



**LIFE10 ENV/SE/037**  
**Pre Progress Report**  
Covering budget project activities from 01/03/2012 to 31/07/2012  
and project activities to 30/09/2012

Reporting Date  
**30/09/2012**

LIFE+ PROJECT NAME and Acronym  
**Public healthcare and plastic makers demonstrate how to  
remove barriers to PVC-free blood bags in the spirit of  
REACH  
PVCfreeBloodBag**

Data Project

<b>Project location</b>	Sweden, Finland, Denmark, Italy
<b>Project start date:</b>	01/09/2011
<b>Project end date:</b>	31/03/2016
<b>Total budget</b>	€2,204.464
<b>EC contribution:</b>	€1,091.040
<b>(%) of eligible costs</b>	49.49%

Data Beneficiary

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## **2. List of abbreviations**

PMG - Project Management Group

CB – Coordinating Beneficiary

PM – Project Manager

OpenMeeting is the platform/software used for PMG virtual meetings

Karolinska – Karolinska University Hospital, Beneficiary 2

HCWH - Health Care Without Harm

EBA- European Blood Alliance

PVC -PolyVinylChloride

DEHP -Dietyl Hydroxi Phtlalate, plasticizer

LCC – Life Cycle Cost

LCA – Life Cycle Assessment. A method for analysing the impact on health and environment from a product's lifecycle.

OEM – Original Equipment Manufacturer. A term used for companies that resell other companies products under their own name

## **3. Executive summary**

This report will not be forwarded to the commission after advice from monitor and instruction from EC.

### **3.1 General progress.**

The actions regarding communication and dissemination of information are running according to plan.

Partnership Agreement was signed 15 May 2012 and the shares have been delivered to all associated beneficiaries.

The actions 12-16, regarding the supply chain have been delayed due to several reasons which mean that two of the milestones are not going to be reached before deadline. New deadline for “Production of the first PVC-free prototype” is moved 7 months to 01/02/2013.

“First evaluation of prototype performed” will hence be delayed as well with 01/09/2013 as a new deadline.

### **3.2 Assessment as to whether the project's objectives and work plan are still viable.**

The project's objectives are maintained intact. There are delays regarding actions 12-17 and. Production at Haemotronic facilities is up and running in almost full capacity. The production is now back on track and bag production now depend on when material is received from Wipak and Totax. We do not know the full consequences on the project

yet, but there is a risk of changes regarding the **duration of the project**. If so we will inform and apply for an amendment according to Common Provision Article 15.

There is a risk for a need to prolong the projects total time with approximate 6 months. However, the length of the project is also dependent on how many prototypes are needed before a satisfying prototype is found. Five different prototypes are planned for.

Since the time reported in actions 13-16 due to the delays have been less than in the budget the project **might would like to change the date of the mid-term report**. The financial status will better known before the progress report in 01/02/2013 and the decision to request for an amendment or not will be made later.

### **3.3 Problems encountered.**

There has been a change of personnel at Beneficiary 5, Totax Plastics A/S. Peter Michael Haugvik who was in PMG left the company and Krzysztof Debski has replaced him as a member in the PMG. This change made the partnership agreement delayed and as a consequence investments in action 13 were put on hold.

The earthquake in northern Italy at the end of May caused a lot of material damage for Beneficiary 6/Haemotronic and also the loss of four lives. One of the production sites was destroyed and some equipment and material have been moved from Mirandola to Carbonara. The production is now back on track and bag production now depend on when material is received from Wipak and Totax. Totax have moved their production from Denmark to Poland and PM will visit the facilities in the beginning of November.

We do not know the full consequences on the project yet, but there is a risk of changes regarding the **duration of the project**. If so we will inform and apply for an amendment according to Common Provision Article 15.

