

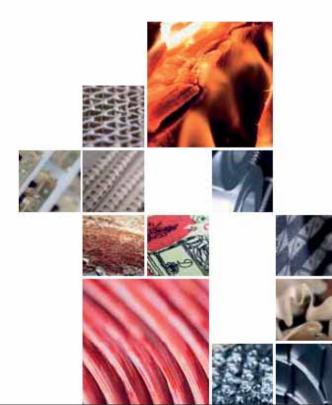
# **FRESH VIEW**

on Sustainable Building: Know-How, Materials, Technology, Renewable Energy, Research





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# Sustainable Building:

Know-How, Materials, Technology, Renewable Energy, Research

# 关于可持续建筑:

专业知识,材料,技术,可再生能源,研究

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# Sustainable Building made in Austria

# 奥地利制造的可持续建筑



The guiding principle behind sustainable construction is the awareness that the economy, ecology and society are interlocking systems. With its 40 % share of energy consumption and CO<sub>2</sub> emissions, the building sector throughout the EU is well ahead of traffic and industry. The use of new technology means that there is an enormous potential for savings and this is where the Austrian economy has a lot to offer.

可持续建筑的中心思想是将经济、生态与社会视为 一个相互关联的整体'。在欧盟范围内,建筑行业的 能源消耗和二氧化碳排放量占总量的40%, 選選领 先与交通与工业<sup>2</sup>。新技术的投入使用意味着具有巨 大的节能潜力,其中奥地利的企业也贡献了许多。

The brilliant success of the Austrian team in the "Solar Decathlon" competition in 2013 in Los Angeles (http://www.solardecathlon.at) shows impressively how important sustainable construction has become for the Austrian economy and what a good reputation Austria has been able to gain in this area.

奥地利团队在2013年美国洛杉矶举办的"太阳能十项全能"竞赛中(http://www.solardecathlon.at)所取得的巨大成功展示了可持续建筑在奥地利经济中的重要地位,奥地利在该领域内已取得良好声誉也令人难忘。

The combination of future-oriented technology, the consistent implementation of the latest scientific findings and the firm belief that future generations have to be considered in today's planning are fundamental parameters of action for many Austrian companies.

整合面向未来的新技术,持续引入最新的科学成果,以及"未来数代人的生存空间必须被纳入当今的计划考量"这一坚定不移的信念,这些就是诸多奥地利企业赖以发展的行为准则。

<sup>1 &</sup>quot;Report of the World Commission on Environment and Development: Our Common Future" (Brundtland Report), 1987

<sup>2</sup> Austrian Institute of Technology, Energy for the Built Environment

 <sup>&</sup>quot;世界环境与发展委员会报告:我们共同的未来" (布伦特兰报告),1987年

<sup>2</sup> 奥地利国家技术研究院,建筑环境的能源



Sustainable construction has many facets and, in addition to special planning, the choice of the right materials and expert workmanship, the used products must also be applied correctly. Austrian companies play a leading role in all these areas.

可持续建筑包含了许多方面,除了专项规划、选择 合适的材料与专业的施工人员外,产品也必须被合 理地使用。奥地利企业在所有这些方面都占据领先 地位。

A sustainable building is characterized by an exceptionally high ecological, economical and socio-cultural quality. The accumulation of these three aspects provides added value for the environment, but also at the same time for society. Austrian companies are not only active in the conception of new sustainable buildings. Rather it is more often the case that the energy efficiency in existing buildings can be increased to such an extent through renovation and refurbishment that the running costs are considerably reduced.

极高的生态、科技、社会文化质量是可持续建筑的 特点。这三方面的积累不仅为环境,而且也为社会 提供了附加价值。奥地利企业不单单在新型可持续 建筑的设计方面十分活跃,而更常见的是企业通过 改造与翻新现有建筑成功提高能源效率,并使运营 成本大大降低。

In order to extensively minimize the impact of construction on the environment, Austrian building companies significantly contribute to the protection of the environment and climate with their wide range of offers – beyond complying with the environmental laws and regulations and official requirements. As early as in the planning phase of construction projects, Austrian companies concentrate on the resource-friendly use of energy and raw materials and on the reduction of emissions and waste materials.

为了最大限度地减少建筑物对环境所造成的影响, 奥地利建筑企业不仅仅只是做到遵守环境法律、法 规和政府官方规定,还提供了种种对策方案,对环境与气候的保护做出了巨大的贡献。早在建筑项目 的规划阶段,奥地利企业就已将注意力集中在如何 资源友好地利用能源与原材料,旨在减少废气与废 料的排放。

The European Union has set itself the target of improving the energy efficiency of buildings by 2020 and increasing the use of renewable energy for heating, hot water and air conditioning.<sup>3</sup> In the EU countries alone, buildings use up 40 % of the total energy: from 2020 onwards new buildings should therefore hardly need any energy for heating, hot water, ventilation and cooling. New governmental buildings should already meet these requirements from 2019 onwards. Austrian companies also play a leading role here.

欧洲联盟已拟定了一个至2020年改善建筑物能源效率的目标,并增加供暖、热水和空调领域内可再生能源的使用<sup>3</sup>。仅在欧盟成员国,建筑消耗能量占总能耗的比例提升至40%,从2020年起,新建筑应几乎不再需要任何能源用以热水、通风与制冷。新政府部门建筑将于2019年起先行实施这一规定,奥地利企业也将在这方面起到一个主导作用。

In the last 20 years Austria has developed to become one of the leading countries in the field of building technology. The portfolio ranges from highly modern windows and doors to ventilation systems suitable for passive houses and automated biomass heating and solar systems.

在过去的20年里,奥地利已经发展为建筑科技领域内的领先国家,产品领域从高科技的现代门窗,到适用于被动式节能房屋的通风系统,直至自动化生物质能和太阳能供暖系统。

<sup>3</sup> Information from the Commission, COM (2008) 772

<sup>3</sup>委员会信息简报, COM (2008) 772



Domestic companies generate an annual turnover of around 32.6 billion Euros through environmentally oriented production and services.4

奥地利本土企业产生的年营业额中有326亿欧元是 通过面向环保领域的生产和服务获得的4。

The growth driver in environmental technology and the environmental services industry is export. While Austrian environmental technology accounted for around 50 % of the turnover on foreign markets in the mid 1990s, today it is almost two thirds.

环境技术与环境服务业的增长动力是出口,而在上 世纪90年代中期,奥地利环境技术行业50%的营业 额是从国外市场获得的,这一数字如今已提升至约 三分之二。

The "new" member states of the EU and the Southeast Asian region are becoming increasingly important here. In particular companies which produce technology to monitor the environment, technology for renewable energy and measurement and control technology, are leaders in the export market.

欧盟的新成员国与东南亚地区国家的重要性也在不 断提升中,尤其是那些提供环境监测技术、可再生 能源技术和测量与控制技术的企业是出口市场的主 力军。

The proportion of renewable energy compared to the gross amount of energy consumption in Austria is exemplary. With a share of 32.2 %, Austria lies in third place behind Latvia and Sweden. The fields of hydro power (38.9%), solid biomass (31.5 %) and district heating (10.3 %) contribute primarily to the total volume of renewable energy.

奥地利的可再生能源占能源消耗总量比是极具示范 意义的,32.2%的比例使奥地利在这一领域仅次于 拉脱维亚与瑞典,位居世界第三。38.9%的水力发 电、31.5%的生物能与10.3%的集中供热是可再生能 源的主要组成。

The Austrian environmental technology and services industry is characterized by a very high degree of innovative activity. Companies in the manufacturing sector have an average research intensity of two to three percent, compared to the field of environmental technology, where it is around 6.5 %.

极具特色的创新活动是奥地利环保技术与服务业 的一大特征。制造行业企业的平均研究力度投入在 2-3%之间,与之相比,环保技术领域企业的研究投 入则有6.5%左右。

Austria is also leader in the field of environmental patents. Here particular mention should be made to the developments in passive house technology, waste management, renewable energy technology and energy efficiency.

奥地利同样在环保专利领域占据着领先地位, 这里 需特别提及被动式房屋技术、污水管理、可再生能 源技术与能源效率方面的进展。

In the same breath stress should also be placed on the state subsidy programmes. The Green Electricity Act, the environmental support for companies and the climate and energy funding pools, as well as the Austrian Research Promotion Agency (FFG - https://www.ffg.at/en) should be quoted as prime examples.

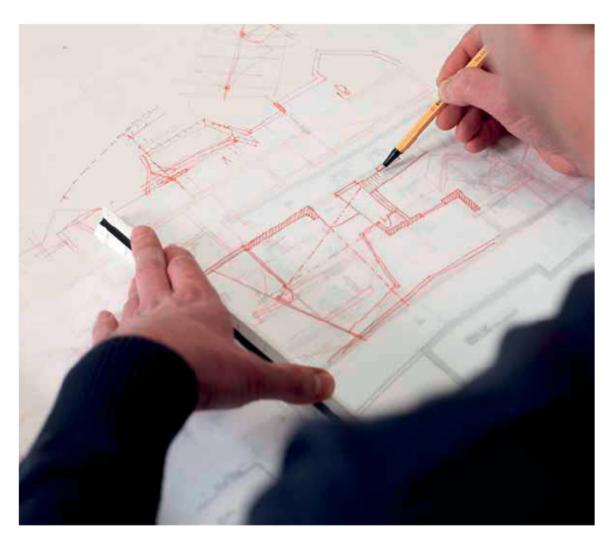
同时在此也必须突出强调国家的资助项目。 绿色电 力行动、对企业环境保护的支持、 气候能源方面的基金组织以及奥地利研究促进会 (FFG-https://www.ffg.at/en) 均可被视

作为极佳案例。

<sup>4</sup> http://www.umwelttechnik.at/de/info/daten-fakten/

<sup>4</sup>http://www.umwelttechnik.at/de/info/datenfakten/





# Planning and consulting services

Austrian civil engineers, master builders, planners and architects provide comprehensive and detailed know-how in the planning and construction of energy-efficient buildings. A major reason behind the Austrian success story is the specific promotion of knowledge as well as the continuous development of the products.

