Development of sustainable protein-based paper and paperboard coating systems to increase the recyclability of food and beverage packaging materials

Fiche descriptive

Informations projet

BIO-BOARD

N° de convention de subvention: 315313

Site web du projet

État

Projet clôturé

Date de début: 1 Novembre 2012

Date de fin: 31 Octobre 2015

Financé au titre de FP7-SME

Budget total: € 3 351 457,80

Contribution de l’UE: € 2 470 930

Coordonné par

IRIS TECHNOLOGY SOLUTIONS, SOCIEDAD LIMITADA

Espagne

Objectif

Worldwide about 7 million tonnes of coated paper, paperboard and cardboard (cartons) are currently manufactured annually mainly for food and beverage packaging. The standard coating material currently used is petrochemical-based polyethylene (PE). Typical laminate packaging contains about 20% of this material. Increased political, legislative and consumer pressure to reduce the dependency on fossil fuel based plastics poses a major challenge for packaging producers to seek sustainably sourced alternative materials that do not harm the environment in their manufacture, exhibit enhanced recyclability and offer similar performance to their
conventional plastic counterparts. There is a need to provide producers of coated carton manufacturers with a bio-based material that will enable them to substitute much of the currently used PE coating without compromising the humidity barrier properties of the resulting packaging materials and overcome the current challenge to the recycling of such packaging. This project will build on past research that has revealed that Whey protein coating can replace existing plastic coatings in multilayer packaging and enhance their recyclability. A coating system will be developed based on renewable raw materials derived from agrofood waste and its technological application for extrusion coating cartons to produce packaging materials for both solid and liquid food products. The innovative coating formulations will be based on proteins from whey and potato starch. The resulting laminates will be validated for their suitability to replace the currently used synthetic plastics in a range of carton packaging materials and the improvement of the recycling process whereby the biodegradation of the extruded bio-coating will allow separating more easily the other combined layers will also be proved. Uptake of the novel bio-material will increase the sustainability and competitiveness of the EU packaging industry.

Champ scientifique

/sciences sociales/économie et affaires/économie/économie durable
/ingénierie et technologie/ingénierie des matériaux/revêtement et films
/sciences naturelles/sciences biologiques/biochimie/biomolécules/protéines
/ingénierie et technologie/génie de l'environnement/gestion des déchets/recyclage

Programme(s)

Thème(s)

Appel à propositions

FP7-SME-2012

Régime de financement

BSG-SME-AG - Research for SME associations/groupings

Coordinateur
IRIS TECHNOLOGY SOLUTIONS, SOCIEDAD LIMITADA

Adresse
Calle Velazquez, No 94
Primera Planta
28006 Madrid
Espagne

Type d’activité
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contribution de l’UE
€ 68 188

Site web
Contacter l’organisation

Contact administratif
Colm Digby (Mr.)

Participants (13)

LUCCA-CENTRO SERVIZI PER L'ECONOMIA SOCIETA' CONSORTILE A RESPONSABILITA' LIMITATA

Adresse
Traversa Prima Di Via Della Chiesa Di Sorbano Del 231
55100 Lucca

Type d’activité
Research Organisations

Contribution de l’UE
€ 217 390

Site web
Contacter l’organisation

Contact administratif
Marco Buchignani (Mr.)

GOSPODARSKO INTERESNO ZDRUZENJE GROZD PLASTTEHNIKA - GIZ GROZD PLASTTEHNIKA

Adresse
Kidriceva Ulica 25
3000 Celje

Type d’activité
Research Organisations

Contribution de l’UE
€ 184 047

Contact administratif
Janez Navodnik (Mr.)

LLETTERS DE CATALUNYA LLET NOSTRA SC
Espagne

Contribution de l’UE

€ 102 338

Adresse

Calle Sant Jordi 3 1R
17412 Macanet De La Selva

Type d’activité

Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Site web

Contact administratif

Montserrat Balcells Boix (Ms.)

TUERKIYE SUET ET GIDA SANAYICILERI VE UERETICILERI BIRLIGI DERNEGI

Turquie

Contribution de l’UE

€ 65 042

Adresse

Mustafa Kemal Mahallesi 2125 Sok A Blok 6/8
06510 Ankara

Type d’activité

Other

Site web

Contact administratif

Us Melek (Ms.)

FACHVERBAND DER NAHRUNGS UND GENUSSMITTELINDUSTRIE

Autriche

Contribution de l’UE

€ 371 362

Adresse

Zaunergasse 1 3
1030 Wien

Type d’activité

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Site web

Contact administratif

Michael Blass (Dr.)

POTRAVINARSKA KOMORA CESKE REPUBLIKY

Tchéquie
Contribution de l'UE

€ 177 709

Adresse
Pocernicka 96
108 03 Praha 10

Type d’activité
Other

Site web
Contacter l’organisation

Contact administratif
šárka štejnarová (Ms.)

MEIEREI GENOSSENSCHAFT EG LANGENHORN

Allemagne

Contribution de l’UE
€ 382 475

Adresse
Bahnhofsweg 1
25842 Langenhorn

Type d’activité
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Contacter l’organisation

Contact administratif
Arne Rahn (Mr.)

THE FOOD MACHINERY COMPANY LIMITED

United Kingdom

Contribution de l’UE
€ 324 009

Adresse
Fenn Corner St Mary Hoo
ME3 8RF Rochester

Type d’activité
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Site web
Contacter l’organisation

Contact administratif
Lee Gapper (Mr.)

LAJOVIC TUBA EMBALAZA DOO

Slovénie

Contribution de l’UE
€ 216 972
Adresse
Verovskova 66
1000 Ljubljana

Type d’activité
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Site web
Contacter l’organisation

Contact administratif
Milan Gruden (Mr.)

GASCOGNE LAMINATES SAS
France
Contribution de l’UE
€ 103 617

Adresse
Rue Louis Blanc 1
40100 Dax

Type d’activité
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Site web
Contacter l’organisation

Contact administratif
Florian Chapalain (Mr.)

TETRA PAK PACKAGING SOLUTIONS AB
Suède
Contribution de l’UE
€ 237 321

Adresse
Ruben Rausings Gata
221 86 Lund

Type d’activité
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Site web
Contacter l’organisation

Contact administratif
Thorbjörn Andersson (Mrs.)

FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.
Allemagne
Contribution de l’UE
€ 2060
<table>
<thead>
<tr>
<th>Adresse</th>
<th>Type d’activité</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hansastrasse 27C</td>
<td>Research Organisations</td>
</tr>
<tr>
<td>80686 Munchen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site web</th>
<th>Contacter l’organisation</th>
</tr>
</thead>
</table>

Contact administratif:
Walter Krause (Mr.)

---

<table>
<thead>
<tr>
<th>UNIVERSITA DI PISA</th>
<th>Italie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution de l’UE</td>
<td>€ 18 400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adresse</th>
<th>Type d’activité</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lungarno Pacinotti 43/44</td>
<td>Higher or Secondary</td>
</tr>
<tr>
<td>56126 Pisa</td>
<td>Education Establishments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site web</th>
<th>Contacter l’organisation</th>
</tr>
</thead>
</table>

Contact administratif:
Ada Immacolata Viva (Ms.)

Dernière mise à jour: 17 Octobre 2016
Numéro d’enregistrement: 105658

Permalink: https://cordis.europa.eu/project/id/315313/fr

© European Union, 2020