## **4. Administrative part**

### 4.1 The project's management team consists of

Project Manager	Lena Stig
Head of Economics	Arne Nilsson
Economist	Linda Andersson
Administrator	Efva Svelander
Communication Officer	Katarina Ryckenberg
IT Support	Jonas Lindquist / Desirée Lövenberg
Responsible for User test:	Åke Åkerblom at Jämtland County Council

### 4.2 The PMG consists of

Head of Region Council of Jämtland Ulf von Sydow/Marina Gregorsson  
Head of Economics Arne Nilsson  
Project Manager Lena Stigh  
Hans Gulliksson and Inger Johed represent Beneficiary 2, Karolinska  
Jesper Laursen represents Beneficiary 3, Melitek  
Pekka Weeraratne and Heikki Weijo represent Beneficiary 4, Wipak  
Krzysztof Debski represents Beneficiary 5, Totax  
Mattia Ravizza represents Beneficiary 6, Haemotronic

### 4.3 The European Buyers Group/ Demand Group

This group originates from the Swedish group of healthcare organisations and will increase through activities in Action 10 – Increase Demand.

### 4.4 Cooperation organisations

HCWH

Life+ Project SubsPort with Swedish representation from ChemSec.

Safe Blood, project also working with Melitek and Haemotronic

C2DS, Comité pour le Développement Durable en Santé

Swedish National Substitutions Group on Chemicals in Articles

## 5. Technical part - Actions and activities

### 5.1 Rough time table / Revised Action list from 30 Sep 2012

Nr	Responsible	Action	Start	Stop
1	Jegrelius	Project management	Sep2011	Mar2016
2	Jegrelius	Website and media work	Oct2011	Mar2016
3	Jegrelius	Notice boards and the dissemination of project information	Oct2011	Jun 2015
4	Jegrelius	Project meetings for the Project Management Group	Sep2011	Mar2016
5	Jegrelius	Monitoring the project's progress	Oct2011	Mar2016
6	Karolinska	Organisation of First Seminar Action 7	Oct2011	Dec2011
7	Karolinska	First Seminar	Jan2012	Mars2012
8	Jegrelius	Networking with other projects	Apr2012	Jun2015
9	Jegrelius	Audit	Jul2015	Sep2015
10	Jegrelius	Increase demand	Dec2011	Jun2015
11	Jegrelius	Production of brochures, reports, posters, invitations etc	Oct2011	Mar2016
12	Melitek	Production of compounds for films and tubes used in blood bags	Dec 2011	Sep 2013
13	Wipak	Production of film for the blood bags	Oct 2012	Oct 2013
14	Totax	Production of tubes to be used in blood bags	Oct 2012	Oct 2013
15	Haemotronic	Production of a PVC-free blood bag	Dec 2012	May2014
16	Karolinska	Evaluation and monitoring of blood bags	Dec 2012	May 2015
17	Jegrelius	User test including economic feasibility study of PVC-free blood bags	Jul 2013	Aug 2015
18	Jegrelius	After-LIFE Communication plan	Oct2014	Sep2015
19	Jegrelius	Final layman's report	Oct2014	Mar2016
20	Karolinska	Technical publication based on the evaluation results of blood bags	Sep 2014	Nov 2015
21	Jegrelius	Organisation of Concluding Workshops action 22	Jan2014	May2015
22	Jegrelius	Concluding Workshops	Aug2015	Oct 2015
23	Jegrelius	Final project report	Jan2015	Mar2016

All beneficiaries are involved in actions marked in green. Core actions are marked in pink.

As seen in the table above the delays causes a chain reaction making the earliest start of evaluation a prototype in January 2013.

## **5.2 Action 1 Project Management**

Partnership Agreement has been signed and the shares distributed according to the partnership agreement. The 2<sup>nd</sup> of July PM was informed that we got a new monitor Pekka Hänninen. He visited Östersund 22 August and met PM, economist Linda Andersson and Head of economics Arne Nilsson. As a result from the meeting the instructions and templates about how to report time and cost will be changed and be valid from the 1<sup>st</sup> of October.

The LCA gave general information about the difference between PVC and Polyethylene in the disposal phase, but we are searching for more statistics on the number of purchased blood bags in Europe and the number of blood transfusions made.

