HYST

Principles and fields of application

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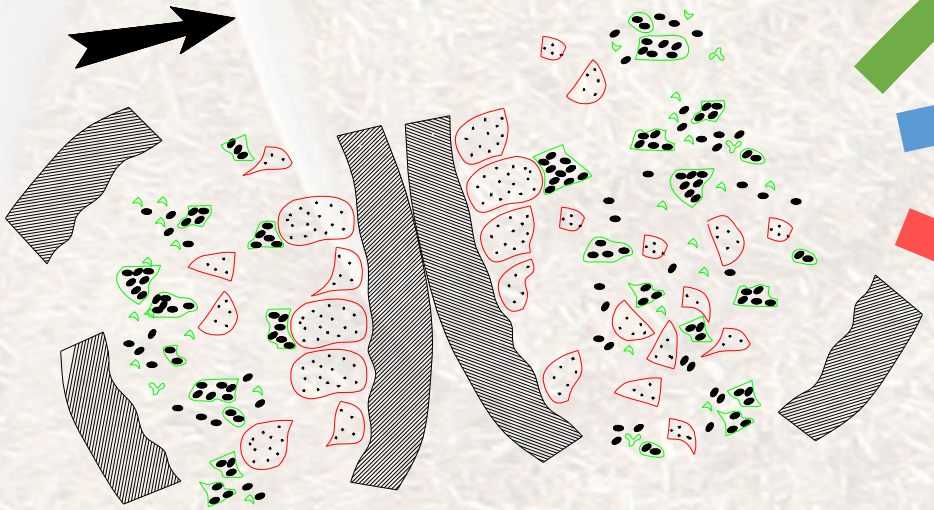
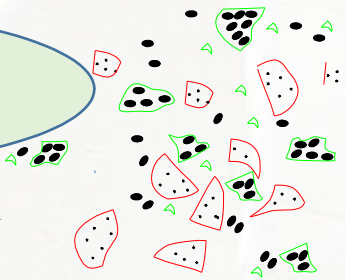
Fundamental principles

