



DELIVERABLE D4



European Research Infrastructures Development Watch (ERID-Watch)

WP2 - Market studies specifications

1. General objectives of the WP2 market studies

(based upon interviews of governmental bodies, companies and selected RIs' operators, institutional experts and other sources)

- Global evaluation of European RI market,
- Segmentation by technologies,
- Typology of companies involved in RIs' markets, by size, origin and activity sectors *(part of activities dedicated to RIs)*,
- Motivations and barriers of industrial companies for being involved as RI suppliers and/or as accompanying R&D partners,
- Innovation potentialities for exploring new markets: TIC, energies, health, environment, security, etc...

2. Methodology

The WP2 will be implemented with two professional teams: One is Bureau d'Etudes Marketing (CEA, Coordinator of the project), the other is QI3 a company selected after a call for tender by PPARC (legal Partner). Irène Nenner (NC) and Peter Fletcher (PPARC) are co-leaders of WP2.

Considering that the number of possible (face-to face and telephone) interviews, is limited by the final resources of the project, the market studies will consider only selected research infrastructures, representative of the 250 potential RIs to investigate. Therefore, the market studies will interview three kinds of bodies in the following priority:

1. Governmental/institutional bodies
2. A selection of institutions and research infrastructures
3. Industries representative of industrial sectors

Governmental/institutional bodies are considered as gathering initial information on public investments in research infrastructures and national road maps. All 27 member states will be considered plus four associated countries : Norway, Switzerland, Iceland and Turkey. This list is given in Annex I.

Institutions are considered as intermediate bodies which are gathering strategic information in a number of research infrastructures associated to various domains. They either belong to the European Intergovernmental Research Organisations forum (EIROforum), the European Research Facility (ERF) association or are national institutions who are major actor in the national research infrastructure policy.

Research infrastructures operators which have been selected mostly in the ERF membership or among ERIDWATCH expert-partners, are found in all scientific domains. They are considered as

representative for the phase of the WP2 study. They will allow identifying the relevant technology sectors to consider and the representative industrials (suppliers, R&D collaborators, users) to interview. Evaluation of the first phase, which will be evaluated at the mid-term review, will allow revising the RI perimeter and prepare the second phase. This list is given in Annex II.

The present specifications include only a preliminary list of industrial sector (and subsectors) as seen in Annex III This list as well as representative industrials will be prepared during the interviews of institutions and selected RIs. Trial interviews of some representative large industries and SMEs will be considered in the first phase. The report of this selection will be presented at the mid-term review.

The interviews of research infrastructures operators will be shared with WP1, in order to save time and contact a maximum of RIs, to minimize the interactions with each of them and to show to our interviewees, that the different objectives of ERID are coordinated. The feedback from RIs is based on a pre-questionnaire send in advance and an a main questionnaire used for the face-to-face interview.

The interviews are based

- on dedicated documents to introduce the ERIDwatch project
- on questionnaires customized for i) National research councils, ii) research infrastructures, iii) industry. Those questionnaires can be found in Annexes IV, V-1,V-2 and VI.

3. Organisation

The WP2 pilot group is composed of 7 members; it will follow-up the work progress and the preparation of deliverables.

Member	Institute/company	Country
Nicole Biebow	AWI	Germany
Peter Fletcher	STFC	United Kingdom
Robert Freeman	Diamond Light Source	United Kingdom
Didier Lepère	HORIBA- Jobin Yvon	France
<u>Irène Nenner</u>	Nenner.conseil	France
Ivan Stekl	CTU-IEAP	Czech Republic
Victoria Wright	STFC	United Kingdom



DELIVERABLE D4 ANNEX I

WP2 – Governmental/Institutional bodies

Country	Organisation
Austria	FWF Der Wissenschaftsfonds
Belgium	FNRS Fonds National de la Recherche Scientifique FWO Fonds voor Wetenschappelijk Onderzoek - Vlaanderen
Czech Republic	GACR Czech Science Foundation Ministry of education, youth and sports (MEYS)
Denmark	FORSK Danish Research Agency - Danish Council for <i>Independent</i> Research FORSK Danish Research Agency - Danish Council for <i>Strategic</i> Research
Estonia	EstSF Estonian Science Foundation
Finland	AKA The Academy of Finland
France	MESR Ministère de l'Enseignement Supérieur et de la Recherche Conseil Régional D'ile-de-France Conseil Régional Rhône Alpes
Germany	DFG Deutschen Forschungsgemeinschaft HGF Helmholtz-Gemeinschaft Deutscher Forschungszentren FhG Fraunhofer-Gesellschaft MPG Max-Planck-Gesellschaft Ministry of Research & Development Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e.V. Ministries of Federal States
Greece	NHRF National Hellenic Research Foundation Minsitry of Development
Hungary	OTKA Hungarian Scientific Research Fund
Iceland	RANNS Icelandic Research Council
Ireland	Enterprise Ireland
Italy	CNR Italian National Research Council ENEA Italian National Agency for New Technologies, Energy and the Environment INFN Istituto Nazionale di Fisica Nucleare
Luxembourg	FNR Fonds National de la Recherche
Norway	Research Council of Norway
Poland	Polish Council for Science
Portugal	FCT Fundação para a Ciência e a Tecnologia
Spain	CSIC Consejo superior de investigaciones científicas Minsitry of Science & Education Government of Catalunya
Sweden	Vetenskapsrådet The Swedish Research Council
Switzerland	SNF Swiss National Science Foundation
The Netherlands	NWO Netherlands Organisation for Scientific Research TNO Netherlands Organisation for Applied Scientific Research
Turkey	TUBITAK Scientific and Technillogical Research Council
United Kingdom	Office of Science and Innovation (DTI) The Arts and Humanities Research Council BBSRC Biotechnology and biological sciences research council

	Council for the Central Laboratory of the Research Councils
	EPSRC Engineering and physical sciences research council
	ESRC Economic and social research council
	MRC Medical research council
	NERC Natural environment research council
	STFC Science and Technology Facilities Council (PPARC Particle physics and astronomy research council merged with CCLRC to become the STFC)
	The Wellcome Trust
Bulgaria	The National Science Fund, Bulgaria
Cyprus	Cyprus Research Promotion Foundation
Latvia	Latvian Council of Science
Lithuania	Lithuanian Academy of Sciences
Malta	Malta Council for Science and Technology
Romania	The Romanian Academy
Slovakia	Slovak Academy of Sciences
Slovenia	Slovenia Science Foundation



