



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

GOALS

robust
feedstock supply

flexible
energy system

Innovation
DONE RIGHT

AGRI
Forestry
[Aquaculture]

SOURCES

MagL



food & feedstock
healthy, fertile
soil
"good agricultural practices"

Products
& benefits

revitalise soil
improve soil
management
prevent MagL

convince farmers!
and families

Bio CH₄

set aside
Land premium

use MagL for
biomass production
prevent ILUC
MagL EU = 25%

use agricultural
land for sustain
food + feedst.
production
using residues
by-products +
waste (agr./
forestry)

CONSIDER
crop rotation
system
with suitable crops

BIOCHAR

reducing
extra costs
for getting rid of
excess manure

TECHNIQUE

(slow) biogas
pyrolysis to digestate

compost
(digestion)
mixed biogas

closing
nutrient
cycles

saving
fertilisers
(P, N...)

minimising
meat prod.
→ ↓ manure

POLICIES

incentives
bonus programs
reimbursement
(primary sector)

CAP RED II

Nutrition
policy

CC =
Awarding
(no-punishment!)

LOGISTICS

geographical
feasibility
of biomass availability

balance
different potent.
of biomass prod.
EU

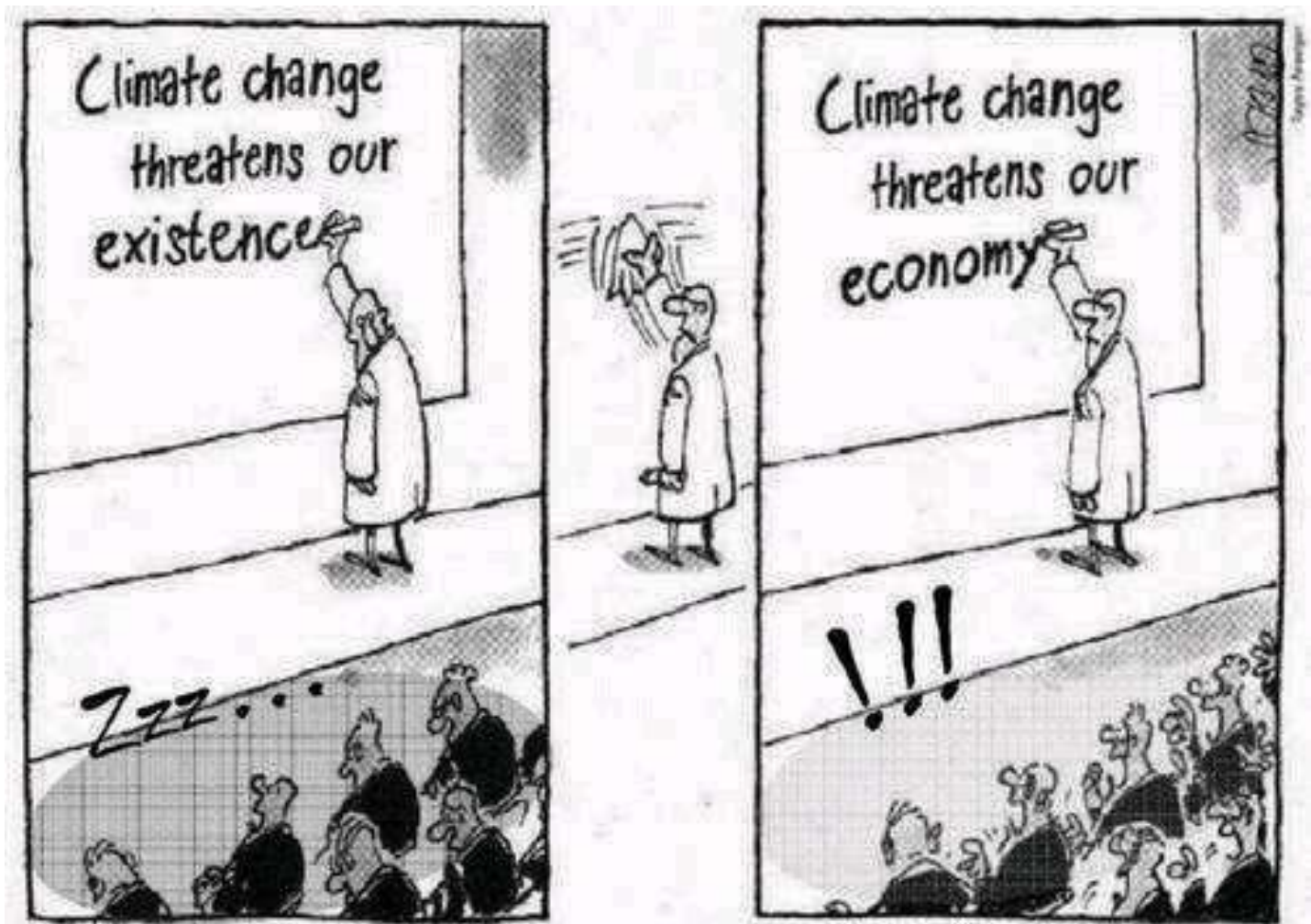
Logistic
Centres in
the EU

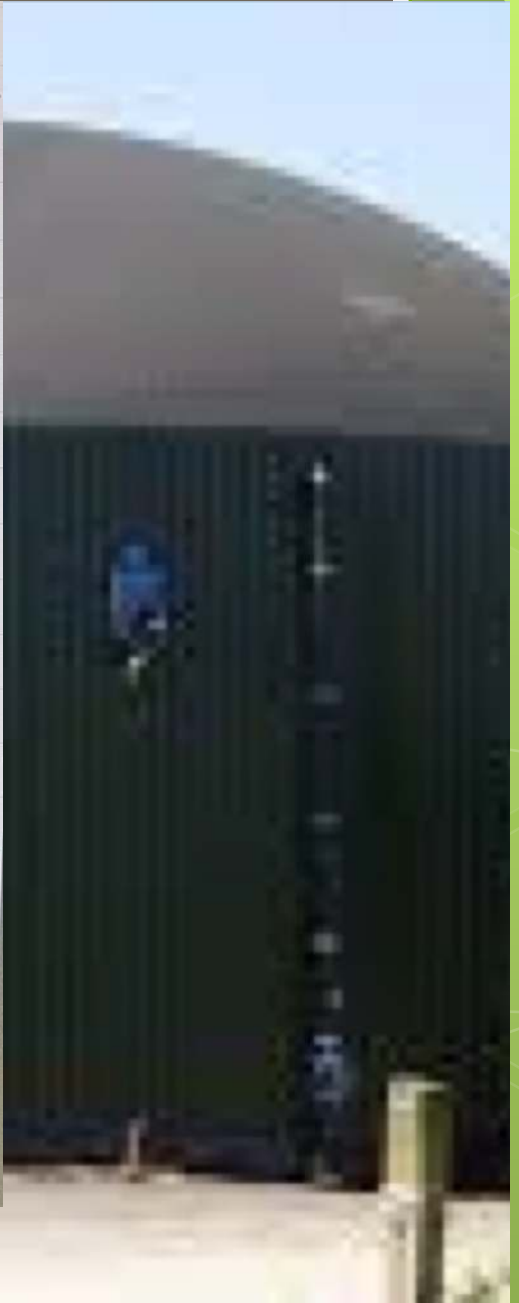
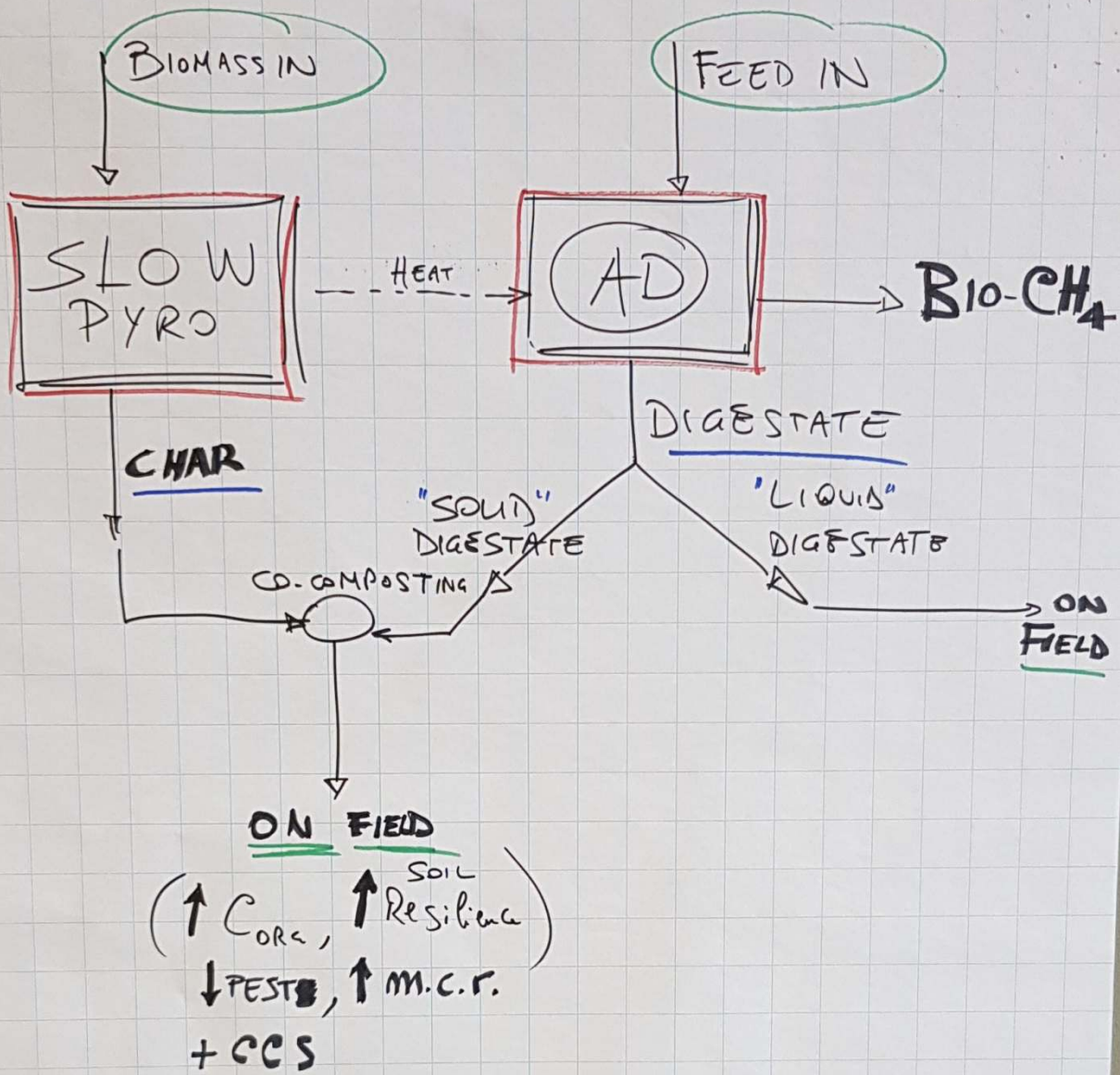
SOCIO- ECONOMICS

