

BIOCYCLE

Anaerobic Digestion • Biogas • Composting • Food Waste • Manure • Renewable Natural Gas

19TH ANNUAL CONFERENCE

REFOR19

RENEWABLE ENERGY FROM ORGANICS RECYCLING

October 28, 29, 30, 31, 2019
Madison, Wisconsin
Madison Marriott West

Annual Conference Of The



**AMERICAN
BIOGAS
COUNCIL**

ARGENTINA/Instituto Nacional de Tecnología Agropecuaria

Jorge Antonio Hilbert



Ministerio de Agricultura,
Ganadería y Pesca

Presidencia de la Nación



**Global
Methane Initiative**

GMI Biogas Subcommittee Meeting 28 October 2019



PROMOTION OF RENEWABLE ENERGY

✓ **LAW 26.093/2006: PROMOTES THE PRODUCTION AND USE OF BIOFUELS**
(Implemented by Decree 109/07).

- ✓ Mandatory use 7% bioethanol and 9% biodiesel
- ✓ Definition of domestic prices for biofuels
- ✓ Quality standards

✓ **LAW 26.190/2006 8 % Renewables in Electric energy generation**

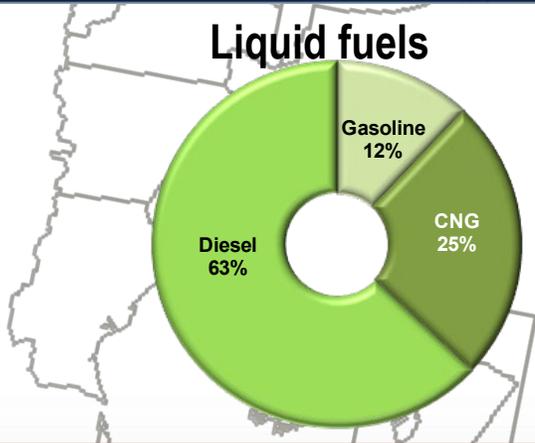
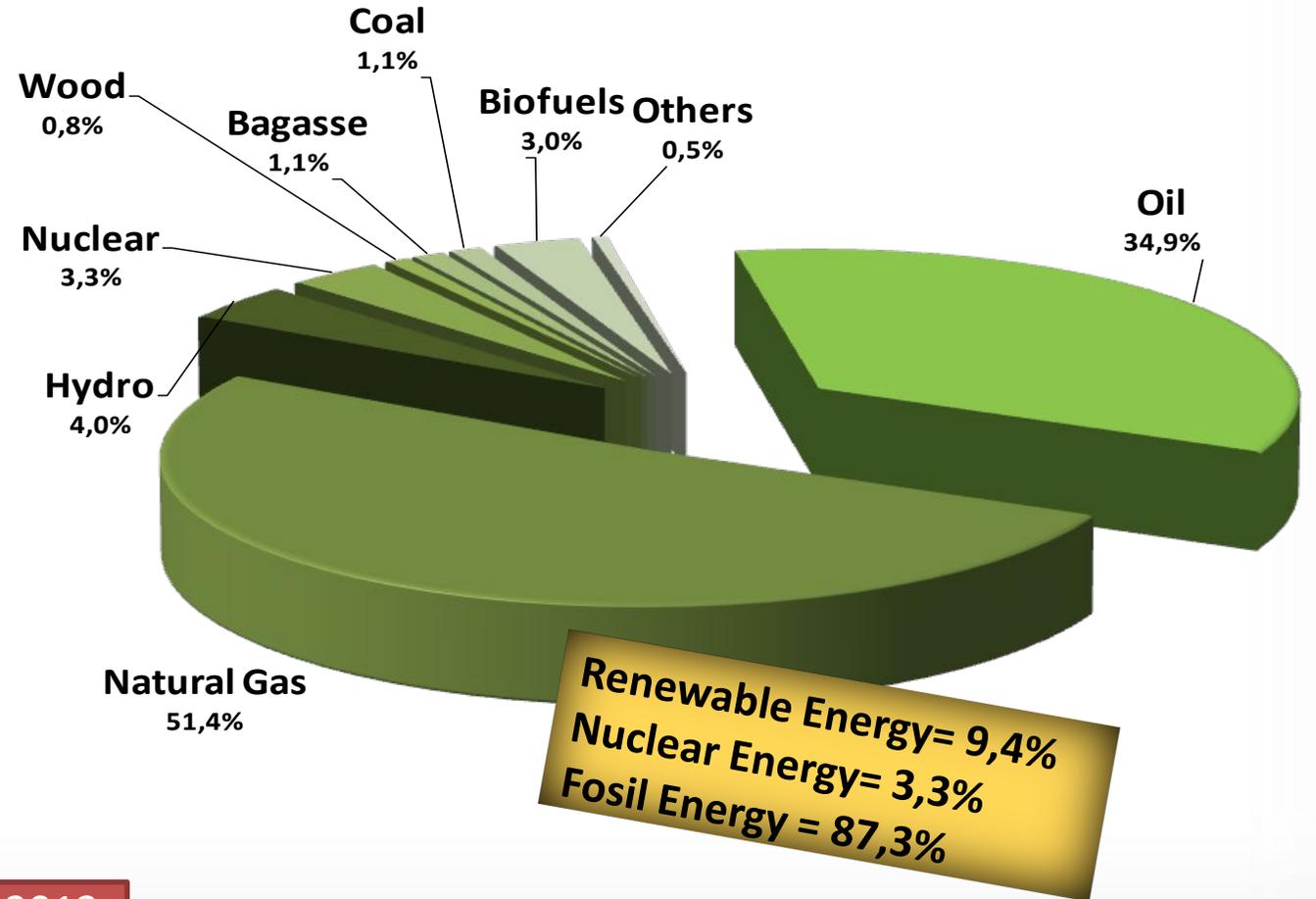