DELIVERABLE D4 ANNEX II

WP2 - Initial RI perimeter – phase 1

Organisation	Institution/RI	Country/ City	scientific domain	typ of RI
EIROFORUM	ESA	FR(Paris), DE (Darmstadt)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
EIROFORUM	ESO	DE (Garching)	Astronomy, Astrophysics, Nuclear and Particle physics	Single-sited
EIROFORUM	ESRF	FR (Grenoble)	Material sciences	single-sited
EIROFORUM	EFDA	DE/ UK/ ES	Energy	virtual
EIROFORUM/expert partner	CERN	CH (Geneva)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
EIROFORUM	ILL	FR (Grenoble)	Material sciences	single-sited
EIROFORUM	EMBL	DE (Heidelberg)	Biomedical and Life Sciences	single-sited
ERF/expert partner	DESY	DE (Hamburg)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
ERF	STFC	UK (Chilton, Didcot)	Astronomy, Astrophysics, Nuclear and Particle physics Energy Material sciences	single-sited
ERF/expert partner	Elletra	IT (Trieste)	Material sciences	single-sited
ERF	FOM	NL (Nieuwegein)	Energy	single-sited
ERF	GANIL	FR (Cedex)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
ERF	GSI	DE (Darmstadt)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
ERF	HMI	DE (Berlin)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
ERF	Laserlab Europe	DE (Berlin)	Energy	virtual
ERF/expert partner	Max-Lab	SE (Lund)	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
ERF	PSI	Ch (Villingen)	Energy Material sciences	single-sited
ERF/expert partner	Soleil	FR (Paris)	material sciences	single-sited
Legal Partner	CEA/DSV/DRT/DAM	FR (Saclay)	Biomedical and Life Sciences Material sciences Computation and Data Treatment	single-sited and distributed
Expert Partner	AWI	DE (Bremerhaven)	Environment sciences	single-sited
Expert Partner	National Museum History	UK (London)	Social sciences and humanities	single-sited
Expert Partner	HZI	DE (Braunschweig)	Biomedical and Life Sciences	single-sited
Expert Partner	Ifremer	FR (Paris)	Environment sciences	distributed
Expert Partner	CNRS/INSU	FR (Paris)	Environment sciences	single-sited
Expert Partner	Renater	FR (Paris)	computation and data treatment	virtual
Expert Partner	Museum histoire naturelle	FR (Paris)	Social sciences and humanities	single-sited

Expert Partner	Onera	FR (Palaiseau)	Engineering	distributed
Expert Partner	INFN	IT	Astronomy, Astrophysics, Nuclear and Particle physics	single-sited
Expert Partner	NPI	CZ	Astronomy, Astrophysics, Nuclear and Particle physics	Single sited
	GEANT (DANTE)	FR	computation and data treatment	distributed and virtual

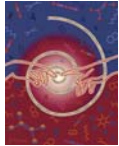


DELIVERABLE D4
ANNEX III

WP2 - Preliminary list of industry sub-sectors

Main sector	Sub-sector
Cryogenics, Vacuum and Gas	Storage And Transport of Cryogenics Closed cycle cryogenics Low-Temperature Materials/Components Gas-Handling and High Pressure Equipment Vacuum Components and Chambers Vacuum Pumps Measurement Equipment / Vacuum And Low-Temperature
Electronics	Measuring Instruments Microprocessors/microelectronics ASICs (analogue/digital hybrids) High power electronics
Power management and distribution	Radiation-optimised solar power (GaAs LILT solar cells) Radioisotope Thermoelectric Generators (RTG) Batteries Thermal Heat Pipes and Fluid Loops Ac/Dc & Ac/Ac Power Converters 1mva+ Reactive Power Compensators and Harmonic Filters
Motion and control	Motor drive Pico and nanomotors Propulsion
Mechanical Components and Systems	Precision mechanical instruments
Optics/optronics	Lasers Mirrors, Lenses (Mm-Wave To Uv) Optical Transmission Systems (Mm-Wave To Uv) Optical Benches Low mass deployable optics Endoscopes/Optical Equipment Lightweight optics Vacuum Window Assemblies (Mm-Wave To Gamma Ray) Infrared Cameras
Health and safety	Radiation monitoring protection, shielding
Detectors	Charged And Neutral Particle Detectors Neutron Detectors Electromagnetic Radiation Detectors (DC to Gamma Ray) Radiation-hard components >1Mrad and radiation shielding
Analytical systems	X-ray Superconducting Magnets (Winding Packs) Spectrometers (Mm-Wave to Uv) MicroProbes Surveying equipment

Data acquisition and handling/computers, peripheral and software	High bandwidth telemetry/data compression Highly integrated payload suites Ground-system software On-board computers and data systems On-board payload data processing systems On-board software Thermal and Space Environment Software Tools and Interfaces
Radio	Low resource radar Synthetic – Aperture Radar (SAR) RF and Microwave Components and Equipment
Communication systems	Low power deep space communications TTC Transponders
Autonomous systems, robotics and automation	Formation flying Robotics
Pyrotechnic devices	Fasteners
Biotechnology	



DELIVERABLE D4 ANNEX IV



WP2- Questionnaire: Governmental /Institutional bodies

These will be drawn from two sources: ESFRI national representatives and ERID-Watch legal and expert partners. We shall try to gather responses from all 27 member states.

Background

- Send PDF presentation
- Present our definition of a Research Infrastructure (RI)
- \pm 5-10 years of data needed (specifically regarding funding) – this is clearly ambitious!

Questions

Budget and RI introduction

1. What is your total level of investment into RIs (according to our definition) into:
 - 1.1. national RIs?
 - 1.2. international RIs?
2. Please rank the national or international RIs (according to our definition), which you support, in relation to budget/size.
 - 2.1. Please specify the funding given for each of these RIs
3. What is the spectrum of research which you fund? Please specify 2 major RI, if applicable, in each domains :
 - 3.1. Environmental Sciences
 - 3.2. Biomedical & Life Sciences
 - 3.3. Material Sciences
 - 3.4. Computing & Data Treatment
 - 3.5. Engineering
 - 3.6. Energy
 - 3.7. Astronomy & Particle Physics
 - 3.8. Social Sciences & Humanities

Funding scheme

4. Through which government departments does the funding money for RIs **initially** come from?
5. Which departments / agencies / councils / national research centers are responsible for which RI?

Draw a funding route map, even tentative

6. Which are the key people at governmental level involved in policy and funding?
7. How are the decisions made regarding funding specific RIs?
 - 7.1. Science priorities
 - 7.2. Industry contracts
 - 7.3. Economic impact of spillover benefits and Knowledge Transfer
8. What are the impacts of EU funded projects on your contribution to RI funding?

Strategy, Road maps

9. What is your country's strategy regarding hosting of RIs?
10. Which road maps are used?
 - 10.1. Prioritised domains?
 - 10.2. Funding for each domain?
 - 10.3. What about ESFRI?
11. What are the country's plans in terms of RI hosting?
12. What is the country's strategy and metrics with respect to measuring and enhancing the economic impact of RIs?

Partnerships

13. What are your organisation's relations with other EU-member states' organisations?
14. What international partnerships do you support (beyond the EU)?

Others

15. Which of your national RIs would you recommend us to visit, if we had to limit ourselves to the most suitable/important 2-3 RIs?
 - 15.1. What would this decision be based upon?
16. Which other people would you recommend us to contact in order to get more information of importance for the ERID-Watch project?
 - 16.1. at mentioned RIs in question 15?
 - 16.2. at your governmental body?
 - 16.3. at other governmental bodies?



DELIVERABLE D4 ANNEX V-1

WP2- pre-Questionnaire for Research Institutes and Infrastructures (common with WP1)

Thank you for taking time for the ERID-Watch project. We very much appreciate your input. Please, fill in the answers (with the help of your colleagues) and send this questionnaire back to the interviewer before the interview date. Your responses will be kept confidential within the operational team of ERID-Watch. When the final report is being drafted you will be contacted in order to accept/decline data/comments appropriate for publication. At the day of the face-to-face interview the answers from this pre-questionnaire are taken into consideration and additional qualitative questions are asked.

Name of the Institute:

Address:

Country:

Name:

Department:

Position:

Tel.:

E-mail:

1. Your institution – short description of your institution/ centre

All questions under topic 1 refer to the institutional level.

1.1 Name and short description of your institution

1.2 When was the institution set up? What were the reasons for setting it up?

1.3 How is your institution organised? Is it integrated in an umbrella organisation¹?

1.4 What legal structure has your centre?

1.5 Which laws applies to your institution?

1.6 Which bank controls your transactions? *State bank, Public bank, ...* Do you have access to any special financial support (*e.g. for the establishment of a new RI*)? If yes, what support?

