



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



**SUSTAINABLE DEVELOPMENT GOAL 9**  
INDUSTRY, INNOVATION AND INFRASTRUCTURE



# APLICAÇÕES DO **Biogás** NA AGROINDÚSTRIA BRASILEIRA

## Biogas applications for the Brazilian agro-industry



MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA,  
INOVAÇÕES E COMUNICAÇÕES

MINISTÉRIO DA  
AGRICULTURA, PECUÁRIA  
E ABASTECIMENTO

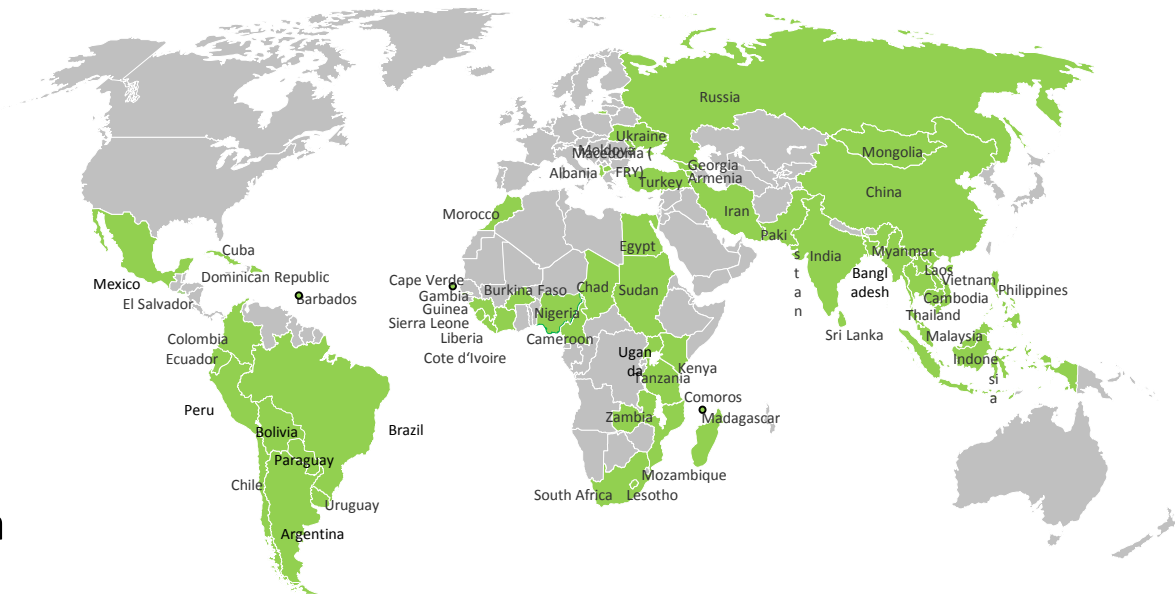
MINISTÉRIO DE  
MINAS E ENERGIA

MINISTÉRIO DO  
MEIO AMBIENTE

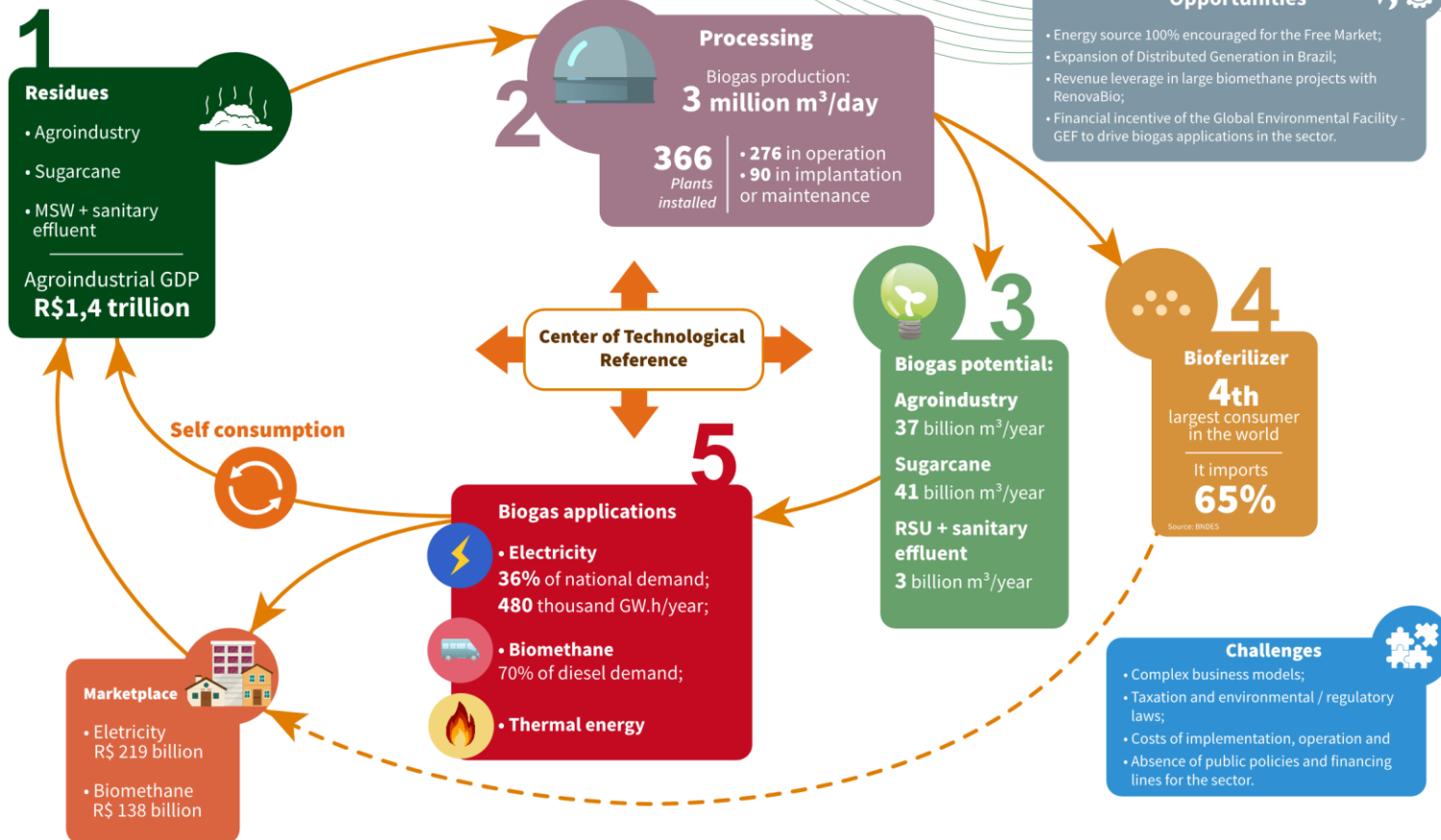


# UNIDO Department of Energy

- Energy Solutions
- Inclusive and sustainable industrial development;
- Integration between local, regional and global partners;
- Emphasis on energy efficiency, climate technologies and business models that contribute to a circular economy;
- Present in more than 50 countries.



# BIOGAS IN BRAZIL



Source: Agência Internacional de Energia (IEA), Associação Brasileira de Biogás e Biometano (ABiogás), Centro Internacional de Energias Renováveis (CIBiogás), Empresa de Pesquisa Energética (EPE), Universidade Estadual de Campinas (UNICAMP), Agência Nacional de Petróleo (ANP) e Agência Nacional de Energia Elétrica (ANEEL).

