Coordinator CO
SINOMED FILTRATION Ltd

Partner P 1
IPA SA

Reg. no 13/19.08.2010

Reg. no.163/19.08.2010

EUROPEAN COLLABORATION AGREEMENT

1. Eureka Project

Project name:Green technology for detection and removal of heavy metal ions from wastewaters

ACRONIM: ASIPARI

Registration number Eureka E!5823

2. Project partner organizations

Denumirea Partener	Short name	Country	Role in the project
SINOMED FILTRATION Ltd	SINOMED	ISRAEL	Coordonator- CO
SC IPA SA- RESEARCH DEVELOPMENT, ENGINEERING AND MANUFACTURING FOR AUTOMATION EQUIPMENT AND SYSTEMS	IPA	ROMANIA	Partner- P1

3. Partners data

CO –SINOMED FILTRATION Ltd –ISRAEL ,City Jerusalem, PO Box 9785,Postal code 91097,Tel (972)2-6412655,email asimow@12.net.il represented by Manager Prof . Robert Asimow.

P1- SC IPA SA- RESEARCH DEVELOPMENT, ENGINEERING AND MANUFACTURING FOR AUTOMATION EQUIPMENT AND SYSTEMS, S.C. IPA S.A. - 169, Calea Floreasca Str., Building P1, 014459 Bucharest, ROMANIA, **Short Name IPA SA ,Juridical Form: sharehold company Address:014459, Calea Floreasca 169, Corp P1, et. 4, cam. 1, sect. 1, Bucuresti ,Registration number:J40/6202/1991 , VAT number: RO 1570298** , represented by the **General Manager: Dipl. Eng. Florian UDRESCU , *udrescuf@ipa.ro*** , and Scientific Responsible Marcel Ionica, tel. 0251-418882, Fax: 0251-418882, email:marcel.ionica@ipacv.ro ,

4. NATURE AND PURPOSE OF THE AGREEMENT

Purpose

To facilitate the unfolding of the activities included in the achievement plan (Annex to the Agreement) of the project" **Green technology for detection and removal of heavy metal ions from wastewater"** which has EUREKA status , Acronim ASIPARI and no. Eureka E! 5823

Agreement nature

Nothing contained in this Consortium Agreement shall constitute or be deemed to constitute either a partnership or any formal business or legal entity between the Parties.

Each party will act as an independent contractor and will comply to the specific contracting and financing rules of the origin country.

Collaboration between partners will include exchanges of scientific and technical information to be carried out during project implementation, as well as carrying out some activities jointly, for the fulfillment of plan implementation, when bilateral displacements.

Duration of Agreement

This Agreement shall enter into force upon signature by the parties, and will run for a period of 36 months from the date of acceptance on finance.

5 The performance of the project

15 11 2010 -15 11 2013

6 . **PROJECT PRESENTATION**

Main objective of the project „ Green technology for detection and removal of heavy metal ions from wastewater" is the optimization of wastewater purification technologies using a system of measurement and online monitoring of manufacturing parameters .

The project aim is to achieve a „Flow system for determining the concentration of metal ions from waste water from polluting processes and other sources"
The system will have a detection, monitoring and storage purpose of all process parameters, with the possibility of online data transmission

- **Specific objectives of the project**

The specific objectives are found in the activities that will take place throughout the project and can be found in the achievement plan attached to this Protocol.

- **Project activities**

In order to achieve objectives the following activities will take place:

STAGE I .
PROSPECTIVE ANALYSIS:
Period:15 11 2010 -15 02 2012

Stage activities

Activity I.1 Undercurrent reviewing techniques for industrial wastewater treatment containing heavy metals
Activity I.2 Methods and techniques revision for analyzing polluted, water-based environments with heavy metals. Stripping technology application in determining the content of heavy metals in polluted waters.

Objectives : Analysis of retaining and detection technologies used in environmental analysis and wastewater purification**.**
Results: Study

STAGE II.
Development of novel constructive AND / OR technological solutions for creating a system for determining the concentration of heavy metals ions in wastewater environments using the electrochemical (striping) methods.

- **Designing of the laboratory method of analysis**
- **Optimization of the laboratory method developed (small scale)**

GMP test (Good Manufacture Procedures). - Knowledge achievements exchange among partners.

Period: 15 02 2011- 15 12 2011

Stage activities

II.1 Recognition, monitoring and control of total parameters in the industrial electroplating section. Database building containing all parameters involved in the technological process and in the analysis process. Model elaboration- Data transfer to IPA.
II.2 Link up monitoring parameters, range measurements intervals, mistreatment conditions of the chemical process. Database building. Data transfer to Sinomed Filtration Ltd.
II.3 Development of the Flow Measurement System Configuration Model. Block scheme Design.
II.4 Design and production of the experimental model with the connection device to the electrochemical sensor equipment.
II.5 Developing of the measurement model using the stripping method

II.6 Survey of sampling analysis in the stainless steel electroplating plant. Conceptual sampling model improvement
II.7 Mounting the experimental model: the acquisition system and remote data transfer equipment
II.8 Rising the experimental model: "Quantification system for the metallic ions' contained in industrial wastewaters"
II.9 Laboratory optimizations using stainless steel industrial wastewater samples processed in the laboratory
II.10 Study and optimization for mounting the sensitivity and selectivity of the electrochemical electrodes using bio organic-inorganic nano-structured materials.
II.11 Management and exhibition of functionality and utility of the model realized in order to promote a novel solution of heavy metals analysis
II.12 Intellectual propriety-Identification and protection of proprietary rights.
II.13 (Mutual) Good practice exchange between partners. Bilateral work visits

