

# The Researchers Report 2012

## Country Profile: Malta



**Deloitte.**

## TABLE OF CONTENTS

<b>1. KEY DATA</b>	<b>3</b>
<i>National R&amp;D intensity target</i>	3
<i>Key indicators measuring the country's research performance</i>	3
<i>Stock of researchers</i>	4
<b>2. NATIONAL STRATEGIES</b>	<b>4</b>
<b>3. WOMEN IN THE RESEARCH PROFESSION</b>	<b>5</b>
<i>Measures supporting women researchers in top-level positions</i>	5
<i>Maternity leave</i>	6
<b>4. OPEN, TRANSPARENT AND MERIT-BASED RECRUITMENT</b>	<b>6</b>
<i>Recruitment system</i>	6
<i>Open recruitment in institutions</i>	6
<i>EURAXESS Services Network</i>	8
<b>5. EDUCATION AND TRAINING</b>	<b>8</b>
<i>Measures to attract and train people to become researchers</i>	8
<i>Doctoral graduates by gender</i>	9
<i>Funding of doctoral candidates</i>	9
<i>Skills agenda for researchers</i>	10
<b>6. WORKING CONDITIONS</b>	<b>10</b>
<i>Measures to improve researchers' funding opportunities</i>	10
<i>Remuneration</i>	10
<i>The European Charter for Researchers' &amp; the 'Code of Conduct for the Recruitment of Researchers'</i>	10
<i>Autonomy of institutions</i>	10
<i>Career development</i>	11
<i>Social security benefits (sickness, unemployment, and old-age)</i>	11
<b>7. COLLABORATION BETWEEN ACADEMIA AND INDUSTRY</b>	<b>11</b>
<b>8. MOBILITY AND INTERNATIONAL ATTRACTIVENESS</b>	<b>12</b>
<i>Measures aimed at attracting and retaining 'leading' national, EU and third country researchers</i>	12
<i>Inward mobility (funding)</i>	12
<i>Outbound mobility</i>	12
<i>Promotion of 'dual careers'</i>	12
<i>Portability of national grants</i>	12
<i>Access to cross-border grants</i>	12
<i>Measures encouraging inter-sectoral mobility</i>	12