The law prioritizes projects that accomplish the following criteria:

- ✓ Sponsored by small and medium sized companies.
- ✓ Belong to farming producers.
- ✓ Located in regional and rural economies.

* Law 26.093 extends benefits to sugar plants, sugarcane and ethanol producers

ARGENTINE ENERGY CONSUMPTION BY SOURCE



Argentina imported 14.000 million dolars during 2013
 this changed with shale gas

Present situation

- The RENOVAR program with the different calls produced a new market and incentives for new projects.
- The PROBIOMASA program of the Ministry of Agriculture has a specific biogas program organizing meetings c& courses all over the country and online. The program has an updated biogas project data base in a GIS format.
- Residue potential is huge and with relative low feedstock costs.
- New companies in the market are growing most in a mix way with europeans
- Opportunities also arise in the great CNG market with more tan 2 millio vehicule runing on this fuel

Inmediate future

- Argentina commitments on climate change were increased during Macri administration there is uncertainty on the new Fernandez administration policy.
- Present policy on renewable incentives is linked to hard currency prices which may be revised by the new administration.
- Biofuels is coming to an end and there are different criteria on the new law that eventually will replace it. All this is dependent on the change of administration transition agreements.
- Economic turmoil inflation, foreign and internal debt conspires against long term business & investments

