

**Greece**  
**R&D national metadata 2013 June collection 2011**

# 1 National Organizations/Agencies

National organisations responsible, by sector of performance, for the compilation and transmission of R&D statistics. Where more than one organisation is responsible for the same sector, information is presented separately for each one, in the respective sector area.

## 1.1 Business Enterprise sector (BES)

<b>1.1.1 Organisation's name (BES):</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF), Strategic Planning & Development Department
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<b>1.1.2 Responsible person(s) (BES)</b>	Evi Sachini, Nena Malliou, Tonia Ieromnimon
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<b>1.1.3 Contact information (BES)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF) Strategic Planning & Development Department 48, Vas. Constantinou Ave, GR-11635 Athens tel.: +30210 7273946, fax: +30210 7246824 e-mail: nmalliou@ekt.gr, ieromnia@ekt.gr <a href="http://www.ekt.gr">http://www.ekt.gr</a> , <a href="http://metrics.ekt.gr">http://metrics.ekt.gr</a>
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<b>1.1.4 Additional information (BES)</b>	EKT took over the collection and production of R&D and GBAORD statistics in spring 2012. EKT has collected R&D data covering 2011 and 2012. Before that it was the General Secretariat for Research and Technology (GSRT) that produced R&D statistics and further in the past (before 1985) it was the Ministry of Research and Technology and (before 1983) YEET (a special Agency for Scientific and Technological Research under the Ministry of Coordination).
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## 1.2 Government sector (GOV)

<b>1.2.1 Organisation's name (GOV)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF), Strategic Planning & Development Department
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<b>1.2.2 Responsible person(s) (GOV)</b>	Evi Sachini, Nena Malliou, Tonia Ieromnimon
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<b>1.2.3 Contact information (GOV)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF) Strategic Planning & Development Department 48, Vas. Constantinou Ave, GR-11635 Athens tel.: +30210 7273946, fax: +30210 7246824 e-mail: nmalliou@ekt.gr, ieromnia@ekt.gr <a href="http://www.ekt.gr">http://www.ekt.gr</a> , <a href="http://metrics.ekt.gr">http://metrics.ekt.gr</a>
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<b>1.2.4 Additional information (GOV)</b>	EKT took over the collection and production of R&D and GBAORD statistics in spring 2012. EKT has collected R&D data covering 2011 and 2012. Before that it was the General Secretariat for Research and Technology (GSRT) that produced R&D statistics and further in the past (before 1985) it was the Ministry of Research and Technology and (before 1983) YEET (a special Agency for Scientific and Technological Research under the Ministry of Coordination).
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### 1.3 Higher Education sector (HES)

<b>1.3.1 Organisation's name (HES)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF), Strategic Planning & Development Department
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<b>1.3.2 Responsible person(s) (HES)</b>	Evi Sachini, Nena Malliou, Tonia Ieromnimon
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<b>1.3.3 Contact information (HES)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF) Strategic Planning & Development Department 48, Vas. Constantinou Ave, GR-11635 Athens tel.: +30210 7273946, fax: +30210 7246824
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	e-mail: <a href="mailto:nmalliou@ekt.gr">nmalliou@ekt.gr</a> , <a href="mailto:ieromnia@ekt.gr">ieromnia@ekt.gr</a> <a href="http://www.ekt.gr">http://www.ekt.gr</a> , <a href="http://metrics.ekt.gr">http://metrics.ekt.gr</a>
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<b>1.3.4 Additional information (HES)</b>	EKT took over the collection and production of R&D and GBAORD statistics in spring 2012. EKT has collected R&D data covering 2011 and 2012. Before that it was the General Secretariat for Research and Technology (GSRT) that produced R&D statistics and further in the past (before 1985) it was the Ministry of Research and Technology and (before 1983) YEET (a special Agency for Scientific and Technological Research under the Ministry of Coordination).
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## 1.4 Private non-profit sector (PNP)

<b>1.4.1 Organisation's name (PNP)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF), Strategic Planning & Development Department
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<b>1.4.2 Responsible person(s) (PNP)</b>	Evi Sachini, Nena Malliou, Tonia Ieromnimon
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<b>1.4.3 Contact information (PNP)</b>	National Documentation Centre (EKT) / National Hellenic Research Foundation (NHRF) Strategic Planning & Development Department 48, Vas. Constantinou Ave, GR-11635 Athens tel.: +30210 7273946, fax: +30210 7246824 e-mail: <a href="mailto:nmalliou@ekt.gr">nmalliou@ekt.gr</a> , <a href="mailto:ieromnia@ekt.gr">ieromnia@ekt.gr</a> <a href="http://www.ekt.gr">http://www.ekt.gr</a> , <a href="http://metrics.ekt.gr">http://metrics.ekt.gr</a>
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<b>1.4.4 Additional information (PNP)</b>	EKT took over the collection and production of R&D and GBAORD statistics in spring 2012. EKT has collected R&D data covering 2011 and 2012. Before that it was the General Secretariat for Research and Technology (GSRT) that produced R&D statistics and further in the past (before 1985) it was the Ministry of Research and Technology and (before 1983) YEET (a special
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	Agency for Scientific and Technological Research under the Ministry of Coordination).
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## 2 Coverage and Classifications

### 2.1 Sector institutional coverage

For each sector provide information on rules of coverage and allocation of institutions to it (N.B. only differences from Frascati Manual (FM) guidelines need to be reported). Also, indicate information on hospitals and medical centres and in which sector their R&D activities are included.

<b>2.1.1 General information</b>	Institutional coverage is in line with Frascati Manual recommendations.
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<b>2.1.2 Hospitals and medical centres</b>	University hospitals are included in the higher education sector. Private and PNP hospitals are included in the BE and PNP sector respectively. Government hospitals are included in the GOV sector since 2012 (for reference year 2011 and onwards).
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<b>2.1.3 Business Enterprise sector (BES)</b>	Coverage of BES is in line with Frascati Manual recommendations. The survey covers enterprises that potentially have R&D activities in Greece regardless of size or private/public status.
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<b>2.1.4 Government sector (GOV)</b>	Coverage of GOV is in line with Frascati Manual recommendations. It covers public or private institutions administered or/and financed by Ministries (public research centres, archaeological and cultural institutions, public hospitals, agricultural institutions, etc) as well as Greek Public Independent Authorities.
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#### 2.1.5 Higher Education sector (HE)

universities and colleges: core of the sector (FM § 209).	Universities are fully included. Technological Educational Institutes (TEI) are also fully included since 2012 (reference year 2011 and onwards).
post-secondary establishments: (FM § 210).	Included since 2012 (reference year 2011 and onwards): military, theological and other academies (e.g. public health

	academy), private colleges, etc.
university hospitals and clinics: Included, entire institutions or only teaching/training clinics (FM § 211-213).	Entire institutions (university hospitals) are included.
HE Borderline institutions: Included if administered by universities or other post-secondary education units and not being market producers of R&D (FM §214-221).	University research institutes (EPI) and similar establishments in the Technological Educational Institutes (Technological Research Centres / KTE) are included since 2012 (reference year 2011 and onwards).

### 2.1.6 Private non-profit sector (PNP)

Included ? and if so,	Yes, since 1993.
Included separately or grouped with another sector?	Included separately.

