INVENTORY OF AVAILABILITY OF NANOTECHNOLOGY INDICATORS AND STATISTICS ACROSS OECD COUNTRIES

Country	Australia
Type of variable	Qualitative findings: general interest in developments related to science and technology, awareness and knowledge of nanotechnology
Collection agency / organisation	Australian Office of Nanotechnology, Australian Government - Department of Industry, Tourism and Resources in collaboration with the Market Attitude Research Services
Scope	N/A
Frequency	Trends 2005 to 2007
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is science at a very small scale; and refers to a new array of devices and materials whose key parts are less than 10 nanometers, about 10,000 times smaller than the width of a human hair. Its potential is not just about being able to miniaturise things. Working at a scale a million times smaller than a pinhead allows science researchers to "tune" material properties at the atomic level, making them behave in different ways to create new materials and products
List based definition	N/A
Contact points	David Gallagher Manager Australian Office of Nanotechnology Email: david.gallgher@industry.gov.au Tel: +61 2 6213 7373
Websites	www.industry.gov.au/nano
Published analytical reports	Department of Industry Tourism and Resources, "Australian Community Attitudes Held About Nanotechnology – Trends 2005 to 2007", David Collins, Market Attitude Research Services Pty Ltd, 12 June 2005 – FINAL REPORT Email: research.mars@ozemail.com.au
Future plans	N/A

Country	Australia
Type of variable	Quantitative findings: current investment in nanotechnology,intended application of nanotechnology, either as developers or adopters of nanotechnology products and processes, perceived importance of nanotechnology to the business in five years, likely revenue from nanotechnology-related activities, where companies perceive nanotechnology will have the greatest positive impact, timing of decisions for investments in nanotechnology, influences on decisions related to investments in nanotechnology, barriers to investing in nanotechnology, current and desired infrastructure and facilities to allow research or production at the nano-scale, current sources of information about nanotechnology, expected role of government
Collection agency / organisation	Australian Office of Nanotechnology, Australian Government - Department of Industry, Tourism and Resources in collaboration with dandolopartners
Scope	Business sector
Frequency	2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is the precision-engineering of materials at the scale of 10-9 metres (one ten-thousandth the breadth of a human hair), at which point, new functionalities are obtained, resulting in products, devices and processes that will transform various industries - source: Australian Office of Nanotechnology
List based definition	N/A
Contact points	David Gallagher Manager Australian Office of Nanotechnology Email: david.gallgher@industry.gov.au Tel: +61 2 6213 7373
Websites	www.industry.gov.au/nano
Published analytical reports	Nanotechnology business survey, A report for Department of Industry, Tourism and Resources, Australian Government, and Nanotechnology Victoria Ltd submitted on November 24, 2006, dandolopartners
Future plans	N/A

Country	Australia
Type of variable	Public attitudes to nanotechnology to assess the Australian public's knowledge of and views about nanotechnology, effects of nanotechnology on businesses - to assess how businesses are responding to the impact of nanotechnology
Collection agency / organisation	ABS, the Australian Bureau of Statistics
Scope	Business sector
Frequency	N/A
Periodicity	N/A
Classification used	The ABS is in the process of reviewing the the Australian Standard Research Classification (ASRC) (cat. no. 1297.0). This classification is designed for use in the measurement and analysis of research and experimental development (R&D) undertaken in Australia. ABS is proposing that Nanotechnology has its own classification in the revised ASRC; the revised ASRC is due to tbe published in March 2008
Single based definition	N/A
List based definition	NANOTECHNOLOGY Nanomaterials Nanometrology Nanofabrication, Growth and Self Assembly Nanoscale Characterisation Nanoelectronics Molecular and Organic Electronics Nanophotonics Nanoelectromechanical Systems Nanomanufacturing Nanobiotechnology Nanomedicine Nanotoxicology, Health and Safety Environmental Nanotechnology Nanotechnology not elsewhere classified
Contact points	David Brett Australian Bureau of Statistics Email: david.brett@abs.gov Tel: +61 2 6252 5619
Websites	www.abs.gov.au
Published analytical reports	N/A
Future plans	N/A

Country	Austria
Type of variable	No data on nanotechnology R&D available
Collection agency / organisation	Statistics Austria
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Andreas Schiefer Statistics Austria Directorate Population Statistics, Science, Technology, Education Statistics Statistical office, responsible for R&D and innovation Statistics Guglgasse 13, 1110 Wien Email: andreas.schiefer@statistik.gv.at Tel: +43/1/71128-7162 Fax: +43/1/71128-7680
Websites	www.statistik.at
Published analytical reports	N/A
Future plans	N/A

Country	**Belgium**
Type of variable	Bibliometrics, patents, innotation indicators
Collection agency / organisation	Steunpunt O&O indicatoren, the Policy Research Centre for R&D indicators - Flemish government
Scope	Business sector
Frequency	2003
Periodicity	N/A
Classification used	N/A
Single based definition	Nano-Science and Technology is the manipulation, precision placement, measurement, modelling or manufacture of sub-100 nanometer scale matter
List based definition	As a horizontal field of technology, nanotechnology encompasses a wide rang of different technological sectors: electrical engineering, instrumentation, chemistry and pharmaceuticals as well as process engineering
Contact points	Karel Goossens Scientific Advisor Area : ICT (micro- and nano electronics) Valorisation and Industrial Policy Flemish Government Department of Economy, Science and Innovation (EWI) Koning Albert II-laan 35, bus 10 1030 Brussels Tel : 02 553 59 82 Fax: 02 553 60 07 Email: karel.goossens@ewi.vlaanderen.be URL www.ewi-vlaanderen.be
Websites	http://www.steunpuntoos.be/nanotech.html
Published analytical reports	Nanotechnology, Analysis an Emerging Domain of Scientific and Technological Endeavour, Steunpunt O&O Statistieken, 2003
Future plans	N/A

Country	Belgium
Type of variable	N/A
Collection agency / organisation	Ministry of the Walloon Region (MRW)
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Dr Baudouin Jambe Attaché Area: Materials, Nano, Chemistry Ministry of the Walloon Region (MRW) DG Technologies, Research and Energy (DGTRE) Directorate Research and Scientific Cooperation Avenue Prince de Liège, 7 5100 JAMBES Email: b.jambe@mrw.wallonie.be Tel: 081 33 56 71 Fax: 081 30 66 00
Websites	http://recherche-technologie.wallonie.be/
Published analytical reports	N/A
Future plans	A Eureka initiative exists on mapping the Nano-activities in some countries (TASK 5). Belgium is partner in Minatuse. More information can be found on their website: http://www.minatuse.org/ Many private initiatives are known to the DGTRE, but these do no reflect an overall situation for the Region or the Country. For example, we know the company NANOCYL SA is doing an active survey on nanotechnologies, but quite focused on CNT (of course).