DISAGREGATION THROUGH HIGH SPEED COLLISIONS

SEPARATION PROCESS





FOOD AND NUTRACEUTICS

FEED

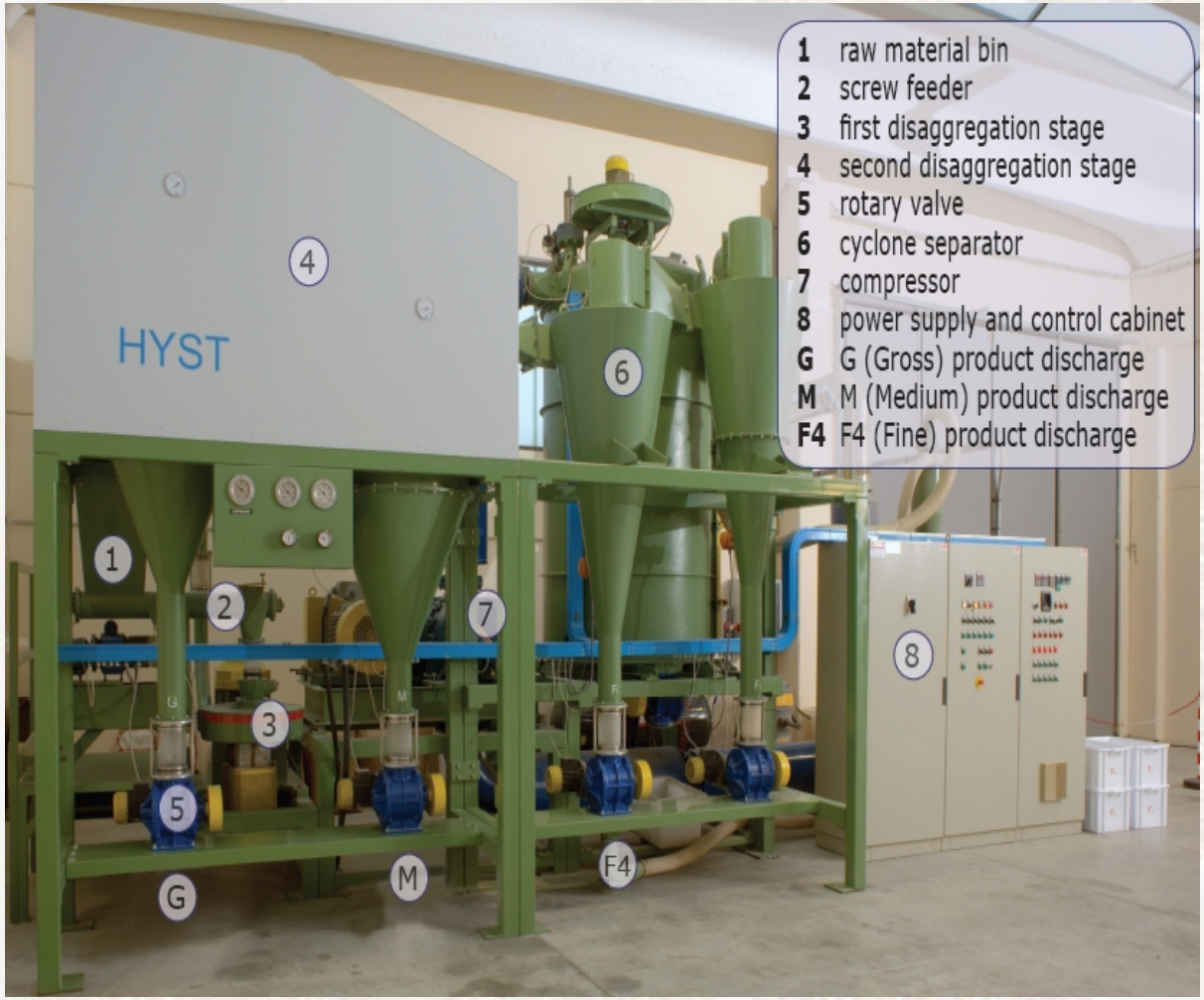
ENERGY AND BIOFUELS

SCIENZA PER AMORE

BITS OF FUTURE

BIOHYST

Hyst systems



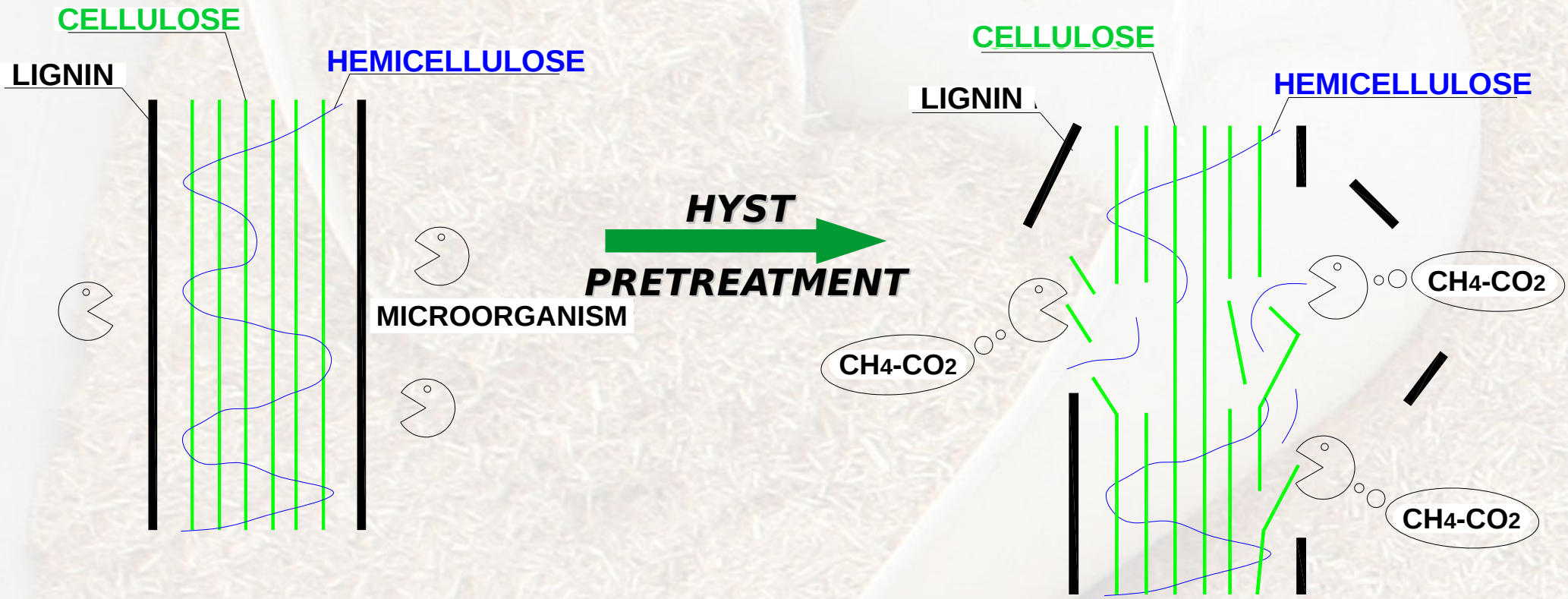
HYST system for the energy sector (working capacity: up to 1,5 t/h)

The Hyst system consists of two main components: mills (3, 4) and classifiers (G, M, F4, 6).