Renowned institutions, like the Technical Universities in Vienna and Graz, as well as the Austrian Institute of Technology, ensure technological development at the highest academic level. Austria's position as a pioneer in the implementation of innovative construction techniques is not only evident in large construction projects, but also through innovative solutions in civil engineering and traffic route construction.

## 规划和咨询服务

奥地利的土木工程师、主要建造商、规划师与建筑 设计师在节能房屋的设计和构建方面提供全面而详 尽的专业知识。奥地利的成功经验在于有针对性地 促进具体的知识推广和持续的产品开发。

国际知名学府,如维也纳技术大学和格拉茨技术大学以及奥地利国家技术研究院确保了学术层面上的技术发展。奥地利在创新施工技术领域的先驱地位不仅体现在大型建设项目,也体现在土木工程和交通道路建设的创新解决方案上。



The project UNIVERCITY 2015<sup>5</sup> at the Technical University of Vienna, which is an integral part of teaching and research in the Austrian academic world, is aiming to create a more efficient space utilization concept by 2015 and in doing so to provide better conditions for the employees and students in research, teaching and administration. The central component of this challenging concept, which is highly esteemed far beyond the borders, is the renovation of a large university building in the inner city.

维也纳技术大学的UNIVERCITY 2015<sup>5</sup>项目是奥地 利学术界教学与研究领域整体协作的特色,项目旨 在至2015年建立一个更高效的空间利用方案,并为 参与相关研究、教学和管理的人员与学生提供更好 的条件。这一极具挑战性方案的核心是在市中心翻 修一栋大学的大型楼字。<sup>6</sup>

A milestone in construction is being built on this very spot – the first real plus energy multistorey building. All equipment, from the intercom to the highly complex server room, should be provided with electricity supplied by an integrated photovoltaic system attached to two facades as well as a PV system on the roof.<sup>7</sup> 建筑史上的一个里程碑被建造于此一第一个真正意义上的正能源多层建筑。所有的设备,从对讲机到高度复杂的服务器机房,皆由一套安置于屋顶上的双外立面的集成光伏系统来提供电力供应?。

Even if electricity from the grid will be used as an alternative on days with little sunshine, the approach clearly shows the decision of the Austrian universities. It is important to put the research results into practice, to think in terms of sustainability and to accept challenges.

即便在阳光不足的日子里会选择性地使用电网电力,但该方案明确地表明了奥地利高校的决心。将研究成果应用于实践中,可持续性的思考与勇于接受挑战都是十分重要的。

Only by setting a good example is it possible to convince other people of the significance of sustainable construction and the added value which it creates.

只有树立一个成功示范案例,才能促使更多人去相 信可持续建筑的意义以及它所能产生的附加价值。

Austrian architects above all recognized this emerging niche early on. The official building of the Austrian embassy in Jakarta, which was opened in November 2011, is therefore indisputably regarded as the most impressive Austrian showcase project in Southeast Asia, planned and completed by the Austrian architects, pos architekten ZT KG.

奥地利建筑设计师最先认识到这一新兴领域。于 2011年11月建成使用的位于雅加达的奥地利大使馆 无可争议地被视作是奥地利在东南亚地区最具冲击 力的作品展示,该建筑项目是由奥地利建筑设计公 司pos architekten ZT KG设计完成的。

<sup>5</sup> http://www.univercity2015.at/

<sup>6</sup> on the Getreidemarkt in Vienna

<sup>7</sup> Die Presse, Forschung – Magazine for Technology and Innovation, Dec 20132, p. 5

<sup>5</sup> http://www.univercity2015.at/

<sup>6</sup>位于维也纳Getreidemarkt

<sup>7</sup> Die Presse, 技术与创新研究杂志, 2013年12月, 第5页





#### The right building materials

A common definition of sustainable development is that the needs of the present generation are covered without jeopardizing the needs of future generations.

The choice of building materials plays a very important role here. These are in particular wood and solid building components, as well as the materials polystyrene, graphite, rock wool and the renewable raw materials hemp, flax and sheep's wool for the insulation of buildings.

The element glass has always played an essential role in energy-efficient building: Austrian manufacturers of windows and insulating glass have been pioneers in this field for decades and offer, beyond the pioneering production of plastic windows, highly insulating low-energy and passive house windows as well as overall concepts for glazing.

## 合适的建筑材料

可持续发展的通常定义是在不透支下一代人需求的 前提下满足当代人的需求。

为此,如何选择建筑材料起到了一个极为重要的作用。这些建筑材料包括特定的木材,坚实的建筑组件,聚苯乙烯材料,石墨,石棉,还有可用于建筑物保温的棉、亚麻、羊毛等可再生原料。

高效节能建筑中,玻璃是最基础的组成部分。奥地 利的玻璃与保温玻璃制造在数十年来一直占据着领 先地位,除此之外,还有塑料窗领域的开拓性产品, 高隔热低能耗的被动式节能房屋窗与玻璃装配的整 体方案。



The most efficient and popular products for heat and cold insulation include conventional insulating panels made of polyurethane, expanded polystyrene and polyethylene. These provide the ideal basis for maximum insulation with minimal thickness.

最高效并受欢迎的區热、區冷材料包括传统的聚复 酯、发泡聚苯乙烯、聚乙烯保温板, 这类材料用最小 的厚度满足了最大程度的保温隔热要求。

The resulting energy efficiency leads to direct savings in cost for the consumer. Apart from that. Austrian companies have adapted their production in such a way that no damaging wastewater is produced and it is completely free of HCFCs and HFCs.

高效地利用能源也为客户降低了成本。除此之外, 奥地利企业在产品生产的同时杜绝排放环境有害的 废水,并完全摆脱了HCFCs和HFCs的困扰。

The products made of expanded polystyrene and Styrofoam, but also of extruded polystyrene and extruded foam, are further evidence that Austrian companies were pioneers in thermal rehabilitation, as well as in the building of new housing and objects.

发泡聚苯乙烯与泡沫塑料产品,以及挤塑聚苯乙烯 与挤塑泡沫则更加进一步体现了奥地利企业在热 补偿、新建住房和建设项目上的领先地位。

At this year's awards of the Austrian prize for environmental protection, which is bestowed every year by the Austrian Broadcasting Corporation - ORF and the Federal Ministry of Agriculture, Forestry, Environment and Water Management, in cooperation with the climate protection initiative klima:aktiv (http://www. klimaaktiv.at/English.html), the Austrian company Naporo Klima Dämmstoff GmbH from Braunau am Inn was distinguished for its insulation panels made from Austrian hemp.

奥地利国家广播公司和奥地利联邦农业、林业、环 境和水资源管理部联合奥地利气候保护倡议组织 klima:aktiv (http://www.klimaaktiv.at/English. html),颁发一年一度的奥地利环境保护大奖。来自 Braunau am Inn的奥利地企业Naporo 气候保温 材料有限责任公司就曾凭借其使用奥地利本土麻材 料的保温板脱颖而出,夺得大奖。

The hemp insulation panels, which can be used in solid construction, are made from renewable raw materials and, in contrast to conventional insulating materials, can bind more CO. than is released in producing them.

麻材料保温板可被用于坚固建材当中,由可再生原 材料组成,其相较于传统的保温材料,在生产过程 中可以更多地束缚二氧化碳而不是将其排放至空气 中。

Furthermore hemp fibre panels can be recycled into new insulating panels or even used as feedstock in the production of biogas.

此外,麻纤维板还可以被循环利用制造新的保温 板,甚至用作原料生产沼气。





#### **Building technology**

In accordance with sustainability, there needs to be mechanisms within a building which utilize energy that has already been used and finds a new use for it.

The key word "energy recovery" in air technology, often the result of individual research and development, must receive special mention here. It is not possible to imagine the increasingly important passive house segment without counter flow plate heat exchangers as well as home ventilation devices.

Austrian companies developed building technology concepts for passive houses as well as the entire building of energy-efficient housing. Here unrivalled solutions for single family homes to multi-storey residences can be found, as well as for renovation and new building work.

Intelligent Austrian solutions for a healthy room climate ensure unique living comfort – in the meantime worldwide – and with the highest energy efficiency.

#### 建筑技术

为了保持可持续性,建筑物内需要建立一个能源回收利用的机制,为已经使用过的能源找到新的用途。

在空气技术领域的关键字是"能源回收",这通常是独立研究与开发的结果,必须在此被特别提及。 很难想象在越来越重要的被动式房屋中会没有逆流 板式热交换器以及家庭通风设备。

奥地利企业发展了被动式房屋的建筑技术方案,同时也发展了高效节能的整体式建筑。他们提供从单户家庭住宅直至多层住宅的解决方案,广泛适用于旧房改造和新建筑。

奧地利的智能室内气候解决方案确保房间极度舒适,同时也保持了极高的能源效率,目前已在全球 范围得到应用。





#### Renewable energy

Renewable energy as an alternative to fossil energy is more than a simple catchword for Austrian companies. Austrian companies are aware of their responsibility and invested early in this promising area.

