



# MC Meeting #4

## 7 November 2017, Israel

COST FP1405

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



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1. Welcome
2. Verification of quorum

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# Participants MC



i.e. 24 out of 34 = 71%



### 3. Adoption of agenda

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**COST Action FP1405**  
**Active and intelligent fibre-based packaging - innovation and market introduction (ActInPak)**

**Management Committee Meeting 4 (MCM4) - AGENDA**  
**7 November 2017, 14:00 – 17:00, Tzuba, Israel**

1. Welcome to participants
2. Verification of the presence of 2/3 of the Participating COST Countries or, if applicable, a quorum
3. Adoption of agenda
4. Approval of minutes and matters arising of last meeting (MCM3, Bled, Slovenia, 21/11/2016)
5. Update from the Action Chair
  - a) Status of Action:
    - i. start and end dates of Action: 20/3/2015 to 19/3/2019,  
Currently in GP3: 1/5/2017-30/4/2018
    - ii. participating COST countries: 33, of which 17 ITC
    - iii. participating NNC/IPC institutions and Specific Organisations: 5
  - b) Short Term Scientific Missions (STSM): review of completed reports and new applications:  
GP1: 5 STSMs, GP2: 11 STSMs:  
GP3: up till now 4, and still money left for STSMs that finish before April 2018
6. Update from the Grant Holder: Action budget status (not know yet at time of sending this agenda)
7. Update from the COST Association: New instrument – ITC Conference Grants
8. Monitoring of the Action - Feedback from Action Rapporteur on Progress Report M24
9. Implementation of COST policies on:
  - a) Promotion of gender balance and Early Career Investigators (ECI)
  - b) Inclusiveness and Excellence
10. Follow-up of MoU objectives: progress report of working groups
11. Scientific planning
  - a) Scientific strategy (MoU objectives, GP Goals, WG tasks and deliverables)
  - b) Action Budget Planning
  - c) Long-term planning: GP4 proposals (to decide during this MCM4)
    - i. Goal: finish deliverables, celebrate success, move forward
    - ii. 1 WG meeting: ~June 2018, Baltic States
    - iii. 1 MC meeting + final conference: 20-22 November 2018, Vienna, Austria
    - iv. 1 Training School on business development: ~September 2018, Grenoble, France
    - v. 7 STSMs
    - vi. Dissemination: videos, leaflets, website, booklets, papers
  - d) Dissemination planning (Publications and outreach activities)
12. Requests to join the Action from:
  - a) COST countries: n/a
  - b) Institutions in NNC, IPC, and/or Specific Organisations: n/a
13. AOB –
  - a) Follow-up/continuation of work:
    - Set-up of Active and Intelligent Packaging Working Group within IAPRI
    - Other, such as: AIPIA cooperation? / Projects? / COST Action?
  - b) Other AOB
14. Location and date of next meeting
15. Summary of MC decisions
16. Closing



## 4. Approval minutes last meeting

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# MCM<sub>3</sub>, Bled (SI), 21/11/2016



## Main decisions made:

- Vote: STSM videos are set as mandatory for STSM Grant, but included audio is not
- Vote: ActInPak will not promote ECI-STSMs, and STSM topics are bottom-up
- Vote: Remaining budget from Training School will be reallocated as follows: 2k€ to dissemination and 5k€ to meetings
- Vote: No co-organisation of a meeting in September 2017 with iarigai.
- Vote: Continuation of meeting organisation in Israel.
- Vote: Macedonia and its two representatives are accepted as ActInPak MC member

# MC decisions via e-vote



E-votes between MCM<sub>3</sub> and MCM<sub>4</sub>:

- MC member Iceland (e-vote decision: 10/4/2017)
- GP<sub>3</sub> WBP approval (e-vote decision: 20/2/2017)
- GP<sub>3</sub> WBP amendment (e-vote decision: 9/8/2017)



# 5. Update from Chair

## *a. Status of Action*

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# Dates



Action start and end:

- Start: 20 March 2015
- End: 19 March 2019

Grant Periods:

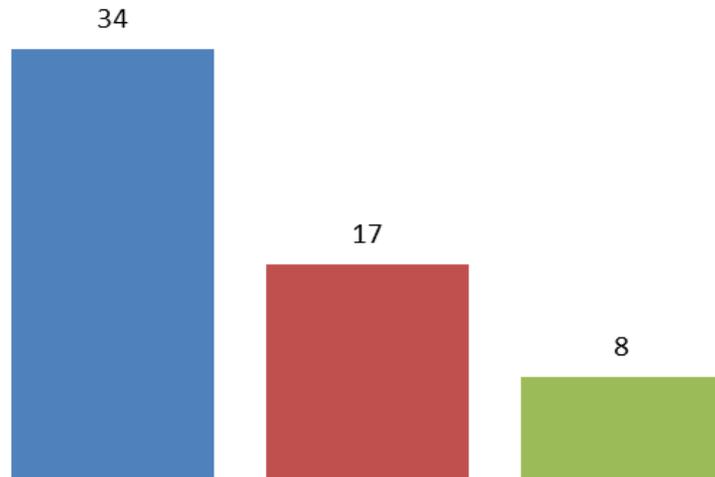
- GP1: 1/6/2015 – 30/4/2016 >> ended
- GP2: 1/5/2016 – 30/4/2017 >> ended
- GP3: 1/5/2017 – 30/4/2018 >> active
- GP4: 1/5/2018 – 19/3/2019 >> to prepare

