







June 28, 2014 - Canton of Ticino - Switzerland

# BITS OF FUTURE: FOOD FOR ALL Cooperation Project For Food and Energy Security

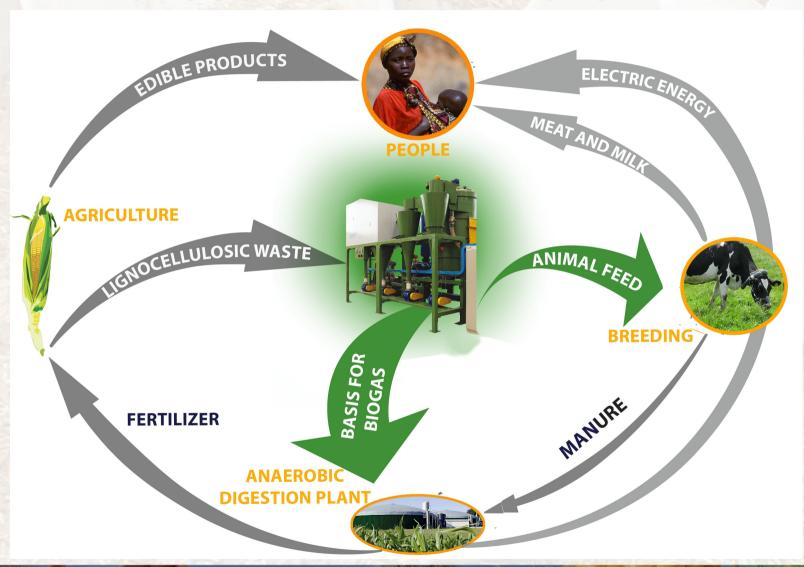








## **COOPERATION PROJECT**











# **Applications and Advantages**

- HYST: multiple solutions for food, animal breeding, bioenergy production.
- African countries: agricultural and food by-products made usable.
- Europe: New value to the huge quantity of agricultural and agroindustrial by-products.
- The innovative Technology (HYST) turns expenses into new revenues.
- Research program to start testing new types of biomass in collaboration with Universities and Scientific Institutions.









### **FOOD**

- HYST: Food with high nutritive values from food by-products.
- HYST Flour: protein content twice that of regular flour.
- Vitamins and minerals: tens of times higher than average in products 100% natural.
- Compared to grain, milling industry by-products contain:
  - More than 70% of vitamin B6
  - More than 50% of vitamin B5
  - More than 33% of vitamin B1
  - The higher portion of Fe, Zn, Mg, K
- This scientific innovation for food will allow the Cooperation Project to start.









### **FOOD**

- Functional food market: € 184 billion, increasing at an annual rate of more than 7%.
- Highly nutritive products and high quality supplements demand.
- Animal breeding: high digestibility and bioavailability of the nutrients.
- Zootechnical food from by-products. Flour for humans.









### RENEWABLE ENERGY

- Production chain ready for biogas and biomethane.
- Renewable energy produced from local agricultural residues and waste biomass.
- Highly competitive small plants: can handle "biomass- fields" of 15 to 20 km radius.
- Production chain balance: less than or equal to zero CO<sub>2</sub> emissions









### **NUOVI SETTORI**

- The HYST versatility allows it to be used with both vegetable biomas and inert material.
- Green Chemistry: molecules and polymer produced from vegetable substances.
- Bio-pharmacology: food supplements and active principles for pharmacology, cosmetic products and food









### ... WHAT ABOUT SWITZERLAND?

- Great regard to agriculture and agro-industry.
- Post-War and 50s: support policies for constant food security.
- Since the 90s: new agricultural policies to balance out economy and ecology.
- Good agricultural practice which protects soil fertility from intensive use.