



## Research Labs

LABORATORY	RESPONSABLE	e-mail
LOPCA-FERM – Lab. de Otimização, Projeto e Controle Avançado – Divisão de Fermentação	Prof. Adriano Pinto Mariano	adpm@unicamp.br
LOPCA - REF-BIORREF – Lab. de Otimização, Projeto e Controle Avançado Ref-Biorref	Prof. Leonardo Vasconcelos Fregolente	leovf@unicamp.br
LOPCA - BIOFABRIS – Lab. de Otimização, Projetos e Controle Avançado / Laboratório Biofabris - Instituto Nacional de Biofabricação	Prof. Rubens Maciel Filho	maciel@feq.unicamp.br
LOPCA - VALPET – Lab. de Otimização, Projetos e Controle Avançado / Laboratório de Valoração de Petróleos	Prof. Rubens Maciel Filho / Prof. Maria Regina W. Maciel	maciel@feq.unicamp.br wolf@unicamp.br
LEPFE - Lab. De Engenharia de Processos Fermentativos e Enzimáticos	Prof. Aline Carvalho da Costa	al286899@unicamp.br
LDPS – Lab. de Desenvolvimento de Processos de Separação	Prof. Maria Regina Wolf Maciel	wolf@unicamp.br
LEF – Lab. de Equilíbrio de Fases	Prof. Mariana Conceição da Costa	mcdcosta@unicamp.br
LEPA – Lab. de Engenharia e Processos Ambientais	Prof. Melissa Gurgel A. Vieira	melissag@unicamp.br
LEPAC – Lab. Para Estudos de Processos de Adsorção e Catálise	Prof. Gustavo Paim Valença	gpv1856@unicamp.br
LEBBPOR – Lab. de Engenharia Bioquímica, Biorrefino Produtos de Origem Renovável	Prof. Telma Teixeira Franco	tfranco@unicamp.br
LDPC – Lab. de Catálise e Processos Catalíticos LaPASQ - Laboratório de Pesquisas Avançadas em sistemas Químicos	Prof. Gustavo Doubek	doubek@unicamp.br
Lab. de Pesquisa em Processos Químicos e Gestão Empresarial (PQGe)	Prof. Dirceu Noriler	dnoriler@unicamp.br
Lab. de Análise Industrial e Risco Ambiental (L4R1S4) LaPASQ – Lab. de Pesquisas Avançadas em Sistemas Químicos	Prof. Sávio Souza Venâncio Vianna	vianna@unicamp.br



## Governance Committee

### Directive Committee

Coordinator of EMBRAPII Unit  
Vice-Coordinator of EMBRAPII Unit  
Director of FEQ  
Deputy of EMBRAPII  
Deputy of Companies  
Executive Director INOVA

### Executive Committee

Executive Manager  
Coordinator of EMBRAPII Unit  
Vice-Coordinator of EMBRAPII Unit  
2 Coordinators of projects

### Development of business prospects

Coordinator EMBRAPII Unit  
Project Coordinators  
Executive Manager  
Team E-RENOVA

### Dissemination of Communication

Executive Manager  
Team E-RENOVA

### Administrative and financial management

Executive Manager  
Team E-RENOVA

## Sponsors / Founders



## E-RENOVA

Prof. Rubens Maciel Filho  
**Coordinator of EMBRAPII Unit (E-RENOVA)**  
Prof. Leonardo Vasconcelos Fregolente  
**Vice-Coordinator of EMBRAPII Unit (E-RENOVA)**  
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## Who we are

E-RENOVA is the EMBRAPII Unit located at School of Chemical Engineering (FEQ) / UNICAMP.

We believe that the E-RENOVA will contribute significantly for the development of technological researches in partnership with industries generating sustainable innovation on renewable energy.



## Mission and Values



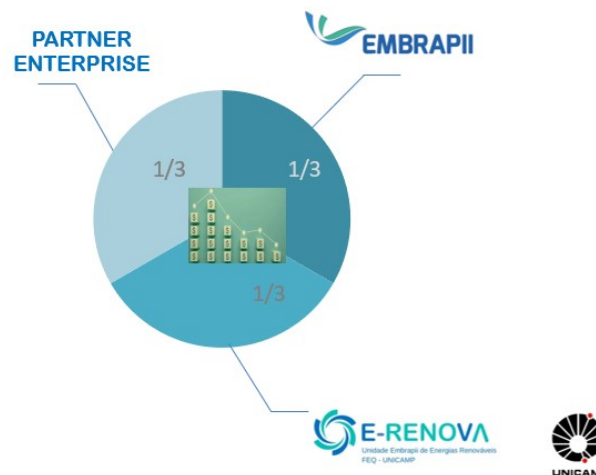
- To promote synergy among innovation ecosystems and technological challenges in order to achieve maturity of industrial processes, generating intellectual property, specialized human resources and also consolidating researches on new areas.



- To reach technological solutions that respond to the criteria of sustainability from the sector industrial partnership.



## Financing Model



- EMBRAPII's contribution must not be more than 1/3 of the contracted projects portfolio's total value;
- the remaining 2/3 must be negotiated between the Unit and the partner companies contracting the projects;
- the financial participation of the companies contracting the projects must not be less than 1/3 of the contracted projects portfolio's total value and must always be financial;
- the EMBRAPII Unit's counterpart contribution may be financial or non-financial.



## Facilities

- Pilot plant of gaseification and pyrolysis
- Pilot plant of fermentation (6,000 liters)
- Lab Fermenters
- Hydrolysis Reactors
- Shakers
- Pilot Molecular Distilator
- Freeze dryer
- Micro reactor for hydrogen production from ethanol
- Supercritical Reactor
- Pilot Eletrostatic Unit for Oil treatment
- Unit of Batch Distilation (pilot scale)
- Biodiesel Reactor Intensified
- Pilot Unit of Water Treatment by Evaporation Effect Multiple
- Autoclave for systems of pre treatment of biomass
- Softwares: Biorrefinery simulation and Reactors for acid hidrolisis
- Air Lift Reactor for MicroAlgas
- Reactor for graphene production
- Pilot Centrifuge Molecular Distilator
- Atomic Absortion Spectrometer
- Preparation Station for degassing
- Gas Helium Automatic Picnometer
- Pc Hg
- Superficial Area and particles Analyser
- Calorimeter
- Gaseous chromatograph SHIMADZU, model GC2010 AFT
- Ionic chromatograph – Mehtron
- Zeta Potential Anton Paar
- Incubators with temperature controllers
- Autoclave for sterilization
- Automated modulus of the liquid percolation in fixed bed
- Optical Microscopy (Leica) with heating platinum (Linkam)
- Flash point analyser miniflash FPLH (Grabner)
- Micro-Ebuliometer
- CFD Softwares
- High performance workstation for pre and pos-processing
- Computational Cluster computacional ( 800 colors)
- FEG-MEV Thermofisher
- X Ray Photoelectron Spectroscopy (XPS K-aplha)