

# UPPE-T PROJECT

by Fuensanta Monzó

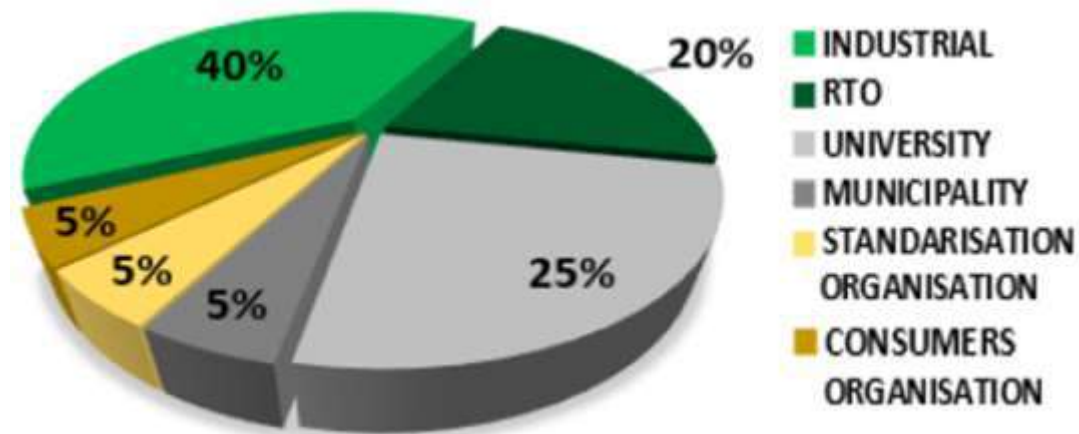
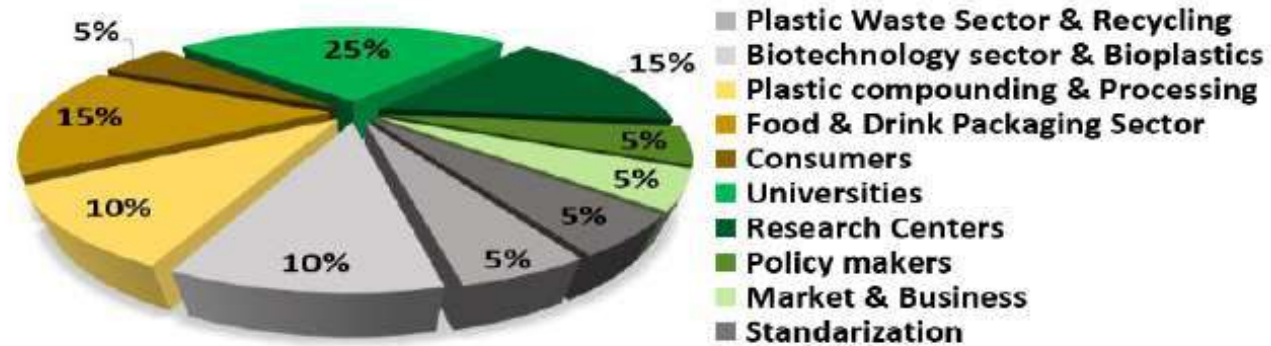