Objectives:
New constructive solutions and / or technological development of a system for determining the concentration of heavy metal polluted aqueous environments, using the stripping technique.
Secifice objectives can be found in the activities presented.
Results:
Database with monitoring parameters,measuremment domains,exploatation conditions.
Conceptual model: „Flow system for determining the concentration of metal ions from waste water from technological processes and other sources"
Experimental model: „Flow system for determining the concentration of metal ions from waste water from technological processes and other sources"

STAGE III.
ELABORATION OF MARKETING DOCUMENTATION. ELABORATION OF TECHNICAL DOCUMENTATION FOR REALIZING THE PROTOTYPE "SENSORING EQUIPMENT FOR QUANTIFYING METAL IONS' IN INDUSTRIAL WASTEWATERS"

Period:15 12 2011- 15-11-2012

Stage activities:

III.1 Development and design documentation for technical and economical analysis
III.2 Development of technical documentation for the prototype realization.
III.3 Intellectual propriety-Identification and protection of proprietary rights.
III.4 (Mutual) Exchanges of good practice between partners. Bilateral work visits

Objectives:

Design and development of technical-economic documentation.
Design and development of prototype manufacturing documentation.

Results:

Economical-technical documentation.
Design and execution documentation.

STAGE IV.

Prototype: developing, verification and optimization

Period :15 11 2012 -15 11 2013

Stage activities:

IV.1Prototype production
IV.2Prototype testing and verification
IV.3 Developing a presentation manual/user manual
IV.4 Intellectual propriety- Identification and protection of proprietary rights
IV.5 (Mutual) Exchanges of good practice between partners. Bilateral work visits

Objectives:

Prototyping according to the technical documentations.
Prototype testing in different conditions

Results

Final reasearch product – Prototype „Flow system for determining the concentration of metal ions from waste water from technological processes and other sources"

7. DURATION OF THE PROJECT IN THE PARTNERSHIP

The consortium formed of partners identified in Article 2 operates during the entire project, 15noiembrie2010-November 15, 2013 -36 months..

8. RESPONSIBILITIES IN THE PROJECT

8.1. Technical responsibilities of partners in the project

8.1.1Management structure of the partnership is formed

Management committee

Formed of project executives from each partner.Decisions are taken by simple majority.

Scientific and technical coordonation committee of the project

Composed of one representative appointed by each participant. Decisions are taken by consensus.

The committee for the information dissemination, for sharing intellectual and/or industrial property rights

Formed by project managers from each partner. The decissions are mutual.

8.1.2 Administrative support is provided by each partner. Management of funds is made in accordance with the laws of each country

8.1.3 Responsibilities and activities of each partner are specific for every stage of work and are presented in the project plan –Annex I.2.

Experimental research and experimental development will be held jointly and in parallel, each partner having responsibility for joint activities, accountability will be established at the beginning of each stage of plan implementation. Each partner will have it's own implementation plan, the plan will be drawn from the general plan of the project.

9. IDENTIFICATION,ASSIGNMENT AND EXPLOATATION METHOD OF THE PROPERTY RIGHT PROPER TO THE RESULTS EXPECTED.

9.1. Intelectual property

The intellectual property rights belong, in proportional quota with the activity deployed, to the partners from the consortium. The quota will be evaluated, for each case by the information dissemination committee, for the sharing of the intellectual and/or intellectual property rights.

9.2 Industrial property

The industrial property rights belong, in proportional quota with the activity deployed, to the partners from the consortium. The quota will be evaluated, for each case by the information dissemination committee, for the sharing of the intellectual and/or intellectual property rights.

9.3 Dissemination rights.:

One mentions a wide dissemination of the results. In the case in which there is an activity after which there are published results, and which is made entirely by a single partner, this is entitled to publish alone the scientific work /works for the dissemination of information. When working in a team containing several partners, the authors and their order will be settled by the dissemination committee.

10. VALUE OF THE PROJECT

Partner	TOTAL (EUR)	2011 (EUR)	2012 (EUR)	2013 (EUR)
SINOMED FILTRATION Ltd	500000	200000	120000	180000
IPA SA	500000	200000	120000	180000
TOTAL	1000000	400000	240000	360000

11. THE END OF EACH STAGE

The end of each stage of research – development from the Realisation Plan is made by each partner, according to the specific methodologies for each country

12. THE APPOINTMENT OF THE COORDINATOR

12.1. Partners agree that SINOMED FILTRATION Ltd to be project coordinator for Eureka and to represent this partnership in relation to EUREKA

13. THE MODIFICATION OF THE COLLABORATION AND PARTNERSHIP AGREEMENT

13.1. The parties can commonly modify the clauses of the agreement respecting the legal provisions in use, considering the financing given by each country

13.2. The modifications of the agreement under new situations, as well as its re-writing, will be made by consulting both parties

Project leader EUREKA
SINOMED FILTRATION LTD

General manager
SINOMED FILTRATION, LTD.
סינומד פילטרציה בע"מ
Prof R. 513451542 .ח.פ

Project manager

Partner PI

SANN SA

General manager

Ing Florian Udrescu

Project manager
Fiz Marcel Ionaşi