1.7 Who designs and approves/concludes the contracts for collaboration and TT-projects your institution is involved in?

1.8 Which are the scientific domains you work within? Is your organisation focusing in particular on any of these scientific domains?

1.9 If there is a foreseeable change in the future regarding scientific focus at your institution, which scientific areas would then get more attention (financial resources for instance)?

2. Your infrastructures – short description of the Research infrastructures of your institution

The main objective of ERID-Watch is to generate information about Research Infrastructures in particular, and not only Research Institutions. A Research Infrastructure (RI) is defined as a facility or joint resource that provides unique access and services to research communities in both academic and/or technological domains. For example at DESY, the infrastructure is not DESY (even not the sites Hamburg-Bahrenfeld and Zeuthen) but the infrastructure XFEL (as a future infrastructure) and FLASH.

If you have more than one infrastructure running, please select two of them, and answer the questions accordingly. If one infrastructure which you choose cannot technically work without another specific infrastructure – please primarily select these two infrastructures which are dependent upon each other. One infrastructure could also be a future installation. All questions under topic 2 refer to the Research Infrastructures.

2.1 Research Infrastructure 1

2.1.1 Name and short description of the Infrastructure

2.1.2 Scientific domain of the infrastructure²

(the division was made according to the ESFRI-Roadmap division)

¹ *An umbrella organisation is defined in this context as any association of institutions, which formally work together to coordinate activities. For example, DESY or AWI are organised within the Helmholtz Society as umbrella organisations.*

² *The scientific domain of the infrastructure is the domain to which the equipment/facilities are classified under, and not the scientific domain of the RI users (which could come from a various range of disciplines).*

- Social sciences and Humanities
- Environmental Sciences; Energy
- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.1.3 Type of RI

Single sited RIs are based on one physical site while distributed means that the different parts of the infrastructure (not of the institution) are distributed to different places. A virtual RI could be a network of people without a common physical infrastructure.

- Single-sited
- Virtual
- Distributed

2.1.4 What was the total sum for capital expenditure of building this infrastructure?

2.1.5 Access

2.1.5.1 What does this infrastructure offer for external users?

2.1.5.2 To whom do you offer these allowances (target groups of users)?

2.1.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.1.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.1.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.1.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.1.6 Infrastructure

2.1.6.1 What is the funding source for operating the RI?

2.1.6.2 Do you plan any upgrades of the RI (when)?

2.2 Research Infrastructure 2

2.2.1 Name and short description

2.2.2 Scientific domain of the infrastructure

Social sciences and Humanities

- Environmental Sciences; Energy

- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.2.3 Type of RI

- Single-sited
- Virtual
- Distributed

2.2.4 What was the total sum for capital expenditure of building this infrastructure?

2.2.5 Access

2.2.5.1 What does this infrastructure offer for external users?

2.2.5.2 To whom do you offer these allowances (target groups of users)?

2.2.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.2.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.2.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.2.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.2.5 Infrastructure

2.2.5.1 What is the funding source for operating the RI?

2.2.5.2 Do you plan any upgrades of the RI (when)?

2.3 Please give us the names of all infrastructures your institution is involved in:

-
-
-

3. Human Resources

From here on, the questions refer to your institution in general. However in some questions we specifically ask for data about the infrastructures as well.

3.1 How many people (fulltime-equivalent) are working within your institution respectively your infrastructures?

	at all	RI 1	RI 2
Administrative staff ³			
Technical staff			
Scientific staff			

3.2 What are the skills levels (vocational qualification/ scientific qualification (students/ PhD students/ postdoc/ senior fellow and professors)) of your staff (~ in percentage)?

3.3 What is the proportion of different types (~in percentage) of employment contracts (fix-term, permanent, and freelancer)?

3.4 Does your institution offer education of non-scientific staff? What kind of training is offered?

3.5 Does your institution offer special programs for postgraduates (also national programs) – if yes, which ones?

3.6 Please define the origin of your staff (~, in percentage)

3.6.1 Regarding their nationality?

3.6.2 Regarding the country they worked in before (~)?

3.6.3 Regarding the type (Industrial/ Public) of their former employer (~)?

	Industrial employer	Public employer
Administrative staff		
Technical staff		
Scientific staff		

3.7 Visiting Scientist⁴

3.7.1 How many visiting scientists do you host at your institution per year (*regarding each of the previously mentioned RIs if possible*)?

Year	RI 1	RI 2	All
2004			
2005			
2006			

³ We would be happy if you could provide specific figures in relation to staff working at institutional/infrastructure level.

⁴ We refer to visiting scientists as scientists who are using your Research Infrastructures but are not paid by your institution.

3.7.2 What is their average stay at your institution (~ in days)?

3.7.3 What are the home-countries of your visiting scientist? *Please mention some typical countries.*

-
-
-

4. Know-how and Technology Transfer

4.1 Institutional set-up

4.1.1 How is technology or knowledge transfer organised/ situated at your institution? *Please describe it in some words.*

4.1.2 How many people (*fulltime equivalent*) are working for the technology or knowledge transfer department? Are they allocated separately at each infrastructure?

4.1.3 What is the funding source of the technology or knowledge transfer offices – *general budget/ income from commercialisation (percentage of total income)*? If there is an income from commercialisation – what percentage is this of the total income of the office?

4.1.4 If your technology office is taking part in any networks (*regional, national, scientific*), which significance do these have for your organisation?

4.1.5 What legal boundaries could be changed to support a better technology transfer from your institution to industry?

Do you handle inventions/ patents at your institution? If yes, continue with the following questions, if not, please tell us why and continue with question 4.3.

4.2 Intellectual Property

4.2.1 Number of officially notified inventions⁵ at the institution per year (*if possible, specify for the two previously mentioned RIs*)?

Year	RI 1	RI 2	All
2004			
2005			
2006			

⁵ *Inventions which the employer has notified the employer of, but a patent has not been taken.*

4.2.2 Number of patent applications per year? How many of them are applied for internationally?

Year	applications	International applications
2004		
2005		
2006		

4.2.3 How many patent applications did you hold in 2006 in total? How many patent families are there?

4.2.4 How many licences were given per year?

Year	Licences
2004	
2005	
2006	

4.2.5 What was the annual income from license agreements?

Year	Income in €
2004	
2005	
2006	

4.2.6 How many licences have you given in total (including 2006)?

4.3 Spin-offs

4.3.1 How many spin-offs originate from your institution?

4.3.2 Do the spin-offs and your institution still have contact – which relation exists?

4.3.3 How many spin-offs were still active three years after their establishment?

4.4 Research and Development

4.4.1 Do you carry out any research such as R&D contracts for external clients?

4.4.2. What was the number of R&D contracts during the last years? How many of them were R&D contracts with industry?

Year	R&D contracts	R&D contracts with industry
2004		
2005		
2006		

4.4.3 Did other kinds of collaborative R&D projects exist?

4.4.4 Did your institution experience disadvantages in respect to the exploitation of results arisen from joint R&D projects due to any regulations or contractual requirements (*for example within FP programmes or, within collaboration with industry*)? If yes, which regulations were relevant?