Country	Canada
Type of variable	Nanophotonics, nanoelectronics, nanobiotechnology, nanomedicine, nanomaterials, quantum computing, self assembly, instrumentation development, other, please specify % of revenues from nanotechnology, % of R&D spending on Nanotechnology, % of nanotechnology R&D spending contracted out to others, human resources in nanotechnology - total number of employees with nanotechnology responsibilities, total number of full-time employees with nanotechnology responsibilities (50% or more of their time spent on nanotechnology responsibilities), total number of part-time employees with nanotechnology responsibilities (less than 50% of their time spent on nanotechnology responsibilities) 'Does your firm have alliances or collaborative arrangements with other entities?' 'Did your firm attempt to raise capital for nanotechnology projects?' 'Does your firm possess any nanotechnology related intellectual property instruments?' 'Please indicate for each Intellectual Property instrument the number your firm held in 2005'
Collection agency / organisation	Statistics Canada
Scope	Business sector (some data are also available for public sector)
Frequency	Every 2 years, questions on nanotechnology are included in the Emerging Technology Survey (ETS)
Periodicity	2003, 2005, 2007
Classification used	Classifications reflect differences amongst government departments; Molecular imaging and technology development, clinical imaging/tools, biomaterials and drugs delivery are the categories of the CIHR whereas NSERC has the following categories: nanomaterials development, nano-electronics/photonics, tools development and life sciences
Single based definition	Nanotechnology is a suite of technologies which enable the direct manipulation, study or exploitation of systems or structures where at least one dimension is on the nanometre length scale (typically less than 100nm). The ability to control matter within this regime allows us to exploit phenomena which predominate at these length scales, leading to the production of novel materials and devices which exhibit qualitatively different properties than that of the corresponding bulk material
List based definition	N/A
Contact points	Chuck McNiven Statistics Canada Unit Head - Life Science Unit Science Innovation and Electronic Information Division Email: Chuck.McNiven@statcan.ca Tel: 613-951-1233
Websites	www.statcan.ca
Published analytical reports	Overview and Discussion of the Results of the Pilot Survey on Nanotechnology in Canada, Chuck McNiven, 2007 Towards a Nanotechnology Statistical Framework, Kevin Fitzgibbons (ONSA) & Chuck McNiven (Statistics Canada), 2006
Future plans	N/A

Country	Czech Republic
Type of variable	Expenditure on R&D in sectors of performance in selected areas of R&D, expenditure on R&D in main field of science in selected areas of R&D
Collection agency / organisation	Czech Statistical Office
Scope	N/A
Frequency	2005
Periodicity	N/A
Classification used	R&D
Single based definition	Nanotechnology: there are many definitions at the international level, there are technologies engaged in the smallest parts of matter, of which is possible manipulate
List based definition	Examples: nanoelectronics in evelopment of semiconductor triodes, diodes etc. for minimisation of a size of PC, optoelectronics, optoelectronic character of semiconductors, receptor outsides of biosensors for biological systems, new microscopic technics. Nanotechnologies can combine physics, informatics, electronics, biology, biotechnology, chemistry, etc
Contact points	N/A
Websites	http://www.czso.cz/csu/2006edicniplan.nsf/engp/9601-06
Published analytical reports	N/A
Future plans	N/A

Country	Denmark
Type of variable	Qualitative data on environment
Collection agency / organisation	The Danish Ministry for Science, Technology and Innovation has commissioned a mapping study to gain an idea of how many business and public research institutions are active within Nanotechnology and in what areas. In doing so, a short questionnaire was distributed. The study was undertaken by Risø National Laboratory
Scope	Business and public sectors
Frequency	2004, 2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is the design, characterization, production and application of structures, devices and systems that entail controlling the shape and size at the nanometre scale. The size range of nanotechnology is often delimited to 100 nm down to the molecular level (approximately 0.2 nm) because this is where materials have significantly different properties. But how strictly to delimit nanotechnology is a matter of dispute. The need to integrate with other length scales to obtain wider technology development is emphasized
List based definition	N/A
Contact points	Risø National Laboratory · Technical University of Denmark Marianne Strange Senior Advisor Email: marianne.strange@risoe.dk Tel: +45 4677 5483 DTUFrederiksborgvej 399 · P.O. 49 · DK-4000 Roskilde · Tel: +45 4677 4677, Fax:
Websites	www.risoe.dk
Published analytical reports	Nanotechnology development in Denmark - environmental opportunities and risk, Maj Munch Andersen and Birgitte Rasmussen, Risø-R-1550(EN), 2006 Study undertaken by Risø National Laboratory
Future plans	N/A

Country	Denmark
Type of variable	Estimate of what percent of the firm's total R&D is within the nanotechnology area, estimate for shares of the institutions R&D activities (nanotechnology and nanoscience)
Collection agency / organisation	CFA, Danish Centre for Studies in Research and Research Policy
Scope	Business and public sectors
Frequency	2005
Periodicity	N/A
Classification used	N/A
Single based definition	No definition
List based definition	N/A
Contact points	Carter Bloch Senior Researcher Danish Centre for Studies in Research and Research Policy (CFA) Email: Carter.bloch@cfa.au.dk Tel: +45 89 42 23 98
Websites	www.cfa.au.dk
Published analytical reports	R&D surveys for both the business and public sectors, CFA
Future plans	N/A

