



PROTECTOR ECO/08/238984



First industrial application of eco-innovative biotechnological process/product, for recycling/re-use of food industrial waste to economically important/high added value farming products

Coordinator: Edward Someus /Terra Humana Ltd. (Hungary)

Partners: Plant Research International B.V. (Netherlands)

Agricultural Office of Country Fejer Plant Protection and Soil Conservation Directorate (Hungary)

ECP - Chemical and Physical Studies (France)

Starting date: 10 June, 2009.

Duration: 36 months

Total eligible cost: €1,190,050

Requested EC Contribution: €699,836



SUBSTANCE OF THE PROTECTOR ECO-INNOVATION PROJECT - I.



PROJECT BASELINE STARTING POINT

Already **PROVEN, DEMONSTRATED, TRANSFERABLE, FULL SCALE ENGINEERED** and **ADAPTED APPLIED RTD results** from EUFP5 (2002-2005) and EU FP6 (2005-2008) RTD projects, which have not yet penetrated the market. **STATUS = post RTD prior industrialization.**

PROJECT OBJECTIVE

First industrial application and further market uptake of thermal and biotechnological PROTECTOR process for recycling of food industrial and agricultural organic waste materials to high added value eco-innovative farming products.

Development, design, industrialization and implementation of 4000 l/batch capacity liquid and 8000 l/batch capacity SSFF System in Hungary.



SUBSTANCE OF THE PROTECTOR ECO-INNOVATION PROJECT – II.



MAJOR OUTPUT = FIRST INDUSTRIAL APPLICATION

- Engineering, design, manufacturing, installation and **FIRST INDUSTRIAL APPLICATION** of a 4000 litre/week capacity PROTECTOR Solid Substrate Fermentation and Formulation System (SSF).
- **REAL LIFE TESTING** of PROTECTOR technology for 18 months duration and additionally 6 months industrial demo testing for potential licensing and market replication partners.
- **REAL LIFE TEST PRODUCTION** of 25 tonnes animal bone charcoal from food industrial waste and **25 tonnes PROTECTOR** high added value farming substance by innovative SSFF.

END RESULT=

PROTECTOR MARKET REPLICATION AND LICENSING



PROTECTOR GENERAL CONCEPT



INPUT MATERIALS

Bone meal



Bone charcoal



Biotech formulation



500x enlargement



The **INPUT FEED STREAMS** are **low value (plant/animal based) organic and/or inorganic byproducts**; high Phosphorous content animal bone meal, refuse grain, food processing and agricultural by-products.

The **3R PROCESS**: integrated innovative thermal /biotechnological methods.

The **OUTPUT PRODUCTS** are soil biotechnology specific solid carrier and formulated microbiological fungus and bacteria strain consortiums. **Depending on the different soil/climate application scenario conditions, different types of relevant PROTECTOR products made.**



PROTECTOR EU FP6 and ECO-INNOVATION PROJECT STATISTICS



- **18 YEARS** RTD, engineering and business **background** directly related to the PROTECTOR subject.
- **5 YEARS** preparation to **enter EU FP5 and FP6 programmes**. Extensive and very active learning of EU structures, systems and regulations.
- **4 YEARS** intensive work on the **implementation of FP6 PROTECTOR** RTD project for achieving proven demonstrated, transferable and adapted applied RTD results.
- **1 YEAR** intensive **preparation of the first industrial application and scale up programme** concept based on the FP5 and FP6 RTD project results.
- **KEY PARTNER SEARCH:** **85 potential partners continuously evaluated** for the PROTECTOR FP6 Programme, 12 selected for the successful finished FP6 programme and 3 (already working together in other projects) for Eco-Innovation Programme.



PROTECTOR
ECO-INNOVATION PROJECT
PARTNER SEARCH - I.
- The problems of the SME partners -



- **Lack of key staff** with sufficient high end scientific and technical qualifications.
- **No experience** for management of international projects and partners.
- **Lack of sufficient economical resources.**
- **Too busy with the daily operations** to innovate.
- **Insufficient English language** and electronic communication skill.
- **No will or opportunity to take development risk.**



PROTECTOR ECO-INNOVATION PROJECT PARTNER SEARCH - II.