# 1. Key data

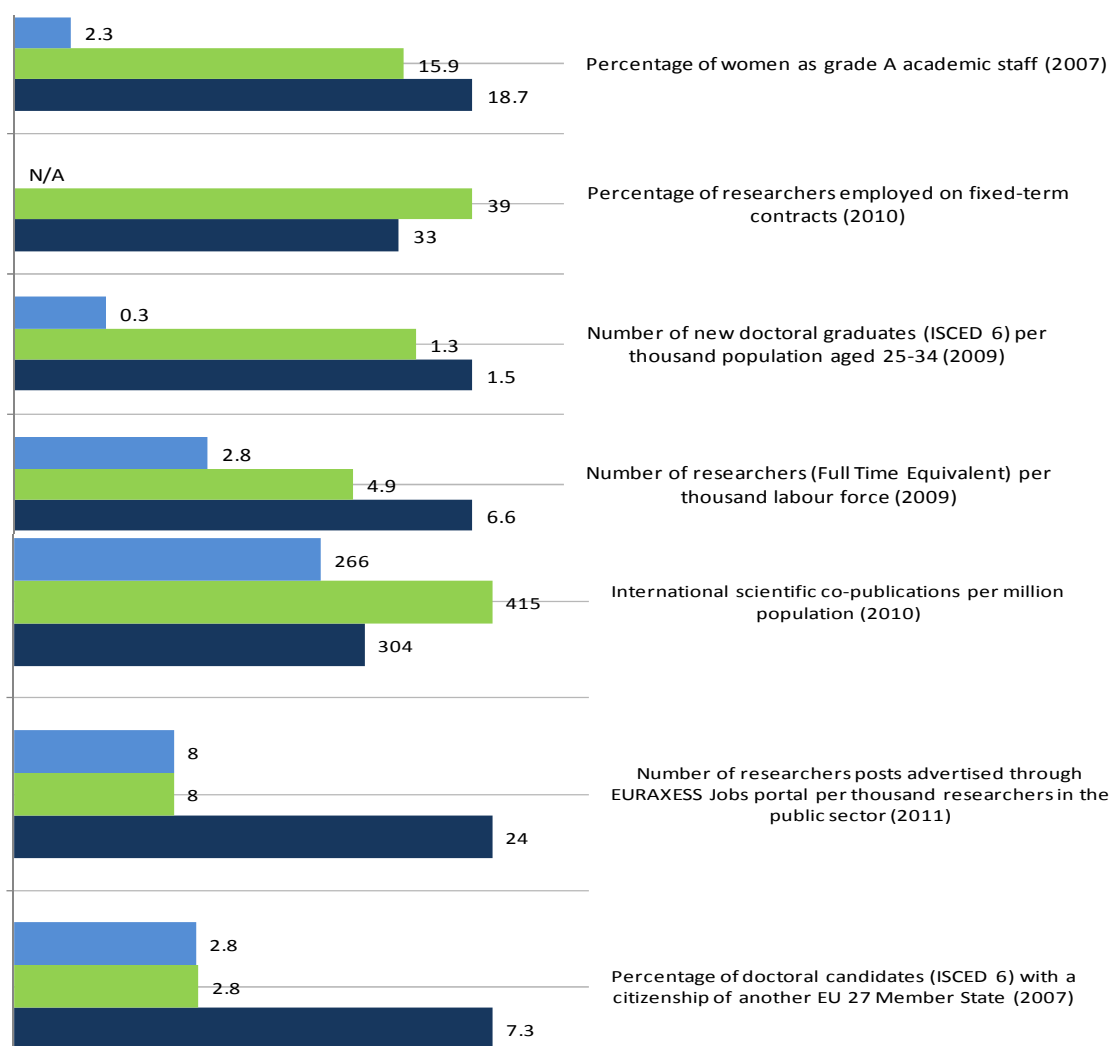
## National R&D intensity target

“In the last decade, R&D intensity in Malta reached a peak of 0.61% in 2006 and a decline to 0.55% in 2009. Despite this overall progress in R&D intensity, Malta still scores very low and far from the EU average. An economic structure organised around the service sector, dominated by micro enterprises with less than 10 employees, somehow determines the capacity of the country to increase its overall R&D intensity. As a result, Malta has set a R&D target of 0.67% to be achieved by 2020. Given the size of the country and the capacity of the research system, Malta will need to specialise its R&D investments in particular niche fields where the system can achieve sufficient critical mass to support the local economy. Presently, Malta has identified health and biotechnology, energy and environmental technologies, ICT and value added manufacturing and services as potential areas to focus on.”<sup>1</sup>

## Key indicators measuring the country's research performance

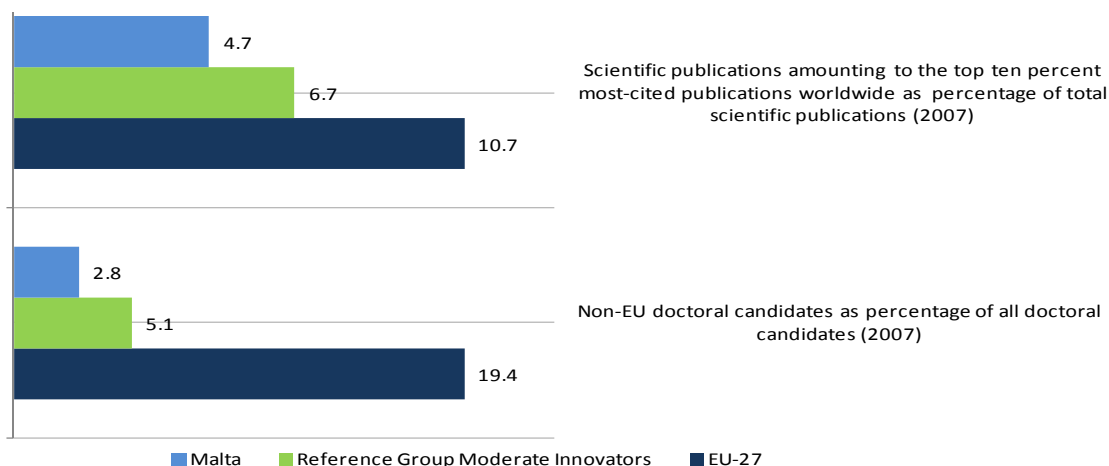
The figure below presents key indicators measuring Malta's research performance against a reference group and the EU-27 average<sup>2</sup>.

Figure 1: Key indicators – Malta



<sup>1</sup> European Commission (2011), “Innovation Union Competitiveness Report 2011”.

<sup>2</sup> The values refer to 2011 or the latest year available.



Source: Deloitte

Data: Eurostat, SHE Figures, EURAXESS Jobs Portal, Science Metrix/Scopus (Elsevier), Innovation Union Scoreboard 2010

Notes: Based on their average innovation performance across 24 indicators, Czech Republic, Greece, Hungary, Italy, Malta, Poland, Portugal, Slovakia and Spain show a performance below that of the EU-27. These countries are the Moderate innovators<sup>3</sup>.

