GreenProtein

Revalorisation of vegetable processing industry remnants into high-value functional proteins and other food ingredients

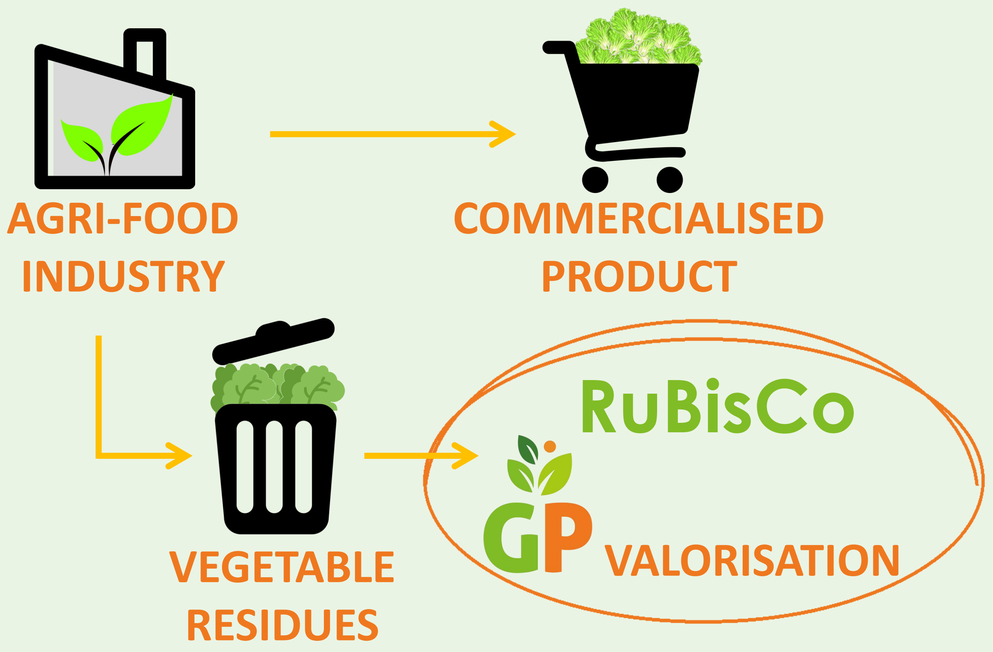
The Issue

77% consumed protein in EU is imported

1/3 of total food production is yearly wasted at cost of €442/ton

Our Approach

To harness green residues from the agri-food industry to obtain RuBisCo protein



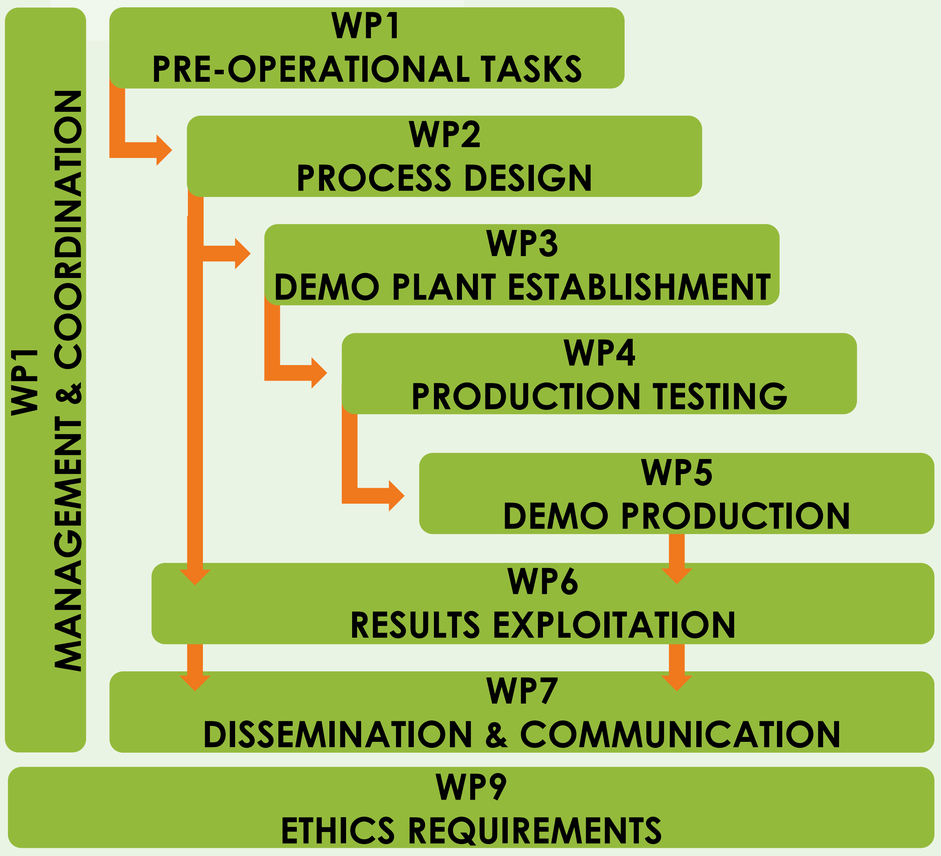
RuBisCo is the most abundant protein on earth, as it accounts for up to 50% of all photosynthesis plants' protein content. It is highly suitable as a food ingredient as it is an emulsifier, foaming and gelling agent. It is 100% plant based, non allergenic, Vegan and it contains all the essential amino acids, and is excellent for human consumption.

Key facts about the project

GREENPROTEIN main goal is to develop a DEMO plant for the extraction and purification of RuBisCo protein from green residues. The realisation of this first industrial scale extraction process for Rubisco is the basis for easy replicable *plug-and-play* systems installed within a marine container. This will bring Rubisco extraction within reach of the industry.

Technical challenges: mild separation of a heat sensitive ingredient from a high moisture biomass at high yield in a continuous process with the flexibility to handle a wide variety of raw materials/crops.

Regulatory challenges: Rubisco is considered a Novel Food and should get EFSA approval for each raw material source. New EFSA regulations come in to place per 1 January 2018.



Work-programme organization

Call: Bio Based Industries Joint Undertaking. VC3. D5-2015.
Total Budget: 5.5 M€
Duration: 54 months (Sept.'16 - Feb.'21)
Work-plan: 9 work-packages
Consortium: 8 partners from four countries (ES, NL, FR, RS).

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BIO-BASED INDUSTRIES Public-Private Partnership

Bio·based Industries Consortium