Country	**Finland**
Type of variable	Company survey: background, nanotechnology involvement, nature of R&D activity, collaboration, commercialisation challenges, relevancy of R&D program
Collection agency / organisation	Spinverse Consulting
Scope	Companies identified as active in nanotechnology
Frequency	2006, 2007
Periodicity	Annually since 2006
Classification used	Companies by size and industry
Single based definition	N/A
List based definition	N/A
Contact points	Laura Juvonen Spinverse Consulting laura.juvonen@spinverse.com
Websites	www.spinverse.com
Published analytical reports	N/A
Future plans	N/A

Country	Finland
Type of variable	Researcher and inventor survey: basic information, entry to nanotechnology, technology transfer, commercialisation, application industries, commercialisation durations
Collection agency / organisation	ETLA, Research Institute of the Finnish Economy
Scope	Researchers and inventors identified as active in nanotechnology through publication and patent data
Frequency	2006
Periodicity	N/A
Classification used	Individuals bu educational background, affiliation, nanotechnology intensity, research fields, application industries etc.
Single based definition	N/A
List based definition	N/A
Contact points	Tuomo Nikulainen, Christopher Palmberg ETLA Lonnrotinkatu 4B, FIN-00120, Finland
Websites	www.etla.fi
Published analytical reports	Palmberg, Christopher et al., 2007, Transferring science-based technologies to industry - Does nanotechnology make a difference? ETLA Discussion papers no. 1064 Nikulainen, Tuomo. 2007. What makes a gatekeeper? - Insights from the Finnish nano-community. DRUID Working paper no. 07-09 Palmberg, Christopher. 2007. The transfer and commercialisation of nanotechnology: a comparative analysis of university and company researchers. Journal of Technology Transfer (forthcoming)
Future plans	N/A

Country	France
Type of variable	Patents, data on nanomaterial actors
Collection agency / organisation	Ministry of Economy, Finance and Labour (Industry)
Scope	Business and public sectors
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	Nanoscience refers to the study of phenomena observed in structures, tools-systems whose size is a few nanometers (1 nanometer is equal to 10 -9 m), and whose physical properties, chemical, even biological are derived specifically of this nanoscale size"
List based definition	Nanotechnology treats as well handling of the atoms and molecules (of which typical dimension is the nanometer), of the miniaturization of the structures and the exploitation of the new properties, phenomena and processes specific to the nanometric scale. Nanotechnology completely opens new ways and its development often requires multi-field competences, being already used in several industrial sectors - construction, electronics, transport, pharmacy and cosmetic
Contact points	Gilles Le Marois DGE – Service des Industries Manufacturières Email: gilles.le-marois@industrie.gouv.fr Ivan Faucheux DGE – Service des Technologies et de la Société de l'information Email: ivan.faucheux@industrie.gouv.fr
Websites	http://www.industrie.gouv.fr/portail/politiques/index_nanotech.html http://www.nanomicro.recherche.gouv.fr/ ; http://www.nanomateriaux.org
Published analytical reports	Etude prospective sur les nanomatériaux, étude réalisée par Developpement & Conseil pour le compte du MINEFI / DIGITIP / SIMAP, 2004
Future plans	N/A

Country	Germany
Type of variable	Patents, publications, universities /institutes with NT Research
Collection agency / organisation	VDI Technologiezentrum GmbH
Scope	Business and public sectors
Frequency	2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is defined in the Growth Market Nanotechnology edited by Norbert Malanowski, Thomas Heimer, Wolfgang Luther, & Matthias Werner as: a) all products with at least one functional component with a controlled geometrical size below 100 nanometers in at least one directional dimension rendering physical/chemical or biological effects usable that do not occur above this critical size b) analytical and/or process engineering equipment required for the controlled manufacturing, positioning or measurement of the functional components mentioned under (a)
List based definition	N/A
Contact points	Dr. Gerd Bachmann Zukuenftige Technologien Consulting - VDI Technologiezentrum GmbH Email: bachmann@vdi.de Tel: +49 211 62 14 - 235 Fax: +49 211 62 14 - 484
Websites	www.zt-consulting.de
Published analytical reports	Allianz/OECD: "Small Size that matters: Opportunities and Risks of Nanotechnologies", 2005 http://www.allianz.com/Az_Cnt/az/_any/cma/contents/809000/saObj_809372_allianz_study_Nanotechnology_engl.pdf Nanotechnologie als wirtschaftlicher Wachstumsmarkt http://www.zukuenftigetechnologien.de/detail.php?c=43&s=1 http://www.amazon.de/Growth-Nanotechnology-Analysis-Technology-Innovation/dp/3527314571/ref=sr_1_1/028-5674383-2836504?ie=UTF8&s=books&qid=1183993974&sr=8-1 More focused on the start-up situation in Germany a study of Festel and VDI TZ can be found under http://www.zukuenftigetechnologien.de/detail.php?c=8&s=1 A survey of the german players in nanotechnology (companies, universities, networks, ...) can be found under www.nano-map.de Growth Market Nanotechnology edited by Norbert Malanowski, Thomas Heimer, Wolfgang Luther, & Matthias Werner, WILEY-VCH Verlag GmbH & Co. KGaA, 2006 The National State of the Art Report on Nanotechnology Germany, STEINBEIS - EUROPA - ZENTRUM, Ulrich Sutter, Dr. Jonathan Loeffler, 2005 Nanotechnology Conquers Markets, German Innovation Initiative for Nanotechnology, Federal Ministry of Education and research, 2004
Future plans	Regional analysis about Bremen and North Rhine Westphalia are coming

Country	Greece
Type of variable	N/A
Collection agency / organisation	General Secretariat for Research and Technology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	L. Giannakopoulou General Secretariat for Research and Technology Greece
Websites	http://www.gsrt.gr
Published analytical reports	N/A
Future plans	N/A

Country	Hungary
Type of variable	N/A
Collection agency / organisation	National Office for Research and Technology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	www.nkth.gov.hu
Published analytical reports	N/A
Future plans	N/A