# Participants

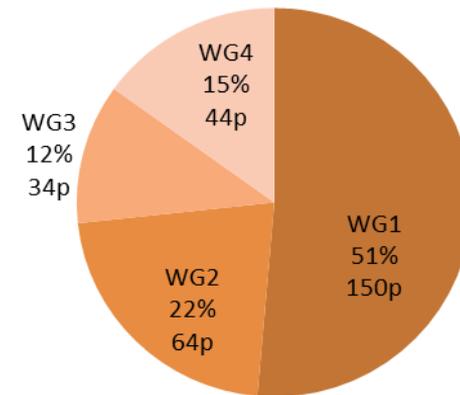


# Participants

■ total # COST countries ■ of which # ITC ■ # IPC

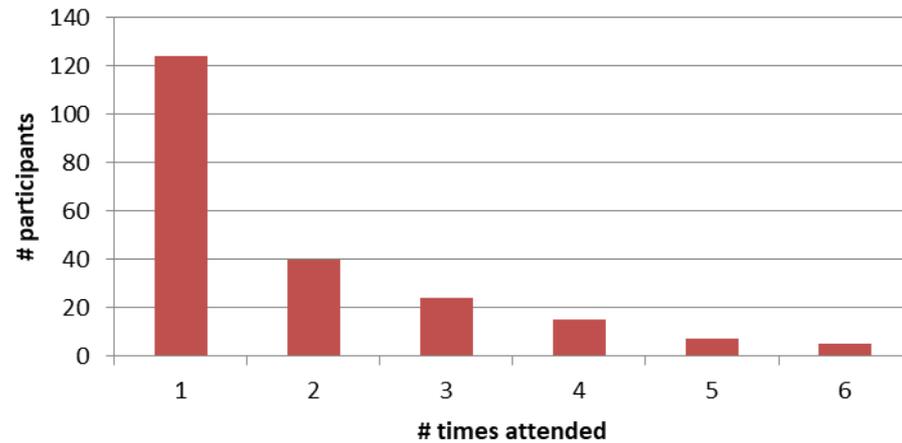


**# members  
(not unique)**



# Returning participants

Meeting attendance





# 5. Update from Chair

## *b. STSM overview*

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# Achieved STSMs GP1



## GP1: 5

- »Ms. Yana Petkova Olsson | Sweden to Germany | 5/1 to 31/3/2016
- »Ms. Anouk Dantuma | Netherlands to Portugal | 6-18/3/2016
- »Ms. Daniele Oliveira de Castro | France to Italy | 15/3 to 14/4/2016
- »Ms. Charlène Riverdy | France to Sweden | 4-15/4/2016
- »Ms. Jinneth Lorena Castro | Spain to Portugal | 11-30/4/2016

Topics, reports and videos can be found on our website:

<http://www.actinpak.eu/report-after-the-stms/>

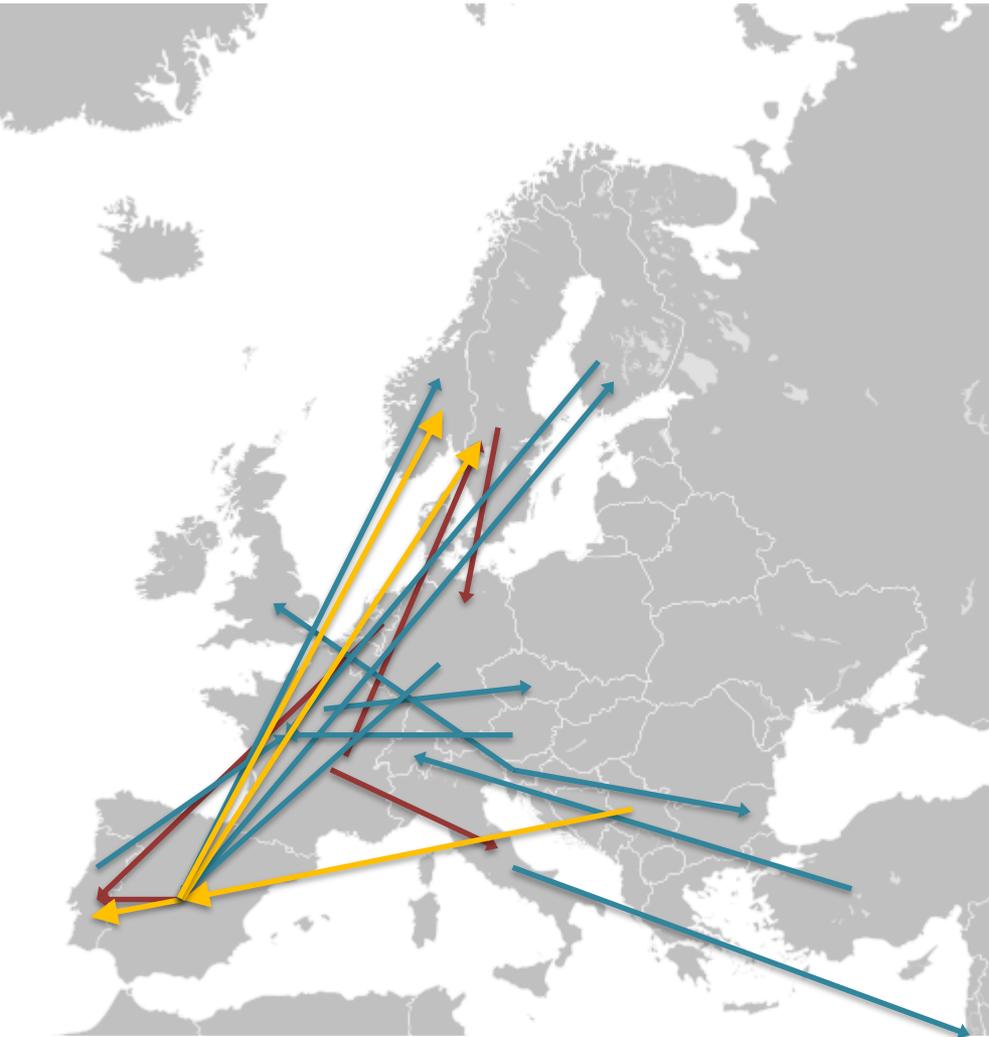
# Achieved STSMs GP2



## GP2: 11

- » Ms. Fanny Hoeng | France to Czech Republic | 8-20/5/2016
- » Dr. Urška Vrabič Brodnjak | Slovenia to Bulgaria | 27/9 to 4/10/2016
- » Mr. Riccardo de Leo | Italy to Israel | 1/9 to 31/10/2016
- » Ms. Adriane Cherpinski | Spain to Finland | 28/8 to 11/9/2016
- » Ms. Lidija Slemenik Perse | Slovenia to United Kingdom | 18/9 to 1/10/2016
- » Mr. Christian Kossel | Germany to Spain | 26/9 to 7/10/2016
- » Mr. José Ramosdiaz | Finland to France | 17/10 to 28/11/2016
- » Mr. Daniel Martinez Filgueira | Spain to Norway | 13-24/3/2017
- » Ms. Verena Ambros | Austria to France | 6-31/3/2017
- » Ms. Damla Dag | Turkey to Switzerland | 15/3 to 30/4/2017
- » Dr. Idalina Goncalves | Portugal to France | 5/3 to 8/4/2017

# Achieved STSMs GP<sub>3</sub>



## GP<sub>3</sub>: 4

- »Prof. Sergio Torres-Giner | Spain to Portugal | 1/7 to 30/9/2017
- »Dr. Tanja Radusin | Serbia to Spain | 15-30/6/2017
- »Ms. Raquel Requene Peris | Spain to Sweden | 3/9 to 30/11/2017
- »Mr. Joaquim Agusti Tarres | Spain to Norway | 13-20/8/2017
  
- »1 rejected STSM: Ms. Adriane Cherpinski Correa, as she already enjoyed an STSM Grant in GP<sub>2</sub>

Topics, reports and videos will be available on our website after completion of the STMS:

<http://www.actinpak.eu/report-after-the-stms/>

# GP<sub>3</sub> - STSM Applications



- For GP<sub>3</sub> there is still budget for 3-4 STSMs
  - Finish before April 2017
  - Apply asap through e-COST
- Industrial STSMs please (but not compulsory)
- STSMs to take place after 1-5-2018 fall under GP<sub>4</sub> and we will budget 7 (more info later in this ppt)



# 6. Update from Grant Holder

## *a. Budget status*

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# Actual budget spending GP1-2

	GP1	GP2	GP3
<b>A. COST Networking Tools</b>	Actual	Actual	Budget
Meetings	112.236	90.193	112.727
Training Schools	0	9.301	17.120
STSMs	9.450	22.090	20.000
Dissemination	4.500	1.500	6.225
OERSA	312	245	450
<b>B. Total Science Expenditure</b>	126.498	123.329	156.522
C. FSAC (max 15% of B)	18.975	18.386	23.478
<b>D. Total Expenditure</b>	<b>145.472</b>	<b>141.715</b>	
<b>Budget</b>	<b>166.358</b>	<b>140.956</b>	<b>180.000</b>
<b>Over/underspending</b>	<b>20.886</b>	<b>759</b>	

← OERSA is for bank transaction costs

← FSAC is to pay the Grant Holder (the only person in this Action that is paid for her work)

# Actual budget spending GP3

		GP3	
A. COST Networking Tools	Budget	Actual	<i>Difference</i>
Meetings	112.727	23.517	89.210
Training Schools	17.120	17.621	-501
STSMs	20.000	8.500	11.500
Dissemination	6.225	1.500	4.725
OERSA	450	272	178
<b>B. Total Science Expenditure</b>	156.522	51.410	
C. FSAC (max 15% of B)	23.478	7.711	
<b>D. Total Expenditure</b>		59.121	
<b>Budget</b>	<b>180.000</b>		

*Status on 1-11-2017,  
including payments STSM and Budapest-meeting,  
no additional accruals*

# Travel Reimbursement Requests



When you fill in your Online Travel Reimbursement Requests, please:

- mark in the receipt the **type** of transport

Otherwise the GH needs to translate and figure out herself what the ticket is for, and this increases the chance of refused tickets: illegible = non-eligible

- fill in according to **local currency**

So you do not have to convert it to Euros yourself, the system will do that automatically!

Also, conversion and transaction fees in case of foreign currency are non-eligible.



## 7. Update from COST Association

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# New instrument: Conference Grants



- Aimed at supporting **PhD** students and **ECI** researchers with
- a primary affiliation in an institution located in an **ITC**
- to make **oral/poster presentation in the field of the Action and acknowledging COST**
- at international science and technology related (preferably European) **conferences** not specifically organised by the COST Action.
  
- Grant does not necessarily cover all expenses, and is merely a contribution to overall travel, accommodation and meal expenses.
- Max €160/day and €500 conference fee, up to a total maximum of €2.500

(read more: [COST Vademecum](#))



## 8. Monitoring of the Action

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# Feedback from reviewer



## Positive:

- Outstanding holistic approach compared to other Actions with only technological approach
- Great progress in main objective to develop the network
- Considerably high industrial participation – good basis for fruitful dialog
- STSM videos are highly appreciated means to deliver the exciting results of the missions

# Feedback from reviewer



## Constructive criticism:

- Progress is lacking for second main objective (Identify market demands, possibilities and any obstacles to market introduction of active and intelligent fibre-based packaging)
- Missing publications, such as co-authored publications, reports, and deliverables for WG2, 3, 4
- Improve economic and policy part
- More focus on WGs 2 and 3 for GP3 and GP4
- More focus on dissemination



## 9. Implementation COST policies

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# a. Balance: Gender / ECI



**Gender balance:** To ensure the largest impact on both male and female participants, a balance in gender amongst the participants is promoted.

Encourage the participation of **ECIs** to strengthen their network and career possibilities

*ECI = Early Career Investigator, meaning a researcher within a time span of up to 8 years from the date they obtained their PhD/doctorate (full-time equivalent).*

# b. Inclusiveness and excellence

**Inclusiveness and excellence** is tailored to bring out excellence in science Europe-wide and clear away obstacles by creating cooperation opportunities for researchers, engineers and scholars from all COST Member Countries.

