the engagement of all the players and stakeholders to ensure coherence and coordination of efforts. In 2013, this effort was undertaken by the Malta Council for Science and Technology in the development and finalisation of a new National R&I Strategy 2020, which included the identification of smart specialisation areas for Malta.

This new Strategy will shape the Malta Council for Science and Technology's and other players' initiatives over the coming seven year period and will guide investments in line with its identified objectives, including the achievement of an R&D expenditure of 2% of GDP by 2020. Further to initial work in 2013, 2014 will see the development of the first rolling R&I action plan, which the Malta Council for Science and Technology is also coordinating.

The Malta Council for Science and Technology's annual report provides a snapshot of its achievements, but it is also an opportunity to reconfirm the Council's commitment to continue with and improve upon our efforts at enabling more and better research and innovation in Malta. I would like to take this opportunity to thank the previous CEO, Dr Nicholas Sammut and our previous board members who helped place the Council on the sound footing it is on today.

I am optimistic that the collective effort and drive of the Malta Council for Science and Technology's staff, supported by the present Council's Board, will continue yielding the results which our country deserves.

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Board of Directors

A new council was appointed in June. This took over from the former board of directors, which, as per normal practice, resigned at the time of the change in government administration. The board had consisted of:

- Dr. Nicholas Sammut, B.Eng.(Hons), Ph.D
- Dr. Alex Perici Calascione, LL.D
- Prof. Maurice Grech, B.Eng.(Hons), M.Sc.(Birm), Ph.D.(Birm), C.Eng.F.I.M., M.I.B.F.
- Prof. Alfred Vella, B.Sc., M.Sc., Ph.D (Col.Sch.Mines), CSCI, CChem, FRSC
- Dr. Susanne Gatt, B.Ed(Hons), M.A.(Sci.Educ) (Lond), Ph.D
- Mr. Anthony Tabone, Dip. MRS, MCIM
- Dr. Marisa Cassar, Ph.D, B.Pharm(Hons), Dip Mgt (Henley)
- Mr. Charles Saliba, B.Sc(Hons)
- Dr. Claire Bartolo, Ph.D
- Dr. Alec Lapira, MD, MA(Leeds),MSc(Lond), DLORCS(Eng), Au.D(Florida), FAAA
- Mr. Charles Theuma, BCom, BSc, BA(Hons) in Mgmt
- Ing. Silvana Falzon, B.Eng(Elec) (Hons), MBA (Maastricht)
- Dr. Sue Vella Ph.D. (York), M.Sc. (London), BA Hons (Malta), Dip App SS (Malta)

N.B. : Board Member, Prof. Richard Muscat, Ph.D was not available for the time of the photoshoot.



Dr Jeffrey Pullicino Orlando
Executive Chairman



Prof. Alfred J Vella



Prof. Emmanuel Sinagra



Prof. Janet Mifsud



Prof. Maurice Grech



Dr Ivan Gatt



Dr Karen Mugliett



Ms Claudine Cassar



Dr David Degabriele



Dr Vincent Maione



Dr Ing. John C Betts



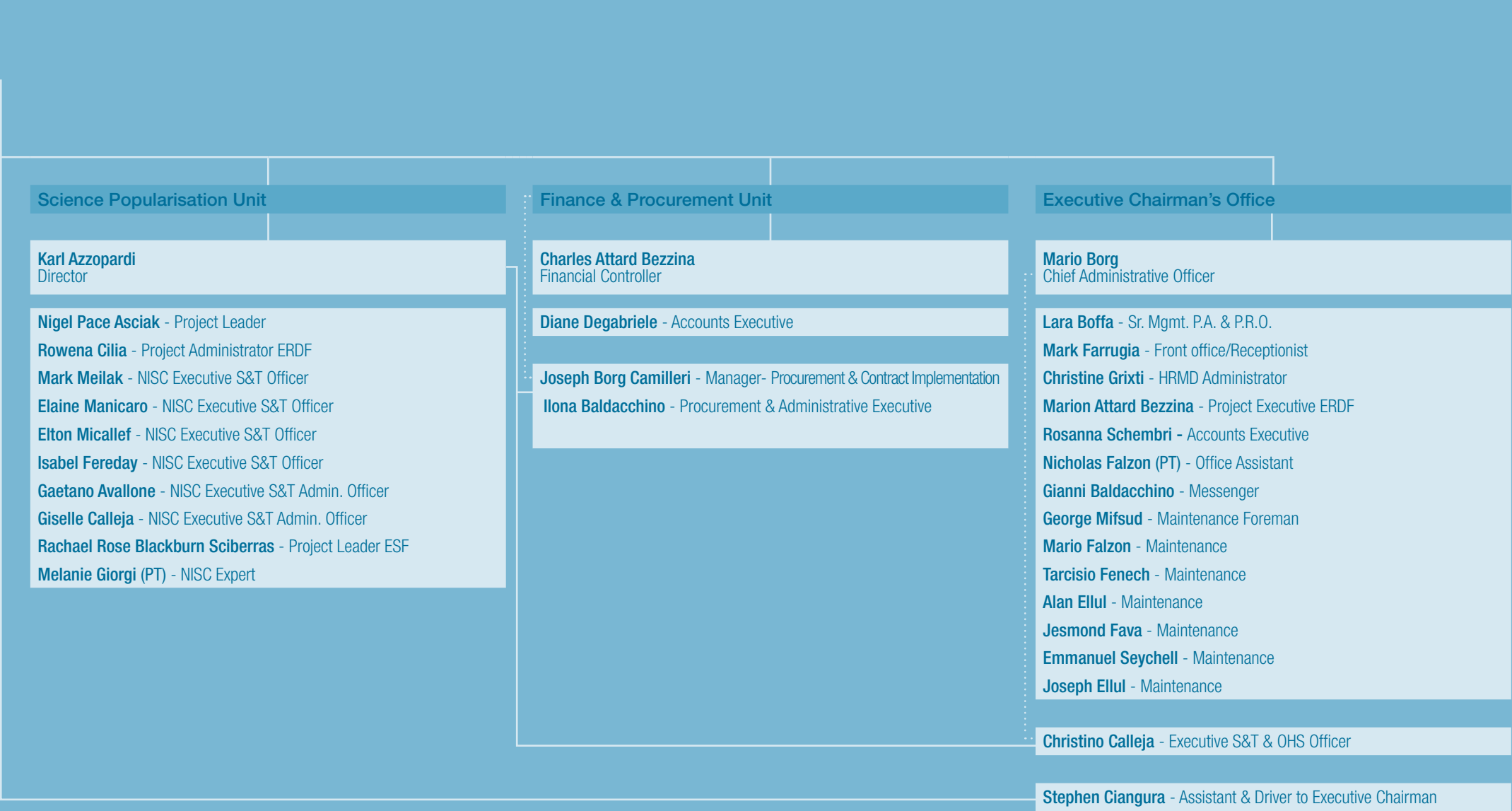
Dr Kristian Zarb Adami



Mr Robert Falzon



Dr Vince Micallef
Board Secretary



Policy and Strategy Unit

Director
Ms Nadine Castillo

The main function of the Policy and Strategy Unit is to continue building on the national R&I framework in order to facilitate further investment in these economic activities, including addressing the existing gaps in the system. This is done through the drafting of strategies for R&D and Innovation as well as the evaluation of policies developed by others in these fields. In this regard, the Unit supports other Ministries in policy issues within the R&I context.

The Malta Council for Science and Technology participates through the Unit also in policy developments at EU level and provides the necessary feedback in order to contribute to the Maltese position in discussions at EU level. To this end the members of this Unit participate in EU forums and provide the necessary support to any participation at Ministerial level.

Development of a new National R&I Strategy

During 2013, the development and finalisation of the new National R&I Strategy 2020 and the identification of smart specialisation areas for Malta as part of the development of the new Strategy were major areas of activity for the Policy, Strategy and Internationalisation Unit.

The process involved both a desk-based analysis of various micro and macro-level statistics (including employment, gross value-added, participation in European R&I Programmes, take up of funding opportunities, etc.) as well as extensive stakeholder consultations. Over 20 bilateral meetings with public stakeholders and social partners were held, as well as bilateral meetings, workshops and focus groups with the private sector.

Policy Developments

The Unit continued with its work supporting Malta’s participation in European R&I policy-making at all levels, from Working Party level up to Competitiveness Council and European Council levels. Both the ‘Research’ and the ‘Space’ policy areas are taken care of by the Unit. The negotiations on Horizon 2020, the new European funding programme for research and innovation, dominated the Council’s agenda for 2013. Political agreement on the Horizon 2020 legislative proposals was achieved in mid-2013. During the second half of 2013, discussions focussed on the legislative proposals for Article 185 and Article 187 initiatives.

During 2013, the Policy and Strategy Unit was also responsible for providing input to and representing Malta in numerous EU level fora, among which the European Research Area and Innovation Committee, the Strategic Forum on International Cooperation and the High Level Group on Joint Programming.

The Unit coordinated the Council’s input to the National Reform Programme 2013 and provided regular updates to the implementation of measures listed therein. Through this work, research and innovation activities become mainstreamed into the European Semester and a clear link of their contribution to the Europe 2020 objective of smart growth is ensured. The Unit also coordinated the Council’s input to policy issues and strategies led by other entities which overlap with the Council’s remit.

This coordination work helps to ensure a synergistic approach in the strategy and policy development at national level and also ensures that Malta presents a unified approach to its positions on similar issues in different fora.

In 2013, Malta, through the Council, joined the Industrial Liaison Officers (ILO) Group of the Fusion for Energy (F4E) Organisation. This enabled The Malta Council for Science and Technology to better disseminate information about procurement launched by the organisation. Furthermore, Malta remains active in the F4E Governing Board. On 19th November 2013, the Council organised an information day about the F4E in, particular its procurement, in Malta. International initiatives

With the engagement of a dedicated executive for internationalisation towards the end of 2012, throughout 2013 the Unit undertook an extensive scoping exercise of existing international cooperation opportunities in order to evaluate potential opportunities for Maltese researchers to engage more strategically in international initiatives. Thematic experts were identified to support in this work. The scope of the exercise included the European Innovation Partnerships, Joint Undertakings (JUs) and Joint Programming Initiatives. The outcomes of this year-long scoping exercise will be evaluated in 2014 and its outcomes will form part of the rolling R&I Action Plan planned for 2014.

During 2013, Malta continued its participation in the ENIAC Joint Undertaking, a public-private partnership focusing on nanoelectronics that brings together Member/Associated States, the Commission, and AENEAS (an association representing European R&D actors in this field). Following the selection of ‘Lab4MEMs’ in 2012, a project that involves 21 multinational partners receiving a total of €28million, Malta, through ST Microelectronics, successfully applied for and will be participating in the ‘Lab4MEMs 2’ project.

