



# NEWGENPAK

Una Scuola Internazionale per lo sviluppo  
dell'imballaggio cellulosico innovativo e  
sostenibile

**Marie Curie Actions - Initial Training Networks (ITN)**

7<sup>th</sup> Research Framework Programme

*People Programme*

Joana Mendes

Early Stage Researcher

# Agenda

- Marie Curie Actions
  - How to apply?
  - Marie Curie Actions for Industry/SME
  - ITN - Initial Training Networks
    - Who can apply?
    - Which topics can be funded?
    - What does the funding cover?
- NEWGENPAK project
  - Objectives
  - Workpackages
  - Individual Research project

# Marie Curie Actions

## Framework Programmes for Research:

- strengthen the scientific and technological base of European industry;
- encourage its international competitiveness, while promoting research that supports EU policies.



## *People program*

support for researcher mobility and career development

**Marie Curie Actions:** providing fellowships and other measures to help researchers build their skills and competences throughout their careers.

# Marie Curie Actions

- Involvement of industry, including SMEs
- Knowledge sharing, dissemination and open access
- International cooperation
- Attractive employment conditions
- Quality of doctoral training



**Marie Curie Fellowships** - *European research grants available to researchers of all ages and level of experience regardless of their nationality and field of research.*

## Two categories of researchers

- **Early Stage Researcher (ESR)**: less than 4 years of research experience
- **Experienced Researcher (ER)**: with a doctoral degree or at least 4 years of research experience

# Marie Curie Actions

## How to apply?

Calls can be found and proposals submitted through the [Participant portal](#).

1. Proposal p
2. Proposal e
3. Negotiatio

The screenshot displays the 'Participant Portal' for 'RESEARCH & INNOVATION'. The breadcrumb trail is: European Commission > Research & Innovation > Participant Portal > Funding > FP7 Calls. The page features a navigation menu with 'Home', 'Funding', 'Documents', 'My Organisations', 'Experts', and 'Support'. Below this, there are tabs for 'Latest Info', 'FP7 Calls', 'CIP Calls', 'Other Calls', and 'Search Calls'. The main content area is titled 'BROWSECALLS' and includes filters for 'Open', 'Closed', and 'Forthcoming'. A list of calls is shown, with 'Marie-Curie Actions / 4 open calls' highlighted. A 'Call for proposals' section contains a table of calls with columns for Call Identifier, Call Title, Publication Date, Cut-off Dates, and Deadline. The table lists four calls: FP7-PEOPLE-2013-CIG, FP7-PEOPLE-2013-NIGHT, FP7-PEOPLE-2013-IAPP, and FP7-PEOPLE-2013-IRSES. A sidebar on the left contains sections for 'LOGIN', 'FP7 SPECIFIC PROGRAMMES' (Cooperation, Ideas, People, Capacities, Euratom), and 'NEED HELP?' (Frequently Asked Questions, User manual, Presentations, Contact the Helpdesk).

Call Identifier	Call Title	Publication Date	Cut-off Dates	Deadline
<a href="#">FP7-PEOPLE-2013-CIG</a>	MARIE CURIE CAREER INTEGRATION GRANTS (CIG)	2012-10-18	2013-03-07	2013-09-18
<a href="#">FP7-PEOPLE-2013-NIGHT</a>	RESEARCHERS' NIGHT (NIGHT)	2012-10-02		2013-01-08
<a href="#">FP7-PEOPLE-2013-IAPP</a>	Marie Curie Industry-Academia Partnerships and Pathways (IAPP)	2012-10-02		2013-01-16
<a href="#">FP7-PEOPLE-2013-IRSES</a>	Marie Curie International Research Staff Exchange Scheme (IRSES)	2012-07-10		2013-01-17

# Marie Curie Actions

- [http://ec.europa.eu/research/mariecurieactions/index\\_en.htm](http://ec.europa.eu/research/mariecurieactions/index_en.htm)

