



**DELIVERABLE D.T2.2.2 REPORT BASED ON THE OUTCOMES OF THE BUSINESS
SUPPORT SERVICE (POLAND)**

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This report is based on the outcomes of the business support service testing that is based on the *D.T.1.3.3 Audit tool prototype*, and *DT1.3.4 Annex I_Questionnaire* and on the audit that took place in *Pol-Zdob Drukarnia fleksograficzna* on the 8th of October, 2019.

The aim of the document is to present the short profile of one of the three companies that had been chosen for the second round of the pilot actions that were performed in accordance to *WP.T2 - Testing of the business support service through pilot actions - from planning to action*.

The participating company is the world's largest restaurant chain by revenue, serving over 69 million customers daily in over 100 countries across 37,855 outlets (as of 2018). Due to the specification of the Pilot Action being dedicated to national markets, the focus of the company's actions was limited to Poland. In July 2019, more than 24,000 employees were employed in 427 Polish premises of this network, located in over 150 cities. Acquiring McDonald's as a case in a pilot action gives important insight from the end-user's perspective, that is a major corporation with a great potential for the usage of biocomposites.

McDonald's value hierarchy in terms of sustainability and environmental protection, both in Poland and, can be describe in four steps. First, and most important one is reducing the volume of packaging by limiting their usage only to the most necessary cases. The second one is reducing packaging's weight if possible. The third one is incorporating paper as the main material. Only at the last position, the company lists the usage of biomaterials and biocomposites. McDonald's has to remove single-use plastics from its salads range and plastic lids from all McFlurry ice creams, in a major drive to reduce plastic packaging. Moreover, all meals and salads are to be served in 100% renewable and recyclable cardboard containers instead of single-use plastic. The new salad and meal containers are made from cardboard which contains 50% recycled content and 50% new, which itself comes from certified sustainable sources. The coating on the containers, designed to keep them rigid, is also 100% renewable. McDonald's also plans to switch to fiber-based packaging made from recycled materials in every location by 2020. In accordance with the Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment (Single-Use Plastics Directive) from June 12, 2019 McDonald's Polska in replacing their cutlery from hard-to-

recover polystyrene with those made of completely recyclable polypropylene. By 2025, the McDonald's chain of restaurants is to replace all their packaging with packaging that comes from recycling or certified production and is to be 100 % biodegradable, with Forest Stewardship Council (FSC) certified raw materials preferred. It is also to reduce its greenhouse gas emissions by a third by the end of the next decade. The company's environmental actions in Poland are in line with the Polish society's level of environmental awareness. The 2018 PBS survey shows that 89% Poles want to use the possibility of waste segregation in public places or fast food restaurants, and 93% Poles expect producers to take measures to reduce the impact of used packaging on the environment. The concern also wants to introduce recycling in all restaurants of the brand in the world, regardless of differences in the infrastructure related to the recycling process, legal regulations and consumer habits that occur between countries, and sometimes even cities.

Bioplastics. Overall tendencies in Poland and Europe.

Bioplastics market share is only about one percent of the 335 million tonnes of oil-based plastic produced annually. It is important to establish that bioplastics are currently a niche as it is impossible for them to meet the capacities of the traditional plastic in the market. The main barrier is connected with the price of such materials which is roughly three times higher than the price of traditional plastics. Nevertheless, the demand in the niche is growing as the society is gaining knowledge about environmental aspects of such materials and there is a part of the society willing to pay more to obtain materials that are in accordance with their raising awareness and rapidly changing lifestyles. Therefore, with more sophisticated biopolymers, applications, and products emerging, the market is continuously growing. According to the data obtained by European Bioplastics, global bioplastics production capacity is set to increase to approximately 2.62 million tonnes in 2023. Bioplastics are starting to replace traditional petrol materials in numerous applications, including packaging, catering products, consumer electronics, cars, agriculture, textiles and other segments. Packaging segment is the largest field of application for bioplastics with almost 65 percent (1.2 million tonnes) of the total bioplastics market in 2018. Europe is an important centre of the bioplastics industry. It has the 5th position in the field of research and development and is the industry's largest market worldwide.

According to Smithers Pira report 'The future of bioplastics on the packaging market', a further increase in the share of bioplastics in the global plastic packaging market should be expected in the coming years. The growth rate of these plastics used in packaging production will be greater than the growth of petroleum-based polymers. In 2017 bioplastic packaging accounted for approximately 0.3% of the global packaging market and 1% of the global plastic packaging market. According to Smithers Pira, in 2022 the value of the bioplastics market for the packaging industry will increase to USD 7.2 billion (an increase of approximately 15%).

Currently, there is a visible change of focus in the bioplastics markets. The present approach is to move away from biodegradability towards increased use of renewable raw materials; bio-based bioplastics. Sustainability arguments such as climate protection and the decrease of fossil reserves make efforts to replace fossil-fuel-based plastics with renewables-based ones more attractive.

There is no specific legislation at EU level currently contributing to the bioplastics business. Several policy initiatives such as the Europe 2020 Strategy, strategies supporting the bio-economy are directly or indirectly calling for support measures to help the bioplastics industry. But it is unclear whether any of its outcomes will be implemented into practice. Member-State level, several countries have established specific support mechanisms for bioplastics packaging, such as reduced packaging taxes in Latvia and the Netherlands, or exemptions from waste-management obligations in Germany.

In Poland, there is basically no market for biodegradable plastics. Despite numerous marketing activities, aimed at presenting the ecological advantages of bioplastics, their sales are still very modest. The example confirming the above mentioned fact is lack of demand for bioplastics products as the company Bioerg, which is one of the first domestic companies producing and selling compostable plastic packaging. It is also the first national enterprise that has obtained a certificate confirming compliance with the requirements of the European standard EN 13432: 2000 issued by the DIN CERTCO unit (April 2008). The certificate confirms full biodegradability and the possibility of composting products sold by Bioerg. Despite such product characteristics Bioerg's sales revenues were just PLN 1.65 million in 2015 and were 18% lower than in 2014. For comparison, Plast-Box, one of the Polish leaders in the production

of packaging from traditional plastics, noted sales at the level of PLN 140 million zlotys in 2015. The 2015 net profit for Bioerg was barely 34,000. PLN and was 71% lower compared to 2014.