

---

## THE CANADIAN TRADE COMMISSIONER SERVICE

### DOING BUSINESS IN AUSTRIA / CANADA

#### *Bilateral Investments and Partnerships – Our Services*

#### We are here to help

Whether you're looking to export, invest abroad or seek technology and R&D partnership, our international business professionals, market intelligence and expert advice are available when you need them. We have Trade Commissioners located in more than 150 cities worldwide and in Regional Offices across Canada, as well as our Virtual Trade Commissioner tool at your disposal. We are ready to help you achieve international business success.

#### Our Vision

As members of the Canadian Trade Commissioner Service global team, our vision is to be known for the excellence of our people, the high quality of our services, and for our contribution to making Canada a prosperous and innovative nation.

#### Our Role

The role of the Trade Commissioner Service is to promote Canada's economic interests in global markets. Our activities include, but are not limited to, the following:

- export market development for our Canadian Clients
- foreign market access
- application of trade policy
- promotion of investment in Canada
- development of international business contacts
- identification and communication of business leads
- strategic alliances
- licensing and venture capital linkages
- joint-venture partnering and foreign equity investment
- R&D collaboration and technology transfer
- promotion of Corporate Social Responsibility
- facilitation of Canadian Direct Investment Abroad

#### Our Key Services

- Preparing for International Markets
- Market Potential Assessment
- Qualified Contacts
- Resolving Problems

## Activities

- Network by making outcalls and at business events and gathering business and competitor intelligence in Austria.
- Update information products: sector profiles, country or market reports, website, Country Action Plan, and economic, financial, commercial and investment reports.
- Organize seminars or workshops with market contacts.
- Forward business leads directly to companies or through the International Business Opportunities Centre.
- Prepare and manage bilateral commercial agreements.
- Raise awareness of Canada in the local market (press releases, advertising, speeches, interviews, Canada "branding" program and other communications).
- Support incoming and outgoing missions and trade fairs
- Conduct advocacy and engage in market access activities
- Forward technology leads directly to companies
- Forward investment leads directly to partners, through Department of Foreign Affairs and International Trade, or Investment Partnerships Canada.
- Make corporate liaison visits and report findings to partners in Canada.

## Market Reports

The Canadian Trade Commissioner Service's market reports provide a detailed analysis of industry sectors that enable businesses to take advantage of the right opportunities abroad.

# Green Building Profile - Vienna, Austria (January 2009)

## 1. Sector overview

As the main opportunities in this sector lie in Science and Technology Transfer as well as Foreign Direct Investment in Canada this report focuses mainly on the description of technologies.

Austria boasts one of the most advanced building industry sectors in Europe with a strong focus on sustainable architecture or the so-called "Green Building". It describes environmentally conscious buildings for residential and commercial buildings. The goal of sustainability is to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

This can be achieved by two important measures: increasing resource efficiency and transitioning to renewable resources. In recent decades, Austria has gained substantial technical experience in the fields of energy efficient buildings, solar heating systems, small hydro power and biomass energy production systems.

In Austria, builders use light-frame timber constructions, massive timber constructions or massive constructions with concrete or bricks.

The whole building industry is divided into 3 categories of which 20% is foundation construction, 30% falls under renovation and 50% is building construction. Two thirds of the building construction is dedicated to residential and one third to non-residential buildings. In the sub-category single-family homes, 60-65% is brick construction; 25-30% is made of light timber frame construction and the remaining 5% is a combination. Of multi-family homes, 25-30% are made out of bricks, 55-60% are made of concrete, 10%

with light timber frame structures and the rest are a combination. For commercial buildings, 80% of the buildings are made out of concrete, 10% are brick constructions and 10% are a mix of materials.

Multifamily houses account for about 60% of new residential construction, while single- and double family houses account for 40%. 30% of the one and two-family homes are prefabricated houses. The rest are individually constructed on site. The growth of the prefabricated market segment has been strong since the mid-1980s when the market share of this type of housing was about 12%. Today this number has increased to 30%. This market is anticipated to grow further. 84% of the prefabricated houses are timber homes, 9% are concrete homes, 4% are made out of bricks and the remaining 3% are a combination. The average floor area per dwelling is 83m<sup>2</sup>, with an increasing size trend. Roughly two-thirds of all prefabricated homes are located in the provinces of Lower Austria, Styria and Upper Austria. A prefabricated construction is defined in the Austrian standard B 2310.

