



Welcome to COST ActInPak

“Active and Intelligent Packaging Solutions Summer School”

Dr. Johanna Lahti, WG2 leader

June 12-16 2017, TUT, Tampere, Finland

COST FP₁₄₀₅

ACTIVE AND INTELLIGENT FIBRE-BASED PACKAGING – INNOVATION AND MARKET INTRODUCTION



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Introduction to the network

-Johanna Lahti, WG2 leader

June 12 2017, Tampere, Finland

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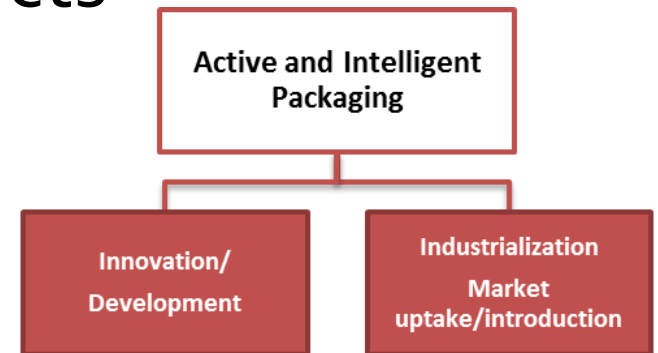


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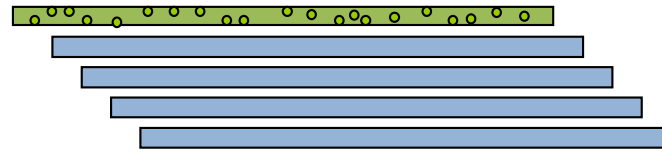
ACTINPAK IS:

A pan European network of leading experts of **over 200 institutes, universities, companies** from **40 countries** with **one goal: to define innovative solutions and identify opportunities and obstacles** in market introduction for active and intelligent packaging in the area of fibre-based products

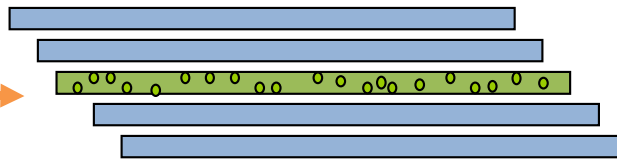
March 2015 – April 2019



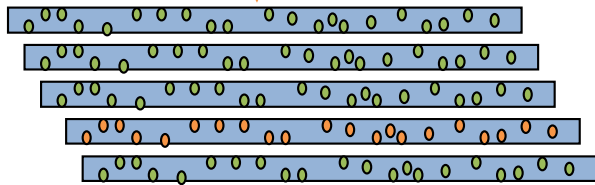
WE HAVE A DREAM...



Separate active/intelligent top layer by lamination, coating, sizepress, or printing



Separate active/intelligent layer(s) by lamination



Active/intelligent components added to pulp, so incorporated in structure

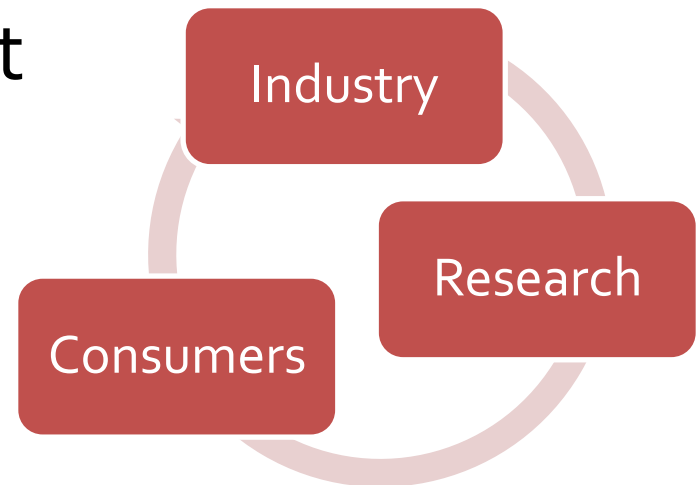
WHY THIS ACTION?



1. Most developments are plastic based.
Development of integration into paper based products.
2. So many examples, but so little evidence of successful (B2C) market introduction in Europe.
Why?