Country	Iceland
Type of variable	Funding for the Program for Nanotechnology and Postgenomics
Collection agency / organisation	RANNIS, the Icelandic Centre for Research
Scope	Business and public sector
Frequency	2005/6
Periodicity	N/A
Classification used	N/A
Single based definition	The terms nanoscience and nanotechnology refer to science and technology on a nanoscale, which cross the traditional disciplines of physics, chemistry and biotechnology - the research programme will place the upper limit of the size scale at 10 micrometers
List based definition	The field of nanoscience and nanotechnology combines a number of disciplines, including physics, chemistry, engineering, bioscience, materials technology and biotechnology, thereby forming a broad science and technology forum
Contact points	N/A
Websites	http://www.rannis.is/english/
Published analytical reports	Science and Technology Policy Council, Science and Technology Research Programme, Postgenomic Biomedicine Nanoscience and Nanotechnology 2005/6 to 2009/10
Future plans	Program for Nanotechnology and Postgenomics (2005–2009)

Country	Ireland
Type of variable	Expenditures, spending on Nano requested in the most recent BERD survey - estimation of the % of total R&D related to Nanotechnology, data also picked up in HERD survey which used the revised field of science classification broadening out the Nano definition, a full database of Nano active companies and institutions
Collection agency / organisation	1) FORFAS, Ireland's national Economic Development Authority and Advisory Board 2) ICSTI IRELAND, Irish Council for Science, Technology and Innovation, part of Forfás
Scope	Business and public sectors
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	1) Nanotechnology is the manipulation or self-assembly of individual atoms, molecules, or molecular clusters into structures to create materials and devices with new or vastly different properties. It comprises any technological developments on the nanometre scale, usually 0.1-100nm 2) Nanotechnology is a collective term for a set of tools and techniques that permit the atoms and molecules that comprise all matter to be imaged and manipulated. Using these tools and techniques it is possible to exploit the size-dependent properties of materials structured on the sub-100 nanometer scale, which may be assembled and organised to yield nanodevices and nanosystems that possess new or improved properties
List based definition	1) Nanotechnology can be achieved by reducing the size of the smallest structures to the nanoscale (e.g. photonics applications in nanoelectronics and nanoengineering) or by manipulating individual atoms and molecules into nanostructures, which more closely resembles chemistry or biology 2) These nanotechnology's tools and techniques, materials, devices and systems present companies in all sectors of the Irish economy with opportunities to enhance their competitiveness by developing new and improved products and processes
Contact points	Andrew Stockman Manager, Science and Technology indicators Unit Forfás, Ireland Email: Andrew.stockman@forfas.ie Tel: + 353 1 607 3224
Websites	http://www.forfas.ie/ http://www.forfas.ie/icsti/
Published analytical reports	Nanotechnology in Ireland: A Snapshot, FORFAS ICSTI Statement on Nanotechnology, Established by the Government and Forfás to advise on Science, Technology and Innovation, 2004
Future plans	N/A

Country	Italy
Type of variable	Enterprises performing nanotechnology, R&D Research areas of nanotechnology, estimate of the share of the total Business R&D expenditure devoted to nanotech-related R&D, one indicator will be produced: total expenditure in nanotech R&D by business enterprises and a breakdown of this indicator by type of research could be available in coming years
Collection agency / organisation	ISTAT, the National Institute of Statistics
Scope	Business sector
Frequency	2003, 2006
Periodicity	N/A
Classification used	N/A
Single based definition	The definitions are largely based on those developed by AIRI for its “census”
List based definition	N/A
Contact points	Giulio Perani Head of the R&D and innovation statistics Unit ISTAT - SSI/D Innovazione ed R&S Via Tuscolana, 1788 00173 Roma E-mail: perani@istat.it Tel: +39 06 4673 6136 Fax: +39 06 4667 8025
Websites	www.istat.it
Published analytical reports	N/A
Future plans	ISTAT is currently developing a co-operation with the Italian National Institute for Studies on Alternative Power (ENEA,) which is basically the largest Italian public institution dealing with the industrial application of advanced technologies, in order to set up a public monitoring system of nanotech activities. A joint action plan will be discussed in the coming months

Country	Italy
Type of variable	Number of structures (both public and private) involved in the nanotechnology field, personnel involved in R&D in nanotechnology, type of nanotechnology areas, nano-related production, fundings, scientific publications, patents issued, cooperative R&D, instrumentations and equipments, education on nanotechnology
Collection agency / organisation	AIRI, Italian Association for the Industrial Research / Nanotec IT, Italian Center for Nanotechnology
Scope	Business and public sectors
Frequency	2005, 2007
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	AIRI / Nanotec IT Andrea Porcari, Annalisa Nicastro Viale Gorizia 25/C 00198 Roma Email: info@nanotec.it Tel: 06 8848831, 06 8546662 Fax: 068552949
Websites	http://www.airi.it/2005/index.php http://www.nanotec.it/
Published analytical reports	Printed conference, Why a national programme for the nanotechnology also in Italy?, AIRI / Nanotec IT Nanotech IT Census 2005, questionnaire of the Italian Nanotechnology Census - II edition, AIRI / Nanotec IT
Future plans	N/A

Country	Italy
Type of variable	Performance of inventors in the NST, patents
Collection agency / organisation	School of Engineering, University of Pisa, Italy and Sant'Anna School of Advanced Studies, Pisa, Italy
Scope	N/A
Frequency	2005
Periodicity	N/A
Classification used	N/A
Single based definition	The definition used is that of National Nanotechnology Initiative, (www.nano.gov) As it does not exist official definition for nanoscience and nanotechnology, according to the Royal Society & The Royal Academy of Engineering (UK) in 2004: "Nanoscience is the study of phenomena and manipulation of materials at atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale" e "Nanotechnology is the design, characterisation, production and application of structures, devices and systems by controlling shape and size at nanometre scale" Similar is the definition born in 2000 from the National Nanotechnology Initiative (NNI) USA: "Nanotechnology is the understanding and control of matter at dimensions of roughly 1 to 100 nanometres, where unique phenomena enable novel applications... At this level, the physical, chemical, and biological properties of materials differ in fundamental and valuable ways from the properties of individual atoms and molecules or bulk matter"
List based definition	N/A
Contact points	N/A
Websites	N/A
Published analytical reports	Scientific and Technological Regimes in Nanotechnology: Combinatorial Inventors and Performance, Andrea Bonaccorsi & Grid Thoma, Laboratory of Economic Management (LEM) working paper series, 2006
Future plans	N/A