The top three manufacturers of prefabricated and wood-frame homes include ELK-Fertighaus AG, Hanlo Häuser and Hartl Haus. They dominate approximately 50% of the market. The private sector represents the largest customer of building products in Austria (about 50%). About 30% of housing units are built by limited profit building companies and the remaining 20% by commercial developers. The Government funding for housing projects accounts for 1.3% of Austria's GDP (2007:270.8 billion €). It should be noted that in Austria government funding is used for housing projects rather than for subsidizing people with low income. The objective is to increase the quality of new residential buildings especially regarding energy efficiency and ecological aspects.

In Austria there are two defined building standards: the Low-Energy House standard defined by the heating demand ranges between < 25 kWh/m<sup>2</sup> a < 55 kWh/m<sup>2</sup> a (the number differs from province to province) and the Passive House standard which is < 15 kWh/m<sup>2</sup> a. Austria has the highest number of passive houses per capita worldwide.

In Austria the legal basis for energy efficiency of buildings can be found in the directive #6 on Energy Performance of Buildings issued by the Austrian Institute of Construction Engineering (OIB) which stated that the heating demand of a house must not exceed 78 kWh/m<sup>2</sup> of treated floor area. As of January 1st, 2010 the maximum heating load for all residential buildings must not exceed 66.5 kWh/m<sup>2</sup> a. Each of the 9 Austrian provinces was required to implement this guideline individually using provincial law. It should be noted that some of the Austrian provinces even implemented more strict regulations than the federal (for instance Vorarlberg with < 55 kWh/m<sup>2</sup> a).

A passive house is a super-insulated green building with a comfortable and healthy interior climate that can be maintained without active heating and cooling systems. Thermal comfort can be achieved exclusively by post-heating or post-cooling of the fresh air mass required for adequate indoor air quality. The main elements of the energy concept are typical passive house components: 1) superior insulation 2) triple glazed windows 3) thermal bridges reduced to a minimum 3) air tightness 4) ventilation system with highly efficient heat recovery and 5) installed solar collectors covering up 60% of the annual demand for domestic hot water.

There are already 4700 buildings built to the passive house standard in Austria as of 2008, but this number is expected to double in 2010. This plays a vitally important role in the overall strategy to reduce greenhouse gas emissions and improve the energetic quality of existing buildings.

## **2. Market and sector challenges (strengths and weaknesses)**

European Union (EU) regulations apply to this sector. Canadian firms exporting to Europe are still confronted with both national and EU products standards. Foreign construction products need the CE marking from the European Organisation for Technical Approvals (EOTA) in order to be allowed to be placed on the EU market.

The Austrian housing market is complex and difficult to penetrate. Canadian exporters must also keep in mind that Austria is a highly competitive market and companies must be able to offer quality products at competitive prices. Market access is particularly difficult due to the existence of several building codes. Requirement differences in the various regions are such that references to local specialists cannot be overlooked.

An import value-added (VAT) is collected by the customs authorities. It is levied on imported goods, at the normal VAT rate (currently 20% for most products).

Today more than 40% of the total energy consumption stems from the building sector including heating and construction. With the rising energy costs, it is clear to everyone that this heating demand has to be drastically reduced. In the interest of the sustainable use of resources and maintenance of what are (still) positive general conditions, new departures are called for in the construction industry. There is an urgent need for a holistic view including both energy inputs for all categories of new buildings and the energy consumption levels of existing buildings during their life span. Wood as a carbon-neutral construction material makes a significant contribution to sustainability and energy efficiency, and thus ultimately to a stabilised climate.

Opportunities can be seen in technology transfer to Canada of various low energy/passive house components such as triple glazed thermal insulated windows, outdoors and glazing facades (Optiwin GmbH, Katzbeck GmbH), solar panels (GREENoneTEC), air ventilation systems with heat recovery that saves up to 70% of the ventilation losses (drexel und weiss), pellet oven manufacturers such as Fröling Heizkessel und Behälterbau GmbH. Other leading edge Austrian technologies include cross timber frame constructions (KLH Massivholz GmbH) as well as unglued engineered timber products (Holzbautechnik Sohm).

