

# EPIPAGRI

Towards European Collective Management of Public Intellectual Property for  
Agricultural Biotechnologies

Project number: 22973

Specific Support Action  
Sixth Framework Programme  
Thematic Priority 5  
Food Quality and Safety

## Publishable final Activity Report

**Period covered:** From October 1<sup>st</sup>, 2006 to September 30, 2008

**Date of preparation:** November 2008

**Revision:** 1

**Start date of the project:** October 1<sup>st</sup>, 2006 **Duration:** 24 months

**Project coordinator name:** Bernard Teyssendier

**Organisation:** Institut National de la Recherche Agronomique (INRA)

## Table of contents

<b>Project execution</b> .....	<b>3</b>
Summary description of project objectives .....	3
<b>Contractors involved</b> .....	<b>4</b>
<b>Coordinator contact details</b> .....	<b>4</b>
<b>Work performed</b> .....	<b>4</b>
<b>Results achieved</b> .....	<b>6</b>
<b>Intentions for use and impact</b> .....	<b>8</b>
<b>Project logo</b> .....	<b>9</b>
Diagrams or photos illustrating the work of the project .....	10
<b>Reference to the project public website</b> .....	<b>11</b>
<b>1 Project objectives and major achievements during the two years of the project</b> .....	<b>12</b>
<b>1.1 Overview of general project objectives and current relation to the state-of-the-art</b> .....	<b>12</b>
<b>1.2 Summary of the objectives for the entire period, work performed, contractors involved and main achievements</b> .....	<b>13</b>
<b>1.3 Comments on the most important problems during the two years of the project including the corrective actions undertaken</b> .....	<b>16</b>
<b>Dissemination and use</b> .....	<b>19</b>
Publishable results of the final plan for using and disseminating the knowledge .....	19

# Project execution

## Summary description of project objectives

EPIPAGRI's overall objectives are to reinforce the role played by public research organisations (PROs) in strengthening European competitiveness, especially through support to small and medium enterprises (SMEs) and to increase the part taken by PROs in contribution to public welfare inside and outside Europe, in particular regarding emerging countries.

EPIPAGRI is aimed to face the fragmentation of European public IP portfolios in the agricultural biotechnologies sector by experiencing the feasibility and benefit brought by joint management of intellectual property (IP) of European PROs.

EPIPAGRI's activities include the development of a patent information system composed of a database over patents owned by European PROs and a software package designed to help technology transfer chargés d'affaires in collecting, extracting, and analysing IP information and in establishing patent clusters in reference to technological applications. The database and information system will be made accessible through a web site designed to display partner IP and invite incoming visitors (public or private, especially SMEs), and additional IP contributors (from public sector).

EPIPAGRI will make an inventory of patents owned or managed by participant PROs according a range of categories of selected technological applications with the aims of setting up patent clusters to be proposed to internal and external PROs for joint management and industrial partners for technology transfer and commercialisation. These clusters will be evaluated at the scientific, technological and industrial use point of views. In particular the needs for pre-marketing technological development and economic studies for new applications will be deeper examined.

Legal issues will be discussed in order to design suited agreements. If necessary intellectual policy measures will be proposed to national and European policy-makers aiming at preserving the rights for academic research to utilize public research results and facilitating access of industry, in particular SMEs, and emerging and developing countries to biotechnological innovations.

EPIPAGRI will setup infrastructures for perpetuation, deepening, and enlargement of it action through bilateral commercial agreements made between partners on a free-basis, bringing of new partners to the consortium and exploitation offers proposed to industry.

EPIPAGRI is expected to encourage industrialists, especially SMEs, more fully exploit European agricultural public intellectual properties and then to reinforce the role played by public research organizations in strengthening European competitiveness.