Country	Japan
Type of variable	Intramural R&D expenditure in the nanotechnology field and the materials field
Collection agency / organisation	NISTEP, National Institute of Science and Technology Policy
Scope	Business and public sectors
Frequency	2006
Periodicity	2006-2010
Classification used	N/A
Single based definition	Nanotechnology includes research on the following: • Development of new functions by utilising the properties specific to nanoscale, with manipulation and control of atoms and molecules at nano meter level
List based definition	For example, these fields include research and development on the following: • Nanomaterials with innovative functions such as super high strength, super lightweight or super high efficient luminescence, by controlling structure of materials at nanoscale; • Nanoscale information devices for realising next generation super high-speed telecommunication or super high-speed information processing, by using super microfabrication technology or quantum effects; • Medical technology for diagnosis and treatment by delivering minuscule system directly to a diseased part in the body; and • Nanobiology, such as observation of various biological phenomena at nano meter level and control of the phenomena by utilising the mechanisms
Contact points	Tomohiro Ijichi Affiliated Fellow Email: ijcihi@nistep.go.jp National Institute of Science and Technology Policy (NISTEP) Ministry of Education, Culture, Sports, Science and Technology (MEXT) 2-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-005, Japan Tel: +81-3-3581-2396 Fax: +81-3-5220-1253
Websites	www.nistep.go.jp
Published analytical reports	Development of New Bibliometric Indicators Assessing Scientifc Activities, study in preparation, National Nanotechnology, National Institute of Science and Technology (NISTEP), Tokyo, 2006
Future plans	Nanotechnology is one the four prioritized areas in the third Science and Technology Basic Plan, a five-year governmental basic guidelines for science, technology and innovation policy between FY2006 and FY2010

Country	Japan
Type of variable	Venture capital, investment, fundings, patents, other statistics on companies - data collected by Innovation Engine
Collection agency / organisation	AIST, National Institute for Advanced Industrial Science and Technology
Scope	Business and public sectors
Frequency	2005
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is an emerging technology area laid on the nanometer (one billionth of a meter) regime, in which deliberate manipulation of materials with atomic or molecular precision is expected to give rise to revolutionary materials, devices and systems with unprecedented density and functionality even at ultralow energy and material consumption
List based definition	Nanotechnology is a generic field with unlimited future possibilities, existing at the root of every technical discipline related to materials engineering
Contact points	N/A
Websites	http://unit.aist.go.jp/nanotech/
Published analytical reports	Japan Nanotech Business Trends, Nanotechnology Research Institute, AIST, in the Asia Pacific Nanotech Weekly, Vol.3, article #34, 2005
Future plans	N/A

Country	Japan
Type of variable	Venture capital, investment, fundings, patents, other statistics on companies
Collection agency / organisation	Innovation Engine conducted a survey on Nanotech Venture Companies Status in Japan in 2004 (some data are estimated) for AIST, requested by the Ministry of Economy, Trade and Industry (METI)
Scope	Business and public sectors
Frequency	2001-2004
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	www.innovation-engine.co.jp
Published analytical reports	Nanotech Venture Company Status Survey, Innovation Engine, 2005
Future plans	N/A

Country	Korea
Type of variable	R&D investment, number of skilled experts, private com., departments in university/field of education related to nanotechnology, number of SCI papers
Collection agency / organisation	Kistep
Scope	Business and public sectors
Frequency	2001, 2005
Periodicity	1st phase: 2001-2004, 2d phase: 2005-2007, 3d phase: 2008-2010
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	http://www.kistep.re.kr/english/main.jsp
Published analytical reports	Korea's R&D policy & activities on nanotechnology, Brief introduction to Korea's R&D policy and programs on NT, Kistep, 2007
Future plans	R&D programmes: the National Programme for Tera-level Nanodevices, Centre for Nanostructured Materials Tech., Centre for nanoscale Mechatronics & Manufacturing, Nanoscience and tech. Programme, Nano IMT Supporting Programme, Nano Basic Research Programme, Nano Diagnosis Therapy and bio-Mimetic Tech. Programme, Nano-tech. Programme in National Defense Development, Nano-Biotechnology Programme in Agricultural Area

Country	Luxembourg
Type of variable	N/A
Collection agency / organisation	Luxinnovation GIE, National agency for innovation and research
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Luxinnovation GIE, National agency for innovation and research Email: info@luxinnovation.lu Tel: +352 43 62 63 - 1
Websites	http://www.luxinnovation.lu
Published analytical reports	N/A
Future plans	N/A

Country	Luxembourg
Type of variable	NA
Collection agency / organisation	Luxembourg portal for innovation and research
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	http://www.innovation.public.lu
Published analytical reports	N/A
Future plans	N/A

Country	Mexico
Type of variable	N/A
Collection agency / organisation	N/A
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	N/A
Published analytical reports	N/A
Future plans	N/A

Country	Netherlands
Type of variable	Bibliometrics, scientometrics, patents
Collection agency / organisation	NanoNed, the Nanotechnology network in the Netherlands
Scope	Business sector
Frequency	2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is understood to mean: being able to work at the scale of atoms, molecules and supramolecular, individually-addressable structures (from 1 nm to 100 nm), in order to produce larger complex-functional structures with a fundamentally new molecular organisation
List based definition	Nanotechnology makes it possible to develop materials and systems, in which the components and structures exhibit revolutionary new, physical, chemical and biological characteristics, phenomena and processes that are associated with the nano-dimensions Nanotechnology combines three relevant technological disciplines in a single multidisciplinary field. All three of these disciplines cover the working area between 1 and 100 nm: · top-down technology of micro-electronics and microsystem technology, · bottom-up technology via chemistry and self-organisation (supramolecular chemistry) and physics and · biotechnology of natural functional molecules and the manipulation of these
Contact points	N/A
Websites	http://www.nanoned.nl/NanoNed/Nanotechnology.htm
Published analytical reports	Assessment Tools for the Management of New and Emerging Science and Technology: State-of-the-Art and Research Gaps, TA NanoNed Working Paper No. 1 Dr Tilo Propp & Prof Dr Arie Rip, Centre for Studies of Science, Technology and Society University of Twente, The Netherlands
Future plans	N/A