Austria is a large producer of forest products in Europe. Austria is the third largest European exporter of sawed softwood timber, exporting 16% of the total market.

### **3. Sub-sector identification**

- Sustainable Building Materials
- Energy Efficient Heating, ventilation and cooling systems
- Thermal Insulation
- Heat-pumps
- Photovoltaic
- Solar Panels
- Cross Laminated Timber Construction
- Unglued Engineered Timber Products
- Wood Biomass:
  - Combined heat & power plants (CHP)
  - Pellet stoves
  - Pellet production

### **4. Case study**

#### **Austria Passive House Project for Vancouver 2010**

##### **Successful S&T cooperation between Austria and Canada**

Green-building and environmental technologies are priority sectors for the commercial section and also areas where Austrian enterprises are world leaders in the field of extremely energy-efficient construction. The Commercial section started working four years ago with a group of Austrian construction companies -

the "Austria Passive House Group" (APG). The APG, in cooperation with a Canadian partner (Durfeld Log Construction) erected a Passive House for the municipality of Whistler and transferred their green-building technologies to the North American market. Using Vancouver 2010 as a platform, the APG built in Whistler the only new national house. This "Passivhaus" was used by the Austrian Olympic and Paralympic teams, as well as by the Austrian media covering the Games. We worked with the City of Whistler to secure a prime location and, yesterday, the City gained ownership of this \$2 million building now serving as a Ski and Mountain Bike Club. The house functions as a good example of leading edge technology cooperation between Austria and Canada in the field of energy efficient buildings and therefore met the needs of Whistler to turn the Games into "Green Olympics". This cooperation will lead to various business opportunities for both Austrian and Canadian companies in the fields of Foreign Direct Investment into Canada as well as S&T and R&D relationships.

## **Optiwin GmbH Innovation and Tradition**

### **Small Tyrolean family company is the international pioneer of energy saving windows**

Marked by a love of wood as a material and its ecological sense of responsibility, the traditional Tyrolean company has become known as the international pioneer for energy saving wooden windows, particularly for the passive house type of construction. Passive houses manage without traditional energy sources and are currently the ultimate in low energy construction. Increasing oil prices have made the consumer conscious of energy saving solutions and support the trend to the passive house. Freisinger windows are now in use not only in Austria or Europe, but also throughout the world, for example in Canada, Japan, the USA and Israel. To get innovative developments into the market more quickly, Freisinger founded OPTIWIN, an international business group now comprising 10 small and medium sized European window manufacturers, producing innovative Freisinger windows under licence – with a subsidiary recently founded in Vancouver, BC. OPTIWIN has asserted itself against the big players in the field.

Freisinger Windows was founded in 1932 as a carpenter's shop and general store. Mr. Paulus Freisinger swears by this material so attached to nature: "We do not produce or trade in PVC windows. Using wood is our contribution to active environmental protection". Solid wood and not glued window scantlings, natural colours for inside and out, winter and moon felled wood (according to the lunar calendar), and avoiding plastic, are the result of a lively ecology".

### **Vinzenz Harrer GmbH – the leading specialist for solutions in timber constructing**

The Austrian company Vinzenz Harrer GmbH evolved from carpentry – specialized in building timber frame constructions. Years ago, highly-sophisticated products needed for timber framing were not easily available. As a result, Vinzenz Harrer, master carpenter and owner of Vinzenz Harrer GmbH, started selling these kinds of products. Business grew over the years – and the company faced the need to shut down the carpentry and focus on retailing with timber framing products.

Today, Vinzenz Harrer GmbH is a well known Austrian wholesale for systems solution needed for timber framing. To fortify the company's position as "leading specialist for solutions in timber framing" the Vinzenz Harrer GmbH invests in research and development to make sure that the company offers state-of-the-art product solutions. One of the results of these studies was the family of special timber connectors called "Sherpa" ([www.sherpa-connector.com](http://www.sherpa-connector.com)), enabling timber framers to accelerate the construction process through an easy to use slide-in-type connector, offering safe and strong connections for walls, ceilings and trusses. The special design of the "Sherpa" also helps to dramatically improve the quality of the connection to exceed today's customer's high quality demands.