### Stock of researchers

The table below presents the stock of researchers by Head Count (HC) and Full Time Equivalent (FTE) and in relation to the active labour force.

Table 1: Human resources – Stock of researchers

Indicator	Malta	EU Average
Head Count per 1 000 active labour force (2008)	6.41	9.45
Head Count (2008)	1 092	-
FTE per 1 000 active labour force (2009)	2.81	6.63
Full time equivalent (FTE) (2009)	485	-

Source: Deloitte

Data: Eurostat

## 2. National strategies

The Maltese Government has put in place a range of measures aimed at training enough researchers to meet its R&D targets and at promoting attractive employment conditions in public research institutions. The table below presents key programmes and initiatives intended to implement the strategic objectives to train enough researchers to reach Malta’s R&D targets, to promote attractive working conditions, and to address gender and dual career issues.

Table 2: National strategies

Measure	Description
<b>Malta’s National Reform Programme Under the Europe 2020 Strategy (2011)</b>	Malta’s National Reform Programme, published by the Ministry of Finance, the Economy and Investment, contains 25 distinct new measures aimed at ensuring that Malta achieves its Europe 2020 targets. The National Reform Programme refers to the development of doctoral and postdoc funding schemes as one of the measures to increase the number of scientific researchers in the country. Seven distinct sets of structural reform measures are meant to address growth bottlenecks and macroeconomic imbalances, and increase Malta’s competitiveness. The total outlays on these measures, which are covered by a mix of private funds, EU funds and public funds, are estimated at EUR 578 million.
<b>Malta’s National Reform Programme 2008-2010 (2008)</b>	Malta’s National Reform Programme 2008-10 focused on a number of issues for national competitiveness including investing in people and modernising labour markets. The Strategy clearly defined the need for incentives to promote research, development and innovation capacity in Malta. It also promoted the need for fiscal incentives to those industries that cluster with SMEs and Higher Education Institutions and targeted the following industrial areas, among others: education, health care, ICT,

<sup>3</sup> European Commission (2011), “Innovation Union Scoreboard 2010”.

Measure	Description
<b>Malta's National Strategic Plan for Research &amp; Innovation - A Vision for Knowledge-Driven Growth 2011-2020 (2011)</b>	<p>bio-technology, bio-informatics.</p> <p>The Malta Council for Science and Technology is currently managing the preparation of the new national R&amp;I Strategic Plan 2011-20. The new R&amp;I Strategic Plan 2011-20 builds upon the achievements of the R&amp;I Strategic Plan 2007-10. Among its strategic principles are:</p> <ul style="list-style-type: none"> <li>– Leveraging national funds to address national R&amp;I challenges;</li> <li>– Expanding Malta's STEM human capital base, by investing in Malta's future capabilities for indigenous R&amp;I as well as increasing the attractiveness of the national system for foreign R&amp;I investment;</li> <li>– Building strong links between knowledge institutions and business, thus facilitating collaboration, joint research and transfer of knowledge, ensuring the best return on investment in new knowledge;</li> <li>– Supporting the development of a national culture supportive of innovation, creativity, risk-taking and entrepreneurship.</li> </ul>
<b>National Strategic Plan for Research and Innovation 2007-2010 (2006)</b>	<p>The 2007-2010 R&amp;I Strategic Plan aimed to provide a framework for building and sustaining an R&amp;I-enabling framework. The measures implemented included:</p> <ul style="list-style-type: none"> <li>– Overhaul of the Malta Council for Science &amp; Technology's organisational structure and increase in staff complement (from 8.5 FTE in 2007 to just over 30 FTE in October 2011);</li> <li>– Boosting human resources in S&amp;T and increasing researcher numbers: Strategic Educational Pathways Scholarships (STEPS) (EUR 10 million ESF4 project) and Malta Government Scholarship Scheme (MGSS) schemes (approximately EUR 466 000 annually through national funds) for the funding of Masters and Doctorate studies undertaken both locally and abroad. On average, MGSS supports 36 scholarships annually. By end-2010, STEPS had funded 554 scholarships (18% of which were PhD scholarships);</li> <li>– Science popularisation campaigns through a EUR 0.58 million ESF project over a two-year-period. Two science and technology festivals as well as other events targeting science in the community were organised through this project;</li> <li>– Work towards establishing bilateral agreements and collaborative initiatives with international scientific organisations (e.g. CERN5, ESA6 and EMBL7), including possible access to research infrastructures;</li> <li>– Awareness-raising on the importance of patents and support for SMEs to identify IP8 opportunities through the IP check-up diagnostic service;</li> <li>– Financial support for researchers to participate in brokerage events in the priority areas of research.</li> </ul>

Source: Deloitte

### 3. Women in the research profession

#### Measures supporting women researchers in top-level positions

In 2007, the percentage of women grade A academic staff was 2.3% in Malta compared with 15.9% among the Innovation Union reference group and an EU average of 18.7%<sup>9</sup>.

