



TEN Program  
for Sustainability  
Thematic  
Environmental  
Networks

SICP  
Sino-Italian Cooperation  
Program for Environmental  
Protection

**2015-2016**

Sustainable  
Development  
and Environmental  
Management  
Advanced Training  
Program  
Report

可持续发展与  
环境管理高级  
培训项目  
年度报告

VIU\_TEN\_SICP Sustainable Development and Environmental Management Advanced Training Program Report 2015-2016 可持续发展与环境管理高级培训项目2015-2016 年报告

**Sino Italian Cooperation Program  
for Environmental Protection**

**Sustainable Development  
and Environmental Management  
Advanced Training Program**

**Report 2015-2016**

**中意环保合作项目**

**可持续发展与环境管理  
高级培训项目**

**2015年 – 2016年报告**

Edited by  
**TEN Program for Sustainability**  
**Venice International University**  
ten@univiu.org  
www.univiu.org/ten  
www.sdcommunity.org

With the support of  
**Italian Ministry**  
**for the Environment, Land and Sea**

English proofreading by John Francis Phillimore  
Chinese translation by Laura Cassanelli

主编  
环境主题网络可持续性项目中心  
威尼斯国际大学  
ten@univiu.org  
www.univiu.org/ten  
www.sdcommunity.org

项目支持  
意大利环境、领土与海洋部

英文校读John Francis Phillimore  
中文翻译Laura Cassanelli

4	Foreword	5	前言
6	Training Course Contents	7	培训内容
34	Site Visits and Institutions	35	现场访问与机构
74	Training Profile Data	75	培训简况及数据
84	List of Acronyms	85	首字母缩略词列表

**7 Chinese partners, 22 training sessions, over 620 participants** and more than **100 lecturers & speakers**: these are the figures for the 12<sup>th</sup> edition (2015-2016) of the *Sino-Italian Sustainable Development and Environmental Management Advanced Training Program*.

In 2015 and 2016 the Sino-Italian Advanced Training Program courses changed towards a more flexible structure. **15-day sessions** were held between **Rome and Venice** and featured a longer stay at VIU, with its *ad hoc* choice of site visits and experts from relevant fields. In 2015-2016, **new site visits** to a variety of companies and industrial districts were introduced into the different training sessions in Italy, with the aim of continuing to offer the best sustainability practices available in Italy to the Chinese participants, and also with a view to further enhancing links between Italy and China within the framework of their scientific and entrepreneurial communities for sustainable development. Each of the companies and institutions visited are described in detail in the “Site visits and Institutions” section.

**Clean Energy** and **Climate Change** were core themes for these advanced training courses. Indeed, Climate change is one of the hot topics of sustainability at global level and the development of clean energy sources is the essential ingredient in mitigation measures.

Individual firms are key actors both in terms of environmental impacts and sustainability opportunities. **Industry** therefore needs to be **innovative** and **green** to promote sustainable development. **Energy efficiency** is particularly important for industry, both for ensuring that increasing energy demands are met and for pursuing sustainable development.

**Sustainable Urban Development (SUD) and Environmental Management** were also topics that the delegations asked for. As in the previous years, Air Environmental Pollution Control continued to be one of China’s main priorities and seven courses dedicated to this subject were organized. A novelty of 2016 was the focus on Soil Pollution Prevention and Control which has been listed in the **Monitoring and Control** topic area.

The “Training Contents” section lists the lectures and site visits offered in the 12<sup>th</sup> edition of the *Sino-Italian Advanced Training Program*. Invited speakers came mainly from the private sector, followed by public institutions and lastly academia and research centers, in order to provide experience from the whole range of stakeholders as well as practical examples and discussions.

2015-2016年中意合作项目举办了第十二届**可持续发展与环境管理高级培训课程（2015-2016年）**。中方政府机构为7个、培训班为22次、参加培训的中国政府官员和专家人数为620人、讲师为100多人。

2015年-2016年所举办的可持续发展与环境管理高级培训课程结构变为更加灵活。为期15天，课程地点为**罗马和威尼斯**，但威尼斯国际大学为培训经验的核心，包括教室专家讲座以及专门安排的实地参观。2015-2016年到工业区和企事业的**实地参观**机会增加了，以便使每班培训参加者亲身体验意大利可持续发展方面的最佳实践并进一步加强中意合作，尤其是科学和企业家之间的对话和交流，共同努力以实现可持续发展。报告的“实地参观与国家机构”段里详细介绍所参观的各个企业和机构均在。