5. Public-Private Partnership (PPP) & sub-contracted tasks to industry

5.1 What is the purpose of PPPs in your institution?

5.2 How important are PPPs in respect to procurement, operation, and commercialisation?

5.3 How relevant are PPPs relative to basic and additional public funding?

5.4 What are the limits and obstacles in respect to PPPs?

5.5. Are there any good/ bad examples of PPPs which your institution have been involved in?

5.6 How important are subcontracts in respect to procurement, operation, and commercialisation?

5.7 What amount (~percentage) of annual investment at your institution is placed in PPPs?

5.8 Are there any critical issues in relation to PPPs for the future of your RI?

5.9 From which scientific area/industrial sector do your industrial partners/subcontractors (SME) come from? What is the general size (~staff) of these organisations?

6. Budget and procurement

6.1 Budget

6.1.1 Could you please define the *capital and operational expenditure* for the last financial year for following areas (*if possible, also define specifically for the two previously mentioned RIs*)

	RI 1		RI 2		All RIs (institutional level)	
	Capital	Operat.	Capital	Operat.	Capital	Operat.
Internal						
Facilities						
Instruments						
Services						
Other						
Total annual budget						

By **Internal** we mean the proportion of RI funding that is spent on staff and other elements not available to industry. By **Facilities** we mean the buildings, general utilities and other infrastructure not directly connected to the experiment. By **Instruments** (tools) we include the instruments, experimental infrastructure and associated technical services. By **Services** we refer to initial and ongoing services not directly connected to the experiments. By **Others** we refer to any other costs.

6.1.2 How have/will the capital and operational expenditure for these areas develop(d) during the (~ in percentage):

6.1.2.1 Last five years

6.1.2.2 Last ten years

6.1.2.3 Coming five years

6.1.2.4 Coming ten years

6.1.3 Please specify the contributors, and the details of their contribution?

Public bodies

Name	Type of body (government, public agencies, research centres, local)	Amount €/ Share (% of total contribution)	Other contributions (loans, advantages, human resources)	Context (EU project, special program, partnership)	Notes

Private companies

Name	Industry sector	Type of contribution (contracts, corporate patronage (def. as being a high level of sponsorship), sponsorship)	Amount € / Share (% of total contribution)	Other contributions (loans, advantages, human resources)	Context (EU project, special program, partnership)	Notes

6.2 Procurement

6.2.1 Which different types of tenders/orders exist?

Please also define specific constraints, terms of payment etcetera for these

6.2.2 Please describe your purchasing process.

6.2.3 Please describe the process for a company who wants to sell to your RI.

6.2.4 Could you list your 10-20 major suppliers (*if possible*) by:

Company	Country	Goods supplied		Services supplied		Specific development for your RI	Notes
		Type	Quantity/ Amount€	Type	Quantity/ Amount€		

6.2.5 What are the main purchasing activities for the next 10 years, related to:

6.2.5.1 Internal

6.2.5.2 Facilities

6.2.5.3 Instruments (tools)

6.2.5.4 Services

6.2.5.5 Others

If possible, it would be nice to get some further information about your institution and your Research infrastructures (as for example annual reviews, brochures ...). Perhaps you can prepare them for the interview appointment. Thank you!

Thank you for taking time for the ERID-Watch project. We very much appreciate your input. Please, fill in the answers (with the help of your colleagues) and send this questionnaire back to the interviewer before the interview date. Your responses will be kept confidential within the operational team of ERID-Watch. When the final report is being drafted you will be contacted in order to accept/decline data/comments appropriate for publication. At the day of the face-to-face interview the answers from this pre-questionnaire are taken into consideration and additional qualitative questions are asked.

Name of the Institute:

Address:

Country:

Name:

Department:

Position:

Tel.:

E-mail:

1. Your institution – short description of your institution/ centre

All questions under topic 1 refer to the institutional level.

1.1 Name and short description of your institution

1.2 When was the institution set up? What were the reasons for setting it up?

1.3 How is your institution organised? Is it integrated in an umbrella organisation⁶?

1.4 What legal structure has your centre?

1.5 Which laws applies to your institution?

1.6 Which bank controls your transactions? *State bank, Public bank, ...* Do you have access to any special financial support (*e.g. for the establishment of a new RI*)? If yes, what support?

1.8 Who designs and approves/concludes the contracts for collaboration and TT-projects your institution is involved in?

1.8 Which are the scientific domains you work within? Is your organisation focusing in particular on any of these scientific domains?

1.9 If there is a foreseeable change in the future regarding scientific focus at your institution, which scientific areas would then get more attention (financial resources for instance)?

2. Your infrastructures – short description of the Research infrastructures of your institution

The main objective of ERID-Watch is to generate information about Research Infrastructures in particular, and not only Research Institutions. A Research Infrastructure (RI) is defined as a facility or joint resource that provides unique access and services to research communities in both academic and/or technological domains. For example at DESY, the infrastructure is not DESY (even not the sites Hamburg-Bahrenfeld and Zeuthen) but the infrastructure XFEL (as a future infrastructure) and FLASH.

If you have more than one infrastructure running, please select two of them, and answer the questions accordingly. If one infrastructure which you choose cannot technically work without another specific infrastructure – please primarily select these two infrastructures which are dependent upon each other. One infrastructure could also be a future installation. All questions under topic 2 refer to the Research Infrastructures.

2.1 Research Infrastructure 1

2.1.1 Name and short description of the Infrastructure

2.1.2 Scientific domain of the infrastructure⁷

⁶ *An umbrella organisation is defined in this context as any association of institutions, which formally work together to coordinate activities. For example, DESY or AWI are organised within the Helmholtz Society as umbrella organisations.*

(the division was made according to the ESFRI-Roadmap division)

- Social sciences and Humanities
- Environmental Sciences; Energy
- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.1.3 Type of RI

Single sited RIs are based on one physical site while distributed means that the different parts of the infrastructure (not of the institution) are distributed to different places. A virtual RI could be a network of people without a common physical infrastructure.

- Single-sited
- Virtual
- Distributed

2.1.4 What was the total sum for capital expenditure of building this infrastructure?

2.1.5 Access

2.1.5.1 What does this infrastructure offer for external users?

2.1.5.2 To whom do you offer these allowances (target groups of users)?

2.1.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.1.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.1.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.1.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.1.6 Infrastructure

2.1.6.1 What is the funding source for operating the RI?

2.1.6.2 Do you plan any upgrades of the RI (when)?

2.2 Research Infrastructure 2

2.2.1 Name and short description

⁷ The scientific domain of the infrastructure is the domain to which the equipment/facilities are classified under, and not the scientific domain of the RI users (which could come from a various range of disciplines).

2.2.2 Scientific domain of the infrastructure

Social sciences and Humanities

- Environmental Sciences; Energy
- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.2.3 Type of RI

- Single-sited
- Virtual
- Distributed

2.2.4 What was the total sum for capital expenditure of building this infrastructure?

2.2.5 Access

2.2.5.1 What does this infrastructure offer for external users?

2.2.5.2 To whom do you offer these allowances (target groups of users)?

2.2.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.2.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.2.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.2.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.2.5 Infrastructure

2.2.5.1 What is the funding source for operating the RI?

2.2.5.2 Do you plan any upgrades of the RI (when)?

2.3 Please give us the names of all infrastructures your institution is involved in:

-
-
-

3. Human Resources

From here on, the questions refer to your institution in general. However in some questions we specifically ask for data about the infrastructures as well.

3.1 How many people (fulltime-equivalent) are working within your institution respectively your infrastructures?

	at all	RI 1	RI 2
Administrative staff ⁸			
Technical staff			
Scientific staff			

3.2 What are the skills levels (vocational qualification/ scientific qualification (students/ PhD students/ postdoc/ senior fellow and professors)) of your staff (~ in percentage)?

