







CTC Cellulosic Ethanol Program

Robson Freitas, PhD VP Business and New Technologies



CTC - SugarCane Technology Center History



Camamu Experimental Station



Piracicaba Experimental Station



Quarentine Station Miracatú



CTC's Headquarter



CTC- Centro de Tecnologia Canavieira

1969 1979

Centro de Tecnologia Copersucar

- Launching of first variety CTC: SP-1143 in 1983
- CTC Shareholders represent 60% of the milling capacity with > 5 million ha

CT Canavieira Oscip



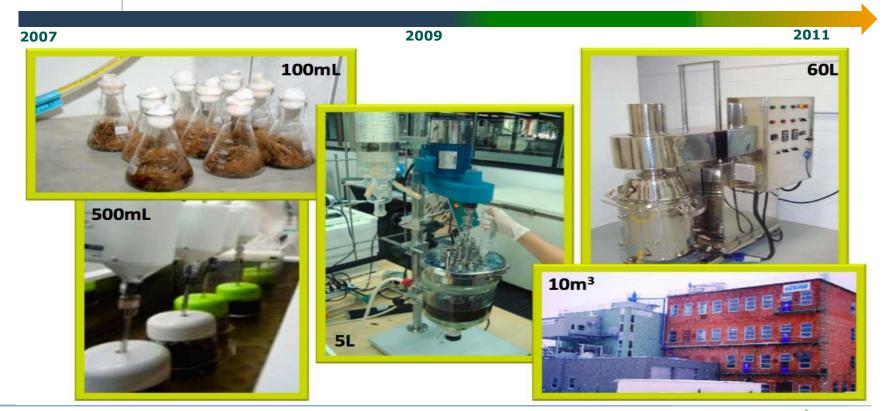






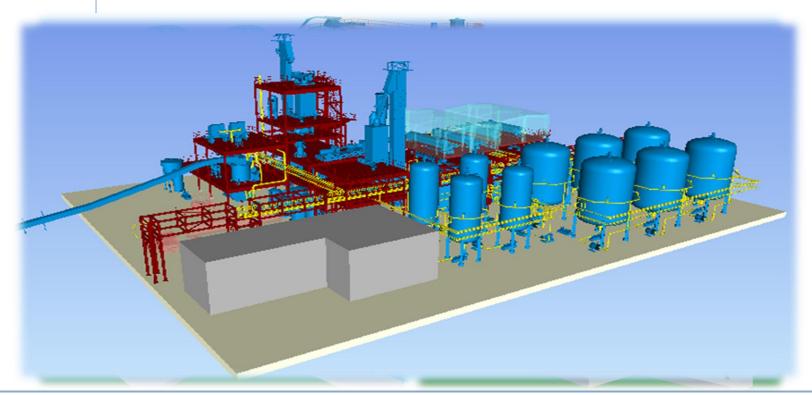


CTC Cellulosic Ethanol Development Program





Demonstration Plant E2G CTC





CTC SECOND GENERATION ETHANOL PRODUCTION PROCESS

Biomass Handiling

Pretratament

Hydrolisys

Fermentation

Destillation











Clean Biomass Expose
Biomass to
Enzymes

Break Celulose into Glicose

Transform sugar into Ethanol

Separate Ethanol from water

Deep Knowledge of the Feedstock



Integration



Deep Knowledge of the 1st Generation



CTC-E2G Technology - 3D Project - São Manoel Mill





Obrigado!

Robson Freitas, PhD VP of Business and New Technology

Contacto:

robson.freitas@ctc.com.br

(+5519) 3429-8208

(+5519) 8223-7374