In Malta, the National Commission for the Promotion of Equality (NCPE) was set up in 2004 and since then it has acted as an autonomous government-funded organisation, which monitors the application of equality legislation. The primary task of NCPE is to monitor the implementation of the Chapter 456 Equality for Men and Women Act that came into force in December 2003 and to promote equality in spheres where it may be lacking. The Commission works to ensure that Maltese society is a society free from any form of discrimination based on gender or family responsibilities in all sectors and at all levels in relation to training and employment, and the provision of services and benefits. The Commission also works to ensure that there is no discrimination based on racial and/or ethnic origin in the provision of goods and services.

<sup>4</sup> European Social Fund.

<sup>5</sup> European Organisation for Nuclear Research.

<sup>6</sup> European Space Agency.

<sup>7</sup> European Molecular Biology Laboratory.

<sup>8</sup> Intellectual Property.

<sup>9</sup> See Figure 1 "Key indicators – Malta".

However, there are currently no initiatives specifically targeting the research profession. Gender issues in Research, Development and Innovation in general, were discussed and analysed in the context of the preparation of the new National R&I Strategic Plan 2011-20.

### Maternity leave

In the case of the MGSS and STEPS scholarship schemes, there is no specific mention of provision for maternity leave. However, section 14.25 of the MGSS Regulations (2011) indicates that women researchers are allowed to go on maternity leave, thus interrupting and extending their studies. The Regulations state that “in special and valid circumstances that may arise, scholarship awardees may ask the MGSS Board to review the date of completion of their scholarship specifying the reason for such extension. Each case will be considered on its own merits”.

On the other hand, the Regulations also indicate that when a programme of studies is extended, no additional funding will be allocated in addition to the amount originally established.

As of today (2011), there had been no requests by MGSS or STEPS beneficiaries for maternity leave.

## 4. Open, transparent and merit-based recruitment

### Recruitment system

The University of Malta has its own recruitment system. This is regulated by Collective Agreement (2009-13) and by subsidiary regulations.

Public research institution recruitment is regulated by the Public Service Management Code (PSMC) and the Appointments to the Malta Public Service.

Maltese public institutions fall into two categories, which follow different regulations and procedures:

1. The Public Service: government ministries and departments, which are generally bound by strict regulations;
2. The Public Sector: government entities, which are not ministries or department, and which enjoy a degree of procedural autonomy.

The recruitment and selection process leading to the appointment of public officers in any grade or position within the Public Service is carried out in accordance with procedures outlined in Sections 1.1.6 and 1.1.7 of the Public Service Management Code.

Public sector entities establish their own recruitment and selection procedures. As a general rule, however, it is always recommended that public sector entities follow the procedures applicable to the Public Service in order to ensure open, transparent and merit-based competition, although they are not bound to do so.

### Open recruitment in institutions

The table below presents information on open recruitment in higher education and public research institutions.

Table 3: Open recruitment in higher education and public research institutions<sup>10</sup>

Do institutions in the country currently have policies to ...?	Yes/No	Description
– <b>publish job vacancies on relevant national online platforms</b>	Yes	– The University of Malta advertises its vacancies online on its own website while its job vacancies are available through EURAXESS; – There are no plans at present to public service and public sector jobs on EURAXESS. A) Public Service vacancies are published as follows <sup>11</sup> :

<sup>10</sup> Information provided in this table refers to the University of Malta, which is by far the largest player in Higher Education R&D (HERD) in Malta. Information is also given about the recruitment procedure for researchers (inter alia) in the Government Sector (public sector and public service), thus covering the Government Sector R&D (GOVERD).

<sup>11</sup> Sections 1.2.12 and 9.1.1.4 of the Public Service Management Code (PSMC) give an outline of the procedures to be followed for the dissemination of information regarding job vacancies.