City problems

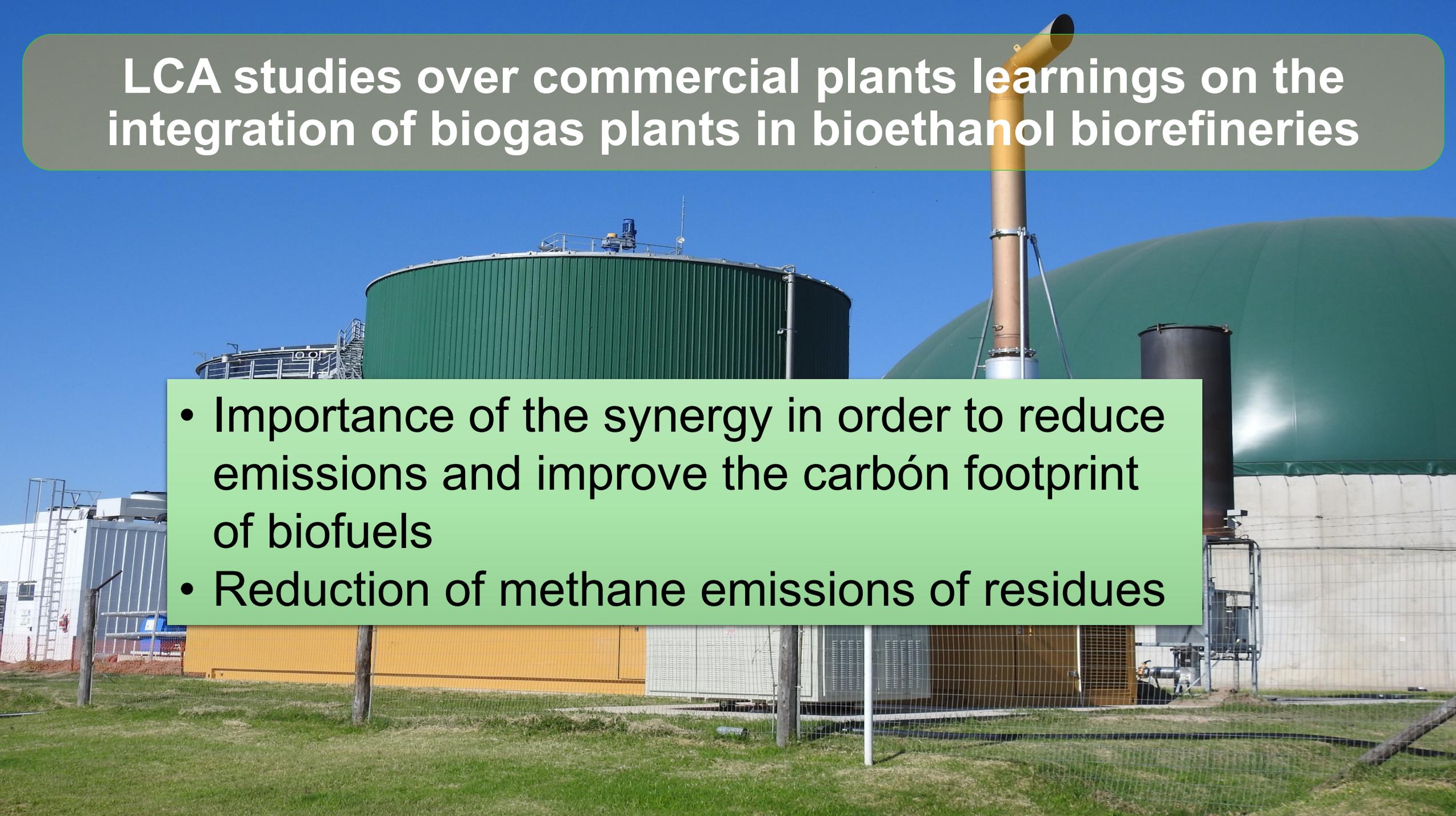
- Sustained and accelerated growth
- Problems of solid and liquid waste
 - How to treat them (technological alternatives)
 - Where to do it (logistics and transport) (citizen resistance)
 - Where to deposit them (more confined spaces and neighbors resistance)
 - At what costs (high demand for investment and maintenance)
- Increasing pollution of air, soil and water (groundwater rivers and lagoons).
- Growing health problems and quality of life
- Deficit and rising energy costs
- High levels of emissions to the atmosphere impact on climate change

Farming problems

- Energy deficit and growing import
- Nutritional deficit of soils
- Increase in water cycles
- Weed resistance
- Adjusted margins
- Reduction of organic matter and physical deterioration of soils
- Cost of fertilizers
- Pollution by effluents of groundwater rivers and lagoons.
- High levels of emissions to the atmosphere of organic waste

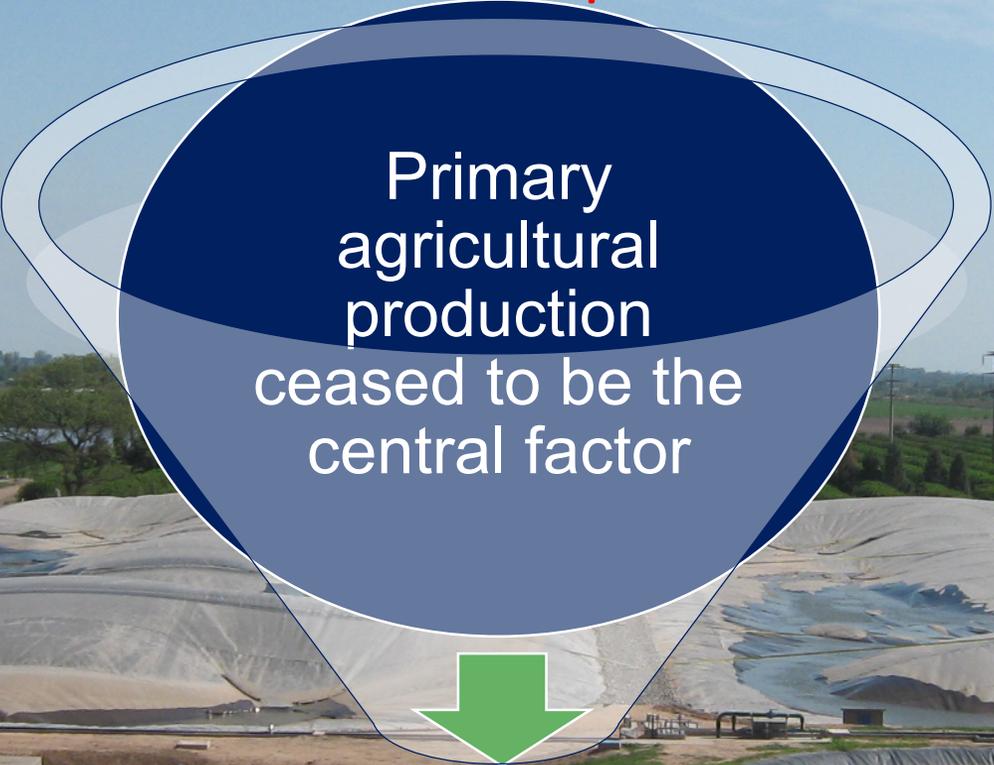
LCA studies over commercial plants learnings on the integration of biogas plants in bioethanol biorefineries