3.3 What is the proportion of different types (~in percentage) of employment contracts (fix-term, permanent, and freelancer)?

3.4 Does your institution offer education of non-scientific staff? What kind of training is offered?

3.5 Does your institution offer special programs for postgraduates (also national programs) – if yes, which ones?

3.6 Please define the origin of your staff (~, in percentage)

3.6.1 Regarding their nationality?

3.6.2 Regarding the country they worked in before (~)?

3.6.3 Regarding the type (Industrial/ Public) of their former employer (~)?

	Industrial employer	Public employer
Administrative staff		
Technical staff		
Scientific staff		

3.7 Visiting Scientist⁹

3.7.1 How many visiting scientists do you host at your institution per year (*regarding each of the previously mentioned RIs if possible*)?

Year	RI 1	RI 2	All

⁸ We would be happy if you could provide specific figures in relation to staff working at institutional/infrastructure level.

⁹ We refer to visiting scientists as scientists who are using your Research Infrastructures but are not paid by your institution.

2004			
2005			
2006			

3.7.2 What is their average stay at your institution (*~ in days*)?

3.7.3 What are the home-countries of your visiting scientist? *Please mention some typical countries.*

-
-
-

4. Know-how and Technology Transfer

4.1 Institutional set-up

4.1.1 How is technology or knowledge transfer organised/ situated at your institution?
Please describe it in some words.

4.1.2 How many people (*fulltime equivalent*) are working for the technology or knowledge transfer department? Are they allocated separately at each infrastructure?

4.1.3 What is the funding source of the technology or knowledge transfer offices – *general budget/ income from commercialisation (percentage of total income)*? If there is an income from commercialisation – what percentage is this of the total income of the office?

4.1.4 If your technology office is taking part in any networks (*regional, national, scientific*), which significance do these have for your organisation?

4.1.5 What legal boundaries could be changed to support a better technology transfer from your institution to industry?

Do you handle inventions/ patents at your institution? If yes, continue with the following questions, if not, please tell us why and continue with question 4.3.

4.2 Intellectual Property

4.2.1 Number of officially notified inventions¹⁰ at the institution per year (*if possible, specify for the two previously mentioned RIs*)?

¹⁰ *Inventions which the employer has notified the employer of, but a patent has not been taken.*

Year	RI 1	RI 2	All
2004			
2005			
2006			

4.2.2 Number of patent applications per year? How many of them are applied for internationally?

Year	applications	International applications
2004		
2005		
2006		

4.2.3 How many patent applications did you hold in 2006 in total? How many patent families are there?

4.2.4 How many licences were given per year?

Year	Licences
2004	
2005	
2006	

4.2.5 What was the annual income from license agreements?

Year	Income in €
2004	
2005	
2006	

4.2.6 How many licences have you given in total (including 2006)?

4.3 Spin-offs

4.3.1 How many spin-offs originate from your institution?

4.3.2 Do the spin-offs and your institution still have contact – which relation exists?

4.3.3 How many spin-offs were still active three years after their establishment?

4.4 Research and Development

4.4.1 Do you carry out any research such as R&D contracts for external clients?

4.4.2. What was the number of R&D contracts during the last years? How many of them were R&D contracts with industry?

Year	R&D contracts	R&D contracts with industry
2004		
2005		
2006		

4.4.3 Did other kinds of collaborative R&D projects exist?

4.4.4 Did your institution experience disadvantages in respect to the exploitation of results arisen from joint R&D projects due to any regulations or contractual requirements (*for example within FP programmes or, within collaboration with industry*)? If yes, which regulations were relevant?

5. Public-Private Partnership (PPP) & sub-contracted tasks to industry

5.1 What is the purpose of PPPs in your institution?

5.2 How important are PPPs in respect to procurement, operation, and commercialisation?

5.3 How relevant are PPPs relative to basic and additional public funding?

5.4 What are the limits and obstacles in respect to PPPs?

5.5. Are there any good/ bad examples of PPPs which your institution have been involved in?

5.6 How important are subcontracts in respect to procurement, operation, and commercialisation?

5.7 What amount (*~percentage*) of annual investment at your institution is placed in PPPs?

5.8 Are there any critical issues in relation to PPPs for the future of your RI?

5.9 From which scientific area/industrial sector do your industrial partners/subcontractors (SME) come from? What is the general size (*~staff*) of these organisations?

6. Budget and procurement

6.1 Budget

6.1.1 Could you please define the capital and operational expenditure for the last financial year for following areas (*if possible, also define specifically for the two previously mentioned RIs*)

	RI 1		RI 2		All RIs (institutional level)	
	Capital	Operat.	Capital	Operat.	Capital	Operat.
Internal						
Facilities						
Instruments						
Services						
Other						
Total annual budget						

By **Internal** we mean the proportion of RI funding that is spent on staff and other elements not available to industry. By **Facilities** we mean the buildings, general utilities and other infrastructure not directly connected to the experiment. By **Instruments** (tools) we include the instruments, experimental infrastructure and associated technical services. By **Services** we refer to initial and ongoing services not directly connected to the experiments. By **Others** we refer to any other costs.

6.1.2 How have/will the capital and operational expenditure for these areas develop(d) during the (~ *in percentage*):

6.1.2.1 Last five years

6.1.2.2 Last ten years

6.1.2.3 Coming five years

6.1.2.4 Coming ten years

6.1.3 Please specify the contributors, and the details of their contribution?

Public bodies

Name	Type of body (government, public agencies, research)	Amount €/ Share (% of total contribution)	Other contributions (loans, advantages, human resources)	Context (EU project, special program, partnership)	Notes

	centres, local)				

Private companies

Name	Industry sector	Type of contribution (contracts, corporate patronage (def. as being a high level of sponsorship), sponsorship)	Amount € / Share (% of total contribution)	Other contributions (loans, advantages, human resources)	Context (EU project, special program, partnership)	Notes

6.2 Procurement

6.2.1 Which different types of tenders/orders exist?

Please also define specific constraints, terms of payment etcetera for these

6.2.2 Please describe your purchasing process.

6.2.3 Please describe the process for a company who wants to sell to your RI.

6.2.4 Could you list your 10-20 major suppliers (*if possible*) by:

Company	Country	Goods supplied		Services supplied		Specific development for your RI	Notes
		Type	Quantity/ Amount€	Type	Quantity/ Amount€		

6.2.5 What are the main purchasing activities for the next 10 years, related to:

6.2.5.1 Internal

6.2.5.2 Facilities

6.2.5.3 Instruments (tools)

6.2.5.4 Services

6.2.5.5 Others

If possible, it would be nice to get some further information about your institution and your Research infrastructures (as for example annual reviews, brochures ...). Perhaps you can prepare them for the interview appointment. Thank you!



DELIVERABLE D4 ANNEX V-2

WP2- Questionnaire for Research Institutes and Infrastructures (common with WP1)

OBJECTIVES

1. To collect information about the financing and expenditures of your RI
2. To understand the links between your RI and private companies
3. To quantify the market generated by your purchases
4. To evaluate past and future development of these aspects

SCOPE

1. Directors
2. Head of Finance / Procurement
3. Project / Department Managers

INSTRUCTIONS

This questionnaire should be targeted to such a low organisational level as possible.

Some respondents will be Research Institutes hosting several Research Infrastructures, others will be individual Research Infrastructures. The nature of the respondent and the scope of his / her responses will be carefully gathered. We shall define each RI's typology: individual instruments (tools) / facilities / experiments / missions, sub-organisations/departments.

