

NEWSLETTER

Volume 1

EDITORIAL

Welcome to the first newsletter of the COST Action FP 1405 on Active and intelligent fibre-based packaging – innovation and market introduction (ActInPak). The Action ActInPak aims to identify and focus on the key technical, social, economic and legislative factors relevant for a successful deployment of renewable fibre-based functional packaging solutions. This will be achieved by conducting research and development into active and intelligent packaging, encompassing both scientific and technical solutions, addressing the opportunities for, and obstacles to, market introduction.

The main objective of the Action ActInPak is to develop a knowledge-based network on sustainable, active and intelligent fibre-based packaging in order to overcome current technological, industrial, and social limitations that hinder the wide deployment of existing and newly developed solutions in market applications.

Currently, 36 countries are involved in the network, with participants representing over 150 universities, institutes and companies. The Action has just started and we hope that you will follow us in the next four years.

Sanne Tiekstra
Action Chair

Chair of the Action: Sanne Tiekstra (NL)

Vice Chair of the Action: Julien Bras (FR)

COST Science officer of the Action: Fatima Bouchama

COST Administrative officer of the Action: Cassia Azevedo

Working group leaders:

Working Group 1: Selçuk Yildirim (CH)

Working Group 2: Johanna Lahti (FI)

Working Group 3: Grzegorz Ganczewski (PL)

Working Group 4: David Ravnjak (SI)

MC Members:

http://www.cost.eu/COST_Actions/fps/Actions/FP1405?management

<http://www.actinpak.eu>

http://www.cost.eu/COST_Actions/fps/Actions/FP1405

<https://www.linkedin.com/groups/COST-FP1405-ActInPak-8254568/about>

COST Action FP1405 ActInPak

Duration:
2015-2019

COST Action FP1405 is a good opportunity to build knowledge on active and intelligent packaging.



More information on:
<http://www.actinpak.eu/wg/wg1/>

DEVELOPMENT/INNOVATION (WG1)

The objective of Working Group 1 is to identify the technical limits to and opportunities for the development of active and intelligent fibre-based packaging. WG1 will focus on sustainable solutions based on fibres and bi-polymers that can extend shelf-life and add value to the product. Antimicrobials, stimuli responsive systems, RFID and anti-counterfeiting devices, printed intelligence, indicators and sensors will be considered in order to understand the potential of present and future technologies. In particular the problems of inclusion of such systems or devices in fibre-based packaging will be studied.

More information on:
<http://www.actinpak.eu/wg/wg2/>

INDUSTRIALISATION/ MARKET INTRODUCTION (WG2)

The objective of Working Group 2 is to identify market demands, supply chain challenges and legislative restrictions that need to be considered, so as to ensure a successful introduction of active and intelligent fibre-based packaging in real-world applications. Strong interaction with the industry will be needed in order to understand technological issues for the scaling-up and industrialization of different processes, as well as to identify the non-technological problems that could endanger their market introduction. Legislative limitations will be discussed comparing the European situation with that of other countries where smart packaging has already found its way to the market. Consumer expectations will be analysed, too.

More information on:
<http://www.actinpak.eu/wg/wg3/>

LCA/SUSTAINABILITY ISSUES, HEALTH AND SAFETY (WG3)

The objective of Working Group 3 is to identify sustainability, health and safety issues of innovative packaging solutions. WG3 will interact with WG1 and WG2 in analysing new materials, technologies and industrial processes with LCA and more circular economy-oriented sustainability impact assessment indicators trying to reveal potential environmental shortcomings of the considered solutions. The recyclability of new materials, as well as health and safety issues related to the inclusion of new chemical substances will be analysed.

More information on:
<http://www.actinpak.eu/wg/wg4/>

KNOWLEDGE TRANSFER AND DISSEMINATION (WG4)

The objective of Working Group 4 is to disseminate the generated knowledge to the industry and society. It will interact with the other WGs supporting them in the organisation of seminars and workshops and coordinating the activities related to dissemination. An Editorial Board was formed to facilitate the preparation and publication of results in scientific as well as general journals. A Knowledge Transfer Committee was also created to facilitate the exchange of information from the different Working Groups and the industry so as to increase the opportunities for an actual application of the Action's outcomes.

SHORT TERM SCIENTIFIC MISSIONS

Short Term Scientific Missions are COST networking tools aimed at increasing collaborations through exchange of researchers between COST Partners. STSMs are exchange visits fostering collaboration, contributing to the scientific objectives of the Action and allowing participants to learn new techniques and to have access to data/instruments/methods not available in their own institution. They are particularly intended for young scientists such as Early Career Investigators (ECI).