## Contractors involved

Role	Number	Participant name	Short name	Country	Date enter project	Date exit project
CO	1	Institut National de la Recherche Agronomique	INRA	FR	M0	M23
CR	3	Flanders Interuniversity Institute for Biotechnology	VIB	BE	M0	M23
CR	4	France innovation scientifique et transfert	FIST	FR	M0	M23
CR	5	Fundação Luis de Molina	FLM	PO	M0	M23
CR	6	INRA Transfert	IT	FR	M0	M23
CR	7	Institut de Recerca I Tecnologia Agroalimentàries	IRTA	ES	M0	M23
CR	8	Irish Agriculture and Food Development Authority	Teagasc	IR	M0	M23
CR	9	Plant Bioscience Limited	PBL	UK	M0	M23
CR	10	Szeged-Biopolisz Innovation Services Ltd	Biopolisz	HU	M0	M23
CR	11	Sveriges Lantbruksuniversitet	SLU	S	M0	M03
CR	12	Max Planck Innovation GmbH	MI	D	M0	M23
CR	13	Umeå University *	UMU	S	M04	M23

\* replacing SLU at the administrative point of view, without any changes of persons working in the project.

## Coordinator contact details

Dr Bernard Teysseidier de la Serve  
 Chief delegate of the Plant Biology Department  
 INRA, 2 Place P. Viala  
 34060 Montpellier cedex 01  
[bernard.teysseidier@supagro.inra.fr](mailto:bernard.teysseidier@supagro.inra.fr)  
 33 (6)83697634

## Work performed

**WP1: Joint intellectual property information system**

The needed functionalities for the information system have been defined and a series of technological application categories of interest for EPIPAGRI have been listed, to be used to classify the patents sent by partners. Efforts were devoted to translate user's needs into technical specifications and to refine priorities. A specific working group built a terminology suited for EPIPAGRI's patents and an indexed patent corpus containing these patents.

Due to the fact that FIST was finally unable to develop the required website and patent information system, Bernard Teyssendier (project coordinator) decided to take in charge the WP1 project management. He entrusted the Bibliome research team of INRA's MIG unit to complete the WP1 tasks. His role as managing person was to elaborate the terms of reference with the users, to have relations with users for refining the specifications (in particular specifications previously designed by PBL), to search for complementary contributions (DPE INRA), and to be the administrator of the database.

MIG-INRA has participated to a further definition of the requirements of the information system with the coordinator and other Epipagri partners.

MIG has developed the Epipagri web information system (<http://www.epipagri.org/>) along three functions as follows: Advertising about Epipagri network and goals (Home, About and FAQ pages)

Patent management by Contributors (patent creation (download from esp@ceNet web service), indexing, edition and deletion, patent portfolio browsing)

Search and technology watch: Patent and Scientific Search (criterion: keywords, inventor, applicant, priority #, contributor, Epipagri category), Result recording (clickable pdf) and printing

- Send the Epipagri queries to other document database (PubMed, PatentLens, Esp@ceNet)
- Query history and management (add, remove, share with others),
- Personal patent directory management (flat classes),
- Display of selection of news INRA partnership delegation, (Arnaud Ridet) has proposed graphics for the web site main pages (photos, page composition). MIG-INRA has developed the corresponding Cascading Style Sheets, designed the web pages, developed the database and the access to it (perl-cgi technology).

## **WP2: Patent cluster building**

### **Overall legal issues:**

A confidentiality agreement has been set up by INRA and signed by all partners in order to facilitate all meetings and information exchanges inside the network.

### **Patent cluster building:**

Epipagri patents were grouped in a first set of application oriented clusters. A number of expert groups were established, according to the competences and the priorities of each partner and with the participation of all of them at least in one working group, with the objective of moving forward in the identification of patent baskets and patent pools from these first set of clusters.

The schedule of evaluation criteria and topics to be addressed by these groups has been defined: enhanced attraction, freedom to operate, enhanced range of applications, increased interest for complementary research or for technological development, to define relevant criteria to clustering for

industrial purposes, clusters suitable for partnership with international humanitarian organisations or for licensing to biotech companies of emergent countries.

Thanks to the information system set up by INRA, a second set of patent clusters was built during the second year with all partners collaboration and further evaluated.

### **WP3: Outreach**

INRA Transfert, INRA and PBL organised a showcase meeting in Paris dedicated to the presentation of the Epipagri patent SI. PBL Consolidated a flyer of Epipagri, which was presented it in numerous meetings.

INRA and INRA Transfert have made oral presentations of the EPIPAGRI network and information system in a number of national and international meetings.

