

PLASTIGRAF TREVIGIANA

PROFILE

FOUNDATION

- 40 years ago

SIZE

- small-sized (approx. 20 employees)

KEY PRODUCTS/ SERVICES

lamination of paper (sheets and rolls) and cardboard with plastic and bioplastic film for multi-material multi-layer products

KEY MATERIALS

- virgin paper
- recycled paper
- coated paper
- plastic films (PP, PE, PET)
- bioplastics

The participating company is a small Italian packaging converter specialized in **paper/plastic lamination**. The company's ownership is domestic private with an export share below 20%. The main production concerns intermediate materials for several applications (food contact, luxury, editing, shopping bags).

The growth of the company is supported by its financial figures. Revenue growth and number of employees have been increasing in the last three years approximately by 10% and profits close to 20%.

Innovation is seen very important for the company, and innovation investment was between 20% and 30% of their budget in the last 3 years. Decisions are made directly by the top management. Staff attitude towards change for innovation is quite good although finding new skilled people is judged somehow difficult. Currently Innovation is predominantly carried out internally with support of their suppliers and private consultants, nevertheless, high level technical staff is well motivated also to perform web searching and to participate at workshops and conferences in order to increase their own knowledge. Participation in funded public collaborative research projects is seen as a key topic for the future.

SUSTAINABILITY, USING OF BIOMATERIALS

The company rates sustainability as a very important key element in its business strategy.

Their activities on the use of bioplastics are mainly "forced" by external market drivers. Paper and combined paper/bioplastic materials are considered very important in their environmental sustainability strategy to increase bio-based content and allow organic recovery for specific applications. On the other hand, they believe that **recyclability of paper-based multi-materials** should be the real priority in circular economy.

The company has a long-term plan for using biomaterials and they have already made trials with biomaterials with several customers, acquiring **skills** about machine setting and functional properties.



PRODUCTION PORTFOLIO SPECIALITIES

Lamination of **plastic and bioplastic films** with a wide range of cellulosic supports to produce multi-material multi-layer products showing limited impact on paper recyclability (based on Aticelca standard).

Production of intermediate materials with low fossil-based plastic content.

The company is committed to providing high quality and safe products, in conformity with applicable legislation and the standards BRCGS® Packaging and FSC® CoC.

SUMMARY OF THE CASE STUDY

Lately, environmental awareness has been increased massively and consequently there is a **growing demand** for environmentally friendly recycling and compostable products. Considering the investment strategy and taking into account the fast development of this sector in the Italian market, the company pointed out the need of a better understanding of bioplastics behavior in the paper recycling process. The solution identified was a study based on laboratory testing of different packaging material design in order to find out the key constrains for recycling when using bioplastic in combination with paper. An experimental scheme was proposed for material preparation choosing different bioplastics and adhesives for lamination, taking into account the use and the applications required on the market.

The experimental materials are tested according to Italian standard UNI 11743 and assessed using Aticelca system MC 2019. Data collected will be used by the company to attain Recyclability Level A for the majority of their product portfolio.