Do institutions in the country currently have policies to ...?	Yes/No	Description
		<p>I. on the Government Recruitment Portal (<a href="http://recruitment.gov.mt/">http://recruitment.gov.mt/</a>);</p> <p>II. on the Department of information website (<a href="http://www.doi.gov.mt">www.doi.gov.mt</a>) in the case of public calls for applications;</p> <p>III. on the Public Service Intranet (<a href="http://intra.gov.mt/">http://intra.gov.mt/</a>) in the case of internal calls for applications, that is, calls open to serving public officers;</p> <p>IV. on departmental notice boards.</p> <p>B) Public sector research vacancies are published online together with other public sector vacancies as follows:</p> <p>I. on Malta's public employment agency website, the Employment and Training Corporation (<a href="http://www.etc.gov.mt">www.etc.gov.mt</a>);</p> <p>II. in the Government Gazette which is published online and is openly available;</p> <p>III. on the Department of Information website (<a href="http://www.doi.gov.mt">www.doi.gov.mt</a>);</p> <p>IV. generally in addition on the recruiting institution's own website.</p>
– publish job vacancies on relevant Europe-wide online platforms (e.g. EURAXESS)	Yes/No	<p>– The EURAXESS portal is directly linked to the University of Malta vacancies' webpage;</p> <p>– Public Service and Public Sector research vacancies are not published on Europe-wide platforms.</p>
– publish job vacancies in English	Yes	Both the University of Malta and the Public Service publish job vacancies in both Maltese and English.
– systematically establish selection panels	Yes	<p>– The University of Malta establishes selection panels according to its internal regulations;</p> <p>– The Public Service establishes selection panels (or Selection Boards) following the nomination of a Chairperson and Members by the head of department and approval by the Public Service Commission (PSC) - an autonomous body set up in terms of the Constitution of Malta. This process is carried out prior to the publication of the call for applications. In the case of research vacancies in the Public Sector, selection panels are established according to relevant internal procedures.</p>
– establish clear rules for the composition of selection panels (e.g. number and role of members, inclusion of foreign experts, gender balance, etc.)	Yes	<p>– The University of Malta establishes clear rules for the composition of selection panels;</p> <p>– The Public Service has clear rules for the composition of selection panels, as to the number, role and level of expertise. In the case of Public Sector research institutes, guidelines on composition of selection panels may or may not exist.</p>
– publish the composition of a selection panel (obliging the recruiting institution)	No	Institutions do not have policies to publish the composition of the selection panels.
– publish the selection criteria together with job advert	No	<p>– The University of Malta does not publish the selection criteria together with job advert;</p> <p>– The Public Service has clear rules for the formulation of selection criteria, but these are not generally made public. The selection criteria are proposed by the head of department prior to the publication of the call for applications and are approved by the PSC.</p>
– regulate a minimum time period	Yes	– The University of Malta establishes a minimum time

Do institutions in the country currently have policies to ...?	Yes/No	Description
<b>between vacancy publication and the deadline for applying</b>		<ul style="list-style-type: none"> <li>period between vacancy publication and the deadline for applying according to its internal regulations.</li> <li>– The Public Service establishes a minimum time period of fifteen (15) working days. In the case of the Public Sector, the minimum time period is established by internal regulations.</li> </ul>
– <b>place the burden of proof on the employer to prove that the recruitment procedure was open and transparent</b>	No/Yes	<ul style="list-style-type: none"> <li>– There is no burden of proof on the University of Malta to prove that the recruitment procedure was open and transparent;</li> <li>– In the case of Public Service vacancies, heads of department are bound by the PSC Regulations. Regulation 12 stipulates that vacancies are to be filled according to the overriding principles of merit and open and transparent competition. In the exercise of their duties, heads of department are subject to the scrutiny of the PSC, which ensures that such principles are adhered to.</li> </ul>
– <b>offer applicants the right to receive adequate feedback</b>	Yes	<ul style="list-style-type: none"> <li>– The University of Malta’s recruitment procedure offers applicants the facility to request feedback.</li> <li>– Applicants may request a breakdown of the marks they were awarded under the various assessment criteria and sub-criteria.</li> </ul>
– <b>offer applicants the right to appeal</b>	Yes	Candidates have the right to appeal the decision of the selection board.

Source: Deloitte

### EURAXESS Services Network

In 2011, the number of researcher posts advertised through the EURAXESS Jobs portal per thousand researchers in the public sector was eight in Malta compared with eight among the Innovation Union reference group and an EU average of 24<sup>12</sup>.

Information on entry conditions, transfer of social security and pension contributions, accommodation and administrative assistance is generally available on relevant Government websites. The EURAXESS national portal also includes links to relevant web pages.