## 2.2 R&D variable coverage

Please indicate any differences from FM, in particular in relation to: <BR> - R&D administration and other support activities: any deviations from FM § 26, 131-132. <BR> - Consultants: Treatment of consultants in R&D expenditure and personnel if different from FM § 296 <BR> - Clinical trials: Are they included (see FM § 130)?; In which sector(s); How has R&D been separated

<b>2.2.1 Business Enterprise sector (BES)</b> <i>- R&amp;D administration and other support activities</i>	Included.
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<b>2.2.2 Business Enterprise sector (BES)</b> <i>- Consultants</i>	In line with Frascati manual recommendations, on-site consultants are included. Outsourcing costs and effort are excluded.
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<b>2.2.3 Business Enterprise sector (BES)</b> <i>- Clinical trials</i>	Clinical trials (phases 1, 2, 3 and occasionally 4) undertaken by pharmaceutical companies are covered.
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<b>2.2.4 Government sector (GOV) - R&amp;D administration and other support activities</b>	Included.
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<b>2.2.5 Government sector (GOV) -</b>	Clinical trials that are conducted in public hospitals or public
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<b><i>Clinical trials</i></b>	research centres are included since 2012 (reference year 2011 onwards).
<b><i>2.2.6 Higher Education sector (HE) - R&amp;D administration and other support activities</i></b>	Administrative personnel supporting R&D activities are included.
<b><i>2.2.7 Higher Education sector (HE) - Post-graduate student coverage</i></b>	Post-graduate students who receive payment for their R&D activities (participation to research projects, fellowship, grants etc.) are fully included. Other post-graduate students are also included, but reported in the questionnaire separately.
<b><i>2.2.8 Higher Education sector (HE) - Clinical trials</i></b>	Included.
<b><i>2.2.9 Private non-profit sector (PNP) - R&amp;D administration and other support activities</i></b>	Included.
<b><i>2.2.10 Private non-profit sector (PNP) – Clinical trials</i></b>	Included when performed in PNP hospitals.
<b>2.3 Fields of Science (FOS)</b>	
<i>Please indicate for each sector, any differences in the coverage of NSE and SSH as presented in FM (Table 3.2), e.g. certain sciences excluded from coverage. Also indicate any difficulties encountered with the FOS classification.</i>	
<b><i>2.3.1 Business Enterprise sector (BES)</i></b>	Both personnel (total personnel and researchers) data and expenditure data are classified according to FOS classification (6 major fields), covering both NSE and SSH.
<b><i>2.3.2 Government sector (GOV)</i></b>	Both personnel (total personnel and researchers) data and expenditure data are classified according to FOS classification (6 major fields), covering both NSE and SSH.
<b><i>2.3.3 Higher Education sector (HE)</i></b>	Both personnel (total personnel and researchers) data and

	expenditure data are classified according to FOS classification (6 major fields), covering both NSE and SSH.
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<b>2.3.4 Private non-profit sector (PNP)</b>	Both personnel (total personnel and researchers) data and expenditure data are classified according to FOS classification (6 major fields), covering both NSE and SSH.
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## 2.4 International R&D transactions

*Please indicate availability of statistics on international R&D transactions – receipts and payments - and difficulties encountered with the coverage of R&D expenditures of foreign affiliates.*

<b>2.4.1 Availability of Receipts from abroad by sector</b>	Funding from abroad is covered by all sectors and is broken down into: European Commission (e.g. Framework and other EU Programmes), Foreign Business enterprises, International Organisations, Other sources. For the BES category ‘foreign business enterprises’ is further broken down into ‘foreign enterprises within the same group’ and ‘other foreign enterprises’.
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<b>2.4.2 Availability of Payments to abroad by sector</b>	Not covered.
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<b>2.4.3 Coverage of R&amp;D expenditure of foreign affiliates</b>	Foreign affiliates in the BE sector that conduct their R&D activities in Greece are covered but are not separately available.
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## 2.5 Extramural expenditures

<b>2.5.1 Availability of Extramural expenditures</b>	Not collected in the 2011 survey. Question about extramural expenditures will be incorporated into the questionnaire in future rounds.
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## 3 Variable specificities

### 3.1 R&D expenditure

*Please provide information on:*

*<li>coverage of years - specify whether calendar or fiscal (if latter, please specify period);</li>*



- <li>source of funds; any divergence from FM (see FM section 6.3)</li>
- <li>Type of R&D (Basic Research, Applied Research, Experimental Development) (FM section 4.2);</li>
- <li>Type of costs (labour costs, other current costs, capital expenditure): Deviations from FM sections 6.2.2. and 6.2.3; more detailed breakdown of costs than in the FM, please describe</li>
- <li>Socio-economic objectives (specify any difficulties with implementation the classification – see FM §287-288)</li>

For BE sector only:

- <li>Economic activity of the unit: (main econ. activity of the institution conducting the R&D activity, or main R&D activity or R&D project). Specify any difficulties in adapting national data to ISIC/NACE classification used in questionnaire? Divergences?</li>
- <li>Economic activity of industry served (for enterprises in ISIC/NACE Div. 73): How are data obtained (surveys, estimates), contents or aim of R&D project; divergences from FM objectives and national objectives</li>
- <li>Product field: Problems collecting data by product field. </li>

### 3.1.1 Business Enterprise sector (BES) expenditure

Coverage of years	Calendar year.
Source of funds	No divergence from the Frascati Manual recommendations. In addition, government funding is split into the categories: a) Funding covered by the National Strategic Reference Framework (NSRF) 2007 -2013, and b) other government funding.
Type of R&D	Data are available for total intramural R&D expenditure and separately for current R&D expenditure.
Type of costs	Data available. Since 2012 (reference year 2011 onwards), breakdown for capital expenditure (land and buildings, instrument and equipment) is also available.
Socio-economic objective	Data not available.
Economic activity of the unit	R&D resources are allocated to the principal economic activity of the enterprise, according to NACE rev.2.
Economic activity of industry served(for enterprises in ISIC/NACE 73)	Not collected.
Product field	Not collected.

### 3.1.2 Government sector (GOV) expenditure

Coverage of years	Calendar year.
Source of funds	No divergence from the Frascati Manual recommendations. In addition, government funding is split into the categories: a) Own funds, b) Ordinary Government Budget, c) National Strategic Reference Framework (NSRF) 2007 -2013. d) Investment Government Budget other than the National

	Strategic Reference Framework (NSRF) 2007 -2013.
Type of R&D	Since 2012 (reference year 2011 onwards) data is available for total intramural R&D expenditure and separately for current R&D expenditure.
Type of costs	Data available. Since 2012 (reference year 2011 onwards), breakdown for capital expenditure is also available.
Socio-economic objective	Since 2012 (reference year 2011 onwards) data is available.

### 3.1.3 Higher Education sector (HE) expenditure

Coverage of years	Calendar year.
Source of funds	No divergence from the Frascati Manual recommendations. In addition, government funding is split into the categories: a) Ordinary Government Budget – which covers General University Funds, c) Investment Government Budget other than the National Strategic Reference Framework (NSRF) 2007 -2013, d) National Strategic Reference Framework (NSRF) 2007 -2013.
Type of R&D	Since 2012 (reference year 2011 onwards) data is available for total intramural R&D expenditure and separately for current R&D expenditure.
Type of costs	Data available. Since 2012 (reference year 2011 onwards), breakdown for capital expenditure is also available.
Socio-economic objective	Not collected.

### 3.1.4 Private non-profit sector (PNP) expenditure

Coverage of years	Calendar year.
Source of funds	No divergence from the Frascati Manual recommendations. In addition, government funding is split into the categories: a) Ordinary Government Budget , c) Investment Government Budget other than the National Strategic Reference Framework (NSRF) 2007 -2013, d) National Strategic Reference Framework (NSRF) 2007 -2013.
Type of R&D	Since 2012 (reference year 2011 onwards) data is available for total intramural R&D expenditure and separately for current R&D expenditure.
Type of costs	Data available. Since 2012 (reference year 2011 onwards), breakdown for capital expenditure is also available.
Socio-economic objective	Not collected.

<b>3.1.5 R&amp;D expenditure – Defence R&amp;D</b>	Information about defence R&D is separately available for
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	the GOV sector only (NABS classification). Defence R&D that is covered in other sectors is not separately available.
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## 3.2 R&D personnel

Please provide information on:<BR>-reference period - indicate period for calculation of personnel (HC) data [fixed date – specify, average number of persons employed during the calendar year, total number of persons employed during the calendar year]<BR>-coverage of years – for FTE, specify whether calendar or fiscal (please specify period);<BR>-Occupation - difficulties encountered with classifying both Headcounts (HC) and Full-time equivalent on R&D (FTEs) by Occupation (researcher, technicians, other support staff)<BR>-Qualification - difficulties encountered with classifying both Headcounts (HC) and Full-time equivalent on R&D (FTEs) by Qualification (ISCED -97)<BR>-Age – problems with classification groups<BR>-Citizenship – difficulties encountered with definition

### 3.2.1 R&D personnel - head counts (HC)

#### 3.2.1.1 Business Enterprise sector (BES) headcount

Reference period	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Since 2012 (reference year 2011 onwards) information about age (and sex) of the researchers has been collected in head counts.
Citizenship	Since 2012 (reference year 2011 onwards) information about citizenship (and sex) of the researchers has been collected in head counts.

#### 3.2.1.2 Government sector (GOV) headcount

Reference period	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).

Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Since 2012 (reference year 2011 onwards) information about age (and sex) of the researchers has been collected in head counts.
Citizenship	Since 2012 (reference year 2011 onwards) information about citizenship (and sex) of the researchers has been collected in head counts.

### 3.2.1.3 Higher Education sector (HE) headcount

Reference period	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Since 2012 (reference year 2011 onwards) information about age (and sex) of the researchers has been collected in head counts.
Citizenship	Since 2012 (reference year 2011 onwards) information about citizenship (and sex) of the researchers has been collected in head counts.

### 3.2.1.4 Private non-profit sector (PNP) headcount

Reference period	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.

Age	Not available / not collected.
Citizenship	Not available / not collected.

### 3.2.2 R&D Personnel - Full Time Equivalent (FTEs)

#### 3.2.2.1 Business Enterprise sector (BES) - FTEs

Coverage of years	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Not available / not collected.
Citizenship	Not available / not collected.

#### 3.2.2.2 Government sector (GOV) - FTEs

Coverage of years	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Not available / not collected.
Citizenship	Not available / not collected.

#### 3.2.2.3 Higher Education sector (HE) - FTEs

Coverage of years	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and

	sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Not available / not collected.
Citizenship	Not available / not collected.

### 3.2.2.4 Private non-profit sector (PNP) - FTEs

Coverage of years	Calendar year.
Occupation	Information about all three occupations is collected. Since 2012 (reference period 2011 onwards) information about all occupations is also available by sex, educational level (and sex) and by major field of science (and sex).
Qualification	Qualification is available for all three occupational categories (researcher, technician/equivalent staff, other supporting staff) and sex. Data are separately available for ISCED 6, ISCED 5A, ISCED 5B, ISCED 4C, ISCED 3A & 3C, ISCED 1 & 2.
Age	Not available / not collected.
Citizenship	Not available / not collected.

<b>3.2.2.5 Means of calculation of FTE if known. In particular, how do you account for time devoted to research by post-graduate students.</b>	<p>Reporting units made the calculation of FTEs following the questionnaire guidelines that have been drafted in line with FM recommendations (§ 333). Information about how calculations were performed has been provided by respondents in the metadata chapter of the questionnaire.</p> <p>BES: The most commonly used approach is that of estimations made by the manager(s) of the reporting enterprise, followed by the use of time-sheets. Combination of the two has also been used to some extent. Smaller proportion of enterprises applied different coefficients to different personnel categories (e.g. scientific personnel, technicians, administrations staff, etc.) or used other estimation approaches (e.g. 100% for all staff working in the R&amp;D unit of the enterprise and smaller coefficients for other staff categories).</p> <p>GOV: FTE calculations in GOV were mainly based on estimates made by directors / heads of the public institutions,</p>
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	<p>and to a lesser extent on time-sheets. Combination of the two has also been reported to some extent. Institutions have also reported the use of other methods, such as the application of different coefficients to different staff categories –depending on occupation or type of contract, the implementation of survey to the staff, etc.</p> <p>HES: The use of different approaches for the calculation of FTEs in HES is very similar to that described in the two previous sectors, the most prominent approach being the application of different coefficients on different staff category: 30-50% time spent on R&amp;D for permanent teaching personnel (professors, lectures, etc.), 30-50% for special teaching personnel depending on their classification into researchers or technicians, 100% for administrative staff working in the special university (and TEI) units that administer research projects (ELKE) and 10-30% for other administrative staff.</p> <p>For postgraduate students, FTEs have been calculated by one of the following approaches or combinations: time-sheets for participation to research projects, 1 FTE for active PhD students only (irrespective of whether they receive a salary or grand for their R&amp;D activities), 0.7 FTE when information about PhD students is retrieved from administrative sources in cases of non-response.</p> <p>PNP: Similar to other categories.</p>
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<b>3.2.2.6 Is the FTE concept uniform across sectors?</b>	As described in detail in Section 3.2.2.5
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### **3.2.3 R&D personnel - Cross-classification by occupation and qualification**

<b>3.2.3.1 R&amp;D personnel - Cross-classification by occupation and qualification</b>	Since 2012 (reference year 2011 onwards), headcount and FTE data for R&D personnel are cross-classified by occupation and qualification (and sex) for all R&D sectors.
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## **4 Measurement**

### **4.1 Surveys**

*Several separate activities are used for the collection of raw data or pre-compiled administrative data and*

statistics related to R&D. For simplicity we call them surveys irrespective of whether they are sample surveys, censuses, collections of administrative data/ pre-compiled statistics. This section presents the names of the surveys (Table 4.1.1) by sector of performance as well as methodological information for each survey. Depending on the type of survey and sector of performance, only the sections corresponding to that survey and sector are filled in.

#### 4.1.1 Surveys which contribute to R&D statistics, by sector.

	<b>BES</b>	<b>GOV</b>	<b>HES</b>	<b>PNP</b>
<b>1</b>	BES R&D survey – Personnel engaged and Expenditure spent on R&D activities	GOV R&D survey – Personnel engaged and Expenditure spent on R&D activities	HES R&D survey – Personnel engaged and Expenditure spent on R&D activities	PNP R&D survey – Personnel engaged and Expenditure spent on R&D activities
<b>2</b>	N/A	GBAORD detailed data at institution level and additional administrative information from Ministries or other public sources	GBAORD detailed data at institution level and additional administrative information from the Ministry of Education	N/A
<b>3</b>	N/A	Monitoring Information System (M.I.S.) including information about projects co financed under the National Strategic Reference Framework (NSRF)	Monitoring Information System (M.I.S.) including information about projects co financed under the National Strategic Reference Framework (NSRF)	N/A
<b>4</b>	N/A	eCORDA database with information about signed grants/beneficiaries with regards to a specific Framework Programme for Research (FP7)	eCORDA database with information about signed grants/beneficiaries with regards to a specific Framework Programme for Research (FP7)	N/A

#### 4.1.1 General information about surveys contributing to R&D statistics - BES

<b>4.1.1.1 Survey name</b>	BES R&D survey – Personnel engaged and Expenditure spent on R&D activities
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<b>4.1.1.2 Type of survey</b>	Census survey to all known or supposed to perform R&D activities.
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<b>4.1.1.3 Variables the survey contributes to</b>	All R&D variables requested by the Commission Regulation No 753/2004 and additional variable-dimension combinations.
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#### 4.1.1.4 Target population

all firms or only potential R&D performers? (see FM §441, 443)	All firms known or supposed to perform R&D.
regular and occasional R&D performers? (see FM §435)	Regular and occasional R&D performers.
size cut-off point? (see FM §441)	No size cut-off point.
size classes covered (see FM §183) (and if different for some industries/services)?	All size classes are covered: 0, 1-9, 10-49, 50-249, 250-499, >=500.
NACE/ISIC classes covered (see FM §169)	All NACE Rev.2 classes covered.

<b>4.1.1.5 Frequency:</b>	Every two years.
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<b>4.1.1.6 Survey timetable-most recent implementation</b>	<p>Survey timetable is not definitely fixed yet. EKT took over the collection and production of R&amp;D and GBAORD statistics in spring 2012. The GBAORD collection preceded the R&amp;D survey. Within this limited time frame, the BES survey started in the beginning of 2013 and ended end of July 2013.</p> <p>The timetable will be revised in the forthcoming months in view of the 2013 survey.</p>
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### 4.1.2 Sample/census survey information - BES

*Depending on the type of the survey, either 4.1.2 or 4.1.3 is filled in, unless it is a combination of types.*

#### 4.1.2.1 Survey design information

	Stage 1	Stage 2	Stage 3
<b>Sampling unit</b>	Enterprise	N/A	N/A

<b>Stratification variables (if any - for sample surveys only)</b>	Census survey; however, post-stratification by size class and NACE has been used to correct for non-response in all enterprises with less than 500 employees.	N/A	N/A
<b>Stratification variable classes (not needed for standard classifications)</b>	2-digit NACE rev 2 and standard size-classes (0, 1-9, 10-49, 50-249, 250-500)	N/A	N/A
<b>Population size (total size, for both censuses and sample surveys - per stratum if applicable)</b>	Around 1700 enterprises.	N/A	N/A
<b>Planned sample size (per stratum. "Census" means complete enumeration.)</b>	Around 1700 enterprises.	N/A	N/A
<b>Sample selection mechanism (for sample surveys only)</b>	Not applicable	N/A	N/A
<b>Survey frame (Information content for identification and contact of institutions; information for identification of R&amp;D performers; information used for data processing/analysis)</b>	Survey frame is composed of enterprises included in the National Business Register that is maintained by ELSTAT (Greek Statistical Authority) with the following characteristics: participation in European or/and research projects, recorded R&D expenses in the company's balance sheet, recorded R&D expenses in the SBS conducted by ELSTAT, participation in innovation clusters, tax incentives for the R&D activities, etc.	N/A	N/A
<b>Survey frame quality (Coverage of the reference population afforded by the</b>	Overall assessment is good; however, not without problems. For example, the unstable	N/A	N/A

