



Replace

Multi-component plastic packaging recycling company on the principle of waste-to-product

Avec le soutien de :



*The
challenges of
recycling
multi-
components
plastics are
global*

*Capture plastic that is difficult to recycle at
negative cost*

Recycle plastic without polluting

*Make marketable mass products in a circular
loop.*



OUR VISION :

To allow all plastics to be reused in a circular economy on a human scale.
« Capture, Recycle, Value » through « duplicable » production units.

OUR PROMISE :

Transform all multi-component plastic packaging into premium products.

OUR AMBITION :

ZERO plastic in the sea.
ZERO plastic under the ground.
ZERO plastic in the air.

OUR VALUES :

Circular and Responsible Economy.
Ethical entrepreneurship and global engagement.
Preserve nature.

OUR PERSONALITY :

Local and human-sized solutions (unlike gigantism).
Local solutions using "local sources" for local needs

The Business Model: THE WASTE- TO-PRODUCT

Capture plastic that is difficult to recycle at negative cost

Directly **transform** these raw materials into simple and inexpensive products, without going through intermediate steps.

Market these products at the price of their wood, metal or concrete equivalents

Collect these products to **process** and **re-market** them

**Business
Model:
"What we do
and what we
don't do"**

The REPLACE approach consists of:

- **Create and develop** a "essamiable" recycling channel on the planet for multi-component plastic :
 - No outlet for post-consumer
 - With low opportunities for post-industrial waste
 - ... which end up in incineration at best.
- **Set up processing** units using post-industrial waste deposits as a start-up base
- Secondly, **feed these units** with post-consumer waste in the geographical area concerned.
- Develop useful, competitive and recyclable products that can be used locally
- **Limit the complexity of the industrial process** and limit the Capex to allow a broad deployment of the concept.

Business Model:

"What we do and what we don't do"

On the other hand, our approach:

- *Not seeking to replace the company's strategy of reducing the weight of packaging, creating packaging with PCR, moving towards single-material packaging*
 - *provides complementary opportunities to enhance these "products" without a solution to date in a circular loop.*
- *Not a substitute for waste collection and sorting professionals*
 - *increases the number of reuse opportunities within a "local" geographic area.*

How are we going to deploy our Business Model ?

First Step :

Proof Of Concept (P.O.C.) in a first unit

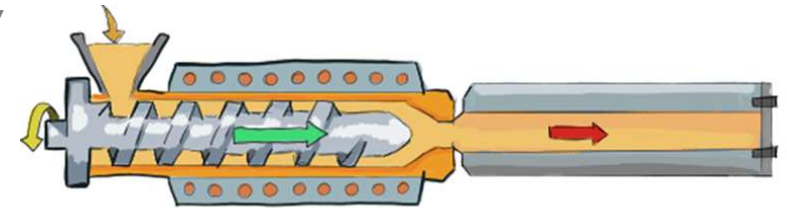
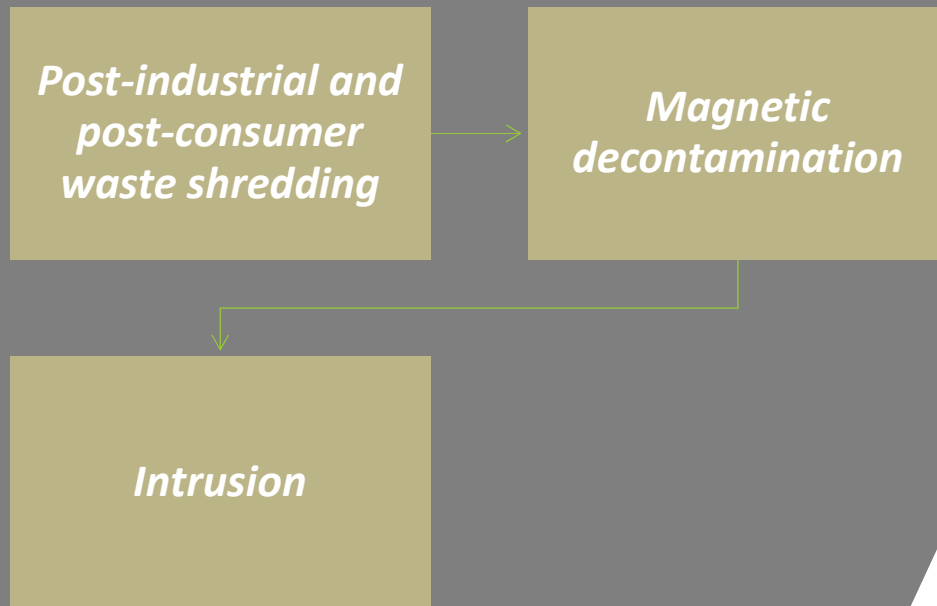
Post-consumer and post-industrial plastics in extrusion-intrusion mixture (improved industrial performance multi-component plastics)

Second Step :

Set out the concept and deploy solutions to enhance multi-component plastics transformation in a competitive Business Model.....

....including the sale of machines suitable for all countries

Industrial process



Prototype Line



Industrial Line

*The first
products
targeted*

***We want to offer an alternative to all
wooden and bamboo stakes.***

***We can replace this precious species with very
sustainable recycled product at the same price.***



Example: Acacia Tutors

Putrescible

Demand exceeds offer

variable quality (variable lengths)

leads to deforestation in Europe

Why is recycled plastic a viable alternative to wood?

- To increase the lifespan of wooden poles, some species are treated with fungicides. The most used was creosote. This product, identified as a Class 2A carcinogen, has been banned from use in France for pickets since 23 April 2019.
- Recycled plastic is imputrescible and does not require any fungicide treatment (products are subject only to Reach), it represents a serious alternative.
- The ability to market these products at a price equivalent to wood will naturally accelerate their growth.

Of course, we have planned in the deployment of the project to take all necessary and sufficient measures to ensure non-pollution of the soil, with the support of the Materials Competitiveness Pole and laboratories of the Greater East Region (Plastinnov and Materialia).



***First Targeted
raw material***

Aluminium barrier tubing

bottle, caps, pumps

***Other cosmetic packaging waste (mascara, lipstick,
multi-layer container and pouches)***

Stretched foils, pallet wraps

Label matrix waste (PP & PE)

And many more...

*First Targeted
raw material*



***Our products :
a worldwide
market***

Light-weight fruit tree supports

Heavy duty posts for agriculture and fruit cultivation

Vineyard posts

Multi purpose boards

Road signs

House building plastic lumber



Possible benefits for partners



Valuing multi-component plastics in a circular loop



Create an essential sector known for complex waste



*Continue to **use and develop complex product** for their technical advantages: suck-back, lightness, barrier*



Promote an eco-responsible concept worldwide.

Who are we ?



Laurent VILLEMIN has worked for nearly 30 years in the plastics and rubber processing industry in leading companies (Michelin, Continental, Albea). Laurent has held general manager positions on an international scale and has led large-scale projects (launching new products, green and Brown field, M&A...). The problem of managing plastics after their use has always been a concern and after observing and analyzing several options, he decides to embark on the "Replace" adventure.



Christian Horn created and developed in 1995 the first recycled plastic pallets still used by the European steelcord industry today. Passionate about the problem of recycling, Christian has developed a POC for the recyclability of glued shingles from the manufacture of self-adhesive labels in PP and PE. This know-how and the material that follows will be used in the manufacture of Replace's heavy profiles.