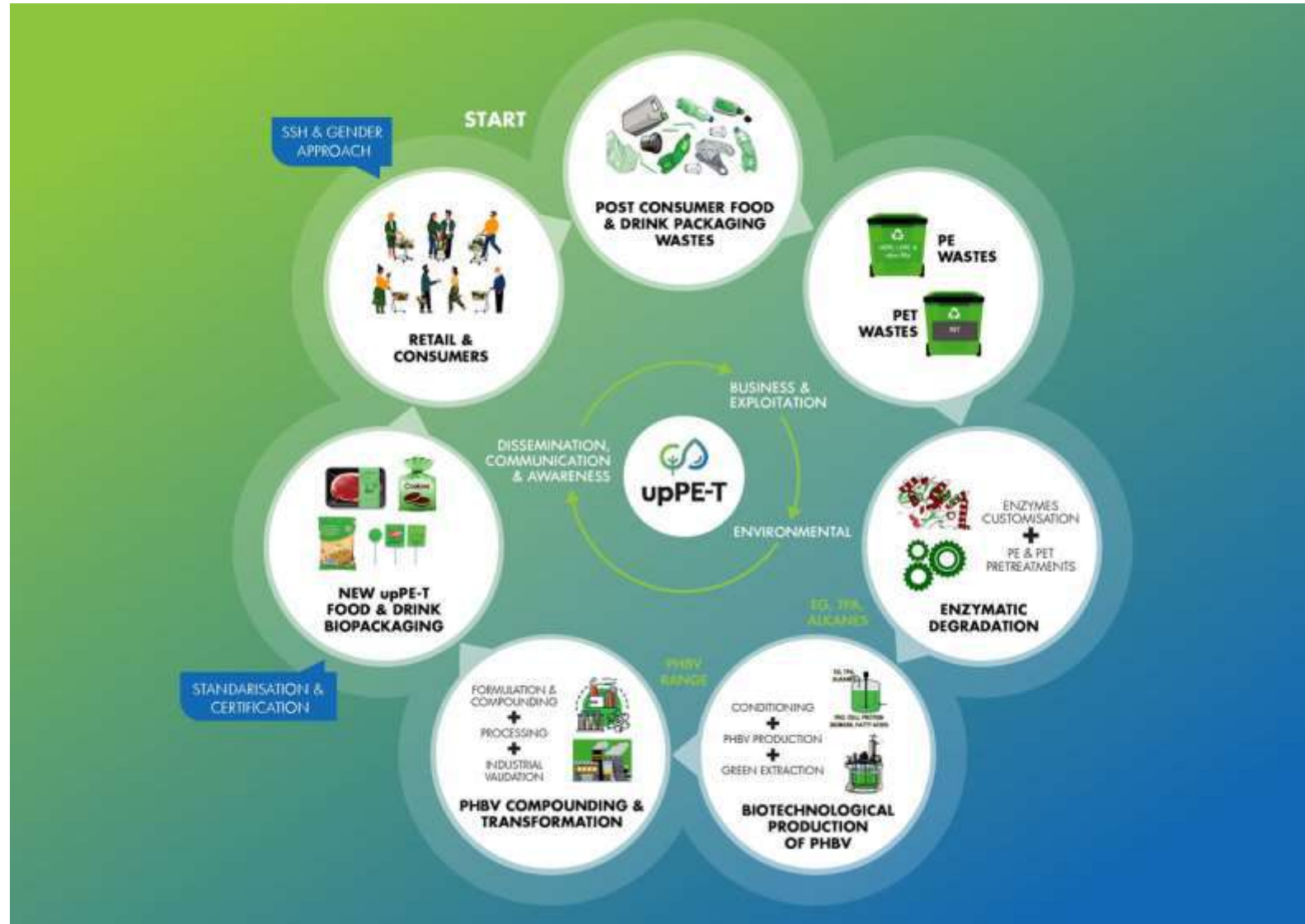
## 2. The whole value chain represented

Interdisciplinary nature

Multisectorial approach



# 3. upPE-T Ecosystem



# 1<sup>st</sup> Stage: Wastes Recycling