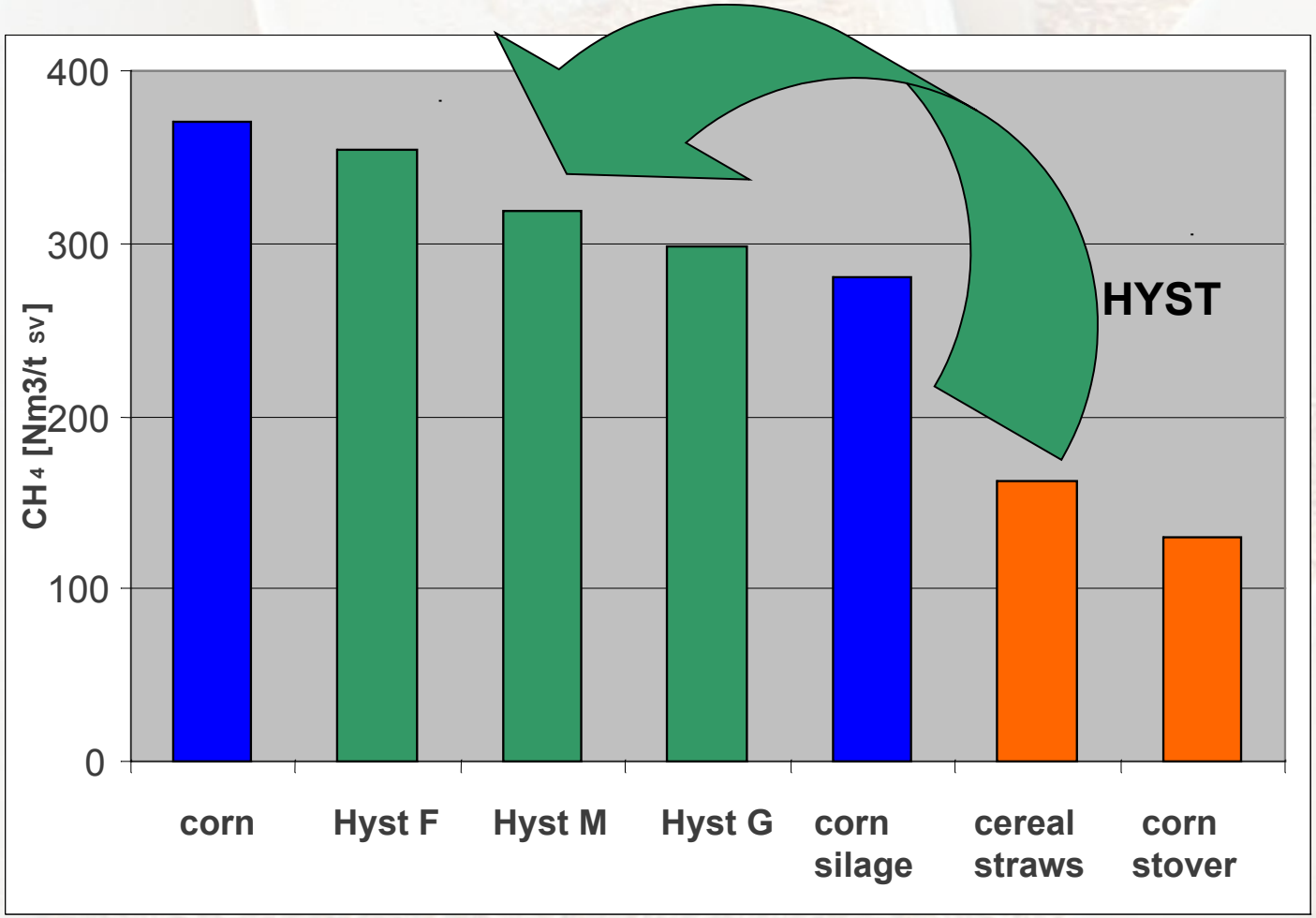
The material is conveyed through the various sections of the device via the air flow generated by a specific blower (7).

