

THEME [INFRA-2012-1.1.2.] [Research infrastructures for the assessment of science, technology and innovation policy]

Grant agreement for: Combination of CP & CSA

Annex I - "Description of Work"

Project acronym: RISIS

Project full title: "Research infrastructure for research and innovation policy studies"

Grant agreement no: 313082

Version date: 2013-11-20

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A1: Project summary

Project Number ¹ 313082 Project Acronym ²	RISIS
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One form per project										
General information										
Project title ³	Research infrastructure for	Research infrastructure for research and innovation policy studies								
Starting date ⁴	The first day of the month a	The first day of the month after the signature by the Commission								
Duration in months 5	48	18								
Call (part) identifier ⁶	FP7-INFRASTRUCTURES-2012-1									
Activity code(s) most relevant to your topic ⁷	INFRA-2012-1.1.2.: Research infrastructures for the assessment of science, technology and innovation policy									
Free keywords ⁸		ERA, Science and technology studies, Science policy studies, Innovation studies, Data infrastructure, Interdisciplinarity, e-science, Grand societal challenges								
	A I 4	9								

Abstract ⁹

The RISIS project aims at creating a distributed research infrastructure to support and advance science and innovation studies. This will give the field a strong scientific push forward, and at the same time, provide a radically improved evidence base for research and innovation policies, for research evaluation, and for the quality of policy relevant indicators.

The field of science and innovation studies is interdisciplinary, and is related to political sciences, sociology, management and economics. It has a strong quantitative core - with specialties such as scientometrics, technometrics and more widely indicators design - but for many important questions data were lacking or small scale only. This has made the field too much dependent on a few pre-existing datasets. However, during the last decade important efforts have been undertaken to develop new datasets on burning issues such as industrial R&D globalisation, patenting activities of firms, university performance, Europeanisation through joint programming, or the dynamics of nano S&T. Another new characteristic of the field is the development– together with computer scientists – of software platforms for collecting, integrating and analysing ever more data. Data and platforms are currently owned and/or located at many different organizations, such as individual research groups, companies, and public organizations – with very restricted access to others. Through deploying various networking and access strategies, and through joint research, RISIS will decisively open, harmonize, integrate, improve, and extend their availability, quality and use.

A2: List of Beneficiaries

Project Number ¹ 313082 Project Acronym ² RISIS

List of Beneficiaries

No	Name	Short name	Country	Project entry month ¹⁰	Project exit month
1	UNIVERSITE DE MARNE LA VALLEE	UPEMLV	France	1	48
2	STICHTING VU-VUMC	VUA	Netherlands	1	48
3	THE UNIVERSITY OF MANCHESTER	UNIMAN	United Kingdom	1	48
4	CONSIGLIO NAZIONALE DELLE RICERCHE	CNR	Italy	1	48
5	NORSK INSTITUTT FOR STUDIER AV INNOVASJON, FORSKNING OG UTDANNING (NIFU)	NIFU	Norway	1	48
6	AIT Austrian Institute of Technology GmbH	AIT	Austria	1	48
7	UNIVERSITEIT LEIDEN	UL	Netherlands	1	48
8	POLITECNICO DI MILANO	POLIMI	Italy	1	48
9	Institut für Forschungsinformation und Qualitätssicherung	IFQ	Germany	1	48
10	UNIVERSITA DELLA SVIZZERA ITALIANA	USI	Switzerland	1	48
11	THE SAMUEL NEAMAN INSTITUTE FOR ADVANCED STUDIES IN SCIENCE AND TECHNOLOGY OF THE TECHNION LTD (PSC)	SNI	Israel	1	48
12	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	CSIC	Spain	1	48
13	UNIVERSITY OF SUSSEX	UoS	United Kingdom	1	48

A3: Budget Breakdown

Project Number ¹ 313082 Project Acronym ² RISIS

One Form per Project

Participant				Estimated eligible costs (whole duration of the project)									Requested
number in this project ¹¹	Participant short name	Fund.	Ind. costs ¹³	RTD (A)	Coordination (B)	Support (C)	Management (D)	Other (E)	Total A+B+C+D+E	EU contribution			
1	UPEMLV	75.0	Т	396,160.00	898,320.00	118,012.00	298,889.60	0.00	1,711,381.60	1,194,048.00			
2	VUA	75.0	Т	245,152.00	718,800.00	40,640.00	0.00	0.00	1,004,592.00	701,677.00			
3	UNIMAN	75.0	Т	262,400.00	172,996.80	0.00	0.00	0.00	435,396.80	312,491.00			
4	CNR	75.0	S	228,091.00	478,383.00	28,492.00	0.00	0.00	734,966.00	461,160.00			
5	NIFU	75.0	Т	82,436.80	162,217.60	16,000.00	0.00	0.00	260,654.40	181,010.00			
6	AIT	75.0	А	150,552.00	303,892.00	62,320.00	0.00	0.00	516,764.00	351,845.00			
7	UL	75.0	S	37,934.00	259,350.00	33,020.00	0.00	0.00	330,304.00	269,093.00			
8	POLIMI	75.0	А	120,553.00	237,824.00	30,317.00	0.00	0.00	388,694.00	282,714.00			
9	IFQ	75.0	Т	145,280.00	316,000.00	38,720.00	0.00	0.00	500,000.00	379,304.00			
10	USI	75.0	Т	0.00	242,800.00	24,384.00	0.00	0.00	267,184.00	188,616.00			
11	SNI	75.0	Т	61,920.00	110,480.00	0.00	0.00	0.00	172,400.00	120,323.00			
12	CSIC	75.0	А	392,979.00	119,957.00	0.00	0.00	0.00	512,936.00	363,538.00			
13	UoS	75.0	Т	215,040.00	64,800.00	0.00	0.00	0.00	279,840.00	193,365.00			
Total			2,338,497.80	4,085,820.40	391,905.00	298,889.60	0.00	7,115,112.80	4,999,184.00				

Note that the budget mentioned in this table is the total budget requested by the Beneficiary and associated Third Parties.

* The following funding schemes are distinguished

Collaborative Project (if a distinction is made in the call please state which type of Collaborative project is referred to: (i) Small of medium-scale focused research project, (ii) Large-scale integrating project, (iii) Project targeted to special groups such as SMEs and other smaller actors), Network of Excellence, Coordination Action, Support Action.

1. Project number

The project number has been assigned by the Commission as the unique identifier for your project, and it cannot be changed. The project number **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

2. Project acronym

Use the project acronym as indicated in the submitted proposal. It cannot be changed, unless agreed during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

3. Project title

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

4. Starting date

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry info force of the Grant Agreement (NB: entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a detailed justification on a separate note.

5. Duration

Insert the duration of the project in full months.

6. Call (part) identifier

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

7. Activity code

Select the activity code from the drop-down menu.

8. Free keywords

Use the free keywords from your original proposal; changes and additions are possible.

9. Abstract

- 10. The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.
- 11. The number allocated by the Consortium to the participant for this project.
- 12. Include the funding % for RTD/Innovation either 50% or 75%
- 13. Indirect cost model
 - **A: Actual Costs**
 - S: Actual Costs Simplified Method
 - T: Transitional Flat rate
 - F :Flat Rate

Workplan Tables

Project number

313082

Project title

RISIS—Research infrastructure for research and innovation policy studies

Call (part) identifier

FP7-INFRASTRUCTURES-2012-1

Funding scheme

Combination of CP & CSA

WT1 List of work packages

Project Number ¹ 313082 Project Acronym ² RISIS

LIST OF WORK PACKAGES (WP)										
WP Number 53	WP Title	Type of activity ⁵⁴	Lead beneficiary number ⁵⁵	Person- months ⁵⁶	Start month 57	End month 58				
WP 1	Project management	MGT	1	36.00	1	48				
WP 2	Coordinated access to facilities	COORD	2	8.00	1	48				
WP 3	RISIS Annual week	COORD	1	17.00	6	48				
WP 4	Communication activities	COORD	9	19.50	1	48				
WP 5	Support to research users – training activities	COORD	4	42.00	1	48				
WP 6	Coordinated preparation to the opening of datasets	COORD	6	56.00	3	48				
WP 7	Opening and coordination of the two platforms	COORD	2	29.00	1	42				
WP 8	Harmonisation and integration of datasets centred on organisations	COORD	10	52.50	3	48				
WP 9	Harmonisation and integration of datasets centred on geographical dimensions	COORD	11	27.50	3	42				
WP 10	Transnational access - Facilities 'Corporate Invention Board' & 'nanotechnology dynamics	SUPP	1	0.01	1	48				
WP 11	Service - Facility 'Cortext Manager'	SUPP	1	0.01	1	48				
WP 12	Transnational access - SMS platform	SUPP	2	0.01	1	48				
WP 13	Transnational acces Facility 'EUMIDA/ETER	SUPP	10	0.01	1	48				
WP 14	Transnational access – facility JOREP- Joint and Open Programmes	SUPP	4	0.01	1	48				
WP 15	Transnational access: MORE facility	SUPP	5	0.01	1	48				
WP 16	Transnational access: Facility 'EUPRO'	SUPP	6	0.01	1	48				
WP 17	Transnational access: Leiden Ranking of universities	SUPP	7	0.01	1	48				
WP 18	Transnational access : VICO facility	SUPP	8	0.01	1	48				
WP 19	Transnational access: early career facility	SUPP	9	0.01	1	48				
WP 20	Deepening and interconnecting datasets on firms	RTD	1	45.50	6	42				
WP 21	IPER - Building the repository of evaluations as a new service	RTD	3	32.00	3	48				
WP 22	Enlargement of databases dealing with ERA dynamics	RTD	4	20.00	6	42				
WP 23	Dataset of public research organisations in the EU	RTD	12	25.00	3	48				

WT1 List of work packages

WP Number 53	WP Title	Type of activity 54	Lead beneficiary number 55	Person- months ⁵⁶	Start month	End month 58
WP 24	Integrating framework and datset for analysing researcher careers	RTD	9	37.50	3	48
WP 25	Supporting use of data: cleaning, combining, analysing, and quality control	RTD	2	48.00	8	48
		л.	Total	495.60		

Project Number ¹ 313082 Project Acronym ² RISIS

List of Deliverables - to be submitted for review to EC									
Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date		
D2.1	first report of activities and work programme for following period	2	2	3.00	R	PU	17		
D2.2	second report of activities and work programme for last period	2	2	2.00	R	PU	35		
D2.3	final & recapitulative report of activities, and perspectives for the future	2	2	3.00	R	PU	47		
D3.1	Programme & participants list year 1	3	1	4.00	R	PU	13		
D3.2	Programme & participants list year 2	3	1	4.00	R	PU	25		
D3.3	Programme & participants list year 3	3	1	4.00	R	PU	37		
D3.4	Programme & participants list year 4	3	1	5.00	R	PU	48		
D4.1	opening of the website	4	2	3.00	R	PU	9		
D4.2	conference programme, participant list, report of agenda setting session	4	9	2.00	R	PU	14		
D4.3	conference programme, participant list, report of agenda setting session	4	9	2.00	R	PU	26		
D4.4	Mid term report on interactions with policymakers	4	3	2.50	R	PU	26		

Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
	M26essions year 2						
D4.5	conference programme, participant list, report of agenda setting session	4	9	2.00	R	PU	38
D4.6	conference programme, participant list, report of overall agenda for next 5 years	4	9	2.00	R	PU	48
D4.7	final report on interaction with policymakers (including the set of policy briefs edited)	4	3	3.00	R	PU	48
D4.8	business plan for the future of RISIS	4	1	3.00	R	PU	48
D5.1	first report on training courses courses based upon individual reports by each training course (programme, participants, and short synthesis of course development)	5	4	14.00	R	PU	18
D5.2	second report on training activities	5	4	14.00	R	PU	36
D5.3	recapitulative annual report of training	5	4	14.00	R	PU	48
D6.1	report on technical conditions & harmonisation of datasets	6	2	13.00	R	PU	12
D6.2	report on the harmonisation of categories	6	6	13.00	R	PU	12

Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
D6.3	report on conditions of access	6	7	13.00	R	PU	12
D6.4	Synthesis document recapitulating full documentation of all facilities	6	6	17.00	R	PU	21
D7.1	Opening of Cortext manager to users	7	1	5.00	R	PU	12
D7.2	Opening of SMS to users	7	2	8.00	R	PU	26
D7.3	Opening of the circulation between Cortext and SMS	7	1	4.00	R	PU	26
D7.4	Opening of capacity to semantic delineation of heterogeneous corpuses	7	2	4.00	R	PU	28
D7.5	Opening of positioning tools	7	1	4.00	R	PU	36
D7.6	Opening of interface with outside datasets	7	2	4.00	R	PU	40
D8.1	report presenting the comparison of the 7 datasets and of provisional solutions to be adopted by datasets for their opening	8	1	13.00	R	PU	15
D8.2	report on the strategy defined, on the selection of the approach and tailoring of tools and on the test operated on the relevant datasets	8	10	12.50	R	PU	28

Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
D8.3	report on extension to world wide level for firms and for public sector organisations and tool for supporting world-wide extension	8	2	13.00	R	PU	36
D8.4	International workshop to discuss RISIS proposals for harmonisation	8	1	7.00	R	PU	40
D8.5	synthesis of developments and results obtained, strategies for access, upgrading and maintenance of the reference organisational datasets produced	8	10	7.00	R	PU	48
D9.1	Report on the comparison of the approaches by the 2 datasets and proposed multi-layered strategy	9	11	5.00	R	PU	15
D9.2	Report on tool development and implementation on 2 RISIS datasets (EUPRO and Nano) and on NIFU and SNI datasets	9	11	8.00	R	PU	24
D9.3	Report on the generalised implementation on RISIS datasets and on the tests made	9	2	8.00	R	PU	30

Delive- rable Number	Deliverable Title	WP number	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
D9.4	Report on the proposed reference dataset on European geography of research and innovation	9	1	4.00	R	PU	36
D9.5	European workshop on the proposals of RISIS (within the frame of ENID). Expected outcome: a policy brief on the European geography of research and innovation	9	11	2.50	R	PU	42
D10.1	Transnational access fulfilled	10	1	0.01	0	PU	47
D11.1	Report on effective use of the service	11	1	0.01	0	PU	47
D12.1	Transnational accessed fulfilled	12	2	0.01	0	PU	47
D13.1	Transnational accessed fulfilled	13	10	0.01	0	PU	47
D14.1	Transnational accessed fulfilled	14	4	0.01	0	PU	47
D15.1	Transnational access fulfilled	15	5	0.01	0	PU	47
D16.1	Transnational access fulfilled	16	6	0.01	0	PU	47
D17.1	Transnational access fulfilled	17	7	0.01	0	PU	47
D18.1	Transnational access fulfilled	18	8	0.01	0	PU	47
D19.1	Transnational access fulfilled	19	9	0.01	0	PU	47
D20.1	Report on descriptive data	20	1	8.00	R	PU	25

Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
	on the scientific geography of large firms						
D20.2	Report on descriptive data at geographical level of small high tech firms	20	8	6.00	R	PU	25
D20.3	Report on descriptive data on fast growing midsized firms	20	13	14.00	R	PU	25
D20.4	Report on descriptive data on joint invention & publication geography of large firms	20	1	3.00	R	PU	36
D20.5	Report on overall dynamics of small high tech firms through the crisis	20	8	4.00	R	PU	36
D20.6	Report on the role of innovation in the dynamics of fast growing midsized firms	20	13	7.50	R	PU	36
D20.7	Policy brief on key indicators of the innovation dynamics and on options for maintaining the 3 datasets	20	13	3.00	R	PU	42
D21.1	recapitulative report on take-up for research and policy uses	21	3	22.00	R	PU	36
D21.2	Policy brief on takeup and maintenance of the facility	21	3	10.00	R	PU	48
D22.1	Report about strategies for	22	4	5.00	R	PU	18

Delive- rable Number	Deliverable Title	WP number	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
	periodic data collection						
D22.2	Analysis of changes linked to new coverage	22	6	10.00	R	PU	36
D22.3	Policy brief on JOREP based indicators and issues for lasting maintenance of JOREP	22	4	3.00	R	PU	42
D22.4	Policy brief on EUPRO based indicators on the different institutional dynamics of ERA construction	22	6	2.00	R	PU	42
D23.1	Report on framework and set of indicators	23	12	7.00	R	PU	18
D23.2	Report on initial data collection	23	12	11.00	R	PU	30
D23.3	Policy brief on dataset developments, first results and condition of lasting maintenance	23	12	4.00	R	PU	42
D23.4	Special issue of journal prepared	23	12	3.00	R	PU	48
D24.1	Report on integrating framework	24	9	10.00	R	PU	18
D24.2	Policy brief on possibilities offered by the new integrating platform	24	9	20.00	R	PU	42
D24.3	Special issue on main lessons prepared	24	12	7.50	R	PU	48
D25.1	Interim report on the	25	2	9.00	R	PU	24

Delive- rable Number	Deliverable Title	WP number 53	Lead benefi- ciary number	Estimated indicative person-months	Nature ⁶²	Dissemi- nation level	Delivery date
	disambiguation results						
D25.2	Technical report of the user interface of maps	25	12	9.00	R	PU	24
D25.3	Report on network analysis tools for heterogeneous data, with emphasis on use examples	25	2	18.00	R	PU	40
D25.4	Final report on disambiguation results and methods	25	1	9.00	R	PU	42
D25.5	Report on the tools for quality assessment	25	2	3.00	R	PU	48
			Total	459.60			

Project Number ¹	3130	82	Project Acronym ²	RIS	SIS		
	One form per Work Package						
Work package number	53	WP1	Type of activity 54	ľ	MGT		
Work package title		Project manag	gement				
Start month		1					
End month		48					
Lead beneficiary number 55		1					

Objectives

Operate the strategic and administrative, financial and legal management of RISIS

Description of work and role of partners

WP1 focused on the administrative, financial and legal management of the project.

Its role is to implement the decisions taken by the Governing Board (see governance, meeting costs in WP3) and by the Facility Coordination Board (see WP2).

It has thus 3 tasks:

- a) insure the financial operation and reporting of the project
- b) develop a dedicated 'management website' that enables partners and the Commission to follow the activities of the project (it has four functions: keep all official documents of the project, gather all documents on 'activities' developed see governance), keep all minutes and lists of decisions taken by the different boards of the project, keep all milestones and deliverables of the project).
- c) address all other issues (legal and administrative)raised by actual implementation.

The team of the coordinator operates the administrative financial and legal management of the project. The management website is developed by the computer services of the university.

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	36.00
	Total	36.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
		Total	0.00			

Description of deliverables

Schedule of relevant Milestones					
Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I 60	Comments	

Project Number 1	313082	Project Acronym ²	RISIS
,		, ,	

One form per Work Package					
Work package number 53	WP2	Type of activity 54	COORD		
Work package title	Coordinated a	Coordinated access to facilities			
Start month	1				
End month	48				
Lead beneficiary number 55	2				

Objectives

Organise a coordinated access to all facilities (and coordinate all activities to prepare, materialise and deepen access)

Description of work and role of partners

The objective of the WP is to organise the access of the facilities. It is organised in 3 main tasks

Task 1- Oversee the preparation phase (see WP6 and WP7 for its deployment) and organise the implementation of the processes (calls, accreditation of users, selection of projects).

Task 2 – co-organise specific sessions within the frame on ENID (international association of indicator designers) conferences. The conferences will be held annually in the EU. The specific sessions have three objectives: to disseminate to the community the information about access and training, to drive the community to discuss the results obtained through the access generated, and to organise specific work on the research agenda (to help younger researchers to focus more on quantitative aspects and the use of the facilities RISIS provides) (responsible: IFQ, 2 pm and 100000 of subcontracting).

Task 3- Monitor the quality of datasets and in particular the integration of new developments supported by joint research (WP20 to WP25). This will be supported by an annual report produced by each facility.

One important aspect deals with the two-step access process adopted. Candidates will first be accredited. Accreditation is needed for two reasons: insure that candidates have the necessary competences, and if needed, orient them to follow relevant training courses (see WP5); check legal aspects (in particular right to access to proprietary data included in some datasets, a very specific issue related to the datasets in our field). Calls will be handled by the Facility Coordination Board, published on the RISIS website and widely disseminated (see WP4 for communication activities). Selection will be prepared by facilities themselves and the final selection will be operated by the "Project Review Board" built according to the rules of the infrastructure programme (international panel with half of the members external to participants of the project) as explained in Part B, section 2.1.3 management structure and procedures).

The Facility Coordination Board is made of 4 persons (see part B, section 2.1.2) and will operate these 3 tasks. It will meet monthly, mostly through electronic means. VUA is responsible of the board. UPEMLV will act as the secretariat for decisions taken and will support the Project Review Board. We have set aside 20k for travel and subsistence for quality reviewers of the facilities (task 3) and 20k for travel and subsistence for the Project Review Board (task 2).

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
1	UPEMLV	2.00
2	VUA	2.00

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
6	AIT	2.00
10	USI	2.00
	Total	8.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D2.1	first report of activities and work programme for following period	2	3.00	R	PU	17
D2.2	second report of activities and work programme for last period	2	2.00	R	PU	35
D2.3	final & recapitulative report of activities, and perspectives for the future	2	3.00	R	PU	47
		Total	8.00			-

Description of deliverables

- D2.1) first report of activities and work programme for following period: [month 17]
- D2.2) second report of activities and work programme for last period: [month 35]
- D2.3) final & recapitulative report of activities, and perspectives for the future: [month 47]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package					
Work package number 53	WP3	Type of activity 54	COORD		
Work package title RISIS Annual week					
Start month	t month 6				
End month	48				
Lead beneficiary number 55	1				

Objectives

Networking the participants of the infrastructure and organising a periodic space of exchange with key policymakers

Description of work and role of partners

The central feature of RISIS activities will be the RISIS annual week. It will combine:

- (a) A collective reviewing of all activities developed based on annual reports by databases and platform operators (two day) and on milestones and deliverables of the other WP.
- (b) The strategic management of the project based upon the meeting of the Project Governing Board supported by the reports made by the Facility Coordination Board and the recommendations issued by the Project Review Board. This will serve to establish the annual work programme of the project (half a day) reports about decisions taken are included into the periodic project strategic reports (see D1 deliverables). (We only account in this WP for the time of the official representative of each partner, the time of other participants is included in the other activities of the project thus in the respective WP).
- (c) Interacting with policymakers through the sessions on the future agenda for research and through the organisation of problem focused thematic sessions. The policymaker community interested in indicators is quite limited and we expect to have around 20 policymakers per event (see WP4 for their organisation). Interaction will only start when the project is established (from the second year onwards).

We expect 70k of subcontracting for the logistics of the weeks and 10k of specific travel and subsistence for invited participants form outside the consortium. We have accounted for 1ps-m for the organisation of each annual week (UPE-MLV).

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
1	UPEMLV	5.00
2	VUA	1.00
3	UNIMAN	1.00
4	CNR	1.00
5	NIFU	1.00
6	AIT	1.00
7	UL	1.00
8	POLIMI	1.00
9	IFQ	1.00
10	USI	1.00

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
11	SNI	1.00
12	CSIC	1.00
13	UoS	1.00
	Total	17.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D3.1	Programme & participants list year 1	1	4.00	R	PU	13
D3.2	Programme & participants list year 2	1	4.00	R	PU	25
D3.3	Programme & participants list year 3	1	4.00	R	PU	37
D3.4	Programme & participants list year 4	1	5.00	R	PU	48
		Total	17.00			,

Description of deliverables

D3.1) Programme & participants list year 1: [month 13]

D3.2) Programme & participants list year 2: [month 25]

D3.3) Programme & participants list year 3: [month 37]

D3.4) Programme & participants list year 4: [month 48]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package					
Work package number 53	WP4	Type of activity 54	COORD		
Work package title Communication activities					
Start month	1	1			
End month	48				
Lead beneficiary number 55	9				

Objectives

Communication with the academic community and policymakers

Description of work and role of partners

The WP is focused on communication and dissemination It is organised in four main tasks:

Task 1- organisation of the project website for internet-based communication (responsible: VUA, 6pm and 30k€ of subcontracting for technical aspects). UPEMLV - WP1- will support the updating of contents and the periodic production of an electronic newsletter.

Task 2 - co organise specific sessions within the frame of ENID conferences. The conferences will be held annually in the EU. The specific sessions have three objectives: to drive the community, to discuss specific work, to focus more on quantitative aspects and the use of facilities RISIS provides.

Task 3 – interaction with policymakers in the field of research and innovation (at government and regional levels, from funding agencies and from key performers (research organisations, universities, representatives from industry research associations and from NGO). The activity is to prepare the specific sessions of the annual RISIS week (see WP3, mobilising members as required) and to prepare the 'policy briefs' that will support and come out from the interaction. University of Manchester (UNIMAN) is responsible for this task with the support of University of Sussex. The final output will be a set of policy briefs on the new indicators and the corresponding databases.

Task 4 – business plan for the future. The lasting maintenance of this distributed infrastructure is a critical issue towards which we shall dedicate the last 6 months of the project (beyond running activities). This preparation will be based upon a policy-brief made by each facility about its use and future developments. Similar policy briefs will be produced by WP7, WP8 and WP9, which deal with the integration of the facilities and their articulation with outside datasets. The last annual week will be dedicated to the discussion and adoption of the 'business plan for the future'. UPEMLV is responsible of this task.

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	3.00
2	VUA	6.00
3	UNIMAN	6.50
9	IFQ	2.00
13	UoS	2.00
	Total	19.50

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D4.1	opening of the website	2	3.00	R	PU	9
D4.2	conference programme, participant list, report of agenda setting session	9	2.00	R	PU	14
D4.3	conference programme, participant list, report of agenda setting session	9	2.00	R	PU	26
D4.4	Mid term report on interactions with policymakers M26essions year 2	3	2.50	R	PU	26
D4.5	conference programme, participant list, report of agenda setting session	9	2.00	R	PU	38
D4.6	conference programme, participant list, report of overall agenda for next 5 years	9	2.00	R	PU	48
D4.7	final report on interaction with policymakers (including the set of policy briefs edited)	3	3.00	R	PU	48
D4.8	business plan for the future of RISIS	1	3.00	R	PU	48
		Total	19.50		-	

Description of deliverables

- D4.1) opening of the website: [month 9]
- D4.2) conference programme, participant list, report of agenda setting session: [month 14]
- D4.3) conference programme, participant list, report of agenda setting session: [month 26]
- D4.4) Mid term report on interactions with policymakers M26essions year 2: [month 26]
- D4.5) conference programme, participant list, report of agenda setting session: [month 38]
- D4.6) conference programme, participant list, report of overall agenda for next 5 years: [month 48]
- D4.7) final report on interaction with policymakers (including the set of policy briefs edited): [month 48]
- D4.8) business plan for the future of RISIS: [month 48]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package						
Work package number 53	WP5	Type of activity 54	COORD			
Work package title	Support to research users – training activities					
Start month	1	1				
End month	nd month 48					
Lead beneficiary number 55	4					

Objectives

offering training courses to potential and actual research users of the RISIS facilities

Description of work and role of partners

We consider training as a key to the transformation of the wider community of 'science and innovation studies'. This is why we intend to offer 30 courses over the duration of the project.

The table below provides a provisional list, half lasting 2 full days (e.g. 2 nights) and half lasting the week (4 nights).

7 partners will organise the courses (we expect all partners to participate in specific lectures or sessions). In order to insure a coordinated development, the overall activity will be coordinated by CNR (4pm).

