



Fostering Regional
Innovation and Development
through Anchors and Networks



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TABLE OF CONTENTS

TABLE OF CONTENTS	2
SUMMARY	3
Introduction	4
Bologna Unit (UNIBO).....	7
Mannheim Unit (UNIMAN)	8
Grenoble Unit (GAEL).....	10
Katowice Unit (KATOWICE).....	12
Sussex Unit (SPRU).....	13
Catania Unit (UNICATANIA)	15
Ukraine Unit (UKR)	17
Conclusions	18

SUMMARY

The goal of this deliverable is to summarize, in a systematic and comprehensive fashion, the sources of the researches activities that each partner has consulted in the period comprised from month 1 to month 9 of the FRIDA project. Concurrently this document surveys the main sources of information that the partners have used following the DATA COLLECTION PROTOCOL (D 3.1). Specifically, in the pages that follow each partner has clearly indicated the databases that have been used for its own research activities and the keywords that has utilized for database interrogations. Consequently, the elaboration of this document needs to be looked at in strict connection with D 3.1.

Introduction

In order to better understand the role of anchors and role of anchors and networks in regional development, FRIDA partners have already observed specific industry context in different regions, by using various databases relevant to each specific setting. The obtained results are those indicated in the table below:

	Secondary sources (i.e. database on publication, patent, firms, et.)	Clusters under review (or to be reviewed)	Anchor firms
Nanoelectronics/ Semiconductors	a) ISI Web of Science; b) PATSTAT V2; c) Nanoproject Database d) Il Sole24Ore Database on industries and firms data; e) AIDA Database on sectoral and company information; f) esp@cenet database on European and Worldwide patents; g) SAPERI UNICT Database on patents and publications from the University of Catania	Grenoble, Minalogic Etna Valley	ST Micro (F) ST Micro (I)
Biotech/ Biomedical	(a) Daily registration and deregistration records of the German Commercial Register (“Bundeszentralregister”); (b) “Yearbooks of the German Biotechnology Industry” by Biocom AG; (c) Sourcing of archival data from industry newsmagazines such as “TRANSCRIPT”, FT, or Handelsblatt. (d) Longitudinal records from the	Rhein-Neckar Dreieck and all German Bioregions Biomedical Valley	Various Gambro Dideco Mallinckrodt

	<p>German Patent and Trademark Office. e) AIDA - Comprehensive database of Italian firms' financial data f) esp@cenet database on European and Worldwide patents; g) Archival time series available from ConsobioMed (the association of biomedical companies of the Biomedical Valley) h) detailed analysis of biotech firms' business practices from BIO-Century database, i) data on alliances RECAP database, j) data on firms' regulatory filings from Companies House (London), k) database of international pressing cuttings on the biotech industry (University of Nottingham)</p>	<p>The London region</p>	
<p>Aircraft industries</p>	<p>a) Aviation Valley Association proprietary data bases; b) Financial statements of AVA members (increasing number of 50 to 100); c) Polish Central Statistical Office, as far as industry and region indicators are concerned (year books, regional data bank) and Polish Patent Office; d) Internal documentation of the AVA members - data collection focusing on formalized ties with other regional network members</p>	<p>Aviation Valley around the city of Rzeszow in south-eastern Poland</p>	<p>Aviation Valley Association</p>

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Since the goal of WP3 is to identify and collect the data available through existing databases, D 3.2 aims to identify and report the various databases that the seven FRIDA partners have already consulted (and are currently working on) and the specific keywords they have used in the inserted queries.

The document will consist of one or two pages for each partner where a list of databases and queries' keywords is reported.

Bologna Unit (UNIBO)

In order to :

- create patent databases for Mirandola located firms
- analyse nanotech patents filed by Bologna scientists
- collect sales and performance data on Mirandola's biomedical firms

the Bologna Unit consulted the following databases:

- 1) Pat Transfer
- 2) AIDA

The two databases have been questioned inserting queries containing the following keywords:

- Company name
- Inventor name
- Patent class (technology class)
- Backward citations (in order to trace genealogy)

Mannheim Unit (UNIMAN)

The UNIMAN Unit consulted the following databases:

- a) "Yearbooks of the German Biotechnology Industry" provided by Biocom AG. The database is used to collect data about name and location of firms in the German biotechnology industry from 1996-2008.
- b) Sourcing of archival data from the industry newsmagazine "TRANSCRIPT". It is the most important journal in the German biotechnology industry. The journal has a circulation of 10.000 copies and is monthly available. The journal covers reports on the Germany biotechnology industry.
- c) Sourcing of archival data from newsmagazines such as "Frankfurter Allgemeine Zeitung" and "Handelsblatt". Data will be used to identify ties between pharmaceutical firms and other pharmaceutical firms, biotech firms, universities and other research institutes.
- d) Longitudinal records from the German patent and trademark office Comprehensive patent database. Database covers for example patenting firm (location), patent codes, patent times.
- e) Bio-Tech and Pharma Associations (e.g. "Bundesverband der Arzneimittelhersteller"). Association database allows to identify firms in the pharma and biotechnology industry.
- f) ZEW Mannheim: Database on patents on European and German level as well as exits (based on the creditreform database provided by the "Verband der Vereine Creditreform e.V.") The ZEW (Centre for European Economic Research) is a nonprofit and independent institute and one of Germany's leading economic research institutes. This institute provides a comprehensive collection of patent and exit databases. The main elements of this collection covers patent data (e.g. patenting firm (location), patent codes, patent times) as well as exits based on the creditreform database. The Creditreform database presents one of the most comprehensive sources of information on German companies (for example company name, address, legal form, year of establishment or registration details).
- g) Daily registration and deregistration records of the German commercial register ("Bundeszentralregister") Database allows to look for entries and exits of firms in general and specifically for biotechnology firms.
- h) Information portal "Biotechnologie.de" (available under: <http://www.biotechnologie.de>) Is a online database service, which offers an

overview over the different government aid programs relevant for the biotechnology industry.

The databases have been consulted in order to find the full sample of biotech-firms as well as other firms within the bio-tech-field like different big pharma firms, consulting or various supplier firms and their network partners.

Relevant keywords:

1. Alliances and network links (various). Examples:
 - a. Research agreement (research grant, R&D, research and development)
 - b. Licensing agreement (outlicensing /inlicensing)
 - c. Marketing/distribution agreement
 - d. Research agreement
 - e. Private placement
2. Founding year / exit (various). Examples:
 - a. Liquidation
 - b. Market exit
 - c. Change in name, category, etc.
3. Patents (German, EU)

Grenoble Unit (GAEL)

The Grenoble Unit consulted the following databases:

ISI Thompson – WOS
EBSCO
JSTOR
EMERALD
FACTIVA
DGCIS
INSEE,
DIACT
SISE
Espacenet (EPO)
Minalogic projects data base

The aforementioned databases have been consulted in order to find:

- a) relevant papers useful to write literature review on anchors and regional development and papers directly focused on the case of Grenoble cluster (ISI Thompson – WOS, EBSCO, JSTOR, EMERALD)
- b) historical information on the evolution of Grenoble cluster (FACTIVA)
- c) statistical data based on economic and social capital broadly accepted indicators necessary to compare the greater Grenoble Area at national level (DGCIS, INSEE, DIACT, SISE)
- d) data on co-authorships regarding actors affiliated with Institutes or firms located in the greater Grenoble Area (ISI Thompson – WOS)
- e) data on co-patenting applications regarding actors affiliated with Institute or SME firms located in the greater Grenoble Area (Espacenet - EPO)
- f) data on partnership between members of Minalogic pole de competitivite (Minalogic projects data base)

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In relation to each point above mentioned, those databases were questioned inserting queries having the following keywords:

- a) Anchor firms; Anchor Organization; Anchor tenant hp; hub firms; focal firm; leading firms; orchestration network; anchor and proximity; regional development and anchor; colocation.
- b) Grenoble and (STMicroelectronics or Alliance Crolles or Minalogic or Minatec or Nano2012 or GIANT or semiconductor industry or nanotechnology)
- c) Grenoble, Iserre Department, Rhone Alpes Region
- d) String elaborated by Mogoutov & Kahane, (2007) for papers nanotech based
- e) Y01N as European Classification (ECLA) and a list of SMEs and local Public research centers as Applicant
- f) Acronym of singular projects supported and certified by Minalogic

Katowice Unit (KATOWICE)

As far as Katowice Unit is concerned they consulted a single database (**INFOVeriti**), which is a comprehensive database including registry data, personal data of board members, financial data. The use of INFOVeriti allowed director interlocks analysis within the network, as well as linking the anchor to financial performance of the organization, its network and the regional development.