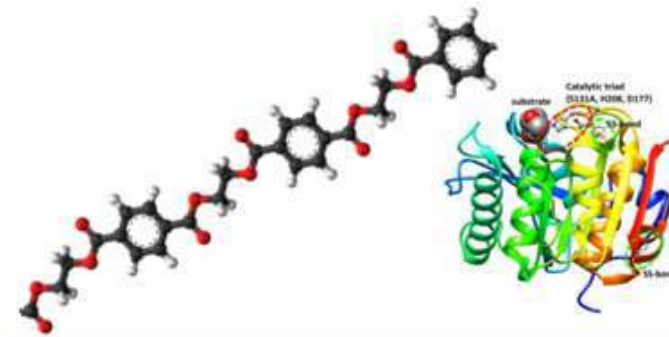


→  
*Pretreatment*  
*Improved affinity to enzymes*

+  
*Enzymatic degradation*  
*Customized biocatalysis*

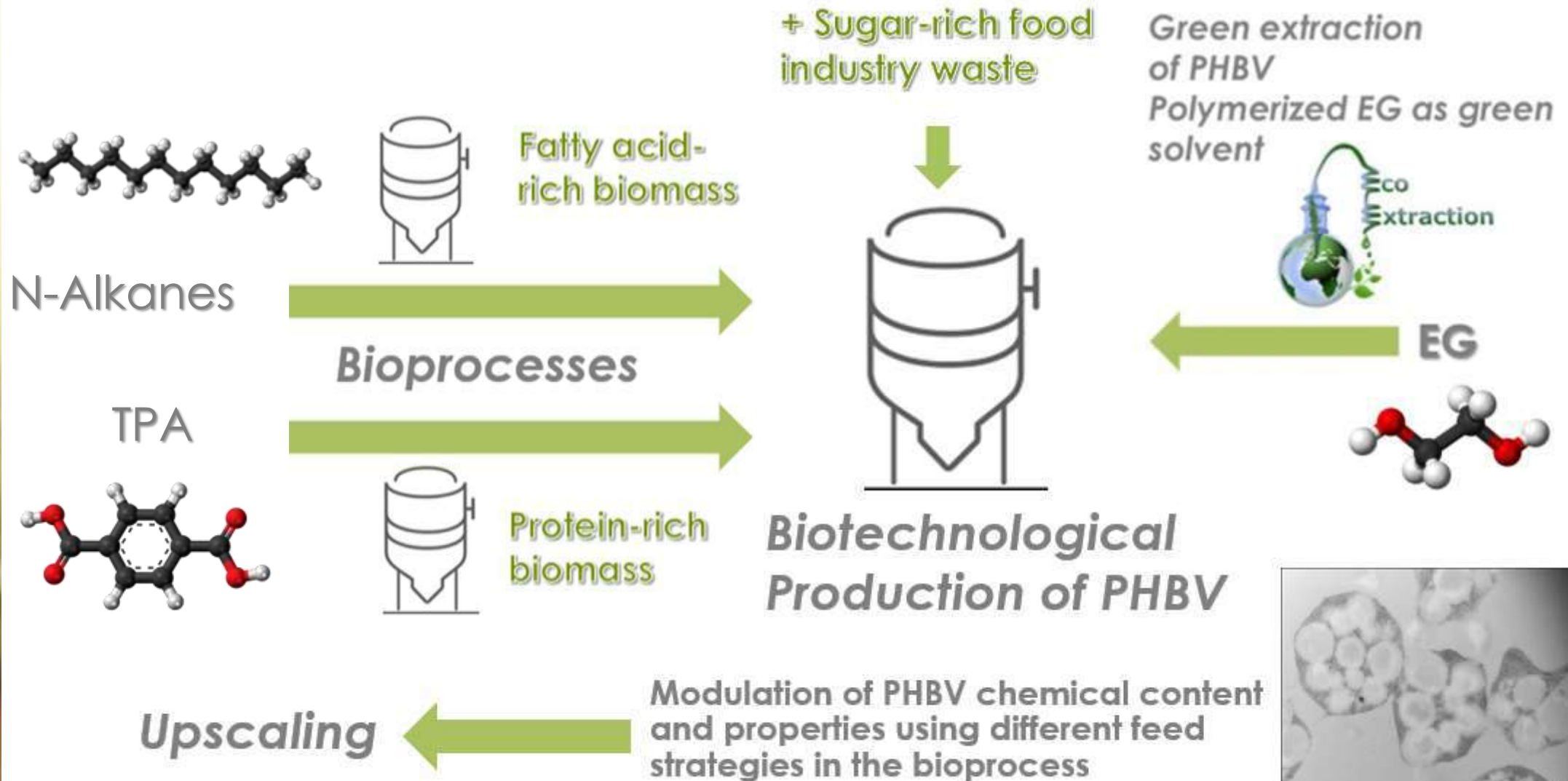
TPA & EG

→ *Upscaling*