Components and processes have European and worldwide patent protection

Hyst in the biofuels sector



Hyst in the biofuels sector

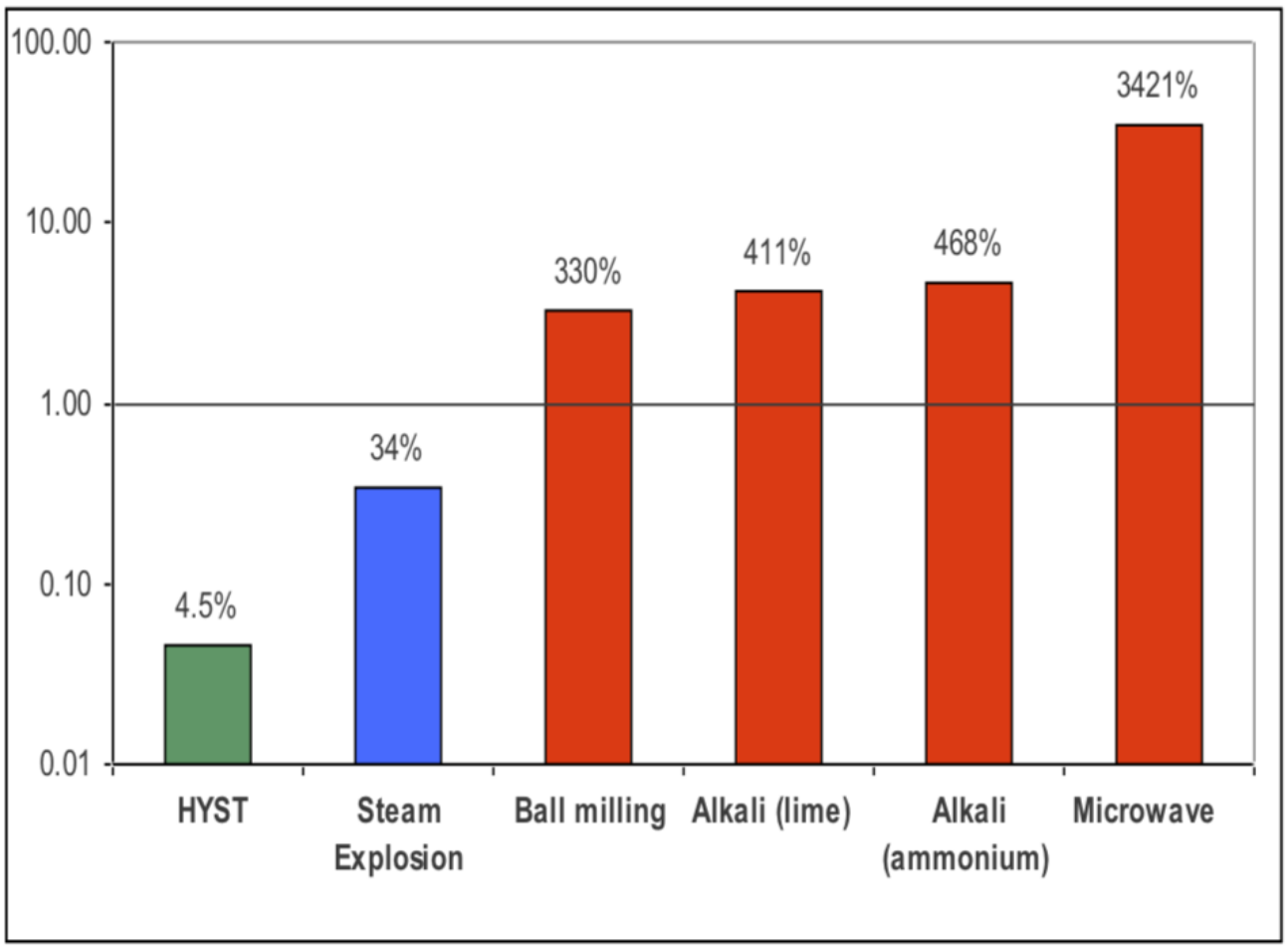


Hyst treatment effect on the production of biomethane (Nm3/tVS) from straw through anaerobic digestion.

Cereal straws subjected to Hyst pretreatment yield double the amount of methane.

This way these agricultural residues perform better than corn silage, the reference energy crop.