As reliable and easy to use connections are the foundation of modern and highly energy efficient constructions (such as the passive house technology) Harrer's Canadian Partner Hermann's Timber Frame Homes ([www.hermannframes.com](http://www.hermannframes.com)) brought the revolutionary "Sherpa" timber connector to the Canadian

market in 2008 and is now intensifying his activities in Canada, turning the company into a potential investor.

Through the combination of state-of-the-art products and the essential know-how in construction of modern “green buildings” Harrer makes its contribution to save valuable resources and energy.

### **My contact details**

Embassy of Canada in Vienna  
Trade Commissioner  
Contact: Nicole Mothes  
Laurenzerberg 2  
1010 Vienna  
Tel.: +43 1 53138-3352  
Fax: +43 1 53138 3906  
Email: [nicole.mothes@international.gc.ca](mailto:nicole.mothes@international.gc.ca)  
Website: [www.infoexport.gc.ca](http://www.infoexport.gc.ca)  
[www.tradecommissioner.gc.ca](http://www.tradecommissioner.gc.ca)

### **Other Canadian Government Contacts**

Foreign Affairs and International Trade Canada  
125 Sussex Dr.  
Ottawa, ON K1A 0G2  
Rachelle Monniaux  
Trade Commissioner: Germany, Austria, Switzerland, Liechtenstein  
European Commercial Relations Division (WOE)  
Tel: (613) 944-2011  
Fax: (613) 944-0556  
E-Mail: [rachelle.monniaux@international.gc.ca](mailto:rachelle.monniaux@international.gc.ca)  
Website: [www.infoexport.gc.ca](http://www.infoexport.gc.ca)

Industry Canada  
Sustainable Technologies and Service Industries Branch  
Trade Team Canada Environment  
235 Queen St.  
Ottawa, ON K1A 0H5  
Fax: (613) 952-9564  
Email: [ttc.environment@ic.gc.ca](mailto:ttc.environment@ic.gc.ca)  
Website: [strategis.ic.gc.ca/epic/internet/instsib-dgtdis.nsf/en/Home](http://strategis.ic.gc.ca/epic/internet/instsib-dgtdis.nsf/en/Home)

Environment Canada  
Environmental Technology Advancement Directorate (ETAD)  
Place Vincent Massey  
351 St. Joseph Blvd, 18th Floor  
Gatineau, QC K1A 0H3  
Tel.: (819) 953-3090  
Fax: (819) 953-9029  
Email: [etaddg@ec.gc.ca](mailto:etaddg@ec.gc.ca)  
Website: [www.ec.gc.ca/etad](http://www.ec.gc.ca/etad)

Foreign Affairs and International Trade Canada  
125 Sussex Dr.

Ottawa, ON K1A 0G2  
Website: [tradecommissioner.gc.ca](http://tradecommissioner.gc.ca)

Market Research Centre (TMR)  
Contact: Dominique Kowlessar, Senior International Market Analyst  
Email: [dominique.kowlessar@dfait-maeci.gc.ca](mailto:dominique.kowlessar@dfait-maeci.gc.ca)

Market Support Division (TMM)  
Contact: Chris Moore, Trade Commissioner  
Email: [chris.moore@dfait-maeci.gc.ca](mailto:chris.moore@dfait-maeci.gc.ca)  
Website: [tradecommissioner.gc.ca](http://tradecommissioner.gc.ca)

Natural Resources Canada  
Canadian Initiative for International Technology Transfer (CIITT)  
CANMET Energy Technology Centre  
1 Haanel Dr., Building 3  
Nepean, ON K1A 1M1  
Tel.: (613) 996-3732  
Fax: (613) 995-9728  
Email: [ciitt.ictti@nrcan.gc.ca](mailto:ciitt.ictti@nrcan.gc.ca)  
Website: [www.nrcan.gc.ca/es/etb/cetc/ciitt](http://www.nrcan.gc.ca/es/etb/cetc/ciitt)

Sustainable Development Technology Canada (SDTC)  
230 Queen St., Suite 250  
Ottawa, ON K1P 5E4  
Tel.: (613) 234-6313  
Fax: (613) 234-0303  
Email: [info@sdtc.ca](mailto:info@sdtc.ca)  
Website: [www.sdtc.ca](http://www.sdtc.ca)