The database has been used by 70 members of the Aviation Valley, including the Technical University of Rzeszów. Several queries have been put, inserting the following keywords:

1. EBSCO, ProQuest, Emerald - queries for papers focused on the following keywords: network, anchor, regional+network, cross+region, anchor+cross+reion, anchor+regional, anchor+development, region+boundary.

The objective has been to identify relevant literature, investigate methods used by scholars in the field and finally the gaps in understanding the phenomenon of anchoring economic activity.

2. Infovide - the queries have been repeatedly performed for each member of the Aviation Valley, yet the reports are typically standard. They include: registration information, addresses, representatives, ownership, financial data.

3. Patent Office - repeatedly for each member of the Aviation Valley in order to identify the patents pending.

4. National Statistics - underway, queries related to Statistic Industry Code in order to identify development data such as: turnover, profits, employment, exports etc in the period 2001-2008.

Sussex Unit (SPRU)

The SPRU Unit consulted the following databases:

- 1) Trade Directories: Trade Direct Biocommerce years 1988-2004)
- 2) Companies House
- 3) News Analyzer
- 4) Libraries House
- 5) Recap
- 6) Perfect Filing
- 7) Company websites
- 8) Pharma projects
- 9) ISI - Web of Science
- 10) In house project database - Corporate Venture Capital links
- 11) Pubmed
- 12) Scopus
- 13) US Patent Office

The aforementioned databases have been consulted in order to find:

- the full sample of firms and cleaning up.
- founding year (Companies House)
- outputs (Pharma projects)
- Alliances and network links (Recap, News Analyzer)
- M&As (various)
- Non-alliance network links (News Analyzer)
- scientific papers, co-authorship links, citations, key areas (ISI-Web of Science; Scopus, Pubmed)
- Technological patents – various, USPTO website
- CVC links between big pharma and networks of biotech firms
- Investments in the firms from venture capital funds.

The aforementioned databases have been questioned inserting queries containing the following keywords:

- For the Anchor Firms - “GSK”, “Glaxo”, “Glaxo SmithKline”, “Pfizer”, “Astra-Zeneca”
- For the biotech cluster firms we have used Pharma-projects with the UK as the country. The resulting firms have then been used as the basis for company searches.



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- For the alliances we have used the firm names in Recap and News Analyser.
- For the technological capabilities we have used various datasets, in particular the USPTO website to find firm patents.



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Catania Unit (UNICATANIA)

The Catania Unit was aimed at:

- Reconstructing the historical the evolution of the high tech and nanotech Catania cluster
- Contributing to the FRIDA project's literature review on anchor firms and regional innovation systems
- Preparing the Inaugural FRIDA Catania Local dissemination workshop
- Arranging FRIDA meetings presentations

In order to do so it consulted the following databases:

- 1) Abinform,
- 2) Proquest
- 3) Elsevier
- 4) Jstor
- 5) ISI web of science
- 6) Scopus

Other specific databases consulted as concerns the identification of STMicroelectronics as the anchor firm in the nanotech and nanosystem cluster of the Catania region,

- a) Nanoproject Database;
- b) Il Sole24Ore Database on industries and firms data;
- c) AIDA Database on sectoral and company information;
- d) RES Foundation Report 2009 on Firm and territories of innovation in Sicily;
- e) Fondazione Curella Annual Reports 2005-2006-2007-2008 on the development status of the Sicilian economy;
- f) Bank of Italy – Sicilian Area Annual Report 2008;
- g) Etna High Tech Consortium internal database;
- h) Plus a variety of documents and data coming from internal sources of STMicroelectronics Catania Site. In this way, we manage to find relevant historical information on the evolution of the high tech and nanotech Catania cluster.