The amount of expenditure planned for this very important WP has been calculated on the following basis:

- We estimate that each training course will accommodate 15 people, meaning since training courses are free for European participants, 7500 per 2-day course and 12000 for 4-day courses for travel & subsistence.
- We calculate respectively 2000 and 4000 euro of logistical expenditure per type of course.
- We finally consider 2pm to prepare & organise for 4-day courses and 1 pm for 2-day courses. Altogether this represents 36 pm, 306k for travel & subsistence of participants and 96k for logistical expenditures.

List of training courses associated or not with data sets

- Use of Patstat / delineation, enrichment and treatment of large structured corpuses (linked to CIB and Nano datasets)
- Data analysis and visualisation of large heterogeneous textual corpuses (the 2 platforms Paris & Amsterdam in sequence)
- Scientometric approaches (Leiden)
- Web based indicators (Amsterdam & Paris in sequence)
- Construction and treatment of heterogeneous financial data sources on firms (Politecnico Milano)
- Dealing with scientific careers: approaches & methods (ifg)
- Introduction to robust methods for measuring performance (statistical and non parametric) (Rome & Lugano)
- Policy indicators: introduction to positioning indicators (Rome)
- Policy indicators: periodic summer schools on key themes (integration, internationalisation, collaborations and alliances, global value chains)
- Building 'integrated indicators': training on articulating and agglomerating the RISIS databases (starting at mid project when most databases are fully opened)

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	8.00
2	VUA	4.00

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
4	CNR	13.00
7	UL	4.00
8	POLIMI	6.00
9	IFQ	5.00
10	USI	2.00
	Total	42.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D5.1	first report on training courses courses based upon individual reports by each training course (programme, participants, and short synthesis of course development)	4	14.00	R	PU	18
D5.2	second report on training activities	4	14.00	R	PU	36
D5.3	recapitulative annual report of training	4	14.00	R	PU	48
		Total	42.00		-	

Description of deliverables

- D5.1) first report on training courses courses based upon individual reports by each training course (programme, participants, and short synthesis of course development): [month 18]
- D5.2) second report on training activities: [month 36]
- D5.3) recapitulative annual report of training: [month 48]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package					
Work package number 53	WP6	Type of activity 54	COORD		
Work package title	title Coordinated preparation to the opening of datasets				
Start month	3	3			
End month	48				
Lead beneficiary number 55	6				

Objectives

Organise the preparation (technical, substantive and legal) for the opening of the 10 datasets

Description of work and role of partners

RISIS is made of 9 existing databases that are described in the access WP: Corporate Invention Board (CIB, UPEMLV, WP10 for its description); Nanotechnology dynamics (Nano, UPEMLV, WP10 for its description), EUMIDA/ETER (USI, WP13 for its description), JOREP (CNR, WP14 for its description), MORE (NIFU, WP15 for its description), EUPRO (AIT, WP16 for its description), Leiden Ranking (WP17 for its description), VICO (Polimi, WP18 for its description) and Early career (IFQ, WP19 for its description). Preparation also includes the Repository of research and innovation policy evaluations (IPER, UM, see WP22).

These datasets are characterised by: (a) mostly local use, (b) very different technical choices which were selected for research developments rather than for favouring access and interconnectivity, (c) ad hoc solutions for solving disambiguation issues and for categorisations, (d) low levels of documentation (on their contents, but even more on their sphere of validity and on relevant conditions of use).

This situation drives to the need for important "preparatory" activities to opening. Our choice is to coordinate them so that local technical choices made are compatible between datasets, classifications are as much as possible harmonised and when this is not yet possible, solutions adopted can be replaced by common solutions developed within other WP (especially for organisational and geographical harmonisations, see WP8 and WP9). Preparation also includes harmonising fully conditions of access that is both the principles, the dissemination of the information and the practical processes of selection. The legal aspects (especially for datasets using proprietary information) need to be addressed either by insuring that employers of selected users satisfy conditions and/or by enabling joint research on site. Preparation will also cover rules for use, citation, co-authorship and publication on the RISIS portal of results and supporting aggregated datasets.

The following tasks will thus take place:

Task 1 - Each dataset holder will establish a report on the content and technical structure of its datasets.

Task 2- AIT will coordinate the work on the categorisations used. Based on the analysis resulting from the task mentioned above, a collective discussion will be developed for all categorisations used in order to insure harmonisation. We expect to address most issues, except organisations denomination and for geographical aspects that will be handled in 2 specific WP -8 and 9. Even if each database has its own specificities we can expect an important improvement for users, especially for interconnecting different datasets.

Task 3 - VUA will exchange with all databases holders to insure robustness and potential for connectivity of technical aspects while keeping as much as possible in line with existing solutions

Task 4 - Leiden will coordinate work on principles and conditions of access as well as obligations for users (to be then implemented by WP2), so as to develop a harmonised set of options, which will cover all databases. Leiden will also organise discussions on how to implement the 2-step process that is intended to insure access (see WP2).

Task 5 – 2 datasets that will be accessible at a distance require the access to be rebuilt (previous access linked to the development of the dataset having been closed) (IPER operated by the University of Manchester, and

MORE, operated by NIFU). Similarly the integration of EUMIDA/ETER dataset for opening will be supported by the developer of the ETER data platform (subcontract under USI)

Task 6 – Each dataset holder will produce a second report, containing a full documentation of the dataset (taking into account the changes introduced through the collective work) and explaining conditions of 'relevant' use. There will be one full documentation for users, and one synthetic documentation to present the dataset and its conditions of access on the RISIS project website.

The different time allocations depend upon the size and complexity of datasets. AIT, VUA & Leiden are given a specific time allocation for coordinating their specific aspects and for joint coordination.

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	7.00
2	VUA	4.00
3	UNIMAN	9.00
4	CNR	6.00
5	NIFU	6.00
6	AIT	8.00
7	UL	4.00
8	POLIMI	5.00
9	IFQ	3.00
10	USI	4.00
	Total	56.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D6.1	report on technical conditions & harmonisation of datasets	2	13.00	R	PU	12
D6.2	report on the harmonisation of categories	6	13.00	R	PU	12
D6.3	report on conditions of access	7	13.00	R	PU	12
D6.4	Synthesis document recapitulating full documentation of all facilities	6	17.00	R	PU	21
		Total	56.00			

Description of deliverables

D6.1) report on technical conditions & harmonisation of datasets: [month 12]

D6.2) report on the harmonisation of categories: [month 12]

D6.3) report on conditions of access: [month 12]

D6.4) Synthesis document recapitulating full documentation of all facilities: [month 21]

	Schedule of relevant Milestones				
Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments	

Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package						
Work package number 53	WP7	Type of activity 54	COORD			
Work package title	Work package title					
Start month	1					
End month	42					
Lead beneficiary number 55	2					

Objectives

Opening and coordination of the two platforms

Description of work and role of partners

The two platforms – Cortext and SMS digital platforms – are complementary in their focus. Cortext is an integrated tool dedicated to the cleaning and treatment of corpuses produced by researchers, whether structured or unstructured. Semantic treatments are important to make the data suited for Cortext.

SMS aims at taking advantage of the new (and numerous, even endless) resources provided by the web – (linked open) data, and tools for organizing, analysing and visualizing data. The semantic challenge is to combine these data and tools to support construction and use of datasets, to be exploited by researchers.

The Workpackage has thus three objectives: opening of each platform as a service, opening of a link to circulate between platforms, addressing 3 technical issues that require a selection of methods to use (within existing methods) and specific tailoring on the 2 platforms (NB 2 further issues have been identified that require specific research work and are dealt with in the research section)

Task 1- Each platform will produce a full documentation for users to access it individually. Open access will be provided at Month 12 for Cortext Manager and Month 18 for SMS.

Task 2- The 2 platforms will identify and solve technical problems hampering the circulation of users between them. The objective is to open this 'capacity' to circulate from one to the other at Month 26.

Task 3 – Address specific problem of semantic data delineation and structuration of heterogeneous corpuses (for example, those linked to a given societal challenge, and those associated with the handling of multiple heterogeneous project databases). We expect solutions to this problem to be open for testing by Month 28. UPEMLV will be responsible of this task.

Task 4 – Address specific problem of developing user-friendly 'positioning' tools (on global maps: of science, of technology, for given public debates), including indicators based on 'altMetrics'. We expect solutions for this task to be opened for testing by Month 30. CSIC will be responsible for this task.

Task 5- Address the specific problem of developing an interface between RISIS datasets and external datasets (may these be established datasets for indicator building, researcher-based 'ad-hoc' datasets, administrative databases, or data from the Web). By doing so, the tools and external data can be combined with the RISIS data facilities. We expect solutions to this problem to be opened for testing by Month 36. VUA will be responsible for this task.

For task 3, 4 and 5 the same process will be followed: (i) identification of existing tools and software, (ii) comparative testing related to problems in the field being studied, (iii) selection of relevant tools, (iv) identification of developments needed (if only to tailor the instruments to the 2 platforms), (v) development of user friendly interface for integrating the tools on one or both platforms, (vi) limited opening for testing and validation before offering full open access.

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
1	UPEMLV	12.00
2	VUA	11.00
12	CSIC	6.00
	Total	29.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D7.1	Opening of Cortext manager to users	1	5.00	R	PU	12
D7.2	Opening of SMS to users	2	8.00	R	PU	26
D7.3	Opening of the circulation between Cortext and SMS	1	4.00	R	PU	26
D7.4	Opening of capacity to semantic delineation of heterogeneous corpuses	2	4.00	R	PU	28
D7.5	Opening of positioning tools	1	4.00	R	PU	36
D7.6	Opening of interface with outside datasets	2	4.00	R	PU	40
		Total	29.00			

Description of deliverables

- D7.1) Opening of Cortext manager to users: [month 12]
- D7.2) Opening of SMS to users: [month 26]
- D7.3) Opening of the circulation between Cortext and SMS: [month 26]
- D7.4) Opening of capacity to semantic delineation of heterogeneous corpuses: [month 28]
- D7.5) Opening of positioning tools: [month 36]
- D7.6) Opening of interface with outside datasets: [month 40]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package						
Work package number 53	WP8	Type of activity 54	COORD			
Work package title	Work package title Harmonisation and integration of datasets centred on organisations					
Start month	3					
End month	48					
Lead beneficiary number 55	10					

Objectives

Harmonisation and integration of datasets centred on organisations

Description of work and role of partners

Organisations are a growing issue in research and innovation policies, because they evolve very rapidly through mergers and acquisitions, because in many cases they are made of numerous legal entities (150 on average for a large firm), because also they appear under multiple names (for instance centres do not mention their university), and because (and more problematic) more and more research entities are jointly owned by more than one organisation (eg research alliances, joint labs...).

An approach based on organisations becomes thus very tricky at a time where there is more and more policy needs about knowing on the respective positioning of organisations (as is demonstrated by the explosion of rankings).

We thus consider this a one of the two critical issues for most datasets dealing with research and innovation activities and indicators. 9 datasets (7 existing and 2 new) are directly confronted to this issue, while operators of national datasets are also strongly interested. This explains the participation of 10 members in this central coordinating activity.

Organisations are a growing issue in research and innovation policies, because they evolve very rapidly through mergers and acquisitions, because in many cases they are made of numerous legal entities (150 on average for a large firm), because also they appear under multiple names (for instance centres do not mention their university), and because (and more problematic) more and more research entities are jointly owned by more than one organisation (e.g. research alliances, joint labs...).

An approach based on organisations becomes thus very tricky at a time where there is more and more policy needs about knowing on the respective positioning of organisations (as is demonstrated by the explosion of rankings or the will of ERA to have 'strong organisations').

We thus consider this as one of the two central dimensions along which to integrate datasets, meaning that a user focused on this dimension, can build his/her own data set through selecting the relevant subparts in different RISIS datasets to build his own relevant dataset for treatment.

This requires that we fully harmonise organisations names & types. 9 datasets (7 existing and 2 new) are directly confronted to this issue, while operators of national datasets are also strongly interested. This explains the participation of 10 members in this central coordinating activity.

The activity will be coordinated jointly by 2 teams specialised in public research (USI) and in firms (UPEMLV).

There are two layers of objectives

- A first objective is to compare our approaches and results in the 7 existing datasets, so as to propose a first layer of harmonisation to be implanted before the datasets are opened.
- A second objective is to produce 'reference datasets' of organisations that will enable full harmonisation and propose 'quasi standards', that is tools and approaches for all other datasets to insure compatibility (thus the importance of dedicated workshops to discuss with international colleagues).

The work will develop in two parallel groups: one for public and not-for-profit organisations (coordinated by USI), and one for firms (coordinated by UPEMLV). Both USI and UPEMLV will insure that advancement is coordinated. For Public research, the main datasets concerned will be EUPRO (AIT), Nano (UPEMLV), the Leiden ranking (Leiden) and the weblinks dataset from CSIC. For firms, the main datasets concerned are CIB for

large firms (UPEMLV), VICO for European small firms (VICO), EUPRO (AIT) and Nano (UPEMLV). A specific attention will be given to mid-sized fast growing firms (that will build one of the new datasets). NIFU (because of its statistical role) and SNI (because of its work on patents) will play an active role.

Each of these two objectives will follow the same process in 4 tasks

- Task 1 will operate the internal comparison of approaches used and results obtained between the 7 datasets. The will enable to test the relevance of the different solutions adopted for each country and will serve as a support for defining a strategy (including principles for the writing of names, building a hierarchy between collectives & organisations, and for accounting for alliances)
- Task 2 (operated by VUA with support of others) will select and tailor one or more computer-assisted implementation tools; A test will be operated on European countries;
- Task 3 is the implementation of tools by each dataset worldwide, and the comparison of results obtained. The outcome should be a reference database of major organisations in the field of research and innovation. This will be presented and discussed in an international workshop gathering colleagues specialised in these issues.
- Task 4 will define an approach of upgrading/updating (including interactive means for users to propose evolutions).

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
1	UPEMLV	6.00
2	VUA	6.00
4	CNR	5.50
5	NIFU	6.00
6	AIT	6.00
7	UL	5.00
8	POLIMI	2.00
10	USI	6.00
11	SNI	4.00
12	CSIC	6.00
	Total	52.50

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D8.1	report presenting the comparison of the 7 datasets and of provisional solutions to be adopted by datasets for their opening	1	13.00	R	PU	15
D8.2	report on the strategy defined, on the selection of the approach and tailoring of tools and on the test operated on the relevant datasets	10	12.50	R	PU	28
D8.3	report on extension to world wide level for firms and for public sector	2	13.00	R	PU	36

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
	organisations and tool for supporting world-wide extension					
D8.4	International workshop to discuss RISIS proposals for harmonisation	1	7.00	R	PU	40
D8.5	synthesis of developments and results obtained, strategies for access, upgrading and maintenance of the reference organisational datasets produced	10	7.00	R	PU	48
		Total	52.50			

Description of deliverables

- D8.1) report presenting the comparison of the 7 datasets and of provisional solutions to be adopted by datasets for their opening: [month 15]
- D8.2) report on the strategy defined, on the selection of the approach and tailoring of tools and on the test operated on the relevant datasets: [month 28]
- D8.3) report on extension to world wide level for firms and for public sector organisations and tool for supporting world-wide extension: [month 36]
- D8.4) International workshop to discuss RISIS proposals for harmonisation: [month 40]
- D8.5) synthesis of developments and results obtained, strategies for access, upgrading and maintenance of the reference organisational datasets produced: [month 48]

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I 60	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package					
Work package number 53	WP9	Type of activity 54	COORD		
Work package title	Harmonisation and integration of datasets centred on geographical dimensions				
Start month	3				
End month	42				
Lead beneficiary number 55	11				

Objectives

Harmonisation and integration of datasets centred on geographical dimensions

Description of work and role of partners

Agglomeration dynamics (in particular clusters) is the second dimension along which to organise integration of the datasets. This is because knowledge dynamics at the geographical level has become central to all analyses made. Europe suffers in this respect because it does not have the equivalent of US Metropolitan areas. We thus need to develop this dimension (and build a "Europe of knowledge clusters") in order to enable this second layer of integration of RISIS datasets.

This work will be promoted by the 2 datasets most concerned by this issue, Nano and EUPRO.

Task 1 - AIT and UPEMLV (the 2 main datasets confronted with geographical delineations) will compare their approaches to knowledge clustering at European level. They will analyse with VUA the other approaches developed in the literature. They will in particular test the relevance of the new approach developed by UPE researchers (started in 2011 by a comparative approach of existing software, it has initiated a specific development based upon Chameleon, a flexible multi-factor software; the developments made are being implemented on the nano dataset since July 2013). They will be assisted in this work by the 2 platforms, since we expect the developments selected to be fully integrated in the toolbox of the 2 platforms. Principles will be derived to define a layered approach (both in term of geography and level of precision looked for). The outcome of the task is to propose, in combination with the 2 platforms, a 'layered' strategy (that is adapted to the different levels of geographical precision looked for).

Task 2 – The 2 platforms will be in charge of operationalizing the selected approach so that it can be: (a) applied to the other RISIS datasets and (b) integrated in the 2 platforms. NIFU and SNI will test it on the national datasets they operate.

Task 3 will see the application integrated in the different datasets with NIFU and SNI in charge of testing a number of dominant assumptions in the literature (such as the 'anchor tenant' hypothesis) and testing on other samples the degree of agglomeration (compared to this found for nano by UPEMLV).

Task 4 will consider whether the geography identified within RISIS datasets can be generalised proposing a reference dataset of key European clusters for research and innovations. This will be presented and discussed in a European conference (to see whether this can build a new standard)

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	10.00
2	VUA	6.50
6	AIT	5.00

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
8	POLIMI	2.00
11	SNI	4.00
	Total	27.50

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D9.1	Report on the comparison of the approaches by the 2 datasets and proposed multi-layered strategy	11	5.00	R	PU	15
D9.2	Report on tool development and implementation on 2 RISIS datasets (EUPRO and Nano) and on NIFU and SNI datasets	11	8.00	R	PU	24
D9.3	Report on the generalised implementation on RISIS datasets and on the tests made	2	8.00	R	PU	30
D9.4	Report on the proposed reference dataset on European geography of research and innovation	1	4.00	R	PU	36
D9.5	European workshop on the proposals of RISIS (within the frame of ENID). Expected outcome: a policy brief on the European geography of research and innovation	11	2.50	R	PU	42
		Total	27.50			

Description of deliverables

- D9.1) Report on the comparison of the approaches by the 2 datasets and proposed multi-layered strategy: [month 15]
- D9.2) Report on tool development and implementation on 2 RISIS datasets (EUPRO and Nano) and on NIFU and SNI datasets: [month 24]
- D9.3) Report on the generalised implementation on RISIS datasets and on the tests made: [month 30]
- D9.4) Report on the proposed reference dataset on European geography of research and innovation: [month 36]
- D9.5) European workshop on the proposals of RISIS (within the frame of ENID). Expected outcome: a policy brief on the European geography of research and innovation: [month 42]

	Schedule of relevant Milestones						
Milestone number 59	Milestone name	Lead benefi- ciary	Delivery date from Annex I 60	Comments			

Proiect Number 1	313082	Project Acronym ²	RISIS
r roject Number	010002	Project Acronym	THOIC

One form per Work Package					
Work package number 53	WP10 Type of activity 54 SUPP				
Work package title	Transnational access - Facilities 'Corporate Invention Board' & 'nanotechnology dynamics				
Start month	1				
End month	48				
Lead beneficiary number 55	1				

Description of the infrastrucure

Name of the infrastructure: Corporate Invention Board and Nanotechnology dynamics

Location (town, country): Marne La Vallée, France

Web site address: www.ifris.org

Legal name of organisation operating the infrastructure: UPE-MLV Location of organisation (town, country): Marne La vallée, France Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

UPEMLV hosts two datasets it will open to transnational access.

1) The CIB database focuses on the invention activities of the 2000 world largest R&D performers (as identified by the IPTS Industrial R&D Investment Scoreboard). They represent 80% of world total industrial R&D. Its aim is to study corporate strategies regarding R&D globalisation, combining 3 major dimensions: invention location, technology specialisation and industry sectors. The CIB DB characterizes the nature and the extent of technological globalisation. It gives the possibility to track and analyse the transformation of global patents portfolio of industrial groups overtime (since the beginning of the 1980s) and also identifies the geographic origin of patents' protected inventions. The CIB DB combines information extracted from the PATSTAT DB (over 6 million patents) and from the "Orbis" financial database (a proprietary DB from Bureau Van Dijk Electronic Publishing) (to build the 2000 largest groups requires to take hold of over 170000 different legal entities). 2) The nanotechnology dataset gathers publications and patents dealing with the production of science and technology. The first version gathers 583000 articles and 660000 patents between 1998 and 2006 extracted from the Web of Science and Patstat. These have been checked, enriched and 'geolocalised' so that treatments can link four main types of data: cognitive (disciplines, sectors of patenting...), institutional (organisations and their types) and geographical (with 80% of activities concentrated in 200 clusters worldwide). Together these enrichments represent an investment of around 5 ps-years, which build the uniqueness and the value of the dataset. It is undergoing a update that will be operational in April 2014, so that users when the dataset opens will have access to this enriched and updated dataset.

Description of work and role of partners

Preparatory work for opening is presented in WP6. And access will be offered from month 18. Modality of access: access will be transnational since micro-data is partly proprietary (an agreement covers all

uses made at our sites in collaboration). We consider that a typical access will require around 2 weeks on site. We also consider that users have to be knowledgeable on the use of patents as indicators (WP5 offers such training if needed). The selection of users will be done under WP2.

Support offered: We have office and computer availability for one researcher (we do not expect more to be needed for the 2 IFRIS datasets). And we have a specific facility at Marne La Vallée to host visitors (60 rooms available plus access to all our libraries – physical and on-line). The level of technical support will be the same for all users while the level of scientific support will depend upon the sharing of interests with IFRIS researchers. Outreach to new users: the datasets will be presented on the RISIS website as will be the calls for access. It will also be on the webpage of IFRIS dealing with our facilities. We shall use all the RISIS means for communication (see WP4).

Quantity of access expected: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). We expect the equivalent of 300 access days, being the equivalent of 25 projects and users. Review procedure: it will be handled by RISIS (see WP2)

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D10.1	Transnational access fulfilled	1	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D10.1) Transnational access fulfilled: Access will be offered for an estimated 300 days representing 25 users and projects. [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP11	Type of activity 54	SUPP	
Work package title	Service - Facility 'Cortext Manager'			
Start month	1			
End month	48			
Lead beneficiary number 55	1			

Description of the infrastrucure

Name of the infrastructure: Facility 'Cortext Manager'

Location (town, country): Marne La Vallée, France

Web site address: www.cortext.fr

Legal name of organisation operating the infrastructure: UPE-MLV Location of organisation (town, country): Marne La vallée, France

Annual operating costs (excl. investment costs) of the infrastructure (€): 20515

Description of the infrastructure:

The CorText platform is a unique computational facility that has been developed to treat large textual corpuses in the field of science and technology, with the objective of helping researchers to analyse knowledge dynamics in multiple situations (emergence of new breakthrough knowledge, new forms of knowledge structuration, knowledge dealing with a societal issue, disputes and public debates around new knowledge). It works as follows: users, wherever they are, upload their raw database, use the tools of the platforms to 'clean' and 'enrich' it; they then perform multiple treatments to analyse the dataset and then mobilise visualisation tools that help interpreting the results.

Four features make the Cortext platform unique. First it combines multiple scientific and technical competencies: natural language processing, information extraction, knowledge management, complex networks analysis, scientometrics, web design and computer science. Second, it plays a major role in integrating and articulating existing tools (focusing mostly on open source ones). Third it enables the semantic analysis of large textual corpuses (most developments being limited in size). Fourth it has made a major effort in designing interfaces and workflows.

Description of work and role of partners

Preparatory work for opening is described in WP7. Opening will start at month 12.

Modality of access: Cortext is a service. Users need to register at a distance and have to sign a 'code of conduct' about ethical dimensions and respect of legal property of the database they come with (These will be aligned with RISIS procedures). They are then given a distant access and will treat their dataset as explained above. Those not familiar with semantic analysis can participate in the training courses that are offered under WP5. Support offered: Platform engineers will remain available at a distance through the equivalent of a 'warm line' in case of problems.

Outreach to new users: we shall use both the RISIS website (WP4), the Cortext website and the dissemination activities of RISIS (WP4) to make the dataset more widely known.

Quantity of access and review procedure: We expect at least 20% of non French users by the end of the second year of opening (which, compared to present use, would correspond to 30 users per year).

Participant number ¹⁰ Participant short name ¹¹		Person-months per participant	
1	UPEMLV	0.01	

r ersorr-Montins per r articipant			
Participant number 10	Participant short name ¹¹	Person-months per participant	
	Total	0.01	

	List of deliverables					
Delive- rable Number	Deliverable Title	Lead benefi- ciary number	beneficiary indicative person-		Dissemi- nation level ⁶³	Delivery date ⁶⁴
D11.1	Report on effective use of the service	1	0.01	0	PU	47
		Total	0.01			y.

Description of deliverables

D11.1) Report on effective use of the service: [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP12	Type of activity 54	SUPP	
Work package title	Transnational access - SMS platform			
Start month	1	1		
End month	48			
Lead beneficiary number 55	2			

Description of the infrastrucure

Name of the infrastructure: SMS platform

Location (town, country): Amsterdam Netherlands Web site address: http://www.sms-project.org

Legal name of organisation operating the infrastructure: VUA

Location of organisation (town, country): Amsterdam

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

SMS is a platform - a set of related tools - that focuses on accessing, combining and analyzing heterogeneous data about scholarly communication and behavior. The main focus is on Web data, which are increasingly considered an important data source. Additionally, the platform also supports the deployment of traditional databases and the combination with web data.

SMS platform focuses on the use of (linked) open data. However, SMS also provides access to several of databases about scholarly communication - partly web based, partly not - which are proprietary and therefore not easily accessible for researchers. They can be used by visitors as they are locally available at VUA.

Description of work and role of partners

Modality of access: We offer on site access.

Support offered: Researchers can visit the VUA to work with the SMS tools and data. We offer office space and the normal facilities related to that. Collaboration and support will be available to the visitors, to help them successfully conducting their research. As the data and tools require a basic level of skills, potential visitors without these skills will be advised to follow the relevant courses mentioned in WP5. Selection of users will be made by the RISIS peer review process.

Outreach to new users: The call for visits will be published on the RISIS website and on the websites of the VUA departments and staff involved. We will present examples of interesting results of research using the platform on relevant conferences and on the website. The courses in WP5 will also be a vehicle to reach potential new

Quantity of access expected: On site access is expected for at least 120 days (e.g., 10 users 12 day each). Costing and Review procedure: Access will be offered to the users at 0 cost (only travel and subsistence for on site visitors is asked for). The review of the facility is organised by RISIS (see WP2)

Participant number 10	Participant short name 11	Person-months per participant
2	VUA	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D12.1	Transnational accessed fulfilled	2	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D12.1) Transnational accessed fulfilled: We expect 120 days of visits on site (representing 10 users and 10 projects) [month 47]

Sc	hedul	le of re	levant	Miles	tones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS
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One form per Work Package				
Work package number 53	WP13	Type of activity 54	SUPP	
Work package title	rk package title Transnational acces Facility 'EUMIDA/ETER			
Start month	1	1		
End month	48			
Lead beneficiary number 55	10			

Description of the infrastrucure

Name of the infrastructure: Facility 'EUMIDA/ETER Location (town, country): Lugano, Switzerland
Web site address: www.core.eco.usi.ch/education.ht

Web site address: www.core.eco.usi.ch/education.htm Legal name of organisation operating the infrastructure: USI Location of organisation (town, country): Lugano, Switzerland

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The EUMIDA/ETER dataset is a full dataset on European Universities with key indicators on each about its location, size, composition and activities (both in training and research). It is the sole existing such 'harmonised' dataset at European level. EUMIDA was the first version of this dataset, while ETER, constructed with the national statistical offices of member states, is the updated and validated version of the dataset. Part of the EUMIDA dataset is already available (there is an on-line version on a limited set of information that is not useful for researchers at this level of aggregation), and the ETER one will be mid-2014. The objective is to open both at the same time to EU researchers since it will offer extensive coverage and for the first time, longitudinal information.