Through a research group at the University of Malta and the Malta Air Traffic Services (MATS), Malta was also selected for one of the SESAR Joint Undertaking’s integrated RPAS (remotely piloted aircraft systems) demonstration activities. The mission of the SESAR (Single European Sky Air Traffic Management Research) Joint Undertaking is to develop a modernised air traffic management system for Europe. This future system will ensure the safety and fluidity of air transport over the next thirty years, will make flying more environmentally friendly and reduce the costs of air traffic management. Malta, through the RAID-RPAS ATM Integration Demonstration, was one of the 9 applicants selected in a call for demonstration projects and these applicants will be receiving a total of €4 million in co-financing from the JU.

In 2013, Malta also joined a consortium led by Leuphana University of Lüneburg, Germany, to submit a proposal for a Knowledge and Innovation Community in the area of healthy living and active ageing. Malta’s efforts in this regard are being coordinated by the Malta Council for Science and Technology. Knowledge and Innovation Communities are co-funded by the European Institute for Innovation and Technology (EIT) and aim to put in practice the concept of the ‘triple helix’ of education, research and innovation. A one-day awareness raising event on the opportunities offered by the EIT was organised in Malta in November 2013. This event was attended by the Chairman of the EIT Governing Board, Prof. Alexander von Gabain.

In 2013, 4 short internships between 1-3 months were jointly offered and supported by the Embassy of France to Malta, the French National Centre for Scientific Research (CNRS), and the Malta Council for Science and Technology in conjunction with the University of Malta. Two Maltese engineers also had the opportunity to carry out year-long traineeships at the European Space Agency (ESA) ESTEC site in the Netherlands. These traineeships were the result of a collaboration agreement signed between the European Space Agency and the Malta Council for Science and Technology.

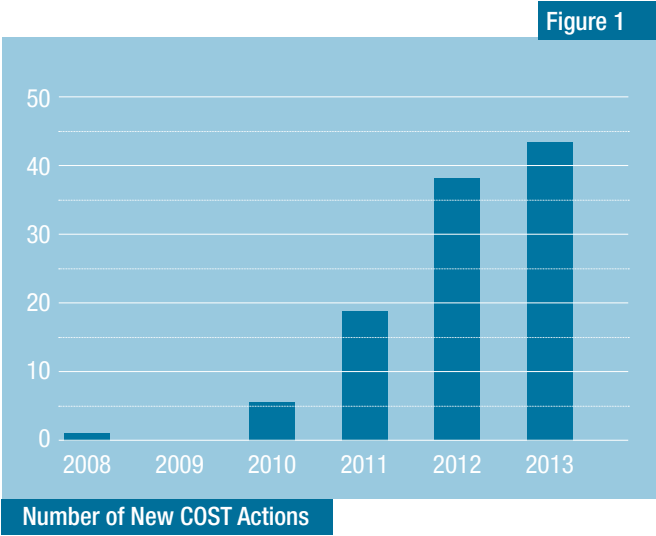
The Malta Council for Science and Technology is the Managing Authority of COST (European Cooperation in Science and Technology) – and, through the efforts of the National Contact Point, Prof. Janet Mifsud, there are currently about 200 Maltese researchers participating in a variety of COST Actions. COST brings researchers from various countries together to promote transnational coordination of nationally-funded research. This is a unique approach which enables the sharing of concepts and scientific developments across 35 European countries and has even attracted the participation of many non EU countries. COST supports the organisation of meetings, scientific missions, and training schools for researchers at all levels and experts in various fields working within academia and industry. Awareness-raising events on COST were held for both academics and representatives from the private sector at the end of 2013, attended by the President of the COST Committee of Senior Officials (CSO), Angeles Rodriguez Pena.



As figure 1 (below) illustrates, in 2013, Malta began to participate in 44 new COST Actions (up from 38 in 2012) with the new involvement of 76 researchers. Researchers from Malta have also contributed to COST publications and to the organization of training schools and conferences.

Through 2013, discussions of the CSO focused on the transition to the New Implementing Structure of COST, the COST Association.

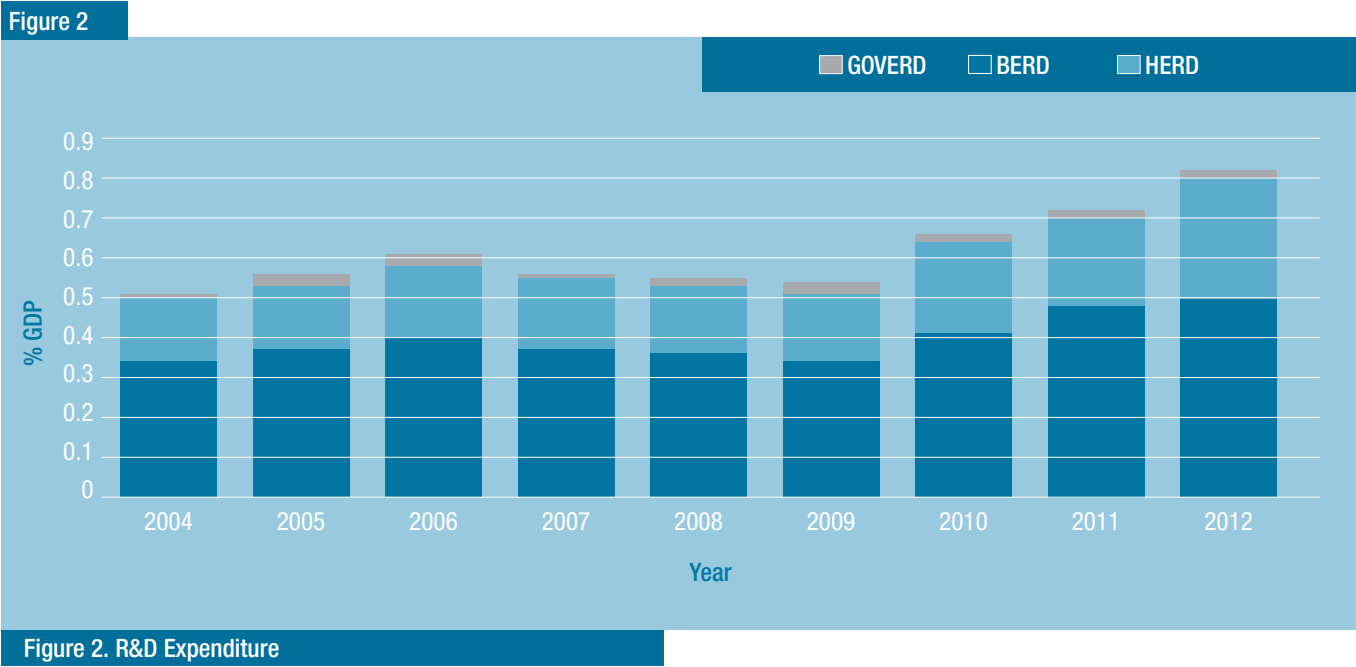
These negotiations led to the setting up of this new Association, and Member States, including Malta, will be applying for membership to this new structure in early 2014. The delegates on the CSO are Prof. Janet Mifsud and Dr. Claire Bellia.



Analysis and monitoring

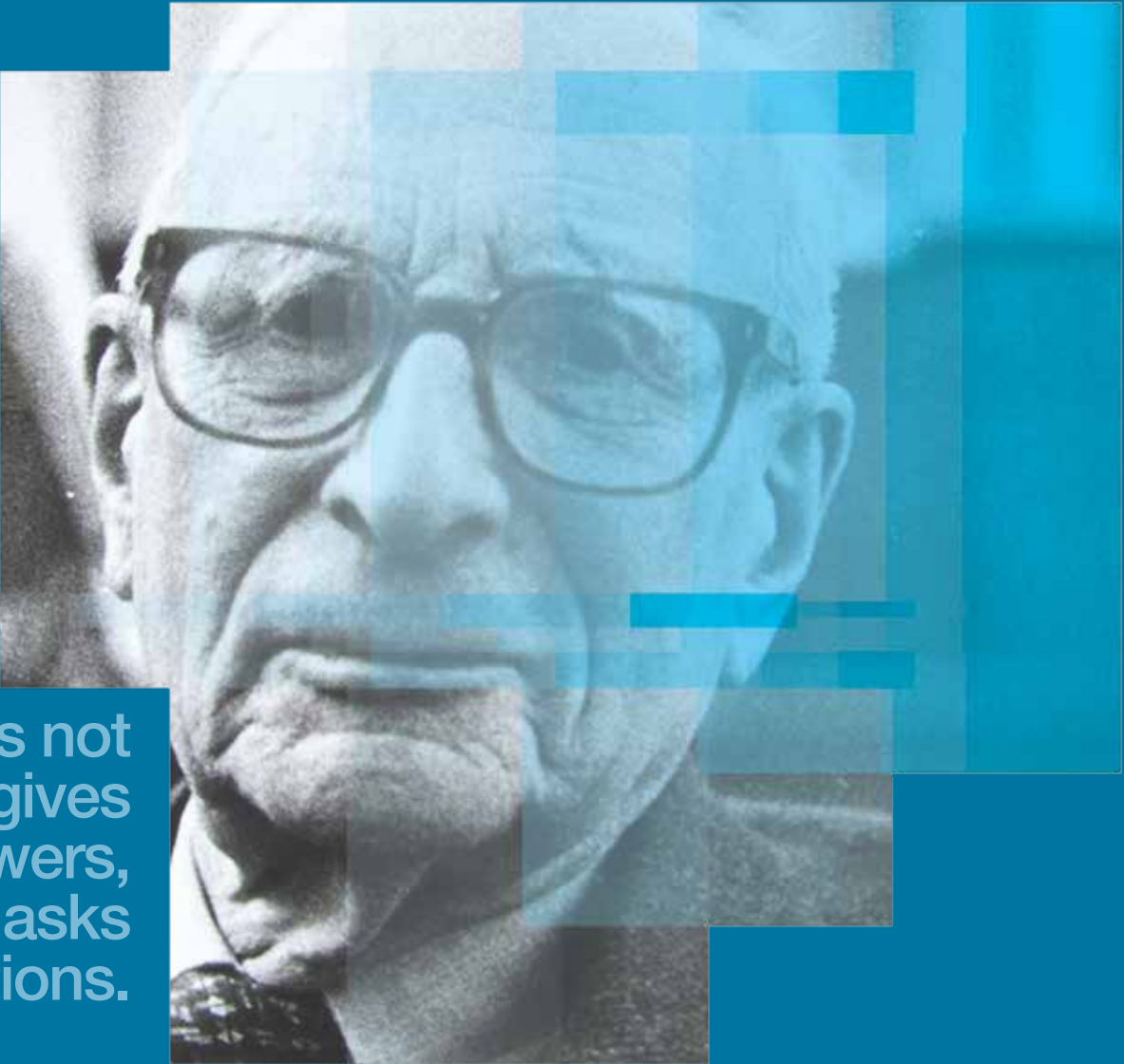
Further to the positive outcomes registered in 2012, in 2013 the Unit embarked on an exercise to support the National Statistics Office and the private sector in responding to the R&D and Innovation Questionnaires. A group of students were trained and assigned to assist companies in understanding and identifying any innovation activities undertaken and report them accordingly. The latest figures for R&D expenditure indicate that in 2012, Malta's R&D expenditure reached 0.84% of GDP, up from 0.72% in 2011. Figure 2 below illustrates the latest figures for R&D expenditure in Malta by its different expenditure components: higher education (HERD), business (BERD) and government (GOVERD).

