

RESULTS

World leader in different agro-industrial sectors

Palm Oil sector

Worldwide achievements

- 2nd POME Biodigester in the world**
(Palmeras del Llano, Colombia, 1988)
- 1st Micro-aspiration liquid fertilization**
(Palmar Sta. Elena, Colombia, 1991)
- 1st Lagoon-based biodigester for POME**
(Palmeiras, Colombia, 1999)
- 1st CDM (+Gold Standard) project with POME**
(Eecopalsa, Honduras, 2006)
- 1st Macro-drip liquid fertilization system (with remote monitoring)**
(Aguan, Honduras, 2010)
- 1st Joint POME + Oleochemical Effluents biodigester**
(AMSA, Colombia, 2014)
- 1st POME to animal feed plant**
(SSP to Godrej, India 2018)
- 1st POME to powder biofertilizer**
(SSP, Faridabad, India 2019)

OTHER Biotec activities

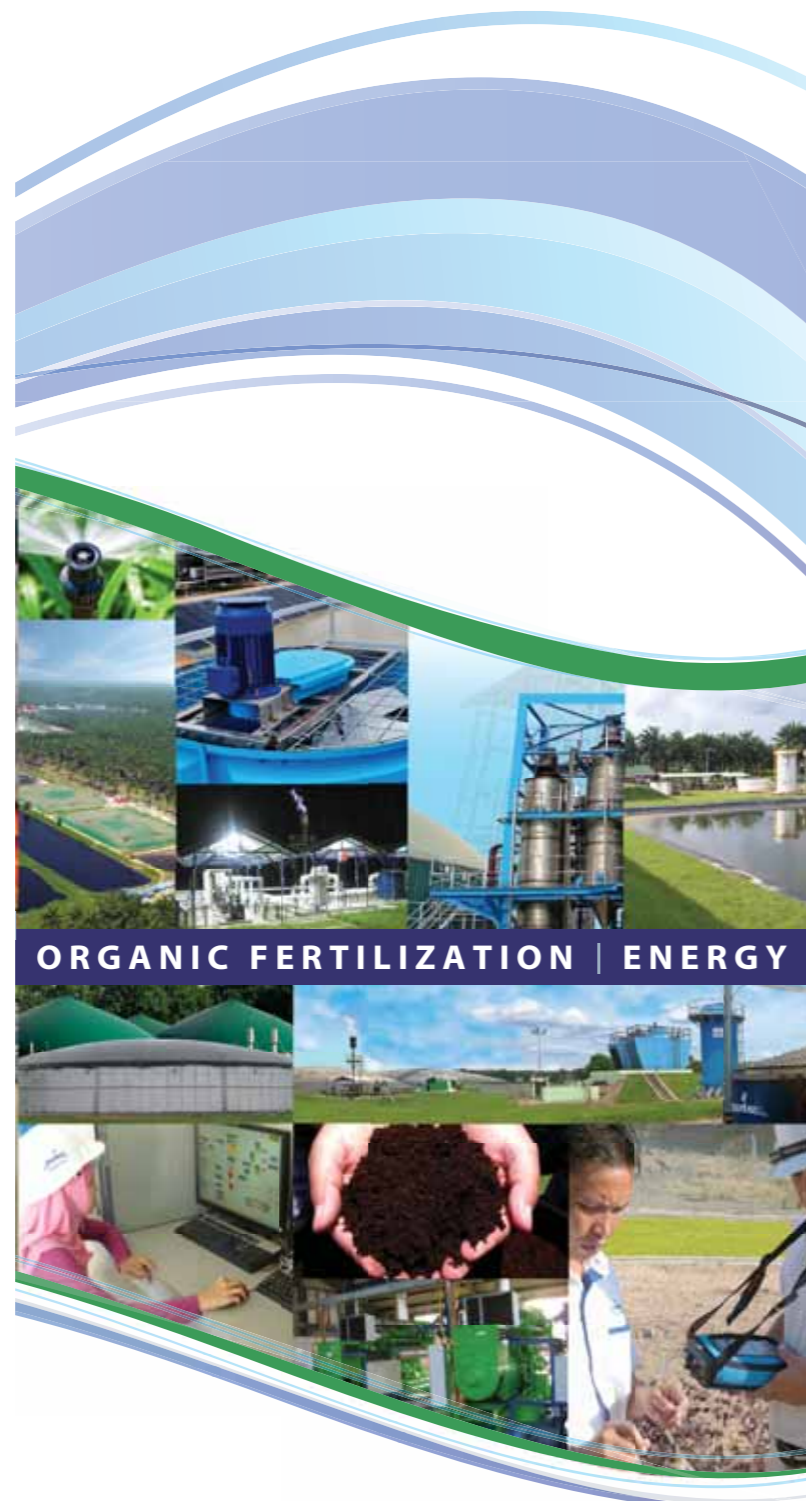
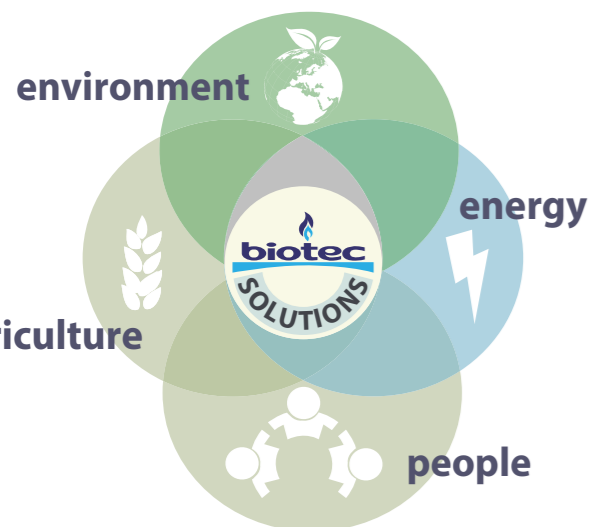
OTHER AGRO-INDUSTRIES:
sugar cane, distilleries, starch, citrus, fruits, meat,...