INRA has made a study on “Underexploited Agricultural IP” with the aims to identify IP from EPIPAGRI members that is not being exploited and analyze the reasons for such non-uptake by industry. A focus was made on INRA’s patent portfolio in order to identify types of IP not being exploited or taken up by industry, and to analyze the reasons.

INRA conducted a survey concerning all the members of Epipagri, their organization and strategies and organized meetings with a subset of Epipagri’s partners in order to have an in-depth knowledge of their organization.

#### **External IP holders:**

A number of selected external IP holders were contacted by PBL and other partners to request their feedback on EPIPAGRI. Furthermore, other external IP holders across Europe and worldwide have been identified for further contact.

#### **International initiatives:**

INRA has started up contacts with CAMBIA. PBL and INRA assisted a meeting of PIPRA and discussed possible ways for partnership.

## **Results achieved**

### **WP1 EPIPAGRI database and query system**

A total of **480 patents or patent applications** was supplied by all the partners and classified into EPIPAGRI’s categories.

**A report** “How Can EPIPAGRI Best Network to Other Agricultural Biotechnology IP Holders and Existing Technology Transfer Initiatives” has been researched, compiled and delivered in the WP3. This report recommends a format for a very open access for parties to view EPIPAGRI IP portfolios, and a simple web-based mechanism for new public sector organisations to contribute to the EPIPAGRI IP “collection”.

**EPIPAGRI can be accessed** through its website [www.epipagri.org](http://www.epipagri.org). The database is free for any party to browse the content, as well as to identify and make contact with parties who have contributed IP to

the database. Public research organizations (PROs) may join EPIPAGRI for free and add information on their own IP as contributors.

**The web-based EPIPAGRI database** ([www.epipagri.org](http://www.epipagri.org)) has the following features:

It displays a tool that provides detailed information on Agri-biotech IP and enables sophisticated query to compare Contributors' IP with other existing IP by searching esp@cenet or Patent Lens and scientific publications through Pubmed.

Agri-biotech IPR is categorized according to the type of technology or the type of practical application/use,

For all IPR items submitted by Contributors, the user interface :

- allows instant identification of the responsible contact for each specific IP item(s).
- Uses a comprehensive search facility that includes all key areas of the patent document, including title, inventors, abstract, super abstract and claims,
- Displays a clear and informative presentation of search results,

After the end of the project, the system will be held by INRA in free access and will be continuously updated with new IP and related patent information and improved search facilities.

#### **Benefits of the EPIPAGRI database:**

EPIPAGRI database

- Allows sophisticated searching of a large collection of agri-biotech and agri-food IP, owned by European PROs,
- Provides a unique facility to contact IP owners directly,
- Facilitates identification of synergetic IPR packages,
- Promotes and generates collaborative tech transfer business opportunities.

**WP2 resulted in an analysis of potential patent baskets** built from the EPIPAGRI owned patents.

Thanks to the Epipagri initiative, INRA Transfert has implemented a novel approach to foster its technology transfer. On the basis of the “**Technology Evaluation Concept -TEC-**” which was previously developed by PBL, INRA Transfert and PBL have joint forces in a technology promotion alliance. This alliance will make INRA technologies available for free evaluation under the TEC scheme terms to TEC members.

Moreover, INRA Transfert, INRA and PBL have joined their efforts in order set up an agreement for the **cooperation and licensing of 2 patent families**, one of INRA (EP1704237) entitled “CCAMK Involved in Nodulation and Endomycorrhization” and another one (WO2007/006318) entitled “Spontaneous nodulation in plants” arising from the University of Aarhus, Denmark, of which PBL is in charge. PBL, IT and INRA have entered into an agreement giving PBL the rights to sublicense the INRA's IP in combination with the University of Aarhus IP.

#### **WP3: outreach**

A number of organizations have been contacted: virtually all parties contacted indicate keen interest to know more about EPIPAGRI and indicate a willingness in principle to participate. In addition, the

following Technology Transfer networks have been identified for further contact: ProTon, ATSP, AUTM, Auril, IRC network, Trans2Tech.

**The showcase meeting** organized in Paris demonstrated the EPIPAGRI database and network to numerous potential new contributors and to outside technology transfer networks. However, a majority of attending organizations were finally French, despite of the great number of sent invitations.