#### Wood, air, water and soil – a long Austrian Energy Tradition

The oldest form of using renewable energy is the use of wood as a source of energy. Austria can therefore be proud that modern wood heating originated here. In the field of wood heating systems, Austria has companies which offer a sustainable alternative to conventional oil heating systems.

With the equivalent of 0.5 ha of forest per inhabitant, Austria has some of the most dense forest coverage in Europe (47.6 %).\* The palette of products offered by Austrian companies ranges from modern firewood boilers with high temperature combustion to the latest wood chip-fired furnaces to innovative pellet boilers.

#### 可再生能源

可再生能源是化石能源的替代能源,这对于奥地利 企业来说不仅仅是一句简单的口号。奥地利企业很 早就意识到自身的责任,并在这一充满希望的领域 进行投资。

#### 木材、空气、水与土地— 奥地利由来已久的能源传统

最早的可再生能源的形式便是将木材作为一种能源,因而奥地利可以自豪地宣布,奥地利是现代木材供暖起源地。在木材供暖领域,奥地利企业提供可持续的选择方案,用以替代传统石油供暖体系。

折算下来, 奧地利人均森林面积达0.5公顷, 奧地利 是欧洲森林覆盖率最高的国家之一, 达47.6%。 奥 地利企业提供的产品范围从高温燃烧的现代化木柴 燃烧炉, 到最新的木屑燃烧炉, 直至创新的颗粒燃 料燃烧炉。

<sup>8</sup> Österreichs Wald, Bundesforschungszentrum für Wald, April 2012

<sup>8</sup> 奥地利的森林, 奥地利联邦森林研究中心, 2012年4月



Innovative heat pumps are energy-saving, cost effective and above all environmental-friendly alternatives for heating, cooling and the provision of hot water.

By means of sophisticated technology, ambient heat, which is stored in the natural heat sources of air, water and soil, is processed and then rapidly and cleanly converted into heat energy. In the late 1970s Austrian companies were the first European manufacturers in this product

The sun – our most sustainable source of energy

category.

There is hardly any other source of energy which is as sustainable as solar energy and no building, which is built according to the principles of sustainability, can manage without solar energy.

The range of products from Austrian companies extends from applications in the field of warm water and heating to the complex field of cooling buildings using the sun's power. Austrian companies impressively show how surface collectors made in Austria are highly regarded worldwide.

Tailor-made, environmental friendly and above all sustainable solutions for single- and multi-family houses, housing complexes, public, commercial and industrial facilities, are trademarks of Austrian quality products.

It is therefore not surprising that - based on the surface area of solar systems installed per inhabitant - Austria lies just behind Cyprus and Israel. 先进的加热泵高效节能,成本划算,最重要的是环境友好,这为供暖、制冷以及水加热提供了新的选择。

利用精良的技术工艺,蕴藏在自然环境中的热能,如大气、水和地下的热能来源,都能经过一定的处理转变为立即可用的清洁能源。上世纪70年代后期,奥地利企业就已经在这一领域内捷足先登,领先于欧洲其他的供应商。

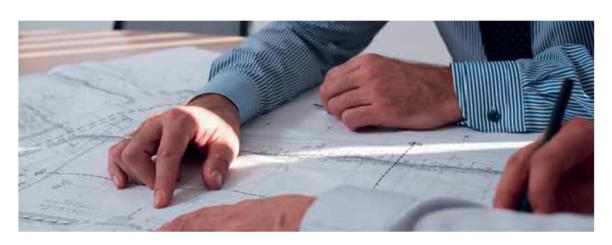
太阳能-我们最重要的可持续能源

很难有任何一种能源形式可以像太阳能那样持久, 几乎没有任何一栋可持续性建筑在设计的过程中没 有将太阳能列入考量范围。

奥地利企业的产品应用范围覆盖了太阳能水加热、 建筑物供暖与制冷, 奥地利企业制造的表面收集器 令人印象深刻, 在全球范围内获得了很高的评价。

量身定制各类环境友好的单户和多户居家住宅、复 合式房屋、公共建筑、商业与工业设施,产自奥地利 的产品就是高质量的代名词。

这也就不奇怪为什么奥地利太阳能光伏设备人均安 装面积在世界范围内仅名列塞浦路斯和以色列之后 了。





#### Research and Development

The great success in the Solar Decathlon 2013 (http://www.solardecathlon.at), which was mentioned at the beginning, is proof of the good interaction between Austrian educational institutions.

The Technical University of Vienna (http://www. tuwien.ac.at/en) contributed its great knowhow in passive houses, the Salzburg University of Applied Sciences (http://fh-salzburg.ac.at/ en) its knowledge in timber construction, and the St Pölten University of Applied Sciences solutions in the field of communication strategy (http://english.fhstp.ac.at).

The Austrian Institute of Technology has created a special department dedicated to the increasingly important area of the building sector, which researches into innovative enerav solutions for the built environment - from domestic technology to the actual building and to city planning (http://www.ait.ac.at/ departments/energy).

The European Sustainable Energy Innovation Alliance (eseia - http://eseia.eu/) was founded in 2009 as the result of an initiative by the Technical University of Graz (http://portal.tugraz. at). 30 organisations from 12 European countries are members of eseia, all of which come from the fields of economy, science, education and politics and cover all areas of competence of sustainable energy, from resources to consumption.

The aim of the eseia association is to find sustainable energy solutions for the European regions.

The Technical University of Vienna is currently working on the project UNIVERCITY 20159 (http://www.univercity2015.at/en), which aspires to put research results into practice, to think in terms of sustainability and to set good examples.

#### 研究与开发

奥地利在 "2013太阳能十项全能" 竞赛中(http:// www.solardecathlon.at)所取得的巨大成功在 文章开始就已有叙述,它证明了奥地利企业与教育 机构之间的良性互动。

维也纳技术大学(http://www.tuwien.ac.at/en) 交流了被动式房屋的研究成果, 萨尔茨堡应用科技 大学(http://fh-salzburg.ac.at/en)交流了木结构 建筑的经验, 圣帕尔滕应用技术大学介绍了其传播 战略的解决方案(http://www.ait.ac.at/departments/energy) •

奥地利国家技术研究院还设立了一个特殊的部门, 专门研究在建筑部门中日益重要的新领域,研究 内容有建筑环境相关的创新能源系统一从国内现 有技术到实际建筑案例,再到城市规划(http:// www.ait.ac.at/departments/energy) •

欧洲可持续能源创新协会 (eseia-http://eseia. eu/) 成立于2009年,由格拉茨技术大学倡议组 织。协会成员来自欧洲12个国家的30个组织, 遍及 经济、科技、教育、政治等各界,覆盖了从资源到消 费使用的可持续能源的所有领域。

eseia协会的目标就是为整个欧洲寻找可持续的替 代能源解决方案。

维也纳技术大学目前致力于开发UNIVERCITY20159 的项目(http://www.univercity2015.at/en),期望 能够将研究的成果应用于实际建设当中,树立一个 新的示范案例,推动可持续性建设。

<sup>9</sup> http://www.univercity2015.at/



#### Further relevant links

Austrian Biomass Association http://www.biomasseverband.at

Austrian Energy Agency http://www.energyagency.at

Austrian Institute of Technology http://www.ait.ac.at

Austrian Society for Environment and Technology (OGUT) http://www.oegut.at

Austrian Society for Sustainable Real Estate http://www.ogni.at

Austrian Sustainable Building Council http://www.oegnb.net

ARGE Starkholz Salzburg http://www.starkholz-salzburg.at

Umbrella Organization Energy-Climate Protection http://www.energieklima.at

Holzcluster Steiermark http://www.holzcluster-steiermark.at

IBO - The Austrian Institute for Healthy and Ecological Building http://www.ibo.at

IG Passivhaus http://www.innovativegebaeude.at

Passivhaus Austria www.passivhaus-austria.org

Photovoltaic Austria http://www.pvaustria.at

ProHolz http://www.proholz.at/proholz-austria

The Austrian Climate Initiative "Klima:aktiv" http://www.klimaaktiv.at

#### 其它相关信息链接

奥地利生物质能联合会 http://www.biomasseverband.at

奥地利能源署 http://www.energyagency.at

奥地利国家技术研究院 http://www.ait.ac.at

奥地利环境和技术协会 http://www.oegut.at

奥地利可持续房地产经济协会 http://www.ogni.at

奥地利可持续建筑协会 http://www.oegnb.net

萨尔茨堡ARGE Starkholz木材联合公司 http://www.starkholz-salzburg.at

奥地利能源和气候保护联合会 http://www.energieklima.at

施泰尔马克州木材行业协作网络 http://www.holzcluster-steiermark.at

IBO - 奧地利健康和生态建筑研究院 http://www.ibo.at

IG 被动房协作网络 http://www.innovativegebaeude.at

奥地利被动房协会 www.passivhaus-austria.org

奥地利国家光伏行业协会 http://www.pvaustria.at

奥地利ProHolz木材行业工作联合会 http://www.proholz.at/proholz-austria

奥地利气候倡议组织 "Klima:aktiv " http://www.klimaaktiv.at

#### **AH3 Architekten ZT GmbH**

Hauptplatz 3 3580 Horn Austria I Österreich

DI Johannes Kislinger T+43/2982/20800-0 F+43/2982/20800-20 E office@ah3.at W www.ah3.at



AH3 Architects is a Waldviertler company in Horn/Lower Austria, well-known nationally and internationally for its focus on sustainability, ecology and timber construction. AH3 innovatively provides all customised and individual services to extremely high creative standards and through the employment of expert know-how, creativity and integrated planning.