OTHER SECTORS: Gas Farms
Renewable natural gas generation from grass and forage crops for:

- Local gas grids
- Local electricity grids
- Steam generation

Go to Agrogaz.com

SUSTAINABLE solutions



since 1984

35 YEARS OF EXPERTISE

EFFLUENTS AND BY-PRODUCTS TREATMENT / VALORIZATION

RENEWABLE ENERGY GENERATION
ORGANIC FERTILIZER PRODUCTION
ZERO DISCHARGE

contact us



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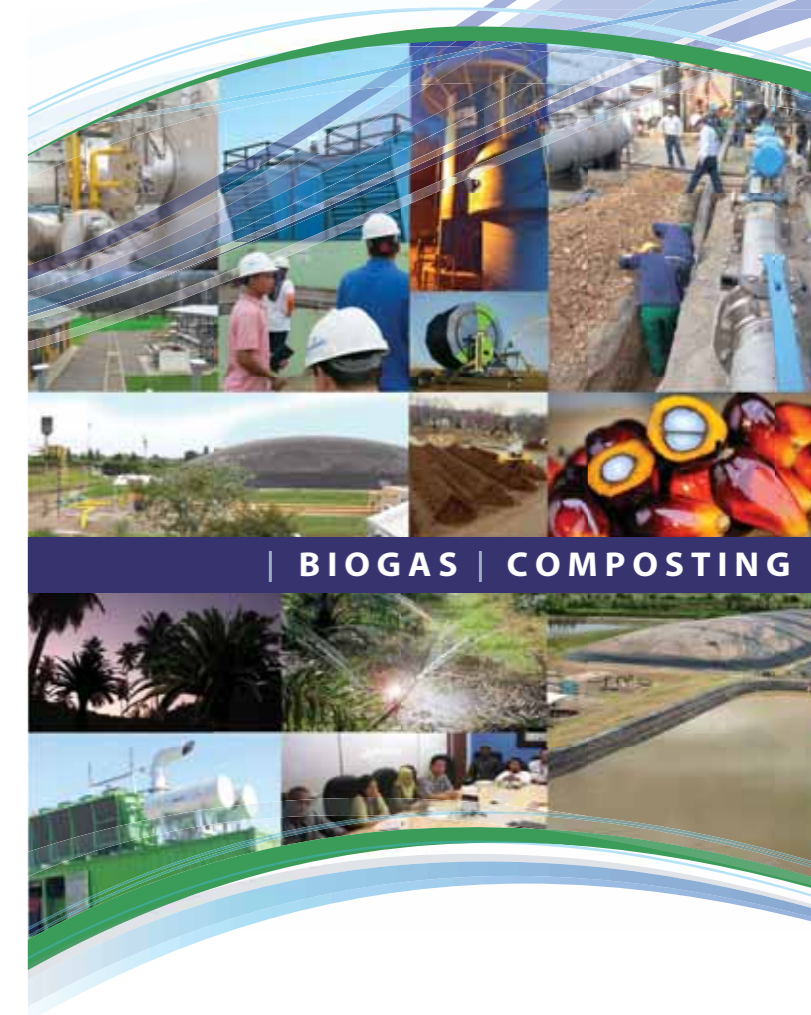
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BELGIUM | INDONESIA | MALAYSIA | COLOMBIA | HONDURAS

