



DELIVERABLE D.T2.2.2 REPORT BASED ON THE OUTCOMES OF THE BUSINESS SUPPORT SERVICE

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COUNTRY CONTEXT

In Italy the share of bioplastics in packaging has increase by 59% from 2013 to 2016 mainly thanks to the progressive implementation of legislation (law on the mandatory use of biodegradable/compostable shopping bags (January of 2011)). However, it represents, only 1.5% of the plastic on the market. The more recent implementation of the new legislation concerning ultralight plastic bags is expected to further increase the share of bioplastics in flexible packaging. With reference to paper/bioplastic multi-material products, currently there are few leading companies present in the market and clear statistics are not yet available. Although, the volume and associated value are difficult to estimate they still represents a niche market with a clear growing trend related to the potential replacement of conventional plastics in many packaging applications. The recent publication of plastic strategy and single use plastic products directive is actually shifting part of conventional plastic packaging to bioplastic also associated with paper to produce biodegradable and compostable products as well as replacing conventional plastic with bio-based plastic in paper based multi-materials that could be recycled in paper mills. Multi-material paper-based packaging are made normally with more than 80-90% of paper and may have some advantages in comparison to thick rigid bioplastic containers because paper disintegrate faster than some bioplastic products in composting plants. Moreover, in case of non-food packaging multi-material products or packaging in contact with dry food, the recyclability is still a potential option providing that the design of the material/product is evaluated for its impact on recyclability. In this context, in Italy the paper value chain is gaining a significant experience thanks to recent standard methodology to assess recyclability of paper based products (www.atichelca.it) that contributes to proper recycling oriented eco-design as well as the presence in the country of few specialized paper mills already equipped for recycling multi-material paper based liquid beverage containers.

ASSESSMENT REPORT

COMPANY PROFILE BASED ON AUDIT TOOL

The firm is a very active small-medium enterprise in the field of paper/plastic lamination with a large network of clients and a sufficient knowledge of the new biomaterials on the market. The financial figures of the company show a growth trend in the last three years supported by excellent attention to new developments in the market and a good attitude of the staff towards innovation in production process. Although they do not have a written sustainability report or a written long term plan to improve their sustainability, their attention to this issue is witnessed by FSC certification and a clear vision of the mid-term goals they want to achieve. In this field of biocomposites, they would like to obtain primarily a good paper recyclability level for most of their products portfolio. On the other hand, they need to improve their competence also in developing compostable products as this requirement is getting more and more relevant for their clients.

Major need highlighted by the expert: find out bottlenecks of new biomaterials and additives in paper recyclability

Solution proposed by the expert: performing an experimental design test according to Atichelca paper recyclability standard to identify best options.

Feedback from Pilot action

Based on the survey, the pilot company has been open to have further information about country specific data in the field of biocomposite packaging material and technology and will stay in contact with BioCompack consortium in the future as well. The questions of the audit tool were found sufficient to depict the company profile, thus no additional suggestions were indicated. In principle also the technology feasibility questionnaire was found sufficiently clear as further details may emerge during face-to face discussion. In contrast, the need of written information was pointed out in case of self-compiling without the presence of an expert.

From the company's point of view, the information provided during pilot action proved to be interesting and the overall service was judged relevant to achieve a competitive advantage in the future operation, especially in the field of networking, knowledge of biocomposite materials as well as to help their decision-making process regarding product end-of-life. The number of participants and experts proved to be sufficient and after this pilot action the top management of the company expressed the intention to participate in further pilot actions as well. The tested solutions developed during pilot action will be further explored to increase the recyclability level of their multi-materials particularly regarding the influence of different type of adhesives and related process parameter for lamination.

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