Figure 2 (below) illustrates the R&D expenditure trends over the last nine years. Gross R&D expenditure as a percentage of GDP remained largely stable over the 2004-2009 period, averaging around 0.55% until 2009. Since 2010, R&D expenditure has been steadily increasing year on year, largely due to capital and recurrent expenditure increases in the higher education sector as well as improved data collection methodologies. Business R&D expenditure accounts for roughly two thirds of total R&D expenditure, with the public sector (of which the academic sector contributes the largest portion) accounting for the rest.



“The Scientist is not a person who gives the right answers, he’s one who asks the right questions.”

Claude Lévi-Strauss



R&I Programmes Unit

Director
Ing. Joseph P. Sammut

The main function of the R&I Programmes Unit is to manage the national funds that support Research and Innovation projects in Malta. During 2013, the unit launched the Commercialisation Voucher Programme, which now provides the necessary support to assess the commercialisation potential prior to the actual undertaking of any research and development. This would ensure that before actually undertaking any research and development, the inventor would already be informed about the possibility of protecting the idea through intellectual property as well as gain awareness about the market potential and the economic wealth it can generate for the good of society at large. With this effort the successful projects would then be ready for private investors to consider commercialisation. In this regard the Unit has embarked on a study to facilitate access to venture capital funds for research and innovation ideas.

This year the unit introduced the concept of co-funding R&I projects with the inclusion of European funds. These projects typically have a foreign partner element which in turn further encourages the project outcomes to be commercialised on international markets.

In addition, The R&I Programmes unit also carried preliminary evaluations on the possible participation of local organisations within the space industry. It examined current local competencies in other industries with the view of relating these to opportunities in the lucrative space market. This was primarily done through assistance gained through high level meetings with the European Space Agency (ESA). The Council is in fact Malta’s national contact organisation for the ESA.

The R&I Programmes Unit also participated in projects where the remit of the unit was of disseminating project information with the intent to improve technology take-up.

Knowledge and innovation driven economies are sustained through a long-term, ambitious vision, based on sustained investments in research and innovation. This entails the engagement of all the players and stakeholders to ensure coherence and coordination of efforts. Over the past years, the Malta Council for Science and Technology has provided state financing for research, development and innovation in science and technology, through the various R&I programmes administered by the Council.

The main aims of the various R&I Programmes are to support knowledge transfer between academia and industry, support an R&I ecosystem that ensures sustainable economic growth and invest in innovation and critical mass. The specific focus for 2013 was on the four priority sectors identified in the National R&I Strategy 2007-2010.

The R&I Programme - Technology Development

The 2013 Technology Development Programme managed a total of €1.4 million (out of a total of €1.6 million allocated to National R&I fund).

A total of 42 proposals were received, requesting a total of €6.96 million. The table below portrays a breakdown of submission by Thematic Area for 2013. As in 2012, proposals targeted 4 key areas: ICT, Energy & Environment, Value-Added Manufacturing and Health & Biotechnology. However, this year also saw the addition of Limestone Science & Technology and Offshore Solar Technology as two priority additional sectors. (See Table 1)

The screening of applications was performed in line with the evaluation criteria, by foreign experts. Subsequently, 17 applications were short-listed for the 2013 call for applications, requesting a total of €2.8 million. From these applications, 9 projects were down-selected for funding eligibility.

Between 2004 and 2013 inclusive, 61 proposals were accepted with a total commitment of approximately €8 million. These projects are at various stages of progress, with some having been completed to date, and others in either initial, intermediate, or final stages. A comprehensive list is provided overleaf (the Programme did not run during the years 2005 and 2007).

Submitted proposals - by sector	Number of Proposals	Percentage of Total Submissions
ICT	10	24%
Energy & Environment	12	28,5%
Value Added Manufacturing	04	9.5%
Health & Biotechnology	10	24%
Limestone Science & Technology	4	9.5%
Offshore Solar Technology	2	4,5%

Table 1



R&I PROJECTS 2004 - 2005			
Project No.	Status	Contact Person	Name of the project
RTDI-2004-005	Complete	Prof. Robert Ghirlando University of Malta	High Temperature Air Combustion (HiTAC)
RTDI-2004-008	Complete	Dr. Suzanne Gatt University of Malta	Tackling the Image of Scientists
RTDI-2004-012	Complete	Prof Christian A.Scerri University of Malta	Identification of Genetic Factors Contributing to Coeliac Disease in the Maltese Population - COELIGENE
RTDI-2004-017	Complete	Dr Anthony Fenech University of Malta	Transcriptional Regulation and Promoter Genetic Variation of the Chemokine Receptor 4 (CCR4) gene with special Pharmacogenetic relevance to novel therapeutic targets in asthma
RTDI-2004-022	Terminated	Shane A. Hunter Akres Ltd	Intensive Vertical Shrimp Culture
RTDI-2004-026	Complete	Dr Simon G Fabri University of Malta	Computational Intelligence Techniques for Control of Complex Systems
RTDI-2004-033	Complete	Prof Joseph N.Grima University of Malta	Modelling of Materials with Unusual Mechanical and Thermal Properties
RTDI-2004-034	Complete	Mr Thomas Galea Mosta Technopark	3DHead - Low Cost Rapid 3D Head Acquisition
RTDI-2004-039	Complete	Dr. Victor Buttigieg University of Malta	Content Based Multimedia Retrieval with Ordered Relevance Feedback
RTDI-2004-054	Complete	Dr. Sandra Scicluna University of Malta	Dealing with Female Victims of Domestic Violence: An Evaluation of Services in Malta/Gozo and the Provence of Trapani (Sicily)
RTDI-2004-061	Complete	Prof. Christian Scerri University of Malta	Purchase of Real Time PCR Equipment.
RTDI-2004-072	Complete	Dr. Claire Shoemake University of Malta	The Design of a Series of Non-Steroidal Oestrogen and Androgen Receptor Antagonists
RTDI-2004-074	Complete	Dr Everaldo Attard University of Malta	Screening of Maltese Medicinal and Aromatic Plants for Pharmacological Activity
RTDI-2004-082	Complete	Mr Mike Rosner University of Malta	The Maltese Language Resource Server (MLRS)

R&I PROJECTS 2006			
Project No.	Status	Contact Person	Name of the project
R&I-2006-006	Complete	Ing.Michael Attard, IMA Engineering Services Ltd	Application of copper carbon nanofibre composites in the thermal management of solid state relays and power modules
R&I-2006-009	Complete	Ing. Marco Cremona Sustech Consulting	Development of an Innovative Wastewater Recycling Process for Hotels / Large Commercial Buildings / Isolated Communities for environmental protection and cost recovery
R&I-2006-015	Terminated	Joe Grima Baxter Ltd	Modular Intravenous Set
R&I-2006-026	Final	Mr Joe Sultana Ascent Software Ltd	Bio-Structor: a portable software tool for biological visualization
R&I-2006-027	Final	Dr Stephen Abela University of Malta	Desalination of Sea/Brackish Water by Decentralized Solar Energy Units
R&I-2006-045	Complete	Dr Ing. Michael Saliba University of Malta	A rationalization of industrial automation requirements and service provision in Malta, with a focus on the development of new modular reconfigurable industrial automation systems
R&I-2006-046	Complete	Dr Ing. Jonathan C. Borg University of Malta	Intelligent Design and Manufacture of Micro-Parts for Biomedical Applications: Case Study – The development of a laparoscopic surgery tool
R&I PROJECTS 2008			
Project No.	Status	Contact Person	Name of the project
R&I-2008-006	Complete	Dr Stephanie Bezzina Wettinger. University of Malta	Inflammation Atherosclerosis and Myocardial infarction in the Maltese population
R&I-2008-025	Complete	Dr Alexiei Dingli University of Malta	PINATA - Pervasive Nursing And docToral Assistant
R&I-2008-026	Pending Decision	Mr Michael Bonello, University of Malta	Solar Hot Water controller so as to automatically control the use of electrical energy through the use of back-up heater in inclement weather, thereby reducing energy consumption and CO2 release
R&I-2008-037	Complete	Prof. Joseph Grima University of Malta	Manufacture, modelling and testing of foams, with particular emphasis on a new manufacturing method for the production of ‘value-added’ auxetic foams
R&I-2008-052	Complete	Dr Gordon J. Pace University of Malta	Dependability and Error-Recovery in Security Intensive Financial Systems
R&I-2008-059	Complete	Dr Lilian M.Azzopardi University of Malta	Increasing the yield in the production of slow release pellets in the manufacture of tablets and capsules
R&I-2008-068	Complete	Dr Neville Vassallo University of Malta	Identification of Neuroprotectants from terrestrial and marine plant extracts in newrodegenerative disorders of the amyloid type
R&I SP 2008-001	Terminated	Claudette Gambin Ministry of Resources and Rural Affairs	Valorisation of the Indigenous Vine Varieties of Malta: Conservation, Assessment and Innovation

R&I PROJECTS 2009			
Project No.	Status	Contact Person	Name of the project
R&I-2009-003	Complete	Dr. Tonio Sant University of Malta	Design and Analysis of an Innovative Offshore Wind Turbine Support Structure for Deep Water Applications in the Maltese Islands
R&I-2009-010	Complete	Dr Ing. Duncan Camilleri University of Malta	Innovative Fibre Reinforced Composites Designed For Higher Structural Performance
R&I-2009-019	Complete	Mr Charles Saliba Institute of Cellular Pharmacology	Investigation of chaperone modulators as regulators of diabetes, cancer and stem cell expansion.