The objective is to capture data for $\pm 5-10$ years data needed (specifically regarding funding, list of suppliers). A pre-questionnaire is sent to the interviewed persons before the visit to facilitate the collection of data.

If you are using an audiotape, you may inform your interlocutor before the interview

Interview guideline

Thank you for taking time for the ERID-Watch project. We very much appreciate your input. Please, fill in the answers (with the help of your colleagues) and send this questionnaire back to the interviewer before the interview date. Your responses will be kept confidential within the operational team of ERID-Watch. When the final report is being drafted you will be contacted in order to accept/decline data/comments appropriate for publication. At the day of the face-to-face interview the answers from this pre-questionnaire are taken into consideration and additional qualitative questions are asked.

Name of the Institute:

Address:

Country:

Name:

Department:

Position:

Tel.:

E-mail:

1. Your institution – short description of your institution/ centre

All questions under topic 1 refer to the institutional level.

1.1 Name and short description of your institution

1.2 When was the institution set up? What were the reasons for setting it up?

1.3 How is your institution organised? Is it integrated in an umbrella organisation¹¹?

1.4 What legal structure has your centre?

1.5 Which laws applies to your institution?

1.6 Which bank controls your transactions? *State bank, Public bank, ...* Do you have access to any special financial support (*e.g. for the establishment of a new RI*)? If yes, what support?

¹¹ *An umbrella organisation is defined in this context as any association of institutions, which formally work together to coordinate activities. For example, DESY or AWI are organised within the Helmholtz Society as umbrella organisations.*

1.9 Who designs and approves/concludes the contracts for collaboration and TT-projects your institution is involved in?

1.8 Which are the scientific domains you work within? Is your organisation focusing in particular on any of these scientific domains?

1.9 If there is a foreseeable change in the future regarding scientific focus at your institution, which scientific areas would then get more attention (financial resources for instance)?

2. Your infrastructures – short description of the Research infrastructures of your institution

The main objective of ERID-Watch is to generate information about Research Infrastructures in particular, and not only Research Institutions. A Research Infrastructure (RI) is defined as a facility or joint resource that provides unique access and services to research communities in both academic and/or technological domains. For example at DESY, the infrastructure is not DESY (even not the sites Hamburg-Bahrenfeld and Zeuthen) but the infrastructure XFEL (as a future infrastructure) and FLASH.

If you have more than one infrastructure running, please select two of them, and answer the questions accordingly. If one infrastructure which you choose cannot technically work without another specific infrastructure – please primarily select these two infrastructures which are dependent upon each other. One infrastructure could also be a future installation. All questions under topic 2 refer to the Research Infrastructures.

2.1 Research Infrastructure 1

2.1.1 Name and short description of the Infrastructure

2.1.2 Scientific domain of the infrastructure¹²

(the division was made according to the ESFRI-Roadmap division)

- Social sciences and Humanities
- Environmental Sciences; Energy
- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.1.3 Type of RI

¹² The scientific domain of the infrastructure is the domain to which the equipment/facilities are classified under, and not the scientific domain of the RI users (which could come from a various range of disciplines).

Single sited RIs are based on one physical site while distributed means that the different parts of the infrastructure (not of the institution) are distributed to different places. A virtual RI could be a network of people without a common physical infrastructure.

- Single-sited
- Virtual
- Distributed

2.1.4 What was the total sum for capital expenditure of building this infrastructure?

2.1.5 Access

2.1.5.1 What does this infrastructure offer for external users?

2.1.5.2 To whom do you offer these allowances (target groups of users)?

2.1.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.1.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.1.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.1.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.1.6 Infrastructure

2.1.6.1 What is the funding source for operating the RI?

2.1.6.2 Do you plan any upgrades of the RI (when)?

2.2 Research Infrastructure 2

2.2.1 Name and short description

2.2.2 Scientific domain of the infrastructure

Social sciences and Humanities

- Environmental Sciences; Energy
- Biomedical & Life Sciences
- Material Sciences
- Astronomy, Astrophysics, Nuclear & Particle Physics
- Computation and Data Treatment
- Engineering

2.2.3 Type of RI

- Single-sited
- Virtual

- Distributed

2.2.4 What was the total sum for capital expenditure of building this infrastructure?

2.2.5 Access

2.2.5.1 What does this infrastructure offer for external users?

2.2.5.2 To whom do you offer these allowances (target groups of users)?

2.2.5.3 Usage of these allowances to industry / scientific institutions/ internal usage in percentage?

2.2.5.4 Do you offer full R&D services for the users of the RI – if yes, on what terms/rates?

2.2.5.5 Do you offer basic services (housing, catering) for the user of the RI?

2.2.5.6 Do you offer further services for the user of the RI (placing of manpower, IP protection etc.)?

2.2.5 Infrastructure

2.2.5.1 What is the funding source for operating the RI?

2.2.5.2 Do you plan any upgrades of the RI (when)?

2.3 Please give us the names of all infrastructures your institution is involved in:

-
-
-

3. Human Resources

From here on, the questions refer to your institution in general. However in some questions we specifically ask for data about the infrastructures as well.

3.1 How many people (fulltime-equivalent) are working within your institution respectively your infrastructures?

	at all	RI 1	RI 2
Administrative staff ¹³			
Technical staff			
Scientific staff			

¹³ *We would be happy if you could provide specific figures in relation to staff working at institutional/infrastructure level.*

3.2 What are the skills levels (vocational qualification/ scientific qualification (students/ PhD students/ postdoc/ senior fellow and professors)) of your staff (~ in percentage)?

3.3 What is the proportion of different types (~in percentage) of employment contracts (fix-term, permanent, and freelancer)?

3.4 Does your institution offer education of non-scientific staff? What kind of training is offered?

3.5 Does your institution offer special programs for postgraduates (also national programs) – if yes, which ones?

3.6 Please define the origin of your staff (~, in percentage)

3.6.1 Regarding their nationality?

3.6.2 Regarding the country they worked in before (~)?

3.6.3 Regarding the type (Industrial/ Public) of their former employer (~)?

	Industrial employer	Public employer
Administrative staff		
Technical staff		
Scientific staff		

3.7 Visiting Scientist¹⁴

3.7.1 How many visiting scientists do you host at your institution per year (*regarding each of the previously mentioned RIs if possible*)?

Year	RI 1	RI 2	All
2004			
2005			
2006			

3.7.2 What is their average stay at your institution (~ in days)?

3.7.3 What are the home-countries of your visiting scientist? *Please mention some typical countries.*

-
-
-

¹⁴ We refer to visiting scientists as scientists who are using your Research Infrastructures but are not paid by your institution.

4. Know-how and Technology Transfer

4.1 Institutional set-up

4.1.1 How is technology or knowledge transfer organised/ situated at your institution?

Please describe it in some words.

4.1.2 How many people (*fulltime equivalent*) are working for the technology or knowledge transfer department? Are they allocated separately at each infrastructure?

4.1.3 What is the funding source of the technology or knowledge transfer offices – *general budget/ income from commercialisation (percentage of total income)*? If there is an income from commercialisation – what percentage is this of the total income of the office?

4.1.4 If your technology office is taking part in any networks (*regional, national, scientific*), which significance do these have for your organisation?

4.1.5 What legal boundaries could be changed to support a better technology transfer from your institution to industry?

Do you handle inventions/ patents at your institution? If yes, continue with the following questions, if not, please tell us why and continue with question 4.3.

4.2 Intellectual Property

4.2.1 Number of officially notified inventions¹⁵ at the institution per year (*if possible, specify for the two previously mentioned RIs*)?

