



Contract no. 224306

## LABONFOIL

### Laboratory Skin Patches and SmartCards based on foils and compatible with a Smartbiophone

INSTRUMENT: Large-scale integrating project (IP)

#### D14.3 Final report on dissemination activities

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<b>Project co-funded by the European Commission within the 7th Framework Programme</b>		
<b>Dissemination Level</b>		
PU	Public	<input checked="" type="checkbox"/>
PP	Restricted to other programme participants (including the Commission Services)	<input type="checkbox"/>
RE	Restricted to a group specified by the consortium (including Commission Services)	<input type="checkbox"/>
CO	Confidential, only for members of the consortium (including Commission Services)	<input type="checkbox"/>



**Project coordinator:** IK4-IKERLAN

**Responsible Partner for this Deliverable:**

IK4-IKERLAN



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## **1. INTRODUCTION**

Last report we were talking that we were preparing a second wave of scientific diffusion. This was carried out with successful results in journals and conferences. At this moment, we are preparing the third wave of results in order to diffuse the last results.

This report is focused on this last period. Tables have been prepared to allow the reader a quick look into the most important diffusion results. However, we can say that LABONFOIL has created 64 articles and conference proceedings.

## **2. DIFFUSION TOOLS**

The following section will contain the results of these diffusion tools:

- Articles, conferences and patents.
- Workshops.
- Labonfoil Web analysis.
- Fairs.
- Public media.

### **2.1 Articles, conferences and patents**

The following tables sum up the results of this last period.

Last period Scientific journals					
Journal	Title	Date	Author	Partners	Impact factor
Biosensors & Bioelectronics	A Novel Real Time Micro PCR Based Point-of-Care Device for Salmonella Detection in Human Clinical Samples	Dic-2011	Verdoy, Barrenetxea, Berganzo, Agirregabiria, Ruano-López, Marimón and Olabarria	Ikerlan, Gaiker, BIOEF	5,429
Analyst	Real-time isothermal RNA amplification of toxic marine microalgae using preserved reagents on an integrated microfluidic platform	Oct-2012	Tsaloglou, Laouenan, Monsalve, Thanner, Morgan, and Mowlem	IKERLAN, NERC,uso	4,23
Procedia Engineering	A self-contained diagnostic platform for DNA concentration, elution, and qPCR inside a LabCard with stored reagents		Laouenan, Monsalve, Goiriena, Agirregabiria, Ruano-Lopez	IKERLAN	
Procedia Engineering	Nonconventional Fluorimetric and Spectrophotometric Detection in Microfluidic Chips		Rafał Walczak	PWR	
Lab on a Chip Journal	Pre-storage of gelified reagents in a lab-on-a-foil system for rapid nucleic acid analysis	oct-12	Sun, Thanner, Florian, Monsalve, Rodriguez, Caob, Wolff, Ruano and Bang	DTU, IKERLAN-IK4, EVG, Biotools	6,26
BioChip Journal	Fluorescence detection by miniaturized instrumentation based on non-cooled CCD minicamera and dedicated for lab-on-a-chip applications	Sep-2011	Rafał Walczak (review Article)	PWR	0.86
Food Control	Isolation and detection of Campylobacter jejuni from chicken fecal samples by immunomagnetic separation-PCR		Le Ly Thuy Tram, Cuong Cao, Jonas Høgberg, Anders Wolff, Dang Duong Bang	DTU	
TBD	Final Results from Food validation	2013	Under preparation	DTU	
TBD	Final Results from CRC validation	2013	Under preparation	GAIKER-BIOEF	
TBD	Final Results from Environmental validation	2013	Under preparation	DTU	
TBD	Final Skinpatches	2013	Under Preparation	BIOSENSIA	
Sensors and Actuators B	Characterisation of an irreversible bonding process for COC-COC and COC-PDMS-COC sandwich structures and application to microvalves	2011	Barbara Cortese, Matt C. Mowlem, Hywel Morgan	NOC and UoS	
Journal of the royal society	Electroporation and lysis of marine microalga Karenia brevis for RNA extraction and amplification	2011	M. M. Bahi1, M.-N. Tsaloglou, M. Mowlem, H. Morgan	NOC and UoS	
BPAS	Lab-on-a-chip fluorescence detection with image sensor and software-based image conditioning	2011	Rafał Walczak (review article)		0,966
Langmuir	Controlling the Wettability of Hierarchically Structured Thermoplastics	2011	Barbara Cortese and Hywel Morgan	UoS	

**Figure 1. Last period Scientific journals.**

LIST OF APPLICATIONS FOR PATENTS, TRADEMARKS, REGISTERED DESIGNS, ETC.					
Type of IP Rights	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Application reference(s) (e.g. EP123456)	Subject or title of application	Applicant (s) (as on the application)
PCT	YES	07/07/2010	PCT ES2011070291	Method for Producing Microfluid Devices	IKERLAN
PCT	YES	12/11/2012	PCT ES2012070785	Method for Producing a Microfluid Device	IKERLAN
PCT	YES	31/12/2012	PCT ES2012070923	Sistema Potenciador de la Repetitividad y Reproducibilidad en Camaras de Reaccion	IKERLAN
PCT	YES	2012	PCT ES2012070887	Device to provide samples	IKERLAN
Registered Methodology	YES		Under progress	Method to develop IVD systems based on LabonaChip	IKERLAN
Trademark	YES	2009		SmartBioPhone	IKERLAN