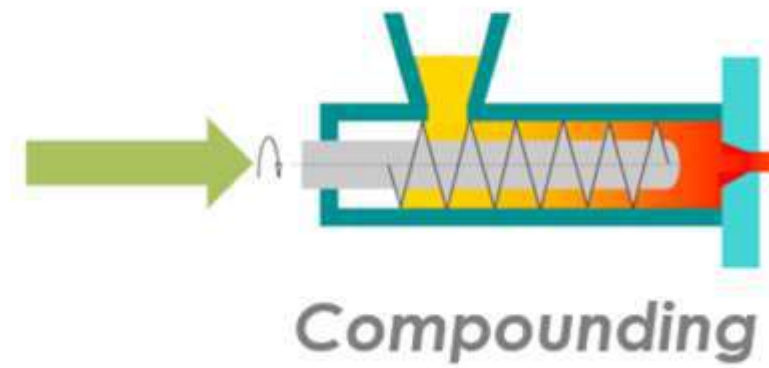
N-Alkanes

# 2<sup>nd</sup> Stage: Biological factories



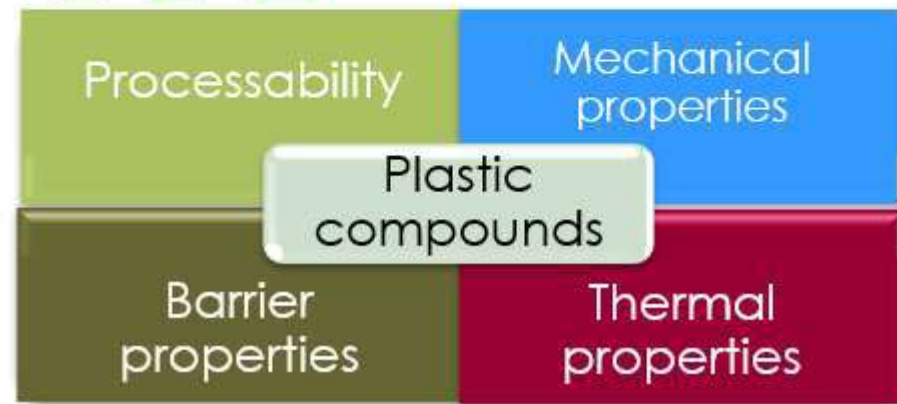
# 3<sup>rd</sup> Stage: Compounding of bioplastic to packaging materials

