

ZENN Is Entering the Race

With the advent of the Kyoto protocol and great environmental challenges to protect our planet, the ZENN, a 100% electric vehicle, introduces a concrete solution.

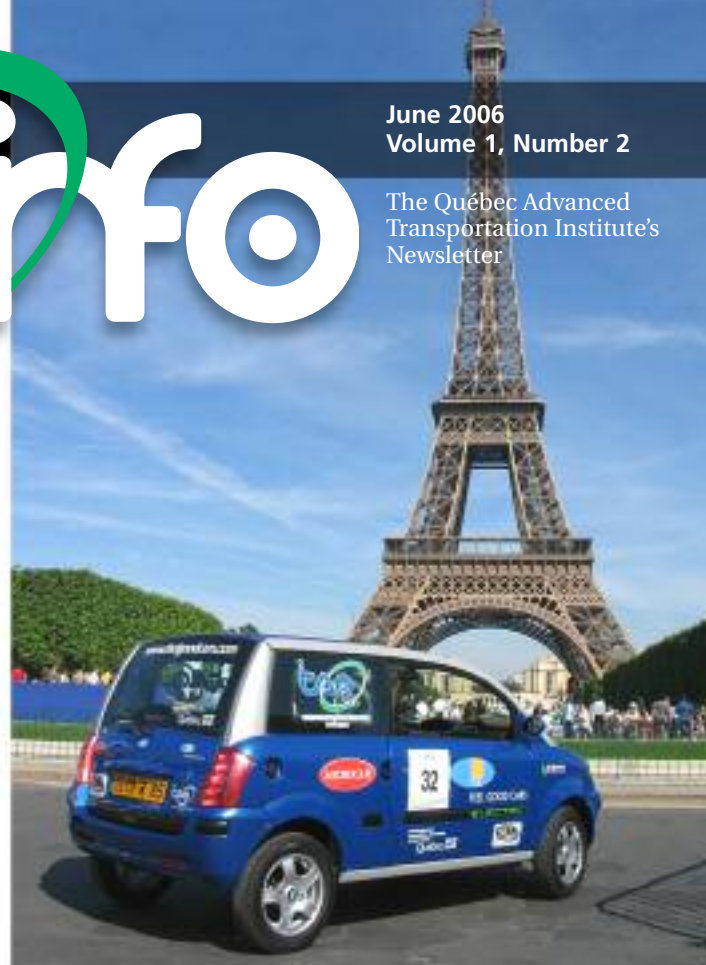
For the past nine months, Feel Good Cars (FCG) has been working in close collaboration with ITAQ's engineers and technicians to develop the 2006 ZENN, a low-speed, all electric vehicle. FCG has recently announced that it has set up its plant in the Laurentians, more specifically in Saint-Jérôme. And then on June 13, the ZENN was crowned the best car in its category in the no1 international event on sustainable road mobility.

What is the ZENN ?

The ZENN is a small, silent, zero emission vehicle, ideal for short commutes in urban areas or gated communities. It is legal in 45 American states, in Asia and in all the member countries of the European Union. In North America, the ZENN belongs to the category of low-speed vehicles that has a speed limit of 40 km/h. Canada has authorized the sale of LSV propelled exclusively by an electric motor, but Quebec has yet to define their traffic norms.

The ZENN is the result of a partnership and the combination of two complementary sets of expertise, located on the North American continent and in Europe. FGC and Microcar shared a common vision to become the worldwide leader in the sector of electric micro-vehicles. ITAQ provided an essential expertise in the development of the product : definition of technical requirements, conception, prototyping,

tests, certification, which are all the engineering steps needed for marketing the product.



Setting Up the Plant in Saint-Jérôme, Québec

Last April, FGC announced it was setting up its assembly plant in Saint-Jérôme, 50 km north of Montreal, in a 40,000 ft² facility. As quoted in the Gazette, Ian Clifford, Chief Executive Officer of FGC stated clearly, " *We chose Saint-Jérôme because ITAQ is there*". FGC foresees building around 2000 vehicles during the first year, mainly intended for the American market.

First Prize Winner in its Category at the Bibendum Challenge in France

Recently, from June 9 to June 13, the ZENN took part in a prestigious international competition that was held in Paris. The **Bibendum Challenge**, created by Michelin in 1998, is the international event for all the players in sustainable road mobility : manufacturers, organizations, scientists, politicians, etc.

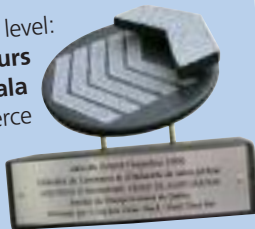
By competing on the international scene alongside European and Asian manufacturers, ITAQ has just passed an important milestone in its development. " *This prize represents an international recognition of our engineering and technology transfer skills. This prestigious trophy is a source of pride for us.*" declares Pierre Tison, Director of ITAQ.



Hugo Marsolais, Director of Operations for ITAQ, Pierre Tison, Director of ITAQ and Martin Racine, technician during the prize-giving ceremony along with "Bibendum" Michelin's mascot.