R&I PROJECTS 2010			
Project No.	Status	Contact Person	Name of the project
R&I-2010-019	Complete	Ing. Vince Maione MCAST	The Development of an Integrated Personal Mobility Device
R&I-2010-024 INTERMEDIATE	Complete	Mr Noel Gauci Dexawave Energy Malta Ltd	Converting wave energy into electrical energy - focusing on mediterranean region and climate
R&I-2010-025	Final	Ing. Michael Attard IMA Engineering Services Ltd	Investigation of Advanced Metal – Diamond Composites for Thermal Management Applications
R&I-2010-030	Intermediate	Mr Adrian Bugeja Douglas University of Malta	Molecular Characterization and Authentication of Maltese Honey
R&I-2010-038	Intermediate	Mr Alberto Miceli Farrugia Architecture Project Ltd	No-discharge Energy-efficient Prototype for Treatment of Urban Municipal Effluent (for water self-sufficiency in Public Gardens)

R&I PROJECTS 2011			
Project No.	Status	Contact Person	Name of the project
R&I-2011-002	Complete	Dr Claire De Marco University of Malta	Fabrication of advanced hybrid composite sandwich panels – testing & simulation
R&I-2011-010	Final	Dr Ing. Saviour Zammit University of Malta	Digital Gaming Clouds for Mobile Users
R&I-2011-011	Final	Ing. Ryan Xuereb Econetique Ltd	Development of a family of Augmented Lift - Self Adjusting - Vertical Axis Wind Turbines (VAWT) for urban wind context
R&I-2011-018	Terminated	Analiza Abdilla S-TECH Ltd	MARine LOGging Notebook
R&I-2011-019 I	Terminated	Analiza Abdilla S-TECH Ltd	Realtime Portable Reconfigurable Power Management Interoperable System
R&I-2011-021	Complete	Ing. Kenneth Chircop University of Malta	Cleaner flight operations in departure and approach in Maltese Airspace
R&I-2011-022	Final	Ing. Marco Cremona Sustech Consulting	Research on the use of infiltration boreholes for flood mitigation and to enhance groundwater recharge
R&I-2011-024	Complete	Prof. Joseph N. Grima University of Malta	Stent – manufacture, architecture, research, treatment

R&I PROJECTS 2012			
Project No.	Status	Contact Person	Name of the project
R&I-2012-002	Final	Dr. Ing. Philip Farrugia University of Malta	Exploiting Multi-Material Micro Injection Moulding for Enhancing Manufacturing Competitiveness
R&I-2012-024	Intermdeiate	Dr Stephanie Bezzina Wettinger University of Malta	Harnessing and Maximising the Potential of Next Generation Sequencing Technology. NGS
R&I-2012-041	Initial Stage Extended	Prof. Luciano Mule'Stagno University of Malta	Innovative photovoltaics on water (SolAqua)
R&I-2012-057	Initial Stage Extended	Prof Kenneth p.Camilleri, University of Malta	Robust, Cost-effective Eye Gaze Technology for Assisted Communication
R&I-2012-058	Initial Stage Extended	Ing. Mario Galea Galea Curmi Engineering	Development of a Hollow Concrete Block with improved thermal properties, having same dimensions and load bearing characteristics as the traditional HCB.
R&I-2012-061	Initial Stage Extended	Dr Ruben Gatt University of Malta	Improved Meshing Designs for Skin Grafting
R&I-2012-065	Initial Stage Extended	Prof. Ing. David Zammit-Mangion, University of Malta	Advanced flight guidance and management using emerging interactive display technologies
R&I-2012-066	Intermediate	Dr Ruben Cauchi, University of Malta	In vivo drug discovery targeting mitochondria in animal models of Alzheimer's Disease, Parkinson's Disease and Diabetes Mellitus

R&I PROJECTS 2013			
Project No.	Status	Contact Person	Name of Project
R&I-2013-008	Shortlisted	Christian Colombo University of Malta	Generating Online Monitors from Tests Automatically
R&I-2013-014	Shortlisted	Prof Giuseppe Di Giovanni University of Malta	Closed-loop Serotonin Optogenetic Stimulation with EEG recording to Suppress Epileptic Seizures: A Therapeutic Device
R&I-2013-023	Shortlisted	Ray Vassallo MCAST	Offshore Passive Photovoltaics
R&I-2013-025	Shortlisted	Kenneth Chircop University of Malta	CLEAN-FLIGHT 2
R&I-2013-028	Shortlisted	Owen Falzon University of Malta	Thermal Imaging for Peripheral Vascular Disease Monitoring in Diabetics
R&I-2013-035	Shortlisted	Shane.A Hunter AquaBioTech Group	Bioplastic-Aided Recirculation Systems
R&I-2013-036	Shortlisted	Stephen Zammit Lornit Ltd.	Child Care System
R&I-2013-039	Shortlisted	Ing Michael Bonello Malta Industrial Innovation for SMEs Ltd.	Development of a framework to put human-machine interfaces (HMI) in the cloud
R&I-2013-041	Shortlisted	Prof Alexander E. Felice University of Malta	The Malta Human Genome project

The Commercialisation Voucher Programme

During 2013, the Council allocated €200,000 from the National R&I Funds (of €1.6 million) towards commercialisation, and has launched the Commercialisation Voucher Programme in October 2013. This Programme is intended to determine the commercialisation potential of proposed innovative solutions, prior to embarking on R&D. To this end, an inventor would benefit from information about the possibility of protecting the idea through IP, as well as market potential and economic wealth the proposed idea can generate.

This Programme would ensure that R&I Funds are spent on ideas which are innovative, have a potential of making it to the market and have a multiplier effect on the overall local economy. A number of applications were received in 2013.

International R&I Programmes - ENIAC

The Council also managed some national funds which were requested for the co-financing of research projects undertaken on a European level. During 2013, the University of Malta and ST Micro Electronics, joined a European consortium made up of 22 partners, for the ENIAC Joint Undertaking Call, to create a KET Pilot line. This Pilot line enables an installation that allows the acquiring of information about the future behaviour of an innovative product or process in an industrial facility, or in defining the design of such an industrial facility. The total value of the R&D activities generated through this partnership upon its conclusion is estimated at €3 billion. The application was successful and the Maltese partners have been granted a total of €1.75 million of national funding to participate in this project.

IMAGINEX

The Malta Council for Science and Technology is one of the partners in the Italia Malta Genome Breast Cancer Cross Boarder Risk Surveillance (IMaGenX) project, financed under the Operational Programme Italia Malta 2007-2013.

IMaGenX is a cross border network of users, health providers, administrators, and researchers from Sicily and Malta. Their task is to promote Breast Cancer surveillance. By integrating interdisciplinary expertise in epidemiology and molecular genetics and through client empowerment, it aims to strengthen the structured care and surveillance of women at risk from breast cancer.

Risk assessment, stratification and allocation of an appropriate surveillance programmes will be strictly evidence-based. Sophisticated risk evaluation undertaken by user-friendly computer-based e-assessments and algorithms, and community specialist counselling will complement existing Breast Screening.

IMaGenX will create an infrastructure to scrutinise putative environmental and genetic factors involved in malignancies in the central Mediterranean. Health initiatives such as preventive educational campaigns, medical or biochemical interventions, and bespoke IT screening will be precisely targeted.

Communities will take greater responsibility for their health. IMaGenX seeks to innovate by introducing state-of-the-art technologies and rationalise traditional resources from regional bodies. It will consolidate existing scientific potential from two prime Mediterranean regions into Research Institutes of Excellence.

Acting synergistically as strategic platforms they will transform their Life Sciences and Information Technology resources into world class industries engaged in cancer risk-reduction.

SUWANU

The Malta Council for Science and Technology is one of the partners in the Sustainable Water treatment and Nutrient reuse options project (SuWaNu) financed under the FP7 programme.

Agricultural practices put the biggest pressure on fresh water resources for irrigation and on fertilizer usage. The European farmers face serious problems such as freshwater scarcity and nutrient availability, extreme climate conditions and the growing demand of the increasing population. This results in rising prices for mineral fertilizers and food, risky measures such as untreated wastewater applications on fields, and environmental damages from overexploitation of resources.

Even though important local efforts have been made on research activities and initiatives for wastewater treatment and reuse in agriculture an integrated approach is needed among regions which are developing such research, incentivizing scientific, governmental and business collaboration within wastewater reuse in Europe. In this sense, the main goal of this project is to develop technologies offering a transnational cooperation service within research-driven clusters, involving universities, regional authorities, research centres,

technology developers, enterprises, farmers and farmer's associations related to wastewater treatment and to agriculture from 5 different clusters: Germany, Spain, Greece, Malta and Bulgaria.

