



PEB Exchange, Programme on Educational Building 2003/04

Two Vocational Training Schools in Quebec

OECD

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PROJECTS (continued)

TWO VOCATIONAL TRAINING SCHOOLS IN QUEBEC

In Quebec (Canada), vocational training is delivered in special centres supported by the Ministry of Education. Here are two recent projects: a school of forestry and wood technology and a steelwork training centre.

Duchesnay School of Forestry and Wood Technology

The Quebec City School Board has received a substantial subsidy from the Quebec Ministry of Education (MEQ) to build a national school of forestry and wood technology, just a few kilometres from the ecotourism resort of Duchesnay with its renowned Ice Hotel, rebuilt every year for the winter season.

Inaugurated in 2001, the new premises are located on the site of an old saw-mill and are part of the MEQ's major reform plan for vocational education. The school was founded in 1935 by the Ministry of Forestry. It was not until 1969 that responsibility for vocational training in forestry was transferred to a school board reporting to the MEQ. In 1993, a new partnership lent flexibility to the school structure, enabling industry to become more closely involved in education. This is how the Duchesnay School of Forestry and Wood Technology (*École de foresterie et de technologie du bois de Duchesnay*, or EFTBD) came to be working with numerous partners today.¹ The forestry and lumber industry in Quebec, which employs some 35 000 workers, contributes significantly to the province's economy. No less than 150 towns live directly off this industry, and a total of 250 towns have related activities. In 1999 Quebec exported 6 billion Canadian dollars in transformed wood; that same year, the lumber industry invested CAD 337 million in fixed assets.



The school, comprising two buildings (see photo above), required CAD 14.3 million in investment from a range of partners. The main one is the MEQ which provided 60% of the overall cost, while 10% came from the federal and provincial infrastructure programme, 10% from the Ministry of the Regions, 8% from the School Board itself, 7% as discount from building suppliers and finally 3% from the hardwood industry, the sale of used equipment and the local municipal corporation.

The building in the foreground houses classrooms, small laboratories, an assembly hall and the administration service.

In the central building are the training centre with its sawmill, an annex for tool-sharpening and timber-grading, a drying hall and a mechanical engineering workshop for the heavy machinery used in the wood harvesting programme.

The equipment is the most recent on the market, much of it computerised. Students train in the kind of work environment they would find in a modern sawmill, where safety is an ever-present concern.



This architectural ensemble is the only one of its kind in North America. Not content with that, the school is going to develop an entirely new concept in the form of a virtual saw-line simulator to enhance and optimise all the training and investment that have gone into the project. This will be a major breakthrough for Quebec's wood industry, as it is quite conceivable that this machine will bring virtual education to the client, wherever he or she may be, even outside the Province of Quebec.

1. Quebec Ministry of Education, Ministry of Natural Resources, Laval University, Sainte-Foy College of General and Vocational Education (CEGEP), Forintek Canada Corp., Association for Lumber Producers of Quebec, National Hardwood Lumber Association, *Club des Bois Francs de Montréal Inc.*, Canadian Lumbermen's Association, Quebec Federation of ZEC (controlled harvesting zone) Managers, RESAM (association of conservation authorities) and Quebec's leading equipment manufacturers. These represent a highly specialised field with a strong foothold on world markets, given the high Nordic standards to be met by Quebec forest managers.

Given the specific profile of some of the partners, including Laval University, the CEGEP in Sainte-Foy and Fortitek Canada, the Duchesnay School of Forestry and Wood Technology will also serve as a research centre and/or test-bed for research institutions and the industry.

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CFMA, A STEELWORKING TRAINING CENTRE

Since 1998, Quebec has had a vocational training centre that is the only one of its kind. The *Centre de formation des métiers de l'acier* (CFMA) is a steelworking training centre run by the School Board in Pointe-de-l'Île and provides four training programmes aimed at the steel industry.

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The four courses are in boilermaking, installing rebars, structural steel installation and steel structure assembly. The first three are aimed at jobs in the construction industry, as students usually go on to work on major construction projects such as hydro-electric dams, aluminium works, refineries and office towers. The fourth course, on steel structure assembly, trains students for jobs in the manufacturing of steel structures for the building trade.

With a total area of 4 000 square metres and workshops 13 metres in height, the CFMA provides hands-on learning activities that recreate a work environment.

The premises were built in 1998 with the help of a large subsidy from the Quebec Ministry of Education, which contributed 5.5 million Canadian dollars towards the total cost of CAD 7.5 million, while CAD 1.5 million came from the School Board and CAD 0.5 million from the steel industry. Since the training centre opened, the industry has continued to invest in equipment and tools as well as funding training courses.



It should be noted that the building of the centre prompted the municipality of the time to develop the area further, with the addition of a prestigious industrial park and a golf course.

The initiative to set up a steelworking training centre stemmed from a solid partnership linking the world of education and the world of work. Over the ten years preceding the opening of the CFMA, labour-market partners were involved in developing training-course specifications, training programmes and other teaching-related documents, as well as defining the centre's policy and mission. Industry and organised labour have played a major role in the CFMA's expansion by making donations, loaning equipment, sharing expertise and following up on former students.

Today, the CFMA is successfully fulfilling its role as a national provider of vocational and further training for people from all over Quebec. The centre takes in 200 full-time students every year and more than 500 workers for further training. Over 50% of its clientele come from outside the Montreal area, and some from over 1 500 kilometres away. The CFMA provides training for young natives from the Mohawk Nation living near Montreal. Thanks to training in structural steel installation, some 15 native students from the centre have found work on construction sites in major U.S. cities.

Another feature of the CFMA is that most of its management board members are from industry – either employers or trade unionists – who share their expertise with officials from the Quebec Ministry of Education and the School Board. And the teaching staff are all steelworking specialists. For the CFMA, this ensures that the standard of its courses matches the industry's skill requirements, and that its students are able to work efficiently as soon as they enter the labour market.

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