**清洁能源与气候变化**为高级培训课程的焦点话题。气候变化是全球层面可持续性讨论中的热题，清洁能源的开发为减缓措施的基础。企业为即环境影响方面又可持续性机遇方面的关键行为体，因此只有**创新性工业和绿色工业**才能推动可持续发展。在此框架之下，**工业能效**极为重要，保证工业能满足日益增加的能源需求的同时还实现可持续发展的目标。

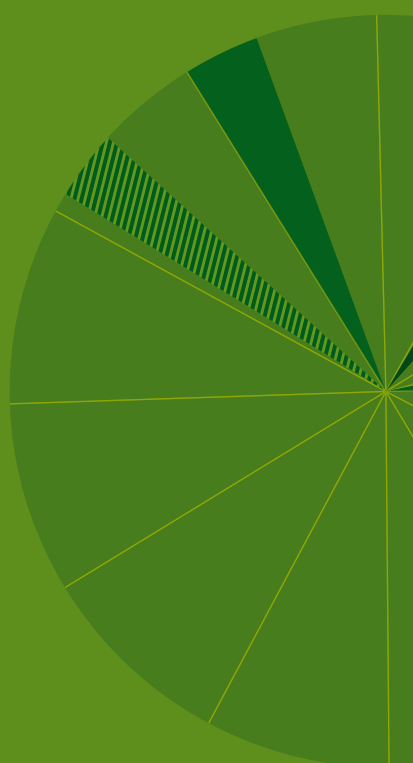
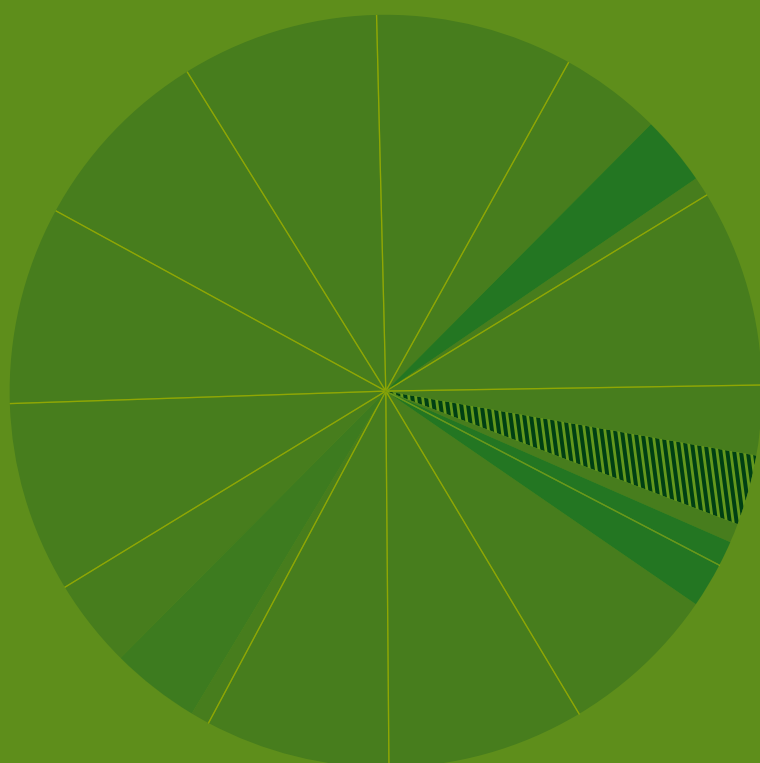
**可持续发展和环境管理**也是中方要求的**课程主题**。与前几年一致的，空气污染管制仍为中国最关键的专题之一，作为本届培训七次培训班的主要话题。2016年新增加了“土壤污染监控”话题，在报告**监测与管制**段里列出的。

报告“培训内容”段落列出第十二届理高级培训课程的全部讲座及参观地点。大部分的讲师来自意方私有企业，接着有来自意方国家机关、学术界和研究中心，以便对培训参加者提供环保事业参与各方的经验、实际案例和相关讨论。



Training Contents

培训内容





## Clean Energy, Climate Change & SUD

Eco-management requires a range of strategies and policies that needs to be developed. Cities are the starting level at which these have to be implemented in order to achieve sustainability.  
Climate change is one of the hot topics of sustainability at global level.  
Developing a clean energy is the cornerstone of mitigation measures.