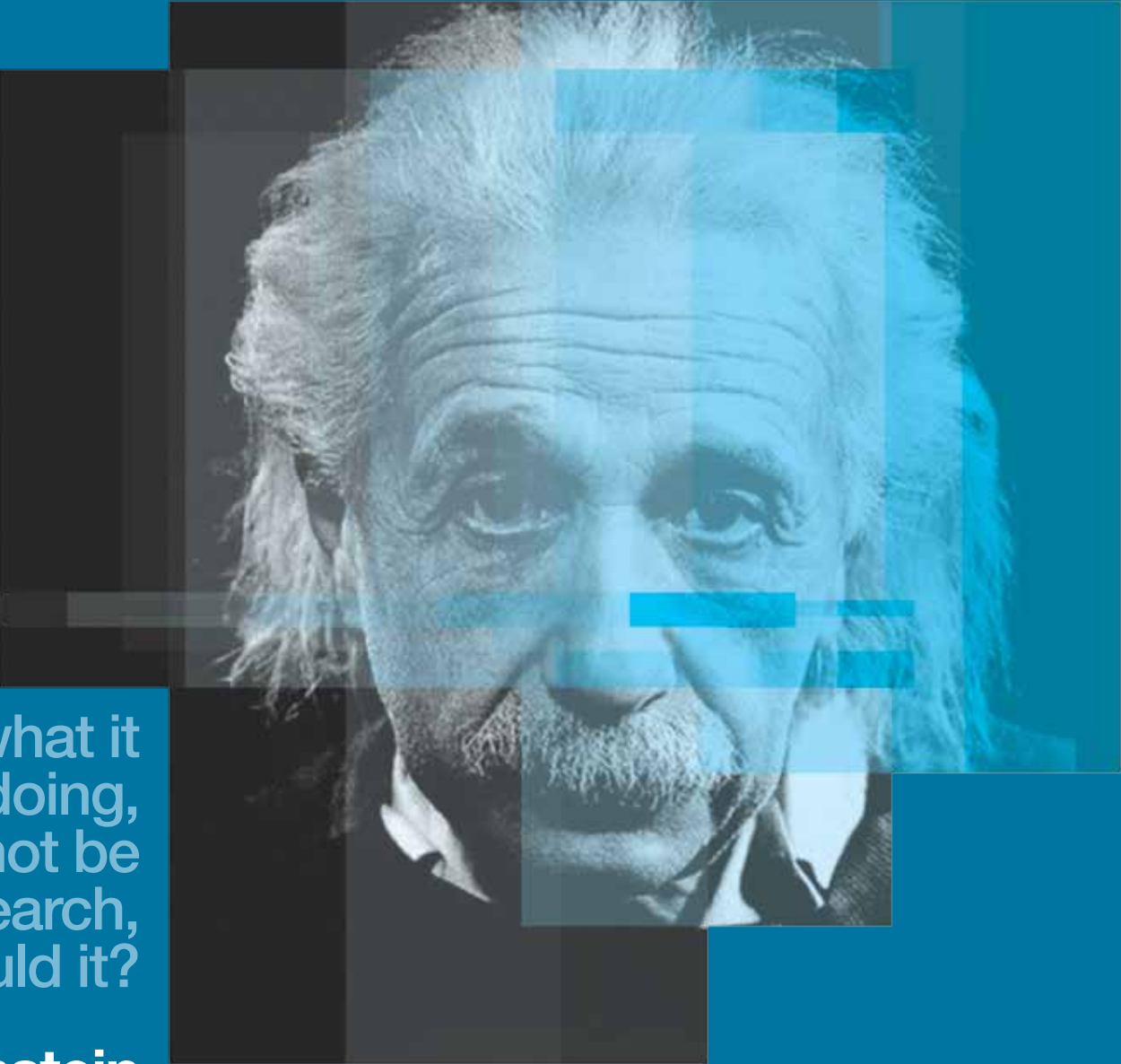
Space Technology

Space Technology became an area of focus in order to explore the market for products and services, as well as the use of space-applications for businesses and the educational sector. This in part resulted from the Cooperation Agreement which Malta signed with the European Space Agency (ESA) on 20th February 2012, Malta's Observer Status granted at ESA Ministerial level, and the Council's recognition of the vast Space Technology market which the Maltese industry and academia could exploit. In this respect, the Council is also active in building collaborative relationships between foreign space agencies, the Maltese government, industry and educational sector. In fact, work is well underway to establish a local infrastructure capable of absorbing local Space Technology projects through the ESA, Horizon 2020 and other avenues. Discussions with local organisations specialising in ICT, design optimisation and modelling, electronics and electrical system manufacture and testing, other high value manufacturing enterprises and various academic faculties, have been conducted and will continue through 2014. The Council also supported an international fellowship and a trainee placement at the ESA in 2013 and plans to support additional Maltese scientists and engineers who would like to bridge any competency gaps in preparation for work within the Space industry.

Looking ahead to 2014 and 2015, the Council plans to consolidate its Space Technology Strategy and strengthen the local infrastructure of organisations currently active within the Space Technology field, as well as continue to support other parties that show interest in this market.

“If we knew what it was we were doing, it would not be called research, would it?”

Albert Einstein



Horizon 2020

Director
Ms Nadine Castillo

The main function of the Horizon 2020 Unit is to provide a comprehensive overview of the Horizon 2020 Programme to Maltese researchers from academia as well as both private and public institutions. The main responsibilities of the Horizon 2020 Unit include 2 roles:

- Programme Committee Members;
- National Contact Points.

As Programme Committee Members, we represent national interests and discuss with the Commission on strategic planning and on ensuring links to nationally funded activities while providing input of the Work Programmes.

On the other hand, the network of National Contact Points (NCPs) provide guidance, practical information and assistance on all aspects of participation in Horizon 2020 at all stages of the Programme, from project submission to project implementation. In general, the following services are available:

- Guidance on choosing the relevant H2020 topics and actions;
- Advice on administrative procedures;
- Advice on proposal writing;
- Distribution of documents and other material;
- Assistance in partner searches.

The Seventh Framework Programme (FP7) was the main financial tool through which the European Union (EU) supported Research and Development (R&D) activities covering almost all scientific and technological disciplines during the period 2007 to 2013.

- With a total budget of over €54 billion devoted to grants for projects including partners from all over Europe and beyond, FP7 had two main strategic objectives:
- to strengthen the scientific and technological base of European industry;
 - to encourage its international competitiveness, while promoting research that supports EU policies.

The successor of the FP7, Horizon 2020 (2014-2020), is more ambitious both in terms of budget and scope. With a budget of approximately €80 billion, it aims to ensure that Europe produces world-class science, removes barriers to innovation and enhances public and private cooperation in delivering innovation. To do this, it couples Research and Development (R&D) with innovation, unlike in the previous Framework Programmes.

The FP7 Unit, which will be known as the Horizon2020 Unit following the launch of the programme, was set up with the aim to offer comprehensive information and expert assistance to local researchers and organisations interested in participating in the FP7 (and later, Horizon 2020).

These services include:

- Advice, assistance and training to Maltese participants in the form of workshops and seminars;
- Individual coaching, from project preparation to the dissemination of research results;
- Broadcasting the latest material and dates of current and forthcoming FP7 calls;
- Marketing Maltese scientific and technological excellence in other FP7 participating countries; and
- Support to Maltese FP7 participants in finding eligible European partners.

The FP7 NCPs were and continue to be nominated as Programme Committee members (PC) on scientific and technological areas supported by the programmes. Although the role of an NCP and delegate overlap, the latter processes and represents the national demands for the implementation of the FP7 to the European Commission. The delegations also ensure the link between the activities of the Commission and national public and private stakeholders involved in the implementation of the programme.

In 2013, the FP7 Unit continued to assist participants applying for the last calls of FP7. Moreover, the Malta Council for Science and Technology continues to be a partner in a number of NCP network projects connected to FP7 themes, within which the NCPs administer tasks, deliverables and reports on a periodical basis. These projects have provided a number of opportunities for participants to attend brokerage events.

Furthermore, the Council’s Brokerage Event Scheme which aimed at facilitating participation in Horizon 2020 through participation in brokerage events and meetings held in preparation of project proposals supported 13 researchers to attend brokerage events and consortium meetings all over Europe.

The Unit also provided funds through its FP7 Bonus Scheme, which was launched in 2012 to incentivise researchers to participate in the FP7 2013 Calls. The reward scheme was open to all Malta-based researchers who submitted successful FP7 project proposals starting from 1st October 2012 up until the end of 2013. Under this scheme, the rewards were based on 2% - 15% of the total funding obtained by Malta through the FP projects, depending on the nature of the project and the applicant’s role in the project. The financial reward was given directly to the researchers, in their own personal capacity, following the signing of the EU Grant Agreement on a first-come, first-served basis and until the allocated funds are available. This scheme enabled 10 researchers to receive an average of €12,000 each for their participation in the FP7, as of the last quarter of 2013.

The Unit also dedicated much of its efforts to the Competitiveness Council and Research Working Party policy discussions centring on Horizon 2020. Malta’s position on Horizon 2020 was established through consultation with the relevant authorities.

In tandem, the Unit also began working on an evaluation of Malta’s participation in the FP7 in order to identify synergies on a national level so as to better align national priorities to those at European level; to identify opportunities under the new funding programme for Research and Innovation Horizon 2020; and to identify weaker areas which could benefit from policy action.

The following is a snapshot of Malta’s success under the 7th Framework Programme:
To date, 155 retained proposals with at least one applicant from Malta were enlisted to receive over €20 million in funds. These projects include 185 Maltese participants. €7.9 million of the EC financial contribution went to Small and Medium Enterprises (SMEs).

More specifically, in terms of priority areas, Malta had most of its funded proposals under Research for the Benefit of SMEs (29), followed by ICT (16), the Marie Curie Actions (14) and Research Infrastructures (13). In terms of funding, the highest budget was allocated to the bottom-up scheme Research for the benefit of SMEs (over €4 million), most of which were concentrated in the ICT area, followed by the Information and Communication Technologies (ICT) thematic (€2.3 million), and Food, Agriculture and Fisheries, and Biotechnology (€1.8 million) and Science in Society (€1.8 million). In terms of Funding Schemes, the 155 retained projects were divided as follows:

- 58 Collaborative projects (receiving €8.9 million);
- 63 Coordination and Support Actions (receiving €5 million);
- 33 Marie Curie Actions, Research for the Benefit of SMEs and ERC (€5.4 million);
- 1 other (€0.7 million).

Following the closures of the FP7 calls, the FP7 Unit was busy preparing the foundation for Horizon 2020 (2014-2020), the successor of the FP7.

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over the span of 7 years running from 2014 to 2020. This programme promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at strengthening Europe's global position in research, innovation and technology, at responding to the economic crisis by investing in future jobs and growth and by addressing people's concerns about their livelihoods, safety and environment.

By coupling research and innovation, Horizon 2020 is helping to achieve this with its emphasis on excellent science, industrial leadership and tackling societal challenges. The goal is to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovation.

By way of simplifying access to this programme, it made participation open to everyone be it companies, universities and institutes in all EU countries and beyond. With a simple structure strategically devised to reduced red tape and time, participants can now truly focus on the more intricate challenges that the EU is facing. This approach ensures that new innovative projects with a high of EU added value, get off the ground quickly – and achieve results more rapidly.

The benefits one can reap from participating in this programme are not only of widening ones field of expertise and taking advantage of obtaining access to new technologies, but it will finance research ideas and help participants get their first pick at licensing patents. Horizon 2020 will enable research institutions to gain a competitive edge through transnational knowledge and will offer individual researchers the change to take advantage of development opportunities.

The FP7 Unit will now be the official National Contact Point Unit for Horizon 2020 to advise, assist and promote Researchers and Companies interested in tapping into Horizon 2020 funds for Research and Innovation. In the last quarter of 2013, Horizon 2020 calls were launched.

The NCPs organised an information session in order to inform the public of opportunities found under this programme. Meanwhile, the NCPs were heavily involved in the planning of the H2020 National Launch, which each member state had to schedule at some point during 2013 or 2014. Malta's national launch will be held at the Corinthia Hotel, St George's Bay on the 7 February 2014 where Ms. Maire Geoghegan Quinn, the European Commissioner for Research, Innovation and Science and Mr. Tonio Borg, the European Commissioner for Health, will be addressing the conference. The theme, 'A new Horizon: Research and Opportunities in Malta' will be exploring the opportunities that this programme offers for small and medium sized companies as well as other entities, while the support offered for researchers and academics will be showcased accordingly.