Country	Netherlands
Type of variable	N/A
Collection agency / organisation	Future Technology Center
Scope	Business sector
Frequency	2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is the understanding and control of matter at dimensions of roughly 1-100 nm, where unique phenomena enable novel applications. A nanometer is 10-9 of a meter; a sheet of paper is about 100,000 nm thick. Encompassing nanoscale science, engineering and technology, nanotechnology involves imaging, measuring, modelling, and manipulating matter at this length scale. At this level, the physical, chemical and biological properties of materials differ in fundamental and valuable ways from both the properties of individual atoms and molecules or bulk matter. Nanotechnology R&D is directed toward understanding and creating improved materials, devices and systems that exploit these new properties (source National Nanotechnology Initiative – Strategic Plan 2004)
List based definition	Examples are: micro- and nanoelectronics, MEMS, micro electro mechanical systems, nanostructures such as lotus coatings, catalytic surfaces and membranes, nanostructured coatings in displays, solar cells, flat batteries, nanofibers by electrospinning, nanoclay platelets and tubes by exfoliation
Contact points	N/A
Websites	www.futuretechnologycenter.nl
Published analytical reports	Nanotechnology Innovation opportunities for tomorrow's defense, Steven Schilthuizen & Frank Simonis, TNO Science & Industry, 2006
Future plans	N/A

Country	Netherlands
Type of variable	N/A
Collection agency / organisation	Malsch Techno Valuation
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	http://www.malsch.demon.nl/
Published analytical reports	N/A
Future plans	N/A

Country	New Zealand
Type of variable	N/A
Collection agency / organisation	Ministry of Research, Science and Technology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	According to the Ministry of Research, Science and Technology, the definition provided by the United States' National Nanotechnology Initiative is used: "[Nanotechnology is] the understanding and control of matter at dimensions of roughly 1 to 100 nanometres1, where unique phenomena enable novel applications. The Ministry follows the United States' National Nanotechnology Initiative definition as well as adopting the distinctions between nanoscience and nanotechnologies used by the United Kingdom's Royal Society and Royal Academy of Engineering Definition of nanotechnology: the understanding and control of matter at dimensions of roughly 1 to 100 nanometres, where unique phenomena enable novel applications Nanoscience focuses on the understanding of properties at the nanoscale, while nanotechnology involves the design, characterisation, production or amplifi cation of structures, devices and systems by controlling shape and size at nanometre scale. The use of the plural "nanotechnologies" underlines the fact that there are a range of technologies and potential applications involved in this area The definition does not appear to be very clear according to Statistics New Zealand
List based definition	N/A
Contact points	Eileen Basher Manager Business Performance and Agriculutre Statistics New Zealand Email: Eileen.Basher@stats.govt.nz Any questions should be directed to: Hamish Hill as the manager for the Science and Technology surveys within the team Email: Hamish.hill@stats.govt.nz
Websites	www.stats.govt.nz
Published analytical reports	Nanoscience + nanotechnologies, Ministry of Research, Science and Technology, 2006
Future plans	N/A

Country	Norway
Type of variable	R&D expenditures, number of enterprises with R&D in nanotechnology
Collection agency / organisation	Statistics Norway
Scope	Business sector
Frequency	2005, 2006
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Frank Foyn Senior adviser Department of Economic Statistics Statistics Norway Email: frank.foyn@ssb.no Tel: +47 2109 4688 Mobile: +47 4147 3865
Websites	www.ssb.no
Published analytical reports	N/A
Future plans	No concrete plans for extended data collection on R&D and nanotechnology

Country	Norway
Type of variable	Norwegian participation in EU's sixth framework programme by thematic priorities (Million NOK) - Report on Science & Technology Indicators for Norway
Collection agency / organisation	Research Council of Norway, National Research Ethics Committee for Science and Technology (NENT) and Norwegian Board of Technology
Scope	Business and public sectors
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology can be defined as: New techniques for synthesis and processing, including moving and building using nature's own building blocks (atoms, molecules or macromolecules), for the intelligent design of functional materials, components and systems with attractive qualities and functions, and where dimensions and tolerances ranging from 0.1 to 100 nanometres (nm) play a decisive role
List based definition	Nanotechnology is interdisciplinary, embracing physics, chemistry, biology, molecular biology, medicine, electronics, ICT and materials science. Because nanotechnology is interdisciplinary, this report will often refer to nanotechnologies in the plural. Already today, various nanotechnologies offer a multitude of benefits, and they will continue to do so in future. However, there is also uncertainty associated with development
Contact points	N/A
Websites	http://www.forskningsradet.no/servlet/Satellite?c=Page&cid=1138785830860&pagename=ForskningsradetEngelsk%2Fpage%2FStandardSidemal
Published analytical reports	A study conducted by an independent working group appointed jointly by the Research Council of Norway, the National Research Ethics Committee for Science and Technology (NENT) and the Norwegian Board of Technology
Future plans	Given Norway's combination of technological expertise and interest in values, research on the ethical, legal and social aspects of nanotechnologies is a field in which the country could make significant contributions at the international level, provided Norway has the will and ability to engage in joint interdisciplinary research initiatives

Country	Poland
Type of variable	N/A
Collection agency / organisation	Ministry for Science and Higher Education
Scope	Business sector
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	The proposed basic areas of strategic support for nanotechnology are the following: nanoscale phenomena & processes, nanostructures, nanomaterials & composites, nanoscale devices and nanoanalytics & nanometrology, manufacturing processies and devices for nanotechnology
Contact points	N/A
Websites	http://www.eng.nauka.gov.pl/meinen/index.jsp?place=Menu01&news_cat_id=-1&layout=0
Published analytical reports	Nanoscience and Nanotechnology National Strategy for Poland, 2006
Future plans	N/A