**Figure 2 Last period Intellectual property. More about patents in D14.5**

Scientific Conferences					
Conference	Title	Date	Speaker	Author	Partners
EUROSENSORS 2012	A self-contained diagnostic platform for DNA concentration, elution, and qPCR inside a LabCard with stored reagents	sep-12	Jesus Ruano (Invited talk)	Laouenan, Monsalve, Goirienea, Agirregabiria, Ruano-Lopez	IKERLAN
Rapid Methods	A LabonaChip integrated into a smart system	Jan/13	Jesus Ruano (Invited talk)	Jesus Ruano	IKERLAN
EUROSENSORS 2012	Nonconventional fluorimetric and spectrophotometric detection in microfluidic chips	September 2012	Rafał Walczak	Rafał Walczak (review presentation)	All partners
MEMSTECH 2012	Labs-on-a-chip with optical detection for life-science applications	April 2012	Rafał Walczak	Rafał Walczak (review presentation)	All partners
EUROSENSORS 2011	Non-cooled low-cost CCD camera module as fluorescence detector for lab-on-a-chip life-science applications	Spetember 2011	Rafał Walczak	Rafał Walczak (review presentation)	All partners

**Figure 3. . Last period Conferences. Few conference have been prepared, since our objective was to submit papers due to the consolidated results.**

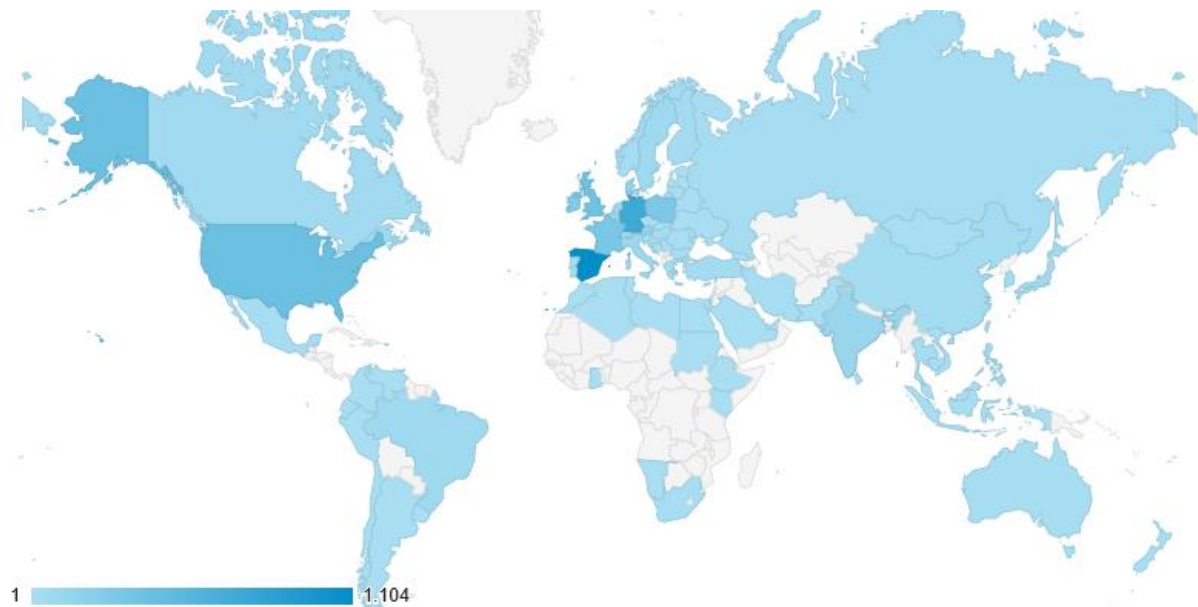
## 2.2 Workshops

Apart from the Labonfoil workshop at Wroclaw, TATAA organized and promoted an open meeting for all interested in immuno qPCR LOC technologies with special attention paid to promote LABONFOIL.

## 2.3 Labonfoil Web page analysis

Using Google analytics, we have the possibility to track the visits to the web. This system was installed in February 2010. During the last period (almost two years), the number of visitors has increased from 2500 to 5200. Therefore, we have double the visitors. This gives an idea of the impact of LABONFOIL in several aspects including Exploitation diffusion and public media. The table below shows a brief summary of the results. It is interesting the important increase of visitors from US and from India as an indication of the contacts established through several links. See Fair participation.