“I am among those who think that science has great beauty. A scientist in his laboratory is not only a technician: he is also a child placed before natural phenomena which impress him like a fairy tale.

Marie Curie



Science Popularisation Unit

Director

Mr Karl Azzopardi

The Science Popularisation Unit is characterised by a dynamic multi-disciplinary team that is driven by shared principles and objectives. The resultant work environment lends itself to the continuous enhancement of the Unit's endeavour to promote Science Communication and highlight its importance in today's society.

Initial Milestone Accomplished

2013 marked a turning point in the implementation of the Unit's flagship project, the National Interactive Science Centre, as the EU funding for the Science Centre was secured, triggering a step change for the team; from project planning to project execution.

Management Capacity Building

In view of the project's implementation process, the Unit led an intensive management capacity building training project (ESF 4.152). The training was delivered during the first half of 2013 and enhanced the Unit's insight into science centre organisational culture, operational aspects and the Malta Council for Science and Technology's project management practices.

Led by science centre industry experts, 12 staff members received 112 hours of training, focusing on four modules: science communication, exhibition development, science centre texts and practical science centre management. The training was conducted locally followed by six days of intensive, hands-on and behind-the-scenes sessions in the UK at the Science Museum, London and Techniquest, Cardiff. This provided the team with firsthand experience of science centres as a visitor. Each participant received an evaluation of their performance, with specific areas for further development. An intensive project management training course followed. Together with the rest of the Council's staff, the Unit successfully completed both Foundation and Practitioner courses in PRINCE2. This involved 40 hours of accredited training and approximately 20 hours of preparation and course work.

The training provided both the Council and the Unit a common language to manage projects, therefore, strengthening the efficiency and effectiveness of the public sector.

Strengthening the team & change in structure

Given the challenging nature of the NISC project, coupled with the stringent execution timeline, the Unit's organisational structure, work frame and processes were re-organised and tailored according to project's specific requirements. These changes allowed the team to embrace change and adopt a manage-by-exception approach to the project's management.

A Project Leader, Administrator and Executive were recruited to focus on the project management, administration and monitoring in accordance with the European Regional Development Fund (ERDF), Operational Programme I's regulations. The Unit's staff complement in engineering, health and safety and procurement was strengthened with the addition of further specialised human resources.

Project Progress

Civil & Infrastructural

The tenders for the Civil, Restoration and Finishing Works of the Science Centre and the Parking Area were the first to be published, following the announcement of the EU funds being secured in February 2013. The tender processes, including the evaluation of both work packages, progressed throughout 2013 and are anticipated to be awarded in early 2014. In preparation for the on-site commencement of works, other complementary works and services contracts have been procured, such as the archaeological and MEPA monitoring and the provision of the eventual power supply to the Centre.

Branding & Publicity

Another priority tender covering the ERDF project publicity campaign was contracted to MPS Ltd. Its main objective is to inform the general public that the project is being co-funded through the ERDF programme.

The brand identity of the Science Centre, including the name, strap line and logo design, has been entrusted to Logix Communications Ltd. The main objective is to create a coherent brand that is reflected in both the architectural and operational aspects of the Science Centre. The branding exercise will also deliver a brand manual, including an exhibition style guide that will assist the exhibit fabricators in producing exhibits that have a unified look and reflect the Centre's character.

Interactive Exhibits

Due to the complex nature of the interactive exhibits which will be the main attraction of the Science Centre, a Competitive Dialogue procurement procedure was adopted. Significant planning and thought was given to the preparation of documents, including consultations with the Council's procurement manager and Department of Contracts. The Competitive Dialogue Process is a three stage process. Interested bidders have to pass through a Pre-Qualification Questionnaire (PQQ).

An Evaluation Committee is set up for each PQQ (in our case 7 in total); the three best ranked candidates are shortlisted and formally invited to participate in the dialogue procedure. The tender dossier issued at this stage is the baseline document used for the dialogue process.

This document is subject to review and final alterations following the dialogues' outcome. As part of the Dialogue process, candidates are requested to attend a site visit, following which the dialogue is kept open, a clarification and answer process is operated and an initial solution is submitted. Subsequently, teleconferencing meetings are held and a final face-to-face dialogue session is conducted. This gives the contender and the Council an opportunity to discuss the proposal constructively with the ultimate aim of each candidate submitting the best and final offer.

By the end of 2013, the dialogue for the first exhibit work package was successfully completed. The remaining six packages have successfully passed the PQQ stage and are due to move into the dialogue stage during the early stages of 2014. It is envisaged that the exhibits are awarded at the beginning of Quarter 2, 2014. The drafting of other tenders is kept on-going in line with priority listings amongst which we find artefacts, IT hardware and software, science-related art pieces. The procurement process will continue throughout 2014.

Researchers Night

The Unit collaborated with the FP7 Unit to participate in the EU FP7's Researcher's Night. Amongst this year's activities, the programme included science-themed face painting; talks delivered by scientists on creepy crawlies and the cosmos for children; a live quiz including science-related gifts for the winners; talks on health and well being. Drama and dance were also used to communicate science.

New initiatives

In its ongoing endeavour to identify new initiatives, the Unit has short-listed and developed four new projects which are expected to be launched in 2014.

Malta Robotics Olympiad

The Malta Council for Science and Technology, in collaboration with the eLearning Department and the Directorate for Quality Standards in Education (DQSE) is organising the Malta Robotics Olympiad. Its main objective is to bring young people together to develop their creativity and problem solving skills through challenging and educational robotics competitions. The concept is derived from the World Robots Olympiad and ultimately aims to put Malta on the map when it comes to school robotics.

The competition is a team-based challenge in three categories Elementary, Junior and Senior. Partnering with The Malta Council for Science and Technology and eLearning Department are various departments from the University of Malta, the Institute of ICT, MCAST, Integrated Marketing Services Limited and the Malta Association of Science Educators.

Little Scientists

The Little Scientists House is a German foundation which aims to create a common platform for inquiry-based learning in primary education. This project intends to raise enthusiasm for phenomena in the natural sciences and encourages young enquiring minds to pose technical questions and come up with inventions as Little Scientists. Following successful negotiations with the foundation, this initiative will be launched in 2014 with training workshops for peripatetic science teachers and Heads of Departments from Church and Private Schools, in collaboration with the Directorate for Quality Standards in Education. Teaching resources will be provided in the form of experiment cards and project ideas on various topics. Participation in the project leads to the certification of classrooms/schools as Little Scientists' Houses which distinguishes them as learning environments specifically equipped for early learners' research and experimentation.

An Edible School Garden

The Edible School Garden project, conceived towards the end of 2013, is another exciting project aimed at our younger protagonists. The idea is to create a school garden with edible plants and trees to be used as a teaching tool by the school. The school chosen to pilot this project is the Kalkara Primary School, St. Margaret's College. The guiding principles behind this project are to design and develop a small garden into an outdoor classroom, using recycled materials and adopting Permaculture strategies in the planting and maintaining processes.

Since children in urban settings tend to have less opportunity to play outside, this project aims to create a quality outdoor experience in a school setting. This coupled with growing obesity and poor nutrition, increasing changes in climate and its repercussions on our environment make an edible school garden an ideal setting to help change these trends. This experience will institute a source of positive memories about nutritious foods that can affect life-long eating habits. The project will be enlisting teachers as well as parents interested in championing the project.

Science Communication Strategy

The Unit's science communication vision does not end with the delivery of the NISC project and new initiatives but sees itself becoming a driver behind the development of science communication strategies and policies. Local science communication activities are sparse and fragmented; therefore, the Unit has initiated the drafting of a science communication strategy by contracting the services of MISCO to conduct a national survey to collate data regarding local perceptions and awareness of science and science communication. The survey will be conducted in 2014 and will serve as the first step towards the compilation of the science communication strategy.

“Never before in history
has innovation offered
promise of so much
to so many
in so short a time.

Steve Jobs



Finance and Procurement

Financial Controller
Mr Charles Attard Bezzina

During 2013, the Finance Department continued to improve on the quality of the records and to keep up-to-date reporting despite the increased workload.

Preparations were made for the introduction of the new payroll system and the web based leave system fully integrated with the payroll system.

In 2013 the Finance Department also embarked on the implementation of a separate accounting system for each project that the Malta Council for Science and Technology has running. This ensures better accuracy of the accounting system and allows us to be fully compliant with project rules.

In 2013, together with the R&I Unit, the Finance Department carried out some pilot project audits, and it was decided, that rather than have the projects audited externally, the Council should employ an internal audit officer. The recruitment process is currently underway.

During 2013 various FP7 projects reached the final reporting stage and these were completed within the set deadlines.

In 2013 The Malta Council for Science and Technology had 300 visits abroad as against 222 in 2012 and the Finance Department handled the financial side and recording of these successfully.

In an unprecedented manner since the introduction of the Competitive Dialogue in the Maltese legislation back in 2005 (via LN 177/2005), the Malta Council for Science and Technology, in collaboration with the Department of Contracts, launched seven competitive dialogue processes during 2013.

These competitive dialogues aim to procure the supply, fabrication and installation of interactive science exhibits (which also include the fabrication of a planetarium) for the distinctive National Interactive Science Centre, which shall be housed in the former Royal Navy Hospital complex in Bighi, Kalkara.

The complexity that the Malta Council for Science and Technology was facing was not only based on the innovative aspects of the exhibits themselves but also on the required efforts to portray a unique experience for the visitors through which the targeted learning outcomes could be achieved.

All competitive dialogue processes were met with high participation from interested parties both in Malta and abroad. All shortlisted candidates actively participated in the dialogue and submitted highly interesting proposals.

The Malta Council for Science and Technology recognises that the competitive dialogue provided a cutting edge tool for procurement and that the desired levels would otherwise not have been achieved.

Executive Chairman’s office

Chief Administration Officer
Mr Mario Borg

The Executive Chairman’s Office includes the Administration Department, the Human Resource Management & Development Department, the ICT Unit, the Public Relations Unit, the Health and Safety Department and the Maintenance Team.

2013 saw a marked expansion in the personnel compliment. A total of 10 new recruits joined the Council, involving close coordination with the Employment & Training Corporation, advertising on newspapers, job interviews, issuing of employment contracts, and the organisation of new recruit job inductions.

Additionally, the Human Resource Management & Development Department handled more than 50 parliamentary questions, and administered the 12 sponsorship deals which the Council made with various individuals/entities in 2013.

All this required very close coordination between the Council, the Ministry for Education and Employment and the Management Personnel Office.

