

Key achievements

ESCP-4i Name and acronym: Future materials and products for advanced smart packaging - AdPack

Partners:

- BalticNet-PlasmaTec (DE)
- PackBridge (SE)
- Nanoprogress (CZ)
- Inovcluster (PT)
- Plastiwin (BE)



Summary of key achievements:

At the 1st January 2016, 5 European clusters started to jointly work on boosting the European sector of advanced and smart packaging by combining their different expertise. The starting signal was the building of AdPack's European Strategic Cluster Partnership. It was a two year project, funded by the European Union through the COSME Programme, founded by [Packbridge](#) from Sweden, [Plastiwin](#) from Belgium, [InovCluster](#) from Portugal, [BalticNet-PlasmaTec](#) from Germany and [Nanoprogress](#) from Czech Republic.

Key achievements during the project are:

AdPack – Phase 1

- 15 MoUs signed by affiliated entities from 10 different European countries
- AdPack ESCP Partnership Agreement signed by all consortium partner
- Establishment of the AdPack EEIG (officially registered in February 2018 in Czech Republic with all consortium partners) and first two members will join the EEIG already in March 2018
- Joint internationalisation strategy with implementation roadmap
- Follow up or strand 2 project called AdPack² also funded by the European Union through the COSME Programme
- 13 services and good practices to be provided by the EEIG for internationalisation and collaboration support
- 18 Working mission events for cross-border collaboration, trust building, matchmaking and networking
- 600 new contacts from participation in dissemination events (e.g. Top Packaging Summit in Sweden, Interpack Germany etc.)
- 11 identified target countries (6 European [Germany, France, United Kingdom, Spain, Netherland, Poland] and 5 third countries [USA, China, Canada, Brazil and Japan])
- 2 resulting cooperation projects (INNOSUP project called VIDA - Value-added Innovation in food chAins with a total budget of around 5 million € and the follow up project COSME strand 2 called AdPack² with around 500.000 €)



Cluster cooperation achievements:

Within the AdPack project a packaging-, food-, plastic, nano- and plasmatechnology cluster combined their competences in order to support the establishment of a partnership in the emerging industry of advanced packaging, which is considered by the European Cluster Observatory as an industry that is interrelated with nearly every other industry sector.

This partnership was recognized by DG Internal Market, Industry, SMEs and Entrepreneurship of the EC and the European Clusters Collaboration Platform as an European Strategic Cluster Partnership (ESCP) in the beginning of the 1st year, and has attracted 15 affiliated entities (mainly cluster organisation) from 10 European countries and different technology sectors, that signed MoUs with the AdPack partners: [CzechBio](#) – Association of Czech Biotech Companies (Czech Republic), [HTI Cluster](#) – Hi-Tech innovation cluster (Czech Republic), [IND-AGRO-POL Cluster](#) – Technical Equipment Construction for Agriculture and Food Industry and in related sectors (Romania), [SEVE](#) – Greek

International Business Association, largest association of exporting companies in Greece (Greece), [VITARTIS](#) – Food Industry Cluster of Castilla y León (Spain), [Matikem](#) – Materials, chemical and Green Chemical Cluster (France), [Chemical Cluster „Green Chemistry”](#) (Poland), [Paper Province, Forest bioeconomy cluster](#) (Sweden), [STAR Research & Innovation Cluster](#) (Czech Republic), [OMNIPACK First Hungarian Cluster of Packaging Technology](#) (Hungary), [Packaging Cluster](#) (Spain), [Associação para o Pólo das Tecnologias de Informação, Comunicação e Electronica TICE.PT](#) (Portugal), [Asociace nanotechnologického průmyslu ČR](#) (Czech Republic), [Pôle Solutions Communicantes Sécurisées](#) (France) and [Food-Processing Initiative e. V.](#) (Germany).