The screenshot shows the homepage of the Marie Curie Actions website. At the top, there is the European Commission logo and the text "RESEARCH & INNOVATION Marie Curie Actions". Below this is a navigation bar with buttons for "Home", "About", "Apply now", "Funded projects", "News and events", and "Media library". A large pink menu is open, listing "Actions", "MCA for Industry/SME", "Quick Guide", "FAQ", and "Contacts". To the right of the menu, there are links for "Manage my project", "Marie Curie Actions vacancies", and "Projects". Below the menu, there is a section titled "Marie Curie Fellowships" with a description and a list of links: "Discover more about Marie Curie Actions fellowships", "Check the open calls available for you", and "Find the latest jobs and traineeship opportunities". At the bottom, there are three promotional boxes: "JOB VACANCIES for you", "WHICH ACTIONS are suited for me?", and "MARIE CURIE ALUMNI".

European Commission

RESEARCH & INNOVATION  
Marie Curie Actions

European Commission > Research & Innovation > Marie Curie Actions

Home About Apply now Funded projects News and events Media library

Actions

Manage my project

MCA for Industry/SME

Marie Curie Actions vacancies

Quick Guide

FAQ

Projects

Contacts

Marie Curie Fellowships

Marie Curie Fellowships are grants that give researchers from all over the world the possibility to gain experience abroad and in the private sector, and to complete their training with competences or disciplines useful for their careers. In this website you will learn more about those grants that promote excellence and innovation in Europe.

- [Discover more about Marie Curie Actions fellowships](#)
- [Check the open calls available for you](#)
- [Find the latest jobs and traineeship opportunities](#)

• [See all open calls](#)

Participant portal

Solutions for researchers  
Attractive research careers and services in Europe

euraxess  
RESEARCHERS IN MOTION

JOB VACANCIES  
for you

WHICH ACTIONS  
are suited for me?

MARIE CURIE  
ALUMNI

# Marie Curie Actions

## MCA for Industry/SME

### IAPP - Industry Academia Partnerships and Pathways

- Exchange of know-how and experience between private sector and academia through secondments of research staff of the participants;
- Recruitment of experienced staff from outside the partnership, for facilitating the transfer of knowledge and/or the training of staff;
- Networking activities, organisation of workshops and conferences, involving the participants' own research staff and external researchers;
- Research equipment funding for SMEs with up to 10% of the EU contribution for each SME participant.

### ITN - Initial Training Networks

- Recruitment of researchers (in the first 5 years of their careers) for initial training;
- Recruitment of experienced researchers of outstanding stature in international training and collaborative research to strengthen transfer of knowledge;
- Networking activities, organisation of workshops and conferences, involving the participants' own research staff and external researchers.



# Marie Curie Actions

## MCA for Industry/SME

Transferring cutting-edge Science and Technology from creative Academic groups to SMEs is a key element of successful business.



IAPP and ITN are promoting Business-Academia collaborations focusing on giving researchers the adequate skills and opportunities to contribute to SME and other business growth.



# ITN - Initial Training Networks

*offer early-stage researchers the opportunity to improve their research skills, join established research teams and enhance their career prospects*

- **Who can apply?**

## Multi-partner ITNs

ITNs are typically set up as Multi-partner ITNs, with at least three participants established in at least three different Member States or associated countries.

Associated partners can also complement the training programme.

- **Which research topics can be funded?**

Any research field in the humanities or science may qualify – provided that there is an element of mobility across national borders.



# ITN - Initial Training Networks

- **How does it work?**

Networks will be selected competitively following an evaluation process.

Proposals are evaluated by external independent experts against a series of predetermined criteria and selected for funding for up to 4 years.