since 1984

PALM OIL SUSTAINABILITY

POME AND BY-PRODUCTS MANAGEMENT



www.bio-tec.net

integrated management of organic matter

OBJECTIVE:

ZERO DISCHARGE

ENERGY VALUE:

15 $\frac{m^3 CH_4}{T FFB}$ | 60 $\frac{kWh}{T FFB}$

US\$ **6** / T FFB

FERTILIZER VALUE:

1 kg N + macro/micro nutrients + organic matter / T FFB

US\$ **5** / T FFB

OUR ACHIEVEMENTS and references

Over the past 35 years, we have successfully implemented worldwide projects, turning POME into steam or electricity, as well as into liquid or dry organic fertilizer.

More than **25** POME biogas plants around the world



BIOGAS in tropical agro-industries

OUR TECHNOLOGIES



OUR SERVICES

CONSULTANCY

- Evaluation of the best byproducts management options for each mill (Feasibility Study = Conceptual Engineering)
- Current treatment solutions: evaluation and improvement (Rescue)
- **Big Data:** Set up of KPI for byproducts management – KPI follow-up – Management tools

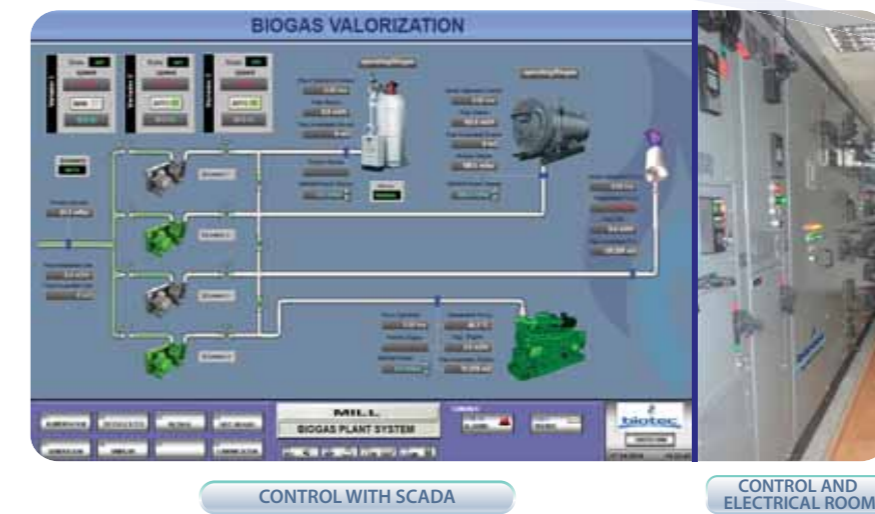
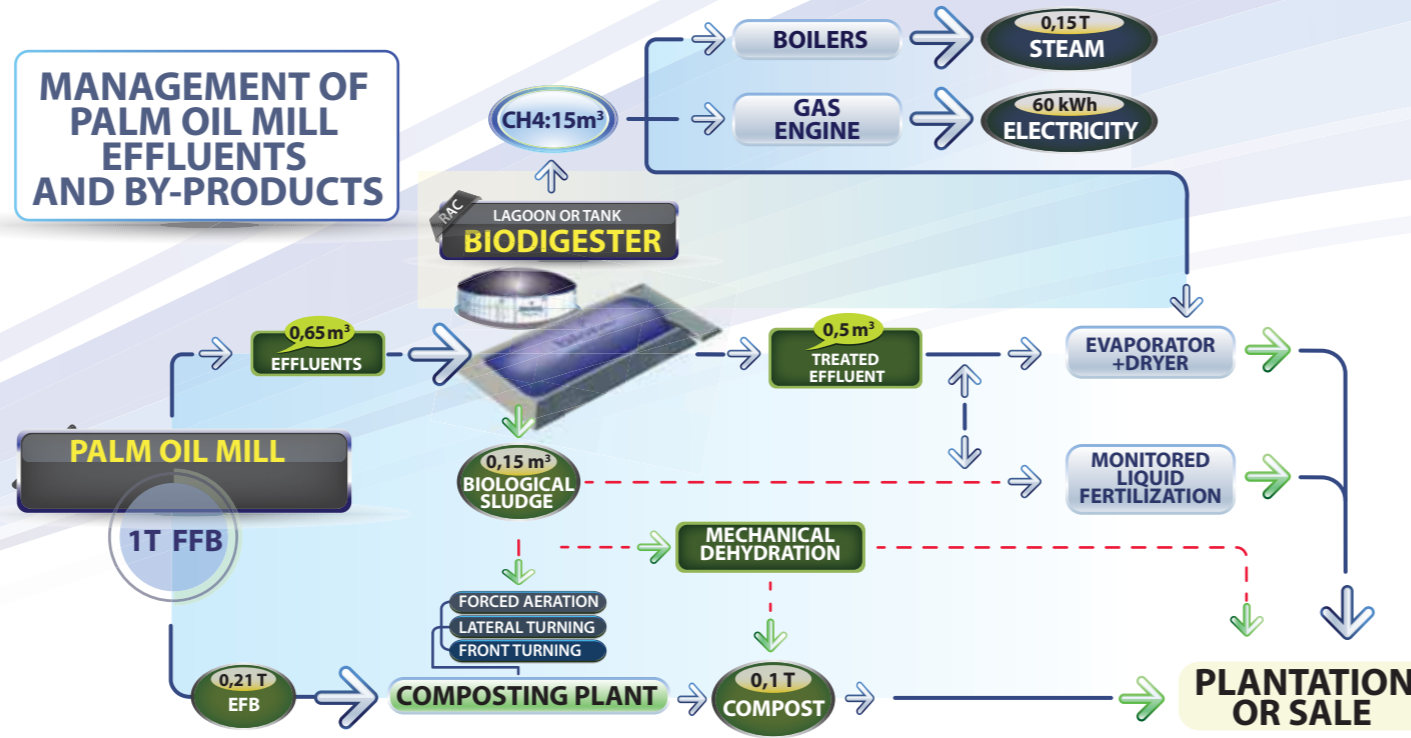
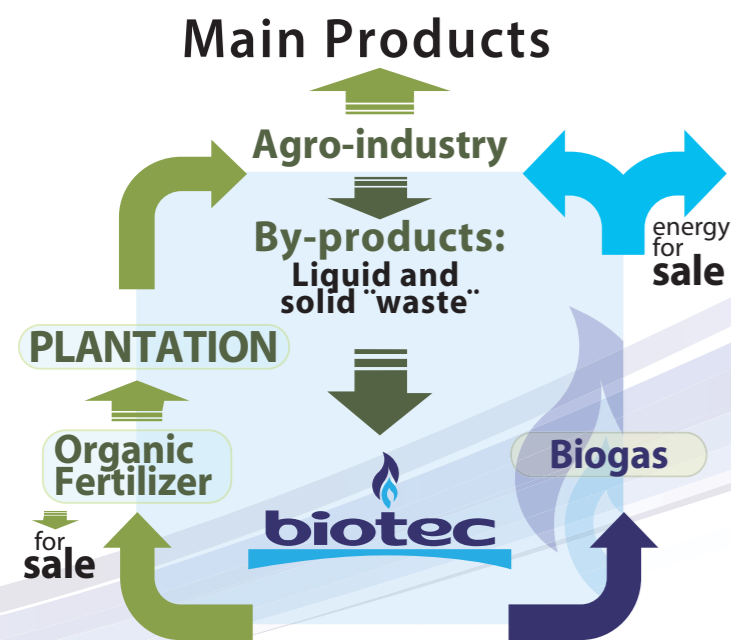
EXECUTION (EPC-Engineering, Procurement, Construction/Commissioning)

- On a turnkey basis
- On a partial turnkey basis
- Engineering + Project Management

OPERATION AND MAINTENANCE

- Chief of Plant x 2 years
- Full operation team x 2 years
- Remote monitoring (scada + data sheets)
- Plant audit, operation improvement

BIOTEC Expertise



PROJECT CYCLE