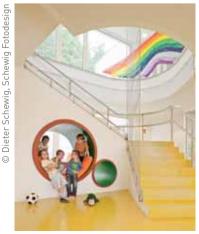
The managing director and shareholder, architect DI Johannes Kislinger, founded the company in 1986. In 1995 it expanded to form ZT KEG and since 2002 has been active as the AH3 ZT GmbH, currently employing twelve people in two locations.

The company is specialised in: prefabricated timber construction, systems and modules, passive house development, ecology and sustainability, innovative building concepts.

AH3建筑设计师公司是瓦尔德地区的一家企业, 位于下奥地利州Horn,致力于建造可持续、生 态的木结构建筑,在国内外均享有声望。AH3的 专业团队有着极佳的专业知识,创造力与整体规 划能力,创造性地提供了客户定制、个性化的服 务,满足极端高品质的需求。

企业股东总经理、建筑设计师DI Johannes Kislinger于1986年建立企业,1995年扩大成土木工程 公司ZT KEG, 2002年成为AH3 ZT 有限公司, 目 前在两个办公地点共雇用有12名员工。

公司专门从事的业务领域有:木结构预制板,系 统与模块,被动式房屋开发,生态与可持续性建 诰, 创新建筑方案。







# **ARCH+MORE Ziviltechniker GmbH**

Dr.-Karl-Renner-Weg 14 9220 Velden am Wörthersee Austria | Österreich

Dipl.-Ing. Arch. Gerhard Kopeinig T+43 / 4274 / 3918 - 0 M+43 / 676 / 937 55 37 E arch@archmore.cc W www.archmore.cc



ARCH+MORE stands for a comprehensive architectural concept:

- the best possible combination of aesthetics with energy efficiency
- intelligent, holistic building concepts
- integrative planning processes with building contractors, operating companies, engineers, authorities and contractors

The field of activity ranges from commercial and industrial buildings to residential homes and complexes, municipal and sacral building projects. Particular focus lies on the redevelopment and revitalisation of existing buildings and structures.

ARCH+MORE creates atmosphere.

VELDEN LINZ VIENNA

ARCH+MORE民用工程公司是综合建筑设计理念的代表:

- 美学与高效节能的完美结合
- 智能、整体的建筑理念
- 与业主、建筑承包商、工程师、政府主管当局与施工单位合作的综合规划

业务活动范围涵盖了商业、工业建筑,住宅区, 复合式住宅,市政和祭典建筑项目,特别致力于 既有建筑和建筑结构的重建与翻新。

ARCH+MORE营造氛围

韦尔登 林茨 维也纳





# ATP architects engineers

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T +43 / 512 / 5370 - 0 F +43 / 512 / 5370 - 2194 E info\_ibk@atp.ag W www.atp.ag



The core competence of the 450 architects and engineers at ATP is the comprehensive planning of complex large-scale projects for tourism, shopping & entertainment, industry, logistics, housing and health care.

We provide all planning services by simultaneous and interdisciplinary processes and we support our clients from the project concept to the completion of the building.

The systematic involvement of the customers thus ensures high quality sustainable buildings and optimized life cycle costs which best support the core processes of our customers. ATP stands for functional aesthetics, innovation and for economically and ecologically successful buildings.

ATP建筑设计工程公司拥有450位建筑设计师和工程师组成的核心人才团队,提供旅游、购物、娱乐、工业、物流、居住与卫生保健等领域复杂大型建筑的综合设计。

我们提供跨领域、同步进行的设计规划服务,在 项目策划和施工完成方面为客户提供支持。

客户积极参与式的机制确保了可持续建筑的高质量与最优的寿命周期成本,在核心过程中为客户提供最好的支持。ATP公司代表着功能性美学,创新理念以及在经济和生态方面均获得成功的建筑。









# Bilfinger Berger Baugesellschaft m.b.H.

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The Bilfinger Berger Baugesellschaft m.b.H. is based in Vienna. In addition to an office in Linz, the company also has offices and interests in Hungary, Romania, Slovakia and the Czech Republic.

As part of the Bilfinger Berger SE Multi Service Group and a 100% subsidiary of the Bilfinger Berger Ingenieurbau GmbH, customers benefit from the experience, the expertise and the innovation power of a strong, internationally positioned company.

Bilfinger Berger carries out challenging construction projects for clients in the private and public sector and develops complete solutions for real estate, infrastructure and environmental projects, from the planning to the implementation and operation.

Bilfinger Berger 建筑有限责任公司位于维也纳,除了在林茨拥有办公室外,企业在匈牙利、罗马尼亚、斯洛伐克与捷克共和国设有办公室。

公司作为比尔芬伯格综合服务集团旗下的一员,是Bilfinger Berger 工程建筑有限公司的全额子公司,拥有大量行业经验、专业知识和创新能力,是一家实力雄厚的定位国际市场的企业。

Bilfinger Berger公司为私人与公共部门客户提供充满挑战性的建筑计划,为不动产、基础设施和环境项目提供全面的方案,从策划到执行再到具体操作。



# Cree GmbH

Färbergasse 17b 6850 Dornbirn Austria I Österreich

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Cree – Creative Resource & Energy Efficiency. We see ourselves not only as a contracting company but also as a source of ideas and initiator of new strategies for sustainable treatment of our resources. The innovative system using timber as a building material sets an example for the efficient use of resources and energy in the construction industry of the future.

The means of construction allow freedom in the architectural design of the facades, the surfaces and the interior space. Prefabricated components such as columns, ceilings and building technology guarantee short construction times, the highest quality and functionality.

The LifeCycle building system is implemented under licence or in joint ventures with local companies.

Cree一创新资源与能源效率。我们对自身的定位不仅限于一家施工承包企业,而是创意的提供者,可持续资源新战略的倡导者。在我们的创新体系中,木材被定位为建筑原料,这为未来的建筑业树立了一个资源和能源有效利用的新标杆。

这样的建筑方法为建筑外立面、表面与室内空间 的设计提供了自由度。格栅、天花板的预制组件 与施工技术能有效缩短施工周期,同时确保高品 质与功能性。

建筑生命周期循环体系经授权或者以合资形式已 经与当地企业共同付诸实施。









# cube-s Baumanagement GmbH

Taubstummengasse 13/5a 1040 Wien Austria I Österreich

T +43 / 1 / 913 41 35 E office@cube-s.at W www.cube-s.at/unternehmen



cube-s is an innovative company involved in the sustainable design and implementation of passivhaus buildings. Its founder and managing partner Johannes Hofmeister plans, develops and implements energy-intelligent solutions for more than 15 years.

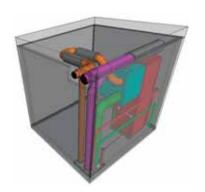
The passion for innovative concepts leads to the concept of the green cube: the integration of best passivhaus-technologies to a compact, easy to use, plug-and-play solution.

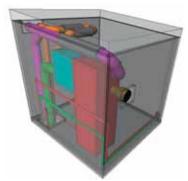
Austrian top know-how becomes the engine for energy efficient building constructions.

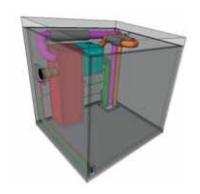
cube-s建筑管理公司是一家创新型企业,主要从事被动式建筑的可持续设计与建筑方案实施。企业创始者与主要合伙人Johannes Hofmeister致力于策划、开发和执行能源智能的解决方案已有15年之久。

对于理念创新的激情孕育出了"绿色立方"的全新理念:在紧凑空间内最大限度地整合被动式技术,操作简单,即插即用。

奥地利顶尖的专业技能是高效节能建筑的原动力。







#### **Denkstatt GmbH**

Hietzinger Hauptstraße 28 1130 Wien Austria | Österreich

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According to a study by the World Business Council for Sustainable Development, the building sector has an energy saving potential of 60% by the year 2050. In addition to energy efficiency, the choice of location, the planning, the choice of raw materials as well as the taking into account of the running costs are all important. Therefore it makes sense and proves to pay off to have an experienced partner like ourselves.

Consulting for sustainable construction:

- from building contractors, developers and planning teams for the sustainable planning and construction of buildings
- systematic consideration of the ecological, economic, socio-cultural, functional and technical quality as well as the quality of the process and location
- advice on applying for sustainability certificates for buildings

据世界可持续发展工商理事会的调查研究,在2050年以前建筑行业有望实现节能60%。除了高效节能,场地的选择、规划、原材料的选择以及对运行成本的考量也是十分重要的因素。为此,选择我们公司这样一个经验丰富的合作伙伴是极具意义的。

#### 可持续建筑的咨询顾问:

- 解答来自业主、开发商与规划团队的关于可持续建筑设计与施工的问题
- 系统考虑生态、经济、社会文化、功能和技术 质量等要素,并确保过程和企业当地的质量
- 为建筑项目获取可持续发展证书提供建议









# **DUDA, TESTOR. ARCHITEKTUR ZT GMBH**

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Founded in 2003 by Arch. DI Klaus Duda and Arch. DI Erik Testor, DTA provides planning services in all areas of architecture (commercial buildings, offices, housing, care homes, schools, etc.) focussing on energy efficient construction, passive house technology and sustainable urban planning.