OUR ACTIVITIES

The main objective of the Action 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.



SECONDARY OBJECTIVES

- **Direct future innovations and contribute to existing development efforts** into scientific/technical research into fibrebased materials, new additives and techniques for active and intelligent functions;
- **Identify market demands, possibilities and any obstacles to market introduction** of active and intelligent fibre-based packaging;
- **Identify the technical limits and opportunities** for development of active and intelligent fibre-based packaging;
- Identify market demands and **supply chain challenges** to ensure easy introduction of smart packaging;
- **Identify sustainability, health and safety issues;**
- **Disseminate knowledge** to industry and society;

WG1.
Development/
Innovation

WG2.
Industrialisation
/ Market
introduction

WG3.
LCA /
Sustainability
issues, health
and safety

WG4.
Knowledge
transfer and
dissemination

CORE GROUP



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Johannes Bergmair &
Victoria Heinrich
AT



Editorial Board
Diana Gregor-Svetec
SI

PARTICIPANTS

>200 participants from 33 EU and 7 international partner countries



INDUSTRY VERSUS SCIENCE

Action aims at active involvement of **complete value and supply chain**

- Currently: 47 companies from 16 different countries, ranging from large to small



WOULD LIKE TO PARTICIPATE?



Active participation of all partners is necessary to create a successful achievement of goals.

Industrial partners are key to the network to be able to identify the issues in market uptake.

Join us via our website:

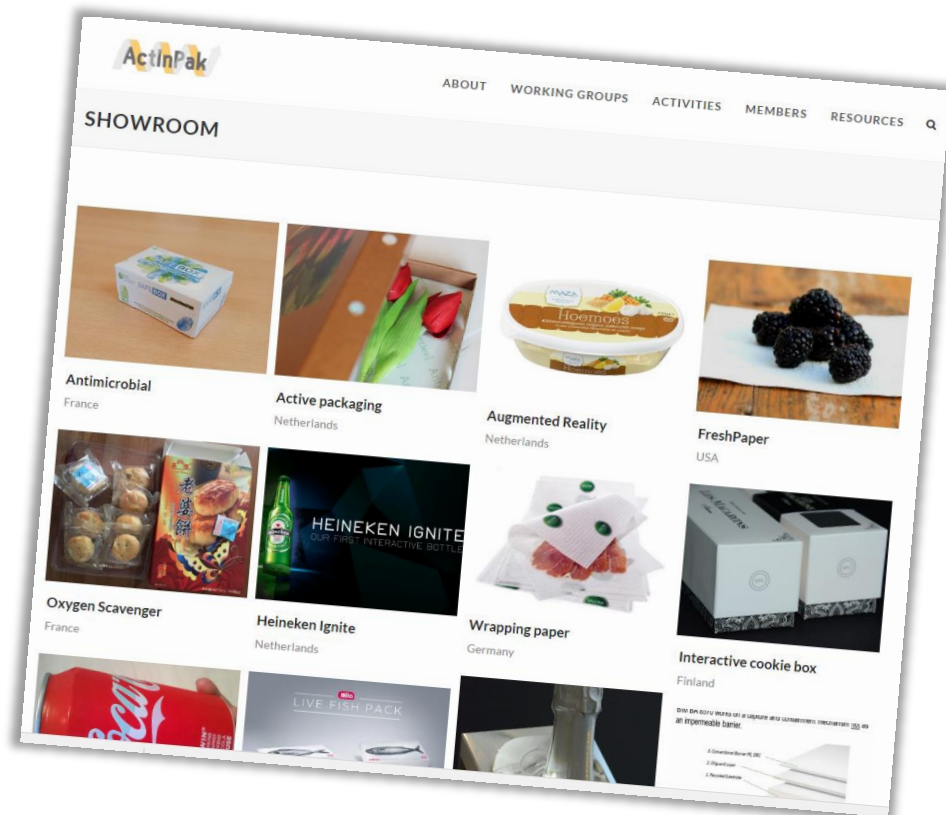
<http://www.actinpak.eu/members/become-a-member/>

POSSIBILITY TO SHOW YOUR PRODUCTS

Virtual showroom to show the possibilities in R&D as well as commercial products.