## **5.3 Action 2 Website and Media Work**

The monitor Diderick Velthoen requested us to make the connection to EU-support clearer and therefore the website have been updated with an additional text next to the life logotype. It now says “With financial support from EU’s Life+ programme”. The same text will also be used in other material meant for dissemination.

News announced on the web site since last report is the following.

- Attendance innovation day, Sundsvall
- Presentations at regional Transfusion medicine days in Örebro, Sweden
- Life Cycle Assessment of PVC blood bag ready
- Visit from monitor 24 May
- Life+ 20 years! Celebrate and walk with us
- Meet us at CleanMed Europe
- The project included in a publication from Danish eco council
- Our comments on the LCA
- CleanMed SUBSPORT workshop
- CleanMed PVC replacement strategies in healthcare

The last press release presented the LCA performed by Raul Carlson and commissioned by our project. It has caused some attention from plastic industry. PM contacted the monitor to discuss the situation and he then contacted the commissions represent. We agreed on that the study and the result only complement the mentioned Schenir report and that the study is in line with project objectives. We choose not to take action.

The 23<sup>rd</sup> of July the European Council of Vinyl Manufacturers (ECVM) sent out a PR about the LCA and we have added the link on Linked In. [http://www.pvc.org/en/p/vinyl-manufacturers-contest-the-idea-pvc-blood-bags-are-harmful-to-health/goback/.gde\\_4258975\\_member\\_139180854](http://www.pvc.org/en/p/vinyl-manufacturers-contest-the-idea-pvc-blood-bags-are-harmful-to-health/goback/.gde_4258975_member_139180854)

A link to their PR is presented at our web site together with a statement from the project. Raul Carlsson has been contacted regarding the LCA.

Media activities by Melitek have resulted in a part of a publication from Danish ecocouncil about substitution of hazardous substances.

Jesper have also spoken with a journalist for ”Styrelsen for Forskning og Innovation” about innovationsystem. They have published tre articles about innovation system earlier.

<http://www.fi.dk/publikationer/2011/hoejtuddannede-i-virksomheder-avisindstik-april-2011/innovationdanmark-net.pdf>

The next article will be about the role of innovations and innovation programmes for growth in Europe presented by concrete examples from countries in Europe. The article is included in a newspaper published together with Jyllands-Posten and Berlingske the 23<sup>rd</sup> of October. The article will be published in English in connection with a conference in Copenhagen in October. <http://www.europe-innova.eu/web/guest;jsessionid=70E09E7F8BED946B4FDAB4D61C188823>

Lena was interviewed for the internet Medical Plastics News about the project. The magazine is audited and our print circulation covers 6,000 medical plastic device manufacturers in Europe as well as 15,000 digital subscribers around the world. Jesper Laursen will also be interviewed by the editor about the project.

#### **5.4 Action 3 Notice boards and the dissemination of project information**

Activities in action 3 are performed in parallel with action 10, 2 and 8. Communication channels have been seminars, press releases, mail, Linked-in and website.

We target Red Cross, European Blood Alliance and NHS.

PM has attended a regional innovation conference in Sundsvall, Sweden 29 February 2012. At the adjacent exposition the project banner and hand-outs along with a power point presentation was presented.

Dr Hans Gulliksson, Karolinska and PM presented the project during two lectures at regional Transfusion Medicine days in Örebro, Sweden 13-14 March 2012.

PM has been contacted by the French organisation C2DS, Comité pour le Développement Durable en Santé, in order to work together on information about why to phase out PVC from healthcare.

Dissemination materials produced: Website, calling cards/Business cards, Banner, Hand-out, Notice board, Press releases, mail.

In action 1, 8 and 10 dissemination of project information is made as a synergy effect.

#### **5.5 Action 4**

Two changes in the PMG group composition have been made. Regional Council of Jämtland had a re-organisation meaning there is no Head of Jegrelius any longer. Instead the Head of the Unit were Jegrelius belong will attend the PMG meetings. The unit leadership is a shared leadership between Marina Gregorsson and Ulf von Sydow.

The second change is that Krzysztof Debski is replacing Peter Michael Haugvik as the representative of Totax.