<b>frame;extent of double entries of institutions;extent of entries which correspond to institutions outside the reference pop.)</b>	financial environment has resulted in many enterprises closing down in the period between the reference and survey year. All problems have been identified and quality of survey frame will be improved in the coming round so as to improve coverage of R&D enterprises.		
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#### 4.1.2.2 Data collection

Realised sample size (per stratum)	1694 enterprises
Mode of data collection (face-to-face interviews; telephone interviews; postal surveys, etc.)	Since 2012 (reference year 2011 onwards), this is an online survey. Every enterprise received, via e-mail, its ‘personal’ log-in details to access the online questionnaire. Enterprises have the possibility to preview the questionnaire before completion. In case of undelivered e-mails, enterprises were contacted by phone to provide the correct e-mail. Occasionally, questionnaires have also been filled-in via telephone interview. In exceptional cases, questionnaires were returned in hard-copy (fax or email).
Incentives used for increasing response	A letter explaining the purpose and mandatory nature of the survey has been attached to the e-mail invitations. Letters informing the enterprises about the survey have also been forwarded to enterprises by the Hellenic Federation of Enterprises (SEV) and other business associations. The survey has also been promoted through specific publications in the website of National Information System for Research and Technology ( <a href="http://www.epset.gr">www.epset.gr</a> ), the e-newsletter “Research and Innovation”, published by EKT and distributed to 8000 persons, the "Innovation, Research and Technology" magazine, distributed to 5000 persons, etc. Finally, supportive/promoting actions have also been made by the General Secretariat for Research and Technology. Moreover, the questionnaire contains a dedicated section about incentives, where responding enterprises have the possibility to express their interest about the following supporting services: a) access to EKT’s infrastructure and archives to look up information about researchers, research teams, research outputs, b) information about research projects (both national and European) and other funding

	opportunities, c) support for international research/business/technological collaborations through the Enterprise Europe Network, d) publication, upon their consent, of company's profile promoting its R&D activities, e) preparation of customized reports to benchmark the enterprise's R&D intensity with that of other enterprises in the same size class and NACE group (anonymization and confidentiality issues will be ensured), d) inclusion, upon the enterprise's consent, on the ranking list of the biggest (in terms of R&D expenditure) R&D performers.
Follow-up of non-respondents	Two email reminders. Intensive follow-up by phone, especially to those enterprises that are known to be important R&D performers.
Replacement of non-respondents (e.g. if proxy interviewing is employed)	No replacement.
Response rate (ratio of completed "interviews" over total number of eligible enterprises or enterprises of unknown eligibility)	31%
Non-response analysis (if applicable -- also see section 4.3 Weighting and Estimation methods)	Non response analysis is not carried out. To correct for non-response, the following approach has been proposed by ELSTAT: Post-stratification and weighting have been applied to correct for non-response in all enterprises with less than 500 employees, assuming that within one cluster (size-class and 2-digit NACE) all enterprises have the same probability to perform R&D. See more information in Section 4.3.

### 4.1.3 Information on collection of administrative data or of pre-compiled statistics - BES

*Depending on the type of the survey, either 4.1.2 or 4.1.3 is filled in, unless it is a combination of types.*

<b>4.1.3.1 Sources</b>	Not applicable
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<b>4.1.3.2 Description of collected data / statistics</b>	N/A
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#### 4.1.3.3 Target population

all firms or only potential R&D performers? (see FM §441, 443)	N/A
Regular and occasional R&D	N/A

performers? (see FM §435)	
size cut-off point? (see FM §441)	N/A
size classes covered (see FM 183) (and if different for some industries/services)?	N/A
NACE/ISIC classes covered (see FM §169)	N/A

<b>4.1.3.4 Reference period, in relation to the variables the survey contributes to</b>	N/A
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<b>4.1.3.5 Quality of the sources</b>	N/A
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#### **4.1.4 General information about surveys contributing to R&D statistics - GOV**

<b>4.1.4.1 Type of survey</b>	Census among all known or potential R&D performing units in the GOV.
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<b>4.1.4.2 Survey name</b>	GOV R&D survey – Personnel engaged and Expenditure spent on R&D activities
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<b>4.1.4.3 Variables the survey contributes to</b>	All R&D variables requested by the Commission Regulation No 753/2004 and additional variable-dimension combinations.
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##### **4.1.4.4 Target population**

all firms or only potential R&D performers? (see FM §441, 443)	All institutions known or supposed to perform R&D.
Regular and occasional R&D performers? (see FM §435)	Regular and occasional R&D performers. The GOV sector in Greece includes public research centres (100% R&D performers) as well as other institutions that perform R&D along other activities on regular or occasional basis.

<b>4.1.4.5 Frequency:</b>	Every two years.
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<b>4.1.4.6 Survey timetable-most recent implementation</b>	<p>Survey timetable is not definitely fixed yet. EKT took over the collection and production of R&amp;D and GBAORD statistics in spring 2012. The GBAORD collection preceded the R&amp;D survey. Within this limited time frame, the GOV survey started in the beginning of 2013 and ended in May 2013.</p> <p>The timetable will be revised in the forthcoming months in view of the 2013 survey.</p>
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#### 4.1.5 Sample/census survey information - GOV

*Depending on the type of the survey, either 4.1.5 or 4.1.6 is filled in, unless it is a combination of types.*

##### 4.1.5.1 Survey design information

	Stage 1	Stage 2	Stage 3
<b>Sampling unit</b>	Government institutions (public research centres, archaeological and cultural institutions, public hospitals, agricultural institutions, etc)	N/A	N/A
<b>Stratification variables (if any - for sample surveys only)</b>	No stratification – census survey	N/A	N/A
<b>Stratification variable classes (not needed for standard classifications)</b>	Not applicable	N/A	N/A
<b>Population size (total size, for both censuses and sample surveys - per stratum if applicable)</b>	321 institutions	N/A	N/A
<b>Planned sample size (per stratum. "Census" means complete enumeration.)</b>	321 institutions	N/A	N/A
<b>Sample selection mechanism (for sample surveys only)</b>	Not applicable	N/A	N/A
<b>Survey frame (Information content)</b>	Survey frame comprises institutions included in	N/A	N/A

<b>for identification and contact of institutions; information for identification of R&amp;D performers; information used for data processing/analysis)</b>	the statistical Register of General Government Entities that is maintained by ELSTAT (Greek Statistical Authority) that are known to perform or potentially perform R&D activities.		
<b>Survey frame quality (Coverage of the reference population afforded by the frame; extent of double entries of institutions; extent of entries which correspond to institutions outside the reference pop.)</b>	Overall assessment is very good. This register is maintained by ELSTAT and updated annually to reflect the continuous recent changes in the perimeter of General Government, such as the inclusion of new entities, which are classified into General Government according to the ESA95 criteria as well as with the deletion of entities that either are abolished or cease to fulfill the criteria for remaining in the General Government sector.	N/A	N/A

#### 4.1.5.2 Data collection

<b>Realised sample size (per stratum)</b>	321 institutions.
<b>Mode of data collection (face-to-face interviews; telephone interviews; postal surveys, etc.)</b>	Since 2012 (reference year 2011 onwards), this is an online survey. Every institution received, via e-mail, its ‘personal’ log-in details to access the online questionnaire. Institutions have the possibility to preview the questionnaire before completion. In case of undelivered e-mails, institutions were contacted by phone to provide the correct e-mail. Occasionally, questionnaires have also been filled-in via telephone interview. In exceptional cases, questionnaires were returned in hard-copy (fax or email). Face-to-face interviews have also been conducted in limited occasions.
<b>Incentives used for increasing response</b>	Communication with directors of institutions started in summer 2012, when they were asked to assign a person to complete the questionnaire.