**The Epipagri flyer** was presented in numerous meetings and in different circumstances.

**Oral presentations of the EPIPAGRI network and information system**, made by INRA and INRA Transfert in a number of national and international meetings resulted in a lot of contacts and discussions but were finally disappointing in terms of new memberships.

**A report "How Can EPIPAGRI Best Network to Other Agricultural Biotechnology IP Holders and Existing Technology Transfer Initiatives"**, made by PBL, recommends a format for a very open access for parties to view EPIPAGRI IP portfolios, and a simple web-based mechanism for new public sector organizations to contribute to the EPIPAGRI IP "collection". These conclusions were taken into account for defining the specifications of website and database (see WP1).

The study conducted by INRA with the aims to identify **IP from EPIPAGRI members that is not being exploited** resulted in a detailed report focused on INRA's owned IP assets in its various fields of activity, which offers a very useful analysis of the obstacles hindering patent transfer to industry.

The survey conducted by INRA concerning all the members of Epipagri, their organization and strategies and the meetings organized with some Epipagri's partners resulted in a report explaining in a transversal way what the global trends in IP and valorisation managements are. It explains and throws light on the impact IP management has on the valorisation of an invention. It gives as well examples on how the Epipagri database can be used to enhance the management of IP and enable transnational predevelopment actions.

The other result of the report is a practical analysis on how patent clusters can be organized in the Epipagri fields of interest. The report may have use as a reflexion tool for IP policies, especially regarding the needs of developing predevelopment actions - early stage technical advancement of emerging public-sector IP in Agritechnology - that strongly benefits of being made at a transnational level by including the IP of several PROs.

## **Intentions for use and impact**

- **To expand the network**

One main strength of the EPIPAGRI project was to give members an opportunity to meet and to know each other much better, to experience working together, to share thoughts and comments, to network, to explore the possibilities of patent pooling. This knowledge and insights as such (besides the database) might prove to be very helpful in the future. Members have shown the feasibility for European PROs of joint exploitation of their IP assets.

Every member confirmed they will continue to contact new partners or to consolidate preliminary contacts. They plan to use every occasions, meetings and every day opportunities, to introduce the EPIPAGRI network.

- **To continue networking :**

IRTA and FLM will be in charge to propose a specific session for Epipagri at the annual meeting of ASTP association.

All members intend to continue updating and uploading their patents. However, maintaining all the licensing information up to date will need a specific effort which will be justified if focusing on patents with technological offers available. Additional funding would be helpful for ensuring networking continuation.

- **To reinforce the interest of the database and to develop tools for technology watch**

Two EPIPAGRI members have expressed interest for the development of specific tools for technology watch in specific fields: animal health (FLM) and forestry (UMU). They agreed to collaborate for terminology validation tasks with the INRA's Bibliome research team. This research team agreed to choose these fields for developing specific research tools, build terminologies and make these tools accessible on the Epipagri website. These tools will improve access to patents in these technology fields, in particular to patents owned by these organisations as well as to patents and other related documents from international databases, for scientists and technology transfer officers. This project will constitute a "proof of concept" towards larger and more ambitious projects aimed to expand the development of terminologies and ontologies to the whole field of agricultural biotechnologies. This will result in highly performing services for scientists, but also for SME's, for accessing patent information. Furthermore, a set of innovating softwares will be made available for licensing to companies specialized in the field of information managing.

## Project logo



This logo has been conceived by FLM.

# Diagrams or photos illustrating the work of the project



- >> Home
- About
- FAQ
- Partners & Contributors
- Search
- Help

Connected as contributor  
Claire.Nedellec

- My Patents
- My Favorite patents
- My Profile
- My Saved Queries

Sign out



## ■ Towards European Collective Management of Public Intellectual Property for Agricultural Biotechnologies

**EPIPAGRI initiative** is a project established with support from the European Commission to encourage public sector research organisation to collaborate in the management and promotion of their intellectual property assets. It has been launched by eleven **Founding Partners**. It is designed for technology transfer professionals to cooperate in the identification and transfer of technology and Intellectual Property (IP).