More than 10 press releases dealing with issues central to the Council’s remit, were also published.

Work also continued on the refurbishing of Villa Bighi, coordinated by the Administration Department, with extended electrical works. The building’s constant exposure to the sea and natural elements necessitate constant maintenance, which is also proficiently handled by the Maintenance Team.

A number of events were organised at the Council during 2013, making optimal use of the Villa’s lower grounds. Incorporating a 90-seat Conference Hall equipped with a PA system and projection, Villa Bighi hosted 20 workshops, 5 conferences, 18 information sessions and various press conferences. The Maintenance Team works hand in hand with the Administration Team and is tasked with the preparation works required for these events.

The Executive Chairman’s Office is responsible for Human Resources, Administration, maintenance of the entity’s IT, networks and website, PR, Health and Safety issues, Travel Arrangements, for coordinating the Villa’s maintenance, restoration, and refurbishment tasks, and for establishing and enforcing the Council’s general policies and procedures.

Annual Report & Financial Statements

For The Year Ended 31 December 2013

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Chairman’s report For the year ended 31 December 2013

The Chairman presents his report and the audited financial statements for the year ended 31 December 2013.

Principal activities

The Malta Council for Science and Technology (hereafter referred to as the Foundation), is responsible for the development of science and technology in Malta.

Review of the business

The level of business and the Foundation’s financial position is in line with expectations, and the Council expects that the present level of activity will improve in the foreseeable future.

Council

The members of the Council were:

- Chairman:
- Dr. Jeffrey Pullicino Orlando, B.Ch.D.(Hons)
- Vice Chairman & CEO:
- Prof. Richard Muscat, Ph.D (appointed on 12/06/2013)
- Dr. Nicholas Sammut, B.Eng.(Hons), Ph.D (resigned on 13/03/2013)
- Secretary:
- Dr. Vince Micallef, LL.D (appointed 20/06/2013)
- Dr. Alex Perici Calascione, LL.D (resigned 28/02/2013)
- Board Members:
- Prof. Maurice Grech, B.Eng.(Hons), M.Sc.(Birm), Ph.D.(Birm), C.Eng.F.I.M., M.I.B.F.
- Prof. Alfred Vella, B.Sc., M.Sc., Ph.D (Col.Sch.Mines), CSci, CChem, FRSC
- Prof. Emmanuel Sinagra, Ph.D (appointed on 12/06/2013)
- Mr. Robert Falzon (appointed on 12/06/2013)
- Dr. Karen Mugliett, Ph.D (appointed on 12/06/2013)
- Mr. David Degabriele (appointed on 12/06/2013)
- Prof. Janet Mifsud Ph.D (appointed on 12/06/2013)
- Dr. Ivan Gatt Ph.D (appinted on 12/06/2013)
- Dr. John Betts Ph.D (appointed on 12/06/2013)
- Ms. Claudine Cassar (appointed on 12/06/2013)
- Mr. Vincent Maione (appointed on 25/07/2013)
- Dr. Kristian Zarb Adami Ph.D (appointed on 25/07/2013)
- Dr. Susanne Gatt, B.Ed(Hons), M.A.(Sci.Educ) (Lond), Ph.D (resigned on 13/03/2013)
- Mr. Anthony Tabone, Dip. MRS, MCIM (resigned on 13/03/2013)
- Dr. Marisa Cassar, Ph.D, B.Pharm(Hons), Dip Mgt (Henley) (resigned on 14/03/2013)
- Mr. Charles Saliba, B.Sc(Hons) (resigned on 14/03/2013)
- Dr. Claire Bartolo, Ph.D (resigned on 13/03/2013)
- Dr. Alec Lapira, MD, MA(Leeds),MSc(Lond), DLORCS(Eng), Au.D(Florida), FAAA (resigned on 14/03/2013)
- Mr. Charles Theuma, BCom, BSc, BA(Hons) in Mgmt (resigned on 13/03/2013)
- Ing. Silvana Falzon, B.Eng(Elec) (Hons), MBA (Maastricht) (resigned on 14/03/2013)
- Dr. Sue Vella Ph.D. (York), M.Sc. (London), BA Hons (Malta), Dip App SS (Malta) (resigned on 13/03/2013)

Statement of Council’s responsibilities

The Council is required by the Charter Document of the Foundation to prepare financial statements which give a true and fair view of the state of affairs of the Foundation as at the end of each financial period and of the surplus or deficit for that period.

In preparing the financial statements, the Council members are responsible for ensuring that:

- appropriate accounting policies have been consistently applied and supported by reasonable and prudent judgments and estimates;
- the financial statements have been drawn up in accordance with the Accountancy Profession (General Accounting Principles for Smaller Entities) Regulations, 2009 and the Schedule accompanying and forming an integral part of those Regulations;
- the financial statements are prepared on the going concern basis unless it is inappropriate to presume that the Foundation will continue in business as a going concern.

The Council is also responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the Foundation and to enable the council members to ensure that the financial statements comply with the Charter Document of the Foundation. They are also responsible for safeguarding the assets of the Foundation, and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Auditor

A resolution to reappoint the firm Mercieca, Azzopardi & Co. as auditors of the Malta Council for Science and Technology will be proposed at the forthcoming meeting at which these financial statements are approved and authorised for issue.

By order of the Council


Dr. Jeffrey Pullicino Orlando, B.Ch.D.(Hons)
Chairman

“Villa Bighi”
Kalkara
Malta

15 April 2014

Report on the financial statements

We have audited the accompanying financial statements of the Malta Council for Science and Technology set out on pages 38-47, which comprise the balance sheet as at 31 December 2013, the income and expenditure account, statement of changes in equity and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory information.

Council’s responsibility for the financial statements

The Council is responsible for the preparation of financial statements that give a true and fair view in accordance with the Accountancy Profession (General Accounting Principles for Smaller Entities) Regulations, 2009 and the Schedule accompanying and forming an integral part of those Regulations and for such internal control as the council members determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the council members, as well as evaluating the overall presentation of the financial statements.

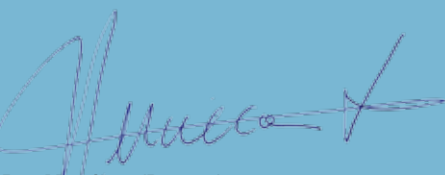
We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements give a true and fair view of the financial position of Malta Council for Science and Technology as at 31 December 2013, and of its financial performance and its cash flows for the year then ended in accordance with General Accounting Principles for Smaller Entities.

Report on Other Legal and Regulatory Requirements

In our opinion, the financial statements have been properly prepared in accordance with the Accountancy Profession (General Accounting Principles for Smaller Entities) Regulations, 2009 and the Schedule accompanying and forming an integral part of these Regulations, for qualifying entities as presented in these regulations.



Ray Mercieca (Partner)
for and on behalf of

Mercieca, Azzopardi & Co.
Certified Public Accountants
San Gwann
Malta

15 April 2014

	Notes	2013	2 012
		€	€
Project income		568,884	1,753,967
Project expenses		(591,942)	(1,784,914)
Gross deficit		(23,058)	(30,947)
Administrative expenses		(1,456,928)	(1,293,699)
Operating deficit	3	(1,479,986)	(1,324,646)
Other income	5	1,584,281	1,171,949
Investment income	6	3,213	1,982
Interest payable and similar charges	7	(402)	(430)
Surplus/(deficit) for the year		<u>107,106</u>	<u>(151,145)</u>

	Notes	2013	2012
		€	€
Assets			
Non-current assets			
Property, plant and equipment	9	740,639	640,825
Investments in associated undertaking	10	-	-
		<u>740,639</u>	<u>640,825</u>
Current assets			
Trade and other receivables	11	476,844	357,297
Cash and bank		<u>1,279,227</u>	<u>704,354</u>
		<u>1,756,071</u>	<u>1,061,651</u>
Total assets		<u>2,496,710</u>	<u>1,702,476</u>
Equity			
Reserves			
Accumulated fund		<u>372,612</u>	<u>265,506</u>
Liabilities			
Non-current liabilities			
Trade and other payables	12	<u>641,784</u>	<u>455,708</u>
Current liabilities			
Trade and other payables	12	<u>1,482,314</u>	<u>981,262</u>
Total liabilities		<u>2,124,098</u>	<u>1,436,970</u>
Total equity and liabilities		<u>2,496,710</u>	<u>1,702,476</u>

The financial statements on pages 38 to 47 were authorised for issue by the Council on 15 April 2014 and were signed on its behalf by


Dr. Jeffrey Pullicino Orlando
Chairman


Dr. Vince Micallef
Secretary

Statement of changes in equity
for the year ended 31 December 2013

	Accumulated fund	Total
	€	€
Balance at 1 January 2012	416,651	416,651
Deficit for the year	(151,145)	(151,145)
Balance at 31 December 2012	<u>265,506</u>	<u>265,506</u>
Balance at 1 January 2013	265,506	265,506
Surplus for the year	<u>107,106</u>	<u>107,106</u>
Balance at 31 December 2013	<u>372,612</u>	<u>372,612</u>

Cash flow statement
for the year ended 31 December 2013

	Note	2013 €	2012 €
Cash flow from operating activities:			
Operating deficit		(1,479,986)	(1,324,646)
Adjustments for:			
Depreciation of property, plant and equipment		63,165	57,889
Impairment of investment in associate undertaking		—	7,761
Operating deficit before working capital changes		(1,416,821)	(1,258,996)
Changes in working capital			
Trade and other receivables		(119,547)	(294,798)
Trade and other payables		<u>501,052</u>	<u>(529,656)</u>
Cash used in operations		(1,035,316)	(2,083,450)
Interest received		3,213	1,982
Interest paid		(402)	(403)
Other income		<u>1,584,281</u>	<u>1,171,949</u>
Net cash generated from/(used in) operating activities		<u>551,776</u>	<u>(909,949)</u>
Cash flows used in investing activities			
Purchase of plant, property and equipment		(162,979)	(437,954)
Cash flows generated from financing activities			
Contribution from government grants		<u>186,076</u>	<u>455,708</u>
Movement in cash and cash equivalents		574,873	(892,195)
Cash and cash equivalents at beginning of year		<u>704,354</u>	<u>1,596,549</u>
Cash and cash equivalents at end of year	13	<u>1,279,227</u>	<u>704,354</u>

1. Basis of preparation

The financial statements of the Malta Council for Science and Technology have been prepared in accordance with the Accountancy Profession (General Accounting Principles for Smaller Entities) Regulations, 2009 and the Schedule accompanying and forming an integral part of those Regulations (“GAPSE”).

