Swiss-US Energy Innovation Day July 9 – 12, 2014 • Boston, MA USA Swiss delegates' profiles

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Editorial



Walter Steinmann Director Swiss Federal Office of Energy SFOE

Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Federal Office of Energy SFOE

The United States of America and Switzerland are currently undergoing a fundamental transformation of the energy sector. The challenges to build a more energy efficient, sustainable economy are huge and are demanding new technological, entrepreneurial and governmental approaches. The success will depend on the ability to put in place the right programs for research and education, economic development schemes and adequate energy infrastructures. Both countries, the USA and Switzerland, possess world class expertise, excellence in research and technological development, renowned Universities and companies, brilliant minds. This mission intends to bring them all together in order to exchange perspectives and to share expertise as well as practical experiences in the emerging new energy world. It is no wonder, that this meeting takes place in Boston, brimming with innovation and potential. We are looking forward to strengthening existing partnerships, and to developing new ones, in many priority areas of mutual interest - from innovative technologies for sustainable and resilient buildings, technologies and services for a more efficient use of energy and natural resources, the integration of renewable energies and intelligent technologies, water management, new energy research policies to new governmental approaches for energy security.

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Felix Moesner CEO of swissnex Boston, the Science Consulate of Switzerland



The need to fight Climate Change and to build and nurture a Clean Energy Innovation Economy is undoubtedly a top focus of Switzerland and the US. swissnex Boston is proud to facilitate the Swiss-US Energy Innovation Days and the Watt d'Or exhibition – as a world premiere – in Boston, bringing together a remarkable delegation from Switzerland to join with their peers in Massachusetts' public and private sector, namely policy makers, researchers and entrepreneurs. Boston is one of the most active clean energy hubs in North America, and an excellent choice as the first US city to host the Watt d'Or exhibition. Switzerland and Massachusetts share a vision for a more sustainable future and we are thrilled to bring together the finest minds in energy innovation during these days. Following our mission, swissnex Boston connects the dots in education, research and innovation between North America and Switzerland. I am sure that these exchanges will strengthen our cooperation and lead to many concrete projects in the energy sector. Established as the world's first «science consulate», swissnex Boston is part of a global network of six knowledge outposts including Brazil, China, India, San Francisco, and Singapore. Since 2000, swissnex Boston has served as a partner to New England universities, incubators, venture capital firms, and businesses, uncovering Swiss parallels and collaboration opportunities between scientists, entrepreneurs and innovators.

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Chris Watts

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Regional Director AAA Switzerland Global Enterprise Member of the International Executive Board



enabling new business

Energy generation, distribution and consumption have become one of the most pressing current issues in Switzerland and in the United States as both countries are intensely focused on determining the best technologies and policy to adopt in securing a sustainable future for our societies. Energy markets are being fundamentally redefined by the unprecedented growth of decentralized and renewable energy solutions and by the profound global impact of anthropogenic carbon emissions. The transformation of cities is defining cleantech markets and Switzerland has much to offer when it comes to advanced know-how in the construction of sustainable and resilient buildings and cities. Switzerland Global Enterprise is proud to actively support the Swiss cleantech sector in developing and supporting these newly arising business opportunities in North America and at home.

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Adrian Altenburger sia Vice President and President of the sia Energy Committee

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schweizerischer ingenieur- und architektenverein société suisse des ingénieurs et des architectes società svizzera degli ingegneri e degli architetti swiss society of engineers and architects

Buildings are a key factor for sustainable energy use. The objective of the sia's «Energy Guidelines for Buildings» is to establish a consistent basis for Switzerland's building stock and encourage intelligent use of the resource energy. The long-term goal is to achieve a sustained primary energy use and emissions of no more than one ton of CO₂ equivalent per person and year. The SIA «Energy Efficiency Path» is the basis for the implementation of an intermediate goal for the year 2050. The US-Swiss Energy Innovation Days will be a unique opportunity to exchange experiences and innovative ideas for sustainable building related energy solutions.

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Switzerland – the Power Trading Hub of Europe

In 1958 the high-voltage grids of Germany, France and Switzerland were connected at Laufenburg. This pioneering deed paved the way for Switzerland with its abundant hydropower and interconnectors to become continental Europe's main cross-border electricity hub. Today, Switzerland plays a pivotal role in the emerging single European electricity market with its growing share of volatile renewables. On a national scale, Switzerland is promoting renewables with a feed-in tariff system with a growing number of market features. Furthermore a CO₂ tax on stationary fuels has been raised to meet the nation's emissions target. Part of the tax revenues is earmarked for a massive buildings refurbishment program.

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Switzerland's Energy Policy

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As early as 1990, Swiss voters enshrined energy efficiency and sustainable energy in the Constitution. Following the Fukushima accident, the Swiss Government, faced with the unlikely approval of new nuclear plants in future referendums, decided to phase out nuclear energy. The five nuclear plants will be decommissioned whenever deemed unsafe by the safety inspectorate or uncommercial by their operator. In the meantime, the Government has set out its long-term objectives in its «Energy Strategy 2050». A legal package, currently being debated in Parliament, will provide the policy instruments to reach the objectives. At the heart of the strategy lies the promotion of energy efficiency as well as in the economically sustainable expansion of the new renewable energies. Today roughly 60 percent of Swiss electricity is based on hydropower, another 35 percent on nuclear energy.

Swiss Research and Innovation funding

Switzerland is actively expanding the funding of research and innovation in the energy sector. In 2013 the Parliament voted a 25% increase in public energy R&D funding. With the addition of substantial private energy R&D funding, Switzerland holds a remarkable position in international energy R&D. Moreover, public research has been streamlined into seven Swiss Competence Centers for Energy Research (SCCER) to boost efficiencies and synergies. These research networks are active both in fundamental and applied research. Also, the Commission for Technology and Innovation CTI supports projects that are close to markets. International cooperation is key for Swiss energy R&D.

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Switzerland: A Partner for Energy Efficiency in SMEs and Industry

A basic Swiss policy principle is to let market players deliver policy objectives through self-regulation. State regulation is seen as a last resort in case market players fail to deliver. Thus, small and medium sized enterprises (SMEs) and industry enter into covenants with the Government by which they commit to credible CO₂ emissions cuts in return for a CO₂ tax exemption. A special agency has been assisting SMEs and industries in meeting their objectives since 2001. Swiss enterprises also make use of their traditionally high industrial process know-how by offering innovative environmental and efficiency technologies. In research and development, they can draw on excellent research institutions, such as the polytechnic institutes (EPFL & ETH Zurich), research institutes (PSI & EMPA), universities and universities of applied sciences. Swiss cleantech innovative companies lend themselves as world-class partners for cooperation with US technology suppliers.

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Energy Efficiency in Buildings

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Switzerland is home to some of the world's most renowned architects. But Swiss architectural know-how also rests on savvy engineering, including for continuously improving energy efficiency of buildings. Thus, Switzerland's new builds pride themselves for featuring very high standards of low-, passive- and net-positive energy houses, certified by the «MINERGIE®» label. Nearly one out of four new residential buildings is certified as «MINERGIE®». Building codes for the refurbishment of the existing building stock are also continuously tightened. Equally important is the continuous training of architects, engineers and craftsmen to ensure that building codes are effectively adhered to.

Energy Efficiency in the Industries and Services

As energy costs rise, energy efficiency is becoming a strategically important competitive factor for every enterprise. With a systematic and effective energy management and the use of up-to-date efficiency solutions, the costs of energy in industries and services can be reduced by more than 30 percent. Swiss technology enterprises are among the world's leading providers of such innovative products, systems, and efficiency solutions.

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Swiss Participants

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aardeplan

architektur beratung forschung lehre

aardeplan ag

Profile & Interests

The fusion of outstanding architecture and sustainability has been a central topic since the establishment of aardeplan in 1999 (studio for architecture, design and planning = aardeplan).

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Fifteen years later, all of our employees are still committed to the implementation of this idea by combining architecture, consulting, research and teaching. We have demonstrated our competences in various extraordinary projects such as two high-quality passenger ships, as well as numerous MINERGIE (- A, - P, - ECO) buildings all over Switzerland. For achieving a high level of sustainability, we are using BIM (Building Information Modeling) technologies and methods. We are very happy that our projects have been rewarded with various awards including the Watt d'Or 2014.

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Winner of the **and the analysis of the analysis of the analysis of the analysis of the energy sector sponsored** Best achievement award in the energy sector sponsored by the Swiss Federal Office of Energy.

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Power and productivity for a better world™

ABB Switzerland

Profile & Interests

ABB is a global leader in power and automation technologies. Based in Zurich, Switzerland, the company employs 150,000 people and operates in approximately 100 countries. The firm's shares are traded on the stock exchanges of Zurich, Stockholm and New York. ABB's business is comprised of five divisions that are in turn organized in relation to the customers and industries we serve.

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The company in its current form was created in 1988, but its history spans over 120 years. ABB's success has been driven particularly by a strong focus on research and development. The company maintains seven corporate research centers around the world and has continued to invest in R&D through all market conditions.