- The problems of the Academic partners -



- Lack of true innovative personal: known **scientific knowledge is NOT equal with innovative capability** and new knowledge creations.
- **Too busy with the daily** university or academic operations to innovate or drive the innovation.
- **Lack of practical experience and/or knowledge to turn scientific knowledge/lab results into industrial practice**, commercial / true market values and products. High class scientific + lab results with non competitive economical performance means overall **bad RTD results**. „There is no applied science, only application of science” (Louis Pasteur)
- **"Until you commit your goals to paper, you have intentions that are seeds without soil."**



PREPARATION OF THE ECO-INNOVATION PROJECT APPLICATION



- **Collect all relevant information** from the EACI-Ecoinnovation call web page. Read carefully the call text. Get and follow the latest application forms, guidance and instructions. Subscribe to EACI newsletter and check FAQs.
- **CHECK:**
 - Scope and Objectives for the Call
 - **MAIN PRIORITY areas of the Call**
 - Eligibility Criteria including legal status of the participants. **Failure to comply with criteria will result in the proposal not being evaluated.**
 - Exclusion Criteria
 - Administrative and financial penalties
 - **SELECTION CRITERIA:** Financial capacity, Professional skills, qualifications
 - **MAIN AWARD CRITERIA**
- **ONLINE SUBMISSION ONLY** with registration. **Carefully check the rule of the online submission (file form, name and size).** Submit before the deadline!



The KEY ISSUES for the Succes of Eco-Innovation project - RECOMMENDATIONS-



- Have true innovative character: **Money never starts an idea; it's the idea that starts the money.**
- The proposal is in line with the relevant EU policies and Call priorities.
- **Definition of clear goals** from market driven innovation to targeted potential commercial end products: „**If you don't know where you are going, every road will get you nowhere**” (Henry Kissinger).
- Provide and **demonstrate significant and high replication**, market and licensing potencial.
- **Coherent and clear presentation of the project objectives**, proposed activities technical and project management perspectives.
- Clear work programme with **complementarity** among participants.
- Clear environmental and economical sustainability and benefits.
- **Cost effective project solution and implementation** with delivery of high quality efforts.



The **DRIVERS** for **PARTICIPATION** in **Eco-innovation** programme



- Through technology and application driven innovation, target new and market competitive high-skilled products and services: **develop core competence.**
- **Use and utilize applied science** to achieve new market demanded product / service results.
- **Open new technical - economical – environmental opportunities** through innovation.
- **Remove technical barriers** for business expansion.
- Create **international working networks.**
- Be **linked to international teams** aiming economical and market expansion.



PROTECTOR ECO-INNOVATION PROJECT PREPARATION AND CONTRACTING TIMING



2008.

- **JANUARY-JUNE:** PROTECTOR Scale up strategy and project idea development.
- **JUNE-SEPTEMBER:** Preparation of the project application.

SEPTEMBER 11, 2008: Submission of the PROTECTOR proposal.

2009.

- **FEBRUARY 05:** Evaluation and recommendation letter.
- **MID FEBRUARY: Negotiation starting.**
- **FEBRUARY-APRIL: NEGOTIATION – QUICK IF YOU WORK ACCORDING TO THE PROJECT OFFICER RECOMONDATION + REGULATIONS.**

TECHNICAL

- Answer to the technical questions (=22) of the Project Officer.
- Preparation of the Annex I. (technical description) from Part B. according to the recommendation of the Project Officer.

FINANCIAL: Answer to the financial and administrative questions. Correction of the Financial forms. Discussion on financial guarantee .

LEGAL: Providing the necessary legal forms and document. Most in electronic form.

JUNE 10, 2009: SIGNATURE OF THE GRANT AGREEMENT
PROJECT START



THANK YOU!

Personal thanks to the EU officers for good cooperation, active + efficient communication + great support for project set up + start up.