Four courses:

Delegation	Course	General Schedule
CASS Beijing	Eco-Management: Strategies and Policies	April 20 <sup>th</sup> -24 <sup>th</sup> 2015, Beijing
CASS	Eco-Friendly City	May 10 <sup>th</sup> – 20 <sup>th</sup> 2015, Italy
CASS	Clean Energy and Climate Change	June 14 <sup>th</sup> – 24 <sup>th</sup> 2015, Italy
NDRC	Capacity Building on Climate Change	September 1 <sup>st</sup> – 24 <sup>th</sup> 2016, Italy

### Main objectives

- \_ To present EU and Italian legislation and policies on climate change and clean energy;
- \_ Analyse the main renewable energy sources and their effectiveness, cost and impact;
- \_ Present examples of energy efficiency strategies at local level in Italy;
- \_ Introduce the concept of the smart city for the future of sustainable communities;
- \_ Discuss the latest advances in architecture for highly efficient housing and the energy efficiency certification of buildings;
- \_ Discuss the key issues for sustainable city management: urban waste & wastewater management, air pollution and traffic control;
- \_ Provide case studies centred on eco-building and energy efficiency;
- \_ Introduce the main aspects of sustainable mobility;
- \_ Examine the contribution given by mobility planning to the development of more liveable cities and to protecting citizens’ health.

### Topics

#### Policies and Legal Aspects of Sustainable Development & Climate Change

- *Policies and Measures for Climate Change: Implementing the Paris Agreement*  
G. Dramis, General Department for Climate Change and Energy, IMELS
- *Approaches to Climate Change after Paris*, I. Musu, VIU-TEN and Ca’ Foscari University of Venice
- *Policies and Measures for Climate Change*, V. Leonardi, Department for Sustainable Development, Environmental Damage, European and International Affairs, IMELS
- *Overview on EU Organisation and EU Environmental Policy*, A. Barreca, University of Siena, Environmental Legal Team
- *EU Environmental Policy and Law*, M. Montini, University of Siena, Environmental Legal Team

清洁能源、气候变化与可持续发展

以实现生态管理应该开展一系列策略和政策，而城市作为贯彻落实该可持续政策的起点。

气候变化为全球层面可持续发展的热题，而清洁能源的发展作为减缓政策的基础。

四门课程:

代表团	课程	期间
中国社会科学院 – 北京	生态管理的策略与政策	2015年4月20日至24日，北京
中国社会科学院	生态城市	2015年5月10日至20日，意大利
中国社会科学院	清洁能源与气候变化	2015年6月14日至24日，意大利
发改委	气候变化的能力建设	2016年9月1日至24日，意大利

主要目标

- 介绍欧盟与意大利就气候变化和清洁能源的法律和政策；
- 分析可再生能源的主要种类及其效力、成本和影响；
- 介绍意大利某些节能工厂；
- 介绍智慧城市的概念，在未来发展可持续社区的背景之下；
- 讨论建筑学最先进能效技术以及建筑物的节能证明；
- 讨论可持续城市管理的关键问题：城市垃圾管理及废水管理、空气污染及今天管制；
- 提供生态建筑物和能效的案例研究；
- 介绍可持续性交通的主要方面；
- 分析交通规划对市民健康和更加适宜居住城市所做出的贡献。

话题

可持续发展和气候变化的政策和法律框架

- 气候变化的相关政策和措施：实施巴黎协定，G.Dramis，意大利环境、国土与海洋部气候变化与能源总司
- 巴黎协定之后的气候变化处理，I.Musu，威尼斯国际大学 环境主题网络中心主任，威尼斯卡·弗斯卡里大学
- 应对气候变化的政策和措施，V.Leonardi，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 欧盟组织与环保政策，A.Barreca，锡耶纳大学经济法学院环境法研究组
- 欧盟环保政策和法律框架，M.Montini，锡耶纳大学经济法学院环境法研究组
- 欧盟能源与气候变化政策，M.Montini，锡耶纳大学经济法学院环境法研究组
- 欧盟排放交易体制，A.Barreca，锡耶纳大学经济法学院环境法研究组