Wipak has now made the arrangements so they are able to attend OpenMeetings.  
Lena and Pekka had a test meeting.

See the meeting's minutes on the website under Documents/Minutes.

[http://www.pvcfreebloodbag.eu/index.php?option=com\\_docman&Itemid=38](http://www.pvcfreebloodbag.eu/index.php?option=com_docman&Itemid=38)

### **5.6 Action 5**

A monitoring protocol has been prepared and is accessed on the web site.

Website visitors are monitored with Google Analytics. Google team themselves has changed the presentation format so the reports are not following the same format over the whole period.

The number of web site visitors increased around the Kick-off and around press releases.  
Monitor protocol is updated 30<sup>th</sup> of September.

### **5.7 Action 10 Increase Demand**

In order to increase demand we want to map European healthcare and those organisations that buy blood bags. PM has sent out request to organisations in adjutant to European Blood Alliance for contacts and information.

Amitis Moazedian, bachelor student in environmental engineering, has helped us with this mapping and started a survey of how many blood bags are bought annually and how many blood transfusions are performed in Europe. We target Red Cross, European Blood Alliance and NHS as a start. A working document with countries, organisations and contact information is used and updated. Statistics from WHO and EC have been searched for but so far the result is scarce.

The project was responsible for one session at the ClenMed conference in Malmö 27th Sep 2012. The title of the session was "B3 PVC Replacement Strategies in Healthcare"  
Responsible person: Katarina Ryckenberg, Communication Officer, Jegrelius Institute for Applied Green Chemistry.

The five lectures with maximum 15 minutes each to speak were.

- Vendula Krcmarova, **Arnika Association**, Czech Republic, "Mapping the Options to Eliminate PVC in Czech Hospitals to Reduce Patient Exposure to Harmful Phthalates"
- Lena Stigh, **Jegrelius Institute for Applied Green Chemistry**, Sweden, "PVC free Blood Bag Wanted"
- Dirk de Man, **University Hospital of Antwerp**, "Experiences with rubber flooring as an alternative use of PVC"
- Peter Skals, **Coloplast A/S**, Denmark, "Phasing out PVC and Phthalates from a Producer Point of View"
- Eva Dalenstam & Linda Linderholm, **Swedish National Substitution Group on Chemicals in Goods**, Sweden, "The Substitutionlist -Guiding You on a Non-toxic Healthcare"

More than 50 persons attended the session and there was a lot of reflections and questions.  
All presentations will be as pdf on the web site.

CleanMed gave contacts with United Nations Development Programme, WHO, Ecological Physicians Society/German Affiliates of ISDE along with some others.

#### **5.8 Action 11 Production of brochures, reports, posters, invitations**

For CleanMed but also for a coming event a poster and an additional handout was prepared.

#### **5.9 Action 12 Production of compounds**

The material specifications are completed and discussions about how to proceed with next steps are on-going. Melitek will produce and deliver compound to Wipak. Estimated delivery is October 2012.

#### **5.10 Action 13 Production of films for the blood bags**

The production start was delayed to both delayed partnership agreement and delayed delivery of compound. There are two parallel productions to consider at Wipak, one external and one internal, and these two needs to be synchronized. A bit extra time is needed to get the designing as good as possible from the beginning. Estimated start is October 2012. They will start with trial production.

#### **5.11 Action 14 Production of tubes to be used in blood bags**

Delayed start with at least five months according to delayed delivery of compound. The production of the tubes is being moved from Denmark to Poland. At the end of October everything is supposed to be up and running.

#### **5.12 Action 15 Production of a PVC-free blood bag**

There have been several intense weeks at Haemotronic since the earthquake at the end of May. One of the factories was destroyed and production was moved from Mirandola to Carbonara. They have been able to move back in the former offices and production is nearly at full speed. The bag production is not a bottleneck since they are able to produce bags when they get material.