	<p>A letter has also been used to explain the purpose and mandatory nature of the survey that was attached to the e-mail invitations.</p> <p>A letter explaining the R&amp;D concept to the archaeological and cultural institutions has been circulated by the hierarchy of the Ministry of Culture.</p>
Follow-up of non-respondents	Two email reminders. Systematic follow-up by phone.
Replacement of non-respondents (e.g. if proxy interviewing is employed)	No replacement.
Response rate (ratio of completed "interviews" over total number of eligible enterprises or enterprises of unknown eligibility)	72% (2011) - Since this was the first time to run the survey after reference year 2005, our frame population covered exhaustively all government units that potentially have R&D activities. Most of the non-responding units (e.g. libraries) had no R&D activities and will therefore be removed from our GOV frame population in future rounds.
Non-response analysis (if applicable -- also see section 4.3 Weighting and Estimation Methods)	Non response analysis is not carried out. Administrative and GBAORD data were used to impute unit non-response for R&D performers and rule out the possibility that other non-responding units (e.g. libraries) do not perform R&D activities.

#### **4.1.6 Information on collection of administrative data or of pre-compiled statistics - GOV**

*Depending on the type of the survey, either 4.1.5 or 4.1.6 is filled in, unless it is a combination of types.*

<b>4.1.6.1 Sources</b>	The following sources are used to impute non-respondents known to perform R&D: a) GBAORD detailed data at institution level and additional administrative information from Ministries or other public sources, b) Monitoring Information System (M.I.S.) including information about projects co-financed under the National Strategic Reference Framework (NSRF), c) eCORDA database with information about signed grants/beneficiaries with regards to specific Framework Programme for Research (FP7)
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<b>4.1.6.2 Description of collected data / statistics</b>	R&D expenditure, where available. Total expenditures and total personnel where coefficients have been applied to isolate the R&D component.
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#### **4.1.6.3 Target population**



all firms or only potential R&D performers? (see FM §441, 443)	N/A
Regular and occasional R&D performers? (see FM §435)	N/A

<b>4.1.6.4 Reference period, in relation to the variables the survey contributes to</b>	2011
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<b>4.1.6.5 Quality of the sources</b>	Quality of administrative and other sources is considered to be very good.
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#### **4.1.7 General information about surveys contributing to R&D statistics - HES**

<b>4.1.7.1 Survey name</b>	HES R&D survey – Personnel engaged and Expenditure spent on R&D activities
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<b>4.1.7.2 Type of survey</b>	Census survey.
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<b>4.1.7.3 Variables the survey contributes to</b>	All R&D variables requested by the Commission Regulation No 753/2004 and additional variable-dimension combinations.
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##### **4.1.7.4 Target population**

all firms or only potential R&D performers? (see FM §441, 443)	All institutions that fall into HES category: universities, Technological Educational Institutes (TEI), university hospitals, university research institutes (EPI) and similar establishments in the Technological Education Institutes (Technological Research Centres / KTE), military, theological and other academies, private HE colleges.
Regular and occasional R&D performers? (see FM §435)	Regular and occasional R&D performers.

<b>4.1.7.5 Frequency:</b>	Every two years.
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<b>4.1.7.6 Survey timetable-most recent</b>	Survey timetable is not definitely fixed yet. EKT took over
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<i>implementation</i>	the collection and production of R&D and GBAORD statistics in spring 2012. The GBAORD collection preceded the R&D survey. Within this limited time frame, the HES survey started in December 2012 and ended in June 2013. The timetable will be revised in the forthcoming months in view of the 2013 survey.
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#### 4.1.8 Sample/census survey information - HES

Depending on the type of the survey, either 4.1.8 or 4.1.9 is filled in, unless it is a combination of types.

##### 4.1.8.1 Survey design information

	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>
<b>Sampling unit</b>	University, Technological Educational Institute, University Hospital, HE Research Institute	N/A	N/A
<b>Stratification variables (if any - for sample surveys only)</b>	No stratification – census survey	N/A	N/A
<b>Stratification variable classes (not needed for standard classifications)</b>	Not applicable	N/A	N/A
<b>Population size (total size, for both censuses and sample surveys - per stratum if applicable)</b>	115 HE institutes	N/A	N/A
<b>Planned sample size (per stratum. "Census" means complete enumeration.)</b>	115 HE institutes	N/A	N/A
<b>Sample selection mechanism (for sample surveys only)</b>	Not applicable	N/A	N/A
<b>Survey frame (Information content for identification and contact of institutions;information for identification of R&amp;D performers;information</b>	Survey frame comprises all universities, Technological Educational Institutes (TEI), university hospitals, university research institutes (EPI) and similar	N/A	N/A

<b>used for data processing/analysis)</b>	establishments in the TEIs (KTE), military, theological and other academies, private colleges		
<b>Survey frame quality (Coverage of the reference population afforded by the frame; extent of double entries of institutions; extent of entries which correspond to institutions outside the reference pop.)</b>	Overall assessment of survey frame quality is very good.	N/A	N/A

#### 4.1.8.2 Data collection

Realised sample size (per stratum)	115 institutions.
Mode of data collection (face-to-face interviews; telephone interviews; postal surveys, etc.)	Since 2012 (reference year 2011 onwards), this is an online survey. Every HE institute received, via e-mail, its ‘personal’ log-in details to access the online questionnaire. Institutes had the possibility to preview the questionnaire before completion. In case of undelivered e-mails, institutes were contacted by phone to provide the correct e-mail. Occasionally, questionnaires have also been filled-in via telephone interview. In exceptional cases, questionnaires were returned in hard copy (fax or email). Face-to-face interviews have also been conducted in limited occasions.
Incentives used for increasing response	Communication with heads of the institutes started in summer 2012, when they were asked to assign a person to complete the questionnaire. A letter has also been used to explain the purpose and mandatory nature of the survey that was attached to the e-mail invitations. Letters informing the heads of universities and Technological Educational Institutes (TEIs) about the progress of the survey have also been sent out. A letter urging universities to provide data has also been circulated by the President of the Committee of ELKE representatives (ELKE: university units that administer research projects) that operates under the framework of the Hellenic Universities Rectors Synod.
Follow-up of non-respondents	One email reminder. Systematic follow-up by phone.

Replacement of non-respondents (e.g. if proxy interviewing is employed)	No replacement.
Response rate (ratio of completed "interviews" over total number of eligible enterprises or enterprises of unknown eligibility)	73% (2011) - Since this was the first time to run the survey after reference year 2005, our frame population covered exhaustively all HE units that potentially have R&D activities. Most of the non-responding units (e.g. theological academies) had no R&D activities and will therefore be removed from our HES frame population in future rounds.
Non-response analysis (if applicable -- also see section 4.3 Weighting and Estimation Methods)	Non response analysis is not carried out. Administrative and GBAORD data were used to impute unit non-response for R&D performers and rule out the possibility that other non-responding units (e.g. theological academies) do not perform R&D activities.

#### **4.1.9 Information on collection of administrative data or of pre-compiled statistics - HES**

*Depending on the type of the survey, either 4.1.8 or 4.1.9 is filled in, unless it is a combination of types.*

<b>4.1.9.1 Sources</b>	The following sources are used to impute non-respondents known to perform R&D: a) GBAORD detailed data at institution level and additional administrative information from the Ministry of Education, b) Monitoring Information System (M.I.S.) including information about projects co-financed under the National Strategic Reference Framework (NSRF), c) eCORDA database with information about signed grants/beneficiaries with regards to a specific Framework Programme for Research (FP7)
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<b>4.1.9.2 Description of collected data / statistics</b>	R&D expenditure, where available. Total expenditures and total personnel where coefficients have been applied to isolate the R&D component.
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#### **4.1.9.3 Target population**

all firms or only potential R&D performers? (see FM §441, 443)	N/A
Regular and occasional R&D performers? (see FM §435)	N/A

<b>4.1.9.4 Reference period, in relation to the variables the survey contributes to</b>	2011
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<b>4.1.9.5 Quality of the sources</b>	Quality of administrative and other sources is considered to be very good.
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#### **4.1.10 General information about surveys contributing to R&D statistics - PNP**

<b>4.1.10.1 Survey name</b>	PNP R&D survey – Personnel engaged and Expenditure spent on R&D activities
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<b>4.1.10.2 Type of survey</b>	Census survey.
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<b>4.1.10.3 Variables the survey contributes to</b>	All R&D variables requested by the Commission Regulation No 753/2004 and additional variable-dimension combinations
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#### **4.1.10.4 Target population**

all firms or only potential R&D performers? (see FM §441, 443)	All potential R&D performers that can be classified into the PNP category.
Regular and occasional R&D performers? (see FM §435)	Regular and occasional R&D performers.