Researcher positions at the University of Malta are published online on the University’s website. Academic posts (approximately one third are dedicated to research activity) are also advertised on the University of Malta website; they are also accessible via the EURAXESS Jobs portal.

Research positions in other publicly funded institutions are also published online on the website of Malta’s public employment agency, the Employment and Training Corporation ([www.etc.gov.mt](http://www.etc.gov.mt)) and on the Department of Information website ([www.doi.gov.mt](http://www.doi.gov.mt)) and in the Government Gazette.

## 5. Education and training

### Measures to attract and train people to become researchers

The table below summarises key policy measures implemented to increase the number of researchers.

Table 4: Human Resources - Key programmes and initiatives

Measure	Description
<b>Malta Government Scholarship Scheme (MGSS) (2006 - ongoing)</b>	The Malta Government Scholarship Scheme provides scholarships to individuals wishing to pursue undergraduate or postgraduate studies both in Malta as well as overseas. The source of funding is national. It is expected that this scheme will continue for the foreseeable future. A total of 254 scholarships for Master and Doctorate studies were awarded between 2006 and 2011.
<b>National Interactive Science Centre (planned)</b>	The Government plans to develop Malta’s first National Interactive Science Centre. Work on the National Interactive Science Centre started in 2010 and its

<sup>12</sup> See Figure 1 “Key indicators – Malta”.



Measure	Description
	opening is planned to take place in 2014. The project's total budget value is estimated at EUR 22 million and to date, the Government of Malta has already allocated to this project EUR 1.5 million in 2011 and EUR 1 275 million in 2012. It is envisaged that submissions of proposals for funding under ERDF will be made in the future.
<b>National Research and Innovation Programme (2004 - onwards)</b>	The National Research and Innovation Programme provides grants <sup>13</sup> to academia and industry to fund research projects. Academics who obtain funds through this programme regularly employ research officers who often work towards obtaining their doctorate.
<b>Researchers' Night (annually)</b>	Malta has on many occasions organised 'Researchers' Night' events providing interactive science entertainment for children and the general public. A number of discussions aim to engage youths and adults in subjects such as human behaviour and the mysteries of the human mind, saving money while saving energy and the planet, or applying science to creativity. Researchers lay out the topic for discussion and the public is encouraged to question and debate with the scientists in several Science Cafés.
<b>Science Centre (ongoing)</b>	The Government maintains a Science Centre for secondary school students. The centre is open to visits by both public and private schools. The Science Centre, within the Ministry for Education, hosts the education officers responsible for Biology, Chemistry, Physics and Science in primary schools. It also serves as the meeting place for peripatetic teachers who are involved with primary school science teaching. The Centre provides science resources and equipment for loan to primary schools and implements on a regular basis a programme of professional training for teachers. The Science Centre is an on-going set up.
<b>Science Fairs (annually) (2009-2010)</b>	Science fairs for the general public and related promotional activities were held intermittently between 1988 and 2008. In 2009 and 2010, the government organised larger scale science festivals as well as other events (such as mini-festivals in specific localities) through the European Social Fund funding support.
<b>Strategic Educational Pathways Scholarships (STEPS) Scheme (2009-2012)</b>	The Strategic Educational Pathways Scholarships Scheme provides scholarships to individuals wishing to pursue postgraduate studies, both in Malta as well as overseas. It is funded through the EU Structural Funds (the European Regional Development Fund) for the financial period 2007-13.
<b>University of Malta Trust Fund (2011)</b>	The University of Malta endeavours to provide junior academic staff (assistant lecturers) with the opportunity and with assistance to obtain a PhD. Obtaining a doctorate is a prerequisite to promotion to the grade of lecturer and to further promotion. In 2011, the University of Malta Trust Fund was created with the injection of EUR 0.5 million of government funds aimed to fund research, development and innovation. Once fully operational, it is expected to contribute to the creation of researcher positions as well as an increase in the number of researchers.

Source: Deloitte

### Doctoral graduates by gender

The table below shows doctoral graduates in Malta by gender as a ratio of the total population cohort.

Table 5: Doctoral graduates by gender

Indicator	Malta	EU average
<b>New doctoral graduates (ISCED 6) per 1 000 population aged 25-34 (total) (2009)</b>	0.3	1.5
<b>Female Graduates (ISCED 6) per 1 000 of the female population aged 25-34 (2009)</b>	0.4	1.4
<b>Male Graduates (ISCED 6) per 1 000 of the male population aged 25-34 (2009)</b>	0.3	1.6

Source: Deloitte

Data: Eurostat

### Funding of doctoral candidates

The table below presents the two different funding paths accessible to Maltese doctoral candidates.