Inclusiveness Target Countries (ITC) are:



Bosnia-Herzegovina



Bulgaria



Cyprus



Czech Republic

- Estonia



Croatia



Hungary



Lithuania



Latvia



Luxembourg

- Malta
- Montenegro



Poland



Portugal



Romania



Slovenia



Slovakia



fYR of Macedonia



Republic of Serbia

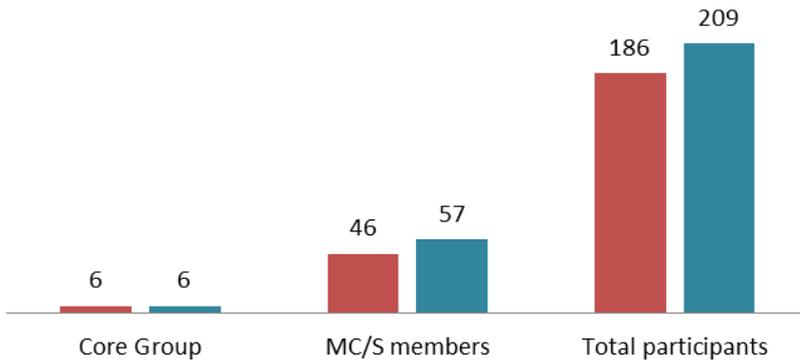


Turkey

# Balance

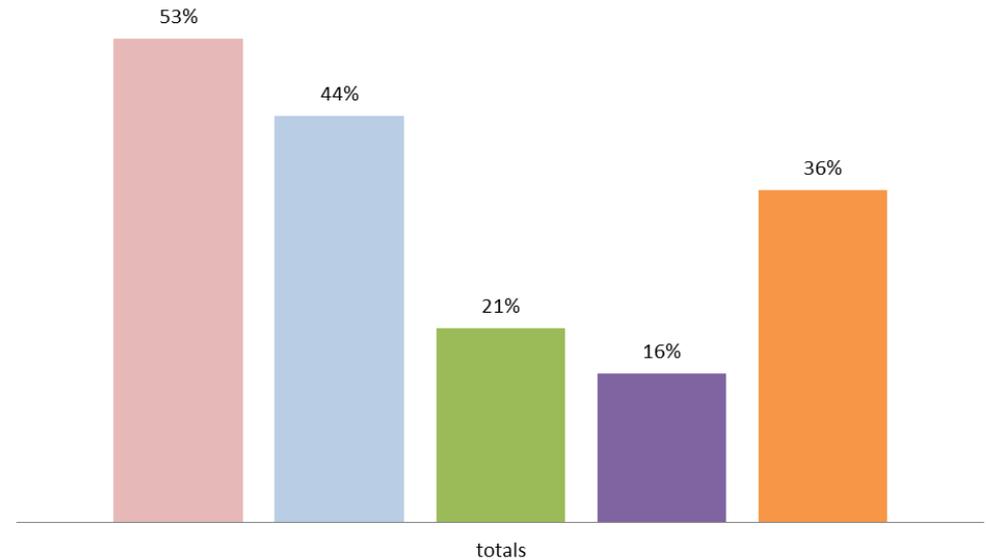
## Gender balance

Female Male



## Total balance during activities (% of participants)

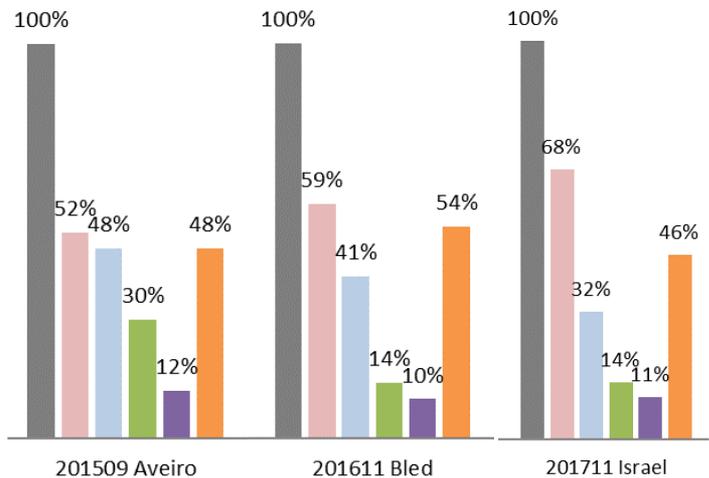
f m ECI industry ITC



# Balance during meetings

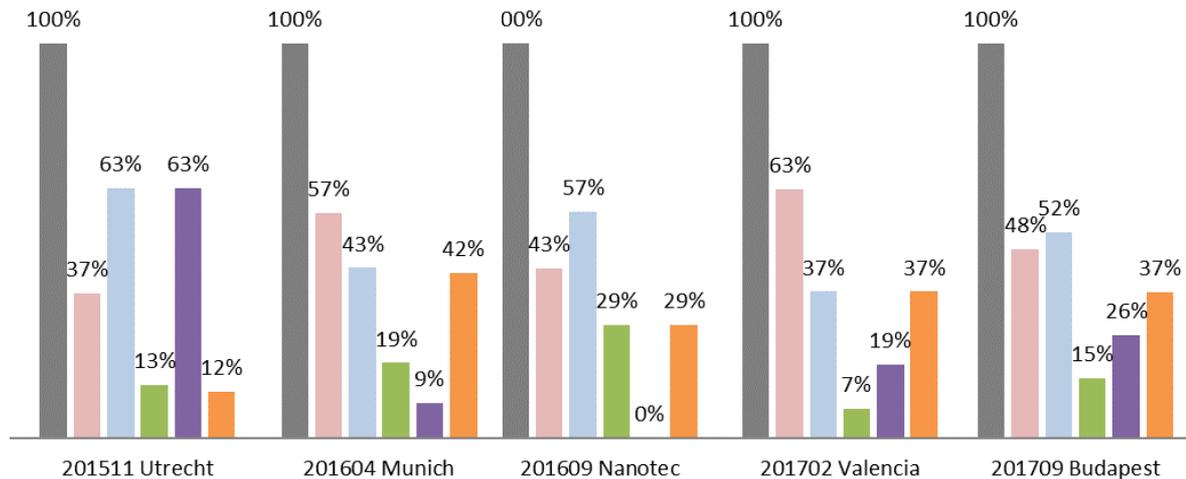
## Balance during MC meetings (% of participants)