Year	RI 1	RI 2	All
2004			
2005			
2006			

4.2.2 Number of patent applications per year? How many of them are applied for internationally?

Year	applications	International applications
2004		
2005		
2006		

¹⁵ *Inventions which the employer has notified the employer of, but a patent has not been taken.*

4.2.3 How many patent applications did you hold in 2006 in total? How many patent families are there?

4.2.4 How many licences were given per year?

Year	Licences
2004	
2005	
2006	

4.2.5 What was the annual income from license agreements?

Year	Income in €
2004	
2005	
2006	

4.2.6 How many licences have you given in total (including 2006)?

4.3 Spin-offs

4.3.1 How many spin-offs originate from your institution?

4.3.2 Do the spin-offs and your institution still have contact – which relation exists?

4.3.3 How many spin-offs were still active three years after their establishment?

4.4 Research and Development

4.4.1 Do you carry out any research such as R&D contracts for external clients?

4.4.2. What was the number of R&D contracts during the last years? How many of them were R&D contracts with industry?

Year	R&D contracts	R&D contracts with industry
2004		
2005		
2006		

4.4.3 Did other kinds of collaborative R&D projects exist?

4.4.4 Did your institution experience disadvantages in respect to the exploitation of results arisen from joint R&D projects due to any regulations or contractual requirements (*for example within FP programmes or, within collaboration with industry*)? If yes, which regulations were relevant?

5. Public-Private Partnership (PPP) & sub-contracted tasks to industry

5.1 What is the purpose of PPPs in your institution?

5.2 How important are PPPs in respect to procurement, operation, and commercialisation?

5.3 How relevant are PPPs relative to basic and additional public funding?

5.4 What are the limits and obstacles in respect to PPPs?

5.5. Are there any good/ bad examples of PPPs which your institution have been involved in?

5.6 How important are subcontracts in respect to procurement, operation, and commercialisation?

5.7 What amount (*~percentage*) of annual investment at your institution is placed in PPPs?

5.8 Are there any critical issues in relation to PPPs for the future of your RI?

5.9 From which scientific area/industrial sector do your industrial partners/subcontractors (SME) come from? What is the general size (*~staff*) of these organisations?

6. Budget and procurement

6.1 Budget

6.1.1 Could you please define the capital and operational expenditure for the last financial year for following areas (*if possible, also define specifically for the two previously mentioned RIs*)

	RI 1		RI 2		All RIs (institutional level)	
	Capital	Operat.	Capital	Operat.	Capital	Operat.
Internal						
Facilities						
Instruments						

Services						
Other						
Total annual budget						

By **Internal** we mean the proportion of RI funding that is spent on staff and other elements not available to industry. By **Facilities** we mean the buildings, general utilities and other infrastructure not directly connected to the experiment. By **Instruments** (tools) we include the instruments, experimental infrastructure and associated technical services. By **Services** we refer to initial and ongoing services not directly connected to the experiments. By **Others** we refer to any other costs.

6.1.2 How have/will the capital and operational expenditure for these areas develop(d) during the (~ in percentage):

6.1.2.1 Last five years

6.1.2.2 Last ten years

6.1.2.3 Coming five years

6.1.2.4 Coming ten years

6.1.3 Please specify the contributors, and the details of their contribution?

Public bodies

Name	Type of body (government, public agencies, research centres, local)	Amount €/ Share (% of total contribution)	Other contributions (loans, advantages, human resources)	Context (EU project, special program, partnership)	Notes

Private companies

Name	Industry sector	Type of contribution (contracts,	Amount €/ Share (% of total	Other contributions (loans,	Context (EU project, special	Notes

		corporate patronage (def. as being a high level of sponsorship), sponsorship)	contribution)	advantages, human resources)	program, partnership)	

6.2 Procurement

6.2.1 Which different types of tenders/orders exist?

Please also define specific constraints, terms of payment etcetera for these

6.2.2 Please describe your purchasing process.

6.2.3 Please describe the process for a company who wants to sell to your RI.

6.2.4 Could you list your 10-20 major suppliers (*if possible*) by:

Company	Country	Goods supplied		Services supplied		Specific development for your RI	Notes
		Type	Quantity/ Amount€	Type	Quantity/ Amount€		

6.2.5 What are the main purchasing activities for the next 10 years, related to:

6.2.5.1 Internal

6.2.5.2 Facilities

6.2.5.3 Instruments (tools)

6.2.5.4 Services

6.2.5.5 Others

If possible, it would be nice to get some further information about your institution and your Research infrastructures (as for example annual reviews, brochures ...). Perhaps you can prepare them for the interview appointment. Thank you!

& 2

Name: Address: Country:	
Type of Interview : Phone / Face to Face	
Name of Interviewer:	
Date:	
Interviewed person N°1: Research Infrastructure: Department: Position: Tel.: E-mail: Origin of contact:	Interviewed person N°2: Research Infrastructure: Department: Position: Tel.: E-mail: Origin of contact:
Interviewed person N°3: Research Infrastructure: Department: Position: Tel.: E-mail: Origin of contact:	Interviewed person N°4: Research Infrastructure: Department: Position: Tel.: E-mail: Origin of contact:

→ Present the ERID-Watch project

→ Are there any further questions about the project?

1. Questions about the institution

1.1 Has there been a change in the total annual budget during the last ten years? If yes, why?

1.2 Has there been a change in the budget for capital expenditure during the last ten years? If yes, why?

2. Infrastructure

2.1 What was the historical reason for setting up the RIs?

3. Human Resources

3.1 How is the recruitment of manpower organised at your institution? Who prepares and who decides about employment decisions?

3.2 Special Programs

3.2.1 Does your institution encourage the transfer of human resources between industry and the scientific world? Does your institution support personnel exchange with industry in association with RI operation?

3.2.2 How does your institution recruit appropriate personnel for the operation of RIs and performance of related R&D projects?

3.3 What Restrictions/ Problems do you see regarding human resources (e.g. salaries, condition of work, termed contracts) at your institution?

4. Technology and Knowledge transfer

4.1 What are the focuses in the work of your technology transfer office?

4.2 Since when is TT a prioritised domain at your institution? What changed during the last years at your institution in the area of technology or knowledge transfer –why?

4.3 If you are handling IP: What is your culture regarding handling Intellectual Property (*payment for the inventors,...*)? Are there ambitions to change this culture?

4.4 Spin-offs: Are they located in the geographical region of your institution?

4.5 What do you think is a best practise experience within the area of your technology transfer office?

4.6 Do you also have a worst practise experience?

5. Budget

5.1 If you are not satisfied with the system of how public money is transferred to your RI, which improvements to it, if any, would you like to see?

5.2 Could you describe where the private money (if any), which is financing your RI, specifically goes to?

- budget for permanent staff
- budget for staff employed on project basis
- purchasing of equipment
- facilities
- others, please specify

5.3 What changes have you seen within your budget during the last decade, from:

5.3.1 Contributors

5.3.2 Public bodies

5.3.3 Private companies

5.4 If there have been any phases that have had a major impact on your budget during the last decade, which have these been?

- construction
- utilisation
- major upgrades
- others, please specify

5.5 Given many partners/contributors come from other countries, some RIs have developed their own internal financial reporting rules to improve the communication between partner and RI. Have you set up specific rules for communication and reporting to your partners/contributors? If so, what are they?