Those databases was questioned inserting queries having regards to the following keywords:

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- 1) Anchor firms,
- 2) Anchor organization;
- 3) anchors,
- 4) regional networks,
- 5) regional innovation,
- 6) anchor networks,
- 7) local network,
- 8) regional development,
- 9) network externalities,
- 10) absorptive capacity

Ukraine Unit (UKR)

The Ukrainian Unit was aimed at:

- a) Specifying new kinds of competition at the networks.
- b) Specifying social, personal, economic, and other communications inside networks.
- c) Sources and mechanisms of synergy effect in networks.
- d) National and cultural features of network's origin and development.
- e) Knowledge transfer mechanisms that include national (regional) features.
- f) Quantity estimation of network's benefits.
- g) Role of organizations-facilitators in creation and functioning of networks.
- h) Opportunities for outsourcing in networks.
- i) Networks' influence on regional development.
- j) Differentiation between state origin and non-state networks

Sources of secondary data:

- a) Firm financial statement
- b) Ukrainian Statistical Office
- c) Internal documentation
- d) Ukrainian Legislative base
- e) Company web-site
- f) News

The Keywords used to question databases are as follows:

- a) Competition
- b) Anchor firms,
- c) Synergy effect,
- d) Knowledge,
- e) Innovation,
- f) Regional development,
- g) Quantity estimation,
- h) Cluster

Conclusions

It is possible to summarize the consulted databases and the queries which have been put with the table below

FRIDA LOCAL UNITS SPREADSHEET

Beneficiary Number	Beneficiary Name	Beneficiary Short Name	Consulted Database	Motivations for using the database	WP	Queries
1	University of Bologna	UNIBO	Pat Transfer & AIDA	<ul style="list-style-type: none"> Creation of patent database for Mirandola located firms analysis of nanotech patents filed by Bologna scientists. Collection of sales and performance data on Mirandola biomedical firms 	WP5 WP6	<ul style="list-style-type: none"> Company name Inventor name Patent class (technology class) Backward citations (in order to trace genealogy)
2	University of Mannheim	UNIKAI	<p>(a) "Yearbooks of the German Biotechnology Industry" provided by Biocom AG</p> <p>(b) Sourcing of archival data from the industry newsmagazine "TRANSCRIPT"</p> <p>(c) Sourcing of archival data from newsmagazines such as "Frankfurter Allgemeine Zeitung" and "Handelsblatt"</p> <p>(d) Longitudinal records from the German patent and trademark office</p> <p>(e) Bio-Tech and Pharma Associations (e.g. "Bundesverband der Arzneimittelhersteller")</p> <p>(f) ZEW Mannheim: Database</p>	<p>a) The database is used to collect data about name and location of firms in the German biotechnology industry from 1996-2008.</p> <p>b) Most important journal in the German biotechnology industry. The journal has a circulation of 10.000 copies and is monthly available. The journal covers reports on the Germany biotechnology industry.</p> <p>c) Data will be used to identify ties between pharmaceutical firms and other pharmaceutical firms, biotech firms, universities and other research institutes.</p> <p>d) Comprehensive patent database. Database covers for example patenting firm (location), patent codes, patent times.</p> <p>e) Association database allows to</p>	WP5 WP6	<p>1. Alliances and network links (various). Examples:</p> <p>a) Research agreement (research grant, R&D, research and development)</p> <p>b) Licensing agreement (outlicensing /inlicensing)</p> <p>c) Marketing/distribution agreement</p> <p>d) Research agreement</p> <p>e) Private placement</p> <p>2. Founding year / exit (various). Examples:</p> <p>a) Liquidation</p>

		<p>on patents on European and German level as well as exits (based on the creditreform database provided by the "Verband der Vereine Creditreform e.V.")</p> <p>(g) Daily registration and deregistration records of the German commercial register ("Bundeszentralregister")</p> <p>(h) Information portal "Biotechnologie.de" (available under: http://www.biotechnologie.de)</p>	<p>identify firms in the pharma and biotechnology industry.</p> <p>f)The ZEW (Centre for European Economic Research) is a non-profit and independent institute and one of Germany's leading economic research institutes. This institute provides a comprehensive collection of patent and exit databases. The main elements of this collection covers patent data (e.g. patenting firm (location), patent codes, patent times) as well as exits based on the creditreform database. The Creditreform database presents one of the most comprehensive sources of information on German companies (for example company name, address, legal form, year of establishment or registration details).</p> <p>g)Database allows to look for entries and exits of firms in general and specifically for biotechnology firms.</p> <p>h) It is a online database service, which offers an overview over the different government aid programs</p>	<p>b) Market exit</p> <p>c) Change in name, category, etc.</p> <p>d) Patents (German, EU)</p>
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3	Grenoble Applied Economics Laboratory	GAEL	<ul style="list-style-type: none"> 1. ISI Thompson – WOS 2. EBSCO 3. JSTOR 4. EMERALD 5. FACTIVA 6. DGCIS 7. INSEE, 8. DIACT 9. SISE 10. Espacenet (EPO) 11. Minalogic projects data base 	relevant for the biotechnology industry	WP5 WP6	<p>a) Anchor firms; Anchor Organization; Anchor tenant hp; hub firms; focal firm; leading firms; orchestration network; anchor and proximity; regional development and anchor; colocation.</p> <p>b) Grenoble and (STMicroelectronics or Alliance Crolles or Minalogic or Minattec or Nano2012 or GIANT or semiconductor industry or nanotechnology)</p> <p>c) Grenoble, Isere Department, Rhone</p>
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4	University of Katowice	KATOWICE	INFOVeriti	members of Minalogic pole de competitivite (Minalogic projects data base)	Alpes Region d) String elaborated by Mogoutov & Kahane, (2007) for papers nanotech based e) Y01N as European Classification (ECLA) and a list of SMEs and local Public research centers as Applicant f) Acronym of singular projects supported and certified by Minalogic
					WP3 WP4
				A comprehensive database including registry data, personal data of board members, financial data. This will allow for director interlocks analysis within the network and for linking the anchor to financial performance of the organization, its network and the regional development	