#### **5.13 Action 16 Evaluation and monitoring of blood bags**

Method work and promising tests have been performed but tests on the actual prototypes will be delayed as a consequence of the delays in action 12-15. Karolinska was able to start erythrocyte studies in September 2012. The required storage solution was also available by then, but delivery of bags are estimated earliest in December 2012. Setting up the evaluation may start earlier than the actual evaluation. Estimated evaluation start is January to February 2013. This means that the first results may be available in August or September 2013.

#### **5.14 Action 17 User test including economic feasibility study of PVC-free blood bags**

This action will start with making a test protocol of the intended user tests and circulate the protocol to get approval from other Swedish county councils willing to do tests.



### **5.15 Envisaged progress until next report.**

This progress report and will be attached to next report 01/02/2013.

During the next months the production of film and tubing will start and delivered to Haemotronic for production of the first prototype.

The evaluation of the bags will be prepared at Karolinska.

PM will visit Melitek and Totax.

The mapping of European organisations and the survey for more statistics will be made.

### **5.16 Impact:**

#### **Environmental Policy & Governance:**

**Information and Communication:** The project has received attention via press releases and the LCA. The awareness of the target audience is diffuse, as well as that of the healthcare organisations in Europe. The purchasing procedure for medical devices like blood bags differs between countries. This was expected before the project started and there is great potential to increase demand by raising awareness.

**Indirect impacts:** The project start is a good example of long-term work on how to drive innovation towards non-toxic healthcare.

**Outside LIFE:** In September 2012, a CleanMed conference was arranged in Malmö by HCWH, Region Skåne, TEM and Sustainable Business Hub. The project was taking part and responsible for the session "PVC Replacement Strategies in Healthcare." The outcome of the CleanMed is expected to get in contact with the projects target audience.

The LCA gave media attention.

The EC mentioned the LCA as one of the reasons to get a new scientific opinion on DEHP in medical devices. Hans Gulliksson will be a member of the committee and has attended the first meeting.

## 6 Financial part

So far costs have not been reported by two of the beneficiaries. The real cost are therefore going to be higher.

### 6.3 Costs incurred

<b>Budget breakdown categories</b>	<b>Total cost in € According to Form FA</b>	<b>Costs incurred from the start date to 31.07.2012in €</b>	<b>% of total costs</b>
<b>1. Personnel</b>	1,367,686	104585	7,6%
<b>2. Travel and subsistence</b>	127,250	10217	8,0%
<b>3. External assistance</b>	192,210	27883	14,5%
<b>4. Durable goods</b>			
<b>Infrastructure</b>	0	0	
<b>Equipment</b>	0	0	
<b>Prototype</b>	174,000	0	
<b>5. Land purchase / long-term lease</b>	0	0	
<b>6. Consumables</b>	146,867	980	0,7%
<b>7. Other Costs</b>	52,234	668	1,3%
<b>8. Overheads</b>	144,217	10103	7,0%
<b>TOTAL</b>	2204464	154437	7,0%

Form FB of the proposal contains the projected final costs:

Action number and name	Foreseen costs	Spent so far	Remaining	Projected final cost
Action 1 Project Management	Personnel Travel and subst	64522	101768	166290
Action 2 Web sites and media work	Personnel Ext assistance	18138	46484	64622
Action 3 Notice boards and dissemination of project information		11658	31898	43556
Action 4 Project meetings for the Project Management group		3300	26041	29341
Action 5 Monitoring the project's progress		4453	69922	74375
Action 6 Organisation of First seminar action 7		3874	5166	9040
Action 7 First Seminar		16605	55232	71838
Action 8		569	8187	8756
Action 9		0	44618	44618
Action 10 Increase Demand		30638	2059	32697
Action 11 Production of brochures, reports, posters, invitations	Personnel Ext Assistance	0	36437	36437
Action 12		0	183290	183290
Action 13		371	172050	172421
Action 14		0	68460	68460
Action 15		0	614270	614270
Action 16		308	160737	161042
<b>TOTAL</b>		154437	1978382	2132819

When looking at the table it looks like more than expected have consumed by action 10. One reason is that the cost for the LCA was originally in action 1, but moved to action 10 since it is a way of increasing awareness.