- Importance of the synergy in order to reduce emissions and improve the carbón footprint of biofuels
- Reduction of methane emissions of residues



Change of paradigms

Sustainable Development Goals

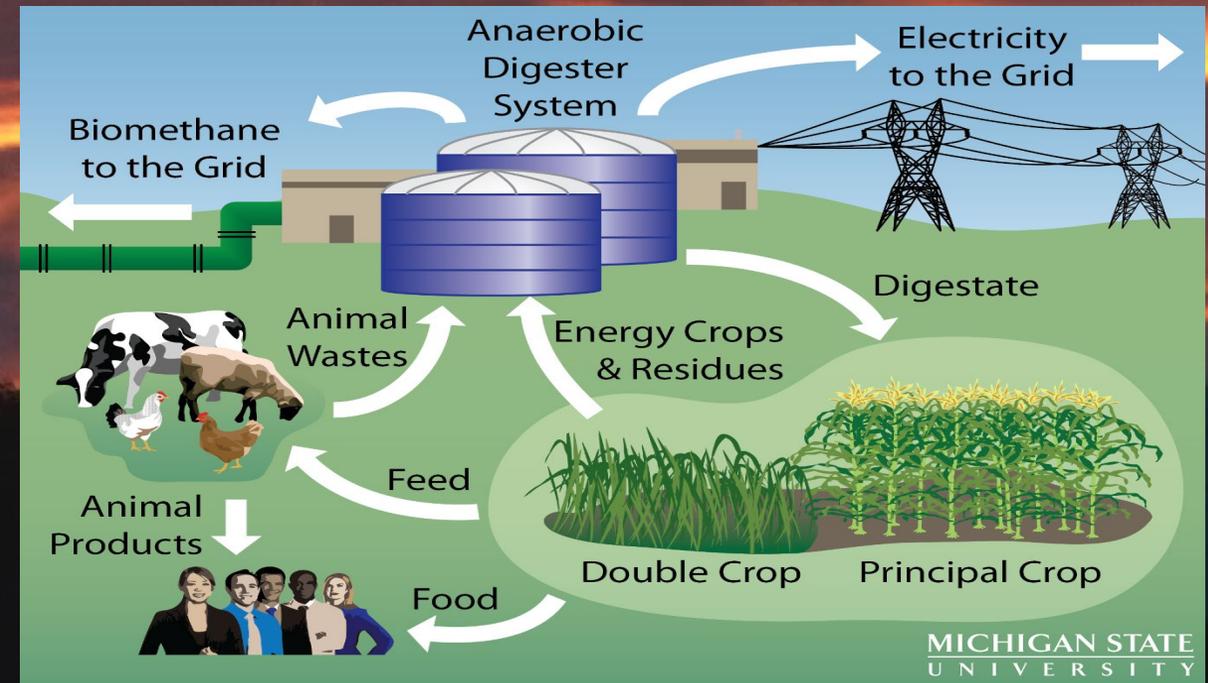


Primary
agricultural
production
ceased to be the
central factor

**“From productivity to sustainability and quality ”
A better understanding of the interrelations between
sectors and activities is required.**