appreciation
of primary
producer's
mitigating
pressure
(for farmers)
societal
acceptance
education

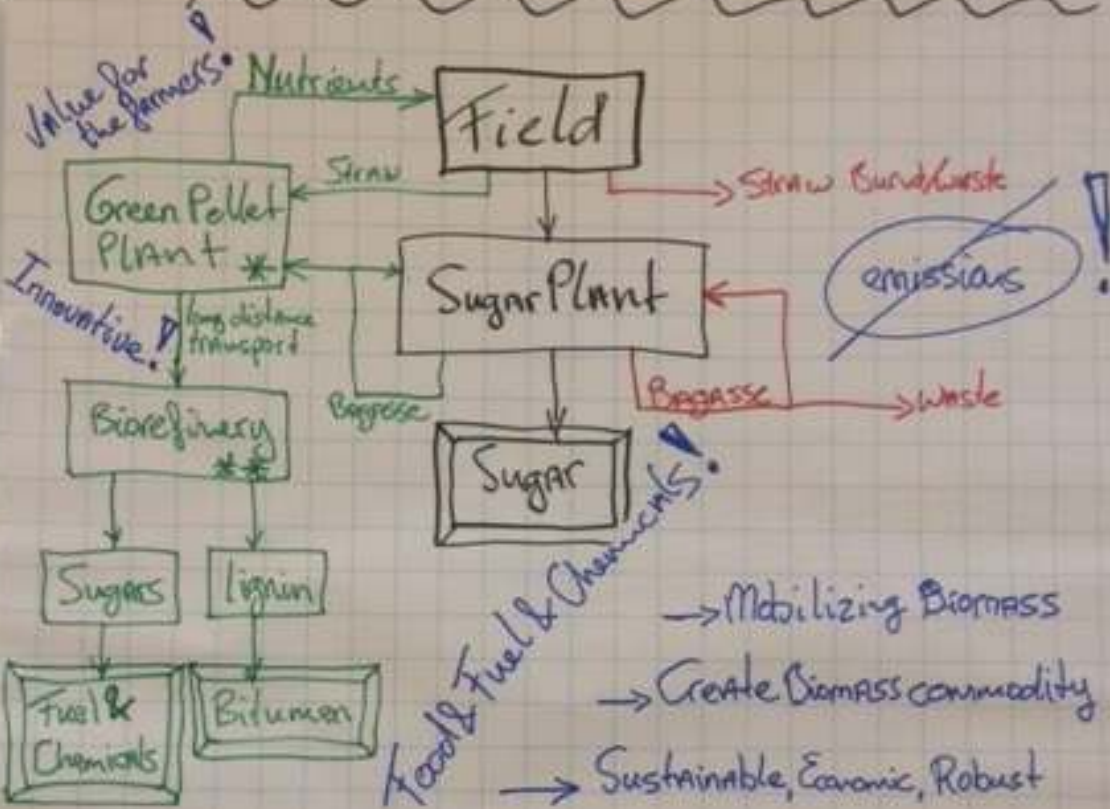


Lets build cases





Value Chain SugarCane - done right?



* Medium scale
 ** Large scale

- 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.



A photograph of a rocky, uneven terrain, possibly a construction site or a natural rock formation. The rocks are light-colored, ranging from beige to light brown, and are heavily fractured and layered. The overall appearance is rugged and textured. The text "BOTTOM LINE" is overlaid in the center in a bold, white, sans-serif font.

BOTTOM LINE