The result has been a long track record of innovation. Many of the technologies that underlie our modern society, from high-voltage DC power transmission to a revolutionary approach to ship propulsion, were developed or commercialized by ABB. Today, ABB stands as the largest supplier of industrial motors and drives, the largest provider of generators to the wind industry, and the largest supplier of power grids worldwide.

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AMSTEIN+WALTHERT

Amstein + Walthert AG

Profile & Interests

The Amstein + Walthert Group with its roughly 650 employees is amongst the group of Swiss market leaders in the field of Consulting and Engineering. Our passion is to develop elegant and sustainable solutions for state of the art building technology and energy supply systems for areas as well as communities – we take care of buildings as a system and in a system. The clients are our trusted partners; we work together with technical, ecological and social competence to develop the better solution.

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Amstein + Walthert provides an independent, wide range of engineering services of the highest quality and constant reliability. Energy efficiency is a key component of our processes and is awarded the highest priority. We work with the exergy - the value of the energy - as a constant criterion. The CO_2 emissions are minimized and even eliminated wherever possible. We also accompanying communities to obtain the label «Energy city» and to help them on the way to the «2000 Watt Society» as well as in developing the strategic foundations for sustainability-oriented positioning and management of companies or communities.

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Belimo Holding AG – Belimo Americas

Profile & Interests

The Belimo Group is organized into Markets (Europe, Americas, Asia/Pacific), Innovation, Production, Customizing & Distribution, Finance & Business Services, and Global Product Management. Belimo a listed technology company with a staff of more than 1300 worldwide; which develops, manufactures and distributes economizers, electric actuators for air dampers and valve technology for heating, ventilation and air conditioning systems since 1975. With a comprehensive range of products, Belimo is a world leader in the HVAC market place supplying innovative, energy efficient solution for buildings.

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Belimo Americas serves customers throughout the United States, Canada, Brazil, Latin America and the Caribbean. Belimo Aircontrols is an integral part of Belimo Holding AG (Belimo.com), a publicly held company headquartered in Hinwil, Switzerland with business units in the Americas, Europe, and Asia Pacific.

Belimo focuses solely on innovative technology in damper actuators and control valves. Since its inception in 1975, the major developments in HVAC actuator technology have come from Belimo. Belimo products help create comfort, safety, and efficiency in buildings. Customers' satisfaction and loyalty have made Belimo a leader in HVAC throughout the world. Visit www.energyvalve.com for a comprehensive overview of the Belimo Energy ValveTM, a valve that won the 2014 AHR Expo Innovation Award in the Building Automation category.

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BG Consulting Engineers

Profile & Interests

Involved in projects in many different countries, with subsidiaries in Switzerland, France and Algeria, the BG group, founded in 1954, is a firm of consulting engineers engaged in the fields of infrastructure, environment, building and energy. Owned by its employees, the BG group has in 2012 totalled a turnover close to 86 million CHF. Today BG counts close to 600 employees. The BG group is a firm of consulting engineers operating at international level whose objective is to help its clients build a sustainable living environment. United around strong corporate values, the BG staff represents a remarkable collective intelligence able to provide simple answers to the complex issues arising from our planet's development. It provides extensive services in the fields of infrastructure, environment as well as building and energy. BG's excellence is renowned in developing complex and challenging multidisciplinary projects, where its in-house competence in project management, risk assessment and optimum use of resources is a decisive factor. Operating as a multidisciplinary consulting firm, BG takes responsibility for all engineering services – from the requirements analysis to start-up - including all aspects of project development and implementation.

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Profile & Interests

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20 years of E-bike experience: The original from Switzerland! Enjoy a new lust for cycling with the FLYER You climb every hill effortlessly, riding with a smile into the wind and enjoying the fresh air on the way to work in the morning. Whether alone or together with friends and family on bicycle tour – FLYER riding makes you happy!

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Winner of the

Best achievement award in the energy sector sponsored

by the Swiss Federal Office of Energy

FLYER E-bikes are made in Switzerland. The prototype of the electric bicycle «the red buffalo» started out in 1993. Since July 2009 the FLYER has been assembled in the new factory in Huttwil. High levels of reliability, easy handling and customer-specific features remain at the forefront thereby. We look forward to being able to greet you at our factory. Whether it be in the factory showroom or by way of a group tour and factory visit.

The optimal combination of Swiss bicycle construction and the skills of our local, national and international suppliers of high value bicycle components is the basis of the flexible, customer-oriented production in our factory. We take Swiss quality seriously – from development to customer service on-site. Our company and thereby the whole FLYER team of the original Swiss E-bike has accumulated countless awards.

Make your mind up on a bike purchase after an extensive test ride at your local bike dealer, hereby you get the FLYER of your choice «fresh from the factory»: The bikes are made up by us subsequent to an order, equipped to your wishes and shipped to your FLYER dealer.

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Bluefactory

Profile & Interests

The acquisition of the Cardinal Brewery site by the city and the canton of Fribourg has opened a new era for the competitiveness of Fribourg. An organizational structure, including local and cantonal authorities, will be created to manage the 60,000 square meter site. This body will oversee the rental of premises to start-ups and existing firms interested in locating activities at the park. An added bonus for Bluefactory residents will be the close proximity to Fribourg's universities and to the express railway station at a center position in Switzerland. By the end of its phased construction, this innovation quartier will have created more than 2,000 new jobs. blueFACTORY will be Switzerland's first carbon-neutral innovation district. The «Smart Living Lab» (SLL), funded jointly by the Ecole Polytechnique Federale de Lausanne (EPFL) and by the state of Fribourg, has been created in 2014 and will get its own experimental building within 5 years inside the blueFACTORY area. The main focus of the SLL will be not only to develop cutting edge buildings and energy savings concepts, but also to focus on the life-cycle of the building as well as the way the people are using and leaving is low-energy environments. The human interfaces, the economics and the regulatory aspects of the «building of the future» will also be explored in the SLL research program. By anticipating an industry of the future which will use economic mechanisms that factor in environmental costs, this zero-carbon vision is set to burnish the canton's reputation as a center of innovation. Several technology platforms are already planned or ready to start, including collaborations with local universities and colleges, namely in the following sectors of activity : energy, carbon-neutral; health and biomedical; materials, plastics technology, nanotech (soft materials); IT security and e-governance; Bio-pharma training center. Bluefactory will make the most of its proximity to the School of Engineering and Architecture, the University of Fribourg, the Adolphe Merkle Institute (AMI), the University of Health Sciences and the School of Business Administration. It will also offer a unique position in the center of Switzerland, accessing all Switzerland economic locations and airports by train in a radius of one hour.

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Bühler Inc.

Profile & Interests

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Bühler is a specialist and technology partner for plant, equipment and services for processing basic foods and for manufacturing advanced materials. The Group holds leading market positions worldwide in technologies and processes for transforming grain into flour and feeds, making pasta and chocolate as well as in the field of aluminum die casting.

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The Group's core technologies lie in the area of mechanical and thermal process engineering. With the expertise and experience it has accumulated over more than 150 years, Bühler time and again rolls out unique and innovative solutions for its customers, thus enabling their market success. Over the decades, Bühler has acquired a reputation as a reliable partner, thanks to its declared commitment to quality and its global presence.

Bühler Group operates in over 140 countries, has a global payroll of over 10,000 and in fiscal 2013 generated sales revenues (turnover) of CHF 2,322 million.

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CORE – Swiss Federal Energy Research Commission

Profile & Interests

The Federal Energy Research Commission (CORE - Commission Fédérale pour la Recherche Energétique) acts as an advisory board to the Swiss Federal Council and the Department of the Environment, Transport, Energy and Communications. CORE's task is to develop the federal energy research concept. It also reviews the publicly funded energy research programs on a regular basis and provides directions and early warnings regarding emerging research areas in the energy field.

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CORE's priorities in energy research also reflect the country's emphasis on renewable energy, energy efficiency and energy savings. This is in line Switzerland's long-term vision of a «2000-Watt Society», a target that will help secure a sustainable energy supply as called for in the «Energy Article» of the Swiss Federal Constitution.

CORE comprises 15 members who represent the industrial, academic and political sector of the country, i.e. the energy sector of the Swiss economy, the Federal Institutes of Technology, Cantonal Universities, the Universities of Applied Sciences, the Cantons, the National Science Foundation, the Commission for Technology and Innovation and other research funding agencies.

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CSEM – Photovoltaics-Center

Profile & Interests

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CSEM (Swiss Center for Electronics and Microtechnology), foun¬ded in 1984, is a private applied research and development center specializing in micro- and nanotechnology, sys¬tem engineering microelectronics and communications technologies. It offers its customers and industry partners custom-made, innovative solutions based on its knowledge of the market and the technological expertise derived from applied research. CSEM's mission is to enhance the competitiveness of industry, particularly Swiss industry, by developing applied technology platforms in micro- and nanotechnologies and ICT and transferring them to the in¬dustrial sector. The development of such highly innovative platforms is supported by the Swiss Confederation and by several cantons.