EPIPAGRI covered IP fields : *Agricultural and agri-food science*

EPIPAGRI is for

- IP Holders

## News

### Patents added

- Last week
- Last two weeks
- Last month
- Last three months

Last ten patents added/ modify

>>SYNTHETIC PROMOTERS

>>USE OF RECOMBINANT YEAST AN ANTI-INFLAMMATORY COMPOUND MANUFACTURE OF A MEDICAMENT

>>ARTICLES WITH ANTIMICROBIAL MANUFACTURING METHOD THERE

## ■ Search a patent

### ■ Help for search

Contextual help (mouse pointing on the field)

Here you can find the [EPIPAGRI category list](#)

[Hide/ Show search box](#)

■ <b>Keyword(s) in title or abstract or claims</b> <input type="text" value="nodulation"/>	■ <b>Contributor</b> <input type="text" value="--"/>
■ <b>Applicant</b> <input type="text"/>	■ <b>EPIPAGRI category</b> <ul style="list-style-type: none"><li>-</li><li>1.1 - Plant - Traceability markers/genes</li><li>1.2 - Plant - Other techno</li><li>1.3 - Plant - Expression syst. - biomolecules</li><li>1.4 - Plant - Crop protection pesticides - herbicides</li><li>1.5 - Plant - Herbicide tolerance</li><li>1.6 - Plant - disease resistance</li><li>1.7 - Plant - Insect Resistance</li></ul>
■ <b>Inventor</b> <input type="text"/>	
■ <b>Patent number</b> <input type="text"/>	■ <b>Results by page</b> <input type="text" value="10 results by page"/>
■ <b>Priority Date</b> <input type="text" value="--"/> <input type="text" value="--"/>	

### ■ Use my previous queries to search other databases

The left boxes show terms found in the result set. Clicking on one term will refine your query.

Query details: [nodulation](#)



**Contributor** [best] top 10 all

1-7 among 7 results

**BROAD HOST SPECTRUM RHIZOBIACEAE NODULATION SIGNALS**

## **Reference to the project public website**

<http://www.epipagri.org>

# **1 Project objectives and major achievements during the two years of the project**

## **1.1 Overview of general project objectives and current relation to the state-of-the-art**

EPIPAGRI's overall objectives are to reinforce the role played by public research organisations (PROs) in strengthening European competitiveness, especially through support to small and medium enterprises (SMEs) and to increase the part taken by PROs in contribution to public welfare inside and outside Europe, in particular regarding emerging countries.

EPIPAGRI is aimed to face the fragmentation of European public IP portfolios in the agricultural biotechnologies sector by experiencing the feasibility and benefit brought by joint management of intellectual property (IP) of European public research organizations (PROs).

EPIPAGRI's activities includes the development of a patent information system composed of a database over patents owned by European PROs and a software package designed to help technology transfer chargés d'affaires in collecting, extracting, and analysing IP information and in establishing patent clusters in reference to technological applications. The database and information system will be made accessible through a web site designed to display partner IP and invite incoming visitors (public or private, especially SMEs), and additional IP contributors (from public sector).

EPIPAGRI will make an inventory of patents owned or managed by participant PROs according a range of categories of selected technological applications with the aims of setting up patent clusters to be proposed to internal and external PROs for joint management and industrial partners for technology transfer and commercialisation. These clusters will be evaluated at the scientific, technological and industrial use point of views. In particular the needs for pre-marketing technological development and economic studies for new applications will be deeper examined.

Legal issues will be discussed in order to design suited agreements. If necessary intellectual policy measures will be proposed to national and European policy-makers aiming at preserving the rights for academic research to utilize public research results and facilitating access of industry, in particular SMEs, and emerging and developing countries to biotechnological innovations.

EPIPAGRI will setup infrastructures for perpetuation, deepening, and enlargement of it action through bilateral commercial agreements made between partners on a free-basis, bringing of new partners to the consortium and exploitation offers proposed to industry.

EPIPAGRI is expected to encourage industrialists, especially SMEs, more fully exploit European agricultural public intellectual properties and then to reinforce the role played by PROs in strengthening European competitiveness.

