

MALTA_RDESQRS_A_MT_2011_0000

National Reference Metadata in ESS Standard for Quality Reports Structure (ESQRS)

Compiling agency: National Statistics Office (NSO)

Time Dimension: 2011

Data Flow: MALTA_RDESQRS_A

Concept name	
1. Contact	
1.1. Contact organisation	National Statistics Office (NSO)
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2. Introduction	<p>Statistics on Research and Development (R&D) provide users with data concerning R&D expenditure and R&D personnel in the business enterprise sector (BES).</p> <p>The R&D expenditure is broken down by source of funds, by type of costs, by type of economic activity (NACE), by size class, by type of R&D, by fields of science, and by socio-economic objectives.</p> <p>R&D personnel data is available in full-time equivalent (FTE) and in head count (HC). The data is further broken down by occupation, by qualification, by gender, by size class, by field of science, and by economic activity (NACE).</p>

	<p>R&D data are compiled in accordance to the guidelines laid down in the Proposed standard practice for surveys of research and experimental development - Frascati Manual (FM), OECD, 2002 available in the link below:</p> <p>http://www.oecd.org/science/inno/frascaticmanualproposedstandardpracticeforsurveysonresearchandexperimentaldevelopment6thedition.htm</p>
3. Quality management - assessment	<p>A group of interviewers are selected to conduct face-to-face interviewing to the selected enterprises. Questionnaires are vetted individually once brought to the office. Any missing information is requested via telephone or e-mail. Data is also compared with previous years to ensure consistency of results. Any queries are raised with the enterprise and if available with the companies' financial statements.</p> <p>The value of R&D expenditure is cross checked with the value given from the CIS survey (Community Innovation Survey).</p>
4. Relevance	
4.1. Relevance - User Needs	<p>The list of users includes:</p> <ul style="list-style-type: none"> • The Malta Council for Science and Technology (to set out National policy); • The Malta Enterprise; • Researchers and students (to substantiate their studies); and • Eurostat (for the compilation of European Innovation Scoreboard).
4.2. Relevance - User Satisfaction	<p>A User Satisfaction Survey was conducted in 2014 and provides results on the quality, timeliness and usefulness of news releases as well as the quality, frequency and timeliness of requests, related to statistics produced by the NSO. The survey did not specifically cater for statistics on Research and Development. Results of the User Satisfaction Survey can be accessed through:</p> <p>http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_01/Methodology_and_Research/Pages/User-Satisfaction-Survey.aspx</p>
4.3. Completeness	All requested data is transmitted, thus the data is complete.
4.3.1. Data completeness - rate	100 per cent complete.
5. Accuracy and reliability	
5.1. Accuracy - overall	<p>Questionnaires are vetted individually upon they are brought to the office. Any missing information is requested via telephone or e-mail. Data is compared with previous years to ensure consistency of results. Any queries are raised with the enterprise or when available with the companies' detailed financial statements.</p> <p>The value of R&D expenditure is cross checked with the value given from the Community Innovation Survey (CIS). All efforts are done to ensure that it is as accurate as possible.</p>
5.2. Sampling error	A census is carried out and thus no sampling error is permissible.
5.2.1. Sampling error - indicators	A census is carried out and thus no sampling error is permissible.

5.3. Non-sampling error	The main forms of non-sampling errors are item and unit non-response. In the case of unit non-response follow ups are ensured until the unit ultimately responds to the questionnaire. With respect to item non-response the enterprise is contacted in order to provide the relevant information.
5.3.1. Coverage error	<p>The target enterprises are the ones which had R&D taking place during the year under study.</p> <p>The main identifiers of the active R&D population are:</p> <ul style="list-style-type: none"> • the CIS, as it addresses a particular question to R&D; • the Malta Enterprise; • the MCST (Malta Council for Enterprise and Technology). <p>The latter two sources promote R&I (Research and Innovation) programmes in Malta for individuals and enterprises to benefit from funds or tax rebates related to R&D.</p> <p>Enterprises which have not featured in any of the latter categories would not be covered within the sample and this would thus result in under coverage. Under-coverage cannot, however, be quantified.</p>
5.3.1.1. Over-coverage - rate	Over-coverage is not possible as the enterprises recording R&D are as indicated within the survey. Enterprises that were thought to have R&D and replied they did not carry out any R&D activity are taken out of the population.
5.3.2. Measurement error	Errors are kept to a minimum because the surveys are based on a face-to-face interviewing basis and the small size of the sample permits questionnaires to be tackled individually. Values are compared to previous years and should any inconsistencies arise, enterprises are contacted individually.
5.3.3. Non response error	A postal reminder is sent to non-respondents, and values are estimated on past data when no feedback is available. The response rate stood at 80%.
5.3.3.1. Unit non-response - rate	A postal reminder and a number of telephone calls are used to mitigate non-response. The main reason for non-response to the survey is that no R&D would have taken place in the respective enterprise.
5.3.3.2. Item non-response - rate	<p>There is no item non-response as enterprises are contacted via telephone or e-mail for further interviewing when certain information is not available.</p> <p>Interviewers are expected to return fully filled questionnaires. Mainly some clarifications would be needed to understand better what kind of R&D is carried out. This has reduced since the collection changed to face to face interviewing.</p>
5.3.4. Processing error	Data entry errors are kept to a minimum as the programme includes in build validation rules. No specific data editing is employed since a company by company approach is used. Once questionnaires are received they are checked and vetted individually, and companies will be directly contacted as it is deemed necessary.
5.3.4.1. Imputation - rate	The exact rate with which original collected values are replaced is not available. Upon receipt of questionnaires, enterprises are contacted individually in case of non-response, and a value is sought.
5.3.4.2. Common units - proportion	Not applicable, no administrative sources are used.