Description of work and role of partners

Preparatory work for opening is conducted in WP6. Opening will be at month 18.

Modalities of access: access is transnational with on-site visits. We consider that a typical access will require around 5 days on site. Selection will be made on the basis of projects proposed that will be examined first by the ETER board before final selection by the RISIS peer-review committee (WP2).

Support offered: USI has office and computer availability to accommodate visitors. USI will offer technical support to all users. The central aspect is however scientific support in the selection and use of relevant tools for treatment. Users not familiar with these tools may take the general training courses on statistical and non-parametric methods organised under WP5.

Outreach to new users: the datasets will be presented on the RISIS website as will be the calls for access. We shall use all the RISIS means for communication (see WP4) to make the dataset and its possibilities better known.

Quantity of access expected: we expect the equivalent of 72 days of visits (out of a total potential of 420 working days for the 2,5 years of opening). We also consider that in the second part, some complementary access may be distant within the frame of the combined access onan organisational or geographical base developed under WP8 and WP9.

Costing and Review procedure of the facility: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). The review of the facility will be handled by RISIS (see WP2)

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
10	USI	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D13.1	Transnational accessed fulfilled	10	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D13.1) Transnational accessed fulfilled: Access will be offered for an estimated 72 days representing 10 users and projects. [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package					
Work package number 53	WP14	Type of activity 54	SUPP		
Work package title	Transnational access – facility JOREP- Joint and Open Programmes				
Start month	1	1			
End month	48				
Lead beneficiary number 55	4				

Description of the infrastrucure

Name of the infrastructure: Facility JOREP-Joint and Open Programmes

Location (town, country): Rome Italy Web site address: http://www.ceris.cnr.it

Legal name of organisation operating the infrastructure: CNR

Location of organisation (town, country): Rome Italy

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

JOREP is a unique database on European trans-national joint cooperation programmes and on programmes open to non-national residents (excluding programmes conducted by the EC directly). It covers the decade 2000-2009 with a specific focus on 2009. Each programme is described by a set of attributes (financial, organisational, and by domain, type of intervention and of beneficiaries) that enabled a completely new approach about the typology and dynamics of transnational programmes (see Lepori et al., 2014). In this first version, 11 countries are covered, representing over 80% of total EU public research expenditure. The key characteristics are: 11 countries covered; Reference year 2009; a standard set of descriptors covering the main alternatives concerning organizational form of joint programs; funding data for the period 2000-2009. It thus a unique resource for studying modalities of Europeanisation, beyond the Framework Programme.

Description of work and role of partners

Preparatory work for opening: see WP6. Opening will take place at month 18.

Modality of access: Access will be transnational. A typical access will take one month (with between 8 to 12 working days on site). Selection will be operated by the RISIS peer-review panel based upon analysis by the operator of the feasibility and interest of the project.

Support offered: CNR will provide support for the stay of the scholars, as well as expertise and technical assistance for exploiting the dataset. Researchers not knowledgeable on recent development about internationalisation of research systems and the corresponding indicators may take the training courses offered under WP5.

Outreach of new users: we shall use both the project website of RISIS and the disseminations activities of RISIS to make the dataset more widely known (see WP5

Quantity of access expected: we have calculated that visitors will spend 72 days on site (the overall opening capacity is estimated at 420 working days over the period of opening during the project). This represents around 8 projects.

Costing and Review procedure: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). The review of the facility will follow the procedures put in place by RISIS (see WP2)

Participant number 10	Participant short name ¹¹	Person-months per participant	
4	CNR	0.	.01

Person-Months	ner Particinant
	poi i artiolparit

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D14.1	Transnational accessed fulfilled	4	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D14.1) Transnational accessed fulfilled: Access will be offered for an estimated 72 days representing 8 users and projects. [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number 1	313082	Project Acronym ²	RISIS
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One form per Work Package				
Work package number 53	WP15	Type of activity 54	SUPP	
Work package title	Transnational access: MORE facility			
Start month	1	1		
End month	48			
Lead beneficiary number 55	5			

Description of the infrastrucure

Name of the infrastructure: MORE facility Location (town, country): Oslo Norway

Web site address: www.researchersmobility.eu/www/index.php Legal name of organisation operating the infrastructure: NIFU

Location of organisation (town, country): Oslo Norway

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The MORE facility is the outcome of the largest survey done in Europe of career path and international mobility among EU27 researchers in the higher education sector & in the public research institute sector. Its sampling procedure was coordinated with EUROSTAT. It contains: key characteristics of the researcher population; main factors inhibiting mobility and career development of EU27 researchers in this sector; new indicators of international and inter-sectoral researcher mobility for researchers; influencing factors, motivations and impact of mobility on researcher careers.

With the agreement of the Commission, it should integrate by the time of opening the results of the second survey that has been undertaken and which should deliver its results in 2014.

Description of work and role of partners

Preparatory work for opening: see WP6. Opening will take place at month 12.

Modality of access: Access is transnational. Researchers that will have been selected by the RISIS peer-review panel (see WP2), will be given full access to the anonymised micro-data.

Support offered: NIFU has all facilities for the stay of scholars and will support at a distance those which will be delivered datasets.

Outreach of new users: we shall use both the MORE and RISIS websites and the disseminations activities of RISIS (see WP4) to make the dataset more widely known.

Quantity of use expected: we expect at least 10 projects to be developed based upon the MORE facility with 5 fully on site (50 days of access)

Review procedure: Access will be offered to the users at 0 cost. We shall follow the general procedures put in place by RISIS for the review of facilities (see WP2)

Participant number 10	Participant short name ¹¹	Person-months per participant
5	NIFU	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D15.1	Transnational access fulfilled	5	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D15.1) Transnational access fulfilled: Access is transnational and we expect 10 projects over the period of opening to be conducted [month 47]

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Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹ 313082 Project Acronym ² RISIS	Number ¹ 313082	313082 Project Acronym ²	RISIS
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One form per Work Package				
Work package number 53	WP16	Type of activity 54	SUPP	
Work package title	Transnational access: Facility 'EUPRO'			
Start month	1			
End month	48			
Lead beneficiary number 55	6			

Description of the infrastrucure

Name of the infrastructure: Facility 'EUPRO' Location (town, country): Vienna, Austria

Web site address: www.ait.ac.at

Legal name of organisation operating the infrastructure: AIT Location of organisation (town, country): Vienna Austria

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The EUPRO database presently comprises information on over 60000 research projects funded by the EU FPs and all participating organisations, such as project objectives and achievements, project costs, total funding, start and end date, contract type, a standardised subject index, a freely specified index, information on the call, the participating organisation, the actual participating department, contact person with contact details, organisation type, and geographical location (NUTS2).

EUPRO raw data are based on publicly accessible CORDIS data. AIT has undertaken a substantial effort to significantly improve quality and the level of standardisation of the data (e.g. correction of heterogeneous spellings of organization names, different languages, inconsistency of organization types and organisational levels, etc.), and to retrieve and add missing data. In addition, a consistent approach regarding the uniqueness of organisational entities and eventual disaggregation into subunits has been applied. The EUPRO database is regularly updated by AIT, usually each year. In its current form, it contains homogenized, standardized, and regionalized data on all FP projects and participants from 1984 to date. The latest operational update was made in March 2010, a new update is under preparation.

Description of work and role of partners

Preparatory work for opening: see WP6. Opening takes place at month 12.

Modality of access: Access is on site. The selection of users will follow the rules developed by RISIS (see WP6) and operated under WP2. Work will take place on site, based upon the provision of specific extracts of EUPRO. Support offered: AIT provides the necessary technical and logistic support in the form of respective computing and office environment. Due to the size and complexity of EUPRO, a dedicated local training and close collaboration with AIT staff is foreseen, usually requiring local presence for some 2-3 weeks.

Outreach of new users: EUPRO will be further promoted on the AIT and RISIS websites. In addition, EUPRO will be presented at various conferences in general and in particular those supported by RISIS.

Quantity of support offered: We expect the equivalent of 15 visits over the project time of opening and 180 days of access.

Costing and Review procedure: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). The review of the facility will be operated in coordination with RISIS (see WP2).

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
6	AIT	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D16.1	Transnational access fulfilled	6	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D16.1) Transnational access fulfilled: 180 days of access will be provided over the opening period corresponding to 15 projects and users. [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP17	Type of activity 54	SUPP	
Work package title	Transnational access: Leiden Ranking of universities			
Start month	1			
End month	48			
Lead beneficiary number 55	7			

Description of the infrastrucure

Name of the infrastructure: Leiden Ranking of universities

Location (town, country): Leiden, The Netherlands

Web site address: www.leidenranking.com

Legal name of organisation operating the infrastructure: University of Leiden

Location of organisation (town, country): Leiden, The Netherlands Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The CWTS bibliometric data system contains all Web of Science publications from 1981 to present and their citations. The system is configured in such a way that standard bibliometric indicators can be calculated easily. The Leiden ranking data facility is an extract of the CWTS data system dedicated to level of universities. We provide the data from the Leiden ranking plus a more detailed level of the data to enable further exploration of the ranked items. The data facility is unique regarding the high quality of unified address data and the standardized (bibliometric) indicators as well as additives (e.g., stability intervals).

Services currently offered by the infrastructure: The Leiden ranking offers a unique view on the most important Universities in the world regarding their research activities and impact. From multiple perspectives the output of these universities is analysed. The results in the Leiden Ranking regard volume, impact, contribution to top 10% most highly cited publications as well as indicators regarding collaboration.

Description of work and role of partners

Preparation to opening: see WP6. Opening will start at month 18.

Modality of access: The Leiden ranking is offered on line to all users for the standard already aggregated analyses. The objective of access is to enable researchers to have access on site to microdata. Leiden intends to provide transnational access at no cost (but travel and subsistence of visitors) to users selected through the RISIS peer-review process. This is because, for advanced research uses, we consider that more disaggregated data is necessary. Thus we have organised the possibility to have visitors on site for hands-on access on full micro data. As for other facilities,

Support offered: CWTS has all the necessary logistical conditions to host the visitors for advanced research. Outreach of new users: Leiden and RISIS webpages are sufficient considering the visibility of the ranking. Quantity of access: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). We consider that such access requires strong interaction with staff and that one access is at least one month, with 2 weeks on site. We expect 10 such research projects to be hosted over the time of the project, thus quantity of access offered is estimated at 120 days during the period of opening.

Review procedure: Leiden will use the standard procedures developed by RISIS

Participant number 10	Participant short name ¹¹	Person-months per participant	
7	UL	0.	.01

Person-Months per Participant

Participant number ¹⁰	Participant short name ¹¹	Person-months per participant
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D17.1	Transnational access fulfilled	7	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D17.1) Transnational access fulfilled: 120 days of access will be offered for an estimated 10 projects and users [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package					
Work package number 53	WP18	Type of activity 54	SUPP		
Work package title	Transnational access : VICO facility				
Start month	1				
End month	48				
Lead beneficiary number 55	8				

Description of the infrastrucure

Name of the infrastructure: VICO facility Location (town, country): Milano Italy Web site address: http://www.vicoproject.org/

Legal name of organisation operating the infrastructure: Polimi

Location of organisation (town, country): Milano, Italy

Annual operating costs (excl. investment costs) of the infrastructure (€): 46759

Description of the infrastrucure

Name of the infrastructure: VICO facility Location (town, country): Milano Italy Web site address: www.vicoproject.org/

Legal name of organisation operating the infrastructure: Polimi

Location of organisation (town, country): Milano, Italy

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The VICO dataset focused on new high tech companies in Europe. It is composed of two strata of companies (whether or not they are supported by venture capital). Its uniqueness lies in the overall number of firms (8370), the country coverage, and the extent of information gathered (thanks to the combination of data provided by numerous proprietary datasets such as Amadeus, VentureXpert, VCPro-Database, BVK Directory, Zephyr or Private Equity Monitor; and to extensive web searches). It also gathers information on VC investors (1125). It covers firms for 10 years after their foundation (the latest year of foundation taken into account being 2006).

Description of work and role of partners

Preparation to opening: see WP6. Opening will take place at month 18.

Modality of access: The access to the VICO infrastructure is available 'on site', to protect data confidentiality and promote cooperation. At a later stage (linked to data harmonisation and integration, see WP8), we expect to complement it by distant transnational access based upon aggregated data at country, regional and industry levels (provided privacy rules about levels of aggregation are respected). Selection of users will be made jointly by the VICO selection Committee and the RISIS review panel. Users that are not knowledgeable on dynamics and econometrics of start-up firms and venture capital can follow the general training course offered on the subject in WP5.

Support offered: The local staff will collaborate with on site users in order to ensure that the visit will be efficient and useful (PoliMi is embedded in a strong research environment with specialists in entrepreneurship and innovation, management, venture capital and financial economics studies). PoliMi will provide each visitor with office space in the department.

Quantity of access: A typical site visit will take between one and three weeks. We expect to provide 100 days of opening for 10 projects/users over the period of opening

Outreach of new users: Through the VICO official website, the RISIS website and the communication activities of RISIS (see WP4).

Costing and Review procedure: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). The review of the facility will be operated by RISIS (see WP2)

Person-Months per Participant

Participant number 10	Participant short name 11	Person-months per participant
8	POLIMI	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D18.1	Transnational access fulfilled	8	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D18.1) Transnational access fulfilled: 100 days of opening will be offered corresponding to 10 projects / users [month 47]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Proiect Number 1	313082	Project Acronym ²	RISIS
r roject Number	010002	Project Acronym	THOIC

One form per Work Package					
Work package number 53	WP19	Type of activity 54	SUPP		
Work package title	Transnational access: early career facility				
Start month	1				
End month	48				
Lead beneficiary number 55	9				

Description of the infrastrucure

Name of the infrastructure: early career facility Location (town, country): Berlin, Germany Web site address: www.forschungsinfo.de

Legal name of organisation operating the infrastructure: IFQ Location of organisation (town, country): Berlin Germany

Annual operating costs (excl. investment costs) of the infrastructure (€):

Description of the infrastructure:

The early career facility at IFQ is based on a long term monitoring of researcher careers using a panel survey of German PhD candidates in selected universities and non-university research institutions, and of German postdoctoral fellows. The panel survey covers the PhD years and post-phd employment. It thus enables to address a wide range of questions related to career development of early career researchers. It is the largest continuous survey in Europe on early career researchers.

Description of work and role of partners

Preparatory phase: see WP6. Opening will take place at month 18.

Modalities of access: Access is transnational on site. Researchers interested in using the facility (on-site) will be selected following RISIS agreed principles and practices (see WP2). Researchers will require general knowledge on career paths and methods for monitoring these (in particular panel methods). Those not familiar enough can take the general course on career and panel data provided under WP5.

Support offered: IFQ will provide each visitor with office space in the department. It will be supported by the technical staff and by the research staff when there is joint interest in the development of novel approaches. Outreach of new users: Through the IFQ official website, and the RISIS access website. Through presentation of the Early career infrastructure and dissemination of results to the indicator community (using ENID conferences as a major support)

Quantity of access: We expect the equivalent of 9 visits (or 108 working days, which represents some 30% of total possible use).

Costing and Review procedure: Access will be offered to the users at 0 cost (only travel and subsistence for visitors is asked for). For the review of the facility, IFQ will follow RISIS principles and practices (WP2). Within this framework, it will conduct a periodic user review which includes a user assessment of the facility but also gathers information on the further potential use of the data and analysis.

Participant number 10	Participant short name ¹¹	Person-months per participant
9	IFQ	0.01
	Total	0.01

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D19.1	Transnational access fulfilled	9	0.01	0	PU	47
		Total	0.01			

Description of deliverables

D19.1) Transnational access fulfilled: 108 days of transnational access over the period of opening corresponding to 9 projects (and users). [month 47]

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Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
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Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP20	Type of activity 54	RTD	
Work package title	Deepening and interconnecting datasets on firms			
Start month	6			
End month	42			
Lead beneficiary number 55	1			

Objectives

Deepening and interconnecting datasets on firms

Description of work and role of partners

This joint research WP deals with the 2 existing datasets on firms – CIB on large firms and VICO on small high tech firms, and its complementation with a new third dataset on fast growing mid-sized firms (provisionally called FGMF). The WP follows 3 main objectives: (i) to enlarge the two existing datasets: adding publications to patents for large firms (CIB) and adding more recent information on existing small high tech firms (from 2006 to 2012) and adding the new small high tech firms supported by Venture Capital since 2006 for VICO; (ii) cover a hole dealing with innovation in mid-sized firms (the so called 'mittlestand' in Germany) which is at the core of job creation in Europe by developing a new dataset (taking advantage of the lessons learnt from and the synergies with the two other datasets); and (iii) apply the different harmonisation approaches developed in WP8 and 9 (on names and geography) to insure a wide inter-connectivity.

Task 1 will concern the definition of the perimeter of the FGMF and the selection of large enough a sample to cover geographical and sectoral dimension, the strategy adopted for defining the boundaries of groups (as sets of economically bound legal entities – for instance on average one large firm gathers 150 distinct legal entities), select the relevant legal and financial databases from which to operate and gather the legal and financial relevant information (this data will be 'bought' from private operators). This task will be coordinated by Polimi

Task 2 is focused on gathering publications and patents on all selected firms for the 3 datasets. It will use matching techniques and cleaning procedures developed by the 2 platforms (Cortext and SMS), and it will use the results of the harmonisation approach developed in WP9. This second task will be coordinated by UPEMLV.

Task 3 will deal with integration of the information gathered in existing databases (CIB and VICO) and with operationalization (and documentation) of the FGMF for initial opening of the first core set of data. University of Sussex will be responsible of this task. We expect the enlarged CIB and VICO to be opened by month 24, while opening for testing of FGMF is expected by Month 28. This means that 2/3rds of the visitors expected for CIB and Nano (see access WP) will be able to use the enlarged datasets.

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	10.00
8	POLIMI	14.50
11	SNI	6.00
13	UoS	15.00
	Total	45.50

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D20.1	Report on descriptive data on the scientific geography of large firms	1	8.00	R	PU	25
D20.2	Report on descriptive data at geographical level of small high tech firms	8	6.00	R	PU	25
D20.3	Report on descriptive data on fast growing midsized firms	13	14.00	R	PU	25
D20.4	Report on descriptive data on joint invention & publication geography of large firms	1	3.00	R	PU	36
D20.5	Report on overall dynamics of small high tech firms through the crisis	8	4.00	R	PU	36
D20.6	Report on the role of innovation in the dynamics of fast growing midsized firms	13	7.50	R	PU	36
D20.7	Policy brief on key indicators of the innovation dynamics and on options for maintaining the 3 datasets	13	3.00	R	PU	42
		Total	45.50			

Description of deliverables

- D20.1) Report on descriptive data on the scientific geography of large firms: [month 25]
- D20.2) Report on descriptive data at geographical level of small high tech firms: [month 25]
- D20.3) Report on descriptive data on fast growing midsized firms: [month 25]
- D20.4) Report on descriptive data on joint invention & publication geography of large firms: [month 36]
- D20.5) Report on overall dynamics of small high tech firms through the crisis: [month 36]
- D20.6) Report on the role of innovation in the dynamics of fast growing midsized firms: [month 36]
- D20.7) Policy brief on key indicators of the innovation dynamics and on options for maintaining the 3 datasets: [month 42]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
MS1	Opening of enlarged CIB	1	24	
MS2	Opening of enlarged VICO	8	24	
MS3	Opening for testing of FGMF core data set	13	28	

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
MS4	Opening of FGMF first complete version of FGMF	13	36	

Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package					
Work package number 53	WP21	Type of activity 54	RTD		
Work package title	IPER - Building the repository of evaluations as a new service				
Start month	3				
End month	48				
Lead beneficiary number 55	3				

Objectives

Evaluations are a critical instrument for researchers and policymakers to learn about policies, programmes and/or instruments. They play a central role in knowledge accumulation, and they often mobilise academics to conduct them. Still there is no place where the evaluations made in the different EU countries and more widely in OECD countries and beyond are kept and made accessible. This is the ambition of the repository. The work package builds on a first experiment that was made between 2009-2011 focused only on evaluations dealing with innovation policies. It enabled to develop a framework to characterise each evaluation report which allows the construction of searchable tools. This allows policy-makers and researchers to search for and download particular evaluation reports according to a number of defined characteristics. It also allows meta-analysis of innovation policy evaluations in Europe. It was on line for 2 years under a Commission website as a pilot to demonstrate both its working and usefulness. The results of this pilot were such that RISIS considers it critical to the overall project that this repository is now established as a service and is both updated (for innovation policy evaluations) and enlarged (for research policy evaluations).

Description of work and role of partners

The following tasks (that are sequential) will be developed.

Task 1 corresponds to the establishment of the service based upon the existing set of evaluation reports. It is conducted jointly with the existing datasets to insure full legal, technical and content coordination. (time is accounted for in WP6). We anticipate opening at month 18.

Task 2 corresponds to the definition of a strategy for collecting evaluation reports in the different countries and international organisations and to the definition of an effective process for implementing it.

Task 3 corresponds to the concrete collection of reports and their characterisation of above through structured templates. This requires to set-up a network of correspondents both for gathering them and for dealing with language aspects associated with characterisation.

Task 4 corresponds to the regular incorporation of the new data in the repository. It will be made at regular intervals, so that users have access to an enlarged and updated repository progressively. We expect this to be done in successive batches every 6 months (at M24, 30, 36 and 42).

Task 5 corresponds to periodic analysis of the overall dataset and of its uses. Annual reports will be produced. Interactions with colleagues and stakeholders (through the ENID conferences and RISIS annual weeks) will reflect on the usability and user-friendliness of the platform, the objective being to foster evolutions of the existing functions and the introduction of new functionalities. We expect 2 such improvements at M30 and 42. Task 6 is the production of a policy brief to prepare for the lasting conditions of updating based upon a recapitulative analysis of the types and levels of use of the repository.

Participant number 10	Participant short name 11	Person-months per participant
1	UPEMLV	2.00
3	UNIMAN	30.00
	Total	32.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D21.1	recapitulative report on take-up for research and policy uses	3	22.00	R	PU	36
D21.2	Policy brief on takeup and maintenance of the facility	3	10.00	R	PU	48
		Total	32.00			

Description of deliverables

D21.1) recapitulative report on take-up for research and policy uses: [month 36]

D21.2) Policy brief on takeup and maintenance of the facility: [month 48]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
MS5	Opening of the new facility	3	18	
MS6	Integration of the 3 first batches of enlargement in the facility	3	36	

Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP22	Type of activity 54	RTD	
Work package title	Enlargement of databases dealing with ERA dynamics			
Start month	6	6		
End month	42			
Lead beneficiary number 55	4			

Objectives

To increase the relevance of the two datasets taking into account the new European initiatives and insuring longitudinal coverage (EUPRO and JOREP)

Description of work and role of partners

The first gathering of the JOREP dataset has shown that there was a strong concentration on a limited number of programmes, either multilateral between EU countries (in this case mostly Eureka clusters, ERANets and JTI, but the situation has enlarged since) or joint programmes between research or technology funding agencies. It also showed that data was most of the times accessible on the websites of each programme or of the national funding agencies.

This provides for a cost effective approach to updating both JOREP (focused on amounts spent) and EUPRO focused on the projects that are funded. This will increase greatly the relevance of the two datasets, by enlarging the programme coverage of EUPRO and the country coverage of JOREP.

The following steps will be developed

Task 1 definition of a joint approach for gathering information

Task 2 shared organisation for collecting and structuring data with a three step process: (a) multilateral programmes with EC support; (b) programmes generated by agencies in countries not yet covered by JOREP, and (c) programmes in countries already covered by JOREP

Task 3 will organise the integration of data in both datasets and the opening of the enlarged datasets. The second series of on-site visitors should thus benefit of the enlarged and coordinated datasets

Person-Months per Participant

Participant number ¹⁰	Participant short name 11	Person-months per participant
4	CNR	12.00
6	AIT	8.00
	Total	20.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D22.1	Report about strategies for periodic data collection	4	5.00	R	PU	18
D22.2	Analysis of changes linked to new coverage	6	10.00	R	PU	36

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D22.3	Policy brief on JOREP based indicators and issues for lasting maintenance of JOREP	4	3.00	R	PU	42
D22.4	Policy brief on EUPRO based indicators on the different institutional dynamics of ERA construction	6	2.00	R	PU	42
		Total	20.00			

Description of deliverables

- D22.1) Report about strategies for periodic data collection: [month 18]
- D22.2) Analysis of changes linked to new coverage: [month 36]
- D22.3) Policy brief on JOREP based indicators and issues for lasting maintenance of JOREP: [month 42]
- D22.4) Policy brief on EUPRO based indicators on the different institutional dynamics of ERA construction: [month 42]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
MS7	data integrated in both datasets and open for users		36	

Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package				
Work package number 53	WP23	Type of activity 54	RTD	
Work package title	Dataset of pu	Dataset of public research organisations in the EU		
Start month	3			
End month	48			
Lead beneficiary number 55	12			

Objectives

To develop a dataset of Public Research Organisations (PRO) in the EU

Rationale: Public Research Organisations (PROs) can be defined as research establishments funded primarily from Government sources and whose main role is the performance of scientific and technological research in accordance with goals set up by Government departments or organisations (OECD 1989). They are a major component of most national innovation systems, undertaking a broad variety of tasks and pursuing a variety of goals, including the generation of publicly available scientific knowledge, the provision of evidence and capacities to develop regulatory regimes, and the creation of technological capabilities to strengthen economic competitiveness and national security, among others. A first pilot survey done a decade ago showed that there had been a constant movement of creation, far above the few privatisations that took place (Eurolab 2002). While there has been multiple developments on universities (see EUMIDA/ETER dataset), nothing has been done for PRO. Covering this lacunae is the objective of this dataset.

Description of work and role of partners

Task1 deals with the definition of a conceptual framework that enables developing a typology, and a guide about their characteristics. This will enable to build a first list of PROs in EU countries (using previous work done, e.g. Eurolab survey and more recently OECD work).

Task 2 is focused on the definition of the list of relevant indicators to build on PRO and the corresponding list of data to gather, taking into account the different types identified. For defining indicators, account will have to be taken of joint research activities. We shall use the solutions defined within WP8.

Task 3 corresponds to the initial collection of data. This collection will be done by using public data produced by the different PRO (using their websites and annual reports). We shall test the level of information coverage that can be obtained and see which indicators can be built and are robust.

Task 4 is the operational building and documentation of the initial dataset, for testing within the RISIS consortium. We expect to use a similar technical structure than the one produced for the ETER dataset on universities.

Task 5 will gather the lessons learnt through this initial testing, the aim being to produce a special issue of a journal and to develop a policy brief on the interest and conditions for establishing a lasting dataset (similar to the ETER one on universities) so as to propose a full coverage of public sector research organisations in Europe (this should radically change the ways scholars in the field work).

CSIC is the coordinator of this WP with support from Leiden (about definition of institutions), AIT and CNR for characterisation and analysis of the different types. This WP will implement the main results of the coordinating activity dealing with organisations (WP8).