5	Science and Technology Policy Research	SPRU	<p>1) Trade Directories: Trade Direct Biocommerce years 1988-2004)</p> <p>2) Companies House</p> <p>3) News Analyzer</p> <p>4) Libraries House</p> <p>5) Recap</p> <p>6) Perfect Filing</p> <p>7) Company websites</p> <p>8) Pharma projects</p> <p>9) ISI - Web of Science</p> <p>10) In house project database - Corporate Venture Capital links</p>	<ul style="list-style-type: none"> Finding the full sample of firms and cleaning up. Finding founding year (Companies House) Finding outputs (Pharma projects) Finding Alliances and network links (Recap etc) Finding M&As (various) Finding not alliance network links (News Analyzer) Finding scientific papers, co-authorship links, citations (ISI-Web of Science) Finding technological patents - various Finding CVC links between big pharma and networks of biotech firms 	WP3 WP4	<ul style="list-style-type: none"> For the Anchor Firms - "GSK", "Glaxo", "Glaxo SmithKline", "Pfizer", "Astra-Zeneca" For the biotech cluster firms we have used Pharma-projects with the UK as the country. The resulting firms have then been used as the basis for company searches. For the alliances we have used the firm names in Recap and News Analyser. For the technological capabilities we have used various datasets, in particular the USPTO website to find firm patents.
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6	University of Catania	<p>UNICATA NIA</p> <p>1) Abinform, 2) Proquest 3) Elsevier, 4) Jstor 5) ISI web of science 6) Scopus 7) Nanoproject Database 8) Il Sole24Ore Database on industries and firms data 9) AIDA Database on sectoral and company information 10) RES Foundation Report 2009 on Firm and territories of innovation in Sicily; 11) Fondazione Curella Annual Reports 2005-2006-2007-2008 on the development status of the Sicilian economy; 12) Bank of Italy – Sicilian Area Annual Report 2008; 13) Etna High Tech Consortium internal database; 14) Plus a variety of documents and data coming from internal sources of STMicroelectronics Catania Site</p>	<ul style="list-style-type: none"> • Gather historical information on the evolution of the Catania high-tech and nanotech cluster • Retrieve relevant documents for performing the literature review on anchor firms and regional innovation systems, FRIDA meetings presentations, • Organization of the FRIDA Catania inaugural dissemination workshop 	Anchor firms, anchor organization anchors, regional networks, regional innovation, anchor networks, local network, regional development, network externalities, absorptive capacity
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7	The National Technical University of Ukraine	UKR	<ol style="list-style-type: none"> 1. Firm financial statement 2. Ukrainian Statistical Office 3. Internal documentation 4. Ukrainian Legislative base 5. Company web-site 6. News 	<ol style="list-style-type: none"> a) Specifying new kinds of competition at the networks. b) Specifying social, personal, economic, and other communications inside networks. c) Sources and mechanisms of synergy effect in networks. d) National and cultural features of network's origin and development. e) Knowledge transfer mechanisms that include national (regional) features. f) Quantity estimation of network's benefits. g) Role of organizations-facilitators in 	WP3 WP4	<p>Competition anchor firms, synergy effect, knowledge, innovation, regional development, quantity estimation, cluster</p>
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