DTA designs buildings with low energy, passive house and plus-energy standards and oversees projects from the design stage to quality control either independently or in cooperation with local partners.

Our range of services also includes project development, consulting, building certification (LEED, DGNB, PHBB) as well as training and seminars in the field of green building technology.

公司由建筑设计师DI Klaus Duda和Arch. DI Erik Testor于2003年创立,DTA公司提供建筑设计所有领域(商业建筑、办公楼、住宅、护理机构、学校等)的规划服务,致力于高效节能建筑、被动式房屋技术与可持续性城市规划。

DTA公司设计低能耗、被动式和正能源标准的建筑,独立或者与当地合作伙伴一同提供从设计阶段到质量控制的项目统筹服务。

我们的服务包括了项目开发,咨询,建筑认证 (LEED, DGNB, PHBB) ,以及绿色建筑技术领域的培训与研讨。





# eco2building GmbH

Kotzinastraße 4 4030 Linz Austria I Österreich

Ing. Friedrich Kaltenböck T+43/732/38905 - 0 E friedrich.kaltenboeck@eco2building.com W www.eco2building.com



The modular timber construction system

A unique concept for industrial and commercial buildings in passive house quality

- eco<sup>2</sup>building is ecological
   90 percent reduction of heating and airconditioning requirements thanks to an optimized energy efficiency and building services concept
- eco²building is economical
  Reliable financial planning thanks to fixed
  price offers and complete management;
  30 percent shorter implementation phases thanks to a high degree of prefabrication
- eco<sup>2</sup>building is high quality
  Best workmanship thanks to competent
  and experienced project partners and
  comprehensive quality management; a
  modular construction system customized
  to your corporate design

模块化的木结构建筑体系

在工业、商用建筑被动房质量的独特设计理念

- eco2building的生态性 最优的节能与建筑服务方案为您节省90%的 供暖与空调耗能
- eco2building的经济性 值得信赖的财务计划来自固定报价与全面管 理;高度的预组装为您节省30%的施工时间
- eco2building的高质量 有实力的、经验丰富的项目合作伙伴与全面质 量管理为您提供最佳施工质量;模块化建筑体 系可以为您的企业设计提供定制









# **ELK Fertighaus GmbH**

Industriestraße 1 3943 Schrems Austria I Österreich

T +43 / 2853 / 705 0 F +43 / 2853 / 76855 0 E office@elk.at W www.elk.at



The ELK Group is a leading company in the European prefab market. Highest quality, continuous product innovation, a high degree of prefabrication and short construction period have led the company to international success.

The ELK Group has production plants in Austria, the Czech Republic and employs more than 1,242 employees. In 2012, the ELK Group has produced 1,099 homes.

ELK specializes in the industrial production of prefabricated houses in timber frame technology. The product range of ELK comprises single-family homes, such as double row houses, commercial buildings (kindergartens, student residences), motels, hotels and the multi-storey housing.

Further Information: www.elkbuildingsystems.com

ELK集团在欧洲的预制件市场享有领先的地位。顶级的质量,持续的产品升级,高度预加工和缩短的施工周期带领企业在国际市场上取得成功。

ELK集团在奥地利和捷克共和国设有生产厂,有超过1242名员工。2012年,ELK集团成功建造房屋1099幢。

ELK公司专业研究使用木框架技术的预制房屋的 工业化生产,产品范围覆盖独栋家庭房屋、双排 房屋、商业建筑(幼儿园,学生宿舍)、汽车旅 馆、宾馆与多层住宅等。

更多信息请浏览: www.elkbuildingsystems.com







# **GHS GmbH Global Housing Solutions**

Voitsdorferstrasse 8 4551 Ried im Traunkreis Austria | Österreich

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"GHS Global Housing Solutions provide people with a home" is the motto of the Upper Austrian company. GHS is a specialist in the engineering and production of composite housing with flexible filling and of turn-key solutions for composite house construction.

Thanks to the GHS technology, well-designed houses made of massive materials can be built in only a few steps. Based on ready profiles, the houses are inhabitable within a very short period of time and are built to last for a long time.

The intelligent use of materials and connecting pieces means that the houses can withstand earthquakes and hurricanes.

"GHS全球住房解决方案为人们提供一个家"一直是这家位于上奥地利州的企业信条。GHS公司在复合式住房的工程与生产上一直独树一帜,填料灵活,提供交钥匙整体解决方案。

得益于GHS的技术,选用坚固材料精心设计的住房仅需几步即可完成。在预制型材的基础上,住房可以在很短的时间内完工,达到可入住状态并且具有长期使用寿命。

通过合理使用材料与连接件,房屋可以抵御来自 地震与飓风的侵袭。







#### iC consulenten Ziviltechniker GesmbH

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With more than 360 employees and projects in over 100 countries, iC is one of the largest engineering firms in Austria. The company boasts a wide range of services, which allows interdisciplinary thinking and provides innovative solutions.

#### Our technical fields:

- Buildings & structures
- Construction & project management
- Energy
- Geology & geotechnical engineering
- Transport & mobility
- Technical building equipment
- Tunnelling
- Environment
- Water

#### Our services:

- Project planning & development
- Tendering & award of contracts
- Project management
- Regulation & control
- Studies & consulting
- Due diligence

拥有超过360名员工,项目遍及全球100余个国家,IC可以称得上是奥地利最大规模的工程企业之一。企业业务范围广,提供跨学科思维与创新性的解决方案。

#### 我们的技术领域有:

- 建筑和结构
- 建筑与项目管理
- 能源
- 地质学与地质工程
- 运输与交通
- 高精建筑设备
- 隧道挖掘
- 环境
- 水源

#### 我们的服务包括:

- 项目规划与开发
- 招投标
- 项目管理
- 管理控制
- 研究与咨询
- 严格评估









# ILF Beratende Ingenieure ZT GmbH

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ILF Consulting Engineers is one of the leading engineering companies worldwide with more than 30 branch offices and 1800 employees. The range of ILF services includes consulting and studies, as well as support in planning and implementation.

At ILF ecological, economic (increase of the overall profitability) and social factors are taken into account in the sustainable planning and construction of both individual buildings and city districts. All areas of expertise are covered, such as architecture, energetic design, technical building equipment, construction physics and environmental relevance.

ILF工程咨询公司是一家全球领先的工程企业,旗下有超过30家分支机构与1800多名员工。ILF公司的服务范围包括咨询与调研,同时也提供项目规划与实施服务。

ILF公司从生态、经济(增加整体盈利能力)和社会等多方面因素进行考量,为单一建筑和城市小区提供可持续的规划、建设,并且涵盖方方面面的专业知识,例如建筑设计、高精建筑设备、建筑物理学和环境关联性等等。









# Ing. Günter Lang - Lang Consulting

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Lang Consulting, in collaboration with the Passive House Institute, is recognized as a qualified expert in its field through its intensive worldwide networking, research and consultancy work in all matters relating to passive housing. It aims to create a global passive house industry network and to increase awareness of the passive house standards.

The focus is on the passive house, energy efficiency and the "nearly zero energy building":

- Initiation and implementation of research and demonstration projects and widespread dissemination of the findings
- Speaker at conferences and visiting lecturer at universities worldwide
- Tour leader for excursions to passive houses worldwide

Since 2013 Günter Lang has been the head of the expert network Passivhaus Austria www.passivhaus-austria.org. Long咨询公司与被动房屋研究所保持合作,凭借在被动房屋领域的积极建立的全球网络以及所开展的研究与咨询工作,一直被视为是行业内信得过的专家机构。企业目标是营建一个全球性的被动式房屋产业联络网络,并提高人们对被动式房屋标准的认识程度。

公司的主要业务是被动式房屋,高效节能与"近零耗能的建筑"

- 推广并实施研究和示范性项目,并广泛传播相关知识和经验
- 在全球范围的会议上和作为客座讲师在大学 进行相关发言
- 在全球方位组织参观被动式房屋

2013年起,Günter Lang已成为奥地利被动房协会联络网络的首席专家www.passivhaus-austria.org.





#### INGENOS.GOBIET.ZT GmbH

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The Ingenos.Gobiet.ZT GmbH is one of the largest Austrian freelance civil engineering offices. Our broad range of single source services extends from project development to building supervision.

The team at Ingenos.Gobiet.ZT GmbH is currently made up of 120 employees from all constructional areas.

The managers, employees and partners are all qualified experts in their respective specialist areas. Their extensive know-how means that Ingenos.Gobiet.ZT GmbH has the potential to solve complex technical, economic and ecological tasks.