	Nivel de detalle: Pais/territorio	Visitas ↓	Páginas/visita	Promedio de tiempo en el sitio	Porcentaje de visitas nuevas	Porcentaje de rebote
1.	Spain	567	4,02	00:04:00	60,67%	29,81%
2.	Germany	438	2,70	00:01:32	35,84%	64,38%
3.	Ireland	222	2,79	00:02:18	15,77%	72,97%
4.	United Kingdom	162	4,01	00:02:47	78,40%	26,54%
5.	Poland	159	2,79	00:01:58	59,75%	50,31%
6.	France	130	4,62	00:03:53	66,92%	20,00%
7.	United States	115	3,75	00:03:14	76,52%	36,52%
8.	Austria	110	5,36	00:03:30	58,18%	30,91%
9.	Denmark	105	4,14	00:04:03	40,00%	22,86%
10.	Sweden	35	3,23	00:01:55	77,14%	40,00%



**Figure 4. Outline of the Labonfoil web analysis. The reader can see that Labonfoil has reached a world wide spread diffusion. On the bottom, there is a ranking of the countries.**



## 2.4 Fairs

In year 4 and throughout the extension period of the project LABONFOIL attended the following conferences and Tradeshows:

- Medica 2011, November 14-17, 2011 in Dusseldorf, Germany.
- AACC Oak Ridge Conference, April 19 – 20, 2012, at The Fairmont in San José, CA.
- Advamed 2012 Boston Convention and Exhibition Centre, October 2nd & 3rd 2012.
- Medica 2012, November 14-17, 2012 in Dusseldorf, Germany.
- Participation in COWIN in Helsinki: This was also mentioned in previous report. Although, other EU projects got contacts through this event, we obtain few interested companies. We believe that the forum was not appropriate.
- Participation in MF4 forum. We have participated in a forum called MF4 (<http://www.cfbi.com/microfluidics.htm>) . After our presentation, some partners of the LABONFOIL consortium has joined this consortium to diffuse Labonfoil results and other internal progresses. This workshop has provided a vision of the manufacturing issues and the IVD market.
- Participation in COWIN in Brussels with Investors: Through COWIN (<http://www.cowin4u.eu/>), an EU support action, we exhibit the Labonfoil results, reader, flyers and comics. COWIN has been a perfect complement for LABONFOIL diffusion being much more effective in this last period.



**Figure 5. Pictures of the Project Coordinator at COWIN event in Helsinki and Brussels.**

It is worthwhile to mention the support and diffusion obtained through COWIN, LABONFOIL was established within the three most attractive Projects from their list. This fact was mentioned and written in I-Micronews. In fact, this diffusion has provided fruitful contacts with companies that are under negotiation within the water quality sector.

## 2.5 Last period Labonfoil Public media

LABONFOIL search on google provide 1850 web links. The cartoon has provided us a chance of being known by the public media. Among them, you can find these ones:

- Press Release about Labonfoil in local press: April 18, 2011. ([www.nachrichten.at/oberoesterreich/innviertel/art70,602498](http://www.nachrichten.at/oberoesterreich/innviertel/art70,602498)).

- FLYER Success story – Labonfoil – future lab; The flyer was created together with CATT; <http://www.catt.at/index> ENG HTML.php
- Diffusion of LABONFOIL results through TATAA courses in immuno-qPCR technology.
- LeMonde Newspaper. This paper through its technological supplement talks, mentions and shows an image of Labonfoil. Article titled LABOPUCE: LE DIAGNOSTIC AU CHEVET DU PATIENT. April 2013.

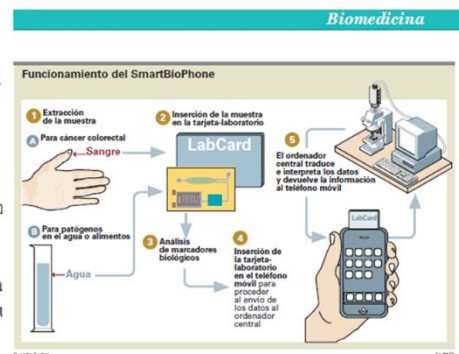
Here the reader can find some examples:



**Lab-on-a-chip is DNA-spotter**  
 A European project is planning to commercialise a lab-on-a-chip. Called LabOnFoil, the kit is designed to identify a particular type of DNA. A credit card-sized, plastic test unit is pre-loaded with the appropriate reagents for the test required. A thin film of plastic is laminated on top to seal in the reagents, and this is flexible enough to act as valves when moving the liquids through the various stages such as polymerase chain reaction to replicate and increase the DNA.

[www.labonafoil.eu](http://www.labonafoil.eu)

[ElectronicsWeekly.com](http://ElectronicsWeekly.com)



El laboratorio en un chip con conexión telefónica. Un grupo de investigadores del País Vasco está desarrollando un dispositivo que permitirá realizar análisis a través del móvil. El dispositivo debe ser barato, fácil de manejar y rápido, para dar servicio en cualquier momento y en cualquier lugar.

**Un laboratorio de análisis en el teléfono móvil**

**Figure 6. Screen shots of the pieces of news from LeMonde, ElectronicsWeekly and El Pais (this last one is not from the last period).**

### 3. CONCLUSIONS

We believe that the dissemination of LABONFOIL activities has been very fruitful since we have had the chance of creating new research and exploitation lines.

About 1850 web entries talking about LABONFOIL. 65 articles and conferences and about 85 public news are a result of a strategy to be known within the scientific community, and public media but also among possible investors and companies. In relation with the public media, the creation of the cartoon has been the perfect diffusion vehicle to reach the general public.