

# Functional Protein Fractionation

Right protein @ Right place



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**Budget:** to be determined

## Objective:

Development of novel biorefinery technologies (low in waste removal) needed to fractionate valuable native components (e.g. proteins) for the different industries. Projects can be developed from end of pipeline up to redesign of complete biorefinery route's.

## Motivation:

Current biorefinery route's are mainly focused on one product, generating large waste streams at high energy costs.

## Project scope:

### Disruption & Disentanglement

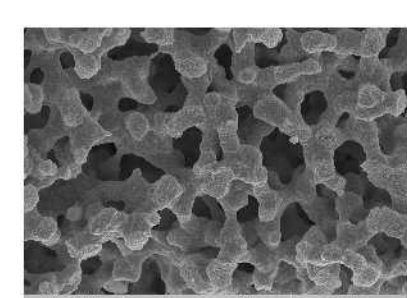
- Steam
- Pulsed Electric Field
- Bead Mill (benchmark)

### Chromatography (no salts)

- Taylor made polymer electrolytes
- Temperature swing
- Potential swing

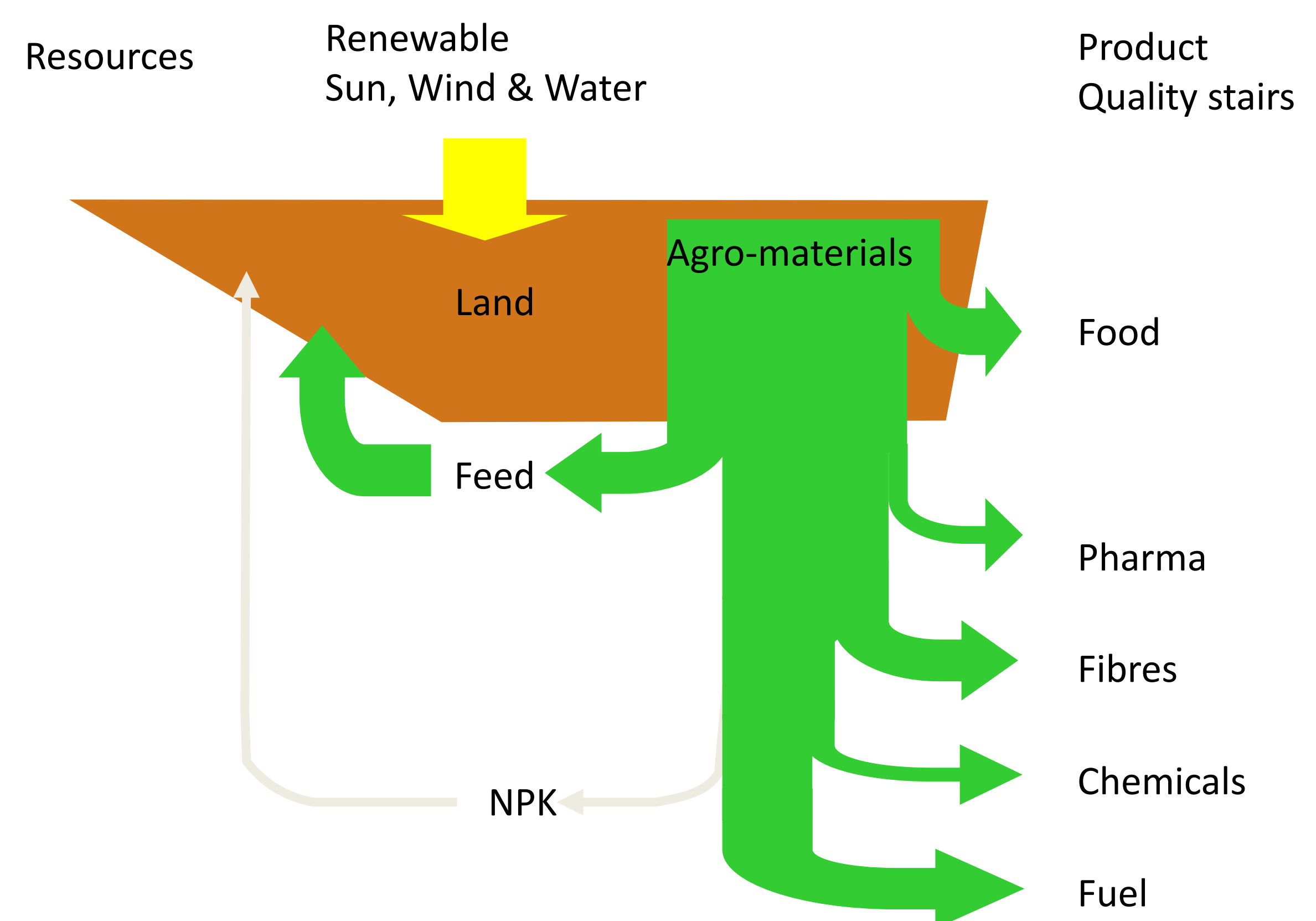
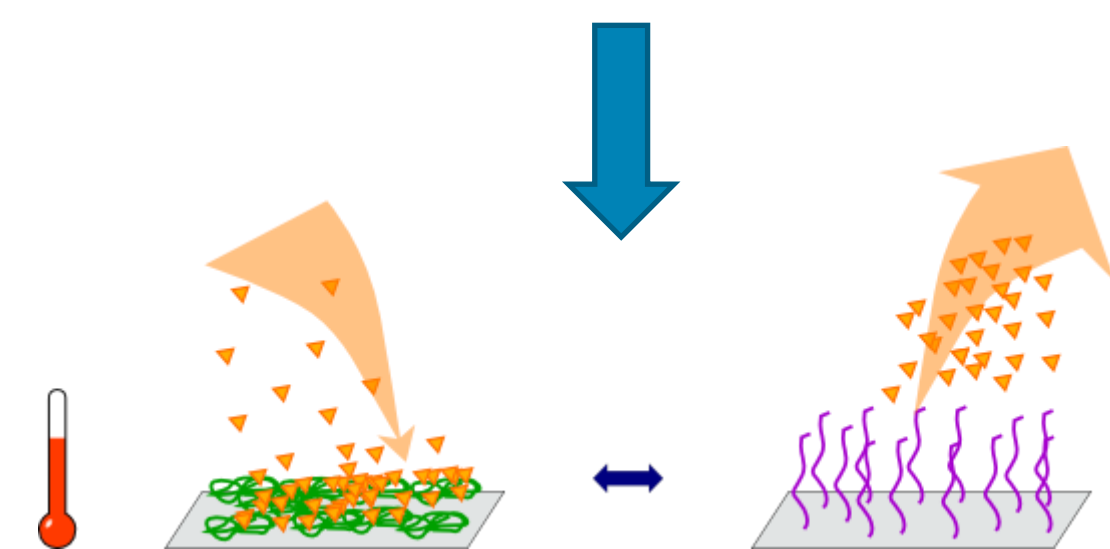
### New matrices

- Monolith
- Membranes



### Reduce Column Volume

- Equipment design
- Continuous processing



## Applicability: Cross Sector

### Food sector

- proteins as (ingredients for) food -

### Pharma sector

- proteins for the health -

### Specialty sector

- proteins for use as new building blocks or polymers -

## Protein Metaphysics

## Status:

Specific projects need to be defined with different industrial partners