Country	Portugal
Type of variable	Conduction of a survey on nanotechnology activities in Portugal as part of a national strategy development
Collection agency / organisation	INESC-MN, Systems and Computer Engineering Institute for Microsystems and Nanotechnology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	http://www.inesc-mn.pt/
Published analytical reports	N/A
Future plans	N/A

Country	**Slovak Republic**
Type of variable	R&D expenditure in nanotechnology and nanomaterials of R&D performance, total and from government source
Collection agency / organisation	Statistical Office of the Slovak Republic
Scope	Business and public sectors
Frequency	2006
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is a technology that dealings with the smallest parts of substance possible to manipulate with them
List based definition	For example nanoelectronics in development of transistors, diodes etc. to minimize largeness of computers, further the optoelectronics - optoelectronic attributes of semiconductors, sensor surfaces of biosensors for biological systems, new microscopical technics. Nanotechnologies may be an interdisciplinary subject areas, may merge physics, informatics, electronics, biology, biotechnology, chemics and the like
Contact points	Edita Novotna Expert in Science, Technology and Innovation Statistics Statistical Office of the Slovak Republic Mileticova 3 SK-824 67 Bratislava Slovak Republic Tel: +4212 50236 271 Fax: +4212 55567 042 Email: edita.novotna@statistics.sk
Websites	www.statistics.sk
Published analytical reports	N/A
Future plans	N/A

Country	Spain
Type of variable	Qualitative data (e.g. priority to improve infrastructures dedicated to Nanoscience and Nanotechnology, interest in which these infrastructures work like services to the investigating community in these fields, etc.)
Collection agency / organisation	Red Española de Nanotecnología, the Spanish Technology Network, NanoSpain was partially funded in 2003 & 2007 by the Spanish Ministry of Science
Scope	Business sector
Frequency	2004
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	N/A
Websites	http://www.nanospain.org/nanospain_English.htm
Published analytical reports	Results of the survey on the contents of the Call that will develop the Strategic operation in Nanoscience and Nanotechnology of the National Plan 2004-2007, Red Española de Nanotecnología, Madrid, 2004
Future plans	N/A

Country	Sweden
Type of variable	Patents, nanotech companies, investments
Collection agency / organisation	IVA, the Royal Swedish Academy of Engineering Sciences
Scope	Business and public sectors
Frequency	1992-2004
Periodicity	N/A
Classification used	N/A
Single based definition	The term 'nanotechnology' is used here to denote structures that are 100 nanometres (100 x 10-9) or smaller. It is important to be aware, however, that there is no precise, recognized definition for nanotechnology. The term nanotechnology has been a theme for discussion ever since it was coined by Eric Drexler (if any one person can really be regarded as being the origin of the term) This means that the nano field borders on the microsystems field, which is not, strictly speaking, within the domain of this project, and which is already technologically and commercially established
List based definition	As suggested in the summary, nanotechnology has many conceivable areas of application. The materials field is expected to be an important focus for discussion within the project, although not the only one. Another example of an area of application is biomedicine, specifically instruments, medical technology systems and products such as tissue parts and prostheses. A third application area is energy and electronic applications. In electronics, nanotechnology provides a continuation of the miniaturisation process. Energy applications could include coating on surfaces, such as sun panels and windows, and chemico-technical reactors such as batteries and fuel cells
Contact points	Per Storm Secretary to the Academy Email: pst@iva.se Tel: 08-791 29 44 Mobile: 070-594 90 24 Bengt Mölleryd Project Manager Email: bm@iva.se Tel: 08-791 29 38 Mobile: 070-583 44 72 Telefax: 08-611 56 23
Websites	www.iva.se
Published analytical reports	Nanotechnology in Sweden: tracking patenting activity & links between nanotech firms and Swedish science, report to IVA, Martin Mayer - Knowledge Flows
Future plans	Nanotechnology is a branch of research that is broadening its reach. IVA is running this project for a period of 12 to 18 months to gather Swedish expertise and players interested in developing Swedish nanotechnology. The project's main purpose is to produce informational materials, formulate a long-term strategy and to prepare a plan for an innovation system within the nano field. One important dimension of the project is an international/European perspective that could lead to a proposal for the EU's framework programme for research and technical development, currently FP6 and the seventh programme, FP7, which is currently at the planning stage. Another purpose of the project is to highlight the social and ethical aspects of nano research

Country	Switzerland
Type of variable	R&D expenditures - R&D intra-muros expenditures in nanotechnology by economic branch and company size
Collection agency / organisation	Swiss Federal Statistical Office in collaboration with the Swiss Federation of Commerce and Industry
Scope	Business sector
Frequency	2004
Periodicity	N/A
Classification used	N/A
Single based definition	By nanotechnology, it is meant research, development and possibly the production of products from materials at atomic, molecular or macromolecular at the nanoscale (between 1 and 100 nanometers). Nanoscience is the study of phenomena and materials at the nanoscale. At a larger scale, the research and development of nanotechnology include controlled manipulation of structures at the nanoscale and their intregration into larger components, structures and hardware architectures
List based definition	N/A
Contact points	Elisabeth Pastor Collaboratrice scientifique, Swiss delegate at NESTI Area of activity: Science and Technologie Indicators, R&D satellite account Email: elisabeth.pastor@bfs.admin.ch Tel: +41 32 713 62 99 Rachel Grange Swiss delegate at the Working Party on Nanotechnology Email: rachelgrange@gmail.com
Websites	http://www.bfs.admin.ch/bfs/portal/fr/index.html
Published analytical reports	R&D in the private economy in Switzerland in 2004 First results, Indicators «Science and Technology», Neuchâtel, 2005 http://www.bfs.admin.ch/bfs/portal/fr/index.../ind2.Document.87199.xls
Future plans	N/A

Country	Turkey
Type of variable	N/A
Collection agency / organisation	UNAM, Institute of Materials Science and Nanotechnology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Prof. Atilla Aydınlı External Relations Coordinator Tel: (312) 290 1579 Fax: (312) 266 4365
Websites	http://www.nano.org.tr/English/english.html
Published analytical reports	N/A
Future plans	N/A