■ total ■ f ■ m ■ ECI ■ industry ■ ITC



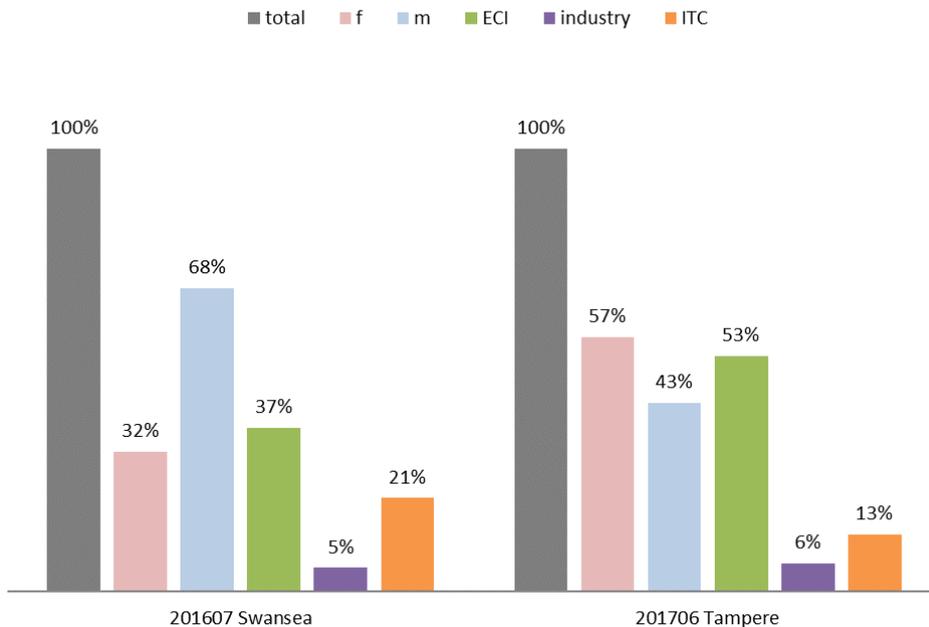
## Balance during WG meetings (% of participants)

■ total ■ f ■ m ■ ECI ■ industry ■ ITC

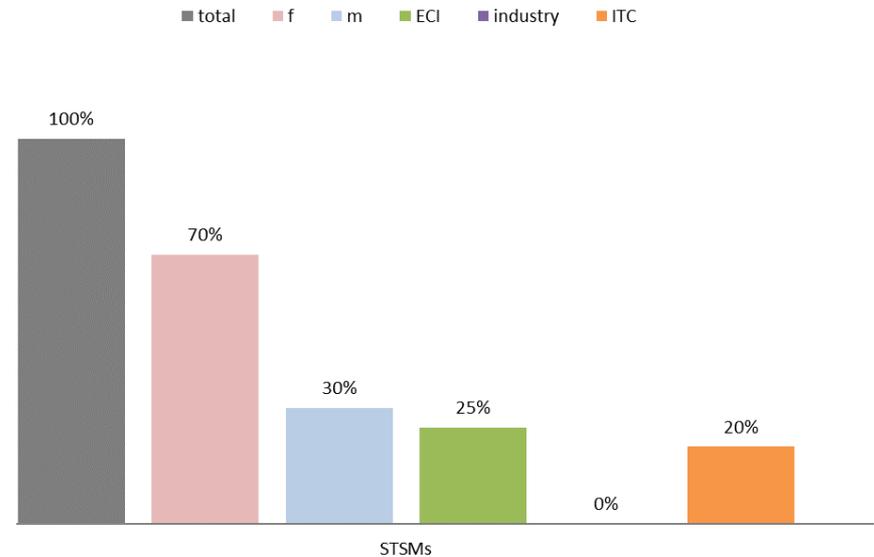


# Balance during TS and STSM

## Balance during Training Schools (# of participants)



## Balance during STSMs (# of participants)





# 10. Follow-up of MoU objectives

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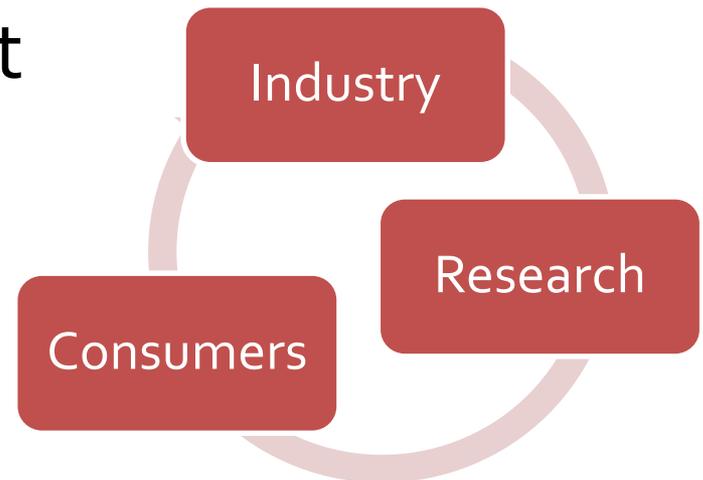
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# Our activities

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.



# Scientific focus



- 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;

# Secondary objectives



- 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.

# What did we already achieve?



- Set-up of a network
- Start of review papers all WGs
- Identification of market demands
- Identification of technical limits and opportunities
- Identification of sustainability and safety issues
- List of scientific papers and cooperations in the field of the Action.