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The CSEM Photovoltaics-Center is an industry driven, application oriented program created to bring new high-tech solutions for solar components and systems to technological maturity, and serve the Swiss and global renewable energy industry. Established in 2013, the center builds on more than 25 years of leading-edge technology developments at EPFL's IMT PV-Lab in Neuchatel and at CSEM Muttenz, capitalizing on the international experience of a team of world class researchers and professionals with an industrial and academic background. Its focus is the development of new generations of photovoltaic cells, modules, and balance of system (BOS) components, and of innovative renewable energy system solutions, and supporting the transition to an energy system in which solar will play an essential role. The CSEM PV-center is able to provide a full range of services to partners, ranging from technology development to product prototyping including the realization of full-size demonstration systems. The infrastructure of the PV-center includes specialty systems for coating, patterning, printing, and fabrication processes, as well as pilot manufacturing lines - from glass cleaning and wafer etching up to the assembly of fully functional PV modules and systems.

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Energy Swiss Competence Centers for Energy Research

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Swiss Confederation

Commission for Technology and Innovation CTI

CTI - Swiss Competence Centers for Energy Research (SCCER)

Profile & Interests

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In order to be able to implement the decision by the Federal Council and parliament to phase out nuclear power by 2035 and to reduce environmental pollution (Energy Strategy 2050), a massive reduction in energy consumption and a considerable increase in the share of renewable energies must be exploited. Both require radical innovations in various fields, many of which have yet to be scientifically developed. The Federal Council is therefore implementing an action plan for Coordinated Energy Research in Switzerland to strengthen science-based work from 2013 to 2016. The key element in this plan involves setting up inter-university research collaborations, so called Swiss Competence Centers for Energy Research (SCCER). This task has been given to the Commission for Technology and Innovation CTI, with the support of the Swiss National Science Foundation. Between 2013 and 2016 72 million Swiss francs has been earmarked for establishing the SCCER. The CTI has received a further allocation of 46 million Swiss francs to specifically fund research and development projects in the energy field. The purpose of the SCCER is to promote the innovation required to implement the Energy Strategy 2050 over the long term. Their role is to develop solutions to technical, social and political problems arising from the turnaround in energy policy to more sustainable energy use based on renewables. To this end, the ETH Domain, universities and universities of applied sciences will bundle their energy research activities and work closely with industry. It is essential that the SCCER cover the entire spectrum of the research and innovation chain, taking account of developments in all areas, from basic research through applied R&D to the transfer of research results to the market. The SCCER will expand capacity and pursue the most promising ideas and approaches. In order to achieve this aim, partners from industry, politics and the administration must be involved at an early stage.

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eicher+pauli

Planer für Energie- und Gebäudetechnik

Dr. Eicher + Pauli AG

Profile & Interests

The company Dr. Eicher+Pauli AG provides building services engineering such as strategic counseling, energy management and building equipment and appliances. The company employs 120 professionals and runs five branches within Switzerland (Bern, Liestal, Luzern, Olten and Zurich). eicher+pauli stands for efficiency, experience and the utilization of renewable resources.

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Dr. Lüchinger+Meyer Bauingenieure AG

Konstruktiver Ingenieurbau Fassaden- und Leichtbau

Dr. Lüchinger + Meyer Bauingenieure AG

Profile & Interests

Structural design of all types of structure, including buildings, bridges, basins, and tanks, applying all types of construction method, such as concrete, timber and steel construction, and including specialist foundations and excavation support systems. Structural surveys, assessment and maintenance of existing structures.

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Façades and lightweight structures. Technical schemes and detailed structural design, local building physics and bespoke tender documentations are provided for façades and all glass or light weight structures.

Fields of expertise. Complex projects and expertise in concrete construction and lightweight structures made of steel and glass.

The dynamic team, presently made up of 55 members, has broad, interdisciplinary experience and is dedicated to continually and intensively keeping abreast of technical developments, design trends as well as the latest research projects.

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economiesuisse

Profile & Interests

economiesuisse's mission is to create an optimal economic environment for Swiss business. In order to achieve this, it aims to preserve entrepreneurial freedom for all businesses, to continuously improve Switzerland's global competitiveness in manufacturing, services, and research, and to promote sustained growth as a prerequisite for a high level of employment in Switzerland. Our activities are based on the decisions of the general assembly of our members, the full board of directors and the committee of the board of directors. Permanent commissions, ad hoc working groups and various expert committees ensure the ongoing integration of the expertise of the respective associations and businesses into economiesuisse's position on the issues. economiesuisse has offices in Zurich (head office), Geneva, Berne, Lugano and Brussels, and employs some 55 people. Through our BUSINESSEUROPE (Confederation of European Business) membership and our participation in its working groups, our federation has close links with other top European economic associations. economiesuisse is also a member of the BIAC (Business and Industry Advisory Committee of the OECD) hosts ICC Switzerland, the Swiss chapter of the ICC (International Chamber of Commerce).

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With a nominal gross domestic product of around 600 billion Swiss francs and a per capita income of SFr 74,000, Switzerland is one of the most prosperous countries in the world. Switzerland has excellent qualifications for continued success in the global economy of the future. Growing international interaction between countries has increased the challenges facing economic decisionmakers at both national and international levels. We are here to help meet those demands: in the future, Switzerland must remain one of the most competitive economies in the world. That is our vision.

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Emerald Technology Ventures AG

Profile & Interests

Emerald Technology Ventures is a globally recognized cleantech venture capital firm investing in innovative energy, water and materials technology companies in North American, Europe and Israel. Founded in 2000, Emerald is a pioneer in cleantech venture capital and has invested in fifty-one companies to date. A team of 12 professionals based in Zurich, Switzerland and Toronto, Canada manages three venture capital funds and two venture capital portfolio mandates totaling over EUR 365 million (USD 500 million). Our investors include leading financial institutions, family offices and multinational corporations from Asia, Europe, Canada and the U.S.

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EMPA - Building and Nanomaterials Group

Profile & Interests

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Empa is an interdisciplinary research and services institution for material sciences and technology development within the ETH Domain. Empa's research and development activities are oriented to meeting the requirements of industry and the needs of our society, and link together applications-oriented research and the practical implementation of new ideas & concepts, fundamental scientific knowledge into industry and society. Thanks to its extensive experience in the field, Empa is able to offer its industrial partners solutions tailored to meet their specific needs. This encourages companies to think and act in innovative ways and at the same time helps to improves quality of life for us and the generations yet to come. Safety, reliability and sustainability of materials and systems – these are the watchwords which form a common theme connecting all of Empa's activities. In this respect the institution plays a key role in the Swiss educational, research and innovation land-scapes.

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Building and Nanomaterials Group

Buildings are responsible for over one third of the world's energy consumption. However the building and construction industries are rather conservative and product evolution is slow. Hence, the commercialization of new products needs solutions with much improved performance which in turns calls for new and better materials. The main research efforts of the group involve the development of new technologies, primarily based on liquid phase chemistry methods which will allow the realization of inexpensive and scalable process technologies. Our strength is the fact that we cover a complete range from fundamental science over process upscaling all the way to the building implementation.

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EMPA – Laboratory of thin films and photovolatics

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Profile & Interests

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The laboratory for thin films and photovoltaics is doing research and development of highly efficient thin film solar cells. We mainly focus on novel concepts to improve the performance of solar cells, to simplify production processes and to improve the device structure of next generation solar cells with higher efficiency at lower cost for terrestrial as well as for space applications. CdTe as well as Cu(In1-xGax)Se2 absorber layers are investigated. These materials are promising candidates for cheaper solar electricity compared to conventional Silicon solar cells. Collaboration in R&D projects: If you are looking for a partner to realize scientific and development projects in the field of photovoltaics (PV) or multifunctional coatings, we are interested to team up with scientific and industrial partners.

Services: We offer characterization services for thin films and small PV devices and assist in interpretation of the results and correlation to material properties.

Consulting: Experts will assist and advise you in solving your specific problems on PV devices, diagnostics, and thin film coatings including up-scaling of deposition processes.

Technology transfer: Some of our technologies are ready for industrialization.

Empa (Swiss Federal Laboratories for Materials Science and Technology) is an interdisciplinary research and services institution for material sciences and technology development within the ETH Domain. Empa's research and development activities are oriented to meeting the requirements of industry and the needs of our society, and link together applications-oriented research and the practical implementation of new ideas, science and industry, and science and society.

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EnAW - Swiss Energy Agency of the Private Sector Partner for Climate Protection and Energy Efficiency

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Profile & Interests

The legal framework in the energy and environmental policy covers national and cantonal regulations. For each enterprise, individual challenges and potentials result, depending upon its industry branch, its canton and its CO₂ emissions. We advise enterprises individually and show them, how the legal obligations and additional voluntary measures can be fulfilled economically. The CO₂ law sets the climate policy goals of Switzerland: CO₂ emissions must be reduced by 20 percent by 2020. The economy is obligated to contribute to this goal by means of a CO₂ regulatory tax on the consumption of fossil combustibles. Companies with annual CO₂ emission of at least 100 tons can agree on a CO₂-reduction target and can be exempted from the CO₂ tax if they reach this target. Smaller enterprises can unite and commit themselves to a common reduction target. Monitoring is required on a yearly basis. Data on energy consumption (fuel, electricity) and reduction projects and measures are needed.