<b>4.1.10.5 Frequency:</b>	Every two years.
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<b>4.1.10.6 Survey timetable-most recent implementation</b>	<p>Survey timetable is not definitely fixed yet. EKT took over the collection and production of R&amp;D and GBAORD statistics in spring 2012. The GBAORD collection preceded the R&amp;D survey. Within this limited time frame, the PNP survey started in the beginning of 2013 and ended in June 2013.</p> <p>The timetable will be revised in the forthcoming months in view of the 2013 survey.</p>
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#### **4.1.11 Sample/census survey information - PNP**

*Depending on the type of the survey, either 4.1.11 or 4.1.12 is filled in, unless it is a combination of types.*

##### **4.1.11.1 Survey design information**

	Stage 1	Stage 2	Stage 3
<b>Sampling unit</b>	Private non-profit institutions	N/A	N/A
<b>Stratification variables (if any - for sample surveys only)</b>	No stratification – census survey	N/A	N/A
<b>Stratification variable classes (not needed for standard classifications)</b>	Not applicable	N/A	N/A
<b>Population size (total size, for both censuses and sample surveys - per stratum if applicable)</b>	84 PNP institutions	N/A	N/A
<b>Planned sample size (per stratum. "Census" means complete enumeration.)</b>	84 PNP institutions	N/A	N/A
<b>Sample selection mechanism (for sample surveys only)</b>	Not applicable	N/A	N/A
<b>Survey frame (Information content for identification and contact of institutions; information for identification of R&amp;D performers; information used for data processing/analysis)</b>	Non-profit institutions that could not be classified into any of the other sectors are classified into PNP.	N/A	N/A
<b>Survey frame quality (Coverage of the reference population afforded by the frame; extent of double entries of institutions; extent of entries which correspond to institutions outside the reference pop.)</b>	Overall assessment of survey frame quality is very good.	N/A	N/A

#### 4.1.11.2 Data collection

Realised sample size (per stratum)	84 institutions
Mode of data collection (face-to-face interviews; telephone interviews; postal surveys, etc.)	Since 2012 (reference year 2011 onwards), this is an online survey. Every PNP institution received, via e-mail, its 'personal' log-in details to access the online questionnaire. Institutions had the possibility to preview the questionnaire before completion. In case of undelivered e-mails, institutions were contacted by phone to provide the correct e-mail. Occasionally, questionnaires have also been filled-in via telephone interview. In exceptional cases, questionnaires were returned in hard-copy (fax or email).
Incentives used for increasing response	A letter has also been used to explain the purpose and mandatory nature of the survey that was attached to the e-mail invitations.
Follow-up of non-respondents	One email reminder. Systematic follow-up by phone.
Replacement of non-respondents (e.g. if proxy interviewing is employed)	No replacement.
Response rate (ratio of completed "interviews" over total number of eligible enterprises or enterprises of unknown eligibility)	49%.
Non-response analysis (if applicable -- also see section 4.3 Weighting and Estimation Methods)	Non response analysis is not carried out. This sector is very small; therefore no effort has been allocated to correct for non-response.

#### 4.1.12 Information on collection of administrative data or of pre-compiled statistics - PNP

*Depending on the type of the survey, either 4.1.11 or 4.1.12 is filled in, unless it is a combination of types.*

<b>4.1.12.1 Sources</b>	N/A
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<b>4.1.12.2 Description of collected data / statistics</b>	N/A
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#### 4.1.12.3 Target population

all firms or only potential R&D performers? (see FM §441, 443)	N/A
Regular and occasional R&D	N/A

performers? (see FM §435)	
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<b>4.1.12.4 Reference period, in relation to the variables the survey contributes to</b>	N/A
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<b>4.1.12.5 Quality of the sources</b>	N/A
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## 4.2 Other measurement issues

The following items concern some 'horizontal' issues of measurement. If however the treatment of these issues differs between sectors or between surveys it is to be reported by sector / survey with clear indication of the sector(s) / survey(s) it refers to

<b>4.2.1 Method of derivation of regional data</b>	Questionnaires for all sectors include one section dedicated to the regional dimension. There respondents are asked to distribute (%) total R&D personnel (headcounts by sex), Researchers (headcounts by sex) and total intramural expenditure into the 13 Greek regions (NUTS2).
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<b>4.2.2 Coefficients used for estimation of the R&amp;D share of more general expenditure items, in particular in the HE sector</b>	The coefficients used to estimate the R&D share of personnel cost in HES are those used for the determination of FTEs (3.2.2.5). Regarding other current costs, respondents have provided information about methods to isolate the R&D component. Coefficients have been used in some cases. Regarding other sectors and based on the information available, coefficients have been applied in cases where R&D is part of the institution's activities.
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<b>4.2.3 Inclusion or exclusion of VAT and provisions for depreciation in the measurement of expenditures</b>	In line with the FM, respondents were asked to exclude VAT and depreciation from R&D expenditures.
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<b>4.2.4 Treatment and calculation of GUF source of funds / separation from "Direct government funds" [HE sector only]</b>	The matching between the GOV (as a source of funds) categories used and the GUF / Direct government funds classification is as follows: a) GUF: Funds from the Ordinary Government Budget b) Direct government funds: Funds from the Investment Government Budget other than the National Strategic Reference Framework (NSRF) 2007 -2013, and funds from the National Strategic Reference Framework (NSRF) 2007
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	-2013
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<b>4.2.5 Differences between national and Frascati Manual classifications not mentioned above and impact on national statistics</b>	No deviations from FM classifications.
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### 4.3 Weighting and estimation methods

<b>4.3.1 Weighting</b>	<p>BES: In order to reduce the bias due to unit non-response, and in line with the recommendations of ELSTAT, we used correction factor in weighting (grossing-up) procedure. In particular, as concerns the correction factor in the weighting, the enterprises included in the survey were stratified: a) By economic activity (two digit code of NACE Rev.2) and b) by size class. More specifically, the enterprises were stratified into L=5 groups, according to their size, determined by their average annual number of employees in the business register of ELSTAT, as follows: '0', '1-9', '10-49', '50-249', '250-499'. It has been decided that no weighting is applied to enterprises belonging to the '500+' category.</p> <p>The weight of the responded enterprises in size class h in each one of the 2-digit codes economic activity, is calculated as <math>w_h = N_h / n_h</math>, where N represents the total number of enterprises belonging to size class h and n the number of the responded enterprises in the size class h.</p> <p>No weighting has been applied in GOV, HES and PNP.</p>
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<b>4.3.2 Estimation</b>	<p>BES: Estimations using weights were made to correct for non-response in all responding enterprises with less than 500 employees. No grossing-up has been applied for enterprises with more than 500 employees.</p> <p>The formulae that apply for stratified random sampling have been used to calculate estimates and their errors. The assumption has therefore been made that the probability an enterprises performs R&amp;D is equal between responding and non-responding enterprises of the same stratum.</p> <p>GOV, HES: Estimations for unit non-response were made</p>
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	<p>using data from official (administrative) sources. In most of the cases these additional sources included information about expenditures data. Depending on the source, the ‘type of source’ and ‘type of cost’ breakdowns were available. In the HES sector information was also available for teaching (professors, lectures, etc.) personnel, technical and administrative staff.</p> <p>If not directly available, personnel data and other expenditure breakdowns were estimated using information (distributions) from other units belonging to the same group of institutes (e.g. GOV– research centres, hospitals, subcategories of archaeological and cultural institutions, HES – universities, technological educational institutes, university hospitals, etc. ).</p>
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## 5 International comparability

<b>5.1 General</b>	<p>No deviations from FM recommendations and classifications. Therefore, R&amp;D data for Greece are considered to be comparable with international R&amp;D data.</p>
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<b>5.2 Business Enterprise sector (BES)</b>	<p>No deviations from FM recommendations and classifications. The only factor to consider is the low response rate in the BES sector, which has been corrected with weighting (see 4.3.1), as recommended by ELSTAT. Factors which could explain low response are the implications of the recent financial crisis (e.g. enterprises that existed in 2011 do not exist anymore), the inexistence of a continuous survey framework (the last survey was conducted in 2007), the short data collection period.</p>
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<b>5.3 Government sector (GOV)</b>	<p>No deviations from FM recommendations and classifications. Therefore, R&amp;D data for Greece are considered to be comparable with international R&amp;D data.</p>
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<b>5.4 Higher Education sector (HE)</b>	<p>No deviations from FM recommendations and classifications. Therefore, R&amp;D data for Greece are considered to be comparable with international R&amp;D data.</p>
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<b>5.5 Private non-profit sector (PNP)</b>	No deviations from FM recommendations and classifications. Therefore, R&D data for Greece are considered to be comparable with international R&D data.
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## 6 Breaks in series

Please indicate the break years (years for which data are not fully comparable to the previous period) and nature of the breaks.