BIOGAS DONE RIGHT BDR

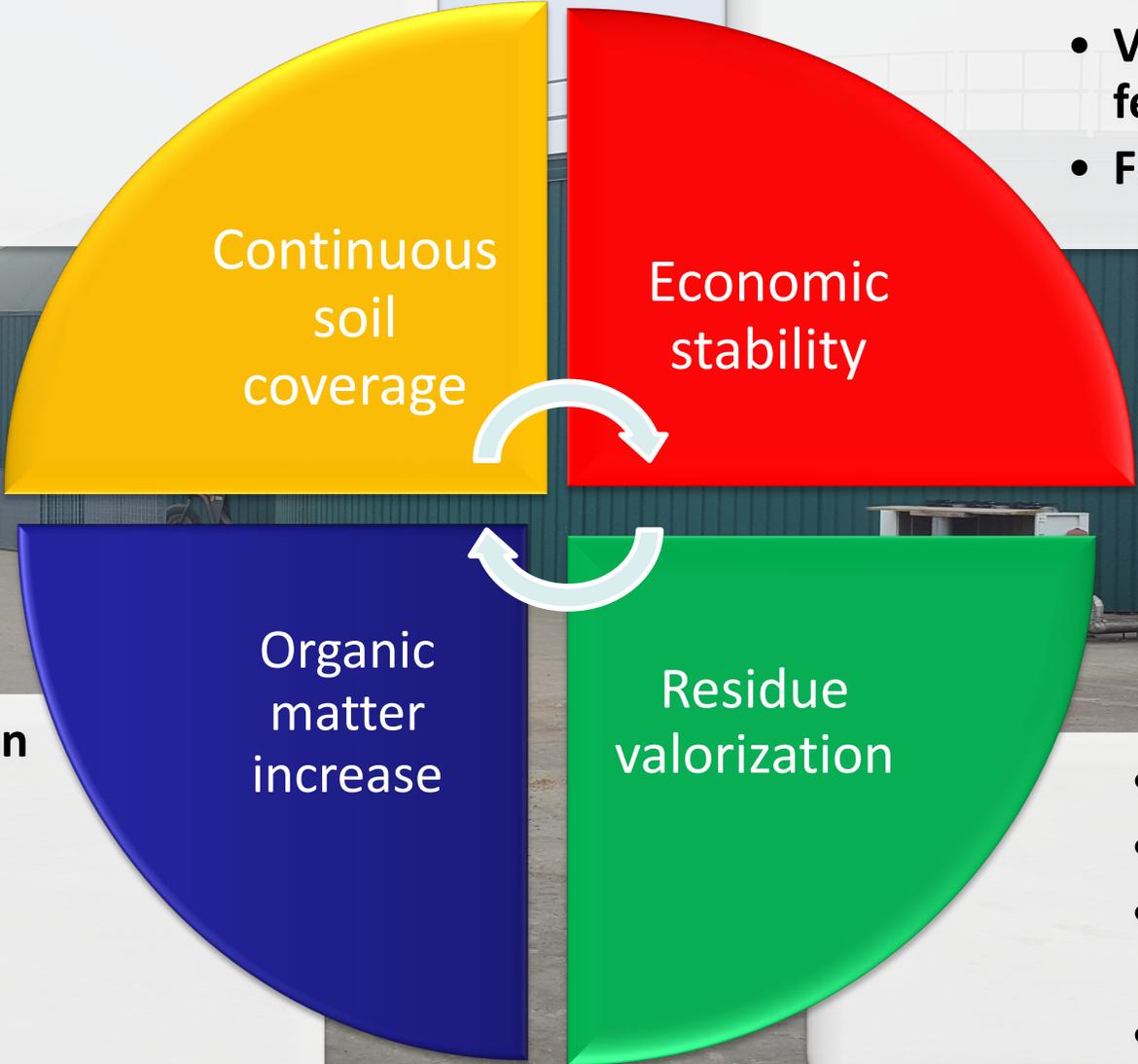
A NEW PROPOSAL TOWARDS A SUSTAINABLE DEVELOPMENT OF BIOGAS



<https://www.youtube.com/watch?v=Rb-aV-pTYRE>

BDR

- Improve water quality
- Erosion reduction
- Productivity improvement
- GHG reduction



- Increase money flow
- Volatility minimization food feed & energy markets
- Fertilization reduction costs

- Nutrient loss reduction
- Better water use
- Yield and soil fertility increase
- Carbon footprint improvement

- Energy and coproducts
- Emission credits
- External reduction dependence
- ILUC risk reduction

¡Thank you!

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Ministerio de Producción y Trabajo
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