Country	Turkey
Type of variable	N/A
Collection agency / organisation	NANOTAM, Nanotechnology Research Center
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	N/A
List based definition	N/A
Contact points	Administrative Office Contact, Nanotechnology Research Center Tel: 90-312-290-1966 Fax: 90-312-290-1015
Websites	http://www.nanotechnology.bilkent.edu.tr/
Published analytical reports	N/A
Future plans	N/A

Country	United Kingdom
Type of variable	Investment, expenditures
Collection agency / organisation	Royal Society & The Royal Academy of Engineering
Scope	N/A
Frequency	2004
Periodicity	N/A
Classification used	N/A
Single based definition	Royal Society & The Royal Academy of Engineering (UK), 2004, “Nanoscience is the study of phenomena and manipulation of materials at atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale” and “Nanotechnology is the design, characterisation, production and application of structures, devices and systems by controlling shape and size at nanometre scale"
List based definition	N/A
Contact points	N/A
Websites	http://www.nanotec.org.uk/finalReport.htm
Published analytical reports	Nanoscience and nanotechnologies: opportunities and uncertainties, 2004
Future plans	N/A

Country	United Kingdom
Type of variable	Investment
Collection agency / organisation	Institute of nanotechnology
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	The term ‘nanotechnology’ encompasses a huge range of activities. 'Nano’ is used in the world of science to mean one billionth. E.g. a nanometer is a billionth of a metre. A nanometer is only ten atoms across. So generally nanotechnology is used to mean technology at the nanometer level. Nanotechnology attempts to achieve something useful through the manipulation of matter at this level. To put it more formally, the Royal Society use the following definition: “Nanotechnologies are the design, characterization, production and application of structures, devices and systems by controlling shape and size at nanometer scale.”
List based definition	Nanotechnologies are widely seen as having huge potential in areas as diverse as healthcare, IT and energy storage
Contact points	N/A
Websites	http://www.nano.org.uk/aboutus.htm
Published analytical reports	N/A
Future plans	N/A

Country	USA
Type of variable	Number of companies that used nanotechnology to perform R&D by industry and company size by R&D area: 2003, relative standard error for survey estimates by industry and company size: 2003, imputation rates for survey items by industry and company size: 2003, percentage of R&D-performing companies that reported non-zero data for major survey items: 2003
Collection agency / organisation	NSF, the National Science Foundation
Scope	Business sector
Frequency	2003
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is defined as the creation and utilization of materials, devices, and systems through the control of matter on the nanometer scale, at the level of atoms and molecules in the range of 1 to 100 nanometers
List based definition	Survey is available from NSF's Division of Science Resources Statistics website at http://www.nsf.gov/statistics/rdexpenditures/. For current lists of FFRDCs, visit http://www.nsf.gov/statistics/ffrdc/
Contact points	Lynda T Carlson Email: lcarlson@nsf.gov Richard Rudnitsky Email: RudnitskyRG@state.gov Nano Group
Websites	www.nsf.gov
Published analytical reports	Research and Development in Industry: 2003
Future plans	N/A

Country	European Union
Type of variable	N/A
Collection agency / organisation	European Commission
Scope	N/A
Frequency	N/A
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is the manipulation, precision placement, measurement, modelling or manufacture of sub-100 nanometer scale matter (*)
List based definition	Nanotechnology is the study of phenomena and fine-tuning of materials at atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale. Products based on nanotechnology are already in use and analysts expect markets to grow by hundreds of billions of euros during this decade. These advances can contribute to the European Union's growth, competitiveness and sustainable development objectives and many of its policies including public health, employment and occupational safety and health, information society, industry, innovation, environment, energy, transport, security and space (European Commission)
Contact points	N/A
Websites	http://cordis.europa.eu./nanotechnology http://www.nanoforum.org/
Published analytical reports	Publications and patents in nanotechonology, An overview of previous studies and the state of the art, Angela Hullmann (European Commission) & Martin Meyer (K.U. Leuven), in Scientometrics, Volume 58, Number 3, pp. 507-527, 2003 Mapping excellence in science and technology accross Europe Nanoscience and nanotechnology, E.C.M. Noyons, R.K. Buter, A.F.J. van Raan, U. Schmoch, T. Heinze, S. Hinze, R. Rangnow, 2003 Mapping excellence in nanotechnologies, Martin Meyer, Olle Persson, Yann Power & the nanotechnology expert group, 2001 (*)
Future plans	N/A

Country	Russia
Type of variable	No specific nanotech-related indicators available so far; a quick survey will be launched by the Ministry for Education & Science of the Russian Federation in the fall 2007 on the basis of a draft questionnaire developed by the HSE Institute for Statistical Studies and Economics of Knowledge
Collection agency / organisation	Ministry for Education & Science of the Russian Federation with the collaboration of the HSE Institute for Statistical Studies and Economics of Knowledge
Scope	Business and public sectors
Frequency	2007
Periodicity	N/A
Classification used	N/A
Single based definition	Nanotechnology is a set of technologies for creation, selective manipulation or measurement of elements below 100 nm in one or more dimensions (1 nm = 1-9m)
List based definition	Nanotechnology is supplemented by a list of sub-areas, including: nanophotonics, nanoelectronics, nanobiotechnologies, nanomedicine, nanomaterials, quantum computing, self-assembly, instruments for nanodiagnostics and manipulation, other
Contact points	Prof. Leonid Gokhberg Vice-Rector, State University - Higher School of Economics, and Director, Institute for Statistical Studies and Economics of Knowledge - *S&T statistics, indicators and policy studies, Russian delegate to NESTI* 20 Myasnitskaya str., 101990 Moscow, Russia Tel.: +7-495-621-2873 Fax: +7-495-625-0367 Email: lgokhberg@hse.ru
Websites	www.hse.ru
Published analytical reports	The Nanocorporation Programme was introduced by the Federal Law #139 (19 July, 2007) «On the Russian Nanotechnology Corporation»
Future plans	A statistical data collection system for nanotech indicators are envisaged for 2008-2009 in the framework of an emerging Federal Goal-Oriented Programme «Nanoindustry Infrastructure Development in Russian Federation» for 2008-2010