### 6.1 Business enterprise sector (BES)

#### 6.1.1 Breaks in time series (BES)

	Break years	Nature of the breaks (brief description, and if possible, quantitative evaluation of impact on the indicators' values)
<b>R&amp;D personnel (HC)</b>	2011, 1983	2011: A new frame population has been created to cover exhaustively all enterprises that possibly had R&D activities in recent years. Moreover, better measurement has been achieved as a result of the actions taken for adequate comprehension of the R&D concept by the respondents. 1983: The methodology for identifying R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- <b>Occupation</b>	N/A	N/A
- <b>Qualification</b>	N/A	N/A
<b>R&amp;D personnel (FTE)</b>	2011, 1983	2011: A new frame population has been created to cover exhaustively all enterprises that possibly had R&D activities in recent years. Moreover, better measurement has been achieved as a result of the actions taken for adequate comprehension of the R&D concept by the respondents. 1983: The methodology for

		identifying R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D expenditure	2011	2011: A new frame population has been created to cover exhaustively all enterprises that possibly had R&D activities in recent years. Moreover, better measurement has been achieved as a result of the actions taken for adequate comprehension of the R&D concept by the respondents.
- Source of funds	N/A	N/A
- Type of costs	N/A	N/A
- Type of R&D	N/A	N/A
Other	1991	Some activities included previously under "office machinery and computers" (and hence in the corresponding subtotal "Machinery equipment, instruments and transport equipment") in manufacturing were reclassified in services under "computer and related activities" (and hence in the corresponding subtotal "real estate, renting and business activities") in services.

## 6.2 Government sector (GOV)

### 6.2.1 Breaks in time series (GOV)

	Break years	Nature of the breaks (brief description, and if possible, quantitative evaluation of impact on the indicators' values)
R&D personnel (HC)	2011, 1983	2011: Coverage of GOV has been

		extended to also cover public hospitals as well as all institutions administered by the Ministry of Culture (mainly archaeological and cultural institutions). 1983: The methodology for identifying R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D personnel (FTE)	2011, 1983	2011: Coverage of GOV has been extended to also cover public hospitals as well as all institutions administered by the Ministry of Culture (archaeological and cultural institutions). 1983: The methodology for identifying R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D expenditure	2011	2011: Coverage of GOV has been extended to also cover public hospitals as well as all institutions administered by the Ministry of Culture (archaeological and cultural institutions).
- Source of funds	N/A	N/A
- Type of costs	N/A	N/A
- Type of R&D	N/A	N/A
Other	N/A	N/A

## 6.3 Higher education sector (HES)

### 6.3.1 Breaks in time series (HE)

	Break years	Nature of the breaks (brief description, and if possible,
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		<b>quantitative evaluation of impact on the indicators' values)</b>
<b>R&amp;D personnel (HC)</b>	2011, 1995, 1989, 1983	<p>2011: Coverage of HES has been extended to also cover all Technological Educational Institutes (TEI) and post-secondary establishments.</p> <p>1995, 1989: Following the revision of research coefficients used to evaluate resources devoted to R&amp;D by higher education, national totals for R&amp;D expenditure and personnel are not comparable to those for previous years.</p> <p>1983: The methodology for identifying R&amp;D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.</p>
<b>- Occupation</b>	N/A	N/A
<b>- Qualification</b>	N/A	N/A
<b>R&amp;D personnel (FTE)</b>	2011, 1995, 1989, 1983	<p>2011: Coverage of HES has been extended to also cover all Technological Educational Institutes (TEI) and post-secondary establishments. Moreover, FTEs have been calculated by the reporting units applying coefficients that were determined by the reporting units.</p> <p>1995, 1989: Following the revision of research coefficients used to evaluate resources devoted to R&amp;D by higher education, national totals for R&amp;D expenditure and personnel are not comparable to those for previous years.</p> <p>1983: The methodology for identifying R&amp;D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to</p>

		personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D expenditure	2011, 1995, 1989	2011: Coverage of HES has been extended to also cover all Technological Educational Institutes (TEI) and post-secondary establishments. Moreover, coefficients to isolate the R&D component of expenditures have been determined by the reporting units. 1995, 1989: Following the revision of research coefficients used to evaluate resources devoted to R&D by higher education, national totals for R&D expenditure and personnel are not comparable to those for previous years.
- Source of funds	N/A	N/A
- Type of costs	N/A	N/A
- Type of R&D	2011, 1983	2011: Coefficients to determine the type of R&D activity have been determined by the reporting units. 1983: The methodology for evaluating resources devoted to R&D in HE was changed based on a survey which established a system of research coefficients.
Other	N/A	N/A

## 6.4 Private non-profit sector (PNP)

### 6.4.1 Breaks in time series (PNP)

	Break years	Nature of the breaks (brief description, and if possible, quantitative evaluation of impact on the indicators' values)
R&D personnel (HC)	1983	The methodology for identifying

		R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D personnel (FTE)	1983	The methodology for identifying R&D personnel was brought into line with the recommendations of the Frascati Manual, resulting in changes to personnel cost.
- Occupation	N/A	N/A
- Qualification	N/A	N/A
R&D expenditure	N/A	N/A
- Source of funds	N/A	N/A
- Type of costs	N/A	N/A
- Type of R&D	N/A	N/A
Other	1993	The PNP sector is included in the survey.

## 7 National dissemination

### 7.1 Content

<b>7.1.1 Content</b>	<p>A dedicated webpage for R&amp;D input and R&amp;D output statistics <a href="http://metrics.ekt.gr/">http://metrics.ekt.gr/</a> has been created by EKT. Data for R&amp;D Personnel and Expenditure have not been published yet.</p> <p>The results of the bibliometric analysis undertaken by EKT can be found in English here:  <a href="http://report03.metrics.ekt.gr/en/index">http://report03.metrics.ekt.gr/en/index</a>  <a href="http://reports.metrics.ekt.gr/en/report02/index">http://reports.metrics.ekt.gr/en/report02/index</a></p>
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### 7.2 Practices

<b>7.2.1 Format of released information</b>	<p>Data will be presented in electronic (and paper) publications / reports.</p> <p>Workshops focusing on specific target groups (e.g. academic community, businesses, etc.) and a big conference will also be organized by the end of 2013 to raise awareness about the</p>
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	results of the survey and discuss with stakeholders ways to improve the quality of the statistics. No detailed data will be demonstrated, other than aggregated figures.
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<b>7.2.2 Access rights to the information</b>	N/A
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<b>7.2.3 Cost of access</b>	N/A
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<b>7.2.4 Treatment of confidential information</b>	N/A
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## **8 Legislation and standards**

*Requested only of European countries*

### **8.1 International statistical legislation**

*International legislation implemented in national legislation or followed on a voluntary basis, for the provision of R&D statistics to international organisations.*

<b>8.1.1 Legal acts / agreements</b>	Commission Regulation 753/2004
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<b>8.1.2 Nature of the ‘obligations’ of responsible national organisations to produce statistics and report them to international organisations</b>	<p>The General Secretariat for Research and Technology assigned, in spring 2012, the responsibility for the collection and reporting to Eurostat and OECD of R&amp;D statistics to EKT (see relevant decision ΦΕΚ 1359/Β/25.04.2012 in Greek here: <a href="http://metrics.ekt.gr/el/statistika-etak/eggrafa-anaforas">http://metrics.ekt.gr/el/statistika-etak/eggrafa-anaforas</a>).</p> <p>EKT was in close collaboration with EL.STAT. (Hellenic Statistical Authority) throughout the data production period (from survey design to final assessment of results). Collaboration will be formalized upon the official certification to be granted to EKT to become a member of the Hellenic Statistical System (ELSS). This is expected to happen as soon as the official certification procedures are fully established by EL.STAT.</p>
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### **8.2 National statistical legislation**

<b>8.2.1 Is there R&amp;D specific statistical legislation or is the production of national R&amp;D statistics governed by the general national statistical legislation?</b>	The production of national R&D statistics is governed by general national statistical legislation.
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<b>8.2.2 Legal acts</b>	Greek Law 3832/2010 available in Greek only: <a href="http://metrics.ekt.gr/el/statistika-etak/eggrafa-anaforas">http://metrics.ekt.gr/el/statistika-etak/eggrafa-anaforas</a> ).
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### 8.2.3 As derived from the legal acts:

Obligation of responsible organisations to produce statistics	Yes.
Right of responsible organisations to collect data – obligation of (natural / legal) persons to provide raw and administrative data	Both are covered by Greek Law 3832/2010.
Obligation of responsible organisations to protect confidential information from disclosure	In line with the principles of the European Statistics Code of Practice in the frame of the Hellenic Statistical System.
Rights of access of third organisations / persons to data and statistics	Third parties (or persons), other than GSRT and EL.STAT., are given access to aggregated data only.

