



Plastigraf Trevigiana



BIOCOMPACK-CE PROJECT: ITALIAN PILOT ACTION

LAURA GIUST - PLASTIGRAF TREVIGIANA SRL

With the collaboration of Innovhub - SSI



INNOVHUB
STAZIONI SPERIMENTALI
PER L'INDUSTRIA

innovazione e ricerca



BIOCOMPACK-CE PROJECT PILOT ACTION - ITALY



BIOCOMPACT-CE PROJECT PILOT ACTION



- ▶ What does the pilot action concern?
 - *Integrated skills between research centres and companies*
 - *Confidential information*
 - *Production of prototypes and samples for analysis*
 - *Publication of pilot action results*



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► **Step 1: Preliminary step**

AUDIT TOOL DEVELOPMENT BETWEEN PARTNERS

- Internal meetings
- National workshop to gain feedback dalla filiera

<https://www.interreg-central.eu/Content.Node/BIOCOMPACK-CE.html>



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- ▶ **Step 2:** call for proposal for non-partner companies
(by May 2019)
- Collection of proposals
- Visit at headquarters of selected companies
- Interview to assess the potentialities in the specific sector
- Design of testing plan for the pilot action (within August 2019)



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Plastigraf Trevigiana proposed an analysis plan and was selected as one of the Italian company for carrying out the pilot action within the Biocompack-CE project.

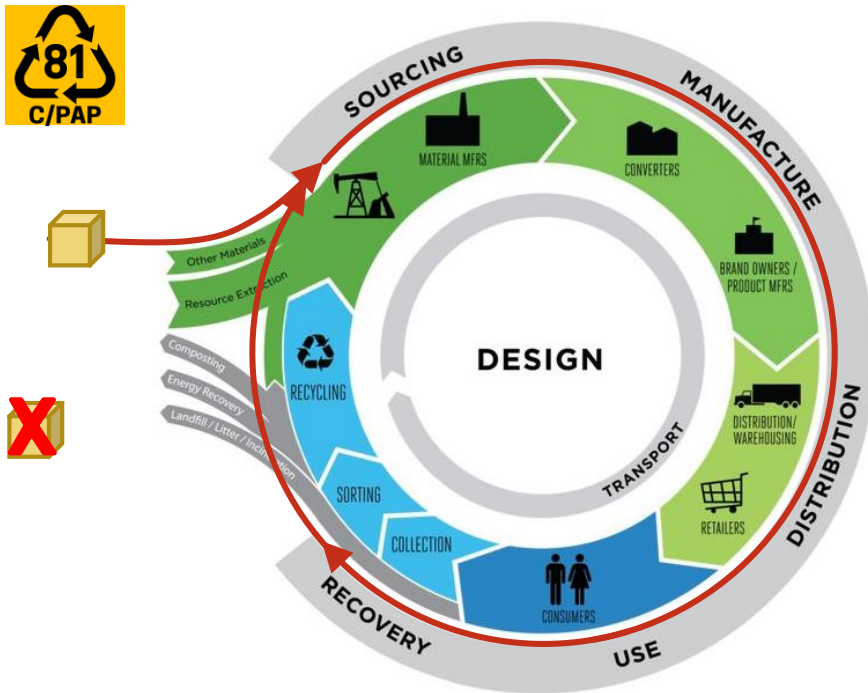
«INFLUENCE OF THREE DIFFERENT PAPER/BIOPLASTIC PACKAGING SOLUTIONS ON PRODUCT RECYCLABILITY»

1. Packaging solution employed in the food industry for foodstuffs conservation
2. Packaging solution used in the food industry for baking
3. Packaging solution required for graphic industry and design



BIOCOMPACT-CE PROJECT PILOT ACTION

Why recycling a compostable product?



**REDUCE
REUSE
RECYCLE**



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Why recycling a compostable product?

NOWADAYS



INCOMING SUPPLY



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1. Packaging solution employed in the food industry for foodstuffs conservation
 - ❑ Room temperature
 - ❑ Freezing
 - ❑ Refrigerated conditions



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2. Packaging solution used in the food industry for baking



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3. Packaging solution required for graphic industry and design



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Step 3: Realization (october-december 2019)