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Energy Science Center, ETH Zurich

Profile & Interests

Clean, affordable, and reliably available energy is of paramount importance for the well-being of modern societies. Developing future environmentally friendly energy systems requires the input from research in a large number of scientific disciplines. Most of these are cultivated at ETH Zurich, which has a bright tradition in energy-related research. Currently, around forty professors at ETHZ carry out research projects with direct relevance to energy science and technology.

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The Energy Science Center (ESC) was founded at the beginning of 2005 in order to facilitate intense cross-departmental collaboration, exploit synergies between complementary kinds of energy-related expertise, and strengthen research co-operation among industrial and academic partners in the energy field. In accordance with the overarching strategy of the ETH domain in energy science and technology, the ESC provides an umbrella for ETHZ activities in both research and teaching. It will also serve as a platform for large-scale interactions with important stakeholders (industry, government, opinion leaders, and society in general) and will provide them with needed services. The ESC synergistically combines key expertise in various disciplines to address large-scale problems successfully and to form so-called «light-house» projects. Such large, highly visible projects are centred around three large thematic areas, namely: Electric power generation and energy distribution; Energy for personal and freight transport systems; Energy for heating and cooling in domestic and industrial applications.

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Ernst Basler + Partner

Ernst Basler + Partner Ltd.

Profile & Interests

We are an independent engineering, planning and consulting company with a successful track record dating back to 1981 in Switzerland, Germany and abroad. Some 350 employees engaged in a range of different professional disciplines work in our company's offices in Zurich / Zollikon and Berlin / Potsdam, and we have recently opened a subsidiary in Santiago de Chile. In the interest of further expanding our activities in South America, we acquired a majority shareholding in the Brazilian company ECOGEO Group in Sao Paulo in April 2014. We are engaged in the following business fields:

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- Structural Engineering
- Infrastructure + Transportation Systems
- Energy + Technology
- Spatial Development
- Transportation and Mobility Planning

- Environment + Water
- Resources, Energy + Climate Change
- Safety + Security
- Geoinformatics + Software Engineering

Our mission is to offer our clients the innovative and effective solutions they need to meet the challenges of our times. In doing so, we are also guided by a passionate commitment to the conservation of the Earth as a sustainable habitat, both today and for generations to come. This is why we have attached utmost importance to the concept of sustainable development for more than three decades. The expertise of our highly qualified employees ranges from engineering, transport and spatial planning to natural and environmental sciences, economics, social sciences and information technology. Our focus is on the further development of our substantive and methodological competencies as well as on the maintenance of a culture of interdisciplinary and cross-regional cooperation.

Our interests in the United States

One quarter of the projects we handle are for foreign customers, and we have worked in over 60 countries so far. We are determined to become even more international in future. We are rich in experience and motivated to share this in the United States, focused on three subjects:

- Sustainable Urban Development
- Integrated Transportation Planning
- Sustainable Building (Green Building)

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Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

ETH Zurich

Profile & Interests

ETH Zurich is one of the leading international universities for technology and the natural sciences. It is well known for its excellent education, ground-breaking fundamental research and for implementing its results directly into practice. Founded in 1855, to researchers, it today offers an inspiring working environment, to students, a comprehensive education. ETH Zurich has more than 18'000 students from over 110 countries, including 3'900 doctoral students. About 500 professors currently teach and conduct research in engineering, architecture, mathematics, natural sciences, system-oriented sciences, and management and social sciences. ETH Zurich regularly appears at the top of international rankings as one of the best universities in the world. Twenty-one Nobel Laureates have studied, taught or conducted research at ETH Zurich, underlining the excellent reputation of the university.

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ETH Zurich carries out fundamental research to broaden the knowledge base and provide the starting point for future innovative applications. The research is focused on the needs of society – be that at local, national or global level – and so makes a valuable contribution to the economy, politics and society in general. ETH Zurich's main focus areas are: World Food System, Cities of the Future, Climate change, Energy, Health, Risk research, Information processing, New materials, Industrial processes.

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Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

ETH Zurich – Electrochemical Materials Group

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Profile & Interests

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The objectives of the Department of Materials at ETH Zurich are to conduct world-class materials research and to produce materials scientists and engineers who are educated at the highest level. The Department of Materials is responsible for the education of engineers and scientists in the general field of materials science and engineering, and for the education of students from other departments in materials related topics. In both research and education, the Department is committed to the idea of materials science spanning many orders of magnitude in size scale, from atoms to products, and also stretching from highly fundamental studies to those with direct technological implications. This variety is reflected in the active research groups, among them the Electrochemical Materials Group.

The Electrochemical Materials Group researches new materials and electrochemistry for information storage and energy devices. Charge and mass transport phenomena at interfaces and within the bulk of the materials are investigated and manipulated. Research implications may result in new material design criteria up to new device prototype and operation schemes with increased functionality at high packaging density and low power consumption. This includes new types of memristive information storage and computing logics, or novel efficient energy conversion and storage devices such as All Solid State Li+ Batteries, Micro-Solid Oxide Fuel Cells or new classes of Solar-to-Fuel conversion materials.

The Electrochemical Materials Group is lead by Prof. Dr. Jennifer Rupp. The group won the ETH Zurich's Spark Award 2014 for developing a powerful and energy-efficient data storage device for mobile electronic devices. The prize stands for the most innovative and economically important Invention of the year 2014 and was selected for a patent among 170 inventions at ETH. In 2012, the «Kepler Prize for Materials in Energy Technology» was awarded to their research by the European Academy of Science.

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European Energy Award

Profile & Interests

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Who invented it? The Swiss! In 1988 a few experts on municipal energy policies started a program to support municipalities in the implementation of innovative energy policies together with the non-governmental organizations World Wildlife Fund (WWF) and the Swiss Energy Foundation. In the early 90s the pioneer program developed into a comprehensive management system, backed by the official energy policy of Switzerland. We are proud that the «Label Energiestadt», as the European Energy Award® is called in Switzerland, has spread to many European countries and beyond.

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The European Energy Award® (eea) is a quality management and certification system for municipalities committed to sustainable municipal energy, climate and transport policies. From space planning to energy supply, from mobility to communication and cooperation – the eea comprises all proven energy and climate protection measures municipalities can take. The eea is therefore the most comprehensive quality management system for municipalities in the field of energy efficiency. A municipality's scope of action regarding energy and climate protection policy covers the areas shown below. The eea process ensures that all activities in each of these areas are systematically determined, assessed, continually checked, coordinated and precisely implemented. The European Energy Award® takes particularities of individual countries and regions into account, yet provides for benchmarks to be established between municipalities at a European level. The eea process can be carried out as an independent program, but it is recommended that municipalities and regions make it part of a broader energy and climate protection program. It can also be used as a tool for implementing the Covenant of Mayors, and it allows the integration of Smart City projects. There are 1'500 municipalities in 12 European and northafrican countries participating today. Partly they are active since 15 years. The Forum European Energy Award e.V. is additionally working towards having the eea recognized by ISO/CEN as a quality management tool for municipal energy and climate protection policy.

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Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

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Federal Department for the Environment, Transport, Energy and Communications DETEC

Federal Department of the Environment, Transport, Energy and Communications (DETEC)

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Profile & Interests

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More than 1'900 people work within the Federal Department of the Environment, Transport, Energy, and Communications (DETEC) towards sustainable development and the provision of the «Service public». Located in the heart of Europe, Switzerland relies on modern transport routes, communications and electricity networks. These infrastructures are important for internal cohesion, exchange with other countries and economic flourishing. DETEC also ensures that the needs of the environment, human health and safety are respected. It takes care that natural resources are protected, public services are provided efficiently, and the needs of the population are taken into account. Locating the demands of exploitation and of protection within the same department nevertheless often leads to conflict of interest. Decisions therefore require careful preparation. Against this backdrop, co-operation with partners within and outside the Federal government plays an important role.

As head of the Federal Department of the Environment, Transport, Energy and Communications (DETEC), Federal Councilor Doris Leuthard is one of the seven members of the Federal Council, Switzerland's cabinet. As head of DETEC, Federal Councilor Leuthard is in charge of the seven federal offices (ministries) that make up the Department and that work together to achieve the Department's aims, which include environmental and economic interests and public service requirements. Before taking the helm of DETEC on 1 November 2010, Federal Councilor Leuthard was head of the Federal Department of Economic Affairs (FDEA) from August 2006 to October 2010. During this time, she was responsible for the labor market, vocational education and training, technology, innovation, agriculture, housing, national economic supply and trade policy. She represented Switzerland at international organizations including the WTO, OECD, FAO and the World Bank and chaired the EFTA Council. In 2010, Doris Leuthard was President of the Swiss Confederation.

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Fixit AG

Profile & Interests

In over 100 years of business activity, Fixit AG has developed its competence constantly, particularly in the field of the coatings and mortars containing cement. Our five production sites and three sales regions offer consulting and supply services tailored to the regional customer needs. The product management department of Fixit AG, along with research and development, marketing, finances and administration is centralized in Holderbank, in the canton of Argovia. Fixit AG occupies more than 160 collaborators in Switzerland. Combining commitment with innovating spirit, they have contributed to the success of Fixit, established for more than 100 years on the market and appearing today among the largest Swiss building materials producers.