# CASE BIOGÁS INITIATIVE IN ENTRE RIOS DO OESTE/PR

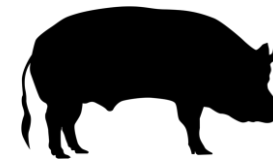


- **AREA: ~120 KM<sup>2</sup>**
- **INHABITANTS: ~4,500**
- **SWINES: BETWEEN 150K TO 200K**
- **LOCATED AT THE END OF A POWER DISTRIBUTION LINE**

# CASE BIOGÁS INITIATIVE IN ENTRE RIOS DO OESTE/PR



**18**  
FARMERS



**~40k**  
SWINES



**~200t**  
WASTE/DAY



**20.6km**  
PIPELINE



**~5,000m<sup>3</sup>**  
BIOGAS/DAY

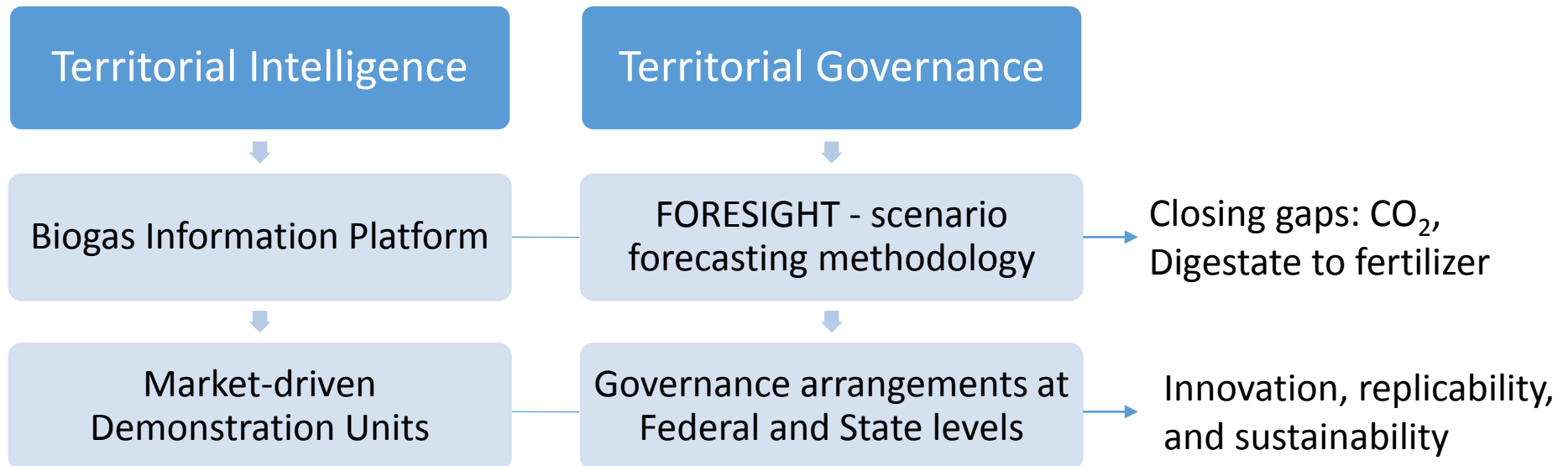


# CASE BIOGÁS INITIATIVE IN ENTRE RIOS DO OESTE/PR



- COPEL: BRL 17MI INVESTMENT (~USD 4,5MI)
- BIODIGESTORS: FARMERS OWN INVESTMENT
- MUNICIPALITY: LAND, IMPLEMENTATION SUPPORT, OPERATION
- ~3,000 MWH/YEAR IN DISTRIBUTED GENERATION (2X240 KW GENERATORS)
- 72 UNITS FOR REMOTE SELF-CONSUMPTION

# Lessons learned and next steps





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**Biogás**  
NA AGROINDÚSTRIA BRASILEIRA

# Thank you!

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