Furthermore, all consortium partner signed the AdPack ESCP Partnership Agreement. The vision of the AdPack's ESCP is to combine different experiences, know-how and value chains in order to boost business and innovation in the field of the advanced, smart packaging. The mission is to run a sustainable ESCP with high added value services for SMEs and innovation actors and engage them into long-term business and R&D cooperation with partners and consumers from Europe but also from countries outside Europe. The aim of AdPack's ESCP is also to strengthen cooperation between clusters and their cluster members across Europe and in long-term beyond Europe. Furthermore, a joint internationalisation strategy was developed during the project lifetime to provide a global perspective and common goals and actions towards Europe and the selected third markets. AdPack's implementation roadmap was established in order to intensify the internationalisation of cluster SME through the ESCP to develop more competitive SME and also clusters in Europe and worldwide.

Although the project officially ended on the 31st December 2017, the AdPack partnership will definitely continue to work together due to the establishment of a sustainable partnership in form of a legal structure and the follow up project called AdPack² also funded by the European Union through the COSME Programme. The chosen legal structure is a European Economic Interest Grouping (EEIG) and the aim is to assure the long-term cooperation between AdPack clusters and the services for their members. The AdPack EEIG is being created with the participation of AdPack's partners and the interested affiliated partners that signed already the MoU. The EEIG will assure the implementation of AdPack's strategy after the end of this project and engage the partnership in long-term cooperation with strategic partners in Europe and also third countries with the aim to support SME to find easier access to global value chains and to support the internationalisation of SME. The follow up project AdPack² will be realised by 6 different cluster: Nanoprogress from Czech Republic, Plastiwin from Belgium, BalticNet-PlasmaTec from Germany, InovCluster from Portugal, [Packaging Cluster](#) from Spain, and [POLE SOLUTIONS COMMUNICANTES SECURISEES](#) from France. This project will continue through two more years, with the aim to implement the joint internationalisation strategy towards defined target third countries (Canada, China and United States) and support AdPack² cluster SME members in establishing long-term cooperation with relevant counterparts in the target countries.



SME cooperation achievements:

This will be part of the AdPack² strand 2 project.

Testimonials from cluster and SME:

Testimonial from Luboš Komárek – Cluster Manager Nanoprogress:

“Due to the project activities, an important connection of the value chains of Plastiwin and Nanoprogress was created. Nanoprogress focuses in one of its collective research projects to strengthening the mechanical properties of nanofibrous structures in order to improve its integration into intelligent membranes that can be used in advanced packaging, biomedicine and other industries. Significant effort was taken to find appropriate material for this use. Due to the cross-cluster collaboration, Plastiwin provided polymer that was solved and used for production of nanofibrous structures that shown significantly higher strength, solid morphology, high productivity and purity. The polymer is currently being tested by members of the cluster Nanoprogress both from academia and SMEs opening a path for new or improved product solutions.

Synergic connection was also established with cluster Nanoprogress and a company nano4 that belongs to Plastiwin and was participating in our working mission in Belgium. The face-to-face discussion of Nanoprogress and nano4 led to further skype meetings with cluster manager and specialized project coordinator and the NDA was signed in the collaborative area of enhancement antibacterial and other properties of nanofibrous structures by enriching the polymeric materials with specific oxides, nanoparticles and additives. Nanoprogress ordered first batch of these materials for testing in order to produce nanofibrous membranes with specific anti-allergic properties.”

Testimonial from Johan Mårtensson – Cluster Manager Packbridge:

“The project - Future materials and products for advanced smart packaging (AdPack) have provided Packbridge and its members the possibility to better understand the needs and challenges of the emerging market of advanced packaging. Together with the consortium we have developed a platform and a structure through ESCP that strengthen cross-border collaboration and internationalisation of SME within advanced packaging and materials.”

Testimonial from Elias Njeim – Cluster Manager Plastiwin:

“For Plastiwin it was the first experience in a COSME project and we do not regret it. Having participated in other projects of a different kind, we have seen in our partnership AdPack how solidarity in a

consortium can be beneficial in experience, in good cooperation practices and especially how useful it is for our respective members.