Two prizes that speaks volumes!

The first one at the regional level: ITAQ received **an honours award at the Zenith Gala** from Chamber of Commerce and Industry of Saint-Jérôme.



The second one at the international level: ITAQ, for having assisted its client, a Quebec manufacturer of electric vehicles and its French assembler partner in the engineering development of the ZENN, was awarded **first prize in the "Bibendum Challenge"** held recently in Paris in the urban vehicle category.

At ITAQ, not only is this obviously the opportunity to be thrilled about our success, but also the opportunity to recognize that, without having had the economic players and the elected representatives of the Laurentians make of advanced ground transportation a regional priority, we would not be where we are today.

Enjoy reading our second edition of ITAQ-info!

Pierre Tison
Director of ITAQ

Biodiesel Gaining in Popularity in Quebec

Distribution of Biodiesel

Pétroles Sonic that has a network of 185 service stations throughout Quebec has started offering (B5) biodiesel to its farming clientele, and plan on distributing it in its service stations shortly.

A New Biodiesel Plant

"We play a very significant environmental role in our community" asserts Claude Bourgault, Director General for Rothsay, a division of Aliments Maple Leaf Inc. located in Sainte-Catherine. "By collecting residues from salt meats, restaurants, supermarkets, butcher shops and farms, we recycle 750,000,000 kgs of solid residues and frying oils per year, which is equivalent to 37,500 trailers per year" adds the latter. Rothsay who is already one of the most important producers of added-value recycled products opened his first commercial production of biodiesel in Canada, with the capacity to produce 35 million litres of biodiesel per year.

www.rothsaybiodiesel.ca

Government Incentives

Since March 2006, Quebec has granted a tax refund on all fuels (16.2 ¢/l) for the purchase of pure (B100) and conditional biodiesel for the mixtures. In Ontario, British Columbia and Manitoba, biodiesel is exempted from the provincial tax on the fuels. Furthermore, a federal program in the amount \$11.9 M aims at encouraging the development of the biodiesel industry (2003-2007).

Biodiesel in Tremblant in the Near Future

Tremblant's town councillors would like to institute a pilot project in Mont-Tremblant for the use of a more concentrated form of biodiesel than what is usually used in Quebec. With ITAQ's expertise, Mont-Tremblant hopes to find a technically reliable and economically viable solution that would aim at substantially reducing greenhouse gases (GHG) given off by their respective number of road and off-road vehicles such as the snow-grooming machines. A feasibility study will allow us to determine the winter issues as well as those related to supply and its use in extreme wintry climate conditions. It will also propose solutions by evaluating the anticipated environmental costs and benefits.

"A 20% concentration of biodiesel would reduce harmful greenhouse gases, polluting emissions and black smoke by 17%", indicated Mayor Pilon. "Mont-Tremblant and its partners are concerned about preserving the environment; that is the main reason why we accept to take part in this study if we obtain the financial support needed" adds the mayor.

Conseil québécois du biodiésel (CQB)

Since its creation in 2005, the CQB, with ITAQ as one of its founding members, is sensitizing all the players of the milieu - producers, distributors, governments, users - in order to introduce this biofuel more easily on the market.

www.biodieselquebec.org

High-Tech Infrastructure for ITAQ

ITAQ will move into its new offices next fall. "With the construction of this new infrastructure, ITAQ has reached a new stage in its development, one that our partners and clients have been looking forward to", declares Hugo Marsolais, Director of Operations. ITAQ will



occupy the second floor of the new building located within the CEGEP and will be equipped with research and high-tech equipment infrastructure totalling \$5.4 M that comes from contributions from the Canadian Foundation for Innovation, the Quebec government and private partners. Therefore, more services will be offered to companies, among others to small, medium-sized companies, in industrial niches undergoing massive changes and with strong growth potential. According to Serge Tessier, Director General of the College of Saint-Jérôme "The arrival of ITAQ and the role it must play thanks to the new facilities that will hold one-of-a-kind research infrastructures in Quebec has clearly been the result of the mobilization of regional players around the development of a pole of excellence in advanced ground transportation for many years now".

ITAQ Serving Companies

Fuel Economy and Emissions Testing on Bench Dynamometers for ECONOCO

The ECONOCO company has called on ITAQ's expertise to carry out comparative tests that aim at quantifying the effects related to using the ECONOCO device. ITAQ therefore provided the technical assistance for :

- The definition of a test protocole (comparative tests with and without a device)
- The development of two dynamometric benches (one destined to receive the device and one for "control")
- The setting up and operation of data acquisition systems
- The coordination and supervision of tests
- The analysis, documentation of results and drafting of a project report.

Tests in controlled conditions have demonstrated that the dynamometric bench equipped with the ECONOCO device, in comparison with the dynamometric control bench, has generated positive results in terms of fuel economy and the reduction of polluting emissions (Nox, CO and opacimetry).

To the client's satisfaction, the tests quantitatively confirmed the validity of the technology and, at the same time, allowed us to understand how some parameters can affect its efficiency so as to guide its optimization as well as widen its applications.

ITAQ's Contact Information



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