# What do we need to work on?



- List of experts >> to be made and updated (by whom?)
- Finalise review papers
- Finalise roadmaps and guidelines
- Dissemination on different levels
  - Videos
  - Social media
  - Ambassador activities

# WG1 – Development / Innovation



## Industry leaflets & Review Papers

### Industry Leaflet (Priority number 1)

1. Technical paper for Industry (Active Packaging) (**Anouk Dantuma**) → Draft
2. Technical paper for Industry (Intelligent & Interactive Pack.) (**Miguel Cerqueira**) → Draft
3. Active and Intelligent Packaging Current legislations (**Sara Limbo**) → **WG2** → Draft

### Peer review Papers (Priority number 2)

4. Active Packaging for food (**Selcuk Yildirim**) → Accepted (CRFSFS)
5. Technologies to develop active packaging (**Gülüm Sumnu**) → To be submitted (CRFSFS)
6. Functional inks for intelligent packaging (**Diana Gregor Stevec**) → In progress

# WG1 – Development / Innovation



- COST WG1 Meeting, 07 September 2017, Budapest
  - Expert Panel Discussion
  - Workshop “Identification of most promising active and intelligent packaging technologies”
  - Workshop “major technical challenges to overcome for successful exploitation of active and intelligent packaging technologies”
  - Roadmap for future research and development
  - → **Presentations**
  - → **Roadmap as publication in progress (Bettina Röcker, Selcuk Yildirim)**

# WG2 – Industrialisation



- **WG2 workshop “AIP in the markets & sustainability issues” together with WG3** at ITENE, Valencia (Feb. 28- March 1, 2017)
  - 28 participants
  - Workshop: working in small groups to find out “barriers”: Legislation, Supply chain challenges, definition of value chain and parties involved, Market introduction, Non-technological aspects, consumer expectations  
→ Summary of workshop and presentations available on the website
- **Summer school of Active and Intelligent Packaging** at TUT, Tampere, Finland (June 12-16, 2017)
  - 37 students + 12 lecturers from 16 countries
  - 5 days of lectures & workshop & lab work & industrial company visit → Presentations available on the website
- **Publications**
  - Legislation has been identified as one of the key “challenges”
  - Guiding document of legislation relevant for active packaging has been prepared (*draft ready*)
  - Leaflet summarizing legislation aspects (*draft ready*)
  - Planned: “Consumer expectations”
- **Final target:** Roadmap for guideline towards market implementation

# WG3 – LCA / Sustainability



Main activities:

- Sustainability leaflet:
  - In a style similar to WG1 leaflets – critical aspects (opportunities and challenges) of A&I packaging sustainability for packaging value chain participants
- 3 Demonstrator products LCA
  - Exciting preliminary results this Thursday – contain your excitement and be patient!!