Basis of measurement

The financial statements are prepared in accordance with the historical cost convention.

Functional and presentation currency

The financial statements are presented in euro, which is the Foundation's functional currency.

2. Significant accounting policies

Property, plant and equipment

Recognition and measurement

The cost of an item of property, plant and equipment is recognised as an asset when it is probable that the future economic benefits that are associated with the asset will flow to the entity and the cost can be measured reliably. Property, plant and equipment are initially measured at cost comprising the purchase price, any costs directly attributable to bringing the assets to a working condition for their intended use, and the costs of dismantling and removing the item and restoring the site on which it is located. Subsequent expenditure is capitalised as part of the cost of property, plant and equipment only if it enhances the economic benefits of an asset in excess of the previously assessed standard of performance, or it replaces or restores a component that has been separately depreciated over its useful life.

Property, plant and equipment is carried under the cost model, that is at cost less any accumulated depreciation and any accumulated impairment losses.

Depreciation

Depreciation is calculated to write down the carrying amount of the asset on a straight line basis over its expected useful life. Depreciation of an asset begins when it is available for use and ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal

group that is classified as held for sale) in accordance with Section 24 of GAPSE or the date that the asset is derecognised. The depreciation charge for each period is recognised in profit or loss. The rates of depreciation used are based on the following useful lives:

	%
Improvements to building	10
Office equipment	10
Soft furnishings	10
Technical equipment	20
Furniture, fixtures and fittings	10
Motor vehicles	20
Computer hardware and software	33.33

No depreciation is being provided for on the National Interactive Science Centre. Government funds are available to set up the National Interactive Science Centre at the Bighi complex in Kalkara. The science centre has so far incurred expenses relating to design and in accordance with Section 7.20 of GAPSE no depreciation is being provided for until the asset in made available for use.

Impairment

The carrying amounts of the Foundation's property, plant and equipment are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated.

Whenever the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognised and the carrying amount of the asset is reduced to its recoverable amount. Impairment losses are recognised immediately in profit or loss, unless they relate to an asset which is carried at revalued amount, in which case they are treated as a revaluation decrease in accordance with the applicable Section in GAPSE.

The carrying amounts of the Foundation's assets are also reviewed at each balance sheet date to determine whether there is any indication that an impairment loss recognised in prior periods may no longer exist or may have decreased. If any such indication exists, the asset's recoverable amount is estimated. An impairment loss previously recognised is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. When an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, to the extent that it does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. Impairment reversals are recognised immediately

in profit or loss, unless they relate to an asset which is carried at revalued amount, in which case they are treated as a revaluation increase in accordance with the applicable Section in GAPSE.

Investment in associate undertakings

An associate is an entity over which the foundation has significant influence and that is neither a subsidiary nor an interest in a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the associate but is not control or joint control over those policies.

Investments in associates are initially measured at cost. After initial recognition, the investment may be carried under the cost method, or under the equity method, that is at its initial recognition amount, subsequently adjusted to recognise the foundation's share of the profit or loss or changes in equity of the associate after the date of acquisition, and to recognise impairment losses.

After initial recognition, investments in associates are carried under the cost method. Under the cost method, the investment is measured at cost less any impairment losses. Distributions received are recognised as investment income in profit or loss when the foundation's right to receive the dividend is established.

Trade and other receivables

Trade and other receivables are carried forward at anticipated realisable value. An estimate is made for doubtful receivables based on a review of all outstanding amounts at year end. Bad debts are written off during the year in which they are identified.

Trade and other payables

Trade and other payables are stated at their nominal value.

Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits. Bank overdrafts that are repayable on demand and form an integral part of the Foundation's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows.

Revenue

Revenue is recognised upon performance of services and is reported in the financial statements as project income.

3. Operating deficit

The operating deficit is stated after charging the following:

	2013	2012
	€	€
Depreciation of property, plant and equipment (note 9)	63,165	57,889
Staff costs (note 4)	1,077,725	967,779
Auditor's remuneration	1,700	1,700
Movement in provision for irrecoverable debt	-	2,357

4. Staff costs

	2013	2012
	€	€
Wages and salaries	943,433	825,382
Social security costs	63,667	60,941
Council members' emoluments	70,625	81,456
	1,077,725	967,779

Average number of full time equivalents employed during the year:

	2013	2012
	€	€
Administration	37	41

5. Other income

	2013	2012
	€	€
Government of Malta subvention	952,149	945,210
Grants related to capital expenditure	97,191	29,318
Refund of salaries and expenses	40,449	193,685
Science Centre subvention	482,130	-
Sundry income	12,362	3,736
	1,584,281	1,171,949

6. Investment income

	2013	2012
	€	€

Interest receivable on bank balances	<u>3,213</u>	<u>1,982</u>
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7. Interest payable and similar charges

	2013	2013
	€	€

Bank interest payable and similar charges	<u>402</u>	<u>430</u>
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8. Income tax

No provision for Malta income tax has been made in these financial statements as the Malta Council for Science and Technology is exempt from Malta income tax.

9. Property, plant and equipment

	Improvements to building €	National Interactive Science Centre €	Office Equipment €	Soft Furnishings €	Technical Equipment €	Furniture, fixtures & fittings €	Motor vehicles €	Computer hardware & software €	Total €
Cost									
At 1 January 2012	462,876	-	47,400	19,381	86,400	198,587	32,926	196,738	1,044,308
Additions	10,290	362,300	467	227	-	19,623	-	45,047	437,954
Released on capital	-	-	-	-	-	-	(24,074)	-	(24,074)
At 1 January 2013	473,166	362,300	47,867	19,608	86,400	218,210	8,852	241,785	1,458,188
Additions	-	<u>126,261</u>	-	-	<u>1,161</u>	<u>6,535</u>	-	<u>29,022</u>	<u>162,979</u>
At 31 December 2013	<u>473,166</u>	<u>488,561</u>	<u>47,867</u>	<u>19,608</u>	<u>87,561</u>	<u>224,745</u>	<u>8,852</u>	<u>270,807</u>	<u>1,621,167</u>
Depreciation charge									
At 1 January 2012	290,154	-	45,306	18,699	84,865	131,639	32,926	179,959	783,548
Charge for the year	20,372	-	378	119	663	10,481	-	25,876	57,889
Released on disposal	-	-	-	-	-	-	(24,074)	-	(24,074)
At 1 January 2013	310,526	-	45,684	18,818	85,528	142,120	8,852	205,835	817,363
Charge for the year	<u>20,372</u>	-	<u>378</u>	<u>119</u>	<u>896</u>	<u>11,061</u>	-	<u>30,339</u>	<u>63,165</u>
At 31 December 2013	<u>330,898</u>	-	<u>46,062</u>	<u>18,937</u>	<u>86,424</u>	<u>153,181</u>	<u>8,852</u>	<u>236,174</u>	<u>880,528</u>
Net book value									
At 31 December 2013	<u>142,268</u>	<u>488,561</u>	<u>1,805</u>	<u>671</u>	<u>1,137</u>	<u>71,564</u>	-	<u>34,633</u>	<u>740,639</u>
Net Book Value									
At 31 December 2012	<u>162,640</u>	<u>362,300</u>	<u>2,183</u>	<u>790</u>	<u>872</u>	<u>76,090</u>	-	<u>35,950</u>	<u>640,825</u>

10. Investment in associated undertaking	2013	2012
	€	€
Investment in associated undertakings at cost	-	-

Name	Registered office	Principal activities	Percentage of shares held	
			2013	2012
Euromediti Limited	Villa Bighi, Kalkara Malta	Development of new technologies	33%	33%
Euromediti Limited has given notice in accordance with Article 265 (1) of the Companies Act, 1995 that it has passed an extraordinary resolution dated 25 January 2013, for its dissolution and consequential voluntary winding up.				

11. Trade and other recievables	2013	2012
	€	€
Trade receivables	10,916	2,914
Prepayments	8,355	8,355
Accrued income	303,031	229,840
Indirect taxation	<u>154,542</u>	<u>116,188</u>
	<u>476,844</u>	<u>357,297</u>

12. Trade and other payables	2013	2012
Non Current	€	€
Government Grants		
At beginning of year	455,708	-
Additions	186,076	455,708
Released to income and expenditure account	-	-
At end of year	<u>641,784</u>	<u>455,708</u>
Current		
Trade payables	53,968	73,672
Contingency	2,578	2,578
Accruals	133,641	104,772
Deferred income	<u>1,292,127</u>	<u>800,240</u>
	<u>1,482,314</u>	<u>981,262</u>

12. Trade and other payables (cont.)

In accordance with the Foundation's accounting policies relating to grants received for the purchase of tangible non-current assets, grants are included with non-current liabilities and are credited to the income and expenditure account when the asset is available for use, on a straight line basis over the expected useful lives of the related assets. The balance at end of year refers to grants granted by the Government of Malta to the Foundation for the design and construction of the National Interactive Science Centre.

13. Cash and cash equivalents

For the purposes of the cash flow statement, the cash and cash equivalents at the end of the year comprise the following:

	2013	2012
	€	€
Cash at bank and in hand	<u>1,279,227</u>	<u>704,354</u>

14. Contingent liabilities

At 31 December 2013, guarantees amounting to €4,659 (2012: €4,659) were given by the Foundation during the normal course of operational activity in favour of third parties over which no loss is expected to arise.

Design Solutions Limited have initiated legal proceedings against the Foundation, claiming for the National Interactive Science Centre contract be awarded to them. Malta Council for Science and Technology has requested a retrial which is currently being heard. The Foundation's lawyers are unable to quantify any potential contingency arising from the said case due to the nature of the claims.

15. Related party transactions

Malta Council for Science and Technology is a public Foundation funded by the Government of Malta. Transactions with the Government of Malta during the year arose as shown hereunder:

	2013	2012
	€	€
Other funding	<u>952,149</u>	<u>945,210</u>

Fees and salaries payable to the Council Members have been disclosed separately in note 4.



The Malta Council for
Science & Technology

**To Raise the Profile &
Standard of Science,
Technology, Research &
Innovation in Malta**

Information & Communications Technology with focus on software development related to bridging technologies in security, hardware, telecommunications, health, marine and specialised applications.

Health & Biotechnology with focus on human genetics, bio-informatics for support of clinical trials including pharmacogenetic ones and bio-technology for transition of generic pharma.

Energy & Environment with focus on solar, wind, and bio energy together with energy efficiency technologies, as well as water, desalination, waste rehabilitation technologies, soil and marine management.

Value-added Manufacturing & Services with focus on building SMEs as cluster elements in value-added manufacturing and services provision.