INGENOS.GOBIET.ZT 有限责任公司是奥地利最大的土木工程自由职业工作室之一。我们的全方位服务范围涉及项目开发到建设监管的方方面面。

目前INGENOS.GOBIET.ZT有限责任公司的团队由来自建筑行业各个领域的120名人士组成。

无论是管理者、员工还是合作伙伴,他们在各自的领域内都是具备资质的专业人士,他们丰富的专业知识确保了INGENOS.GOBIET.ZT有限责任公司有能力应对解决复杂的技术、经济与生态难题。







# Jäger Bau GmbH

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Jäger Bau GmbH is an ÖKOPROFIT certified industrial company with around 650 employees. The major areas of business are project development, construction, civil engineering and underground construction.

The clients' requirements are fulfilled through a high level of expertise, performance and passion for innovation.

Special value is set on the use of natural and energetically sensible materials. Resources and energy are used sparingly to avoid unnecessary pollution.

Alternative heating systems (e.g. geothermal heat) are largely used in the project development.

Jäger建筑有限责任公司是一家获得ÖKOPROFIT 认证的实业公司,有近650名员工,主要的业务 范围有项目开发、建筑、土木工程与地下建筑工 程。

客户的要求由我们依靠高水平的专业资质、综合能力和创新热情来予以满足。

最大限度地使用合适的与天然的原材料带来特殊价值,资源与能源的节约利用避免了不必要的污染产生。

在项目开发的过程中,大部分地运用诸如地热供 暖等可替代的供暖系统。







#### Planning and Construction | 规划设计与建筑方式

#### **Knauf GmbH**

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Knauf has been supplying the Austrian market since 1970 with forward-looking system solutions based on plaster, chalk, cement, chemical and metal profile technologies for construction projects of the highest quality.

The development of complete drywall construction systems has had a significant impact on structural design in general and is essential for modern construction methods. Knauf GmbH uses all available resources in an efficient, environmentally-friendly and cost-effective manner.

The product range offers:

- Knauf DIY products
- Knauf panels and accessories
- Knauf profiles and fitting accessories
- Knauf adhesive gypsum and filler products
- Knauf plasters, renders

Knauf公司自1970年开始就不断地为奥地利市场 提供前瞻性的建筑方案,并基于石膏、白垩岩, 水泥, 化学制剂和金属型材技术来完成高质量的 建筑项目。

全套干作业墙体建筑系统的开发对建筑结构设计 产生了重大的影响,已成为现代施工方案不可或 缺的普遍方法。Knauf 公司利用一切可用的资源 来实现节能、环境友好与成本效益。

#### 产品领域覆盖:

- Knauf DIY产品
- Knauf 面板与配件
- Knauf 型材与安装配件
- Knauf 粘胶剂石膏与填料产品
- Knauf 石膏和灰浆









#### LEEB Balkone GmbH

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LEEB is Europe's leading manufacturer of balconies and fences made of wood or aluminium. No matter whether for a new building, renovation or extension – LEEB has a suitable balcony or fence for every style of building. More than 100 models can be delivered.

LEEB is the only manufacturer to offer the VA-CU-Protect® complete impregnation for wood materials. The impregnation guarantees a top appearance, durability and optimal protection against the sun, wind, weather conditions and pest infestation.

The LEEB aluminium programme is ideal for building contractors and renovators with high design standards. Thanks to a high quality powder coating LEEB aluminium balconies require virtually no care or maintenance.

LEEB公司是欧洲领先的木制或铝制阳台与栏杆的 生产商。无论是新建筑还是旧建筑翻新一LEEB公 司提供多达一百余种的阳台或栏杆式样,足以满 足各式各样建筑的不同需求。

LEEB公司是仅有的能够提供VA-CU-Protect®完整浸渍木材料的生产商。此种浸渍工艺下,材料外型美观,坚固耐用,在抵御阳光、风、不同气候条件及虫害侵蚀上均有极佳表现。

LEEB公司的铝材料是具有高设计要求的建筑承包商和翻修施工单位的理想选择。受益于高品质的粉体涂料,LEEB的铝制阳台也基本不需要进行更多的保养和维护。





# Lukas Lang Building Technologies GmbH

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Lukas Lang Building Technologies plans and erects wooden buildings based on a pioneering construction concept. A modular system puts into practice the vision of industrial construction. Aesthetic designs replace traditional ideas about wood architecture.

The flexibility of the modular system guarantees that buildings can undergo modifications and still maintain their value.

In addition to individual solutions the modular system enables simple, rapid planning and construction of office buildings (administration buildings) and detached, semi-detached and terraced housing developments.

Lukas Lang 建筑技术公司采用先进的建筑理念来设计和建设木结构建筑,模块化系统支持实现工业化建筑的愿景,充满艺术感的美学设计取代了传统的木结构建筑理念。

模块化系统的灵活性保证了建筑物可以重复修改 且仍然保持其品质。

除了独立解决方案,模块化系统还能够快速、简 单地设计建造办公楼(行政楼)和独栋、双户连 体及联排房屋。



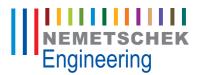




# Nemetschek Engineering GmbH

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Nemetschek Engineering develops and markets software for the precast concrete industry.

"Allplan PRECAST" is the successful and internationally leading system for precast parts planning. As an integrated solution, Allplan PRECAST unites the strengths of 2D CAD and 3D BIM work.

"TIM" Technical Information Manager links the various departments of the precast company. Easy to use, TIM provides information about projects, their structure and status, and immediately visualises the content - either as a virtual model or in the form of a table. Even delivery and assembly planning can be operated virtually.

You can rely on our high-performance software and on first-class, flexible and customer-oriented services.

Nemetschek工程公司开发、销售预制混凝土工业的软件。

"All plan PRECAST (全部预制)"在预制部件设计中是非常成功和国际化的领先系统。作为一个集成解决方案,All plan PRECAST集合了2D CAD与3D BIM工作的优势。

"TIM"技术信息管理者连接了不同部门的预制件企业,便捷实用,TIM提供项目信息及其结构与状态,使内容立刻呈现一用表格的形式或者是可视化模型。即使是交付与装配计划也可以可视化地来进行操作。

顾客可以完全信赖地享用我们高效能的软件与一流、灵活和以顾客为中心的服务。





#### **OA.SYS** baut GmbH

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oa.sys baut has developed from the traditional timber construction industry to become a versatile construction specialist. The company's internal staff structure and the close cooperation with external network partners make it possible to offer all services from a single source.

Lateral thinking is the recipe for success, which meant that oa.sys.baut was able to win many large projects.

Many years of experience in timber construction, comprehensive know-how and a team which is open to new ideas make oa.sys.baut the ideal partner for the planning and building of single and multi-family homes, hotel construction, industrial and commercial construction, renovations, classic wood construction and masonry.

oa.sys baut公司已成功地从一家传统的木结构建筑企业转型成为多领域的建筑专家。企业员工结构国际化,并与外部网络合作伙伴紧密联系,这都使得企业可以一手提供多方位的服务。

横向思考是成功的秘诀之一,这让oa.sys baut公司能够在许多大型项目中脱颖而出。

在木结构建筑方面积累的多年经验,全方位的技术工艺和新创意层出不穷的团队,都使oa.sysbaut公司成为您理想的合作伙伴。企业在单一或多家庭房屋、酒店建筑、工业或商业建筑、建筑翻新或经典木、石结构建筑方面都有杰出的表现。









### **PORR Bau GmbH**

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As a major international construction company PORR can build on more than 140 years of experience. It has been, and continues to be, involved in the construction of many important buildings and projects both at home and abroad.

In particular PORR provides wide-ranging know-how in the fields of foundation engineering, transport infrastructure construction, tunnel construction, power station construction, railway construction, logistics, bridge construction, environmental technology, posttensioned structures and pipe network construction.

An additional area of specialist competence focuses on operator and concession models in the water, energy, waste and transport sectors. Long-term market opportunities are also supported by the availability of stone, gravel and landfill site resources in company ownership.

作为国际主要的建筑企业,PORR公司已经积累了超过140年的建筑经验,曾经并仍将继续参与国际国内各种重要建筑与项目的建设。

PORR公司特别在基础工程、交通基础设施、隧道工程、电站工程、铁路工程、物流、桥梁工程、环境科技、后张拉结构和管道网络建设等领域具备广泛的技术工艺。

除此之外,公司在水资源、能源、废弃物与运输等领域的专业能力也值得信赖。企业对石料、碎石、废料填埋场等资源拥有所有权,也提供了长期的市场机遇。







## pos architekten schneider zt-kg

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Our expertise and our focus lie in the planning and implementation of holistic sustainable building concepts.

Through intensive research activity, as well as over 30 years of experience with solar, ecological and energy-efficient construction, we can showcase the latest findings of applied research in flagship projects, where the focus is on sustainable added value and maximum user comfort.

The first passive house project in the tropics, and simultaneously the world's first sustainable embassy building, is one built example of our planning expertise.

我们的专业资质与企业重心在于设计与实施整体性的可持续式建筑方案。

通过加强研究工作以及所积累的30余年的太阳能、生态学、高效节能建筑经验,我们可以展示在示范项目应用研究领域所取得的最新进展,重点在于可持续的附加价值与最大限度的用户舒适度。

第一栋在热带地区的被动式房屋,同时也是世界 上首栋可持续的使馆建筑便是我们设计的一个典 型案例。









## **Prilhofer Consulting**

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Prilhofer Consulting is an independent consultancy and world market leader in the industrial production of concrete prefabricated buildings. Over the years, we have successfully introduced concrete precast technology in various countries around the world.