**!! We need to translate those two into publication/s !!**

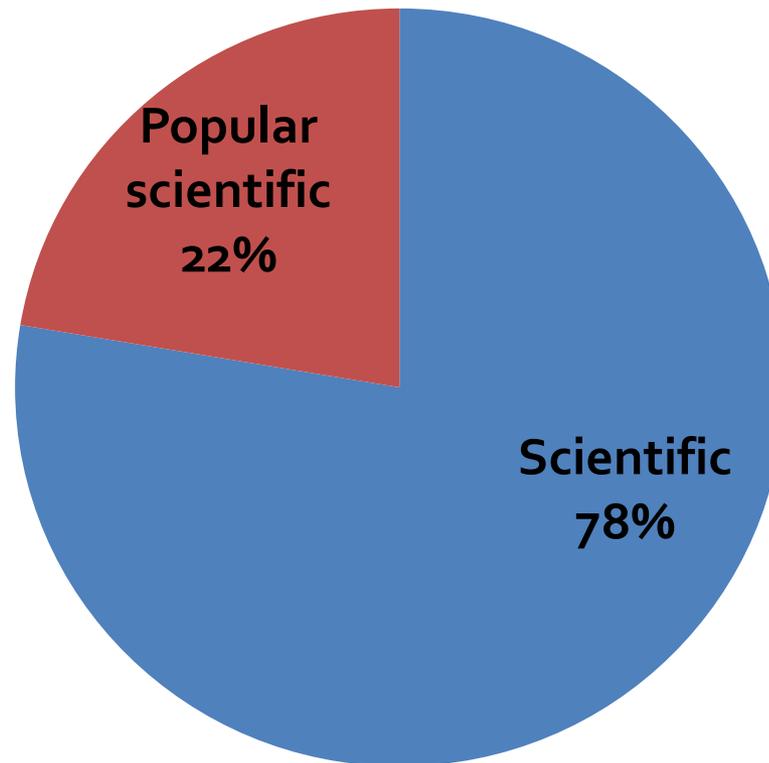
# WG4 – Knowledge transfer



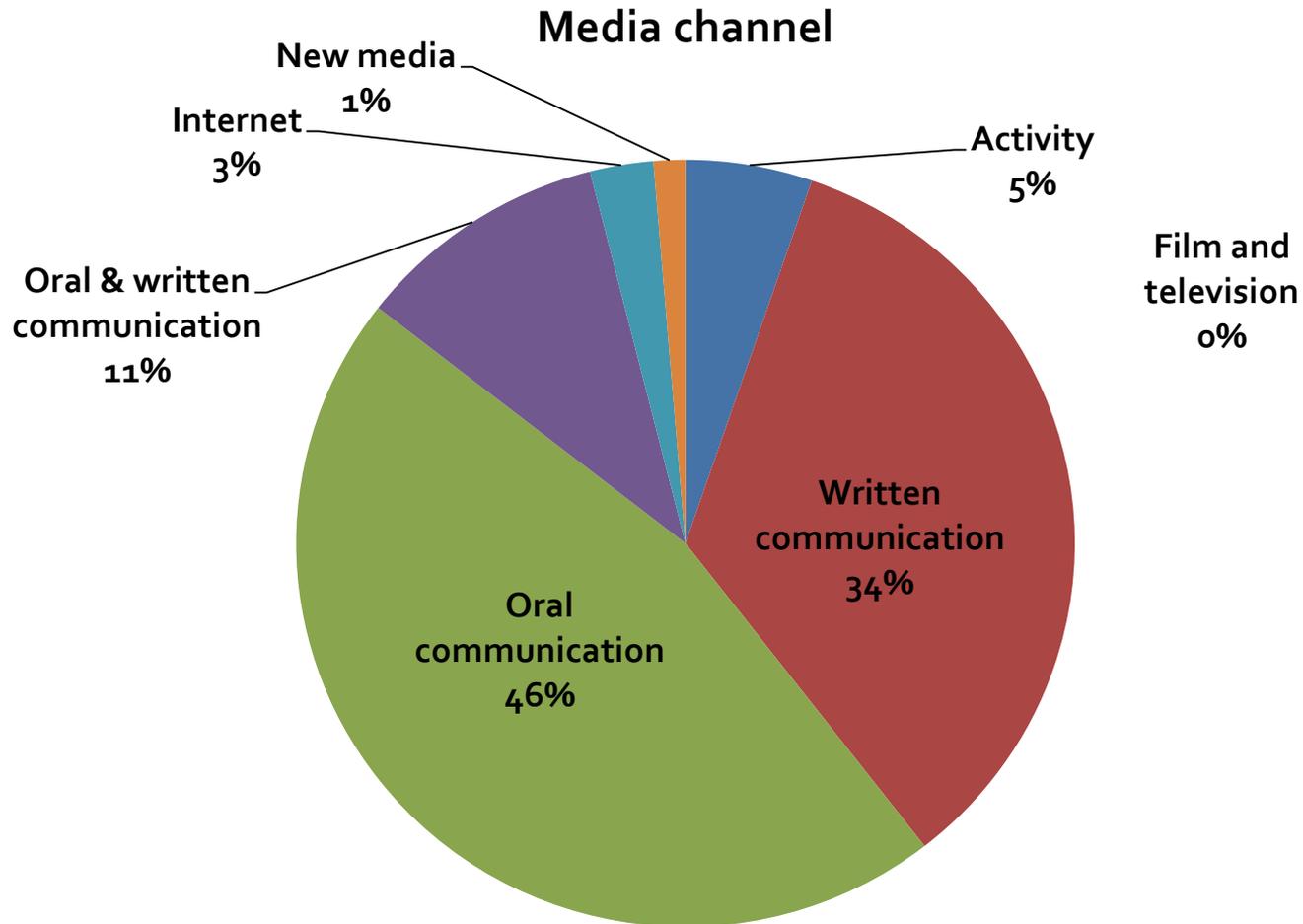
- Overview of dissemination activities
  - 76 contributions until 11/2016
  - 121 contributions until 11/2017
  - Similar distribution between scientific and non scientific