- *EU Energy and Climate Change Policies*, M. Montini, University of Siena, Environmental Legal Team
- *The EU Emission Trading Scheme*, A. Barreca, University of Siena, Environmental Legal Team
- *The New Normal and Green Development of China's Economy*, Qi Jianguo, Professor and Deputy Director General, Institute of Quantitative and Technical Economics, CASS
- *Environment, Climate Change and Health*, Zhang Jinliang, CASS
- *Mitigation of Climate Change through Sound Production and Use of Energy: the Use of Renewables, Energy Conservation and Efficiency*, L. Bano, Galileia S.r.l.
- *The Italian Ministry for the Environment, Land and Sea*, E. Vignola, Department for Sustainable Development, Environmental Damage, European and International Affairs, IMELS
- *The Role of the Italian Ministry for the Environment, Land and Sea and Italian Policies for Climate Change*, A. Negrin, Department for Sustainable Development, Environmental Damage, European and International Affairs, IMELS
- *Policies for Climate Change Mitigation: State of the Art of Energy Efficiency and Renewable Energy in Italy*, S. Paiola, Italian Ministry for the Environment Land and Sea
- *Mitigation of Climate Change in Practice: Energy Efficiency and Renewable Energy Policies at Urban Scale: Case Studies*, L. Bano, Galileia S.r.l.
- *Social Conflicts Caused by Environmental Problems and Management*, Guo Weiqing, School of Government, Sun Yat-Sen University
- *European Emission Trading Scheme: Target Allocation to Countries and Main Polluters*, F. Romani, Kataclima s.r.l.
- *Quota Management in Firms*, F. Romani, Kataclima s.r.l.
- *Different Experiences on Cap and Trade Systems*, S. Borghesi, University of Siena
- *The Role of the Italian Ministry for the Environment, Land and Sea and Italian Policies for Climate Change*, A. Negrin, Department for Sustainable Development, Environmental Damage, European and International Affairs, IMELS and V. Leonardi, General Department for Climate Change and Energy, IMELS
- *EU Adaptation Policies: an Introduction*, J. Mysiak, CMCC - Euro-Mediterranean Center for Climate Change
- *EU Adaptation Policies: a Case Study for Good Practice*, J. Mysiak, CMCC - Euro-Mediterranean Center for Climate Change

#### Sustainable Energy in Practice

- *Sustainable Energy Actions: Results from EU Projects*, G. Vicentini, Turin Metropolitan City
- *Energy Efficiency at Urban Level*, A. Lorenzoni, University of Padua
- *Sustainable Energy Systems: the Smart Approach*, A. Costa, World Energy Council
- *Sustainable Energy Systems: Promoting Energy Efficiency in Liberalised Markets: the Case of Italy*, A. Costa, World Energy Council

- 中国经济的新常态与绿色发展，齐建国教授，中国社会科学院数量经济与技术经济研究所副所长
- 环境、气候变化与健康，张金良，中国社会科学院
- 通过健全生产和能源的合理利用而减缓气候变化：可再生能源、节能和能效，L. Bano, Galileia 有限责任公司
- 意大利环境、国土与海洋部，E. Vignola, 意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 意大利环境、国土与海洋部的职能以及应对气候变化的意大利政策，A. Negrin, 意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 减缓气候变化政策：意大利的能效及可再生能源现状，S. Paiola, 意大利环境、国土与海洋部
- 气候变化减缓政策的实践：城镇层级的能效与控制室能源的案例研究，L. Bano, Galileia 有限公司
- 环境问题所导致的社会冲突及其管理，郭巍青，中山大学政治与公共事务管理学院
- 欧盟排放交易体制：给国家和污染大户的分配目标，F. Romani, Kataclima 有限公司
- 公司的分配额管理，F. Romani, Kataclima 有限公司
- 限量管制与交易的不同经验，S. Borghesi, 锡耶纳大学
- 意大利环境、国土与海洋部的职能以及应对气候变化的意大利政策，A. Negrin 意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司 和 V. Leonardi 意大利环境、国土与海洋部气候变化与能源总司
- 欧盟气候变化适应政策的简介，J. Mysiak, 欧洲-地中海气候变化中心
- 欧盟的气候变化适应政策：良好做法的案例研究，J. Mysiaki, 欧洲-地中海气候变化中心