<sup>13</sup> Examples of grants are available at: <http://www.mcst.gov.mt/national-funding/ri-programme/funded-ri-projects>. The size of the grants awarded ranges between EUR 50 000 and EUR 200 000.

**Table 6: Funding opportunities for doctoral candidates<sup>14</sup>**

Funding scheme	Description
<b>Fellowships</b>	In Malta, the number of doctoral candidates was 215 (68%) while 103 (32%) were unfunded. The four categories of funding are: <ol style="list-style-type: none"> <li>1. Funding from a Maltese institution: the MGSS and STEPS programmes;</li> <li>2. Scholarships and grants from abroad;</li> <li>3. Teaching or research assistantship;</li> <li>4. Employer assistance.</li> </ol>
<b>Employment contracts</b>	In Malta, it is estimated that 8–9 % of doctoral candidates obtain their doctorate based on having signed an employment contract (e.g. research assistantships or employment with the University of Malta).

Source: Deloitte

### Skills agenda for researchers

The Maltese government has not developed a specific Skills' Agenda and no specific initiatives exist to provide training to researchers in areas such as intellectual property, entrepreneurship or research management.

However, the draft R&I Strategic Plan 2011-20 takes into consideration and promotes such measures as<sup>15</sup>:

- “Formal researcher training (at Master or Doctorate level) should include training on issues such as information seeking and management, entrepreneurship, patenting, networking skills and exposure to the industry world among others”;
- “Formal education should put strong emphasis on numeracy, literacy and thinking skills as the basic tools needed by the students to progress successfully in their education”;
- “Students should be encouraged to participate in national and international science projects and competitions which build their creative and entrepreneurial skills”.

## 6. Working conditions

### Measures to improve researchers' funding opportunities

The Malta Council for Science and Technology provides support to researchers to participate in Seventh Framework Programme for Research (FP7) projects. See also chapter 5 “Education and training”.

### Remuneration

The University of Malta has, until now (2011), had few positions for full-time researchers and the organisation was based predominantly on academic positions. However, the new Collective Agreement<sup>16</sup> introduced the concept of a research stream into the hierarchy, with the creation of posts for full-time researchers. These posts will not be permanent positions, but based on a defined term contract. The new Collective Agreement also introduced opportunities for full-time academic staff to avail themselves of sabbatical leaves, which may be dedicated to research or other activities.

### The European Charter for Researchers' & the 'Code of Conduct for the Recruitment of Researchers'

The Maltese Government has not yet actively promoted the implementation of the 'Charter & Code' by research institutions and funders. It is in the process of identifying measures to promote its adoption. However, many of the provisions of the Charter are being implemented by the institutions.

### Autonomy of institutions

Malta has only one public University, the University of Malta. The University of Malta enjoys the required autonomy to establish its preferred profiles and associated remuneration levels of the academic staff. However, the funding of the University of Malta is predominantly based on government funding, which imposes a degree of limitation on the numbers and remuneration levels of the academic staff, including researchers.

<sup>14</sup> Estimates are based on 2008-2009 data.

<sup>15</sup> The Malta Council for Science and Technology (2011), Malta's National Strategic Plan for Research & Innovation - A Vision for Knowledge-Driven Growth 2011-2020, Draft for Public Consultation - December 2011, p. 61 (Recommendations).

<sup>16</sup> 2009 Collective Agreement for Academic Staff.

The Maltese Government provides autonomy to the rest of the institutions to allow for a differentiation of researchers' salaries. However, in practice, salaries of academic staff and researchers are linked to the job grade, with prospects of promotion based on the number of publications, citations and so on.

### Career development

The University of Malta has developed a career stream for researchers. In addition, academic members of staff have a clear career progression from assistant lecturer all the way up to professor level, and they are contractually bound to undertake research activities for one third of their time.

### Social security benefits (sickness, unemployment, and old-age)

In Malta, all publicly funded fellowships, stipends, grants or equivalent provide sickness benefits (for temporary illness) for researchers in the case for normal employment as defined and ruled by the 'Employment and Industrial Relations Act' and related legislation.

The grant schemes (MGSS and STEPS) provide funding for the beneficiary to enrol at a University as a student for a limited period (normally for a maximum of three years). However, they do not include explicit provision for contribution to social security (including unemployment and old-age benefits).

Any unemployment benefits that a researcher qualifies for would depend on employment history rather than on the grant scheme.

## 7. Collaboration between academia and industry

The following table summarises programmes designed to boost collaboration between academia and industry, and to foster doctoral training in cooperation with industry.