EPIPAGRI aims was essentially different of those of the Rockefeller funded initiative, PIPRA, which is focused on offering free tools in the field of plant biotechnologies for humanitarian purposes.

EPIPAGRI goals were not to offer one more technology transfer platform but to create a database devoted for patent information exchanged between the partners.

Their needs were experienced as requiring specific features. Furthermore no similar tool could be found on the market and the built EPIPAGRI's information system proved to be different of existing products and raised the interest of various public or private organisations. EPIPAGRI patent information system actually delivers relevant informations which are not available in other patent public databases such as the dedicated EPIPAGRI categorization, the patent licensing status, the contact of the licensing-out officers (most of patent databases contains informations about the applicant, but not the contact of the L.O. officer). Moreover, subscription and contribution are free of charge, easy to do, not time consuming, and could lead to business development (collaborating projects, technology transfer).

## **1.2 Summary of the objectives for the entire period, work performed, contractors involved and main achievements**

### **1.2.1 Objectives for the entire period:**

#### **To set up a patent information system**

- composed of a database over patents owned by European PROs and a software package designed to help technology transfer chargés d'affaires in collecting, extracting, and analysing IP information and in establishing patent clusters in reference to technological applications.
- accessible through a web site designed to display partner IP and invite incoming visitors (public or private, especially SMEs), and additional IP contributors (from public sector).
- to demonstrate the EPIPAGRI database and network to potential new members and to technology transfer networks with the aims to bring new partners to the consortium.

#### **To build and to evaluate patent clusters:**

##### **Inventory of patents owned or managed by participant PROs and**

- according to a range of categories of selected technological applications
- with the aims of setting up patent clusters to be proposed to internal and external PROs for joint management and industrial partners for technology transfer and commercialization.

**Evaluation of patent clusters** at the scientific, technological, and industrial use point of views, in particular concerning the needs for pre-marketing technological development and economic studies for new applications.

- to focus on the issue concerning "EU unexploited agricultural biotechnologies IP": to identify patents not being exploited and analyse the reasons for non uptake by industry.

- to examine legal issues in order to design suited agreements as well as intellectual policy measures to be proposed to national and European policy-makers aiming at preserving the rights for academic research to utilize public research results and facilitating access of industry, in particular SMEs, and emerging and developing countries to biotechnological innovations.
- to set up bilateral commercial agreements between EPIPAGRI partners
- to plan perpetuation, deepening, and enlargement of EPIPAGRI action
- to organize the continuation of the information system and to plan future developments

## 1.2.2 Work performed during the entire period

### WP1: EPIPAGRI's information system.

Due to the fact that FIST was finally unable to build the required information system, INRA managed the WP1 and entrusted the Bibliome research team of INRA's MIG unit to complete the WP1 tasks.

MIG and INRA participated to the definition of the requirements of the information system with the coordinator and other partners, in particular PBL which detailed the specifications for the website.

MIG developed the Epipagri web information system (<http://www.epipagri.org/>) along three functions as follows:

- Advertising about Epipagri network and goals
- Patent management by Contributors
- Search and technology watch using a highly performing semantic based query system.
- Result recording and printing

INRA's DPE and MIG designed the Web pages, developed the database and the access to it.(perl-cgi technology).

### WP2: patent clusters

**Technological application categories** of interest for EPIPAGRI have been defined by the EPIPAGRI partners (56 entries grouped in 6 main topics).

**Patent clusters:** The information system of the database was used by IRTA to group patents in a first set of application oriented clusters. This set of clusters has been further refined by INRA Transfert. A number of expert groups has been established with the objective of moving forward in the identification of patent baskets and patent pools from these first set of clusters on the basis of evaluation criteria defined by INRA, INRA Transfert and IRTA in order to identify clusters containing patents that may incorporate an added value to the market when exploited jointly.

### WP3:outreach

WP3

- Organised a **showcase meeting** in Paris.
- Consolidated a **flyer** of Epipagri, which was presented in numerous meetings.

- Made **oral presentations** of the EPIPAGRI network and information system (INRA and INRA Transfert) in a number of national and international meetings.
- Conducted a study aiming to identify **IP from EPIPAGRI members that is not being exploited** and analyze the reasons for such non-uptake by industry.
- Conducted a **survey concerning all the members of Epipagri**, their organization and strategies and organized meetings with a subset of Epipagri's partners in order to have an in-depth knowledge of their organization.