## 可持续能源

- 可持续能源行动：欧盟项目的成绩，G. Vicentini, 都灵市政府
- 本地层级的能效，A. Lorenzoni, 帕多瓦大学
- 可持续能源系统：智慧做法，A. Costa, 世界能源理事会
- 可持续能源系统：推动开放市场中的能效。意大利现状，A. Costa, 世界能源理事会
- 能源、新能源与可再生能源：技术进步、环境损害、政策与投资，刘强，中国社会科学院数量经济与技术经济研究所
- 风能：技术与市场，L. Battisti, 特兰托大学

- *Energy, New Energy and Renewable Energy: Technology Progress, Environmental Damage, Policy and Investment*, Liu Qiang, Institute of Quantitative and Technical Economics, CASS
- *Wind Energy: Technology and Market*, L. Battisti, University of Trento
- *Geothermal Energy: from the Heart of the Earth. Geothermal Energy Discovery*, R. Bertani, ENEL Green Power, International Geothermal Association
- *Geothermal Energy in China*, R. Bertani, ENEL Green Power, International Geothermal Association
- *Biofuels and Sustainable Development*, D. Chiaramonti, University of Florence
- *Photovoltaic Plants: Key Elements, Trends and Critical Aspects*, F. Bignucolo, Galileia S.r.l.
- *Industrial Energy Efficiency for Climate Change Mitigation*, M. Fauri, University of Trento and Polo Tecnologico per l'Energia S.r.l.
- *Turin Province Energy Balance: Energy Efficiency and Renewable Energies in Turin Province*, S. De Nigris, Turin Metropolitan City, Air quality and Energy Resources Department
- *Solid Oxide Fuel Cells for Stationary Applications*, M. Bertoldi, SOLIDpower S.p.A.
- *A Case Study, Padua Incineration Plant*, S. Trapanotto, Consultant, Acegas Aps S.p.A.

#### Air Pollution Control & Climate Change

- *Air Pollution Control at Urban Level*, F. Petracchini, CNR-IIA National
- *Air Pollution Control and Health Protection in the EU*, F. Petracchini, CNR-IIA National Research Council Institute for Atmospheric Pollution
- *Air Pollution and Traffic Control - Sustainable Transport and Technologies: ITS Case Studies*, F. Petracchini, CNR-IIA National Research Council Institute for Atmospheric Pollution
- *Covenant of Mayors: GHG Emission Control Strategies at City Level*, G. Gallo, Turin Smart City Foundation - Energy Gate
- *Air Pollution Control and Communication to the Public: the Veneto Region Case Study*, L. Zagolin, ARPAV
- *The R.E.G.E.S. Project – 2012-2013*, S. Bastianoni, University of Siena
- *Siena Carbon Free 2015*, P. Casprini, Municipality of Siena
- *Climate Change: Our Historical Responsibility*, Dong Wenjie, Earth Surface Processes and Resource Ecology of Beijing Normal University

#### Sustainable Urban Development and Climate Change

- *Sustainable Urban Planning*, A. Fidanza, Department for Sustainable Development, Environmental Damage, European and International Affairs, IMELS
- *Innovation and Sustainability: Case Studies from Industrial Ecology*, I. Mannino, TEN Program for Sustainability, Venice International University
- *Main Principles of Eco-building*, J. Gaspari, University of Bologna
- *Eco-buildings for Climate Change Mitigation: Case Studies*, J. Gaspari, University of Bologna
- *Sustainable Waste Management*, A. Confalonieri, Monza Park Agriculture School

- ❑ 地热能是来自地心的。地热能研究, R. Bertani, 意大利电力集团公司绿色电力子公司、国际地热能协会
- ❑ 中国的地热能, R. Bertani, 意大利电力集团公司绿色电力子公司、国际地热能协会
- ❑ 可持续发展与生物燃料, D. Chiaramonti, 弗洛伦撒大学
- ❑ 太阳能发电站的关键因素、趋势和临界方面, F. Bignucolo, Galileia 有限公司
- ❑ 有利于气候变化减缓的工业能效, M. Fauri, 特兰托大学及能源技术园区有限公司
- ❑ 都灵省的能源平衡: 都灵省的能效与控制室能源, S. De Nigris, 都灵省政府空气质量与能源处
- ❑ 固定应用的固体氧化物燃料电池, M. Bertoldi, SOLIDpower 股份公司
- ❑ 帕多瓦焚烧厂的案例研究, S. Trapanotto, Acegas Aps 股份公司顾问