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Fixit 222 Aerogel high-performance insulating plaster is the innovation in its field. Through the use of aerogel, a highly insulating aggregate, Fixit 222 achieves thermal conductivity values which are at least twice as good as other insulating plasters currently on the market. Old buildings, including those of historic value and under preservation orders, can therefore be renovated and their energy-saving properties enhanced without the need for changes to the original wall structure. Curves and hollow spaces can be reproduced accurately and uneven surfaces filled with millimeter accuracy. For surfaces on which insulating panels cannot be used, Fixit 222 Aerogel is the perfect solution!

Fixit 222 Aerogel high-performance insulating plaster was developed in the course of a research and development project supported by the Swiss Innovation Promotion Agency (CTI). After working together for several years, Empa researchers and Fixit product developers have successfully launched this innovative new product onto the market. This is the first time ever worldwide that an aerogel has been used as an insulating additive in plaster for practical applications.

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Fontavis AG

Profile & Interests

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FONTAVIS is an independent asset manager that specializes in investments in clean energy and infrastructure. Our business and passion is to invest in non-listed companies and assets in Switzerland that produce renewable energy, improve energy efficiency or provide energy infrastructure. Portfolio companies are provided with capital, expertise and commitment to steer their businesses to new levels of excellence.

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Investments in this sector are capital intense and financing projects is often quite challenging, which calls for new and longterm sources of financing. FONTAVIS offers solutions for long-term investors and energy companies in a unique way. Our founding partners have more than 60 years of combined experience with renewable energy sources, asset management and finance, and were involved in the realization of more than 400 projects with a total transaction volume of more than CHF 2 billion.

The Swiss energy market is an exciting market with a future. The required energy transition, the scarcity of resources, political agendas, new technologies, re-thinking in the population and high demand on infrastructure will shape our energy future and offer investment opportunities at the same time. Diversifying and securing long-term energy supply is one of the main challenges. On average, the current power grids are more than 40 years old and have reached their limits. Reversions and expiring power supply contracts make renegotiations and new concessions necessary. The expansion of renewable energy sources such as biomass, hydro-electric power, solar, wind and ambient heat as well as energy efficiency constitutes a growth market. The importance of decentralized energy production, smart-metering, energy-contracting and convergence on the grids is increasing. All these factors require a lot of capital and create exciting opportunities that can be explored.

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Fr. Sauter AG

Profile & Interests

For more than 100 years, the SAUTER Group, with its headquarters in Basel (Switzerland) and active worldwide, has provided expertise and solutions for room automation and building management throughout the entire building life cycle.

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The SAUTER portfolio covers the four areas: Systems, Components, Services and Facility Management. Together, they stand for the all-round expertise of the company in the building management sector: SAUTER creates sustainable environments.

SAUTER can provide impressive references in the following sectors: office and administration buildings, research and education facilities, hospitals, industry and laboratory buildings, airports and railway stations, and leisure centers and hotels.

The SAUTER Group comprises 16 subsidiaries in Europe and a worldwide network of joint ventures and local representatives.

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g2e glass2energy Ltd

Profile & Interests

g2e glass2energy Ltd, a newly established Swiss company, has acquired a DSC license of a new type of photovoltaic cell, based on advances made by Professor Graetzel of the Swiss Federal Institute of Technology in Lausanne (EPFL). The technology of dye sensitized solar cells DSC is often referred to as artificial photosynthesis, analogous to chlorophyll in leafs, where a sensitized dye absorbs light and generates excited electrons. These electrons are injected into and transported via the conduction band of a high surface area semiconductor. These cells are thin film devices that use a nano-crystalline carrier layer made of titanium dioxide (TiO2) whose surface is chemically bonded with a monolayer of light-absorbing dye molecules. A small amount of gel electrolyte is used for the transport of the carriers. The energy production costs of these cells will be significantly below grid parity and competitive to all cells produced today, once mass produced. As the impact of the angle of incidence is low the whole surface (south, north, west, east and roof) of the building envelope can be dedicated to power generation. This technology represents a change of paradigm in the aim to build energy self-sufficient buildings. Panels take the functions of façade, windows, power generators and decorations in one go. Unprecedented design possibilities for architectural design with colors, designs over the total building envelope are made available.

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Internet

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Gaznat SA

Profile & Interests

Gaznat is a limited company which supplies and transports high pressure natural gas to Western Switzerland. It guarantees the safest service to its clients at the best price conditions. The company employs approximately sixty collaborators working on the sites of Vevey and Aigle. Gaznat's headquarters are based in Vevey. This includes the Management as well the Support services and Trading departments. The latter is in charge of gas procurement contracts as well as the portfolio optimization of short and long-term contracts.

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Gaznat operates a network of high-pressure gas pipelines (70 bar) to transfer gas to distributors. These distributors then deliver gas to final clients via their low-pressure network (5 bar or less). The gas pressure is reduced from 70 to 5 bar by using the metering and regulating stations. Natural gas distributors, such as large utilities around the Lake Geneva area and private companies count among Gaznat's main customers. Gaznat is also involved in the network for natural gas used as fuel for vehicles and is planning to develop a gas production facility in Switzerland.

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Profile & Interests

COMMITMENT AND INNOVATION SINCE 1951. HHM offers comprehensive engineering services in the core business area of electrical engineering as well as in its competence fields of energy, lighting, security and telematics. HHM's impressive track record includes many complex major projects in demanding structural engineering, such as public health facilities, schools, sports complexes, banks and industry. About 160 committed electrical engineers, electrical engineering technicians and electrical engineering designers process an annual volume of over CHF 250 million.

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As well as their technical knowledge and creativity, the specialists of HHM have the ability to convert their knowledge efficiently and ecologically into practice. Through consistent further education, the team at HHM is always at the cutting edge of developments and can incorporate technical innovations immediately into their current projects.

60 years of HHM have shown that innovation depends decisively on sharing knowledge. As a training company, HHM contributes actively to the further development of the engineering industry through teaching at universities and involvement in all significant professional associations.

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IWD

IWB

Profile & Interests

IWB is the company for electricity, natural gas, district heating, water and telecommunications in the region of Basel. The utility company maintains production, distribution and service activities throughout Switzerland and Europe. With the ambition to bring ecology, economics and innovation together, IWB is one of Switzerland's front-runners in sustainable energy and low energy efficiency. The company aims for a renewable full supply. Its entire electricity production is already based on renewable sources only. IWB's sustainable energy products and benefits are economical and of high quality. With the ongoing construction and expansion of a fiber-optic network, IWB also makes a significant contribution to the attractive-ness of the region of Basel.

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Joulia

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Profile & Interests

A top-flight investment and entrepreneurial team – some of whom sit on the Board of Directors – founded the company to commercialize an innovation originally developed at Creaholic. The Joulia Ltd. operations team is comprised of an interesting mix of different professions and talents. The Joulia team cut no corners in turning a bold idea into a mature concept and finally a product with great market potential.

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The principle behind the Joulia shower tray is extremely simple: instead of sending the warm shower water straight down the drain, the Joulia design channels it over the special shower tray floor so that its heat energy can be absorbed. The heat exchanger that is integrated into the tray floor extracts heat from the outgoing shower water and uses this heat to warm up the incoming cold water. This effect begins within a few seconds and warms the incoming cold water from about 10 degrees up to 25 degrees Celsius. Therefore, it is much warmer when it arrives at the mixing valve, and much less hot water is required from the water heater tank or solar array. The result is a notable energy savings. And don't forget: this energy savings shows up in your monthly bill, because less energy is needed to produce hot water. Joulia makes it easy to save energy. Turn on the water, stand under the stream, and enjoy. Your Joulia does the rest.

Two years after the Joulia shower tray the multidisciplinary design und engineering team is currently developing a second technology for a modular heat recycling system, that enables innovative shower tray and drain manufacturers to implement this innovative drain water heat recycling into their products, to green their product range and their customers bathrooms.

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LEM International SA

Profile & Interests

LEM is the market leader in providing innovative and high quality solutions for measuring electrical parameters. Its core products – current and voltage transducers – are used in a broad range of applications including renewable energy and power supplies, drives & welding, traction, high precision applications, and the automotive market. Innovative LEM technologies provide increased accuracy and speed to ensure a high degree of reliability and safety enabling smoother control and reducing energy consumption in a wide range of electrical systems. The strategy of LEM is clearly defined: it is our goal to continue our sustainable growth by focusing on our core business and by developing opportunities in new markets with new applications. Together with production plants in Geneva (Switzerland), Machida (Japan), Beijing (China), Sofia (Bulgaria) and regional sales offices, LEM offers a seamless service worldwide. LEM has been listed on the SIX Swiss Exchange since 1986. The company's ticker symbol is LEHN. LEM is a medium-sized company with a global feel. We currently have 1 137 employees worldwide (as per 31 March 2013) and reported revenue of CHF 235 million in 2012/13. LEM products fall into multiple areas of applications:

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...renewable energy: LEM transducers, specifically designed for renewable power systems, help controlling the flow of energy sent to the grid from renewable energy systems and the grid voltage waveform.