We talked about AdPack with some members who accompanied or received us during the visits of the 4th working mission. Nano4, another member of Plastiwin, has already started a collaboration with Nanoprogess to provide bio-based materials for testing (see example cited by Luboš Komárek). Some requirements of the food industry that are represented by Inovcluster and expected from the packaging sector are already part of our development axes in plastics, but others which we discovered during the presentation of Susana Caio at the 4th working mission have shown us new unexpected horizons or for new development and innovation topics. In fact, the multi-disciplinarity of our consortium was beneficial to its own partners as well as all our members.

Testimonial from Philippe Degroote - CERTECH, a research centre in materials:

“It was an opportunity to discover an area where the centre could find partnerships with members of other clusters in the field of surface treatment (nano and plasma).”

Testimonial of Cláudia Domingues – Cluster Manager InovCluster:

“Since packaging plays a very important role in the agroindustry and food sectors, for InovCluster the knowledge of the European and international market trends for the sector, the knowledge about the technical abilities of the SME members of the technological partners of the project, is very important. By knowing the latest advances in new materials that can be used for food products, like new barriers and coatings for food preservation, solutions for products traceability, new technics for extended shelf life, or to maintain food products freshness, the renewable and recyclable materials for food or new ways to prevent counterfeit, etc. InovCluster members, can have now access not only to what are the innovation in the field of packaging, but also where this innovation is being done and by whom, enabling the approach between SME from different sectors within Europe and beyond. This allowed us, during the project lifetime to share all this advances and innovations in the market with our members, and also, to share with the partnership the main needs of our members, mainly food manufacturers and also from the food logistics sector. The reduction of sectoral boundaries between the sectors of the SME members of the partners, the possibility of knowledge and technological transfer to boost innovation in the sector of advanced packaging, and also the creation of an entity – AdPack EEIG that will continue the support for SMEs that was started with AdPack project are, to us, the most relevant achievements of the project.”

Testimonial from Alexander Schwock – Cluster Manager BalticNet-PlasmaTec:

“This project was a great opportunity to show other clusters the application fields of plasma technology. We see a big potential in our AdPack EEIG. Our AdPack EEIG will makes it easier for our companies and especially our SME from different countries to do business together with members from the other clusters. And we are really looking forward to the strand 2 of the project.”

Key recommendation(s) on the future of the "Cluster go International" initiative:

- More cross-clustering meetings with other funded consortia in the mid-term and at the end of the project to discuss results and maybe join activities for strand 1 and also strand 2
- More B2B and C2C events organised from the Commission where all the consortium partner will join to get an easier access to the other European markets and also to third countries
- Less administrative work, which takes a lot of the working hours from the project
- Uniform system regarding the working hours, in the use of resources sheet you need to include person-days, in the proposal Technical Annex A you need to include per work package the person-month and in the technical annex part B you calculate your working time in hours. This makes it very confusing and also a lot of administrative work. Would be so much easier to calculate everything in working hours, especially because the average working hours per year (1720 h) are given by the EU.

AdPack – Phase 1

Please indicate the number of events attended by the partnership by category (preparatory events, C2C events and B2B events):

TARGET COUNTRIES	EVENTS (84)				
	Preparatory events, e.g. workshop, seminars, visits (excluding C2C and B2B events)	C2C Events	C2C meetings	B2B Events	B2B meetings
World	5		1		5
USA		1	1		
Europe	3	6	3	2	2
Portugal		2	1	2	2
Czech Republic	1	1	1		1
Belgium	1		2		2
Turkey			1		1
Germany	2	1			
Sweden	1	1	1	3	1
Finland				1	
Japan	1	1	1	1	1
Norway	1				1
Korea	1				1
Denmark	1				1
Poland	1	1	2		2
Spain	1	1	1	1	1
Korea			1		1
France	1			1	
TOTAL	20	15	16	11	22