  
PHBV  
+  
Other  
components



Compounding

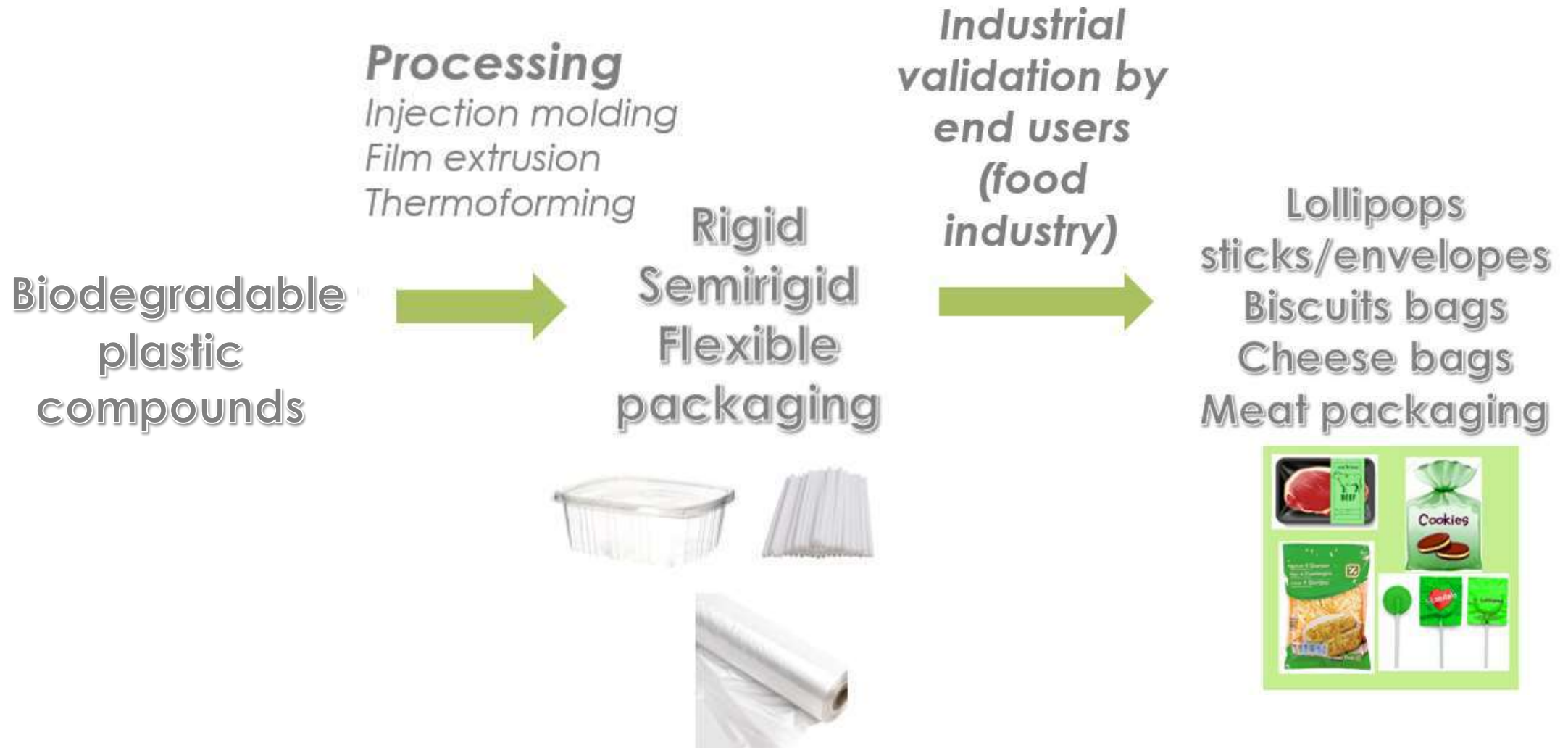
Biodegradable  
bioplastic  
with improved  
properties



Upscaling



# 4<sup>th</sup> Stage: Transformation into packaging and industrial validation





# Cross-cutting activities

## Evaluation of the environmental impact of upPE-T solution

- LCA, sLCA, LCC
- Valorization of byproducts
- Circularity studies: recyclability, compostability and biodegradability



# Cross-cutting activities

## Integration SSH and gender aspects across upPE-T project

- Study the current attitude of European citizens with respect to recycling and purchasing food & drink packages to design a roadmap that aims to improve consumers behaviour and attitude towards drink&food packaging recycling and purchasing.
- Study of the gender structure in the recycling industry





# Cross-cutting activities

Standardization and certification activities

Exploitation, innovation and business plans

Dissemination and communication activities

Clustering and networking activities

Stakeholders engagement

# Cross-cutting activities

## European Citizens Awareness Enablers:

- European citizens' awareness Platform and Virtual Reality (VR) based mobile app
- *A Massive Open Online Course (MOOC)*
- Awareness events such as workshops at educational institutions, visits to plastic waste recycling plants, etc.



# Cross-cutting activities

## Policy review

- The review of the regulatory framework of the upPE-T solutions & tools in the EU.
- Propose measures to improve current legal & regulatory framework in this field.



# Thank you for your attention



**upPE-T**

<https://uppet.eu/>



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