# WG4 – Knowledge transfer

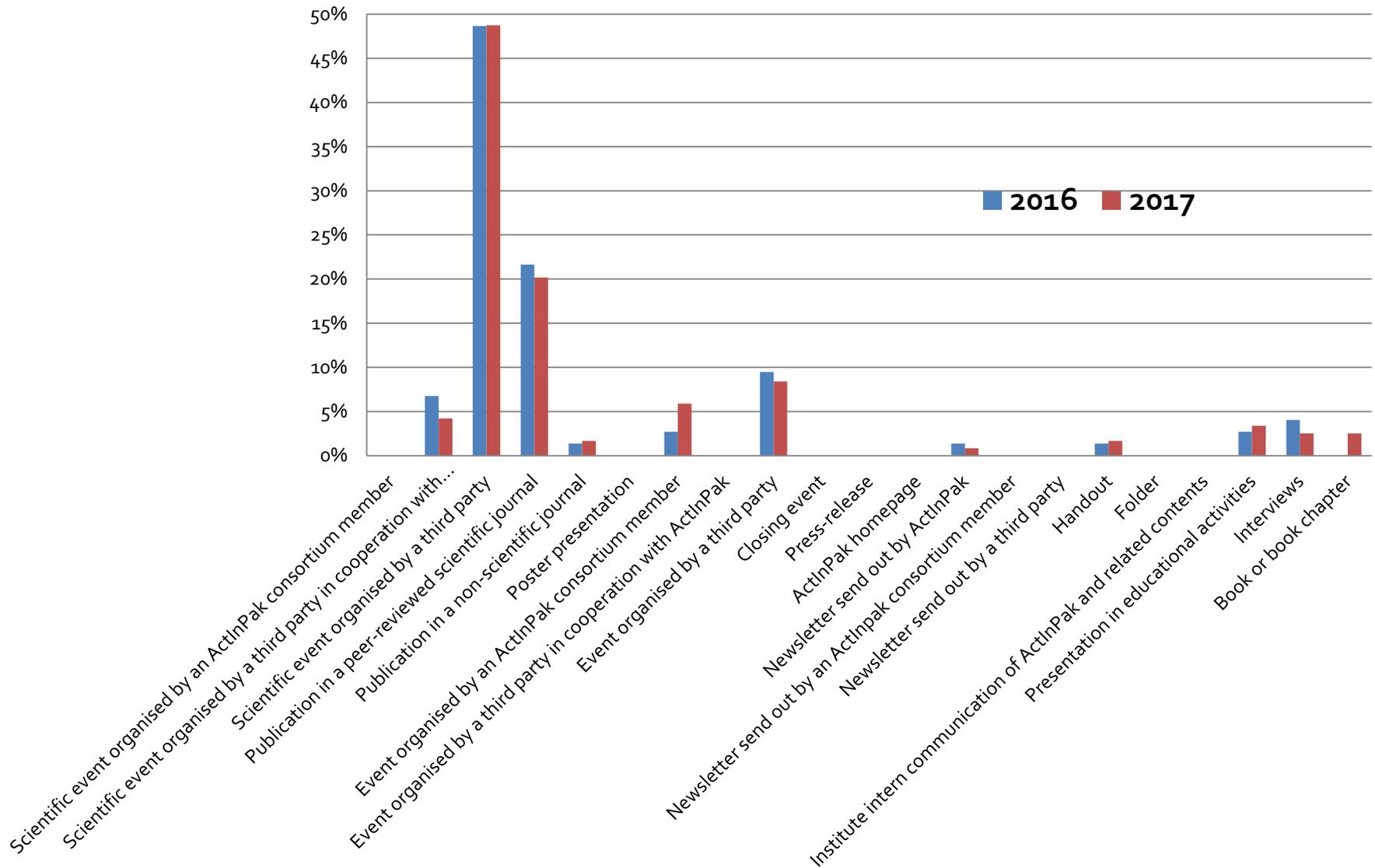
## Dissemination



# WG4 – Knowledge transfer



# WG4 – Knowledge transfer





# 11. Scientific planning

## a. Scientific strategy

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# GP3 goals



1. Identification of future challenges to successful market introduction of Active and Intelligent Packaging in order to develop a roadmap to direct scientific activities to support industry
2. Input from social sciences on application, design, and communication will be gathered in order to define their role in the development of Active and Intelligent Packaging
3. Sustainability analysis of Active and Intelligent demonstrators (defined in GP2) to be able to finalise case studies that show the potential and opportunities of Active and Intelligent Packaging to industry and general public

# GP<sub>3</sub> deliverables (as in WBP)



- Selection of most promising results
- Final draft of roadmaps (WG<sub>1</sub>, WG<sub>2</sub>, WG<sub>3</sub>)
- Published review papers (WG<sub>1</sub>, WG<sub>2</sub>, WG<sub>3</sub>)
  
- Three different videos to explain the developed demonstration cases to communicate advantages of the technologies towards society
- Experiences and results from the STSM researchers
- Experiences and results from Training School
- Workshop and conference presentations and proceedings (in electronic format)
- Awareness amongst industry

# GP<sub>3</sub> Meetings – as planned



- Training School in Tampere, Finland (12-15 June 2017)
- WG workshop in Budapest, Hungary (7 September 2017)
- MC + WG meetings in Tzuba, Israel (7-9 November 2017)
- SG meeting to prepare GP<sub>4</sub> (9 January 2018, if budget allows)



# 11. Scientific planning

## b. Action budget planning, ie GP3

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# GP<sub>3</sub> budget



Remaining budget for:

- 3-4 STSMs
- Dissemination
  - 2-3 WG<sub>1</sub> leaflets to be printed, ~100 per COST country, to distribute to industry



# 11. Scientific planning

## c. Long term planning, ie GP<sub>4</sub>

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# GP<sub>4</sub> – Goals (draft proposal)



## Goals:

- Celebrate success and move forward
- Deliverables (i.e. roadmaps and guidelines) all ready by mid-GP<sub>4</sub>
- Focus on dissemination, market implementation and follow-up

## Approach:

We get our deliverables done, dedicate the second half of GP<sub>4</sub> to active promotion of those deliverables to the widest audience as possible, and pick ~3 challenges from our results to focus on for future work.

# GP<sub>4</sub> – Activities (draft proposal)



Available budget for GP<sub>4</sub>: not known yet

Proposal for distribution according to approved Work and Budget Plan:

- 1 WG meeting
- 1 MC meeting + final conference
- 1 Training School
- 7 STSMs
- Dissemination: leaflets and website

# GP<sub>4</sub> – WG meeting (draft proposal)

**Goal:** finish roadmaps and all other deliverables for all WGs

**Local Organiser:** Linda Vecbiskana

**Location:** Riga, Latvia

**Date:** 4-8 June 2018

**Expected budget:**  
50 reimbursable participants



# GP<sub>4</sub> – MC meeting (draft proposal)

## MC meeting and final conference

**Goal:** Disseminate and celebrate our success

**Local Organiser:** Victoria Heinrich

**Location:** Vienna, Austria, combined with  
Packaging Day on 20/11

**Date:** 20-22 November 2018

**Expected budget:**  
80-100 reimbursable  
participants



# GP4 – Training School (draft proposal)

**Goal:** Business Development, focus on end of Value Chain to end our search 'how to fill the gap between science and industry'.

**Approach:** Group trainees to learn how to develop and advertise concepts. They bring their own concept to the TS and prepare some input beforehand.

**Local Organiser:** Julien Bras

**Location:** Grenoble, France

**Date:** 24-30 September 2018

**Expected budget:** 6 trainers and 15 trainees





# 11. Scientific planning

## d. Dissemination planning

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# Dissemination



- Dissemination meetings
  - 19-22 June 2018: dissemination presentation by Selcuk Yildirim during IAPRI in China
- Leaflets
  - 3 almost ready, more to follow
  - Will be printed and spread across members
- Review papers
  - 1 submitted, more to come
- Videos – non STSM
  - Will be made after Israel meeting, in cooperation with AIPIA
  - Several levels: industry, society, etc.
- Website
  - List of publications and other dissemination, input via David Ravnjak (WG4)
- Newsletters
  - On-going
- Showroom publication
  - Final dissemination to show the potential, could be part of larger document



## 12. Requests to join the Action

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# 12. Requests to join the Action from



A. COST countries: none

B. NNC, IPC, and other: none



## 13. AOB

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# Follow-up/continuation of work



- Set-up of Active and Intelligent Packaging Working Group within IAPRI by Selçuk Yildirim
- Projects?
- COST Action?

# Any other business



- ....?



# 14. Next meeting

COST FP1405

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



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# 15. Summary of decisions

COST FP<sub>1405</sub>

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Thank you!

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## ACKNOWLEDGEMENT

This work is based upon work from COST Action FP1405 ActInPak, supported by COST (European Cooperation in Science and Technology)

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