Our services include: Strategic consulting, determination of the basis for the investment planned in the form of a study report (layout, profitability calculation, etc.), to give you the highest possible security for your decision.

Assistance in the establishment and coordination of the precast concrete factory and the technical office, staff training, all logistical matters regarding the industrial production of buildings to the finished product – the prefabricated house.

Prilhofer咨询是一家独立的咨询公司,在国际混凝土预制件市场中也保持着领先的地位。多年来,全球范围已有多个国家成功引入了我们的混凝土预制件技术。

我们的服务包括:战略咨询,以研究报告(布局、盈利能力计算)的形式为您提供投资计划咨询,为您的决策带来最大限度的安全保障。

在建设并协调混凝土预制件工厂、技术办公室、员工培训、物流事务等与建筑加工生产领域相关的各方面提供支持,直至提供最终产品--预制装配式住宅建筑。







### schluder architektur ZT GmbH

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### schluderarchitektur

#### Architecture office in Vienna

The schluder architektur office concentrates mainly on residential and office construction. A few years ago the recent trend towards modern timber frame architecture in the city was addressed – timber as a construction material is an ever recurring topic, not least because of the current debate on climate and the necessary ecologisation of the cities.

Areas of activity:

Vienna – Austria – Berlin

#### Topics:

housing construction – office construction – shop conversion – building with old material

#### Special topic:

multi-storey timber construction | hybrid systems, low energy systems

Cooperative planning structure with Alpha EE Austria (http://www.alpha-ee.at)

#### 位于维也纳的建筑设计事务所

schluder 建筑设计事务所主要致力于住宅与办公楼宇的建设。城市现代木结构建筑在数年前开始流行起来,木材是建筑材料中反复出现的一个题材,不仅是因为它是当前气候争议的焦点、城市生态学中必要的一环。

业务活动范围:

维也纳一奥地利一柏林

业务领域:

住宅建筑一办公楼宇一商店改建一旧材料建筑

特殊业务:

多层的木结构建筑 | 混合系统、低能耗系统

与奥地利Alpha EE公司合作进行建筑结构设计 (http://www.alpha-ee.at)







## SFL technologies GmbH

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The company SFL technologies pursues a holistic approach, making use of the eight intersecting specialist areas and combining technologies with know-how.

The department of energy technology works in cooperation with the R&D of fibag (Forschungszentrum für integrales Bauwesen AG - http://www.fibag.at).

- Project-oriented abc-concepts (active base concept)
- Photovoltaics
- Solar thermal energy
- Wind power converters
- Sustainable solutions for sun screening
- Integration of energy-producing components and applications in and on facades
- Development of highly efficient facades
- Lighting technologies and integration of LEDs

SFL integrates energy solutions provided by fibag into facade construction, glass technology und lighting technology.

SFL 技术公司追求的是着眼全局,利用其八个相互交叉的专业领域,将技术与工艺相结合。

能源技术部门与一体化建筑研究中心 fibag (Forschungszentrum für integrales Bauwesen AG- http://www.fibag.at) 合作进行研发工作。

- 面向项目的abc技术方案 (active base concept)
- 太阳能光伏
- 太阳能加热
- 风能转换器
- 可持续阳光防护方案
- 整合能源生产组件与内外墙应用
- 开发高效率的外立面
- 照明技术与LED集成

SFL公司整合fibag提供的能源技术方案,应用于外立面结构、玻璃技术与照明技术中。









### Söhne & Partner Architekten ZT GmbH

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Our architecture is as unique as our clients!

A building must always engage in a dialogue – with its surroundings and the people who use it. Our architecture is always tailored to the needs of the people who live, work or spend their leisure time in our buildings.

We also pay attention to our buildings' surroundings, and use them as a source of inspiration. Because the brief, site and client are never the same twice over, every project is unique – and so are our solutions.

我们的建筑设计师与我们的客户一样都是独一无二的。

一个建筑必须被经常置于交流的环境一与它周围的环境和使用它的人。我们的建筑设计师会根据在房屋中生活、工作或打法闲暇时间人们的需求,为其量身定制合适的建筑。

我们同样将注意力放在房屋的周边,将其作为一种灵感的来源。因为对于每一个建筑来说,诉求、地点和客户都是独一无二的,所以每个项目都是特别的,我们的每个解决方案也都会是特别的。







### STRABAG SE

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Create networks, exchange knowledge, join forces – in keeping with this credo STRAGBAG SE, the leading construction company in Central and Eastern Europe, unites the expertise of well-know brand names under one roof.

Through the intensive cooperation with numerous subsidiaries and associated companies, milestones in civil engineering are created globally.

Thanks to the local know-how, the company's own raw material network and a wide spectrum of services, the STRABAG SE is well known as a reliable partner for challenging building projects beyond the Austro-German borders into East and Southeast Europe, as well as in many West European countries and on other continents.

建设网络、交流知识、汇集力量—STRABAG SE 始终遵循着这样的信条,成为了在中欧与东欧地区领先的建筑公司,并将多个国际驰名的品牌整合至旗下。

通过与旗下多家子公司和参股企业的紧密合作, 公司在国际土木工程史上留下了里程碑意义的项 目。

凭借当地技术工艺和企业拥有原材料网络和广泛的服务领域,STRABAG SE公司作为一个可信赖的合作伙伴,跨越了奥德边界,在东欧和东南欧以及许多西欧国家和其它大洲完成了多项充满挑战的建筑项目,享有盛誉。







## timbertrend e.U. Hugo Karre

Auenweg 2 9813 Möllbrücke Austria I Österreich

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#### timbertrend

... meets all your timber requirements and in addition represents SCHOLZ® autoclave equipment in Italy and the PU adhesive XYLO-BOND T (manufactured by Collanti Concorde – IT) in Austria, Germany and Switzerland.

#### timbertrend

... as partner of the forum\_holzbau, a forum for timber construction, organizes top international congresses such as the Forum | Legno | Edilizia | Italia.

#### timbertrend

... provides efficient access to a network of decision makers in the timber industry and offers assistance in entering the market, as well as in the search for new partners and fields of business.

For further information please visit: www.timbertrend.at

#### timbertrend公司

······满足您所有的木结构需求,除此之外还在意大利代理SCHOLZ®高压设备,在奥地利、德国和瑞士代理PU粘合剂XYLO-BOND T (由Collanti Concorde-IT生产)。

#### timbertrend公司

······是木结构论坛holzbau的合作伙伴,是顶尖国际会议的主办方,如意大利论坛orum | Legno | Edilizia | Italia。

#### timbertrend公司

……提供高效的途径与木结构产业决策人对话, 为进入市场、寻找新的合作伙伴与新的业务领域 提供帮助。

更多信息敬请访问: www.timbertrend.at







## Unger Stahlbau Ges.m.b.H.

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The internationally successful Unger Steel Group supplies know-how gained over many years in all fields of the construction industry.

Activities range from steel frame construction to ready-to-use delivery of complete projects as a general contractor and to Real Estate development.

20 subsidiaries in West. Central and Eastern Europe and the Middle East provide regional access to all the group's services.

Two production plants - in Austria and in Sharjah (UAE) - are the logistical hubs for first class deliveries in the shortest possible times.

With an overall annual capacity of 70,000 tons for the two plants, small-scale projects right up to ready-to-use solutions for complex construction projects can be delivered quickly and to the customer's satisfaction

在国际市场获得成功的Unger钢铁集团提供在建 筑行业所有领域积累多年的成熟技术经验。

业务范围涉及钢结构建筑,作为总承包商提供交 钥匙项目,以及不动产开发业务。

在西欧、中欧、东欧以及中东的20家子公司为当 地提供通向享受集团全部服务的渠道。

分别位于奥地利和阿联酋沙迦的两个生产基地起 到物流枢纽的作用,在最短的时间内交付最一流 的产品。

从小规模的项目到整体建筑项目的交钥匙解决方 案,凭借70000吨的年生产能力,两个生产基地 都可以迅速完成交付并让客户感到满意。





## VPG Verbundsysteme Planungs-Produktions-BaugesellschaftmbH

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As an innovator and longstanding specialist in the field of composite formwork technology the VST Group not only develops patented solutions but also provides a complete range of construction project services.

Although there have been numerous developments in the building materials and construction machinery sectors, the methods used have remained unchanged for generations. The VST Group has recognised the limitations of these systems and successfully overcome them by developing its own highly productive and easy-to-use composite formwork system.

This system has allowed us to create a madeto-measure solution for construction industry clients, based on the principle of industrially prefabricated stay-in-place formwork. VST集团历史悠久,不断创新,是复合模板技术领域的专家,不仅开发了多项专利,还提供一系列完整的建筑项目服务。

尽管我们已经在建筑材料和建筑设备领域取得了相当多的突破,但施工的方式几代以来仍然保持着传统,未曾改变。VST集团认识到这些系统产品的局限性,并且通过开发独有的高生产率、易于使用的复合模板系统成功地将其克服。

这一系统使我们能基于工业化预制模板的特性, 为建筑行业的客户建立定制的解决方案。







### Waagner-Biro AG

Leonard-Bernstein-Straße 10 Saturn Tower 3. Stk. 1220 Wien Austria | Österreich

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## waagner biro

The success of the Waagner-Biro Group is based on engineering know-how at the highest level and 160 years of experience in steel and engineering.

The steel and glass technology division is specialist in modern architectural steel construction and works together with leading international planners. The customer is presented with solutions with improved sustainability.