#### **International initiatives:**

INRA made contacts with CAMBIA with the aims to collaborate in developing a future innovating agribiotech patent information system on the basis of CAMBIA's LENS patent portal and of INRA's research in the field of automated information analysis. INRA and PBL assisted meetings with PIPRA.

### **1.2.3 Results achieved during the entire period**

#### **EPIPAGRI's website ([www.epipagri.org](http://www.epipagri.org)) :**

A patent database (currently 448 patents):

- free for any party to browse the content and identify and make contact with parties who have contributed IP to the database.
- provides detailed information on Agri-biotech IP and enables sophisticated query to compare contributors' IP with other existing IP by searching on esp@cenet or Patent Lens and scientific publications through Pubmed. Agri-biotech IPR is categorized according to the type of technology or the type of practical application/use,
- allows instant identification of the responsible contact for each specific IP item(s),
- Uses a comprehensive search facility that includes all key areas of the patent document, including title, inventors, abstract, super abstract and claims,
- Displays clear and informative presentation of search results,

The system will be held by INRA in free access and will be continuously updated with new IP and related patent information and improved search facilities.

#### **WP2 resulted in an analysis of potential patent baskets** built from the EPIPAGRI owned patents.

Thanks to the Epipagri initiative, on the basis of the "Technology Evaluation Concept -TEC-" which was previously developed by PBL, INRA Transfert and PBL have joint forces in a technology promotion alliance. This alliance will make INRA technologies available for free evaluation under the TEC scheme terms to TEC members.

Moreover, INRA Transfert, INRA and PBL have joined their efforts in order set up an agreement for the cooperation and licensing of 2 patent families, one of INRA (EP1704237) entitled "CCAMK Involved in Nodulation and Endomycorrhization" and another one (WO2007/006318) entitled "Spontaneous nodulation in plants" arising from the University of Aarhus, Denmark, of which PBL is in charge.

### **WP3: outreach**

The showcase meeting organized in Paris, flyer dissemination and oral presentations made in numerous meetings resulted in that new partners joined the network or expressed interest for the EPIPAGRI's information system.

A report "How Can EPIPAGRI Best Network to Other Agricultural Biotechnology IP Holders and Existing Technology Transfer Initiatives" (PBL) recommends a format for very open access for parties to view EPIPAGRI IP portfolios, and a simple web-based mechanism for new public sector organizations to contribute to the EPIPAGRI IP

A report (INRA) with the aims to identify IP from EPIPAGRI members that is not being exploited displays a very useful analysis of the obstacles hindering patent transfer to industry in the field of agricultural biotechnologies.

A report (INRA) concerning all the members of Epipagri, their organization and strategies explains in a transversal way what the global trends in IP and valorisation managements are. It explains and throws light on the impact IP management have on the valorisation of an invention. It gives as well examples on how the Epipagri database can be used to enhance the management of IP and enable transnational predevelopment actions.

The other result of the report is a practical analysis on how patents clusters can be organized in the Epipagri fields of interest.

These reports may have use as a reflexion tool for IP policies, especially regarding the needs of developing predevelopment actions - early stage technical advancement of emerging public-sector IP in Agritechnology - that strongly benefits of being made at a transnational level by including the IP of several PROs.

#### **Bridge with international initiatives.**

Partnership with PIPRA: it was agreed that EPIPAGRI could cooperate with PIPRA on a case by case basis to set up specific patent clusters for humanitarian purposes.

CAMBIA: contacts by INRA are continued which might result in joint application for public funded projects towards the development of semantic based query tools for technological survey.

## **1.3 Comments on the most important problems during the two years of the project including the corrective actions undertaken.**

CNRS underwent deep institutional changes during year 2006, which caused its withdrawal from EPIPAGRI before the signature of the DOW.

CNRS has deputed FIST to represent it into EPIPAGRI.