#### 空气污染管制与气候变化

- ❑ 本地政府层级的空气污染管制, F. Petracchini, 意大利国家研究委员会- 空气污染研究所
- ❑ 欧盟的空气污染防治与健康保护, F. Petracchini, 意大利国家研究委员会- 空气污染研究所
- ❑ 空气污染防治与交通管制 - 可持续性交通与技术: 职能交通系统案例研究, F. Petracchini, 意大利国家研究委员会- 空气污染研究所
- ❑ 欧盟市政盟约: 城市级的温室气体控制战略, G. Gallo, Energy Gate - 都灵智慧城市基金会
- ❑ 空气污染防治与信息公开: 威尼托大区案例研究, L. Zagolin, 威尼托大区环保局空气污染监管处
- ❑ 锡耶纳 R.E.G.E.S. (温室气体减排) 项目 - 2012和 2013年成绩, S. Bastianoni, 锡耶纳大学
- ❑ 2015年锡耶纳不含碳城市的目标, P. Casprini, 锡耶纳省政府官员
- ❑ 气候变化, 我们的历史性责任, 董文杰, 北京师范大学地表过程与资源生态国家重点实验室

#### 可持续城市发展与气候变化

- ❑ 可持续性城市规划, A. Fidanza, 意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- ❑ 创新与可持续性: 工业生态学的案例研究, I. Mannino, 威尼斯国际大学环境主题网络中心
- ❑ 生态建筑的主要原则, J. Gaspari, 波伦亚大学
- ❑ 有利于气候变化减缓的生态建筑物: 案例研究, J. Gaspari, 波伦亚大学

- *Environment and Health at City Level*, C. Maignan, Municipality of Venice
- *Public and Private Partnership for Green Innovation*, M. Dal Co, Venice International University
- *Resilient and Eco-Cities*, M. Turvani, IUAV
- *Climate Change Adaptation in Italian Cities*, F. Musco, IUAV
- *Energy Efficiency at Urban Scale*, M. Fauri, University of Trento
- *ICT for Sustainable Mobility: the BikeDistrict Project*, D. Bloise, BikeDistrict
- *Turin Smart City Strategy for Sustainable Freight Logistics*, M. Curto, Turin Polytechnic
- *Zero Carbon Emissions: The R.E.G.E.S. Project*, M. Marchi, University of Siena

#### **Site Visits**

- *Renewable Energy Use and Resource Conservation in Industry*, Favini S.p.A.
- *Air Emission Control*, Acegas Aps S.p.A., Padua Incineration Plant
- *Integrated Wastewater Management*, PIF Waste Water Plant - Veritas S.p.A.
- *Eco-Building in Practice*, Manens-Tifs
- *The Safeguarding of Venice*, TEN Program for Sustainability, Venice International University

- ▣ 可持续废物管理, A. Confalonieri, 蒙扎市公园农业学校
- ▣ 市级的环境与健康, C. Maignan, 威尼斯市政府
- ▣ 公私伙伴以绿色创新的实现, M. Dal Co, 威尼斯国际大学
- ▣ 具有韧性城市与生态城市, M. Turvani, 威尼斯建筑大学
- ▣ 意大利城市的气候变化适用, F. Musco, 威尼斯建筑大学
- ▣ 市级的能效, M. Fauri, 特兰托大学
- ▣ 用于可持续交通的信息通信技术: 自行车地区项目, D. Bloise, 自行车地区
- ▣ 都灵市智慧城市的可持续性货运物流, M. Curto, 都灵理工大学
- ▣ 零碳排放: 锡耶纳 R.E.G.E.S. (温室气体减排) 项目, M. Marchi 锡耶纳大学

### 实地参观

- ▣ 可再生能源应用与工业的资源养护, Favini 股份公司
- ▣ 空气污染管制, Acegas Aps, 帕多瓦焚烧厂
- ▣ 废水综合处理, Fusina 综合项目, 废水处理厂 - Veritas S.p.A.
- ▣ 生态建筑物的实践, Manens-Tifs
- ▣ 威尼斯的保护, 威尼斯国际大学环境主题网络中心



## Green and Innovative Industry

Innovation in the industrial sector is the key element for achieving a sustainable and green economy. It must also involve SMEs, for which it represents both an opportunity and a challenge. Further research, innovative technologies and new investments are key tools in improving and encouraging the use of low carbon technologies. The sector of energy efficiency is particular important for industry, both in enabling increasing energy demands to be met and in promoting sustainable development.