Export Development Canada (EDC)  
151 O'Connor St.  
Ottawa, ON K1A 1K3  
Tel.: (800) 850-9626 or (613) 598-2500  
Fax: (613) 237-2690  
Email: [info@edc.ca](mailto:info@edc.ca)  
Website: [www.edc.ca](http://www.edc.ca)

Canada Mortgage and Housing Corporation  
Christa Andraos  
Senior Trade Commissioner  
CMHC International  
1000-7 th Avenue SW, Suite 200  
Calgary, AB T2P 5L5  
Tel.: (403) 515 3002  
Fax.: (403) 515 2934  
Email: [candraos@cmhc-schl.gc.ca](mailto:candraos@cmhc-schl.gc.ca)  
Website: [www.cmhc-schl.gc.ca](http://www.cmhc-schl.gc.ca)

## Useful Internet Sites

### Associations/Universities/Lobbies:

Export Source: [www.exp.ortsources.gc.ca](http://www.exp.ortsources.gc.ca)

Industry Canada : [www.strategis.gc.ca](http://www.strategis.gc.ca)

Trade Commissioner: [www.tradecommissioner.gc.ca](http://www.tradecommissioner.gc.ca)

Canada Mortgage and Housing Corporation: [www.cmhc-schl.gc.ca](http://www.cmhc-schl.gc.ca)

Austria Federal Chamber (mandatory membership for all Austria companies) [www.wko.at](http://www.wko.at)

ETAG7(technical approval needed for any construction products placed on the EU market) [www.eota.be/](http://www.eota.be/)

Green Building Cluster of Lower Austria

[www.bauenergieumwelt.at/ecoplus/cluster/beuc\\_en/BEUC\\_EN\\_R4.htm](http://www.bauenergieumwelt.at/ecoplus/cluster/beuc_en/BEUC_EN_R4.htm)

Passivhausinstitut [www.passiv.de](http://www.passiv.de)

Austria Bioenergy Centre [www.abc-energy.at](http://www.abc-energy.at)

IG Passivhaus [www.igpassivhaus.at](http://www.igpassivhaus.at)

Austrian Prefabricated Housing Association [www.fertighaus.org](http://www.fertighaus.org)

pro:Holz [www.proholz.at](http://www.proholz.at)

Austrian Institute of Construction Engineering: [www.oib.or.at/](http://www.oib.or.at/)

Austrian Standards Institut (ÖNORM): [www.on-norm.at](http://www.on-norm.at)

Blue Lagoon Model Home Park [www.blauelagune.at/musterhaeuser](http://www.blauelagune.at/musterhaeuser)

Database of the Austrian construction industry [www.bau-online.at](http://www.bau-online.at)

proPellets - network of Austrian pellet producers and pellet oven manufacturers

[www.propellets.at](http://www.propellets.at)

Vienna University of Technology (Institute of Architectural Sciences) [www.iti.tuwien.at](http://www.iti.tuwien.at)

Innsbruck University (Institute for Timber Constructions) [www.uibk.ac.at/holzbau/#](http://www.uibk.ac.at/holzbau/#)

### Companies:

Optiwin [www.optiwin.net](http://www.optiwin.net)

Drexel und Weiss [www.drexel-weiss.at](http://www.drexel-weiss.at)

Ingenieurbüro Reiner [www.reiner.at](http://www.reiner.at)

Sohm [www.sohminternational.com](http://www.sohminternational.com)

GREENoneTEC [www.greenonetec.at](http://www.greenonetec.at)

KLH Massivholz GmbH [www.klh.at](http://www.klh.at)

Vario Haus [www.vario-haus.at](http://www.vario-haus.at)

Hartl Haus [www.hartlhaus.at](http://www.hartlhaus.at)

Vinzenz Harrer GmbH [www.harrer.at](http://www.harrer.at)

Schachner Haus [www.schachnerhaus.at](http://www.schachnerhaus.at)

Fröhling GmbH [www.froeling.com](http://www.froeling.com)

### Databases:

Catalogue of reviewed timber building components [www.dataholz.com](http://www.dataholz.com)