...traction: In rail industry, traction is mostly provided by electric motors driven by inverters that are relying on LEM transducers to measure, optimize and adjust the power that is sent to the motors, improving both performance and reliability.

...high precision applications: LEM current transducers set a standard for accuracy and are the most precise industrial products in the market today.

...automotive: In electric and hybrid vehicles, LEM transducers monitor energy flows to and from the battery and are critical in the control of the electric motors.

Internet www.lem.com

Address

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Lucerne University of Applied Sciences and Arts

HOCHSCHULE

Engineering and Architecture

Lucerne University of Applied Sciences and Arts - School of Engineering and Architecture

 (\blacklozenge)

Profile & Interests

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Five departments or schools make up the Lucerne University, comprising different campuses located in, or close to, the city of Lucerne. Despite its recent foundation, the Lucerne University of Applied Sciences and Art can look back on a long history, as it resulted from the merger and further development of several former advanced technical schools. The five schools of Lucerne University of Applied Sciences and Arts are: The School of Engineering and Architecture, The School of Business, The School of Social Work, The School of Art and Design, The School of Music. Each of our schools offers bachelors and masters degree programs, as well as continuing postgraduate education courses, most of them conferring a Certificate, Diploma or Master of Advanced Studies (CAS, DAS and MAS respectively) upon completion. All bachelors, masters, and Advanced Studies courses conform to the Bologna system.

The Lucerne School of Engineering and Architecture has around 1'900 students pursuing bachelor's and master's studies in construction and engineering. The School offers the following bachelor's and master's programs: Architecture, Interior Design, Civil Engineering, Building Technology, Computer Science, Electrical Engineering, Mechanical Engineering, Business Engineering Innovation, Business Engineering Sustainable Energy Systems. Master's degree in Architecture, Master's degree in Engineering. The School also offers a wide range of continuing education opportunities. Buildings as a System and «Intelligent Solutions for the Energy Turnaround» are areas (of research) the Lucerne School of Engineering and Architecture particularly focuses on. It conducts applied research and development and offers services to third parties.

Internet

www.hslu.ch/technik-architektur (German) http://english.hslu.ch/welcome/h-our-schools/ h-engineering-architecture-school

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Meyer Burger Technology Ltd

Profile & Interests

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Meyer Burger is a leading global technology Group specializing on innovative systems and processes based on semiconductor technologies. The Group's focus is on photovoltaics (solar industry) while its competencies and technologies also cover important areas of the semiconductor and the optoelectronic industries as well as other selected high-end markets based on semiconductor materials. The Group currently employs more than 1,700 people across three continents. Over the past ten years, Meyer Burger has risen to the forefront of the photovoltaic market and established itself as an international premium brand by offering superior precision products and innovative technologies.

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The Group's offering in systems, production equipment and services along the photovoltaic value chain includes the manufacturing processes for wafers, solar cells, solar modules and solar systems. Meyer Burger provides substantial added value to its customers and clearly differentiates itself from its competitors by focusing on the entire value chain.

The Group's comprehensive product portfolio is complemented by a worldwide service network with spare parts, consumables, process know-how, customer support, after-sales services, training and other services. Meyer Burger Group is represented in Europe, Asia and North America in the respective key markets and has subsidiaries and own service centers in China, Germany, India, Japan, Korea, the Netherlands, Switzerland, Singapore, Taiwan and the USA. The Group is also working intensively to develop new markets such as South America, Africa and the Arab region. The registered shares of Meyer Burger Technology Ltd are listed on the SIX Swiss Exchange (Ticker: MBTN).

Internet

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THE GOVERNMENT OF THE GRAND DUCHY OF LUXEMBOURG Ministry of the Economy

Ministry of the Economy Luxembourg

Profile & Interests

As part of the restructuring of ministries carried out by the new government after the elections of 20 October 2013, the Ministry of the Economy and Foreign Trade and the Ministry of Small and Medium-Sized Businesses and Tourism have merged to become the Ministry of the Economy. The Ministry ensures the implementation of economic competitiveness policy in Luxembourg. It includes, amongst others, the following priorities: business, technology and competitiveness; regional economic development; research and technological development (R&D), technology transfer and innovation industrial property and intellectual rights; support of the small and medium-sized businesses sector support for the tourism sector. The Ministry, in collaboration with the Ministry for Higher Education and Research, manages the Higher Committee for Research and Innovation.

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One of the 9 General Directorates of the Ministry of the Economy that are involved in the implementation of these policies, is the General Directorate for Energy. It is in charge of the national coordination of energy policy, energy markets and sustainable energy.

Internet

www.eco.public.lu

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MC&P Representation of Strategic Interests

MUELLER Consulting & Partner – MC&P

Profile & Interests

MC&P is a self-contained, owner-managed and financially independent Public Affairs Agency in Switzerland. We advise national and international companies, economic associations, organizations as well as communities, foundations and individuals. We support our clients in the successful representation of their interests and the optimal positioning in the political, economic, societal and media-related environment and accompany our clients in the whole process from developing and planning strategies through coordinating and realizing them. For our clients we develop successful strategies, concepts and roadmaps for individual projects as well as long-term mandates. We think and act transnationally and can build upon a solid and long-term network in Switzerland as well as other selected countries. MC&P stands for quality, professionalism and excellence. We choose our team carefully and hire only employees with above-average qualifications. Fredy Müller and Dr. Pia Reinacher are the sole owners and executive managers of the agency.

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Internet

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Nelson Solararchitektur

Consulting, Design & Construction Architecture - Energy Efficiency - Renewable Energies

Nelson Solararchitektur

Profile & Interests

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Contemporary architecture needs to be ecologically and economically sustainable and promote our integration into the socio-cultural and natural environment. Energy efficiency saves valuable resources and reduces the need of energy during construction and operation of the structure without compromising the life style of its tenants. Thanks to modern technology sources of renewable energies encompassing the building can be harvested to cover the need for heating, cooling and electricity. With a plus-energy building you gain independence and you reduce your long-term impact on our environment. What will be the building standard of the future, is already possible with today's technology. With our experience we will build your plus-energy house for YOUR future. Architecture is what connects us (mankind) with nature. Without it civilization could not exist. Good architecture is respectfully integrated into nature and promotes a sustainable harmonic coexistence with our environment. Bad architecture on the other hand exploits nature leading to a gradual destruction of our environment, inevitably leading into the self-destruction of our civilization.

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We consult building owners, investors as well as fellow architects in their construction endeavor whether new construction, remodel or entire site developments to achieve the highest sustainability. On the one hand we assess opportunities to increase energy efficiency hence reducing the overall need for energy and on the other hand we look to apply synergies of existing environmental energy with the building architecture in order to cover the heating/cooling and electricity demand with renewable energy. Equally important are the socio-cultural and economic considerations so that the client can make an educated decision on the prospects of his project.

Internet www.nelson-solar.ch

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OPAN concept Neuchâtel SA

Profile & Interests

Swiss engineering and tendering experts.

As a new leading Swiss engineering consultant, we plan and supervise any infrastructure or superstructure project. We also offer strategic advices and project management.

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Fully involved in and passionate about sustainability, our company was awarded with PRIDE in addition to our Ecoentreprise and climate neutral certification.

Internet

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www.opan.ch

Address

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Representative/s

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Paul Scherrer Institute PSI

Profile & Interests

The Paul Scherrer Institute PSI is the largest research centre for natural and engineering sciences in Switzerland, conducting cutting-edge research in three main fields: matter and materials, energy and environment and human health. PSI develops, builds and operates complex large-scale research facilities such as the SINQ neutron source, the Swiss Light Source (SLS) and the SµS muon source. Every year, more than 2200 scientists from Switzerland and around the world come to PSI to use our unique facilities to carry out experiments that are not possible anywhere else. PSI is committed to the training of future generations. Therefore about one quarter of our staff are apprentices, post-graduates or post-docs. For pupils it offers the school laboratory iLab.

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PSI employs 1900 people, with an annual budget of approximately CHF 350 million, and is primarily financed by the Swiss Confederation. PSI is part of the ETH Domain, with the other members being the two Swiss Federal Institutes of Technology, ETH Zurich and EPFL Lausanne, as well as Eawag (Swiss Federal Institute of Aquatic Science and Technology), Empa (Swiss Federal Laboratories for Materials Science & Technology) and WSL (Swiss Federal Institute for Forest, Snow and Landscape Research).

Researchers in the area of Matter and Materials study the internal structure of a wide range of different materials. Results contribute towards a better understanding of processes occurring in nature and provide starting points in the development of new materials for technical applications. The goal of activities in the Energy and Environment area is to develop new technologies to facilitate the creation of a sustainable and secure supply of energy, as well as an uncontaminated environment. In the Health area, researchers are searching for the causes of illnesses, and exploring potential treatment methods. Their basic research activities also include the clarification of generic processes in living organisms.

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Rapp Enserv AG

Profile & Interests

Rapp Enserv is specialized in consumption-dependent billing of heating, water and auxiliary cost. Its core business are concepts, measurements, billing as well as models for a consumption-dependent cost distribution within the entire Facility Management services range.

