

## Partner search

<b>Company:</b> Instituto Federal Catarinense <b>CIF:</b> 10.635.424/0001-86	
<b>Address:</b>  Das Missoes st 89051-000.- Blumenau Santa Catarina	<b>Contact:</b> Mário Lettieri Teixeira <b>Position:</b> Assistant Coordinator <b>Telephone:</b> +55 49 988051685 <b>Email:</b> mario.teixeira@ifc.edu.br

### Short Company presentation (R & D guidelines, international activities, etc.)

The Federal Institutes of Education, Science and Technology, created by Law 11.892/2008, constitute a new model of professional and technological education institution, which aims to respond effectively to the growing demands for professional training, dissemination of scientific and technological knowledge and support for local production arrangements. Present in all states, the Federal Institutes contain the reorganization of the federal network of professional education, offering initial and continuing education, integrated and subsequent secondary education, higher education courses in technology, bachelor's degrees, teaching degrees and postgraduate degrees.

The Instituto Federal Catarinense (IFC) offers courses in line with the consolidation and strengthening of local production arrangements, encouraging applied research, cultural production, entrepreneurship and cooperatives, and supporting educational processes that lead to the generation of jobs and income, especially through self-management processes. The IFC - Campus Concórdia (IFC-Concórdia) began its activities in March 1965 and has expertise in the area of applied agriculture, as it is located in the western region of Santa Catarina, which is the largest producer of swine, poultry and dairy cattle in the state, as well as having a good presence in the production of beef cattle and small ruminants.

### DESCRIPTION OF ITS TECHNOLOGY AND CAPABILITIES IN R & D (Products, technologies, applications, services, etc.)

The IFC has experience in developing patents in the proposed area of expertise, with products focused on environmental sustainability and renewable energy being patented, such as organomineral fertilizer (derived from agro-industrial waste) and waste-to-biofuel converter.

## PROPOSED COLLABORATIVE PROJECT IN R & D

(As much detail as possible, both in what it offers and what you want in a potential partner)

- **Technology offered to international partners:** The IFC has experience in developing patents in the proposed area, with products focused on environmental sustainability and renewable energy being patented, such as organomineral fertilizer (derived from agro-industrial waste) and waste-to-biofuel converter. The technology proposed has based on technology mastered by IFC-Concordia (Brazil) and with patent registration at the National Institute of Intellectual Property (INPI). Besides it environmental licensing in the State of Santa Catarina (Brazil), which ensures that operations comply with environmental standards, reducing the risks associated with pollution and degradation of local ecosystems. Public policies that encourage recycling and the use of waste in various production chains are essential to promote this transformation, therefore, technological innovation can be applied in other sectors of the production chain.
- **Technology looking for an international partner:** Companies that have environmental liabilities, that produce biomass waste, slaughterhouses, agro-industries, companies that manufacture industrial equipment that operate in the waste area.
- **Other specifications, requirements or comments:** The partnership with Spanish companies is aimed to develop the equipment for use in Europe. The company may be the beneficiary itself, with reduced fuel costs due to the use of the waste produced being transformed into renewable energy; or the company may be the manufacturer of the equipment and establish partnerships with other waste-producing companies to transform it into renewable fuels.
- **PROPOSED COLLABORATIVE PROJECT IN R & D:**

The objective of the project is to develop a prototype (modular plant) for recycling water present in industrial waste with consequently, production of organic fertilizer and generation of renewable fuels (fuel oil and methane) for use in innovation ignition engines (diesel cycle engines transformed into Otto cycle, for example).

The Mobile Modular Plant for water recycling and renewable fuel generation to be developed will allow the transition of so-called “dirty” resources to sustainable resources. With increased efficiency in the use of waste, the use of water resources in industrial production will decrease in step with the use of renewable fuel, which will reduce carbon emissions into the atmosphere (reduction in fossil fuel consumption).

### General comments:

- By sending this information document authorizing its dissemination.
- A profile of the company must be attached: <https://ifc.edu.br/>