Participant number 10	Participant short name 11	Person-months per participant
4	CNR	3.00
6	AIT	4.00
7	UL	3.00

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
12	CSIC	15.00
	Total	25.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D23.1	Report on framework and set of indicators	12	7.00	R	PU	18
D23.2	Report on initial data collection	12	11.00	R	PU	30
D23.3	Policy brief on dataset developments, first results and condition of lasting maintenance	12	4.00	R	PU	42
D23.4	Special issue of journal prepared	12	3.00	R	PU	48
		Total	25.00			

Description of deliverables

D23.1) Report on framework and set of indicators: [month 18]

D23.2) Report on initial data collection: [month 30]

D23.3) Policy brief on dataset developments, first results and condition of lasting maintenance: [month 42]

D23.4) Special issue of journal prepared: [month 48]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I ⁶⁰	Comments
MS8	First pilot dataset open for internal testing within RISIS	12	30	

Project Number ¹	313082	Project Acronym ²	RISIS

One form per Work Package						
Work package number 53	WP24	Type of activity 54	RTD			
Work package title	rsing researcher careers					
Start month	3					
End month	48					
Lead beneficiary number 55	9					

Despite the importance of human resources for the European science system(s), we know only little about researchers' careers in an internationally comparative perspective. In general, we lack systematic insight into the decision making process as regards the choice for or against a research career as well as the impact of policy instruments or life events on researchers' careers. Some projects aim at harmonising future studies on researchers' careers, e.g. the OECD/UNESCO Institute for Statistics/Eurostat Careers of Doctorate Holders (CDH) project or the ESF Member Organisation Forum on European Alliance on Research Career Development . However, up to now information on researchers' careers is mainly collected on a national, institutional or organisational level, without a common homogenised standard. Some examples are the "What do researchers do?" series in the UK , the NIFU database in Norway , the information gathered in the context of the ProFile survey conducted by iFQ on doctoral education and postdoctoral careers in Germany , the CSIC data on academic careers or the empirical study on career patterns and competences of PhDs conducted at the University of Manchester by Lee et al. .

The ambition of this research activity is to develop a conceptual framework and an operational database to aggregate this disparate information sources. It will have two major effects: (a) favour access to multiple local datasets that are today only used by their local developers; (b) favour comparative and aggregative research work and study at the EU level research careers (including the role of mobility).

Description of work and role of partners

Task 1 is to elaborate a systematic framework for researchers' careers. This will build upon the work of LERU on academic career maps, the ESF's Member Organisation Forum on Research Careers (e.g. "Research Careers in Europe Landscape and Horizons"), the OECD's Frascati Manual and the framework suggested by the European Commission ("Towards a European Framework of Research Careers"). It will take into account the national level respective initiatives such as in Germany. The framework will account for qualification processes, transitions between the phases as well as entry- and exit-options, (institutional and organisational) contexts and output measures. The outcome will be a theory-based model which comprises all phases young scholars run through until the appointment to a professorship or attainment of a leading position. CSIC will be responsible for this task.

Task 2 will define the structure of a platform allowing the incorporation of different existing datasets. The implementation of this platform will include documentation files providing background information and guidance on comparability, options and limitations for analysis and interpretation. IFQ will be responsible for this task.

Task 3 consists of the incorporation by partners of the RISIS project – IFQ, NIFU and CSIC – of their European and national data in the platform. It will be complemented by three critical aspects for opening the platform to external researchers: (i) Anonymisation of micro-data and (ii) incorporation of institutional information on careers in the different national research systems, and (iii) integration of MORE2 data within the integrated MORE data (thanks to a subcontract for supporting technical integration). This will enable the second stream of on-site visits to IFQ to take advantage of the new format developed by the platform and the new information incorporated. IFQ is responsible for this task.

Task 4 will organise a full presentation of the new framework and 'platform' for incorporating various 'local' datasets, and reflect on the first results arrived at. We expect on the academic level a special journal issue,

and on the policy level, a policy brief dealing with lasting maintenance of the facility. CSIC and IFQ are jointly responsible for this task.

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
5	NIFU	4.00
9	IFQ	15.50
12	CSIC	18.00
	Total	37.50

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D24.1	Report on integrating framework	9	10.00	R	PU	18
D24.2	Policy brief on possibilities offered by the new integrating platform	9	20.00	R	PU	42
D24.3	Special issue on main lessons prepared	12	7.50	R	PU	48
		Total	37.50			ж

Description of deliverables

D24.1) Report on integrating framework: [month 18]

D24.2) Policy brief on possibilities offered by the new integrating platform: [month 42]

D24.3) Special issue on main lessons prepared: [month 48]

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I 60	Comments
MS9	Technical platform developed	9	24	
MS10	Platform opened for internal testing within RISIS consortium	9	30	

Project Number ¹ 313082 Project Acronym ² RISIS	
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One form per Work Package						
Work package number 53	WP25	Type of activity 54	RTD			
Work package title	Work package title Supporting use of data: cleaning, combining, analysing, and quality control					
Start month	8					
End month	48					
Lead beneficiary number 55	2					

Objectives

Opening data for users needs to be accompanied by support tools. This falls apart in several objectives:

- (i) Within databases, a huge problem is that person names and organization names appear in different forms, making the identification of persons and organisational units very labor intensive. This is a lasting problem called disambiguation by specialists. Combining data requires even more the unambiguous identification of authors, inventors, and organizational units. The fist objective of this WP is to develop tools for disambiguation that are specifically adapted to science, technology and innovation activities.
- (ii) Combining data are a big promise for answering new research questions, and old questions in a better way. However, combining data requires new tools made available to researchers. The second objective is developing and improving tools for analysing and visualizing complex (often network) data
- (iii) Combining data from different sources asks for quality assessment tools, especially because integration may lead to decision when datasets are based on different definitions, classifications, etc. The user therefore wants to be informed about the quality of the combined data and about the underlying decisions. The higher quality data should have more weight in the combined set than the lower quality data. This should be taken into account in the deployed analytical tools. The third objective in this WP is to integrate quality assessment of data into the data analysis tools.

Description of work and role of partners

Objective 1: disambiguation (task responsible: UPEMLV)

Building on the work packages on harmonization (WP8), the following work will be done to develop radically new approaches for dealing with the challenge of disambiguation in our field.

Task 1. Reviewing the existing approaches for disambiguation, and selecting the most promising (VUA, UPEMLV)

Task 2. Testing the selected approaches and especially combinations of approaches to disambiguation on the various datasets available in the consortium. This will be done on 'traditional' patent and publication data such as the genomics database and the nanosciences and technologies database (UPEMLV), and on web based data, such as the CSIC webometric database on presence of research organizations on the web (CSIC, VUA).

Task 3. Making a (set of) disambiguation tool(s) available to the research the community, as well as accompanying material to inform the user about the use and scope of the tools (VUA, UPEMLV).

Objective 2: new tools for analysis and visualization (task responsible: CSIC)

We improve, develop and make accessible tools that enable the manipulation, analysis and visualisation of multidimensional data. More specifically, this joint research will bring further (i) social network analysis tools for analysing multiplex (multivariate) networks, and (ii) multi level mapping techniques.

- Task 1. Testing earlier developed tools for multiplex social network analysis, and extending the tools with additional analytical functionality (VUA, UPEMLV, CNR).
- Task 2. Making the tools more user-friendly, as they in the current form require rather advanced computer skills to run them, skills that most science and innovation researchers do not have (VUA, UPEMLV).
- Task 3. Current science maps can be used for analysing emerging science-based technologies, but they lack a user-interface that would make them accessible for most social scientists in research and science & innovation policy. A user-friendly interface will be created. Besides maps, the interface will provide tools to extract associated metrics (e.g. on degree of interdisciplinarity, patent generality, etc.) (CSIC, CNR).

Objective 3. Translating quality assessment into analysis tools (task responsible VUA)

- Task 1. Developing a procedure to assess data quality, building on work in the various networking WPs (VUA, UPEMLV).
- Task 2. Investigating how network analysis tools can be made adaptive to the origin (and quality) of the data that they use (VUA).
- Task 3. Integrating the findings into the developed tools for data analysis (objective 2 of this WP) (VUA, UPEMLV).

Person-Months per Participant

Participant number 10	Participant short name ¹¹	Person-months per participant
1	UPEMLV	18.00
2	VUA	18.00
4	CNR	6.00
12	CSIC	6.00
	Total	48.00

List of deliverables

Delive- rable Number	Deliverable Title	Lead benefi- ciary number	Estimated indicative personmonths	Nature ⁶²	Dissemi- nation level ⁶³	Delivery date ⁶⁴
D25.1	Interim report on the disambiguation results	2	9.00	R	PU	24
D25.2	Technical report of the user interface of maps	12	9.00	R	PU	24
D25.3	Report on network analysis tools for heterogeneous data, with emphasis on use examples	2	18.00	R	PU	40
D25.4	Final report on disambiguation results and methods	1	9.00	R	PU	42
D25.5	Report on the tools for quality assessment	2	3.00	R	PU	48
		Total	48.00			

Description of deliverables

- D25.1) Interim report on the disambiguation results: [month 24]
- D25.2) Technical report of the user interface of maps: [month 24]
- D25.3) Report on network analysis tools for heterogeneous data, with emphasis on use examples: [month 40]
- D25.4) Final report on disambiguation results and methods: [month 42]
- D25.5) Report on the tools for quality assessment: [month 48]

WT3: Work package description

Schedule of relevant Milestones

Milestone number ⁵⁹	Milestone name	Lead benefi- ciary number	Delivery date from Annex I 60	Comments
MS11	User interface for visualizing science and technology maps	12	24	Integrated on the 2 platforms Cortext and SMS
MS12	Network analysis tools	2	40	Integrated on the 2 platforms Cortext and SMS
MS13	Disambiguation tools	2	42	Integrated on the 2 platforms Cortext and SMS

WT4: List of Milestones

Project Number ¹ 313082 Project Acronym ² RISIS

		List and S	chedule of Milest	ones	
Milestone number ⁵⁹	Milestone name	WP number ⁵³	Lead benefi- ciary number	Delivery date from Annex I 60	Comments
MS1	Opening of enlarged CIB	WP20	1	24	
MS2	Opening of enlarged VICO	WP20	8	24	
MS3	Opening for testing of FGMF core data set	WP20	13	28	
MS4	Opening of FGMF first complete version of FGMF	WP20	13	36	
MS5	Opening of the new facility	WP21	3	18	
MS6	Integration of the 3 first batches of enlargement in the facility	WP21	3	36	
MS7	data integrated in both datasets and open for users	WP22	4	36	
MS8	First pilot dataset open for internal testing within RISIS	WP23	12	30	
MS9	Technical platform developed	WP24	9	24	
MS10	Platform opened for internal testing within RISIS consortium	WP24	9	30	
MS11	User interface for visualizing science and technology maps	WP25	12	24	Integrated on the 2 platforms Cortext and SMS
MS12	Network analysis tools	WP25	2	40	Integrated on the 2 platforms Cortext and SMS
MS13	Disambiguation tools	WP25	2	42	Integrated on the 2 platforms Cortext and SMS

WT5: Tentative schedule of Project Reviews

Project Number ¹ 313082 Project Acronym ² RISIS	Number ¹ 313082	313082 Project Acronym ²	RISIS
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	Tentative schedule of Project Reviews											
Review number 65	Tentative timing	Planned venue of review	Comments, if any									
RV 1	26	Paris	Review would be most profitable when all facilities are opened and first transnational access conducted									

WT6: Project Effort by Beneficiary and Work Package

Project Number ¹	313082	Project Acronym ²	RISIS

Indicative efforts (man-months) per Beneficiary per Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	WP 8	WP 9	WP 10	WP 11	WP 12	WP 13	WP 14	WP 15	WP 16	WP 17	WP 18	WP 19
1 - UPEMLV	36.00	2.00	5.00	3.00	8.00	7.00	12.00	6.00	10.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - VUA	0.00	2.00	1.00	6.00	4.00	4.00	11.00	6.00	6.50	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 - UNIMAN	0.00	0.00	1.00	6.50	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 - CNR	0.00	0.00	1.00	0.00	13.00	6.00	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
5 - NIFU	0.00	0.00	1.00	0.00	0.00	6.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
6 - AIT	0.00	2.00	1.00	0.00	0.00	8.00	0.00	6.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
7 - UL	0.00	0.00	1.00	0.00	4.00	4.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
8 - POLIMI	0.00	0.00	1.00	0.00	6.00	5.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
9 - IFQ	0.00	0.00	1.00	2.00	5.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
10 - USI	0.00	2.00	1.00	0.00	2.00	4.00	0.00	6.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
11 - SNI	0.00	0.00	1.00	0.00	0.00	0.00	0.00	4.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12 - CSIC	0.00	0.00	1.00	0.00	0.00	0.00	6.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13 - UoS	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	36.00	8.00	17.00	19.50	42.00	56.00	29.00	52.50	27.50	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

WT6: Project Effort by Beneficiary and Work Package

Beneficiary number and short-name	WP 20	WP 21	WP 22	WP 23	WP 24	WP 25	Total per Beneficiary
1 - UPEMLV	10.00	2.00	0.00	0.00	0.00	18.00	119.02
2 - VUA	0.00	0.00	0.00	0.00	0.00	18.00	58.51
3 - UNIMAN	0.00	30.00	0.00	0.00	0.00	0.00	46.50
4 - CNR	0.00	0.00	12.00	3.00	0.00	6.00	46.51
5 - NIFU	0.00	0.00	0.00	0.00	4.00	0.00	17.01
6 - AIT	0.00	0.00	8.00	4.00	0.00	0.00	34.01
7 - UL	0.00	0.00	0.00	3.00	0.00	0.00	17.01
8 - POLIMI	14.50	0.00	0.00	0.00	0.00	0.00	30.51
9 - IFQ	0.00	0.00	0.00	0.00	15.50	0.00	26.51
10 - USI	0.00	0.00	0.00	0.00	0.00	0.00	15.01
11 - SNI	6.00	0.00	0.00	0.00	0.00	0.00	15.00
12 - CSIC	0.00	0.00	0.00	15.00	18.00	6.00	52.00
13 - UoS	15.00	0.00	0.00	0.00	0.00	0.00	18.00
Total	45.50	32.00	20.00	25.00	37.50	48.00	495.60

WT7: Project Effort by Activity type per Beneficiary

Project Number ¹		31308	313082				Project Acronym ²			RISIS				
				In	dicative et	fforts per A	ctivity Typ	e per Ben	eficiary					
Activity type	Part. 1 UPEMLV	Part. 2 VUA	Part. 3 UNIMAN	Part. 4 CNR	Part. 5 NIFU	Part. 6 AIT	Part. 7 UL	Part. 8 POLIMI	Part. 9 IFQ	Part. 10 USI	Part. 11 SNI	Part. 12 CSIC	Part. 13 UoS	Total
1. RTD/Innovation a	activities													
WP 20	10.00	0.00	0.00	0.00	0.00	0.00	0.00	14.50	0.00	0.00	6.00	0.00	15.00	45.50
WP 21	2.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.00
WP 22	0.00	0.00	0.00	12.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00
WP 23	0.00	0.00	0.00	3.00	0.00	4.00	3.00	0.00	0.00	0.00	0.00	15.00	0.00	25.00
WP 24	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	15.50	0.00	0.00	18.00	0.00	37.50
WP 25	18.00	18.00	0.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	48.00
Total Research	30.00	18.00	30.00	21.00	4.00	12.00	3.00	14.50	15.50	0.00	6.00	39.00	15.00	208.00
2. Demonstration ad	ctivities													
Total Demo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Consortium Mana	agement ac	ctivities												
WP 1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.00
Total Management	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.00
Work Packages for	Coordination	on activitie	!S											
WP 2	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	8.00
WP 3	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	17.00
WP 4	3.00	6.00	6.50	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	19.50
WP 5	8.00	4.00	0.00	13.00	0.00	0.00	4.00	6.00	5.00	2.00	0.00	0.00	0.00	42.00
WP 6	7.00	4.00	9.00	6.00	6.00	8.00	4.00	5.00	3.00	4.00	0.00	0.00	0.00	56.00

WT7: Project Effort by Activity type per Beneficiary

							_		_					_
Work Packages for	Coordination	on activitie	S											
WP 7	12.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	29.00
WP 8	6.00	6.00	0.00	5.50	6.00	6.00	5.00	2.00	0.00	6.00	4.00	6.00	0.00	52.50
WP 9	10.00	6.50	0.00	0.00	0.00	5.00	0.00	2.00	0.00	0.00	4.00	0.00	0.00	27.50
Total Coordination	53.00	40.50	16.50	25.50	13.00	22.00	14.00	16.00	11.00	15.00	9.00	13.00	3.00	251.50
											•	-		
4. Other activities							<u> </u>					-		
Total other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Packages for	Support ac	tivities												
WP 10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 12	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
WP 14	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 16	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 17	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
WP 18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
WP 19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Total Support	0.02	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.10
													,	
Total	119.02	58.51	46.50	46.51	17.01	34.01	17.01	30.51	26.51	15.01	15.00	52.00	18.00	495.60

WT8: Project Effort and costs

Project Number ¹ 313082 Project Acronym ² RISIS

Project efforts and costs

			Est	timated eligible o	costs (whole dura	ation of the proje	ect)		
Beneficiary number	Beneficiary short name	Effort (PM)	Personnel costs (€)	Subcontracting (€)	Other Direct costs (€)	Indirect costs OR lump sum, flat-rate or scale-of- unit (€)	Access costs (€)	Total costs	Requested EU contribution (€)
1	UPEMLV	119.02	757,106.00	70,000.00	258,500.00	609,363.60	16,412.00	1,711,381.60	1,194,048.00
2	VUA	58.51	483,720.00	30,000.00	125,400.00	365,472.00	0.00	1,004,592.00	701,677.00
3	UNIMAN	46.50	249,123.00	0.00	23,000.00	163,273.80	0.00	435,396.80	312,491.00
4	CNR	46.51	267,875.00	0.00	125,240.00	341,851.00	0.00	734,966.00	461,160.00
5	NIFU	17.01	123,409.00	20,000.00	27,000.00	90,245.40	0.00	260,654.40	181,010.00
6	AIT	34.01	251,600.00	0.00	63,500.00	201,664.00	0.00	516,764.00	351,845.00
7	UL	17.01	149,680.00	0.00	104,400.00	76,224.00	0.00	330,304.00	269,093.00
8	POLIMI	30.51	175,200.00	0.00	85,320.00	128,174.00	0.00	388,694.00	282,714.00
9	IFQ	26.51	148,400.00	100,000.00	101,600.00	150,000.00	0.00	500,000.00	379,304.00
10	USI	15.01	120,000.00	30,000.00	28,240.00	88,944.00	0.00	267,184.00	188,616.00
11	SNI	15.00	96,750.00	0.00	11,000.00	64,650.00	0.00	172,400.00	120,323.00
12	CSIC	52.00	260,655.00	0.00	21,486.00	230,795.00	0.00	512,936.00	363,538.00
13	UoS	18.00	134,900.00	0.00	40,000.00	104,940.00	0.00	279,840.00	193,365.00
	Total	495.60	3,218,418.00	250,000.00	1,014,686.00	2,615,596.80	16,412.00	7,115,112.80	4,999,184.00

WT9: Summary of transnational access / service provision per installation

Project Number ¹	313082	Project Acronym ²	RISIS

Summary of transnational access / service provision per installation

							Inst	allation				
Part. num.	Org. short name	Short name of infrastructure	Num.	Name	Operator country code	Unit of access	Total Estimated costs	Estimated unit cost	Min. quantity of access to be provided	Access costs charged to the GA	Est. num. of users	Est. num. of proj.
1	UPEMLV	CORTEXT	3	CORTEXT	France		82,060.00	0.00	0.00	16,412.00	0	0
1	UPEMLV	CIB	1	CIB	France	day	0.00	0.00	150.00	0.00	10	10
1	UPEMLV	Nano	2	Nano	France	day	0.00	0.00	150.00	0.00	15	15
2	VUA	SMS Platform	4	SMS Platf	Netherlands	day	0.00	0.00	120.00	0.00	10	10
4	CNR	JOREP	5	JOREP	Italy	day	0.00	0.00	72.00	0.00	8	8
5	NIFU	MORE	6	MORE	Norway	day	0.00	0.00	100.00	0.00	10	10
6	AIT	EUPRO	7	EUPRO	Austria	day	0.00	0.00	180.00	0.00	15	15
7	UL	LEIDEN Ranking	8	LEIDEN Ra	Netherlands	day	0.00	0.00	120.00	0.00	10	10
8	POLIMI	VICO	9	VICO	Italy	day	0.00	0.00	100.00	0.00	10	10
9	IFQ	Early Career	10	Early Car	Germany	day	0.00	0.00	108.00	0.00	9	9
10	USI	EUMIDA/ ETER	11	EUMIDA/ ET	Switzerland	day	0.00	0.00	72.00	0.00	10	10
						Grand Total	82,060.00			16,412.00		

1. Project number

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

2. Project acronym

Use the project acronym as given in the submitted proposal. It cannot be changed unless agreed so during the negotiations. The same acronym should appear on each page of the grant agreement preparation documents (part A and part B) to prevent errors during its handling.

53. Work Package number

Work package number: WP1, WP2, WP3, ..., WPn

54. Type of activity

For all FP7 projects each work package must relate to one (and only one) of the following possible types of activity (only if applicable for the chosen funding scheme – must correspond to the GPF Form Ax.v):

- RTD/INNO = Research and technological development including scientific coordination applicable for Collaborative Projects and Networks of Excellence
- DEM = Demonstration applicable for collaborative projects and Research for the Benefit of Specific Groups
- MGT = Management of the consortium applicable for all funding schemes
- OTHER = Other specific activities, applicable for all funding schemes
- COORD = Coordination activities applicable only for CAs
- SUPP = Support activities applicable only for SAs

55. Lead beneficiary number

Number of the beneficiary leading the work in this work package.

56. Person-months per work package

The total number of person-months allocated to each work package.

57. Start month

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

58. End month

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

59. Milestone number

Milestone number: MS1, MS2, ..., MSn

60. Delivery date for Milestone

Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

61. Deliverable number

Deliverable numbers in order of delivery dates: D1 – Dn

62. Nature

Please indicate the nature of the deliverable using one of the following codes

 \mathbf{R} = Report, \mathbf{P} = Prototype, \mathbf{D} = Demonstrator, \mathbf{O} = Other

63. Dissemination level

Please indicate the dissemination level using one of the following codes:

- PU = Public
- PP = Restricted to other programme participants (including the Commission Services)
- RE = Restricted to a group specified by the consortium (including the Commission Services)
- CO = Confidential, only for members of the consortium (including the Commission Services)

- Restreint UE = Classified with the classification level "Restreint UE" according to Commission Decision 2001/844 and amendments
- Confidential UE = Classified with the mention of the classification level "Confidential UE" according to Commission Decision 2001/844 and amendments
- Secret UE = Classified with the mention of the classification level "Secret UE" according to Commission Decision 2001/844 and amendments

64. Delivery date for Deliverable

Month in which the deliverables will be available. Month 1 marking the start date of the project, and all delivery dates being relative to this start date

65. Review number

Review number: RV1, RV2, ..., RVn

66. Tentative timing of reviews

Month after which the review will take place. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

67. Person-months per Deliverable

The total number of person-month allocated to each deliverable.

Part B

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1. CONCEPT AND OBJECTIVES, PROGRESS BEYOND STATE-OF-THE-ART, S/T METHODOLOGY AND WORK PLAN

1.1. Concept and project objective(s)

1.1.1. Introduction

Science and innovation have become the cornerstone of societal progress, economic development, and the solving of the grand challenges such as climate change, ageing or food safety. This makes it more urgent than before that we improve our understanding of knowledge dynamics, innovation processes, the interactions between research and the (potential) users, and the conditions that stimulate scientific development and innovation. Improving our understanding of these processes is crucial for adequate forms of research evaluation and for national and European science and innovation policies as well as policies at the level of research organizations. *Science and innovation studies* focuses on these topics, and has over the last decade developed into an increasing integrated community, among others through the Prime Network of Excellence (2004-2009) that brought together the important players in this field.

1.1.1.1. Developments in science and innovation studies

The development of *science and innovation studies* has pointed out the complexity of science dynamics and of innovation. Our understanding of innovation processes has radically changed – starting with the chain-linked model (Kline & Rosenberg 1986), moving to network-based approaches (e.g. Callon et al. 1992), 'open innovation' (Chesbrough, 2003), and 'national and regional innovation systems' (Lundvall 1992, Nelson 1993, Edquist 1997). It stresses the importance of *interactions between actors* (public and private, producers and users, producers and suppliers, researchers and knowledge users), collaboration and competition, connectivity, learning processes, path dependency, and 'system failures' next to 'market failures'. If interactions between actors are central, understanding of actor strategies is important, because similar actors (e.g., universities; of all firms belonging to a sector) may have different missions and strategies.

Science and Innovation studies are a typical "mode 2" research field (Gibbons et al., 1994) and the results of the field are not only a deepening of our understanding of the dynamics of science and innovation, but also contributes to the improvement of the science and innovation systems. The development of our understanding as described above has resulted into a changing paradigm for

indicators needed to monitor and evaluate the structure and developments of science and innovation.

The first generation of S&I indicators was characterised by an 'input-output' framework and a linear model of innovation (Godin, 2005), restricting itself to characterise and measure the resources invested. This drove to the development by statistical offices, under the auspices of OECD, of indicators of public and private R&D expenditure (based on the OECD Frascati manual and its regular updating). Later on, this was complemented by output measures, using bibliometric databases and the innovation surveys based upon the OECD Oslo manual.

Science and innovation studies have resulted in the new concept of 'positioning indicators' (Lepori et al., 2008). And much better than the classical indicators, these positioning indicators capture the processes between input and output, such as actors' strategies. Through this a new perspective has been developed on the dynamics of science and innovation – e.g., about the well-known European paradox (Caracostas and Muldur, 1997).

1.1.1.2. New research priorities ...

This has resulted in a renewal of approaches and data in order to feed the new challenges policies faced. The new research directions are have been clearly identified by the different 'colleges' that structure the field (such as the EU-SPRI forum that follows PRIME in Europe, and the NSF program on science of science and innovation policy). The new research directions deal with: (i) the globalisation of firms and innovation processes connected with the key role of proximity for smaller actors, (ii) the emergence of new important scientific fields with different knowledge production processes (in particular nanotechnology); (iii) the increasing importance in innovation of capability building and its implications on public sector research: the growing centrality of universities, the revised role of public research organisations, academic careers and the role of doctorate holders in the knowledge economy; (iv) the progressive shift in democratic societies from technology remediation to anticipatory debates on the potential roles of the new sciences and technologies, (v) the implications of the growing role of shared societal challenges (such as climate change, ageing or food safety) for research and innovation, and (vi) the forms, rhythm and deepening of 'Europeanisation processes' in science and innovation (Edler, 2003). (vii) A transversal specific need deals with policy-making and the quest for more evidence-based policies (in particular on the effects and impacts of policies), which calls for a greater role of evaluation (ex-ante, on-going and ex-post).

1.1.1.3.... And the rise of new research datasets for science and innovation studies

Traditionally, data for science and innovation studies have been provided by statistical offices; data that focus on input-output relations. Also the Web of Science (and its predecessors: the Science Citation Index) have been functional in this development, as it enabled the development of indicators for scientific performance and impact – although in a restricted way. Researchers in the field of *science and innovation studies* have been using these data sources, but an increasing number of studies have resulted in many additional datasets about core dimensions of knowledge dynamics and innovation that were not represented in the statistical and bibliometrical databases. Below we present, along the lines of the above-mentioned research priorities, the newly developed datasets that RISIS aims to integrate in accessible and usable forms, and to improve and enrich through joint research. Furthermore we indicate four urgently needed new datasets we wish to initiate through joint research.