5.3.5. Model assumption error	Not applicable, no model is assumed.
5.3.6. Data revision	The released data is considered final.
5.3.6.1. Data revision - policy	R&D data is considered final once released. The general NSO revision policy can be accessed through: http://nso.gov.mt/en/nso/About_NS0/Documents/NSO_Policies/Revisions_of_Official_Statistics.pdf
5.3.6.2. Data revision - practice	The released data is considered final.
5.3.6.3. Data revision - average size	Not applicable.
5.3.7. Seasonal adjustment	Not applicable.
6. Timeliness and punctuality	
6.1. Timeliness	18 months
6.1.1. Time lag - first result	T+10months
6.1.2. Time lag - final result	T+18months
6.2. Punctuality	Data is delivered before stipulated dates.
6.2.1. Punctuality - delivery and publication	Time-frames within the stipulated time frames according to regulation.
7. Accessibility and clarity	
7.1. Dissemination format - News release	The Research and Development Release is published annually. The link for the latest release is provided below: http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_B4/Business_Registers/Pages/Business-Innovation.aspx

7.2. Dissemination format - Publications	Not applicable
7.3. Dissemination format - online database	The link for the Innovation Database may be found below: http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
7.3.1. Data tables - consultations	Not applicable.
7.4. Dissemination format - microdata access	Microdata is not accessible to outside users.
7.5. Documentation on methodology	The R&D survey covers all active known enterprises irrespective of their size class or NACE classification. The methodology used is based on the Frascati manual which is provided in the link below: http://www.oecd.org/science/inno/frascati/manual/proposed_standard_practice_for_surveys_on_research_and_experimental_development_6th_edition.htm
7.5.1. Metadata completeness - rate	Not applicable.
7.5.2. Metadata - consultations	Not applicable.
7.6. Quality management - documentation	A quality report is produced every alternate year and sent to Eurostat.
7.7. Dissemination format - other	Adhoc requests may be supplied through the NSO website through the following link: http://nso.gov.mt/en/Pages/NSO-Home.aspx
8. Comparability	
8.1. Comparability - geographical	The R&D survey is based on the recommendations explained within the Frascati manual which is adhered to by all countries. Thus data may be compared geographically.
8.1.1. Asymmetry for mirror flow statistics - coefficient	Not applicable

8.2. Comparability - over time	Data is comparable from 2004 onwards. Data coverage was enhanced over the years. In 2004, R&D data and CIS data were used together utilising an ancillary section related to R&D personnel. The first dedicated R&D survey was carried out in 2005. As from 2010, coverage increased to all employment size classes and NACE sectors.
8.2.1. Length of comparable time series	8 years
8.3. Comparability - domain	All units that reported any R&D activities in the CIS survey are included in the R&D survey. Responses from both answers are checked to ensure coherence. R&D expenditure reported in the CIS is also captured in the R&D survey. CIS data is collected every two years.
9. Coherence	
9.1. Coherence - cross domain	For those enterprises that fall under the CIS coverage every 2nd year, a comparison is carried out as the intramural expenditure reported in both surveys should be exact. This was possible for the 2012, 2010, 2008 etc and not for 2011 since the innovation is carried out every 2 years. R&D survey is not comparable to other surveys.
9.1.1. Coherence - sub annual and annual statistics	Annual R&D is comparable from 2004 onwards.
9.1.2. Coherence - National Accounts	Not applicable.
9.2. Coherence - internal	For those enterprises that fall under the CIS coverage every 2nd year, a comparison is carried out as the intramural expenditure reported in both surveys should be exact. This was possible for the 2012, 2010, 2008 etc and not for 2011 since the innovation is carried out every 2 years. R&D survey is not comparable to other surveys.
10. Cost and Burden	Total costs for the statistical authority amount to €12,400 (€12,300 of which cover office staff costs and interviewing costs). The time required by R&D enterprises to provide information is equal to 3.5 hours. On the other hand, non-R&D enterprises normally take about an hour to fill in the questionnaire and provide the required information.
11. Confidentiality	
11.1. Confidentiality - policy	Information by NACE classification will not be released if the number of units is below the value of 3. Furthermore, any kind of information on individual units may not be given to other individuals or entities requesting the data. Confidential data sent to Eurostat is flagged to prevent publishing. The general NSO confidentiality policy can be accessed through: http://nso.gov.mt/en/nso/About_NS0/Documents/NSO_Policies/Confidentiality_of_personal_and_commercial_data.pdf

11.2. Confidentiality - data treatment	Data is treated at primary and secondary levels of confidentiality
12. Statistical processing	
12.1. Source data	R&D data is collected by means of a survey (face-to-face interviewing).
12.2. Frequency of data collection	Annually
12.3. Data collection	Data collection is done through face-to-face interviewing.
12.4. Data validation	Complete questionnaires are brought to the office once the interviews are done; and these are vetted initially in front of the interviewer. During vetting the logic of the questionnaire is checked. The data entry application includes in-built validations which also cater for the logic of the questionnaire. A second round vetting is done more attentively by a statistician. At this stage data is also compared with previous years for consistency and should any queries arise, the enterprise is contacted by telephone.
12.5. Data compilation	Not applicable.
12.6. Adjustment	Not applicable.
13. Comment	Not applicable.