- ▶ Samples production
- ▶ Recyclability test
- ▶ Assessment of results

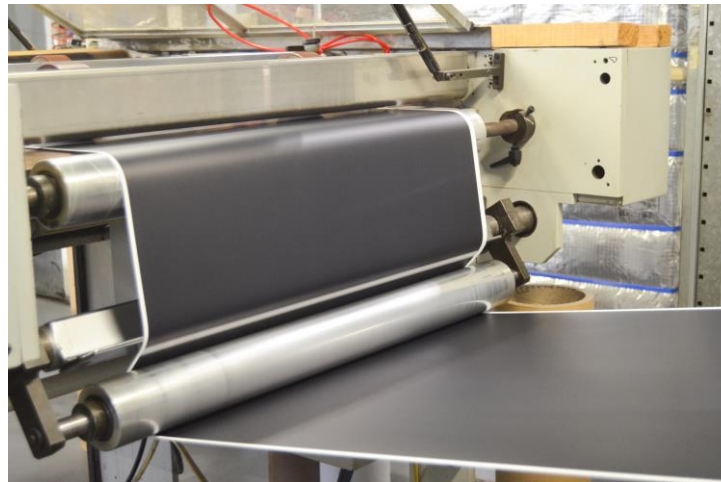


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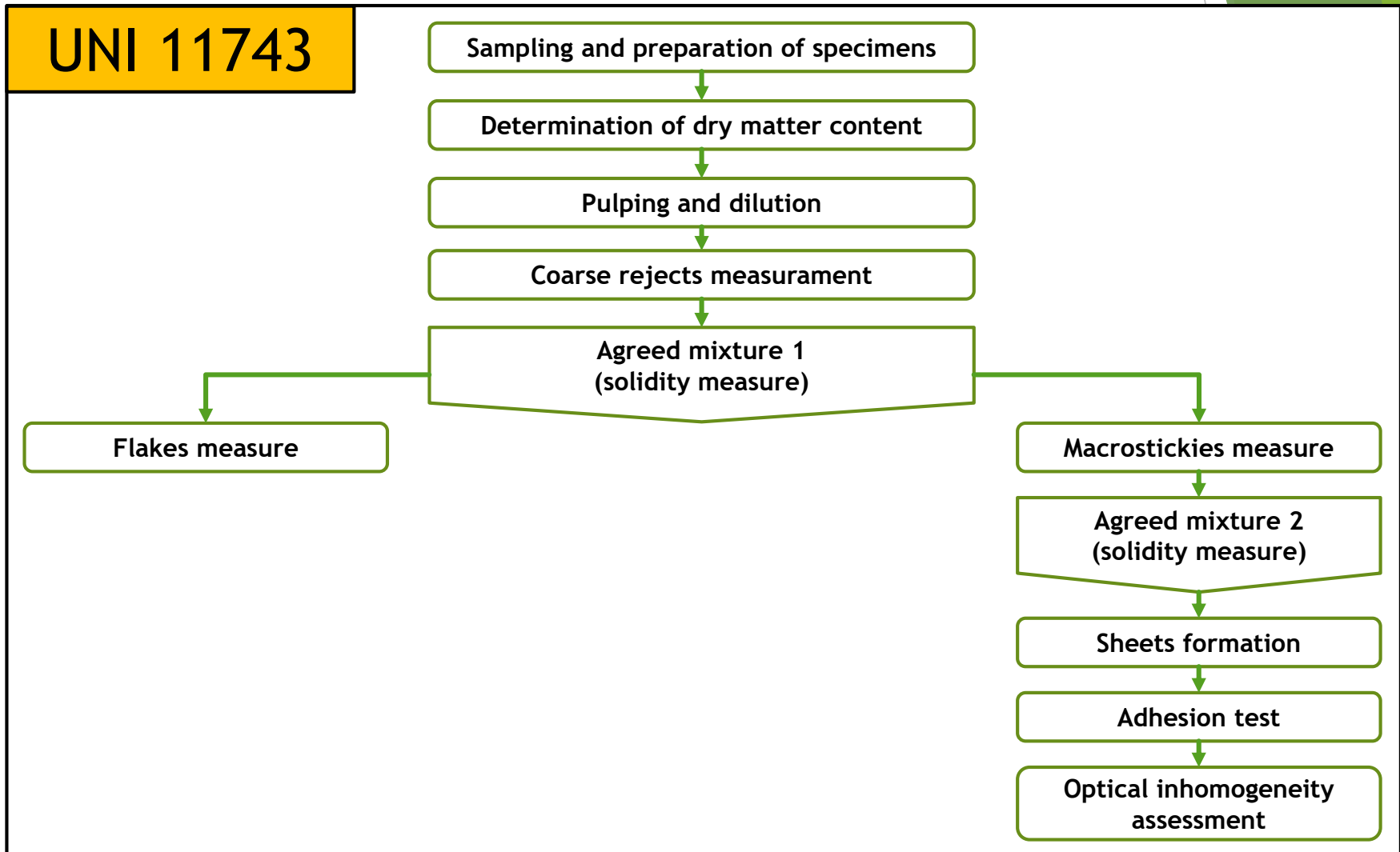
Step 3: Realization (october-december 2019)

- ▶ Recyclability test → UNI 11743:2019

INNOVHUB Laboratory in Milan



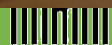
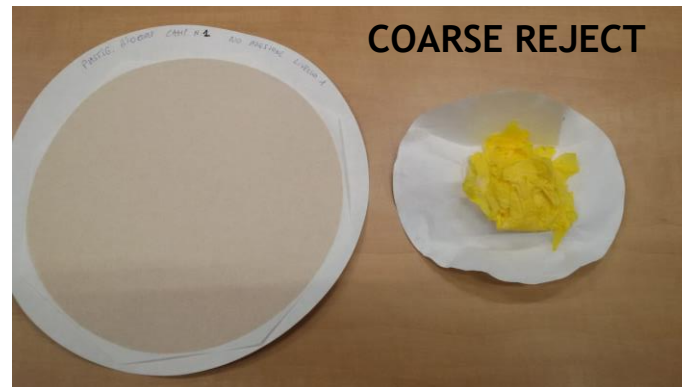
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Sample 1