- **What does the funding cover?**

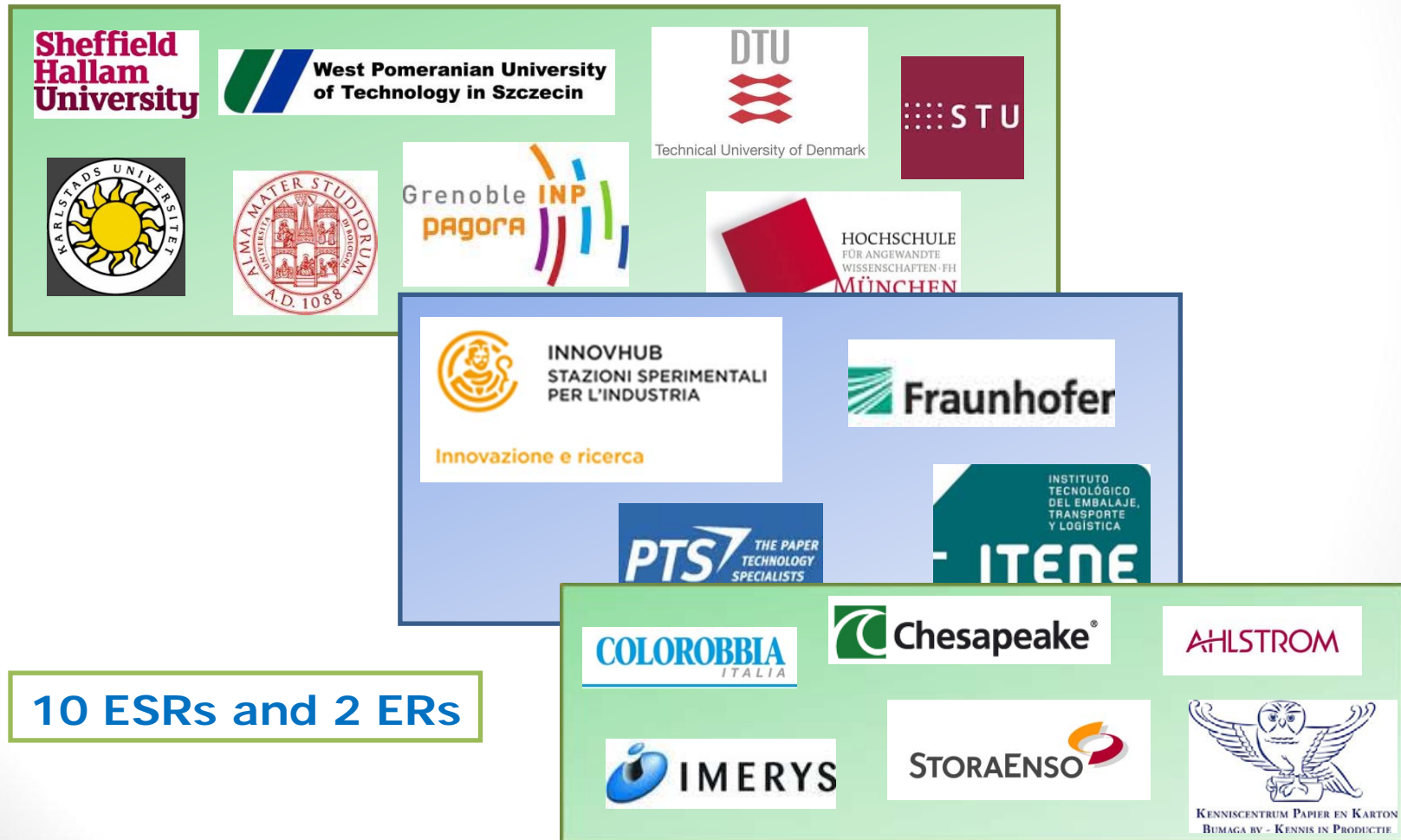
Recruitment of researchers for initial training.

Networking activities, outreach activities, workshops or conferences that involve research staff from the participating research establishments and external researchers.

# NEWGENPAK

## New Generation of Functional Cellulose Fibre Based Packaging Materials for Sustainability

The NEWGENPAK ITN is an interdisciplinary research training network.



# NEWGENPAK

## Primary aim

*Create a European network on sustainable packaging meanwhile improving the career prospects of its young researchers.*

## Objectives

- conduct top-level research and training and devise innovative solutions for specific EU needs in the area of sustainable packaging;
- advance the state-of-the-art in wood cellulose based sustainable packaging in three specific areas:
  - next generation packaging composites;
  - cellulose-fibre based active packaging;
  - environmental, economic and society aspects of packaging production.
- educate the next generation of researchers inside a broad European research training network;
- create an integrated, long-term sustainable packaging research and training base in the EU.