(i) In order to understand the dynamics of innovation, it has become critical understand better how and where firms build their own knowledge capabilities and innovate. Two important datasets that

RISIS wants to integrate, address this broad issue. The first one addresses the globalisation of large firms RDI activities, of which patent activities are an important marker. The *CIB database* (operated by IFRIS) includes the inventive activities of the 2000 largest corporations (which represent over 80% of world industrial RDI expenditures). It is based on PATSTAT database, produced by the European Patent Office that is a database including the patents of all patent offices worldwide. This unique resource is however (i) very complex to use and (ii) in need of important 'cleaning' and 'enriching' activities. Initial developments have been started that RISIS intends to integrate and further develop in a project of a new facility. The second existing dataset RISIS will integrate is the *VICO database* (operated by Politecnico de Milano) that contains data on the dynamics, growth patterns, and enabling factors (venture capital) of these firms. In order to deepen the knowledge on innovating firms, RISIS intends to complement these datasets with a new one on fast growing firms (based on initial work already undertaken, Bravo-Biosca, 2011). Its objective will be to delineate the role and forms of innovation, in particular non-technical) associated to their growth (operated by SPRU).

- (ii) Disentangling the dynamics and consequences of new and emerging scientific and technological (S&T) fields requires detailed and clean data. This is the aim of the database on *nano S&T dynamics* containing publications and patents (operator: IFRIS). The database entailed a number of methodological developments, which are included in the *Cortext platform* (see below), in particular for delineation (Mogoutov & Kahane, 2007) and localisation (Laredo et al, 2009). This type of approach can be used for studying agglomeration process, changing geography of science and innovation, and about science based industry dynamics. The methodology is also very relevant for studying the S&T options for 'grand societal challenges' (see the fifth priority on the above mentioned research agenda), and for presenting these options to societal stakeholders. Therefore RISIS will further develop these software tools and to open them widely to the community (see below section on software platforms).
- (iii) Several databases have been created for the study of the dynamics and performance of public sector research. Debates about the methodological weaknesses of existing rankings stimulated CWTS to develop an enlarged research-based ranking focusing on the largest universities (The *Leiden ranking*). A European consortium developed a Europe wide census among universities, leading to the *EUMIDA* database (being now updated in the ETER framework). These two complementary and unique resources on European Universities, enable research on the relation between structure and organization of the University system on the one hand, and its dynamics and performance on the other. RISIS will widely open these resources for research community. These databases have resulted in important progress in our knowledge of universities. However, this has not been the case for public research organisations (PROs) even though there has been at the turn of the 2000s a first attempt to build a census (Eurolabs, 2002). RISIS will therefore build a new facility on PROs (coordinated by CSIC).
- (iv) The performance of public sector research depends first and foremost on the quality of its human resources. This issue is a priority in European science policy. Vision 2020 and the 'fifth liberty' have emphasized the need to know more about mobility in academic careers. A wide survey was conducted, and resulted into a rich dataset (MORE operated by NIFU). Similarly a number of studies have directly focused on career paths, using different methodologies. RISIS wants to integrate and open the largest one based on panel data ('Early career', operated by IFQ) and wishes to develop work on a conceptual and operational framework able to integrate the multiple diverse studies conducted in Europe on careers (operators: IFQ and CSIC).
- (v) Debates about the ERA have focused the attention on the ways and means through which ERA can be achieved, or to use the language of Kuhlmann and Edler (2003), the deepening and

enlargement of Europeanisation processes. One central approach to it is to characterise the financial flows that support these Europeanisation processes. These are simultaneously 'top-down' that is directly organised by the European Union, and bottom-up that is through a myriad of initiatives between national funding bodies. A major example of these bottom-up processes are ERA-Nets, one of the major new initiatives of the 2000s. RISIS will integrate the two datasets that address these issues. The *EUPRO dataset* (developed by AIT) is a rich resource on collaborative research projects initiated by the successive framework programmes, with data on the actors involved, the types of partnerships, the shape and density of networks, the field of science and technology, etc,. The *JOREP dataset* (operated by CNR) covers about a dozen countries at the moment, and collects data about collaborations between funding agencies. In this way it captures the fast growth and variety of these new funding forms that stimulate the emergence of a new European research landscape, and it paves the way for numerous studies about this dynamics.

(vi) Policymakers ask for more and more evidence-based policies, and this mirrors in the increasing role given to ex-ante and ex-post evaluations. The EC is a good example with both ex-ante assessments of the Framework Programs, and systematic ex-post evaluation of the programmes. Though there has been much work on evaluation processes, such as many methodological developments of individual instruments, evaluations remain to a large extent an art or a craft of shaping a process that fits the context, of selecting adequate methodologies, of providing evidence, and of producing judgements. This is why there are regular reviews on recent developments and practice (e.g. Laredo & Georghiou, 2006 for OECD). Therefore, researchers interested in evaluation and policymakers in charge of evaluations have been asking for a repository' of evaluations to support their work. We thus want to take advantage of the pilot exercise done in the 2000s to test the feasibility and interest of a repository of evaluations of innovation policies (see IPER project, 2008-11) to develop a lasting new repository operated by the University of Manchester.

1.1.1.4. Software platforms

Developments in informatics have radically changed data collection, data organization, data integration, and data analysis. Firstly, the Web and Web 2.0 provide a rich source of new material through the websites and blogs and of interactions through blogging, forums, tweeds and the like. Secondly, researchers increasingly use these media for communication and collaboration. Information exchange is not anymore only (or mainly) through formal publications, but also through a variety of electronic formats of which the content and use can be traced in new ways. In other words, many informal processes in research and innovation that were not easily observable can now be studied and understood through the analysis of the electronic traces of these activities, and through combining these digital data with 'traditional' data.

To do this, new software tools are needed. Within the field, many software tools have been developed for specific tasks. Tools are available for disambiguation, for data integration and for visualization. Also a variety of tools is available for analysis of large science and innovation data. This has driven University Paris Est (IFRIS) and VU Amsterdam to enter in the development of software platforms (respectively Cortext Manager and SMS platforms) that articulate the different tools, and to propose workflows that enable researchers to enrich and treat their own datasets, and in cases to build them from the internet. RISIS aims to decisively contribute to the opening and the further development of software platforms for *science and innovation studies*.

This requires an initial *technical effort* to organise harmonisation of the tools in existing standards, and opening through improving of user interfaces. Further improvement requires *joint research* within RISIS. Firstly, research to improve and extend the existing tools where necessary. For example, disambiguation tools are often designed for specific data formats, and not easily

transferable to other data formats. More generally applicable tools are needed. Secondly, the workflows that integrate tools need to be made easier and also much quicker for the researchers.

1.1.2. Scientific and technical objectives

The general objective of RISIS is to strengthen the network of S&I researchers and S&I data collections, in order to improve the availability, integration and use of data for science and innovation studies, leading to scholarly better and societal more useful collaborative research. This general objective is implemented in the work program under three objectives

1. Networking and dissemination:

- Bringing together researchers in order to strengthen the data infrastructure for the S&I studies field through a greater harmonisation of categorisations and classifications, a greater connectivity between datasets enabling topic focused aggregation of heterogeneous data,
- Enabling a better access to colleagues in the field (especially young researchers) so that quantitative and qualitative research in the field is better balanced, and in particular helping them through training to acquire the adequate capabilities (both general on indicators, and specific on tools and datasets)
- Organising a better connection between researchers and stakeholders to improve the societal relevance of the research infrastructure

Measures of success are (i) a better knowledge within the research community of possibilities offered by tools and datasets, (ii) an emerging consensus on standards and their implementation in order to enable data integration, (iii) an harmonisation of criteria and technical conditions for access, and (iv) consensus on future data needs.

2. Transnational access and services:

- Opening the existing databases to researchers in the field, in different ways, depending on the data and the researchers' needs: remote access; on site access.

Measures of success are: (i) number of new projects developed thanks to the transnational access; (ii) effective use by researchers of the new services put on line.

3. Joint research activities:

- Improving existing databases and their integration;
- Creating new databases that are needed to support the research front;
- Improving software tools and integrating those into software platforms that support the research workflow in a flexible way

Measures of success are (i) the number of new and existing harmonized databases, (ii) new tools for harmonizing, integrating and analysing data, and (iii) the user friendliness of the platforms

1.2. Progress beyond the state of the art

1.2.1. Networking activities

In the project, networking activities play a crucial role. There are three levels: the first one is networking between the participating institutions and the integration of the infrastructure; the second one is networking of the community at large, stimulating their use of the infrastructure; the third is networking with societal stakeholders in order to improve relevance and dissemination of data and indicators.

Networking the participants of the infrastructure:

The first level of networking activities is between the consortium members. We have identified four key issues that need to be addressed. The first three deal with the conditions for opening and effective transnational access.

- (i) Firstly we need to finalize and operationalize the principles adopted for opening and access.
- (ii) Secondly we need to make the infrastructure visible for, and accessible by, the community.
- (iii) Thirdly we need to insure quality standards of both the facilities but also of the users, following the principle of accreditation that we propose.
- (iv) Fourthly we need to develop the combined use of the datasets based on problem or topic driven issues. This requires what is called meta-harmonisation. It has two complementary objectives:
 (i) to insure a harmonised access to the different datasets; and (ii) to enable to combine different datasets to address specific issues. Harmonization has both technical dimensions (about storage and accessibility standards; about software and hardware; about user friendliness, and content based dimensions (about levels of precision of harmonisation, about required metadata). Two issues are central:
 - a. Harmonization of existing datasets driven by research issues: harmonisation of names and categorisation of organisations (firms, universities, PROs, etc.), identification of authors or inventors (disambiguation), localisation of activities.
 - b. Harmonization as advanced linking of data through semantic (web) tools, especially when facing research questions that do not need 100% labour intensive harmonisation.

In order to facilitate networking RISIS will develop a RISIS annual week as a central space where discussions and exchanges on all these dimensions take place.

Networking with the Community at large: the project wishes as much as possible to mobilise existing means and to reinforce them. This is why it will develop a central collaboration with the learned society in the field, ENID (the European association of indicator designers) and support its annual conference to present results in developing relevant indictors and discuss the research agenda at large, while also insuring a presence in the more specific conferences relevant for the different facilities (e.g., the EPIP and EPO conferences for patent activities). One important aspect of networking (of the science and innovation research community) is to raise the research skills needed for using large data sets and developing indicators. This is why RISIS will develop a very important effort for training activities, such as summer schools for early career researchers. Some 30 such courses are anticipated over the duration of the project to raise the overall capacity of our community in developing and using quantitative approaches and indicators.

Interacting with policymakers and stakeholders

The third level of networking is related to the dissemination strategy, improving societal impact and impact on innovation. It is important to get a clear picture of research results circulating in policy-making circles. The previous experience of the PRIME network of excellence has driven us to further discuss these processes and propose what we call a "percolation model". Impact is never direct, it flows through the ways research results modify the ways in which policymakers define and characterise the issues and problems, which they wish to act upon. This often flows through 'consultancy' or 'expert' activities, and the EC high-level expert groups have been one major channel (e.g. the 2008 expert group on ERA rationales and the issue of 'grand challenges'). It is thus important that results derived from the use of this new infrastructure are easily accessible and discussed with policymakers.

Similarly, as explained above, the growing distinction between the design of new indicators and their regular production to feed in the policy-making process requires that specific mechanisms are developed to help policymakers test and measure the usefulness of the new indicators proposed. For

EU level indicators, this will also require that conditions for regular production are studied and options proposed for policy action.

These two inter-linked processes have driven us to propose as a central mechanism the establishment of specific stakeholder days within the annual RISIS week. Quite some of the RISIS participants have a long experience with policy advice and with interacting with policy makers. All partners will participate in this activity, with the aim of developing a second central mechanism for circulating results: policy briefs. This activity will be coordinated by the University of Manchester, which has a long tradition in such interaction activities.

Table 1 – Networking activities (WP2 to 9)

WP2 - Coordinated access to facilities

WP3 – Annual RISIS week

WP4 – Communication activities (community at large, stakeholders)

WP5 – Support to research users - Training activities

WP6 – Coordinated preparation to the opening of datasets (technical, intellectual and legal)

WP7 – Opening and coordination of the 2 platforms

WP8 – Harmonisation & integration of datasets centred on organisations

WP9 – Harmonisation & integration of datasets centred on geographical dimensions

1.2.2. Transnational access and services

Table 2 lists the 11 facilities we open to our community for research activities over the time of the project: 2 software platforms and 9 datasets.

A first step is to organise access. This requires taking into account three aspects: technical, legal and intellectual.

Table 2 – Facilities for transnational access

Facilities linked to Universities and careers

WP17 - Leiden ranking of universities (UL)

WP13 – EUMIDA/ETER dataset of European universities (USI)

WP15 – MORE database on the mobility of researchers (NIFU)

WP19 – Facility on Early career researchers (IFQ)

Facilities linked to Europeanisation and thematic dynamics

WP16 – EUPRO database on European project-based collaborations (AIT)

WP14 – JOREP database on 'trans-border' funding programmes (CNR)

WP10 – Nano science and technology dynamics database (UPEMLV)

Facilities linked to firm innovation activities

WP10 – Corporate Invention Board, database on the inventive activities of world largest corporations (UPEMLV)

WP18 – VICO database on start-up firms and venture capital activities (Polimi), transnational access

Software Platforms

WP11 – Cortext Manager (UPE) (service)

WP12 - SMS platform (VUA)

We consider **2 types of transnational access**: (a) 'hands-on' (the researcher comes on site and works with the dataset holders or platform managers on a project learning to use and using the data and software available); (b) distant access (researchers access a micro or meso level corpus that has been transformed in order to match privacy rules. In a first stage all access is on site, but we expect that over time it will move to transnational access at a distance for most datasets. The only service is CORTEXT for the use of tools and workflows provided by the platform for users to treat their own datasets).

Both the use of datasets and software require that researchers know how to use them as well as their scope of relevance (and the corresponding limitations). Our approach is thus to accredit researchers, showing that they can use the data and tools. Accreditation will be centralised and delivered by the Facility Coordination Board (see Governance). A fast procedure will be established where researchers can register on-line to apply for accreditation or for getting information about the conditions they have to meet. Accreditation may require training (see below). For all transnational access, the final selection of projects will be done by the Project review board (see Governance).

Facilities need to be fully documented, levels of quality (and thus of relevance for quantitative treatments) clearly formalised, server location need to be reappraised as well as security procedures (in some cases relocation need to be considered), downloading and interrogation routines will require hardening in most cases. We expect these activities to be conducted during the first 18 months at most, enabling effective opening during the second year of the project. In order to promote inter-connectivity, all activities linked to preparation are coordinated by a specific networking activity. We also expect 4 direct on line services, while opening will be focused on 'hands-on' access for the other 8 facilities. One objective of the latter 8 facilities is to learn the types of need by researchers and thus to define meso-level 'distance standardised access' services to be developed by the end of the project.

In order to improve access and use, RISIS will organize, in relation with facility operators, *training activities* that introduce researchers (especially early career ones) to the use of the data for answering research questions and at the same time prepare them in a technical sense. Training is thus an important feature to foster a wider transformation of the S&I community. We thus will commit important resources to training (with some 30 training courses anticipated) and have considered that it was critical to insure full complementarity between training activities, thus the development of a specific networking activity dedicated to training and centralising all activities.

1.2.3. Joint Research Programme to deepen and innovate

The proposed Joint Research Programme answers three requirements: (i) insuring that the datasets remain relevant over time (a key problem for 3 datasets) (ii) developing 4 new datasets on key policy issues facing important gaps and (iii) improving the ability of software platforms to be more used by addressing 3 major problems being presently faced. These activities are developed jointly between partners around six themes: firm innovation, public sector research, human resources, Europeanisation, evaluation and data treatment capabilities. Table 3 summarises these efforts.

The first theme is about innovation by firms (WP20). Joint research will enable to enlarge the 2 existing datasets on large firms (CIB) and on small high tech firms (VICO) and to complement it with a new dataset on 'fast growing mid sized firms' (provisionally called FGMF).

The second theme focuses on policy evaluations as a unique resource for both researchers and policymakers. We shall thus establish a repository of evaluations (based on previous experiments (WP21).

The third theme is about Europeanization and deals with the enlargement of the two complementary datasets (EUPRO on projects and JOREP on programmes), to take into consideration the wealth of new developments that are taking place directly between member states (often with the support of the EC). (WP22).

The fourth issue for joint research deals with complementing our knowledge on public sector research (which is focused on universities only, see the Leiden and EUMIDA/ETER datasets) with a similar knowledge on public research organisations (WP23).

The fifth theme deals with the conception and deployment of a framework able to integrate the diverse datasets on researcher careers, an issue that is central to the achievement of the ERA (WP24).

The last theme deals with improving the relevance of the two platforms by solving three major problems they face today, that is: disambiguation of actor names; visualisation of results from semantic analyses; incorporating quality assessments in analysis tools (WP25).

Table 4 – Joint research (WP22 to 27)

WP20 – Firm focus: deepening and interconnecting datasets on firms (UoS)

WP21 – Evaluation focus: building the IPER repository of evaluations as a new service (UNIMAN)

WP22 – ERA dynamics focus: Enlargement of databases, JOREP & EUPRO (CNR)

WP23 – Public sector research focus: new dataset on public research organisations in the EU (CSIC)

WP24 – Human Resources focus: integrating framework for datasets analysing researcher careers (IFO)

WP25 – Supporting use of data: cleaning, combining, analysing and quality control (VUA)

1.3. S/T Methodology and associated work plan

1.3.1. The overall strategy of the work plan

The basic philosophy of the RISIS approach is to develop a research infrastructure in close interaction with the research front in the field. RISIS builds upon (i) the research driven data collection work done in the field, (ii) the software developments that have been started in the field to enable the collection, organization, integration and analysis of data (iii) the networking and collaboration that have radically improved since the launch of the PRIME NoE.

At the same time, RISIS works in a context where quite some of the existing databases are proprietary, as they are based on investments of the owners, and a means for these owners to earn money. This holds most clearly for the bibliometric databases commonly used in the community, but also for other databases (especially financial databases). In this environment, the aim of RISIS is to improve access for researchers to all data as much as possible, to develop the modalities for access and to improve the needed tools and platforms for using the data in research.

The methodology consists of having overarching Work Packages that organise the individual work-packages on which rest the responsibilities attached to the deployment of project activities.

Work Packages have been designed as to encompass clearly delimited activities, so that there can be clear outside visibility of what is being produced and of respective responsibilities.

This has driven to clear choices

- (1) Access (set of 10 WP) is focussed on daily maintenance and support to users. It does not contain other activities such as one-off activities linked to opening, training or eventual investments needed for maintaining their relevance over time.
- (2) Networking (set of 8 WP) is focused on (a) insuring the quality and usability of datasets, and in particular preparing for a coordinated opening within 18 months; (b) developing harmonisations necessary to organise a focused integration of RISIS datasets; (c) organising access for external users and enabling their capacity of using these resources (through an important coordinated training programme)
- (3) Joint Research (set of 6 WP) has been organised thematically and focused on a set of issues, which hamper the full effects of building a European level infrastructure. We have identified 6 limitations, which shape the organisation of the work. 5 aim to increase the relevance and interconnection of datasets (on issues of firm innovation, Europeanisation, public sector research, human resources and evaluation) while 1 aims to address 3 key issues faced in the development of semantic treatment and analysis by the 2 platforms (disambiguation, visualisation and quality assessment).

These activities have been organised in 3 key phases: Phase 1 (M1-M18) is focused on the opening of the different datasets to the research community. Phase 2 (M19-M42) has two objectives: conduct access (with ambitious objectives of use for a relatively small community), deepen the relevance of the infrastructure (by integrating new datasets, by a step change in inter-connectivity, and by a progressive evolution towards more on-line use); Phase 3 (M42-M48) continues these developments and prepares for the post project phase.

In the first preparatory phase of the project (M1-M18), a core activity is the preparation of the opening of the existing facilities.

- We have opted for a coordinated preparation for the opening of the different datasets (WP6 with 3 coordinators for technical, content and legal activities) and of the 2 platforms (WP7). During this phase, the conditions and processes for access which will be operationalized (WP2).
- A second element of the preparation phase is the start of networking activities to raise awareness in the wider community through conferences and the specific development within them of specific sessions dealing with RISIS infrastructures and with the research agenda of the field (WP4). This will be complemented by the start of the training programme (WP5).
- Thirdly, we shall conduct a first phase of harmonisation of two critical issues organisation-based and geography-based harmonisations that require specific attention, beyond the general preparation to opening (W8 and WP9)
- Fourthly, the preparatory phase will start organising the involvement of societal stakeholders with the first RISIS annual week (WP3)
- -Fifthly, all the definition phases of the joint-research projects will be conducted in parallel, so as not to delay the possibilities of integrating them in the infrastructure (WP20 to 25).

Milestones for this first phase are linked first to the opening of the datasets of the infrastructure:

- Well documented and ready to access facilities
- A central entry point for users of the infrastructure and clearly established procedures for enabling access

- A first set of community-level awareness operations (conferences, training courses)
- A first set of trained and accredited researchers

A second group of milestones deal with preparing next steps of deepening of the infrastructures with:

- first phases of inter data-set harmonisation driving to a stronger integration and better possibilities of aggregation of the different datasets
- clearly established strategies established and tested for the 5 themes for joint research
- clearly defined ways of addressing the 3 major issues faced by the platforms

Phase 2 (M19-M42), as mentioned, has two objectives: conduct access (with ambitious objectives of use for a relatively small community), deepen the relevance of the infrastructure (by integrating new datasets, by a step change in inter-connectivity, and by a progressive evolution towards more on-line use). Thus we shall witness the following activities:

- All existing facilities will open-up and have defined objectives corresponding to this opening. All access will be transnational, mostly on site.
- We expect some of the facilities to move over the duration of the project to distant access. We expect that technical aspects for use at distant aspect (in particular standardised queries) will be tested during this second phase for operationalization in the last period of the project (from month 36).
- In this phase, we expect institutional and organisational harmonisation to be completed so that it enables inter-connectivity between datasets and issue-based integration of the datasets.
- Thematic-based joint research will be fully conducted and integrated in datasets so that the second batch of users can benefit from them, and the 4 new datasets being opened for researchers (at least in their pilot version).
- Phase 2 consists of an important training effort toward the early career researchers, in order t have an as wide as possible skill base for using the platforms and accessing the existing datasets (WP5).
- The three major developments identified for the two platforms (WP25) will have been put on line and accessible to researchers, while interconnection of the 2 platforms (WP7) will be further reinforced (to enable a fluid circulation of users between both).
- The integration of the consortium will be reinforced beyond the local links associated with the targeted activities undertaken by the systematic exchange provided by the annual RISIS week (WP3)
- The dissemination of academic results will be stimulated through specific sessions around the data and examples of the use of combined datasets in research. This will be done in collaboration with ENID, and exploiting the relations in the community (WP4).
- Discussions with policymakers during the RISIS annual weeks (WP3) and through participation in user-oriented conferences (that are numerous in Europe) will foster dissemination and inter-action. The production of policy briefs (WP4) on the datasets, the indicators they enable to produce (individually and in joint use) will foster the discussion about their interest and the lasting conditions of maintenance (beyond the life of the project). It should also foster the identification of new indicators needed and corresponding datasets. It will enable to better delineate what can be addressed through the platforms and what requires the establishment of dedicated datasets.

The central milestones in phase deal first with the materialisation of opening:

* Effective opening of the different facilities and levels of use will be monitored through annual reports produced under the supervision of the Project facility board. This will enable to follow the combined evolution of accredited researchers, number of training courses and of people trained.

- * Integration of the different facilities is linked with the development of harmonisation activities, which will foster problem-oriented combined use. Key milestones are linked to: (i) effective achievement of harmonisation activities (reports and supporting tools and datasets), (ii) integration of these in the different datasets (as mirrored in annual reports) and (iii) exemplary realisations by RISIS members demonstrating the value of such possibilities.
- * The first round of new indicators enabled by the integration of results generated by Joint research in datasets and their opening to the RISIS community (especially young researchers) at end of phase.
- * The number of specific sessions organised, number of special issues of journals in process (and later published)
- * indicator-oriented policy briefs produced (for defining options and proposing alleys for lasting production of the source datasets considered central).

RISIS will use the last 6 months of the project as a consolidation phase (M43-M48).

While we continue the opening of the facilities and the integration of results from previous phases (in particular the third round of meta-harmonisation), the core of this consolidation phase will be dedicated to the future of the infrastructure. We need to define how to maintain it beyond the EC support. We are quite confident that the individual facilities will be more robust, more integrated with one-another and that levels of opening will be maintained. The issue is different for the shared dimensions (in particular, the joint access, the accreditation procedures and the corresponding training activities, the on-going meta-harmonisation process and the interactions with stakeholders). These will require careful analysis [we are quite confident that if the success is visible, the participating institutions will invest to insure sustainability, as has been done with the networking and training activities of the Prime NoE through the EU-SPRI forum that is funded by member institutions].

The core milestone will be an explicit strategy for the sustainable continuation of the infrastructure.

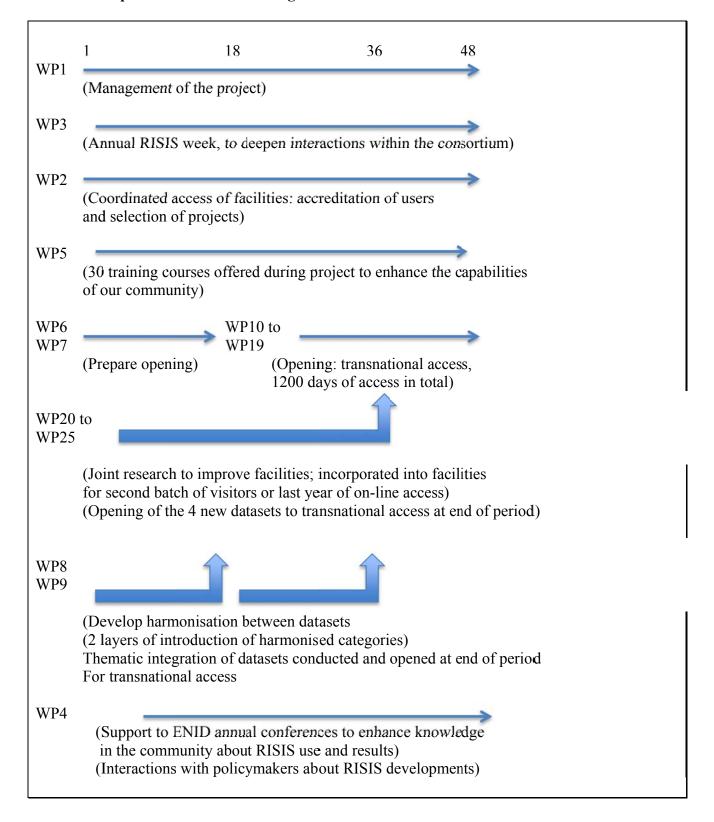
1.3.2. Timing of work packages ad their components

There are thus 25 work packages that are presented before and are detailed in part A: 1 for management, 8 for networking, 10 for access and 6 for joint research.

The detailed tables for transnational access and service provision per installation are annexed to this report.

We have made below a simplified chart that explains how they deploy over time and the key connections between them.

Table 5: simplified chart about timing of activities



1.3.3. Risks and contingency plans

We have identified four main risks: no agreement on the overall strategy, 'local' disagreements about access, operational problems (delays in anticipated developments, delays in integrating meta-harmonisation), problems of data ownership.