With its bridge building division Waager-Biro is internationally active in bridge building, engineering and steel construction, as well as railway technology.

Waagner-Biro is also one of the most significant suppliers worldwide in stage technology for renowned opera houses and theatres, as well as event locations.

Waagner-Biro集团成功的原因在于顶级水平的工程技术工艺和160年的钢材和机械制造经验。

集团的钢、玻璃技术业务在现代钢结构建筑领域 十分专业,与国际知名规划设计师进行合作。企 业为客户提供可持续改进的解决方案建议。

Waagner-Biro集团的桥梁建设业务也活跃在国际桥梁建设、工程与钢结构建筑、铁路建设的舞台上。

Waagner-Biro公司同样也是世界范围非常重要的舞台技术供应商,成功地为许多知名的歌剧院、剧场与活动中心提供了服务。





### Sustainable Building | 关于可持续建筑 Planning and Construction | 规划设计与建筑方式

### **WIEHAG GmbH**

Linzer Straße 24 4950 Altheim Austria I Österreich

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WIEHAG GmbH Timber Construction has more than 160 years of experience in timber construction. As Europe's leading specialist for broad supporting systems and complete roofs, WIEHAG can boast numerous references in trade fairs, sports and industrial buildings, as well as for special contracts, e.g. the tax office in Garmisch-Partenkirchen, Ice Park Eilat or the Bangor Leisure Centre.

Other areas of business: glue laminated timber for finished joined support system solutions and individual components, Profidec the ready-to-install glued laminated system for roofs, ceilings and walls, three-layer natural wood panels for interior and exterior use, as well as top formwork panels.

WIEHAG有限责任公司在木结构建筑领域有超过160年的经验。作为欧洲领先的支撑系统和全套屋顶专家,WIEHAG公司在贸易展览会、体育场馆与工业建筑等项目上都有着骄人的业绩,同时也承接过许多特别的建筑项目,如Garmisch-Partenkirchen的税务局、Eilat冰公园、Bangor休闲娱乐中心等。

其他领域业务:用于已完成的支撑系统方案的胶合木材板与各个组件,用于屋顶、天花板与墙面的现成胶合板,用于内外墙面的三层天然木板,顶级模板面板。







### **Wolf Modul GmbH**

Fischerbühel 9 4644 Scharnstein Austria I Österreich

T +43 / 7615 / 25 81 F +43 / 7615 / 25 81 - 12 E office@wolfmodul.com W www.wolfmodul.com



Wolf Modul GmbH supplies a packaged set of prefabricated parts that are best suited for economical shipping worldwide. Most of the parts can also easily be produced locally. This ensures that the system offers very good value for money and the construction method can be used everywhere.

Construction costs are kept low by using local building services or adopting a self-build approach for most of the work.

It goes without saying that Wolf Modul meets low energy house requirements and complies with current technical standards and building regulations! A healthy, pleasant home environment is one of life's fundamental necessities.

Wolf Modul 有限责任公司提供整套打包的预制部件,最适用于全球范围经济划算的海运。大多数部件都可简单地由本地生产,这确保了供应过程中物有所值,且施工方法各处通用。

通过选用本地建筑服务或大多数工作采用自己动手的方法,建筑成本可以控制在低水平。

无需多言,Wolf Modul产品符合低能耗房屋的需求并完全依照了最新的技术指标和建筑规范。健康而又舒适的房屋环境是每个人一生中最重要的基本需求之一。







## Wolf Systembau Gesellschaft m.b.H.

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WOLF Group - Innovative construction technologies for the future!

The WOLF Group has more than 45 years of experience in sustainable construction. In this time we have continuously developed and improved our offer. WOLF is your partner for prefabricated houses, industrial and commercial buildings and cylindrical tanks.

We provide a total concept which is individually tailored to suit each project from planning to completion. Our building assignments are determined by functionality and cost which are adapted according to the required specifications. Sparing use of all natural resources, sophisticated innovations and optimal energy savings reflect our responsible approach to nature.

WOLF集团一引领未来的创新建筑技术!

WOLF集团在可持续建筑领域已有超过45年的经 验,在此期间,我们持续不断地对产品进行研发 和改进。WOLF公司是您在预制房屋、工业或商 业建筑、圆柱形储罐领域的合作伙伴。

我们提供一站式的服务,为每一个客户量身定制 合适的项目,从计划到完成。我们的建筑设计由 功能性与预算而定,依照所需的要求进行改变。 节约使用自然资源、充满智慧的创意、优化的能 源储存都能体现出我们保护自然的责任理念。







### **Zone Architekten**

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# ZONEARCHITEKTEN

Zone Architects – the office for architecture, urban planning and design - was founded in 2000 by the architect Nikola Popovic.

Analysis and development of concept, design and submission plans, detailed construction planning.

Artistic and on-site supervision.

General planning services and consulting.

Work by the Zone Architects is, from the design stage onwards, as interdisciplinary as possible. Appropriate experts are involved from the very beginning in the development of the projects.

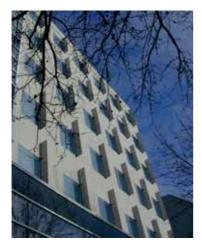
Zone 建筑设计事务所从事建筑设计,城市规划和设计,于2000年由建筑师Nikola Popovic成立。

提供项目分析和设计方案策划,设计草案和方案 提交,具体施工方案

提供艺术性与现场监管

提供整体规划服务与咨询

Zone 建筑设计事务所的工作从设计策划阶段开始 便尽可能地跨学科展开,主要专家自项目启动之 初起便介入其中。









### **ACTUAL Fenster Türen Sonnenschutz GmbH**

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Energy saving and design – ACTUAL offers innovations in windows. The company is a fullservice provider for windows, doors and sun protection. The ACTUAL Fenster AG Group has been producing innovative window and door technology in Austria for around 40 years.

ACTUAL was the first company in Austria to develop and produce profile and window systems on its own. ACTUAL was also the first company to present lead-free window profiles.

For distribution ACTUAL relies on ACTUAL partners as part of a franchise system which it is constantly looking to expand. More than 120 partners are already active in the core markets of Austria, Germany, Hungary and Italy.

节能与设计—ACTUAL公司致力于门窗创新方案。企业提供集中于门、窗与遮阳防护的全方位服务。ACTUAL 门窗集团股份公司的创新门窗技术在奥地利已有40年历史。

ACTUAL公司是奥地利第一家独立开发并生产出 窗框型材和窗户系统的企业,也同样是第一家制 造出无铅窗的企业。

销售方面,ACTUAL公司主要依赖于其特许经营合作商体系,并持续发展扩大,超过120家合作商积极致力于开拓奥地利、德国、匈牙利与意大利等主要市场。







### **AGRU Kunststofftechnik GmbH**

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AGRU Kunststofftechnik GmbH has 800 employees worldwide and ranks among the most important international manufacturers of innovative plastic products for liners, pipes, piping system components, concrete protection liners and semifinished products.

The uniquely superior quality of our products, based on decades of experience in plastic processing and our highly competent technical advice and service, is attested to by our satisfied customers and our ISO-9001 certification.

AGRU 塑料技术有限责任公司在全球有800名员工,是国际最重要的用于衬垫、管道、管道系统组件、混凝土保护衬垫和半成品的创新塑料产品生产商。

我们独特高品质的产品基于数十年来在塑料加工领域的经验和最权威的技术咨询与服务,产品受到了客户的一致好评,并通过了ISO-9001的认证。







Building Materials and Construction Services | 建筑材料与建筑服务

## Alfred Vesely Timber-Export e.U.

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Alfred Vesely Timber-Export e.U. is one of the leading suppliers in Austria of sawn timber (eg.spruce and fir) to the Middle East as well as to North and East Africa.

A trained team in the Vienna headquarters is committed to handling all orders individually and coordinating the international representatives. Alfred Vesely himself is in direct contact with the customers.

The wood is dried, impregnated, pressed into packaging, divided into bundles and marked in the terminal in the port of Koper in Slovenia.

Alfred Vesely 木材出口 e.U.公司是一家奥地利领先的成型木材供应商(如杉木与枞木),产品出口中东以及北非和东非。

在位于维也纳的总部,训练有素的专业团队独立处理各类订单,并且协调各国际代表处的工作。Alfred Vesely公司保持直接与每一位客户建立联系。

在抵达斯洛文尼亚科佩尔港后,木材经过干燥、 浸渍与层压后分拣装箱。





Building Materials and Construction Services | 建筑材料与建筑服务



## Altholz Baumgartner & Co GmbH

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Reclaimed wood.

Many years ago people used to hew beams by hand. Sun, wind and weather leave their unique mark on timber surfaces. Old floorboards carry the memory of countless footsteps. This patina has stories to tell and inspires those who see it.

Today reclaimed wood is used in modern architecture, interior design and exclusive furniture. Altholz Baumgartner & Co has specialised in reusing and processing this valuable resource.

#### 再生木材

多年以前人们还手工砍下巨木,阳光、风雨以及 气候都在木材表面留下了独有的痕迹,旧地板上 留下了无数脚步的回忆,所有的一切都诉说着故 事并激发了见证者的灵感。

如今,再生木材被使用在现代建筑、室内设计与定制家具中。Baumgartner再生木材公司对于如何挖掘和利用这些充满价值的木材资源有着专业独特的见解。