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We provide consumption-dependent billing of utility cost for over 120'000 apartments and/or units, which makes us one of the largest Swiss services enterprises in this market. Our billing service is comprehensible and transparent as well as for the administrations as for the end customers.

Rapp ranks today among the national leading service enterprise on the utility cost billing market – this has its reasons! Together with the Swiss Federal Office of Energy as well as representatives of several cantons we have elaborated the bases for consumption-dependent billing for heating, water and auxiliary costs in the 1970's and have since continuously developed this knowhow.

Internet

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SAVIDA BY OFFICE VOITH

Savida AG - by officevoith

Profile & Interests

Focus: project initiation and concepts - start of projects / new buildings and/or refurbishments or changes / development of projects / advising, consulting / Quality Assurance for the client, architect or general planner / support and development of technical solutions and building technologies in the context of buildings, building technologies, energy and sustainability / Advising/supporting building owners, project owners, investors, architects, general planner, projects and companies national and international political support - local and international / negotiation with authorities and governments.

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Sustainability is a central part of our global engagement. We accept its social and ecological responsibilities Sustainability means meeting our requirements in such a way that the needs of future generations will not be compromised. In our projects, it is taken as a matter of course that the sparing use of resources is a precondition select ecologically acceptable materials without compromise on architecture or comfort.

Internet

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Schneider Electric

Schneider Electric (Schweiz) AG

Profile & Interests

72% of world energy is consumed by infrastructure, industry, buildings and residential markets. Today energy is at the heart of everyone's concern. More than ever the current situation compels each and every one to achieve more while using fewer resources. As the global specialist in energy management Schneider Electric makes energy safe, reliable, efficient, productive and green from plant to plug. Beyond business solutions we cover all the aspects of sustainable development: society, governance and environment. And because you cannot manage what you cannot measure we follow our improvements with a unique tool: the Planet & Society barometer.

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From 1836 to today Schneider Electric has transformed itself into the global specialist in energy management. Starting from its roots in the iron and steel industry, heavy machinery and ship building, it moved into electricity and automation management. After 170 years of history Schneider Electric has become today the solution provider that will help you make the most of your energy.

Internet

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www.schneider-electric.ch (Switzerland) www.schneider-electric.us (USA)

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SCS super computing systems

scs super computing systems ag

Profile & Interests

As a development services provider, we bring two decades of industrial experience in the areas of electronics, software and system design into your projects. Our work is based on reliable technical expertise, well-founded methodological competence as well as significant experience in project management. The team, consisting of more than 90 proven experts, covers a broad spectrum of technologies: Hardware, FPGAs, DSPs fast communication; embedded and low level software, FPGA-Firmware; OO-Software based on C++, C#/.NET and JAVA as well as database applications. Our algorithm specialists find even the finest of signals in enormous data volumes and develop effective decision-making tools to optimise complex procedures. Thanks to the experience we have gained from more than 1000 projects for more than 180 industrial customers, we succeed time and again in subdividing complex challenges into manageable projects and implementing these with a high degree of planning security. That is why many of our customers reduce the complexity and the risk relating to their projects by delegating the responsibility for dates and deliverables to us as part of fixed-price projects.

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Prof. Dr. Anton Gunzinger astonished the international IT world of the 90s with his revolutionary supercomputer. He has been awarded a host of different honours and was selected by TIME magazine as one of the 100 top leaders of the twenty-first century. In 1993, Anton Gunzinger founded the company Supercomputing Systems AG, aimed at developing and marketing supercomputers. Today, supercomputing systems ag bespoke products in various fields of application for international clients.

Internet

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www.scs.ch

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schweizerischer ingenieur- und architektenverein société suisse des ingénieurs et des architectes società svizzera degli ingegneri e degli architetti swiss society of engineers and architects

sia – swiss society of engineers and architects

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Profile & Interests

The Swiss Society of Engineers and Architects (SIA) is Switzerland's leading professional association for construction, technology and environment specialists. With around 15,000 members from the fields of engineering and architecture, the SIA is a highly professional and interdisciplinary network whose central aim is to promote sustainable and high-guality design of the built environment in Switzerland. The SIA and its members stand for guality and expertise in architecture and construction. The SIA is well known for its important work on standards. It develops, updates and publishes numerous standards, regulations, guidelines, recommendations and documentation, which are of vital importance for the Swiss construction industry. Some 200 committees are responsible for further developing these standards.

As an active professional association, the SIA works to promote a high-quality built environment in Switzerland and to represent the interests of the professionals that deliver it. To this end it pronounces on energy, climate and material-related issues, helps to shape spatial development in Switzerland, gets involved in education and training policy and promotes practice-oriented public procurement. It maintains an active presence in the media, offers training courses and legal advice and organizes a variety of conferences, conventions and exhibitions on current and future topics.

The SIA consists of four professional groups focusing on Architecture, Civil Engineering, Technology and Environment. Specific technical issues are dealt with by the SIA's 24 specialist associations. It has a federal structure with 18 sections, which ensure that the SIA's concerns are taken into account at local and regional level. Recently, the SIA has established a new international section in order to provide specific support to its members in cross-border planning activities.

Internet

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www.sia.ch

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Swiss Engineering

Switzerland's Professional Association for Engineers and Architects

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Profile & Interests

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13 000 members from every discipline of engineering and architecture, 23 technical and 26 regional communities. Since over 100 years, Swiss Engineering represents the interests of engineering and architecture professionals and offers a strong network for professional relations, technical training and continued career development to our members. As one of the largest professional associations in Switzerland, we work to ensure a high-quality education system and to further strengthen Switzerland's unique dual path education system, in close cooperation with authorities and universities. We aim to be the influential voice of engineering and architecture in Switzerland that is heard in politics, science, industry and the public.

On the political level, Swiss Engineering is engaged to ensure an optimal working environment for engineering professionals and firms of all disciplines, to promote a high-standing education and research system, and to promote engineering and architecture as a promising career path for young talent.

Swiss Engineering relies on a strong network of partners both within and outside of Switzerland. Via FEANI, uniting all European engineering associations, and WFEO, representing all engineering associations worldwide, we are connected with the world and thus can represent the professional interests of our members on an international level. We foster international partnerships with sister organisations such as IEEE and vdi. Swiss Engineering is interested in environmental issues and actively engages in political, technical, scientific and educational issues by means of a specific internal Interdisciplinary Commission for Energy Mobility and Environment (IKF EMU).

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Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Federal Office of Energy SFOE

Swiss Federal Office of Energy (SFOE)

Profile & Interests

The Swiss Federal Office of Energy (SFOE) is the country's competence centre for issues relating to energy supply and energy use at the Federal Department of the Environment, Transport, Energy and Communications (DETEC). The SFOE creates the prerequisites for a sufficient, crisis-proof, broad-based, economic and sustainable energy supply. It ensures the maintenance of high safety standards in the production, transport and utilization of energy. The SFOE creates the necessary conditions for efficient electricity and gas markets and an adapted infrastructure. It actively promotes efficient energy use, an increase in the share of renewable energy and a reduction in CO₂ emissions. The SFOE promotes and coordinates national energy research and supports the development of new markets for sustainable energy use and supply.

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Internet

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Olivier Meile Expert Buildings Section e-mail olivier.meile@bfe.admin.ch

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swissbrick.ch Association Green Building Switzerland

Profile & Interests

swissbrick.ch, the Association of the Swiss brick and tile industry, has been founded in 1874. Its member companies produce high-quality bricks and roofing tiles as well as sanitary ceramics and tone pots in 19 plants in Switzerland. These sustainable and traditional building materials can be used for architecturally and technically progressive applications.

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The goal of the Green Building Association Switzerland is to promote solutions, best practices and technologies for the sustainable design, planning, construction and operation of the built environment. It aims at facilitating research and education and campaigns for an optimization of the regulatory framework required for sustainable buildings.

Internet

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www.swissbrick.ch www.greenbuilding.ch

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swissgrid

Swissgrid AG

Profile & Interests

«We transport electricity. Essential for Switzerland. Indispensible for Europe. A driving force that provides quality of life for millions of people. Today and tomorrow.»

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Swissgrid is the national grid company, and in its capacity as owner of the transmission system it ensures the secure, reliable and cost-effective operation of the Swiss high-voltage grid. Swissgrid employs more than 430 highly qualified people from 16 countries at its sites in Laufenburg, Frick and Vevey. As a member of the European Network of Transmission System Operators for Electricity (ENTSO-E), it is also responsible for coordination and grid usage in the cross-border exchange of electricity in Europe. Swissgrid is wholly owned by 21 Swiss electricity companies.

Facts and figures on the Swiss transmission system: Real-time meter data 25'000, Electricity pylons 15'000, Grid length in kilometers 6'700, Real-time grid simulations per day 1'000, Power plants 900, Swissgrid employees 430, Daily hours in operation 24.