- We consider the first risk on the overall strategy as very limited for 3 reasons: (a) the community is fairly integrated and has now a long practice of large joint projects; (b) the project defines clearly the strategy for the next four years (so that one should only expect disagreements after the end of the EC supported project); (c) this strategy will be an integral part of the consortium agreement that will bound organisations that sign it. The CA will also take into account the case of organisation's strategic turn and thus render explicit conditions under which one institution may leave the project. If they own or operate a facility, this will include a licence under which it can be taken over by another organisation within the remit of the infrastructure.
- We have taken special care in the preparation of the project to clearly define 2 levels of access. We have gathered the agreement of all organisations about 'hands-on' access, enabling the project to fulfil its obligations. Though we agree about making of distant access a priority for the long term, we are not yet sure about ways and means of making it effective (not least because privacy rules may make it difficult to access micro-data on line, taking furthermore into consideration that they differ between countries).
- We have organised the project in 3 stages in order to monitor developments at each stage. We consider it as a major 'safeguard' against operational delays. In another complex project, the fact that the money was centralised at coordinator's level and distributed over effective engagement was very powerful in controlling delays and in avoiding 'dormant' participants. We intend to keep this arm based on a strong interaction between the coordinating team and those in charge at Commission level. This explains the structure adopted, based upon 'periodic reports' and collective appraisal during RISIS weeks. A final point around operational problems: local delays in meta harmonisation or in development will not endanger the infrastructure as a whole. It will drive to a multiple speed path of integration.
- We might face legal issues associated to the 'raw' information included in the datasets. We have established a two-step process to address this specific issue. One objective of accreditation (before a project is selected) is to insure that all legal aspects can be respected by the researcher and the institution he belongs to (this is important dealing for instance with micro data on publications or patents). We are also including in the governance a specific ethics process in charge of addressing all types of misuse identified. The accreditation is also a way to safeguard the existence of the two platforms: it will insure that the platforms cannot be held responsible of any breach of legal aspects by the researchers that have built their own datasets.

2. IMPLEMENTATION

2.1. Management structure and procedures

The management structures have been designed to balance strategic and operational efficiency. The organizational structure is made of a Governing Board gathering the 13 members of the consortium (for all strategic decisions) supported by the management support team. The scientific deployment of the project will be coordinated by a specific body: the Facility Coordination Board.

The selection of projects will be operated by a Project Review Board that will also advise the Governing Board about strategic issues.

2.1.1. Governing Board

The Governing Board will be made up of representatives of all the participating institutions with 'full membership' status. There will be one representative per institution. The Governing Board will decide upon the strategic orientation of the Infrastructure. Decisions will be based upon reports of activities and proposals prepared by the Facility Coordination Board (see below). In addition, the Board will decide on the adoption of new full members or the exclusion of existing ones, and on amendments to the Consortium Agreement (see item below). It will nominate the elected members of the Facility Coordination Board. Decisions by the Governing Board will normally be taken upon a majority of two thirds of the votes of those present (but the details of decision making will be included in the Consortium Agreement.) The Governing Board will meet annually at the RISIS annual week, and electronic procedures will be devised for specific issues requiring decisions between the periodical meetings.

2.1.2. Facility Coordination Board

The Facility Coordination Board is first and foremost in charge of three scientific tasks that are central to the infrastructure: insuring the quality of the datasets and platforms, organising access (with the 2 step process adopted: accreditation of users, peer-reviewed selection of projects), organising and monitoring the development of joint activities and the integration of their results in the datasets open to researchers. Doing so, it will insure due deployment and reporting of activities decided by the Governing Board. He will also prepare proposals to the Governing Board for new orientations when needed.

It is composed of 4 members, the project & the scientific coordinators of the project (P. Laredo & P. van den Besselaar) and two elected members by the Governing Board.

We expect that most meetings will take place on-line (while face to face meetings will take advantage of the numerous activities where the 4 members will be present). UPEMLV will support the logistics of the FCB and VUA will support the accreditation process.

In order to fulfil its tasks the FCB will be supported by the coordinators of the different activities, datasets and platforms who together build the operational structure of RISIS. We do not expect to organise specific meetings, but three mechanisms will insure an effective coordination

- a) We shall take advantage of the numerous meetings developed in the networking activities to ensure regular exchanges between coordinators and with members of the FCB. This should avoid any major discrepancy in term of deployment of the project.
- b) Each activity, dataset and platform will prepare an annual report about its activities, especially about progress towards objectives and effective use. The first report will be at month 18, then reports will be annual.
- c) The extensive collective annual reviewing process that will take place at RISIS annual week will enable to identify and discuss any difficulty either with an activity as such or with partners within an activity.
- d) The presence of the Project review Board at annual meetings will foster the ability of the Governing Board to take rapid decisions should reorientations be needed, so that to empower the FCB to conduct them.

2.1.3. Project Review Board

The PRB will play a classical role. It will operate the final selection of projects for transnational access. We expect that they conduct this work at a distance under the chairmanship of the President

of the Board. Doing this, the members will be very knowledgeable about the effective activities of RISIS as a whole and in a good position to advise the Governing Board for eventual need for adaptation or reorientation. To facilitate this, we expect that the PRB will also meet during the annual RISIS week.

We wish to have an operational board, so we expect a small group of individuals: we target 6 recognised individuals not directly involved in the project, half of them fully external from the teams participating in the project. They will be nominated by the Governing Board.

2.1.4. Ethics and Standards Issues

With growing collaboration, sharing and use of databases, issues to do with intellectual property, and other norms (for example, about authorship, about references to and involvement of specific database producers) are important. However previous experience has shown that these were most of the times answered quite easily by introducing a third party. We have considered that the FCB will play this role. There might be a few cases (one in a previous 6 year experience with 50 research groups and over 400 researchers) where things turn complicate and require some distance: the best way is then for the FCB with the agreement of both parties to find a respected researcher to discuss with parties and propose a solution. The budget allocated to the FCB should cover such situations.

2.1.5. The Management Support Team

The Management Support Team will handle financial, legal and administrative aspects. It will be operated by UPEMLV.

- Financial management concerns the allocation of funds, the verification of expenditure (both planned and incurred) by different partners, and responsibility for ensuring the quality of the auditing process (within actions). This involves producing an annual financial report to the Commission and handling financial discussions with the Commission.
- The legal aspects of the functioning of the Infrastructure concern the finalisation of the consortium agreement, the establishment and development of the general rules of the infrastructure as well as all specific aspects linked to intellectual property or any other legal matter arising from the activity of the infrastructure.
- Administrative aspects concern the practical organisation of the general activities of the infrastructure, in particular insuring preparation and adequate circulation of all official documents that engage members in given activities and activity-steps.

2.1.6. Aspects related to Participation to the RISIS infrastructure

The relations between the 13 members of the consortium will be organised by the consortium agreement that will accompany the signature of the contract with the EC and will organise normal life as well as coping with eventual problems. The 13 members are the *full members* of the consortium.

One of our objectives being to gather broadly at the EU level, the *associate membership status* is for us of critical importance (even if it is not part of the grant agreement). It is there to help the infrastructure be dynamic and open. This status does not provide any right as to the directions of the infrastructure (no voting rights), but it enables actors that sign the consortium agreement to participate to on-going actions. When engagement is tested, amendments might be asked for to the Commission so that they become full members of the project.

By doing this, we follow 5 objectives: (i) support the progressive involvement of members from new member states (an issue we are well aware of, but is structural), (ii) enlarge the infrastructure to organisations and institutes that are interested but for legal or other reasons cannot join directly. This is in particular the case of OECD, (iii) provide a means to involve companies (in particular,

specialised consulting groups) in an *ad-hoc* way, (iv) involve on ad-hoc activities groups that have a clear expertise and interest to be involved, and (v) provide room for a clear involvement of international partners, especially from the US and Asia.

2.2. Beneficiaries

2.2.1. Université Paris Est Marne La Vallée

Université Paris Est is the host of a number of research institutes jointly constituted by the different higher education institutions of the Cité Descartes, east of Paris, with involvement of French research institutions. IFRIS which is the institute coordinating the project, is a consortium gathering researchers from UPE-MLV itself, ENPC, ESIEE, CNRS and INRA, the 4 latter being third parties to this project. The Institute for Research and Innovation in Society was created after the 2006 call for excellence networks (RTRA) and has been awarded in 2011 the label of "laboratory of excellence" (within the national competition of "investissements d'avenir"). IFRIS is built around 4 major thematic priorities and 2 transversal activities: the constitution of a pole for ST&I indicators, and of a software platform, CORTEXT, with the objective of supporting IFRIS researchers, and more widely researchers in the field, to develop their ability to consider the positioning, characterisation and dynamics of the problems they address. This is mostly based upon the developments made on semantic analysis and the treatment of large textual corpuses. The two central datasets – on the inventing capacities of large firms and of nano S&T dynamics – have initiated these processes while enabling the development of new indicators.

The main participants in the project will be:

Philippe Larédo is Directeur de Recherche at Ecole des Ponts. He is a co-director IFRIS and an invited professor at the University of Manchester (MBS, Manchester Institute of Innovation Research). He is a specialist of public policies for research and innovation. He has conducted more than 10 evaluations and been member on more than 20 evaluation panels and EC high-level groups. From 2003 to 2009 he was the coordinator of the PRIME network of excellence (www.prime-noe.org) and is one of the board members of the EU-SPRI Forum (www.euspri-forum.org) that continues, through direct support from member universities, the main activities. He has been the first president of the ENID association. His present interests are on the emergence of new technologies, with the work on nano S&T (see publications in references) and with a new international ORA project.

Antoine Schoen: Born in 1961, Antoine Schoen is Engineer in Technology management (Université de Technologie de Compiègne) and holds a PhD in economics (Université Paris-Sud). He has long lasting interests in indicators with work at the French observatory for Science and technics (OST, 2003-2005) and at IPTS (2005-2008). During this period he developed a new corpus on genomics inventions, he managed the PRIME project on the characterisation of universities (OEU) and conducted a transversal analysis of the involvement of universities in the EU Framework Programmes. Since 2008 he is a professor researcher at Université Paris Est (ESIEE Paris business school). This is where he has developed the Corporate Invention Board. He presently heads the IFRIS indicators pole.

Marc Barbier is Directeur de recherché at INRA, head of the INRA unit at Cité Descartes (INRA-SenS) and director since 2009 of the CorTexT Platform for Textual Analysis and Corpus of IFRIS. He specialises in the longitudinal analysis of socio-economic and socio-political transformations of the agricultural word. This has driven him progressively focus on quantitative approaches and on the semantic analysis of large textual corpuses.

Patricia Laurens: Born 1962, Dr. Patricia Laurens is a researcher from CNRS working at LATTS (Laboratory on technology, territories and societies), one of the member labs of IFRIS. Until 2004 she worked at CNRS Laboratory of Applications of High Power Laser as Researcher and project manager on Laser-Matter Interaction and Laser Surface Treatment. From 2004 to 2010, she worked at OST as project manager in bibliometrics, R&D indicators, and the exploitation of R&D databases. She is an experienced project manager on investigations related to R&D performance, indicators, bibliometrics, and field delineation.

Lionel Villard holds a Master in Geography. Assistant Professor at Esiee Paris, Lionel Villard has been involved as computer engineer in many projects dealing with knowledge dynamics, database management and program development. He has studied the development of several high-tech sectors (nanotechnologies, biotechnologies). He is specializes in the treatment of great corpora of data (publications, patents, press and financial data) and in the collection of information collected in heterogeneous (structured and unstructured) sources.

Jean-Philippe Cointet (31 yeas) holds a PhD from the Ecole Polytechnique (2009) with a background in general engineering ("ingénieur de l'Ecole Polytechnique", Paris, 2005). He is presently a researcher at INRA-SenS and is deeply involved in the CorText platform team. He has done extensive work on knowledge networks defined as socio-semantic systems where individuals which are connected through a social network produce and share information. He has a strong experience in deciphering the multi-level dynamics from various digital repositories sources: scientific databases (academic publications, patents), online media (blogs, forums, social network sites), press, etc. His research interests include the following inter-related topics: morphogenesis of socio-semantic networks, knowledge dynamics representation, diffusion processes in social networks.

2.2.2. Stichting VU-VUMC (VUA)

The *Vrije Universiteit Amsterdam* is one of the large research universities in the Netherlands, with about 24000 students. The *Network Institute* (NI-VUA) is one of the interdisciplinary research institutes of the VUA, in which computer scientist, economists, and social scientist collaborate in their research. Within NI-VUA, the Dynamics and Organization of Science Chair (Dept of Organization Science, Faculty of Social Sciences) and the Semantic Web research group (Faculty of Science) collaborate in developing new software platforms and tools for social science data integration and analysis.

The Semantic Web research group is one of the world-wide leading groups in the field. It initiated and coordinated the EU's first Semantic Web project (On-To-Knowledge) in 1999, and has participated since in key EU-funded projects such as Knowledge Web (scientific coordination), SEKT, SWAP, OpenKnowledge and Open PHACTS. Members of the group have contributed significantly to the W3C Semantic Web effort: key OWL design contributions, co-chairing the OWL working group, co-chairing the Semantic Web Deployment Group, co-chairing the Provenance Working Group and key contributions to the recent SKOS recommendation. The group co-lead the EU-funded IP LarkC (the Large Knowledge Collider), a platform for massive distributed incomplete reasoning aimed at removing the scalability barriers of currently existing reasoning systems for the Semantic Web.

The Organization Sciences department has a broad program at BSc, MSc and PhD level. Relevant research foci are social network analysis, and science and science policy studies, focusing on the effects of funding, organization, evaluation of research on performance of research institutions, and on the dynamics, dissemination and use of knowledge. The current chair has participated in a

variety of EC-funded projects among others SOEIS (on the development of the knowledge society), EICSTES (on web data for studying and mapping the science system), MetaDater (on social science Metadata), and on a variety of projects on the development of e-government and research infrastructures (FASME, TrueVote, VIBRANT).

VUA provides 1) strong expertise in the field of science and science policy studies, 2) strong bibliometric and network analysis expertise, 3) strong expertise on modeling, high-performance and distributed inference for Semantic Web data, and (4) key expertise on provenance for on-line datasets, and the computational models necessary for storing and manipulating this provenance.

Key personnel

Peter van den Besselaar (1953) is full professor in Organization Sciences. After studying Mathematics and Philosophy in Utrecht and Amsterdam, he was assistant and later associate professor of social and organizational computing (1986-2001), and professor of communication science (2004-2009) at the University of Amsterdam. He was director of the Netherlands Social Science Data Archive (2002-2005). In 2005 he founded the Science System Assessment group at the Rathenau Institute, conducting policy oriented research for supporting evidence based science policy. Since 2009 he has the 'Rathenau Institute - Royal Academy special chair of the Dynamics and Organization of Science' at VUA. He published some 150 papers on bibliometrics, science and science policy studies, and on the design and societal implications of information and communication technology. He is engaged in a variety of research evaluation, advisory and consulting activities.

Frank van Harmelen (1960) is a full professor in Knowledge Representation and Reasoning at VUA. After studying Mathematics and Computer Science in Amsterdam with a Ph.D. in AI from the University of Edinburgh (1989), he was co□project manager of the On□To□Knowledge project, and was one of the designers of OWL, the W3C standard Web Ontology Language. He is scientific advisor of Aduna, one of the earliest Semantic Web companies and developers of the Sesame platform. He has published close to 200 papers, many of them in leading journals and conferences, and many of them highly cited (Hirsch index of 45). He was the scientific director of the LarKC project that built a platform for very large scale Semantic Web reasoning.

Paul Groth is an assistant professor in the Knowledge Representation and Reasoning Group at the VU University of Amsterdam. He holds a Ph.D. in Computer Science from the University of Southampton (2007) and has done research at the University of Southern California. His research focuses on mechanisms for enabling multi-institutional systems. This includes research in data provenance, scientific workflow and knowledge sharing with over 50 publications in these areas (Hindex 18). Paul is co-chair of the W3C Provenance Working Group developing a standard for provenance interchange. Currently, he kev contributor is a Open (http://www.openphacts.org) - a project to develop a provenance-enabled platform for pharmacological information.

2.2.3. University of Manchester (UNIMAN)

The Manchester institute of Innovation research is a research institute of the University of Manchester. It has over 50 staff and approximately 40 PhD students and builds upon over forty years of research on innovation management and policy. It undertakes management and policy research, fundamental research, and consultancy on innovation dynamics in knowledge-based economies. The Institute conducts academically-driven research through a wide range of UK Research Council projects, FP7 projects and other responsive mode projects. This academic

research has been combined with contract research for and engagement with a whole range of regional bodies, national ministries and foundations, foreign ministries in European and extra-European countries and international policy bodies, such as the European Commission, OECD and UNIDO and UNCTAD. One of its 6 priorities is around research and innovation policies, where MIoIR has conducted extensive academic policy analysis as well as concrete evaluations of policy schemes, been part of numerous evaluation panels and EC high level groups (even chaired major ones, as the recent one on rationales for the ERA chaired by L. Georghiou). The complex, multi-annual and European wide Inno-Appraisal project, is such an example and led to the development of the IPER database (see separate description) which forms the basis for this project.

Staff involved in the project

Jakob Edler is Executive Director of the Manchester Institute of Innovation Research. He has worked on evaluation for the last 10 years, both in executing evaluations for clients and in studies about evaluation practice. He has developed new evaluation concepts and approaches, most recently on evaluation of demand side innovation policy (to be published in Research Evaluation 2012). Previous research has included the evaluation of research programmes and on approaches for metaevaluation. He also has been involved in a range of studies regarding governance of research organisations in heterogeneous contexts. As for assessment of individual organisations, he was, for example, a member of an expert group to decide on the closure or re-shaping of numerous Boltzmann Institutes in Austria.

Paul Cunningham is a Senior Research Fellow and Director at MIOIR. He joined in the Manchester group in 1985. Since then, his research interests have expanded to cover a wide range of science policy-related fields. During this time he has had a longstanding interest and involvement in studies of: international science and technology policy development, transnational collaboration in STI and its associated policies, quantitative measures of R&D performance and the development of science and technology indicators, and the development and application of evaluation methodologies, and R&D evaluation. He has undertaken numerous studies for a wide range of bodies including UK Government Departments (DTI, Department of the Environment, National Audit Office, Health and Safety Executive), UK Research Councils (ESRC, PPARC, SERC), the British Council, together with international bodies such as the European Commission, the OECD, national governments (Canada, Greece, Ireland, Japan, Malta, Poland, Sweden) and other local, regional, national and international agencies.

John Rigby is senior research fellow at the Manchester Institute of Innovation Research (PREST/CRIC) at Manchester Business School. The main focus of his research is on how institutional arrangements affect research programme aims, resourcing and impacts. This work, which includes the use of bibliometric indicators, is of interest to a range of bodies, including research councils, governments, and other public and private sector organizations. John is an invited speaker on methods of evaluation of socio-economic impacts and has written on the European Research Area and the future of peer review.

Dc Abdullah Gok is a Research Fellow at the Manchester Institute of Innovation Research. He has worked on various research projects including the EU-funded INNO-Appraisal, INNO-Policy TrendChart and ERAWATCH projects. His research interests lies in the evaluation of policies, programmes and projects, the behavioural implications of public intervention, evolutionary accounts of technology and innovation and organisational routines. Prior to joining the Manchester group in 2006, Abdullah worked at the Science and Technology Policy Directorate of The Scientific and Technological Research Council of Turkey (TUBITAK).

2.2.4. Consiglio Nazionale delle riserche (CNR)

CNR is the Italian Research council made of 108 institutes. The participating institute is CNR-CERIS, Institute for Economic Research on Firms and Growth (www.ceris.cnr.it). One of CERIS units, located in Rome, is specialized on Science, Technology & Innovation Studies. The Unit is composed by a group of eight tenured researchers, several doctoral students and research grant holders. The Unit works using an interdisciplinary approach, on the following topics: Analysis of public research and innovation policies (design, implementation, evaluation); Steering and governance of organizations producing and diffusing knowledge; Models and methodologies for the evaluation of research organizations and R&DI programmes; New models for the production, circulation and diffusion of scientific knowledge; and Science, technology and innovation indicators. On the latter CERIS has developed long-standing relations with EUROSTAT and OECD, CERIS is also member of the European Network of Indicator Designers (ENID) and of the European Forum for Studies of Policies for Research and Innovation (EU-SPRI). CERIS extended experience on indicators is also linked to the activity of delivering data and indicators to the Ministry for University and Research for the Annual R&D Report. CERIS has built and host several Italian Databases, such as the BDTT-National Dataset on Technology Transfer. And CERIS coordinate the EU FP Project, which drove to the construction of the JOREP Dataset, included in RISIS.

The main participants to the RISIS project are:

Emanuela Reale, political scientist, is a Senior Researcher at CNR dealing with Institutions and research policies. She has participated and coordinated numerous FP EC projects. She is Member of the Working Group "Statistics on Science, Technology and Innovation" EU, Luxembourg, Member of the Operative Structure of the Foundation for the Technological Innovation (COTEC - Italia) with a specific commitment on Policies and Institutions for Innovation. She is Vice President of the Italian Evaluation Association, member of CHER Association on Higher Education Studies, member of the executive board of the European Network of Indicators Producers (ENID; www.enid-europe.org) and member of the executive board of the European STI Indicators Conference Series, Vice President of the EU-SFRI Forum.

Giovanni Cerulli serves as researcher at the Ceris-CNR. He received his Ph.D. in "Economics" at the Department of Economic Sciences of La Sapienza in 2003. His research interests are mainly dealing with "applied industrial organization", with a specific focus on the "economics and econometrics of R&D and innovation (RDI) program evaluation". He has participated in numerous research projects, published several papers in high-quality scientific journals, and is the Associate Editor of "World Review of Science, Technology and Sustainable Development" (WRSTSD).

Mario Coccia is an economist at CNR and visiting scholar in the School of Public Policy at Georgia Institute of Technology (Atlanta). He is also visiting professor of industrial organization at University of Piemonte Orientale "Amedeo Avogadro" (Novara, Italy). He was research fellow at the Max Planck of Economics (Germany) from 2005 to 2008. He has been awarded the joint 2011 - 2012 CNR (National Research Counci of Italy) *I* NEH (National Endowment for the Humanities) Fellowship. His interests are on the management and organizational behaviour of public research bodies, the performance of R&D organizations, technology transfer from public labs to industries, and technometrics and scientometrics analysis using database such as Scopus, ISI Thompson, etc.

Bianca Maria Poti is a senior researcher at CNR. She specialises in economics of research and innovation, research institutions and policy. She has worked in many different European and OECD projects since 1990, as participant or as scientific responsible. Some recent projects connected to the

RISIS project are the following. She is National scientific responsible of the European project "Create Acceptance". She is partner in the ESF project "Academic Patenting in Europe(A.P.E)" being co-responsible with Francesco Lissoni of the Italian database of academic patenting.

2.2.5. Norsk Institutt for Studier av Innovasjon, Forskning og Utdanning (NIFU)

NIFU The Nordic institute for Studies in Innovation, Research and Education is an independent social science research institute located in Oslo, Norway. It is a non-profit foundation that aims is to be a premier European research organization for the study of innovation, research and education. NIFU's research is funded through research contracts for a number of Norwegian, Nordic and international agencies and organizations. It receives a basic grant from the Norwegian Research Council and its clients include the Research Council of Norway, Innovation Norway, Norwegian ministries including Trade and Industry, Education and Research, Local Government and Regional Development, The European Union, The Nordic Council of Ministers, NordForsk, The OECD, and The Nordic Innovation Centre.

A longstanding cornerstone of NIFU's work involves the collection, the analysis, and the dissemination of national statistics and indicators for the Norwegian R&D and innovation system. It has collected and developed official Norwegian R&D statistics for more than 40 years. In this capacity, NIFU manages and maintains a number of key databases and administrative datasets that provide statistics and indicators of both input and output of domestic research and innovation. The compilation and analysis of bibliometric and IPR data are also important in this work. NIFU is also an active participant in statistical cooperation at the European and international levels. NIFU is responsible for aggregating total figures for Norway, including deliverances to Eurostat and OECD.

Key contributors from NIFU

Susanne Lehman Sundnes has since 2007 been head of research for the research area *Statistics and Indicators* at NIFU. The area is responsible for the collection, processing, interpretation and dissemination of national statistics and indicators for the overall Norwegian R&D and innovation system. Sundnes is also responsible for the development of new indicators in Science and Technology, including innovation. She is the official Norwegian delegate to OECD's NESTI group (National experts on Science and Technology Indicators) and also part of the European R&D and innovation statistical network in Eurostat. She will oversee the organization of facilities to be housed at NIFU and coordination within the project.

Eric Iversen has more than 15 years of experience working on innovation policy issues. His work focuses on qualitative and quantitative aspects related to industry dynamics, especially those related to the role of IPR regimes and of formal standards bodies in innovation. He has contributed as project manager or coordinator in several recent projects involving the interpretation of survey data or register data, including work for IPTS on patenting and research cooperation patterns in environmentally neutral technologies (2010) and on international mobility and researchers' career development (2011-2012). His indicator work has included: OECD Innovation Microdata Project (2008-2009), national contributor; Co-editor of the English version of the national report on Science and Technology indicators (2005, 2009); Editorial committee member of Norwegian version (2001-2005). He contributes national IPR statistics (since 1997), and has been involved in OECD Patent name harmonization working group (2008) and OECD Focus Group on Innovation and Intellectual Property Rights. He will be lead NIFU's involvement in the project, including the operation of the facilities here and coordination.

Gunnar Sivertsen has since 2000 been senior researcher and head of the bibliometric research group at NIFU. He has worked extensively with bibliometric databases, indices and analysis. In 2009 he chaired a national effort to integrate publication output of at all public research institutions in Norway into a single database. He has since chaired a working group appointed by the European Science Foundation to look for solutions for comprehensive bibliometric data coverage in the social sciences and humanities. He has developed bibliometric databases that cover different aspects of Norwegian, including the Higher Education sector. He has furthermore driven cross-country efforts to compare nationally oriented datasets and to analyze different national databases in an orchestrated manner, including at the Nordic level. In addition he has published widely in the area. He will be involved in comparisons between national datasets in the scope of the project.

2.2.6. – Austrian Institute of Technology (AIT)

With about 50 employees, the Department of Foresight & Policy Development at AIT Austrian Institute of Technology is Austria's largest and leading research institute in the area of research, technology and innovation policy. It has been active in the field since the late 1980es and contributing to a broad range of research and policy initiatives in the field since then. Among others, it has conceived and contributed to the Austrian Research and Technology Report since its inception in the mid-1990ies. The Department is using regularly a broad range of national and international statistical data sources and STI indicators, with in-house access to key patent and publication data bases, data on R&D collaborations, finance, various types of survey data, etc.

With the EUPRO database AIT disposes of the most comprehensive and best standardized database of EU framework programmes, covering FP 1 to FP 7 and allowing a vast range of econometric, spatial econometric and social network analysis of R&D collaboration patterns in Europe. The Department has strong in-house expertise in quantitative methods such as econometrics, social network analysis, survey techniques, text mining, simulation and modeling, but also in qualitative methods of enquiry like interviews, workshops and focus groups. Advanced tools have been developed for bibliometric (BibTechMon®) and network analysis (Netzcope), based on specific algorithms for efficient data handling, standardization and analysis.

AIT has long-standing experience in both RTI policy research and policy advice to regional national governments, European institutions and international organisations. It is member of national and international networks for policy advice (platform evaluation, European Techno-Economic Policy Support network ETEPS, ERAWATCH network) and scientific research (e.g. EU-SPRI European Science Policy Research Initiative).