- ▶ Support: Kraft Avana pure cellulose
- ▶ Film: Biocompost Industrial, colour yellow, shiny finish



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Sample 2

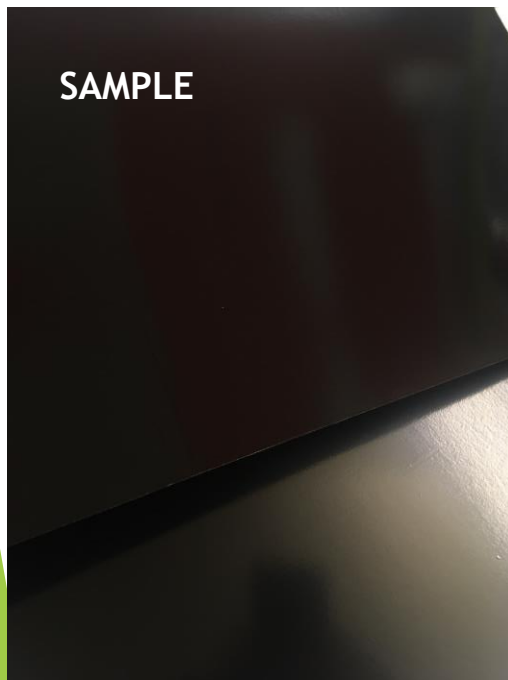
- ▶ Support: White virgin fiber cardboard
- ▶ Film: Compostable film suitable for high temperature baking, transparent



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Sample 3

- ▶ Support: Wood-free virgin fiber black paper (mass coloured)
- ▶ Film: Ecogloss film, black printed with compostable inks



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Step 3: Realization (october-december 2019)

- ▶ Assessment of results

Evaluation system Aticelca 501:2019

| Criteri di valutazione | Riciclabile con la carta | | | | Non riciclabile con la carta |
|--|--------------------------|----------------|-----------------|-----------------|------------------------------|
| | Livello A+ | Livello A | Livello B | Livello C | Non riciclabile con la carta |
| ATICELCA 501:2019 | | | | | |
| Scarto grossolano (%) | < 1.5 | 1.5 - 10.0 | 10.1 - 20.0 | 20.1 - 40.0 | > 40.0 |
| Area di particelle adesive $\phi < 2000 \mu\text{m}$. (mm ² /kg) | < 2.500 | 2.500 - 10.000 | 10.001 - 20.000 | 20.001 - 50.000 | > 50.000 |
| Fiocchi di fibre (%)* | < 5.0 | 5.0 - 15.0 | 15.1 - 40.0 | > 40.0 | - |
| Adesività | assente | assente | assente | assente | presente |
| Disomogeneità ottica | livello 1 | livello 2 | livello 3 | livello 3 | - |

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Step 3: Realization (october-

► Assessment of results

| Parameter | M. U. | Sample 1 | Sample 2 | Sample 3 |
|-------------------------|-------------------------|----------|----------|-----------|
| Coarse rejects | % | 11.7 | 7.8 | 4.9 |
| Flakes | % | 8.9 | 0.7 | 1.5 |
| Adhesion | | Absent | Absent | Absent |
| Optical inhomogeneity | | Level 1 | Level 1 | Level 3** |
| Macrostickies | mm ² / Kg | ND | ND | ND |
| ATICELCA* Recyclability | | Level B | Level A | Level B** |

* TO BE COMPLETED WITH MACROSTICKIES MEASUREMENT

** INFLUENCE OF PAPER COLOUR

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Step 3: Realization (october-december 2019)

- ▶ Assessment of results
- ❖ All the samples resulted as recyclable
- ❖ The lamination glue could influence the adhesion and sheet formation
- ❖ Some paper types may influence flakes parameter
- ❖ Mass coloured support affects quality of recycled paper



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Follow-up assessments

- ▶ Food contact conformity
- ▶ Shelf-life
- ▶ Technological suitability
- ▶ Barrier effect
- ▶ Production process (lamination, die-cutting, glueing)
- ▶ Printability
- ▶



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ANY QUESTION?



Thanks!

LAURA GIUST - Quality Manager
quality@plastigraftravigiana.com
www.plastigraftravigiana.it



Plastigraf Trevigiana

Via Tommaso Salsa, 64
31030 Carbonera (TV) - Italy
T. +39 0422 362377 - F. +39 0422 361346
www.plastigraftravigiana.com
info@plastigraftravigiana.com
P.IVA 00709490262