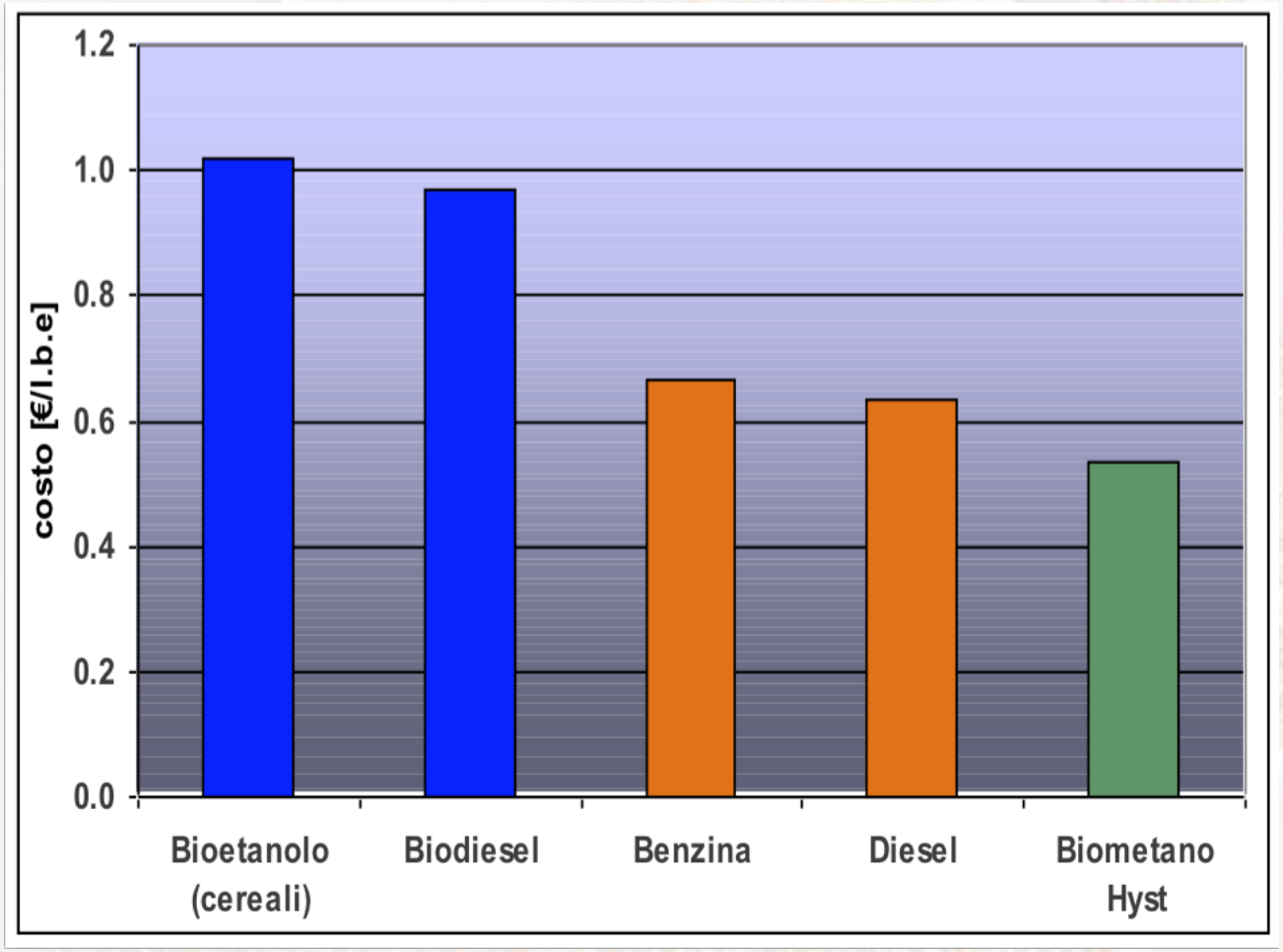
Hyst in the biofuels sector



A fundamental parameter for the industrial use of a pretreatment technology is energy efficiency.

The Hyst process has a very low energy consumption, which amounts to about 5-10% of the energy content of the produced methane thus greatly exceeding the performance of the more advanced pretreatment technologies available today (steam explosion).