The main experts participating in RISIS are all employed by AIT and are:

Matthias Weber has been Head of Research, Technology and Innovation (RTI) Policy Unit since 2000. He has been working for almost 20 years on the monitoring and analysis of innovation systems, RTI-policy, and long-term strategies for transforming research and innovation systems. His expertise covers a broad range of thematic areas (e.g. ICT, transport, energy, security, environment) as well as structural matters of RTI-policy (e.g. R&D collaboration networks, human resources, priority setting). Current research interests of his include the foresight and ex-ante impact assessment in support of policy-making, the emergence and governance of the European Research Area, the integration of innovation in sectoral and cross-cutting policies, and the analysis of R&D collaboration networks. He has been involved in numerous EC projects. He is the President of the European Techno-Economic Policy Support Network ETEPS, lecturer and member of the steering board of the IEV Innovation Economics Vienna joint Master- and PhD-programme of AIT and Vienna University of Economics.

Michael Barber has a Ph.D. in physics from Washington University (Dissertation: Studies in Neural Networks: Neural Belief Networks and Synapse Elimination). In 2006, he began his present position as Scientist at AIT. His current research interests include statistical physics and phase transitions; computation, communication, and learning in complex systems; and the structure and function of networked systems. He is highly skilled in the application of analytical and computation methods to the investigation of complex systems and networks.

Bernhard Dachs is Senior Scientist at AIT. He holds a doctorate in economics (University of Bremen). He joined AIT in 2000. Bernhard Dachs' areas of expertise are the economics of innovation and technological change, in particular with regard to the internationalisation of R&D, innovation in services, and the analysis of national and international technology policy. To date, his work has been mostly empirical and applied. He has been involved in a number of consultancy and research projects for Austrian as well as international clients. Recently, he investigated the internationalisation of business R&D in a number of projects for the European Commission.

Barbara Heller-Schuh joined AIT in 2002. She is involved in research and consulting projects dealing with the investigation of intra- and inter-organisational collaboration networks. She focuses on the exploration of collaborative R&D projects in order to analyse network structure and collaboration patterns on different policy levels and to derive the potential influence of policy interventions on the structure of R&D networks. She is responsible for the maintenance of the EUPRO database, a comprehensive database containing information about all accessible projects and their participants of the EU-Framework Programmes (at the moment more than 60.000 projects and participants).

Andrea Kasztler graduated at the University of Technology Vienna in the field of technical physics (PhD in superconductivity) and worked at a large IT-consulting enterprise before joining AIT. Now her main research interests are innovative behavior of organizations, the valuation of intangible assets and of collaboration structures especially. She supports these issues using network analysis methods, such as e.g. social network analysis.

Joachim Klerx is an economist and philosopher by training. Over the last 12 years he has specialized in the development and implementation of large scale information systems for decision support in policy-making. Over the past three years he contributed to a project dealing with the development of new sectoral efficiency indicators for R&D funding. He is the main developer of ISA an intelligent screening agent for automatic data acquisition from internet sources. ISA was invented in SESTI an EU project for weak signal scan for emerging policy issues.

Thomas Scherngell joined AIT in 2007 after his PhD. He is a geographer, with a main focus on economic geography, spatial modeling and GIScience. Over the past five years, his focus of research has been on the geographical dimension of innovation and technological change. His contributions on cross-region knowledge spillovers as captured by patent citations have been published in major international regional science journals. Further he has been working extensively on spatial analysis methods with a special emphasis on spatial autocorrelation analysis and on econometric methods, with a special focus on spatial econometrics, spatial interaction models and spatial panel data models.

2.2.7. Universiteit Leiden (UL)

The Centre for Science and Technology Studies (CWTS) investigates the development of science and technology (S&T) using large-scale databases of scientific and technical publications. We are a leading provider of S&T indicators and of performance and benchmark studies of scientific groups

and institutes, including bibliometric mapping of science. Our Leiden Ranking is recognized as one of the most reliable citation based rankings of large universities. CWTS has developed longstanding relationships with the most prestigious universities in the world and is a recognized leader in the field of bibliometrics, scientometrics and informetrics. Currently, we are exploring new venues in the fields of webometrics and S&T studies.

The core of our bibliometric data system consists of Thomson Reuters' Web of Science database. We are continuously expanding our data system with other major scientific databases such as Elsevier's Scopus and additional data based on our R&D and contract work for many governmental agencies, the European Commission, universities, and industry.

The strategy of CWTS is to conduct R&D in the field of quantitative studies of science and technology and to develop products and services as well as teaching activities based on our R&D that address essential needs in science and technology policy and research management. Our fully integrated infrastructure is designed to meet our goals. Therefore, our competitive edge lies in the strength of our bibliometric data system enabling us to create and apply high-value bibliometric indicators and maps. With this core capability we are well positioned to be one of the major players worldwide in the science and technology indicators and mapping arena.

Paul Wouters is the director of CWTS. He is a specialist on the application of information and communication technologies in scientific and scholarly research and on the history of information systems in science. He has edited a forthcoming volume "Virtual Knowledge" with MIT Press (2012). He is member of the editorial boards of the Journal of the American Society for Science and Technology Studies, Social Studies of Science, Cybermetrics, and the series Scholarly Communication with Brill Publishers. He is member of a number of advisory boards, among others: Netherlands Reading Experience Database, OAPEN, and HASTAC—the Humanities, Arts, Science, and Technology Advanced Collaboratory. He publishes a website about the future of www.researchdreams.nl research: and blog about citation cultures a http://citationculture.wordpress.com/.

Robert Tijssen is Full Professor in Science and Innovation Studies at the Center for Science and Technology Studies (CWTS). He is member of the editorial (advisory) board of the international peer-reviewed journals *Research Evaluation* and *Scientometrics*, founding coordinator of the Netherlands Observatory of Science and Technology (NOWT), and on the board of the European Network of Indicators Designers (ENID). Over the last 25 years Robert has acted as (senior) researcher, data analyst and management consultant for various public sector organisations, working on projects and studies related to the assessment, monitoring and evaluation of research performance. His scientific publication output includes research articles across a range of journals: *Research Policy, Evaluation Review, Research Evaluation, Technology Analysis and Strategic Management, Scientometrics*, Journal of Information Science, Journal of the American Society for Information Science and Technology.

Cornelis van Bochove is Full Professor of science policy at the Centre for Science and Technology Studies (CWTS) of Leiden University, where his mission is to apply mathematical modeling and empirical analysis to science policy issues. From 1999-2008 he was Director of Research and Science Policy at the Ministry of Education, Culture and Science of The Netherlands. From 1983-1999 he worked at Statistics Netherlands, the National Statistical Office of the Netherland, where is held positions as Chief of the National Accounts research unit, Head of the department for statistics on Labor and Wages, Head of the department for Education statistics; and Director of Socio-Economic Statistics.

Ed Noyons, PhD is a senior researcher at CWTS, where, as assistant director of CWTS, he coordinates specific data intensive studies. As a coordinator and senior researcher, Ed has

contributed to over 200 of bibliometric studies, which range from application on national level to research group level. In parallel, he has been involved in and coordinated many projects internally to improve CWTS procedures and processes. He is the (co-) author of more than 40 journal publications, and thus contributes on a regular basis to the international literature in the field of quantitative science studies. Furthermore, he has been involved many times in the two main International conferences (ISSI and S&T Indicators) as program chair.

Thed van Leeuwen is a senior researcher at CWTS. Thed holds a Phd in the Quantitative Studies of Science & technology. As a coordinator and senior researcher, Thed has contributed to over 450 of these bibliometric studies. As such, the data contained both descriptive bibliometric data as well as more evaluative bibliometric data. Thed's work has contributed periodically to research assessments in the Netherlands under the Standard Evaluation Protocol (SEP) supported by the Dutch Association of Universities (VSNU), NWO and KNAW. Thed has published over 50 journal publications.

2.2.8. Politecnico di Milano

The Politecnico di Milano (PoliMi) was established in 1863 and it is currently ranked as one of the most outstanding European universities in engineering, architecture, and industrial design. PoliMi is organized in 17 departments and a network of 9 Schools of Engineering, Architecture, and Industrial Design. The proponent of RISIS infrastructure project is the Department of Management, Economics and Industrial Engineering. Its staff includes around 80 tenured professors and researchers. The research activities of DIG are in three major areas: Applied Economics; Management; and Production and Logistics Systems.

The research team of DIG within this project will be coordinated by Massimo G. Colombo, Full Professor of Economics of Technical Change, and will include one Associate Professor and six Assistant Professors. The team has developed considerable scientific expertise over the past decade in the field of economics of innovation, entrepreneurship and entrepreneurial finance, and notably in the construction of large data infrastructure aimed at supporting policy-relevant research activity in these areas: the RITA and VICO databases. The RITA database has been created in 1999 and since then it has launched several research projects on Italian young high-tech firms. The dataset has been updated and extended in 2002, 2004, 2007 and 2009. Around 2,000 firms are currently included in the RITA dataset. The project "Financing Entrepreneurial Ventures in Europe: Impact on innovation, employment growth, and competitiveness" (VICO) has been financed by the FP7 between 2008 and 2011. The aim of the project was to understand the impact of VC financing on the economic performance of European innovative entrepreneurial ventures as reflected by their innovation, growth and competitiveness.

The main participants to the RISIS project are:

Massimo G. Colombo, Full Professor Professor Colombo teaches Economics of Technical Change at DIG, where he is the dean of the Doctoral Program in Management, Economics and Industrial Engineering. The scientific activity of Massimo G. Colombo is mainly in economics of innovation and entrepreneurship. He has participated in numerous research projects, promoted by the EC, the Italian CNR, the Italian Ministry of Research (MIUR), and various private and public institutions. He was the chairman of the Steering committee of the FP6 PICO research project on "Academic entrepreneurship from knowledge creation to knowledge diffusion" and the scientific coordinator of the FP7 VICO research project. He is author (or co-author) of nine books and more than 60 international publications.

Luca Grilli, Associate Professor Prof. Grilli is Associate Professor at DIG since 2010, where he teaches Economics of Network Industries at graduate and post-graduate level. Grilli has participated

in numerous applied research projects. His main research interests are: entrepreneurship in high-tech sectors, and network industries (telecommunications and energy). He has published in numerous journals and is co-editor of the book titled "Policies for science and innovation: design and evaluation" published by Edward Elgar.

Fabio Bertoni, Assistant Professor Dr. Bertoni is Assistant Professor at DIG since 2005, where he teaches Accounting, Business Administration and Finance at graduate and post-graduate level. He is Chartered Financial Analyst (CFA), since 2004. He was Academic Visitor at the Said Business School, Oxford University in 2003. His main research interests are: the financing of entrepreneurship in high-tech sectors, venture capital and private equity financing, and the analysis of sovereign wealth funds. He has published his work in Research Policy, European Financial Management, Small Business Economics, Management International Review among others.

Annalisa Croce, Assistant Professor Dr. Croce is Assistant Professor at DIG since 2011, where she teaches Accounting, Business Administration and Finance at graduate and post-graduate level. Croce has participated in numerous applied research projects, promoted by private institutions (e.g. Unicredit), Italian public research institutions, European Commission ("Financing Entrepreneurial Ventures in Europe: impact on innovation, employment, growth and competitiveness", 7° Framework programme) among others. She was Academic Visitor at the Boston College in 2006. Her main research interests are: the economic analysis of the European insurance industry, the financing of entrepreneurship in high-tech sectors, and venture capital and private equity financing. She has published her work in European Financial Management and The Geneva Papers on Risk and Insurance, among others.

Samuele Murtinu, Assistant Professor Dr. Murtinu is Assistant Professor at DIG since 2011, where he teaches Economics of Network Industries and Industrial Economics at graduate and post-graduate level. He was Academic Visitor at the Intellectual Property Research Institute of Australia, University of Melbourne (2010) and at the Department of Managerial Economics Strategy and Innovation, Katholieke Universiteit Leuven (2009). His main research interests are: the financing of entrepreneurship in high-tech sectors, venture capital and private equity financing, and public financing of high-tech ventures. He has published his work in Strategic Entrepreneurship Journal, Economics Letters, British Educational Research Journal, among others.

Evila Piva, Assistant Professor Dr. Piva is currently Assistant Professor at DIG. The scientific activity of Evila Piva is mainly in the area of economics of innovation. Her research interests include: the creation and development of academic start-ups; the characteristics of Italian new technology-based firms and their financing, alliance and growth strategies; the contribution of PROs to the performance of new ventures; the strategic alliances of new high-tech ventures with special emphasis on the determinants of governance decisions and the effects on firm performance.

Cristina Rossi Lamastra Cristina Rossi Lamastra is currently tenured Assistant Professor at DIG. In 2008-09 she was academic guest at the Department of Management, Technology, and Economics at the ETH Zurich and has since been appointed as a lecturer of a Ph.D. course at ETH Zurich. Her areas of research include economics and managerial aspects of open innovation processes, focusing in particular on the Open Source (OS) model of producing and distributing software; the sectoral and territorial diffusion of advanced technologies; the dynamics of Information and Communication and Technology (ICT) industries; the governance and organisational design of boundary-spanning firm collaborations. She has published in international journals including Management Science, R&D Management, Research Policy, and Industry & innovation and serves as referee for a number of international scientific journals

2.2.9. Institut für Forschungsinformation und Qualitätssicherung (IFQ)

The Institute for Research Information and Quality Assurance is a scientific institute, which is funded by the German Research Foundation (DFG, (http://www.forschungsinfo.de/). The IFQ is organised as an association. The members of the IFQ association (responsible body) are: Deutsche Forschungsgemeinschaft e.V (DFG), Berlin-Brandenburgische Akademie der Wissenschaften (BBAW), Leibniz-Gemeinschaft (WGL), Alexander von Humboldt-Stiftung (AvH) and Helmholtz-Gemeinschaft (HGF). The main focus of the institute is on monitoring and analysing national research systems, with special emphasis on the German research system. Special emphasis is devoted to the analysis of researcher careers. Another major task of the institute is the evaluation of research funding programmes, a particular focus is on funding programmes run by the DFG, but, also those initiated and run by other funding organisations e.g. the ERC are dealt with.

The activities of the IFQ are organised in five thematic areas of expertise: (i) Indicators und Methodologies, which is focussing on the development and implementation of monitoring instruments, in particular based on panel and survey methods as well as the development, assessment and analysis of science and technology indicators. In the latter area special attention is paid to bibliometrics but, also indicators based on official statistics and secondary data are being dealt with. (2) The area Evaluation, is devoted to the analysis and further development of quality assurance measures. Special attention is paid to peer review processes. We also carry out evaluations of various science funding measures and instruments as well as institutional evaluations. (3) In the area Analysis of the science system we monitor and investigate the developments of governance structures especially in science systems as well as the interaction between science and the public realm. Furthermore we focus on the identification and analysis of effects and impacts of evaluations and, try to identify and assess desiderata of science funding. (4) Providing continuous information on recent developments in the science system is the objective of the thematic area **research information**, special attention is paid to providing information on the performance of the German science systems. (5) Special attention is paid to the area researcher careers; science policy developments have lead to significant changes concerning the selection and the training of early career researchers, PhD candidates as well as Postdoctoral fellows. Not only due to the rather bad data availability in this area we decided to set up a long term monitoring (continuous panel) in order to provide better data and information on researcher careers and impacting factors.

Prof. Dr. Stefan Hornbostel (Director of the IFQ) studied Social Sciences at the University of Göttingen. He did his PhD at the Freie Universität Berlin. After his studies, he worked at the Universities of Kassel, Cologne, Jena and Dortmund, as well as at the Center of Higher Education Development (CHE – Centrum für Hochschulentwicklung). Stefan Hornbostel is Professor at the Department of Social Sciences (Science Studies) at the Humboldt University of Berlin.

Dr. Sybille Hinze (Deputy Director) Sybille Hinze graduated in 'Management of Science' from Humboldt-University. From 1990 to 1997 she worked as a research fellow at the Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI). In 1997, she got her PhD from Leiden University, Centre for Science and Technology Studies (CWTS), the Netherlands. From 1997-1999 she was a postdoctoral fellow at the Research Evaluation and Policy Project, Australian National University, Canberra. From 1999 to 2008 she held a senior researcher position at Fraunhofer ISI and from 2006 to 2008 she was deputy head of the competence centre "Policy and Regions". From March 2005 to August 2006 she was seconded to the European Commission, DG Research, Unit Programming, Monitoring, and Evaluation. Sybille Hinze joined the IFQ in August 2008.

Dr. Nathalie Huber (Researcher) studied Communication Science, Jurisprudence and Psychology

(M.A.) at the Johannes Gutenberg-University Mainz and at the Ludwig Maximilians University Munich. In addition, Nathalie Huber received a diploma at the Institut Français de Presse in Paris (Research Area: Media Economics). During her study period she gathered work experience in the fields of journalism, public relations and marketing. From 2004 to 2010 she worked as Scientific Assistant at the LMU Munich where she received her Ph.D. from the Institute for Communication Studies and Media Research. She joined the IFQ-team in 2010.

Dr. Sven Bittner (Researcher) studied Computer Science at Freie Universität Berlin, specializing in the area of databases and information systems. In 2004, Sven joined the University of Waikato, New Zealand, to undertake his PhD in Computer Science. His dissertation developed and investigated new approaches for distributing data and long-standing queries in information dissemination systems. In 2008, he went to industry and worked as software developer and architect in the areas of knowledge management and business intelligence. Sven joined the IFQ-team in 2010.

Marc Kaulisch (Researcher) studied Political Science at Westfälische Wilhelms-Universität in Münster and at Freie Universität in Berlin. Following his studies, he worked as an "Assistent in Opleiding" at the Center of Higher Education Policy Studies (CHEPS) at University of Twente, Netherlands. The focus of his work was the analyses of "academic career systems in international-comparative perspective" and the "career mobility of PhD holders in Germany". Marc Kaulisch has been working for IFQ since 2007.

Kalle Hauss (Researcher)studied Social Sciences at the Humboldt University of Berlin, specialising in social justice research and empirical social research. Following his studies, among other things, he studied the impact on changing conditions of employment on labour market outcomes and worked as a lecturer in the field of methods in social research. Since 2006 he is a member of the IFQ-team and is involved in the project ProFile – a longitudinal study on the conditions and careers of doctoral candidates at German universities.

2.2.10. Universita della Svizzera Italiana (USI)

The University of Lugano (USI) is a small-size innovative university founded in 1996 with a strong interdisciplinary and intercultural component. It has now about 2000 students in four faculties (architecture, economics, communication sciences and informatics). In has been involved in about ten projects in the 6th framework programme and in a large number of grants of the Swiss National Science Foundation. The *Unit on Performance and Management of Research and Higher Education Institutions* is a research centre in the Faculty of Economics, working in the area of research and higher education policy and on Science and Technology indicators. The units has developed wide competences in the area of S&T indicators and participated to most of the recent projects designing new indicators, including project funding (PRIME-ENID project) and joint programming (JOREP project), higher education indicators (AQUAMETH, EUMIDA and ETER projects).

Benedetto Lepori is director of the unit. Besides his professional experience he is a recognised scholar in the field of research and higher education policy and of S&T indicators, with a specialisation on general methodological issues (Lepori, Barré & Filliatreau 2008), on funding indicators (Lepori et al 2008) and on higher education indicators (Bonaccorsi et al. 2007). He designed the methodological foundations for some of the most recent developments on indicators concerning public funding (project funding), joint programming (JOREP project) and higher education indicators (EUMIDA project). He is the secretary of the European Network of Indicators

Producers (ENID; <u>www.enid-europe.org</u>) and chair of the PRIME-ENID biennial conference series on S&T indicators.

Marco Seeber is post-doc research in the unit since November 2010. He holds a degree in economics from the University of Modena and Reggio Emilia and a PhD on research evaluation at the University of Chieti. He was junior researchers at CERIS-CNR in Rome in 2009-2010. He has published especially on higher education systems and institutions, including analysis of higher education diversity and university relationships.

2.2.11. Samuel Neaman Institute for Advanced studies in Science and Technology of the Technion ltd (PSC)

The Samuel Neaman Institute for National Policy Research (SNI), located at the Technion – Israel Institute of Technology, was established in 1978 as an independent, non-profit, interdisciplinary public policy research institute. SNI is widely recognized as Israel's most fruitful interface between academic community members and decision makers in government, public institutions and industry. The SNI has accumulated extensive experience in the characterization and analysis of science, technology and innovation policies. The SNI has participated notably in the formulation of policies for many other issues in Israel, including national infrastructure, economics, education, social betterment, and key S&T sectors like microelectronics, biotechnologies and nanotechnologies. The SNI has considerable experience with the European Framework Programmes projects. Further information is available at www.neaman.org.il. SNI has a specific role in developing and maintaining national datasets: the Israeli S&T indicators, The Israeli publications database, A Patstat-based DB on Israeli assignees and inventors (with intensive work on harmonisation of names). SNI has conducted numerous evaluations that have generated tailored data sets that SNI maintains (Norfar Programme on biotechnology, Russell Berrie Nanotechnology Institute at the Technion on nanotechnology and mapping of national research infrastructures). SNI has been involved in a number of PRIME supported projects (on indicators, on nanodistricts, on high tech firms and on the use of CV for tracking academic careers). It is presently involved on an EC project on demand-side innovation policies (Pick-me).

Dr. Daphne Getz is a senior research fellow at the Samuel Neaman Institute since 1996, and represented the Israeli academia and the Technion in the MAGNET R&D consortia. She is the director of SNI's information center. Dr. Getz has a scientific background (PhD in physical chemistry from the Technion) and served in several positions that are related to R&D management in the industry (RAFAEL). Areas of research at the Neaman Institute include: R&D policy; Technology and Innovation; Policies on new and emerging technologies; Relationships between academia, industry and government and R&D evaluation. Dr. Getz is leading a group within SNI working on Israeli indicators for science, technology and innovation. Her group is also engaged in evaluation of R&D programs, research infrastructure and the evaluation of Israeli R&D outputs using bibliometrics (publications and patents). Dr. Getz was involved in several projects within the PRIME NoE, such as ENID and Euro-CV. She currently leads SNI's team in FP7 project, focusing on demand driven innovation.

Professor Dan Peled is Head of the Economics Department at the University of Haifa and a senior research fellow at the Samuel Neaman Institute, and a member of the Economic Policy Team at the Taub Center for Social Policy Studies in Israel. He was the Academic Coordinator of the Science, Technology and the Economy (STE) Program, Director of the Economics of National Security (ENS) Program, and is actively involved in the Israeli Science, Technology and Innovation Program, and a project for Promoting Traditional Industries in Israel. Prof. Peled is currently leading two research funded in part projects by the Ministry of Science and Technology in Israel, on

measures of R&D concentration and specialization, and on the merits of tax incentives for promoting business R&D.

Dr. Eran Leck is a researcher at the Samuel Neaman Institute. Dr. Leck holds Ph.D. and M.Sc. degrees in Urban and Regional Planning from the Technion-Israel Institute of Technology and B.A degree in Statistics from Haifa University. His current research at SNI focuses on the evaluation of Israeli R&D output (patents) and demand-driven innovation (FP7 project). Other research interests include R&D program evaluation and industry-academy cooperation. Dr. Leck has considerable experience working with large-scale databases and research infrastructures.

Ms. Tsipy Buchnik is a researcher at the Samuel Neaman Institute. She is a Ph.D. Candidate in Economics at Haifa University. Ms. Buchnik holds a B.A degree in Economics from Haifa University and a M.Sc. degree in QA&R from the Technion-Israel Institute of Technology. Her current research at SNI focuses on Israeli STI indicators. The goal of her current research is to create datasets and indicators of R&D activities, taking place in Israel over time in order to evaluate and monitor these activities on an internationally comparable basis. Ms. Buchnik was involved in other projects focusing on science and technology labor force in Israel and on innovation in the service sector.

2.2.12. Agenca estatal Consejo Superior de Investigaciones Científicas (CSIC)

The CSIC is the largest public multidisciplinary research organisation in Spain. It has a staff of more than 10000 employees, among these 3202 scientists and about 3802 pre and postdoctoral researchers. The CSIC has 116 Institutes and research centres distributed throughout Spain. It has considerable experience in both participating and managing R&D projects and training grants. CSIC has signed so far 129 actions (18 as coordinator) under FP7. CSIC's contribution to this project will be channelled through the Instituto de Política Públicas y Bienes Públicos (IPP) and INGENIO.

CSIC Institute of Public Goods and Policies (IPP) in based in Madrid. It has more than 50 staff people working, including 31 doctorate holders, in three main fields: science and innovation studies, environmental economics and public policies. The main areas of competence in science and innovation studies with focus on data infrastructure are: bibliometrics and cybermetrics studies, including the creation and management of specific databases, quantitative studies of academic and researchers professional careers, based both on cross-sectional and longitudinal studies, constructed with merged data from surveys and bibliometrics; analysis of public and semi-public research organizations and higher research institutions, combining administrative, bibliometric, web and interview based sources; and innovation studies associated to the science-industry links through the use of patent and bibliometric datasets; sectorial specialization refers mainly to Biomedical, Environmental, Agro-Food sectors.

INGENIO is located in Valencia. It has a staff of 43, including some 30 researchers (from doctoral students to tenured professors), working on science and innovation policy, with a focus on the implementation and evaluation of science and innovation policies, the economics of technical change, the location dynamics of innovative activity, knowledge management, and technology transfer. Of relevance to this proposal, INGENIO researchers have been involved in a variety of projects and contracts addressing the definition, generation and application of datasets, including the definition and generation of curricular databases and the standard CV formats underpinning them, and the definition of indicators to monitor and assess the engagement of universities with their socio-economic context ("3rd Mission indicators").

The key participants to the project are all employed by CSIC and are:

Prof. Luis Sanz-Menéndez is a PhD in Political Science and Sociology. Since 2004 is the Director of the CSIC Institute of Public Goods and Policies (IPP). In October 2007 he was elected Chair of the OECD Committee of Scientific and Technological Policy (CSTP). He has published more than a hundred papers on research systems and science, technology and innovation policies, both in book chapters and in journals such as International Journal of Technology Management, Internacional Studies on Management and Organization, Regional Studies, Research Evaluation, Research Policy, Science and Public Policy, Scientometrics, Technological Forescasting and Social Change.

Prof. Jordi Molas-Gallart is an economist with twenty years' experience as an analyst of science, technology and innovation policies. He is a Research Professor at INGENIO (and employed by CSIC). Before joining INGENIO, Jordi worked for 13 years at SPRU as Research Fellow and Senior Research Fellow. His research interests include science and technology policy evaluation, and the development of indicators of knowledge transfer and university-industry relations. As part of this work he has been involved in the analysis and development of indicators of University-Society relations. He led the 2002 SPRU study on the development of indicators for "Third Stream Activities" for the UK Russell Group of Universities, and has since then participated in different policy initiatives related to the development of Third Stream indicators.

Dr. Laura Cruz-Castro is a Senior Research Scientist at CSIC-IPP. She got her PhD in Sociology from the Autonomous University of Madrid (with the support of a Marie Curie fellowship). From 1999 to 2003 she was lecturer at the Sociology Department of the University Carlos III of Madrid. She has been visiting researcher at the School of Public Policy in the Georgia Institute of Technology (2008) and University of Athens (Georgia) (2009). She has published scientific articles and other works on science, education and innovation issues in international journals like Scientometris, Journal of Technology Transfer, Regional Studies, Research Evaluation, Research Policy, Science and Public Policy, Technological Forecasting and Social Change, etc.