Table 7: Collaboration between academia and industry

Measure	Description
<b>Loan of Highly Qualified Personnel' Scheme (2009-ongoing)</b>	Malta Enterprise operates a 'Loan of Highly Qualified Personnel' Scheme, which provides SMEs with a cash grant for the temporary engagement of specialised personnel. Such personnel would typically come from the academic sector. SMEs can benefit from the temporary engagement of a highly qualified expert to work on R&D&I projects. In this way, SMEs can access new knowledge and increased innovation capabilities. The expert helps the SMEs carry out Industrial Research and Experimental Development Projects. Malta Enterprise <sup>17</sup> can provide part financing of the costs directly related to the secondment of highly qualified personnel from a research organisation or large enterprise. These costs may consist of wages paid by the SME to seconded personnel or fees charged by the research institute or large undertaking for such a secondment.
<b>Malta's draft National Strategic Plan for Research &amp; Innovation - A Vision for Knowledge-Driven Growth 2011-2020 (2011)</b>	The draft new R&I Strategic Plan 2011-2020 pays special attention to "applied research and the emphasis on commercialisation of research results by fostering more collaboration between academia and industry". The draft Strategic Plan puts forward several incentive schemes to increase the intensity of R&I activities in Malta. These schemes aim to help enterprises invest in R&D activities by supporting pre-R&D activities necessary to develop and test the concepts of the envisaged research project by: <ul style="list-style-type: none"> <li>- supporting industrial research and experimental development activities;</li> <li>- supporting interactions between large companies and SMEs and also between industry and the research institutions;</li> <li>- supporting SMEs in the patent registration of successful research projects.</li> </ul>
<b>National Research and Innovation Programme (2012)</b>	The Malta Council for Science and Technology provides state financing in the form of grants for research, development and innovation in science and technology through the National R&I Programme. The National Research and Innovation Programme has as one of its eligibility conditions that proposals may only be submitted by consortia involving both academia and an industry partner, leading to better links between these two

<sup>17</sup> 'Malta Enterprise' is the agency responsible for the promotion of foreign investment and industrial development in Malta. Malta Enterprise also provides support to industry to participate in FP through the FP7 Exploratory Award Scheme which provides assistance, in the form of a grant, to help SMEs develop project proposals for submission in reply to FP7 calls.

Measure	Description
	sectors. The focus of the programme is applied research and technology transfer between academia and industry with a specific focus on the four priority sectors identified in the National R&I Strategy namely Environment & Energy Resources, ICT, Value-Added Manufacturing and Health & Biotechnology.

Source: Deloitte

## 8. Mobility and international attractiveness

### Measures aimed at attracting and retaining 'leading' national, EU and third country researchers

In 2007, the percentage of doctoral candidates (ISCED 6) with citizenship of another EU27 Member State was 2.8% in Malta compared with 2.8% among the Innovation Union reference group and an EU average of 7.3%<sup>18</sup>. In the same year, the percentage of non-EU doctoral candidates as a percentage of all doctoral candidates was 2.8% in Malta compared with 5.1% in the Innovation Union reference group and an EU average of 19.4%<sup>19</sup>.

The Maltese Government has not put in place any measures to attract and retain leading national, EU and third-country researchers.

### Inward mobility (funding)

The Maltese government has fully implemented the Council Directive 2005/71/EC on a specific procedure for admitting third-country nationals for the purposes of scientific research (the Scientific Visa Directive).

### Outbound mobility

Academic staff at the University of Malta may avail themselves of a sabbatical to spend time as a researcher in another country.

The STEPS programme provides funding for doctoral candidates to pursue studies either in Malta or overseas. However, the objective of this programme is to increase the number of doctoral candidates and there are no specific mobility objectives.

### Promotion of 'dual careers'

The Maltese Government does not actively promote policies/measures supporting researchers' dual careers.

### Portability of national grants

In Malta, publicly funded grants under the National R&D Programme are not portable abroad; however, fellowships and scholarships under MGSSS and STEPS are portable abroad.

### Access to cross-border grants

Foreign researchers are eligible to participate in projects funded under the National R&I Programme, without, however, being eligible to receive funding.

### Measures encouraging inter-sectoral mobility

The Loan of Highly Qualified Personnel Scheme (see chapter 7 "Collaboration between academia and industry") provides funding to SMEs to enable them to engage researchers on a temporary basis to undertake research work. Such researchers may come either from academia, the public sector or from the private sector.

<sup>18</sup> See Figure 1 "Key indicators – Malta".

<sup>19</sup> Ibid.