Hyst in the biofuels sector



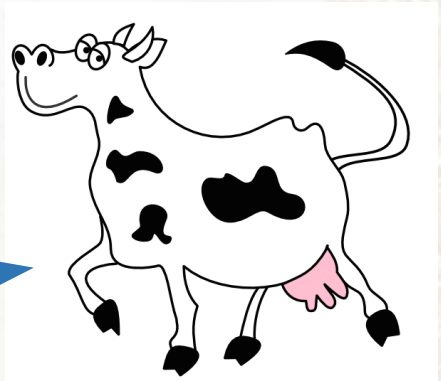
Production costs of different fuels (€ / liter of gasoline equivalent).

We estimate that Hyst biomethane will have a production cost of approximately 0.55 € / l.g.e, less than 50% compared to that of biofuels found on the market today.

In addition, biomethane produced from co-digestion of waste from agricultural activities and organic waste from breeding farms will be considered a second generation fuel (double counting).

Feed and energy

STRAW



OMG: +34%

UFL: 0,54 (+33%)

BIOGAS
BIOMETHANE

SCIENZA PER AMORE
BITS OF FUTURE
BIOHYST

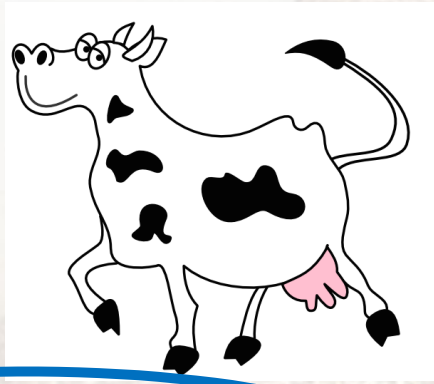
Food feed and energy: GREEN BIOREFINERY

ALFALFA

FOOD SUPPLEMENTS:

PROTEINS
CAROTENOIDS
MINERALS

BIOGAS
BIOMETHANE

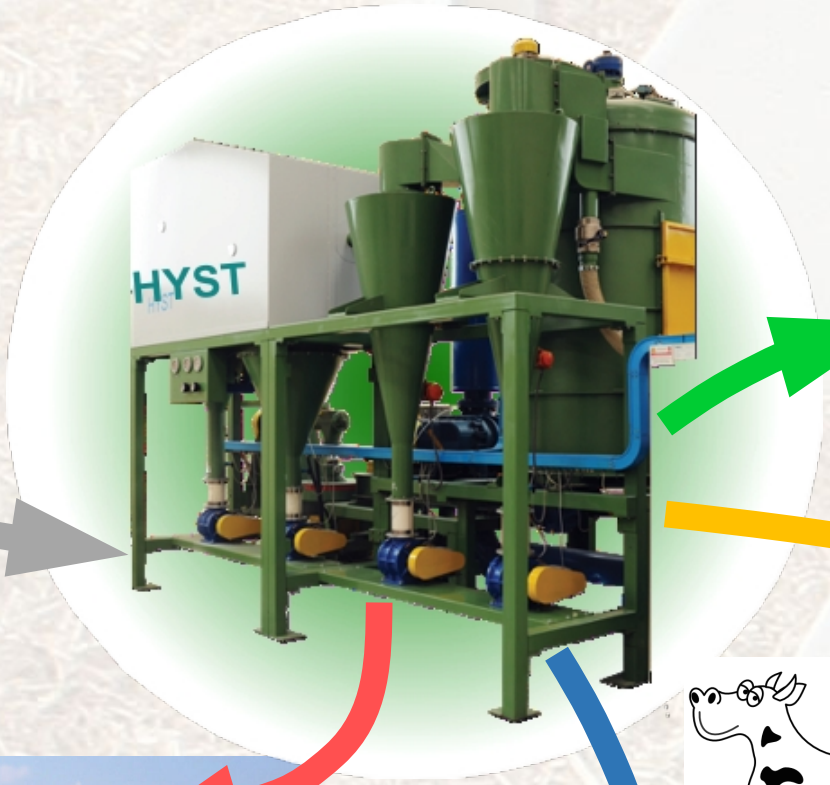


FRACTIONS WITH HIGH PROTEIN CONTENT

SCIENZA PER AMORE
BITS OF FUTURE
BIOHYST

HYST GREEN BIOREFINERY

GRAPE MARC



FOOD SUPPLEMENTS:

POLYPHENOLS
DIETARY FIBER

INGREDIENTS FOR COSMETICS

BIOGAS
BIOMETHANE

INGREDIENTS FOR ANIMAL FEEDS

SCIENZA PER AMORE

BITS OF FUTURE

BIOHYST