6. Procurement

6.1 Who of the following are (jointly if appropriate) responsible for the procurement at your RI?

- scientific committee
- procurement department
- staff at each department
- others, please specify

6.2 Which procurement laws apply to your organisation?

- national
- European
- international
- others, please specify

6.3 Which countries do your RI buy instruments (tools) from?

6.4 What percentage of your expenditure on instruments (tools) is related to each of these countries?

6.5 Which *technology show stoppers* could you define for:

6.5.1 Present developments:

6.5.2 Future developments:

Technology Show Stoppers are defined as: Technologies which are needed to achieve overall research objectives, but are not present on the market.

6.6 Which *technology show stoppers* are most likely to be available on the market in the coming 1-10 years?

6.7 Which *technology show stoppers* are most likely **not** to be available on the market in the coming 1-10 years?

6.8 Which other RIs are you communicating directly with related to supply issues (technology show stoppers)?

6.9 Are there any particular benefits (apart from the financial advantage) for private companies to supply products to you?

- associated R&D

- communication
- brand image
- others, please specify

6.10 What is the direct economic impact of your purchasing activities:

- 6.10.1 At regional Level?
- 6.10.2 At national Level?
- 6.10.3 At European Level?
- 6.10.4 At global Level?

6.11 How has the purchasing activity developed during the last decade with regard to suppliers:

- 6.11.1 Amount of suppliers?
- 6.11.2 Difficulty in finding appropriate suppliers?
- 6.11.3 Geographic origin of suppliers: regional/national/European/global?
- 6.11.4 Others, please specify

7. Future procurement and budget

7.1 Which are the main underlying reasons for changes (if any) in the future purchasing activity level (increase/decrease of expenditure)?

- New governmental/political focus regarding RIs/science
- Change in number of R&D contracts, with regard to
 - private companies
 - EU projects
- others, please specify

7.2 Who are the decision makers for potential changes in the future purchasing activity?

- official
- lobbying
- others, please specify

7.3 If there is a future increase in budget, how will this then be funded?

- new contributors
- new scheme of financing
- others, please specify

7.4 How do you see the future of your RI, regarding:

- 7.4.1 Financial aspects?
- 7.4.2 Competitors?
- 7.4.3 Development of partnerships between:
 - 7.4.3.1 RIs?
 - 7.4.3.2 RI and industry?
 - 7.4.3.3 Others? please specify

7.5 How do you see the future for RIs in Europe, regarding:

- 7.5.1 Funding, with regard to:
 - 7.5.1.1 FP7?
 - 7.5.1.2 National initiatives?

7.5.1.3 Improvements in virtual technologies

7.5.1.4 Others? please specify

7.5.2 Roadmaps?

7.6 Could you describe all different reasons (not only financial ones) to communicate with industry?

7.7 Are there any barriers to communicate with industry? If yes, what barriers?



DELIVERABLE D4 ANNEX VI

WP2- Questionnaire for Industrial companies

OBJECTIVES

5. To collect information about your company's activities focussed on RIs
6. To understand the links between your company and the RIs (user, collaborator or/and supplier)
7. To quantify the market generated by RIs
8. To evaluate past and future development of these aspects

SCOPE

1. Directors
2. Head of Business Units
3. Project / Department Managers

INSTRUCTIONS

This questionnaire should be targeted to such a low organisational level as possible.

The objective is to capture data for $\pm 5-10$ years data needed (specifically regarding markets figures).

Start audiotape before interview!

Name: Address:	Company	Country	
Type of Interview : Phone / Face to Face			
Name of Interviewer:			
Date:			
Interviewed person N°1: M X Company: Department: Position: Tel.: E-mail: Origin of contact:		Interviewed person N°2: M X Company: Department: Position: Tel.: E-mail: Origin of contact:	
Interviewed person N°3: M X Company: Department: Position: Tel.: E-mail: Origin of contact:		Interviewed person N°4: M X Company: Department: Position: Tel.: E-mail: Origin of contact:	

Actions:

Give a brief presentation of the ERID-Watch project and aims.

General Information

- 1 Data about the company, size (eg is it an SME) and unit of analysis (eg total company, division, location, channel)
- 2 Which category/categories do you belong to?
 - a. RI supplier
 - b. R&D collaborator with RI
 - c. User of RI

Relation to RI as a Supplier

- 3 Which products/services do you supply RIs with?
- 4 How much do the RIs represent for your total annual turnover:
 - a. Please define your company's total annual sales
 - b. Please define the Percentage and Monetary value of RI business
 - c. Please define Market sectors supplied and RI market ranking in importance
- 5 What are the sales channels to RIs?
- 6 How is the RI business domain treated? Prioritised?
- 7 How profitable is RI business for the company?
- 8 How important is business with RIs regarded by the company?
 - a. Prestige customer
 - b. Strategic customer
 - c. Source of future staff
 - d. Use of facilities for R&D, testing etc
 - e. Potential technology source (Knowledge Transfer)
 - f. Sales opportunity
- 9 What are the motivations to entry?
- 10 Which RIs has the company sold to and which do they see as prospects? (Main projects or RIs)
- 11 What is the process for responding to an RI tender?
 - a. Have you heard about the *competitive dialogue* (if not – explain the competitive dialogue)?
- 12 What are the barriers to entry regarding supplying RIs?
- 13 How could RIs/government make it easier for you to do business with them?
 - a. Preparatory R&D, prototyping, specifications
 - b. Communication and awareness of project opportunities and status of projects
 - c. Procurement practices
 - d. Quality / conformance
 - e. Simpler, clearer, shorter tender & contract documentation
- 14 How much of the company's supply to RIs is made up of
 - a. List standard products (%)
 - b. Minor variations from standard (%)
 - c. Major variants / custom products (%)

Relation to RI as an R&D Collaborator

- 15** What kind of R&D cooperation are you used to build with RIs?
- For supplying specific products
 - Through EU projects
 - Through national projects
 - Others. Please specify:
- 16** What are your company's benefits of being involved with RIs?
- 17** What is your investment in terms of human resources in such collaborations?
- Shared PhD students
 - Allocated staff
 - Others. Please specify:
- 18** Through which channels were you informed about opportunities to sell/collaborate with RIs?
- Already in contact with the RI
 - Publication in newspapers or websites
 - Networking
 - Others. Please specify:
- 19** Have technologies from RIs been used to develop your products/services? If yes, please specify:
- Joint Ventures / spinouts
 - Licences
 - Collaborative R&D projects towards supply
 - Collaborative R&D projects towards exploitation outside of the RI domain
 - Use of facilities for R&D, testing
 - Others

Relation to RI as an Equipment User

- 20** What kind of equipments/tools found at RIs would be useful/has been useful for your company to use?
- 21** If you use equipments/tools at RIs, do you pay for additional services?
- Staff for operation on tools/equipments
 - Analysis of results and reporting
 - Customized support on following up the results
 - Others. Please specify:
- 22** Which additional services than the above mentioned would you like to see being offered by RIs?
- 23** What is the average price for a shift (typically 8 hours) in using an RI's equipment/tools?
- Give a specific example (type of experiment, duration, price, additional services, ...) which you have conducted at an RI.
- 24** What is your motivation for using an RI's equipments/tools/services?
- 25** How can the relation between the RIs and its users be improved?

Interview Guideline Work Package 1 & 2

Attachment

What is done by whom?

	R&D	Maintenance	Use
Research Infrastructure			
Research Institution			
External (user, supplier)			

++= very much done

+ = done

- = not done

What type of institution is analysed?

Main Research Institute		Main Research Infrastructure	
Hosting one RI	Hosting several RIs	Hosting 1 major equipment	Hosting several equipments