<b>8.2.4 Planned changes of legislation</b>	No changes to our knowledge.
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## 8.3 Standards and manuals

<b>8.3.1 Standards adopted and used</b>	Frascati Manual.
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## 9 Data availability

The four following tables report the availability of R&D variables by sector of performance. The tables contain the following columns:

<li>Dimension: the variables used for the breakdown of R&D variables.</li>

<li>Availability: Y (Yes) - if data are available; Specify the year data collection begun for the respective R&D variable - dimension combination. N (No) if no data are available</li>

<li>Frequency: frequency of data collection (e.g. annual or every two years)</li>

<li>Gap years: years with missing data</li>

<li>Modifications:</li>

o Description: description of modifications with respect to the recommendations of the Frascati manual, e.g. in

*the classification used for the respective dimension, in the coverage of the respective dimension's extent, etc. Changes in classifications are reported only for dimensions with specifically prescribed classifications in Frascati.*

*o Year of introduction: year the modifications were introduced*

*o Reasons: the reason for the modifications or for not collecting data for the respective R&D variable - dimension combination..*

## 9.1 Business Enterprise Sector (BES)

### 9.1.1 R&D data availability for the BES - R&D Personnel (HC)

	Availability (Y-start year, N)	Frequency	Gap years	Modification s - Description	Modification s - Year of introduction	Modification s - Reasons
<b>Sex</b>	Y-1999	Annual	2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Biennial	2009	N/A	N/A	N/A
<b>Age</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Citizenship</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 177 - 179)</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Economic activity</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Product field</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Employment size class</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A

### 9.1.2 R&D data availability for the BES - R&D Personnel (FTE)

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of production</b>	<b>Modification s - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Biennial	2009	N/A	N/A	N/A
<b>Age</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Citizenship</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 177 - 179)</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Economic activity</b>	Y-2011	Annual	N/A	N/A	N/A	N/A
<b>Product field</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Employment size class</b>	Y-2003	Annual	N/A	Annual frequency	2011	N/A

### 9.1.3 R&D data availability for the BES - R&D expenditure

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of introduction</b>	<b>Modification s - Reasons</b>
<b>Source of funds</b>	Y	Biennial	2009	N/A	N/A	N/A
<b>Type of R&amp;D</b>	Y-2003	Biennial	2009	N/A	N/A	N/A
<b>Type of costs</b>	Y	Biennial	2009	N/A	N/A	N/A
<b>Socio-econo mic objective</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2007	Biennial	2009	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 177 - 179)</b>	N	N/A	N/A	N/A	N/A	N/A

<b>Economic activity</b>	Y	Biennial	2009	N/A	N/A	N/A
<b>Economic activity of industry served (for enterprises in NACE 73)</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Product field</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Employment size class</b>	Y	Biennial	2009	N/A	N/A	N/A

#### 9.1.4 R&D data availability for the BES - Other:

	<b>Dimension [any additional dimension available at national level. Please also indicate the relevant R&amp;D variable, e.g. Extramural R&amp;D expenditure ]</b>	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## 9.2 Government sector (GOV)

### 9.2.1 R&D data availability for GOV - R&D Personnel (HC)

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gaps years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of introduction</b>	<b>Modification s - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Age</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Citizenship</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 193)</b>	N	N/A	N/A	N/A	N/A	N/A

### 9.2.2 R&D data availability for GOV - R&D Personnel (FTE)

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of introduction</b>	<b>Modification s - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Age</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Citizenship</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp;</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A

<b>technology</b>						
<b>Type of institution (see FM § 193)</b>	N	N/A	N/A	N/A	N/A	N/A

### 9.2.3 R&D data availability for GOV - R&D Expenditure

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
<b>Source of funds</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Type of R&amp;D</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of costs</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Socio-economic objective</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 193)</b>	N	N/A	N/A	N/A	N/A	N/A

### 9.2.4 R&D data availability for GOV - Other

<b>Dimension [any additional dimension available at national level. Please also indicate the relevant R&amp;D variable, e.g. Extramural R&amp;D]</b>	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>

	expenditure )]						
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A

### 9.3 Higher Education sector (HES)

#### 9.3.1 R&D data availability for the HES - R&D Personnel (HC)

	Availability (Y-start year, N)	Frequency	Gap years	Modification s - Description	Modification s - Year of introduction	Modification s - Reasons
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual Frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2007, 2009	Annual Frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual Frequency	2011	N/A
<b>Age</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Citizenship</b>	Y-2011	Biennial	N/A	Available for researchers only	2011	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 227)</b>	N	N/A	N/A	N/A	N/A	N/A

#### 9.3.2 R&D data availability for the HES - R&D Personnel (FTE)



	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of introduction</b>	<b>Modification s - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Age</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Citizenship</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 227)</b>	N	N/A	N/A	N/A	N/A	N/A

### 9.3.3 R&D data availability for the HES - R&D expenditure

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modification s - Description</b>	<b>Modification s - Year of introduction</b>	<b>Modification s - Reasons</b>
<b>Source of funds</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Type of R&amp;D</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of costs</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Socio-econo mic objective</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of institution (see FM § 227)</b>	N	N/A	N/A	N/A	N/A	N/A

### 9.3.4 R&D data availability for the HES - Other

	<b>Dimension [any additional dimension available at national level. Please also indicate the relevant R&amp;D variable, e.g. Extramural R&amp;D expenditure ]]</b>	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A

#### 9.4 Private Non-profit sector (PNP)

*If PNP is included in one of the other sectors then this table needs not be filled in*

##### 9.4.1 R&D data availability for the PNP sector - R&D Personnel (HC)

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Age</b>	N	N/A	N/A	N/A	N/A	N/A

<b>Citizenship</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A

#### 9.4.2 R&D data availability for the PNP sector - R&D Personnel (FTE)

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
<b>Sex</b>	Y-1999	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Occupation</b>	Y-1993	Annual	2009	Annual frequency	2011	N/A
<b>Qualification</b>	Y-1993	Annual	2007, 2009	Annual frequency	2011	N/A
<b>Age</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Citizenship</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A

#### 9.4.3 R&D data availability for the PNP sector

	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
<b>Source of funds</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Type of R&amp;D</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Type of costs</b>	Y	Biennial	2007, 2009	N/A	N/A	N/A
<b>Socio-economic objective</b>	N	N/A	N/A	N/A	N/A	N/A
<b>Region</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A
<b>Major field of science &amp; technology</b>	Y-2011	Biennial	N/A	N/A	N/A	N/A

#### 9.4.4 R&D data availability for the PNP sector - Other

	<b>Dimension [any additional dimension available at national level. Please also indicate the relevant R&amp;D variable, e.g. Extramural R&amp;D expenditure ]]</b>	<b>Availability (Y-start year, N)</b>	<b>Frequency</b>	<b>Gap years</b>	<b>Modifications - Description</b>	<b>Modifications - Year of introduction</b>	<b>Modifications - Reasons</b>
<b>1</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>2</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>3</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>4</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>5</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>6</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>7</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>8</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>9</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>10</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## 10 Annex A

<i>10.1 Annex A</i>	N/A
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## 11 Annex 1

<i>11.1 Annex 1</i>	N/A
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## 12 Annex 2

<i>12.1 Annex 2</i>	N/A
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**13 Annex 3**

<i>13.1 Annex 3</i>	N/A
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