Internet

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swissnex Boston Consulate of Switzerland

Profile & Interests

swissnex is a network of Swiss knowledge hubs situated in the world's most innovative regions: Boston, San Francisco, Rio de Janeiro, Shanghai, Bangalore, and Singapore. swissnex works closely with science and technology counselors based in Swiss embassies around the world. We take an active role in strengthening Switzerland's leadership as a world-class developer of science, education, and innovation. Creativity and curiosity are trademarks of our endeavors. We promote the sharing of ideas and the emergence of synergies. We work with our stakeholders, partners, clients, and audiences to anticipate opportunities and provide a unique experience to maximize the benefits and potential for everyone. An initiative of the Swiss Government, each swissnex promotes public-private ventures. Partners, donors and sponsors provide vital financial support to the swissnex network. We build bridges and connect the dots in education, research and innovation between North America and Switzerland.

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Internet

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Switzerland Global Enterprise S-GE

Profile & Interests

We work all over the world to support entrepreneurs and promote Switzerland as a business location. Our role as a center of excellence for internationalization is to foster exports, imports and investments, to help clients develop new potential for their international businesses and to strengthen Switzerland as an economic hub. We are a strong and trusted partner for our clients, the cantons and the Swiss government, with a global network of experienced advisers and experts.

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We advice, contacts and new business opportunities for export-oriented SMEs from Switzerland and Liechtenstein. We provide business contacts for importers from the EU, Switzerland and other EFTA countries. We market Switzerland as a business location abroad; assessing and submitting projects to cantonal and regional economic development agencies.

Internet

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SWKI

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Profile & Interests

The SWKI was founded in 1962 and has emerged from the Swiss section of ASHRAE (the American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc. Atlanta). The Society is affiliated with ASHRAE and linked to REHVA which is the European frame organization of national societies. Since December 2008, the SWKI is a society of the SIA professional category technology/industry.

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The SWKI wants to support building technology and related fields. In order to achieve these goals there are at least three full assemblies each year where technical meetings and seminars are held, excursions are made and of course the general assembly takes place.

The SWKI treats issues in workgroups and technical task groups according to specific subjects. Delegates are nominated to participate in national and international committees of other societies, associations or governmental institutions to help to solve specific HVAC or HVAC related issues. Each member is bound to lend his expertise to the Society and according to his abilities to participate in workgroups or committees. The chairman of a workgroup informs the entire Society on a regular basis about the progress of the task. The aim of these efforts is to issue SWKI - norms, rules, and regulations. With the affiliation as society of the SIA professional category technology/industry, the sphere for SWKI members is extended.

Internet

www.swki.ch

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System-Alpenluft AG

Profile & Interests

System-Alpenluft is a complete disposal and recycling system that sets a new standard in terms of economic and ecological efficiency. System-Alpenluft is particularly suitable for communes and companies with growing requirements as regards sustainability, rising costs and public concerns for the aesthetics of their localities and environmental protection. It is also perfect for local authorities, as it offers them the chance to opt for a system which represents a genuine developmental leap forward.

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System-Alpenluft offers the following advantages:

- Use of full electrical vehicles.
- Reduction in CO₂-emission by 100% and a decrease in energy costs of up to 80% as compared with conventional systems.
- A system with fixed collection sites for round-the-clock waste disposal.
- Because noise emissions are low, container disposal is possible through the night, which relieves pressure on daily traffic.
- A highly flexible system, which can be adapted to suit specific local conditions.

Internet

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www.system-alpenluft.com

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Representative/s

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MIGROS

The Migros Group

Profile & Interests

With an annual turnover of USD 29 billion (2013), the Migros Group is Switzerland's largest retailer as well as being the biggest private employer with over 94,000 employees. Migros is owned by a federation of ten regional cooperatives with over 2 million members. They operate the core business of the Migros Group – retail. Over 90% of the products on offer at the Migros stores are own brands of which the majority are manufactured in the 20 companies of the Migros industrial group. The Migros Group also includes additional commercial enterprises such as the Swiss discounter Denner, Globus department stores, the Hotelplan travel company and Migros Bank.

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Migros was founded in 1925 by Gottlieb Duttweiler. The company founder focused on sustainable generation of value with high ethical standards and lasting corporate social responsibility playing a significant role for the Group. He decided that a fixed percentage of the turnover of the Migros cooperatives would be donated to cultural and social activities every year. With its commitment of over 100 million Swiss francs per year, Migros is the most important private promoter of cultural events in Switzerland.

Internet

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www.migros.ch

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Union Suisse des Sociétés d'Ingénieurs-Conseils Union Suisse des Societes à ingenieurs-voissers Schweizerische Vereinigung Beratender Ingenieurunternehmungen Unione Svizzera degli Studi Consulenti d'Ingegierria Swiss Association of Consulting Engineers Member of FIDIC and FECA

usic – Swiss Association of Consulting Engineers

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Profile & Interests

usic (Union Suisse des Sociétés d'Ingénieurs-Conseils) is the employers' association of Swiss consulting engineers in the field of construction. It represents the sustainable interests of the branch in the economic, political, social and environmental context.

usic unites 900 companies with more than 14'000 collaborators, which generate an annual gross fee revenue of over 2 billion Swiss francs. This corresponds to roughly 40% of the expenditure for engineering services (in-house work included), which makes usic the largest employers' association of consulting engineers in Switzerland.

usic commits without compromise in favor of quality in planning, the implementation of the principles of sustainability in the planning process, as well as the promotion of the image of consulting engineers as designers of the built and natural environment.

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Verband Textilpflege Schweiz VTS

Profile & Interests

The Swiss textile care Association VTS unites over 200 professional laundries, drycleaners and the companies who serve them with altogether approximately 3000 persons employed. Its members unite approximately three quarters of the revenue realized in Switzerland in the textile care industry - in other words: the largest and most important textile care enterprises are organized in the VTS. The VTS campaigns for regulatory conditions in the industry, for the harmonization of employment and social security conditions as well as by a consistent enforcement of the environmental standards in all cantons. The VTS promotes vocational and continuing training. With its new reference book «Resource efficiency in textile cleaning and laundries – RessEff – manual for textile care practice» the VTS now also provides a valuable reference book for a meaningful energy and resource efficiency measures for smaller enterprises. It also provides an online benchmarking tool as well as practical assistance in implementing such measures in SMEs.

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Internet

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Representative/s

Winner of the

Best achievement award in the energy sector sponsored

by the Swiss Federal Office of Energy

Daniel Ammann Project Manager mobile phone +41 79 207 82 89 e-mail ammann@woeschchorb.ch

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swiss-us-energy-innovation-days-in-boston-swiss-participants.indd 66







Viridén + Partner AG

Profile & Interests

Viridén + Partner AG currently has a team of ten. We maintain successful cooperation with a number of specialists and have an extensive network of contacts. Viridén + Partner was registered as a partnership on 1st October 2000 as the successor to Architekturbüro Viridén, a sole proprietorship established in July 1990. Since May 2004, the office has been run as limited company.

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We carry out reconstructions and renovations according to ecological criteria. We try to reduce environmental pollution by more than factor four to ten by creating buildings with a low energy consumption. Our renovations reach the Minergie® Standard without any difficulty, and since April 2004, we have been renovating buildings to passive house standard. Nowadays we renovate office- and residential buildings to «PlusEnergieHouses» producing more electricity then they use themselves. We received therefore the Euopean Solarprice 2013.

We also strive to complete building projects within the shortest construction time possible with modular constructions.

Internet

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VS≣ ∧≣S Verband Schweizerischer Elektrizitätsunternehmen Association des entreprises électriques suisses Associazione delle aziende elettriche svizzere

VSE - Swiss Association of Electricity Companies

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Profile & Interests

The Swiss Association of Electricity Companies VSE is the umbrella organization of the Swiss electricity industry. Its head office is located in Aarau with regional offices in Bern, Lausanne and the Ticino (co-operation with ESI). VSE members account for 90 percent of Swiss electricity supply. Membership is open to all enterprises, which produce, transfer and distribute electricity in Switzerland and in the Principality of Liechtenstein.

Internet

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Representative/s

Kurt Rohrbach President e-mail kurt.rohrbach@bkw.ch

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natural gas 💋

VSG - Swiss Gas Association

Profile & Interests

The VSG (Verband der Schweizerischen Gasindustrie) is a cooperative association of Swiss gas industry. VSG represents domestic energy industry and the political interests of its members, which supply Switzerland with natural gas.

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ZHAW Zurich University of Applied Sciences School of Management and Law

Profile & Interests

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Founded in 1968 as one of the first educational institutions for business and administration in Switzerland as the HWV (Hoehere Wirtschafts- und Verwaltungsschule), the ZHAW School of Management and Law (SML) today is one of the eight schools of the ZHAW Zurich University of Applied Sciences. ZHAW SML is one of the leading business schools in Switzerland due to its internationally recognized Bachelor's and Master's programs, range of needs-oriented and well-established continuing education courses, as well as innovative research and development projects.

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All programs are scientifically grounded, interdisciplinary, and strongly oriented to real-world business practices. SML's motto «Building Competence. Crossing Borders» reflects the school's commitment to provide superior training and continuing education opportunities and be open to the international community. The SML maintains numerous cooperative relationships with selected partner universities all around the world and promotes international exchanges among the students and teaching faculty.

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