# NEWGENPAK

## Scientific and technological objectives

To take wood cellulose based packaging materials a significant step forward by replacing petroleum-based additives used in paper and board packaging materials in order to achieve the barrier and other crucial properties needed for competitive, low carbon footprint, packaging materials.

This must be achieved using sustainable production methods whilst producing a cohort of excellently trained ERs\ESRs.

The scientific work programme is divided into 3 workpackages:

- WP1 - Next Generation Packaging Composites (barrier coatings);
- WP2 - Next generation cellulose-fibre based active packaging (active coatings);
- WP3 - Sustainable production of packaging (sustainability of the resulting product).

# NEWGENPAK

## WP1 - Next Generation Packaging Composites

### Objectives

- biopolymer-based coating systems to provide barrier properties;
- nanocomposite films for advanced packaging applications;
- identify the key interactions between biopolymer, plasticizer and clay that give rise to the excellent barrier properties of dispersion coatings and self-supporting films;
- deliver the desired mass transport properties of industrially produced nanocomposite coatings.

### Leader



Technical University of Denmark

### Industrial Partners



# NEWGENPAK

## WP2 - Next generation cellulose-fibre based active packaging

### Objectives

- provide functional properties such as antioxidant and antimicrobial;
- develop grafting techniques to introduce functional groups onto microfibrillated cellulose and cellulose whiskers;
- develop stable multiphase dispersions for active delivery.

### Leader



INNOVHUB  
STAZIONI SPERIMENTALI  
PER L'INDUSTRIA

Innovazione e ricerca

### Industrial Partners

**COLOROBBLIA**  
ITALIA



KENNISCENTRUM PAPIER EN KARTON  
BUMAGA BV - KENNIS IN PRODUCTIE



# NEWGENPAK

## WP3 - Sustainable production of packaging

*analyse and optimise the packaging process and the delivery of coatings so that they are as sustainable as possible.*

### Objectives

- assess package production and its effect on product losses;
- define suitable indicators for assessing the sustainability of the new active packaging solutions;
- assess the sustainability including recycling, energy recovery and biodegradability/composting.

### Leader



### Industrial Partners



KENNISCENTRUM PAPIER EN KARTON  
BUMAGA BV - KENNIS IN PRODUCTIE



AHLSTROM





# NEWGENPAK

## Individual Research Project – ESR6

*Developing active packaging solutions through incorporation of organic/inorganic active components in renewable materials*

### Host Institution



INNOVHUB  
STAZIONI SPERIMENTALI  
PER L'INDUSTRIA

Innovazione e ricerca



SSCCP  
THE COLLABORATIVE PAPER RESEARCH INSTITUTE  
STAZIONE SPERIMENTALE  
CARTA, CARTONI E PASTE PER CARTA

### Project Supervisory team

Dr. Graziano Elegir  
Dr. Patrizia Sadocco

### PhD

Scienze Chimiche



### Thesis Supervisor

Dr. Massimo Mella

### Secondments

1. Chemical functionalization of nanoparticles
2. Investigate the impact of different modification routes on Life Cycle Analysis and Carbon Footprint.

**COLOROBRIA**  
ITALIA



# NEWGENPAK

## Individual Research Project – ESR6


This research project will be carried out between WP2 and WP3:

WP2 - use of several methods to incorporate active functionalities (antimicrobial, antioxidant, anti-ripening and barrier) to increase product shelf life

1. coating applications based on active inorganic nanoparticles;
2. bio-chemical approaches based on essential oils.

WP3 - packaging End-of-Life options

1. impact on recyclability in the paper recycling stream;
2. organic recovery:
  - aerobic – compostability
  - anaerobic - biogas production
3. impact of different modification routes on Life Cycle Analysis and Carbon Footprint.

An aerial photograph of a city at sunset. The sun is low on the horizon, creating a bright, glowing reflection on a river that winds through the city. The sky is filled with soft, orange and yellow hues. In the background, there are rolling hills or mountains under a hazy sky. The overall scene is peaceful and scenic.

# Grazie a tutti per l'attenzione

For further questions:

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