Mobilizing biomass done right

Start at the bottom!
Possibilities

- Marginal lands
- Increase efficiency
- Use of side streams
- Use aquaculture
- Change diet
- Etc.
Starting point

- Primary producers
- Soils
Design criteria

- Benefit primary producers
- Improve soils and prevent marginalization
- Business cases that work
- Sustainability regional application
- INNOVATION done right
- ROBUST feedstock supply
- FLEXIBLE energy system
Actors

- Regional
  - Rely on CAP
  - and other EU legislation

- Global
  - Intermediars (sidestream products)
  - Reduce complexity
Needed action!

INTEGRATION
CAP and RED
Industry and Nutrition policies
Let's build cases

Climate change threatens our existence.

Climate change threatens our economy.

ZZZ...

!!!
Biomass

→ SLOW PYRO

→ Char

Heat

→ AD

→ Bio-CH₄

→ "Solid" Digestate

→ Co-composting

→ "Liquid" Digestate

→ On Field

↑ Ceramic, ↑ Resilica
↓ Pest, ↑ M. C. R.
+ CCS

→ On Field

→ Soils
**Value Chain SugarCane - done right?**

- **Field**
  - Green Pellet Plant
  - Straw
  - **Biorefinery**
    - Sugar
    - Sugars
    - Lignin
  - Fuel & Chemicals
    - Bitumen

- **Innovative**
  - Long distance transport
  - Baggase
  - Waste
  - Mobilizing Biomass
  - Create Biomass commodity
  - Sustainable, Economic, Robust
  - Separate source & Biorefinery/Market
  - Commodity = many to many relations
  - Commodity = high density, low dust, moisture resistant
  - Very Very large impact

- **Value for the farmers**
  - Nutrients

- **Straw & Bagasse**
  - Emissions

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* Medium scale
** Large scale
BOTTOM LINE