## WP1

FIST, the CNRS affiliate, leader for WP1 was also shaken up during summer 2006 and its staff completely renewed. As a first consequence, the new team needed external competences for help in performing the planned WP1 tasks:

- FIST decided to lean more largely than planned on its subcontractant, Lingway.
- Moreover, in order to face these difficulties, the coordinator decided to appeal to an INRA's research group in the field of natural text automatic information analysis. The head of this group, Claire Nédellec brought expertise and assistance in the course of discussions with Lingway, in order to help to define the needs and to decide the best ways to fulfill them.

According to one of the proposals made by Lingway and to one of the initially planned goals, it was planned first to develop with this subcontractant a system allowing automatic classification of patents into the previously defined EPIPAGRI's technological categories. However, as discussed in the DOW, the number of patents owned or managed by EPIPAGRI partners was less than 500, i. e. much less than previously expected. Therefore, the self improvement of the automatic categorization system was no more possible and the planned strategy had to be reconsidered (see WP1, Task 1.3).

The INRA's research team of Claire Nédellec made an important contribution to the work needed by this new strategy and performed complementary tasks leading in particular to the delivery of an agrobiotech-specific terminology in June 2007 as well as an indexed patent corpus containing EPIPAGRI's patents.

Discussions with the subcontractant and validation procedures spent unfortunately a lot of time and resulted in regrettable delays, notably as far as the progress of WP2 and WP3 tasks is concerned.

It was then decided:

- to make a priority towards the extension of EPIPAGRI network to other European PROs
- for this purpose, to build a website giving access to EPIPAGRI's patents in a searchable database with functions defined by the participants,

The previously planned automatic classification of patents was found no more relevant and could be better replaced by

- o assigning each newly entered patent into EPIPAGRI technological categories by the concerned project manager,
- o and building an information system allowing efficient terminology based queries.

Considering

- that FIST subcontractant was strictly specialized in automatic clustering,
- that INRA's MIG research laboratory had been able to mobilize during the first period of the project the suitable human competences,
- that this team had built a toy ontology from the EPIPAGRI patents and commanded software resources including a semantic search platform (Alvis) previously developed in another EU program
- that it was then able to achieve the work planned for the WP1 and to satisfy the needs of EPIPAGRI members,
- that additional delays would block seriously the progress of EPIPAGRI project,

Bernard Teyssendier decided in November 2007, as coordinator of the Epipagri project, to ask the MIG team of INRA to take in charge the development of the website and database according the specifications defined by Jan Chojecki (WP3 leader) finalized by FIST and validated by the entire consortium during the Epipagri annual meeting in Dublin in September 2007.

FIST agreed with this choice and has accepted to transfer the leadership of the WP1 and to transfer the planned charges for the end of the WP1 to INRA.

Regarding the costs that this leadership will generate, the following amounts will be transferred from FIST to INRA in order to achieve the work which has to be performed until the end of the project:

- 8568,20 € remaining from FIST WP1
- 1000 € WP1 coordination
- 10000 € out of 15000€ WP3 FIST

FIST implication in WP2 remained unchanged and FIST implication in WP3 was subsequently reduced from 2.1 person-month to 0.7 person-month.

## **WP2**

One important conclusion of the EPIPAGRI project is that the number of patents owned by European Public Research Organisations is low. This lead the partners to change their strategy (see above) concerning the information system and the expansion of the network.

## **WP3**

Some of the tasks planed in WP3 suffered from the delayed achievement of the website and of the database. Nevertheless, it is clear that it was difficult to convince new organisations to join EPIPAGRI. Many of them have very few patents. Other partner question is the effort and time required to put patent in the database (although the system requires only to type the patent number) and to check for the actualisation of related information are actually justified in regard to the expected benefits.

# Dissemination and use

## Publishable results of the final plan for using and disseminating the knowledge

Result description (product(s) envisaged, functional description, main advantages, innovations)	None
Possible market applications (sectors, type of use ..) or how they might be used in further research (including expected timings)	None
Stage of development (laboratory prototype, demonstrator, industrial product...)	None
Collaboration sought or offered (manufacturing agreement, financial support or investment, information exchange, training, consultancy, other)	None
Collaborator details (type of partner sought and task to be performed)	None
Intellectual property rights <b>granted</b> or published	None
Contact details	None