Dr. Catalina Martínez is Scientist at CSIC IPP, where her main field of research is the analysis of science and technology policies and indicators, particularly patents. She holds a PhD in Economics from the Universidad Autónoma de Barcelona (1997). In 2000 she started to work at the OECD with the Young Professionals Programme, and continued working as an economist in the Directorate for Science, Technology and Industry until 2006, where she specialised in IPR and patents. She was an expert for the European Commission expert group on Knowledge Transfer Metrics (2008); and the OECD expert groups on the economic use of patents (2008), name harmonisation in patent databases (2009) and patent families (2009). She has also been part of the international expert group that revised the OECD Patent Statistics Manual(2009).

Isidro F Aguillo is the head of the Cybermetrics Lab at the IPP. He is the editor of the electronic journal "Cybermetrics" and member of the scientific committees of several international scientific journals and conferences. He is the editor of the Webometrics Rankings, including the Rankings Web of Universities (since 2004), Research Centres (since 2006), Hospitals, Repositories and Business Schools (since 2008) that provide indicators for 40,000 organizations and receive more than 5 million visitors per year. His teaching activity comprises about 300 workshops, seminars and conferences in more than 100 Universities worldwide.

Dr. Carolina Cañibano is a Research Fellow at INGENIO (and employed by CSIC) since 2010. She worked at the Rey Juan Carlos University in Madrid between 1999 and 2010. She is an economist, with a PhD in Economics from the Autonomous University of Madrid (2004). Her doctoral thesis focused on the analysis of formation and mobility of human resources for science

and technology in Spain. Since then she has continued research in this area both from a theoretical and an empirical perspective and has also done work on the economic theory of innovation. She has coordinated the European project EURO-CV (Building Indicators for researchers' mobility based on electronic curriculum vitae – funded by the PRIME NoE) and the Iberoamerican project CV-Iberoamericano (Scientific careers of Argentinean and Spanish researchers: a comparative study based on CV data – funded by the National Agency for Cooperation and Development).

Ismael Rafols is employed by CSIC. His research focus is on the mapping of emerging technologies using quantitative tools. He has a PhD in biophysics from Tohoku University (Japan) and a postdoc at Cornell University (New York). His major contributions have been the development with Loet Leydesdorff of tools combining novel metrics and visualisation techniques, which have received much attention in recent years, including a WoS highly cited notification, and a best paper awards. He serves as editorial advisor in the journal *Scientometrics*.

2.2.13. University of Sussex

SPRU (Science and Technology Policy Research) at the University of Sussex is the research centre of Science, Technology and Innovation (STI) in Europe. From its origins, SPRU has combined multidisciplinary research on STI with policy engagement at the national, European and international organisations. In particular, SPRU has spearheaded new methods for the measurement of Science and Technology, with seminal contributions in bibliometric-based evaluation, patent mapping of technological portfolios in firms, the study of science-technology interaction via patent-publications, and recently innovative visualisation tools. These tools are then used in a variety of academic and policy debates in which SPRU researchers are prominent: weapons of mass destruction, bio- and nanotechnology, pharmaceuticals, nuclear power, climate change, information technology, food safety, technology in development and the roles of public and private research organisations.

Paul Nightingale is the deputy director of SPRU. Since taking a PhD in SPRU, Paul has studied industrial technical change a wide variety of STI areas, including pharmaceuticals, aerospace, chemical and chemical engineering industries. He is the editor of the journal *Industrial and Corporate Change*, and has been substantially involved in policy work on innovation policy in the UK, giving evidence in Parliament, and in consultations in a variety of governmental agencies.

Alex Coad is a senior research fellow. He will take the lead of statistical analysis of large-scale data on small firms, an area where he has highly cited publications. Alex obtained a PhD in Economics and Management in 2007 from Université Paris 1 Pantheon-Sorbonne, and the Sant'Anna School, Pisa, Italy. He then moved to the Max Planck Institute of Economics in Jena, Germany, for post-doctoral research. He has been a research fellow at SPRU since October 2010.

Daniele Rotolo is a business engineer (magna cum laude). Daniele joined SPRU as a Research Fellow in SPRU after receiving the PhD in Innovation Management and Product Development from Scuola Interpolitecnica di Dottorato (2011). He has extensively worked on database management and network analysis for characterizing the science and technology interaction in the emerging technologies.

2.3. Consortium as a whole

The consortium is made of 13 institutions that all have long-established research centres on science, technology and innovation studies, with a dual focus on: (a) science and innovation policy studies (many being well known for their work on ST&I policy evaluation), and (b) data and indicator

development. All centres gather specialists of data handling and most have been involved in joint projects to develop the datasets to be integrated. In term of indicators design and data handling the consortium gathers the major European research groups. Several groups have strong working relations with computer science groups, for developing software tools for e.g., data integration, disambiguation, and visualization and analysis. Therefore the consortium covers all needed capabilities. Secondly, many of the partners have experience with large collaborative projects, and have worked with each other. We shall deal with this critical aspect in five dimensions.

- a) the members of the consortium have taken into account the move from the old paradigm of statistically based indicators to new positioning indicators. This required the creation of a new space for exchanges: ENID was created as a NGO in 2009, and all founding members are part of this consortium. Today ENID is managed by a board made of individuals from CWTS (University of Leiden), USI, CNR, IFQ, VU Amsterdam and UPE.
- b) It is made of members that have decided to maintain on their own, datasets, once the initial funding for building it was over. They are thus dedicated in making them more robust and sustainable. They are interested in new approaches that are economically viable to update them for research purposes (updating for research purposes is very different from statistical approaches and there has been limited work done on this issue in social sciences).
- c) One needs to have such a practice to be in a position to understand and embed methodological and quality requirements, so that data integrated from different national or institutional sources is both well selected, and well documented. One also needs to be faced with the practical issues of dataset construction to grasp the difficulties faced with their construction. The Rome ENID conference (2011) illustrated very clearly the problems of harmonisations of organisations, both in term of names and of type. There were also a number of presentations that discussed the limitations they faced on localisation of authors and/or inventors. This experience triggers the will of partners to enter into 'harmonisation' activities, based upon their practice and comparative testing.
- d) These datasets are all of them quite recent in their present form, and we have had extensive discussions about their complementarity and the new type of information and analyses that would be possible through their 'combination'. The ways for doing so are however not straightforward and this explains why there has been up to now very limited efforts for doing so. This is for the members a clear motivation that makes us confident in their involvement and in the fact that members will invest in this integration process.
- e) Finally it is important to take hold of the existing interactions in the development of the two software platforms. The two platforms emerged from the recognition of both the universe of new data available through the web and the fact that, being unstructured and uncontrolled in its construction (contrary to structured datasets on publications and patents), it raised specific problems that were difficult to cope for individual researchers, even for those already specialists of these questions. Preliminary collaborations between the 2 centres were established during the PRIME NoE (joint collaboration on the definition of new indicators to characterise 'search regimes') and further developed by exchange of personnel and techniques (especially for data cleaning around testing automatic methods for name and address identifications). This has been further developed through a memorandum of agreement, while new joint projects have emerged that have included SPRU and CSIC in this collective elaboration. The first two years of experimental opening of CORTEXT Manager has shown the extent of the demand with a doubling every 6 months. So we are confident of both the ability to conduct the joint developments, and of a fast growing user involvement.

2.3.1 Subcontracting

Subcontracting is limited (250k€ altogether) and takes place in WP3 (70k€), WP4 (130k€), WP6 (30k€) and WP24 (20k€). It is focused on 3 aspects:

- The development of RISIS website and platform (WP4, 30K, VUA in charge). VUA will issue a restricted call for selecting the operator.
- The organisation of RISIS annual weeks (WP3, 70k in UPEMLV budget, covering organisation, logistics, renting of facilities and catering) and the co-organisation of specific sessions in ENID annual conferences in the frame of communication activities (WP4, 100k, in IFQ budget, similar expenditures as for RISIS annual weeks).
- Specific expenditures to support technically two dataset developments. One is for insuring 'relevant' integration of MORE 2 survey within the MORE overall dataset (WP24, 20k with NIFU), The other is support asked for specialists of complex databases dealing with organisations and more specifically about structure building (WP6, EUMIDA/ETER with USI). The subcontractors will be selected following a procedure which ensures best value for money under conditions of transparency and equal treatment.

2.3.2 Third Parties

The coordinator, IFRIS, is a joint research unit between 5 entities.

- UPEMLV, beneficiary 1, as the operator of IFRIS, is managing all activities mentioned in the project. It is in charge of all costs but the cost of permanent staff of the other 4 members of the joint research unit participating in the project. The 4 other parties under SC10 are the following:
- CNRS is the largest public research institution in France. Activities in RISIS correspond to one researcher (P. Laurens) and are focused on RTD in WP20. (anticipated support: 44,4 k€).
- INRA is the French public research organisation focused on agriculture and environment. It is involved through its activities on innovation and on digital humanities. Activities correspond to two key researchers (M. Barbier and JP Cointet), responsible of IFRIS work on WP7 and WP25,. They are also involved in training, WP5. (anticipated support: 97,268k€)
- ESIEE is an engineering school of the French CCIP with important research activities on computer science, on open source software and on data development and treatment. The core of the participation is WP6 on preparation of opening of datasets, in WP8 and WP9 on harmonisation activities, and on WP5 on training (A. Schoen and L. Villard). (anticipated support: 97,21k€)
- Ecole des Ponts is an engineering school and one of the French 'grandes écoles'. It has developed recognised capabilities on innovation studies and employs the coordinator (P. Larédo) of this project with activities focused on WP2, WP3 and WP4. (Anticipated support: 59,6k€)

The *Network Institute* (NI-VUA) from Stichting VU-VUMC (VUA) counts one member from KNAW, Peter Van den Besselaear. Since June 2009 he operates as a professor of VUA, this situation being prior to this project and his costs being not reimbursed to KNAW. This situation will run until September 2014 when Peter will become a full employee from VUA. Until then KNAW is thus a third party, making resources available to the VUA (special case 3).

The KNAW (Royal Netherlands Academy of Arts and Sciences) is an independent advisory organisation (established by law) in the field of research and higher education. Apart from that, it runs some 20 public research institutes for basic research in the life sciences and the humanities.

For the period concerned, we estimate the time of Peter to be around 3 ps-month focused on WP2, WP6 and WP7 (anticipated support: $44.92 \text{ k} \in$)

2.4. Resources to be committed

The eligible resources to be committed are calculated at 7,115 M€ and the support asked for is just under 5 M€ (4999184 exactly). Ventilation of the support asked for is as follows: 4% for management, 5% for international access and services, 56% for networking and 35% for joint research.

Management represents 4% of total costs and is handled by the team of the coordinator (36 pm).

Transnational access is provided for by 9 datasets and 2 platforms (WP10 to WP19). One platform is a service, all other facilities are transnational access on site. We aim at offering over 1100 days of access to EU researchers (with a cost for travel and subsistence of 237300 euros, see table 7).

Networking activities

- Access will be opened at latest at month 18 since it requires an intensive of preparation to insure technical, legal and intellectual aspects (56 pm for datasets, WP6, and 28 pm for platforms, WP7).
- Organisation and selection of users will take place in WP2 (facility coordination board and Project review board (8 pm plus support to the project review board by WP1).
- Communication to European researchers in our field will be made through 2 main channels: the project website and the annual conferences of the learned society in our field ENID (WP4, 8 pm and 130k subcontracting). WP4 will also organise the interactions with policymakers and, at the end of the project, prepare the future business plan for continuing operation beyond EC support (10 pm).
- RISIS proposes a new type of quantitative approaches and indicators to the community based on new techniques and new frameworks, which most of the young researchers are not aware of. This is why we devote an extensive effort to training (some 30 training courses anticipated, 42 pm for preparation, organisation and delivery, 289k for travel and subsistence for trainees and some 90k of logistical support included in 'other' other direct costs).
- The annual RISIS week will be the central project event that will enable to reinforce transversal linkages between partners, organise a full overseeing of the project dynamics and connect with interested policy makers (17 pm in WP3).
- 2 WP (7&8, 78 pm together) deal with the integration of the different facilities through two critical dimensions (institutional and geographical). They will enable users in the last period of the project to simultaneously use different datasets to address their issues.
- And WP9 (28 pm) plays a similar role to enable users to move from one platform to the other to access a wider range of tools to construct, clean and treat their datasets.

Table 6 – Table on networking efforts

Ps-m	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	total
UPEMLV	2	5	3	8	7	12	6	10	53
VUA	2	1	6	4	4	11	6	6,5	40,5
UNIMAN		1	6,5		9				16,5
CNR		1		13	6		5,5		25,5
NIFU		1			6		6		13
AIT	2	1			8		6	5	22
UL		1		4	4		5		14
POLIMI		1		6	5		2	2	16
IFQ		1	2	5	3				11
USI	2	1		2	4		6		15
SNI		1					4	4	9
CSIC		1				6	6		13
UoS		1	2						3
Total	8	17	19,5	42	56	29	52,5	27,5	251,5

Table 7 – Other direct costs: Travel & Subsistence and 'other' other direct costs

euro	T&S trainees	T&S Visito	T&S teams	T&S other	consuma bles	Data acquisit	total
	50000	rs		• • • • •		ion	
UPEML	60000	63500	50000	30000	30000	25000	258500
V							
VUA	30000	25400	22000	20000	28000		125400
UNIMA			18000		5000		23000
N							
CNR	67000	15240	20000		23000		125240
NIFU		10000	12000		5000		27000
AIT		38100	20500		5000		63500
UL	48000	25400	16000		15000		104400
POLIM	36000	20320	14000		15000		85320
I							
IFQ	48000	24200	14000		15400		101600
USI		15240	13000				28240
SNI			11000				11000
CSIC			16486		5000		21486
UoS			10000		5000	25000	40000
Total	289000	23730	236986	50000	151400		101468
		0					6

Notes:

- T&S for trainees correspond to activities of WP5 on training
- T&S for visitors correspond to transnational access.
- T&S for teams include both T&S for networking and T&S for RTD
- Other T&S corresponds to meetings of the project review board (20000 planned for 6 physical meetings and 6 persons, within UPEMLV budget), invited guests to RISIS week (10000 planned, within UPEMLV budget), and the use of external experts for reviewing the quality of facilities (20000 planned, within VUA budget). There will be no fee to any of these experts and guests.
- Consumables correspond to logistical costs associated with training (60%) and to small furniture and documentation.
- Data acquisition corresponds to the acquisition of legal and financial data on firms for WP20.

Joint Research Activities

Joint research activities aim at increasing the relevance of facilities and complementing the set of facilities to foster the overall relevance of integration. It is organised around 6 critical issues (innovation in firms, policy evaluation, ERA integration, public sector research, PhD & researcher careers, and supporting use of data). The ambition is that work done is integrated in the dataset for the second batch of users, and that the new datasets are open for transnational access during the last period of the project. Altogether they represent 205 pm (see table 8), 2,3 m€ investment and 1,73M€ of support by the Commission.

Table 8 - recapitulating Joint Research efforts

	WP20	WP21	WP22	WP23	WP24	WP25	total
UPEMLV	10	2				18	30
VUA						18	18
UNIMAN		30					30
CNR			12	3		6	21
NIFU					4		4
AIT			8	4			12
UL				3			3
POLIMI	14,5						14,5
IFQ					15,5		15,5
USI							0
SNI	6						6
CSIC				15	19	6	40
UoS	15						15
Total	45,5	32	20	25	38,5	48	209

3. IMPACT

3.1. Strategic impact

We expect that the RISIS project will increase the integration of the science and innovation research community within the EU (ERA). Furthermore, the increased availability and quality of the data and software tools will result in knowledge production at an excellent international level. More specifically, we expect seven main direct impacts from the programme.

Impact 1 – RISIS will enable this emerging community of indicator designers to strengthen and develop on a sound basis. This includes a more visible central place for exchanges (around the ENID conference series), better trained young scholars (both in the design of new indicators and more generally in the use of positioning indicators in STI policy research and evaluation) and a clearly set research agenda (this plays an important role when a community is distributed over multiple organisations and when it is 'young' and fast growing). The central access of RISIS as well as RISIS accreditation mechanism will reinforce this construction of an integrated community.

Impact 2 – RISIS will build common resources in term of 'harmonisation' of actors and addresses that will be available for all datasets. It will also build a new knowledge base about updating approaches for research-based datasets (while in our field the only knowledge on this issue is that of production-based datasets driven by statistical offices).

Impact 3 – RISIS will enable the present facilities to be better recognised within the institutions where they are established (this has been one of the major effects of the PRIME NoE for groups working on ST&I studies, and explains why over 15 institutions are now devoting resources for maintaining certain activities of the ex PRIME NoE— see the EU SPRI forum that supports this initiative). RISIS will further support the development of two new datasets and of a framework able to integrate local datasets on careers: all 3 are on key policy issues. By developing 'reasonable' (practical and useful) approaches to improvement, updating and maintenance (through the common resources developed, see previous impact, and through targeted developments proposed), we expect to bridge the major gap that we are faced with in the field (again underlined by Commission services in the ex-ante assessment for the new 2020 Horizon programme).

Impact 5 – RISIS will enable the access of datasets to an important number of researchers. We anticipate 'hands-on' access (based on in-depth work on site) for more than 100 researchers over the project. This represents a quite important share of those in Europe dealing with quantitative approaches in Science, Technology and Innovation studies, most of which are young researchers (at the doctorate of post-doctorate level). Being successful will also mean that STI-policy studies will be more balanced in their respective use of case-based and large-scale evidence.

We also will offer the whole of the research community access to the tools, instruments and workflows that support the work of scholars faced with the construction of specific datasets to address their own research issues. The number of papers using semantic methods to build and exploit datasets in the field of ST&I policy studies (whether to characterise issues, disentangle controversies and public debates, study the dynamics of policymaking processes...) are still today very limited, while the technical capability is now available for the construction and treatment of large and heterogeneous corpuses. This is the ambition of RISIS to help this situation change (we have in a way a nice experimentation done within IFRIS with the young scholars, and within one year, we have more than half that have started using these approaches).

Impact 6 – By developing the IPER repository, RISIS expects to change the bases for research on ST&I policy evaluations (most work developed uses a small, mostly national, set of evaluations to discuss processes, organisational/ institutional issues and effects). It will also provide a broader substantive source about the dynamics and effects of different policy instruments (such as for instance fiscal incentives, a fast growing instrument of innovation policies within the OECD countries) and even more, on a fast growing issue about policies: the policy mix of instruments. It will have a third direct impact this time on the policy community (as represented by international organisations like OECD) by giving policymakers a direct access to numerous evaluations about the policies they are contemplating.

Impact 7 – The members of RISIS have developed a research programme based upon the interlinking of the datasets around three major issues: actor dynamics (both universities and firms, WP8), distribution of activities within the EU (WP9) and academic careers (with we hope a new operational framework for integrating the numerous local datasets on research careers to give a more substantiated view of on-going dynamics). We also expect that the 2 platforms (as is already shown locally by CORTEXT Manager) will enhance researcher capabilities to develop very rapidly

analyses on emerging societal issues. Doing so, they will directly produce new evidence to support on-going policy processes on key issues for policy making, in particular universities as 'strong organisations' as promoted in the 2020 ERA vision, the role of European capabilities in the knowledge production of global firms, regional policies facing agglomeration phenomena, the knowledge sources for the growth of high tech small firms or the articulation of research and societal actors in the shaping of societal challenges.

3.2. Plan for the use and dissemination of foreground

3.2.1. Overall dissemination plan

Our main audience in this project is the academic community making sure that there is a greater use of quantitative analyses and positioning indicators in the young generation. This shift is of primary importance for the future and the need for more evidence-based policies.

At the same time, we also know that knowledge does not circulate easily in policy circles and that most of the times it flows indirectly by influencing the frames through which policy-makers analyse the problems they face. This corresponds to a 'percolation model', which we consider central to the dissemination and uptake of ideas, concepts, ways of characterising situations and measuring performance. This flows mostly indirectly through 'expert advice' (often in collective exercises like EC high level groups) and through mediating bodies (such as think-tanks like NESTA in the UK or Futuris in France; or through established, often at Parliamentary level, NGOs such as The Rathenau Institute in the Netherlands).

The consortium is well equipped for the first one with researchers such as Jakob Edler (Manchester University), Emanuale Reale (CNR), Luis Sanz (CSIC and head of the OECD major committee, CSTP), Mathias Weber (AIT), Paul Nightingale (Sussex University) or Philippe Laredo (UPE), that have all recognised national experts and have been involved in many EC high level groups and international evaluation panels, and for example Peter van den Besselaar (VU) is the former head of the Science System Assessment Unit (Rathenau Instituut) in the Netherlands, which was founded to support evidence based science and innovation policy.

As for the second alley, we consider it important to become pro-active in shaping a specific space targeted to the mobilisation of data and indicators. It is all the more important than, when a research-based dataset is recognised as critical, it has to enter into a more extensive and regular production process, generally taken over by traditional statistical offices and/or by dedicated observatories. This is for instance the case of the new indicator developed by members of this consortium around the role of project-based funding in overall public funding¹. This indicator and its data sources are now being taken over by the OECD, which is conducting a wide experiment (more than 20 countries involved through their national statistical offices) for turning it as a standard S&T indicator. However more and more indicators address the capacity and strategy of actors (universities, large firms, PRO, etc.), based on publicly available data and away from statistical practices. We face here a clear issue about maintaining them over time to have a clear view of on-going dynamics (and not simply one-off shots).

To address these issues and discuss the relevance of the new indicators built from the datasets and their interlinking, RISIS will develop specific activities in the form of policymaker days within RISIS annual weeks, policy briefs and presence in policy-oriented conferences (see WP3 and WP4). This will enable us to discuss the political relevance of the indicators we propose and the corresponding datasets and processes to build them. It will help to discuss the options for sustainable production of indicators that have resulted form the research activities.

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¹ See special issues of Science and Public Policy (2007 and 2009) about the results of the PRIME project funding activity.

3.2.2. Intellectual Property Rights

The choice made by the partners is to build a 'collective good for research'. This means that all researchers in the field can access the datasets and developments made on a free ground. This also means that each partner keeps the rights associated to the exploitation of the datasets he operates for other uses than research (in particular studies for ministries, national agencies and other policy-operating body). This is why we have established an accreditation process to insure that researchers engage to respect this approach. It will at the same time guarantee quality and deontology.

Many of the datasets include proprietary data from private firms. We have to insure that we respect these. This requires that we discuss with the main owners of publication and patent data, the signature of a memorandum of agreement based upon a simple principle: researchers will be able to access extended micro data on site, only for academic research purposes (that will be guaranteed by the charter) and provided their institution has a contract with the owners (which is the case of most European universities and public research organisations). We also face other proprietary sources (firm affiliations, some research blogging data, etc.): the principle here is that it can be accessed on site through joint projects (entailing rules of signature).

We do not anticipate other major IPR issues since the 2 platforms are based on freely available software and, when they include proprietary tools, will have negotiated their insertion in workflows and their access at a distance. The choice of the two platforms is not to offer tools for downloading (they may do so for freely accessible data sources), but an access to work on-line with their tools and workflows on the datasets developed by the users of the platforms (or on datasets developed from freely accessible data sources), without the platform storing their datasets (again to insure against any proprietary issues). This requires security developments and explains why for one platform we start with only access on site, while we use the accreditation process to address these aspects on the other.

4. ETHICAL ISSUES

The following table highlights the fact that the project has no life science component (as is discussed by the first two sections: research on human embryo and on humans, and in section 4 on animals). Similarly we shall not track individuals and do not use individual data involving non-EU countries. The only work that is done is on public information based on publicly available databases. Finally RISIS has facilities based upon individual answers to surveys. These surveys involving individuals are managed by research groups who have the required national accreditation to do so, and all information circulated will be anonymised. It will be the work of the Facility Coordination Board (WP2) in his review of dataset and in its selection of access given (and of the corresponding projects) to deal with potential issues of anonymisation (especially when dealing with individual actors and at lower levels of regional aggregation. There are specific WP to consider these aspects specifically and develop adequate rules and practices (WP8 and WP9).

Research on Human Embryo/ Foetus	YES	Page
Does the proposed research involve human Embryos?		
Does the proposed research involve human Foetal Tissues/ Cells?		
Does the proposed research involve human Embryonic Stem Cells (hESCs)?		
Does the proposed research on human Embryonic Stem Cells involve cells in cultu		
Does the proposed research on Human Embryonic Stem Cells involve the derivati from Embryos?		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	Χ	

	Research on Humans	YES	Page
Does t	he proposed research involve children?		
Does t	he proposed research involve patients?		
Does t	he proposed research involve persons not able to give consent?		
Does t	he proposed research involve adult healthy volunteers?		
Does t	he proposed research involve Human genetic material?		
Does t	he proposed research involve Human biological samples?		
Does t	he proposed research involve Human data collection?		
I CON	FIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	Χ	

Privacy	YES	Page
Does the proposed research involve processing of genetic information or personal		
health, sexual lifestyle, ethnicity, political opinion, religious or philosophical convicti		
Does the proposed research involve tracking the location or observation of people?		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	Χ	

Research on Animals	YES	Page
Does the proposed research involve research on animals?		
Are those animals transgenic small laboratory animals?		
Are those animals transgenic farm animals?		
Are those animals non-human primates?		
Are those animals cloned farm animals?		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	Χ	

Research Involving non-EU Countries (ICPC Countries)	YES	Page
Is any material used in the research (e.g. personal data, animal and/or hum samples, genetic material, live animals, etc): a) Collected and processed in any of the ICPC countries?		
b) Exported to any other country (including ICPC and EU Member States)?		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	X	

Dual Use	YES	Page
Research having direct military use		
Research having the potential for terrorist abuse		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	X	

5. GENDER ASPECTS

The field has a long practice on mainstreaming. Apart from the older generation, the PRIME NoE demonstrated that all the objectives of the European Union about the involvement of women as researchers but also as leaders of research activities followed the targeted objective (at least 40% of women). In particular, all early career events (PhD conferences, summer schools, mobility) developed after PRIME by the EU SPRI Forum follow this pattern.

The Project scientific board will be attentive to these aspects and the Governing Board will insure a due representation also in project and activity responsibilities (we cannot however avoid the top-senior generation bias that is still at work, especially at Governing Board level).

We might also face a specific issue in this project associated with computer sciences that still exhibit a classical pattern of engineering sciences. As scientometrics is very close and in many facets part of computer sciences, it will be a specific objective of the RISIS project to be proactive in these matters.

But we do not consider that this deserves a specific WP. We shall report on these issues and how we tackle them at the level of activities in the periodic reports.

TABLES

Participant number	1	Organisation short name		UPEMLV	
Short name of Infrastructure	RISIS	Installation number	3	Short name of Installation	Cortext Manager
Name of Installation	Cortext Manager				

A Estimated direct eligible costs of providing access to the service within the project life-time excluding personnel costs	Describe the direct eligible costs for providing access to the service offered by the installation over the project life-time (e.g. maintenance, utilities, consumable costs). All contributions to capital investments of the infrastructure are not eligible. server maintenance subcontracting						
A. F		Total A	26 000,00				
	of which sub	contracting (A')	20 000,00				
osts	Category of staff	Person-	Personnel				
e c		Months	Costs (€)				
gibl e se	enginners operating the warm line	8	52 000,00				
B. Estimated personnel direct eligible costs needed to provide access to the service within the project life-time		Total B	52 000 00				
	70/ ·· ([A A/], D)[1]		52 000,00 4 060,00				
	C. Indirect eligible costs $< = 7\% \times ([A-A']+B)^{[1]}$ max 4060						
	D. Total estimated access eligible costs = A+B+C						
	ercentage of the operation costs to be charged to the project [2]		20,0 16 412,00				
F. Access	. Access Cost charged to the project [3] = D x E						