Publication:

- www.actinpak.eu,
- separate publication (due 2017)





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Virtual showroom

- some examples

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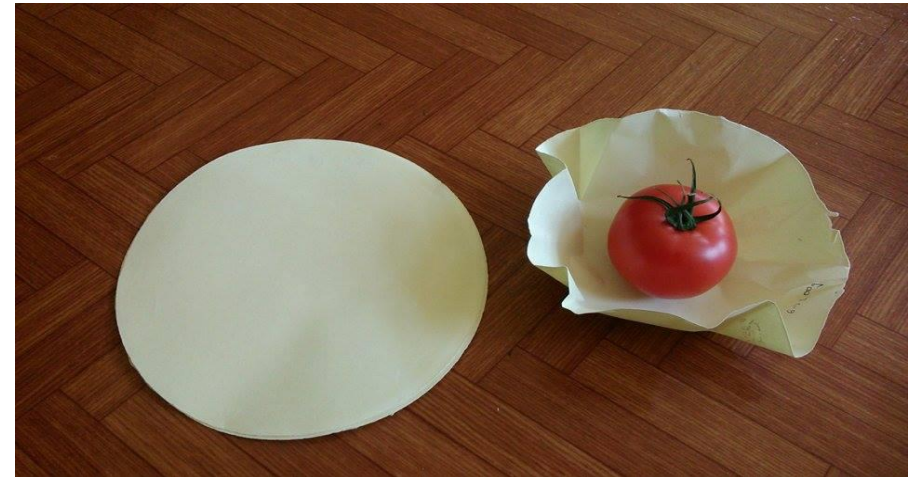


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ANTIMICROBIAL PAPER



R&D
On the Market



What: Experimental antimicrobial paper with plant extract of tutsan

Where: Bulgaria, Sofia, UCTM –Sofia, Dept. Pulp, Paper and Printing Arts

When: September 2016

More info: Veska Lasheva, veska_lasheva@anv.bg

INTELLIGENT CHAMPAGNE BOX



R&D / Demo

On the Market



What: Demonstration of luxurious and functional features in intelligent packaging for high end products like champagne bottles. The package (made of polymer coated strong fiber based board) works as water tight cooler when opened and includes integrated LEDs illuminating the ice cooling the champagne bottle, as well as an NFC tag to launch mobile application for interaction with consumers.

Where: Stora Enso, Finland

When: 2016

More info: Simo Siitonen, Stora Enso

SELF-OPENING PACKAGE



R&D / Demo
On the Market

What: The Sustainable Expanding Bowl demonstrates the possibilities of a new mechano-active cellulose-based material. The initially compact package grows as hot water is added, and finally opens ready for the meal. The paperboard contains active properties that respond to heat and moisture.

Where: Innventia & Tomorrow Machine, Sweden

When: 2015-2016

More info:

<http://www.innventia.com/en/Our-Expertise/New-materials/Active-materials/>



AUGMENTED REALITY



R&D

On the Market



What: Augmented reality (by company Layar) in humus packaging Maza

Where: Supermarkets in the Netherlands

When: 2016 (since 2013)

INTERACTIVE FRESH FISH PACKAGING



R&D

On the Market



What: Fresh fish packaging that rattles to mimic the movement of recently caught fish, in order to show the freshness of the product.

Where: Polish grocery brand Mila

When: 2016

More info: blog.drupa.com/fish-packaging/

ETHYLENE ABSORBERS



R&D
On the Market



What: Sachets with ethylene absorbers to extend the shelf life of fruits, vegetables, flowers

Where: Poland, found on Polish Exhibition/Fairs Taropak 2016

When: 2016, available on the market

More info: www.pomona.pl

THERMOSENSITIVE FLAKE



R&D

On the Market

What: A special glass bottle with a thermosensitive flake, located on the side of the label that acts as an indicator of the proper cool-down. Snowflake changes its colour to blue when Nicolaus Extra fine Vodka is cooled properly.

Where: Bought in TESCO, Zvolen, Slovakia

When: 2016 (since 2011)



POSSIBILITY TO SHOW YOUR PRODUCTS



Want to add your product / development to our virtual showroom?

Send pictures with some info to:

s.tiekstra@bumaga.nl



CONTACT DETAILS:

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