Each STSM has to be started and concluded in the same Grant Period - that is between June 1st of one year and 31st May of the next year for the Action ActInPak. We are looking for interesting STSMs initiatives among network members in 2015/16 to be ended till end of April 2016.

ActInPak STSM coordinator: Marco Giacinti Baschetti (IT)

PAST COST ACTION EVENTS

COST Action Kick-off meeting – March 20, 2015

At this first COST Action MC meeting the general information on COST mechanism were presented by Science and Administrative officer, followed by Tour de table – introduction of the MC members.

Work plan for the implementation of the COST Action, with focus on the first Grant Period was discussed. The main idea was adopted, to be an Open Platform with significant involvement of industries.

COST Action joint MC/WG meeting – September 15-16, 2015

First COST Action joint MC/WG meeting entitled Existing technologies and current developments in active and intelligent packaging, took place at University of Aveiro in Portugal. 52 participants attended the meeting. The plenary section hosted invited speakers, which gave an outlook from a brand owners perspective on active and intelligent fibre-based packaging, overview of active and intelligent food-packaging in Japan, as well as safety aspects of paper used for food contact materials. In the second part 13 presentations regarding certain topic relevant for the Action were presented by COST Action members. Topics related to WG1 covered coatings, films, nanocomposites, barriers, thermochromic materials, printed electronics, sensors and indicators. In WG2 tailor-made food packaging applicable for industry and integration of interactive functionality into cardboard and label packaging were presented. Sustainability was addressed in WG3 with two newly developed packaging; paper packaging with photoactive inorganic particles and tableware from wheat bran.

Presentation are available at: <http://www.actinpak.eu/existing-technologies-and-current-developments-in-active-and-intelligent-packaging-2/>

More information on:
<http://www.actinpak.eu/stsm/>

More information on:
<http://www.actinpak.eu/actinpak-events/>

More information on:
<http://www.actinpak.eu/actinpak-events/>

More information on:
<http://www.actinpak.eu/resources/>

COST Action WG2 + WG4 meeting – November 17, 2015

In Utrecht WG2 + WG4 Industry Workshop in cooperation with AIPIA conference took place. Altogether 78 participants, among them 28 from COST Action were present. Discussion was focused towards inventory of current solutions in active and intelligent packaging, how to involve industry and how to disseminate the knowledge. How to gain a successful market implementation of active and intelligent packaging was the main topic of the workshop. Main issues to be addressed in future are how to prove to value chain stakeholders that the added value of active and intelligent packaging outweighs the extra costs and what are the main barriers to market uptake.

DISSEMINATION EVENTS

COST Action ActInPak was promoted at different conferences. In Slovenia results connected to COST Action ActInPak were presented at two conferences. Tadeja Muck was co-author of two presentations entitled “Printed smart packaging” and “Fabrication of printed switches” presented at the 42nd international annual symposium DITP, 18-19 November, 2015, Bled, Slovenia. Presentations are available on ActInPak webpage and on: <http://www.danpapirnistva.si/155>. Diana Gregor Svetec presented research entitled “Suitability of recycled papers for printing UHF RFID antennas” at 13th science conference PAZU, 27-28 November, 2015, Murska Sobota, Slovenia (<http://www.pazu.si/aktivnosti/konferenca-pazu/konferenca-2014/>). Selçuk Yildirim presented research entitled “Use of palladium based oxygen scavenger to prevent discoloration of ham” at 29th EFFoST International Conference Food Science Research and Innovation, 10-12 November 2015, Athens, Greece (<http://www.fffostconference.com/>). Research from COST Action partner institute Innovhub entitled “Development of Antibacterial Paper Surfaces based on photo-active TiO₂ nanoparticles for food packaging applications” was presented by Joana Mendes at SLIM for young 2015 – Special 7th edition of Shelf Life International Meeting, 21-23 October, 2015, Monza, Italy (<http://gsica.net/slim/meeting.php?ID=266/>).

UPCOMING EVENTS

COST Action ActInPak WGs spring meeting will take place on 4th and 5th of April 2016 in Munich, Germany. Meeting will be organised jointly with PTS' Innovative Packaging Symposium taking place on 6th and 7th of April. Upcoming events in the field of Action:
Paper & Biorefinery Conference – May 11-12, 2016 Graz, Austria (<http://paper-biorefinery.com/en/>).
2nd International Conference on Food and Beverage Packaging – June 13-15, 2016 Rome, Italy (<http://foodpackaging.conferenceseries.com/>).
4th International ISEKI_Food Conference – July 6-8, 2016 Vienna, Austria (<http://www.isekiconferences.com/vienna2016/>)