### Five courses:

Delegation	Course	General Schedule
MIIT - Chengdu	Industrial Energy Efficiency	June 16 <sup>th</sup> 2015, Chengdu
MIIT	Industrial Energy Efficiency	November 1 <sup>st</sup> – 11 <sup>th</sup> 2015, Italy
MIIT	Industrial Energy Efficiency	July 17 <sup>th</sup> – 30 <sup>th</sup> 2016, Italy
MIIT - Beijing	Industrial Energy Efficiency	November 3 <sup>rd</sup> 2016, Beijing
MOST	Sustainable Development for Innovative SMEs	October 16 <sup>th</sup> – 28 <sup>th</sup> 2016, Italy

### Main objectives

- To present EU and Italian legislation and policies on industrial energy;
- Introduce policy tools and market mechanisms for the promotion of energy efficiency;
- Present examples of energy efficiency strategies at local level in Italy;
- Introduce the concept of the smart city for the future of sustainable communities;
- Discuss the latest advances in architecture for highly efficient housing and the energy efficiency certification of buildings;
- Examine the contribution given by mobility planning to the development of more liveable cities and to protecting citizens’ health;
- Discuss the key issues for sustainable city management: urban waste & wastewater management, air pollution and traffic control;
- Provide case studies centred on eco-building and energy efficiency;
- Introduce the main aspects of sustainable mobility.

### Topics

#### Policies and Financing for Sustainable Industry

- *Policies for Climate Change Mitigation: State of the Art of Energy Efficiency and Renewable Energy in Italy*, S. Paiola, Italian Ministry for the Environment Land and Sea
- *Overview on EU Organisation and EU Environmental Policy*, A. Barreca, Environmental Legal Team, University of Siena
- *EU Policies on Industrial Energy Efficiency*, A. Barreca, Environmental Legal Team, University of Siena
- *The Italian Ministry for the Environment, Land and Sea*, E. Vignola, Italian Ministry for the Environment Land and Sea
- *The Italian Ministry for the Environment, Land and Sea and Italian Policies*

绿色与创新性工业

产业的创新性是实现可持续性的、绿色经济的关键因素。作为机遇，又作为挑战的创新性应该涉及到中小企业。研究开发、创新性技术及投资是推动并改善低碳技术的重要工具。在这一框架之下，节能特为重要，确保工业满足日益增加的能源需要，并作为追求可持续发展的主要手段。

五门课程:

代表团	课程	期间
工业和信息化部 – 成都	工业能效	2015年6月16日，成都
工业和信息化部	工业能效	2015年11月1日至11日，意大利
工业和信息化部	工业能效	2015年7月17日至30日，意大利
工业和信息化部 – 北京	工业能效	2016年11月3日，北京
科技部	创新性中小企业的可持续性管理	2016年10月16日至28日，意大利

主要目标

- 介绍欧盟及意大利就工业能源的政策和法律框架；
- 介绍用于推动能效的政策工具和市场机制；
- 介绍意大利本地层级的若干高能效工厂；
- 介绍智慧城市的概念，在未来发展可持续社区的背景之下；
- 讨论建筑学最先进能效技术以及建筑物的节能证明；
- 分析交通规划对市民健康和更加适宜居住城市所做出的贡献。
- 讨论可持续城市管理的关键问题：城市垃圾管理及废水管理、空气污染及今天管制；
- 提供生态建筑物和能效的案例研究；
- 介绍可持续性交通的主要方面；

话题

援助融资可持续性工业的政策

- 减缓气候变化政策：意大利的能效及可再生能源现状， S.Paiola，意大利环境、国土与海洋部
- 欧盟组织与环保政策， A. Barreca，锡耶纳大学经济法学院环境法研究组
- 欧盟工业能效政策， A. Barreca，锡耶纳大学经济法学院环境法研究组
- 意大利环境、国土与海洋部， E.Vignola，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 意大利环境、国土与海洋部就推动中小企业绿色创新性的政策， R. Ianna，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 节能项目与投资机制， L. Bano, Galileia 有限公司

*for Promoting Green Innovation in SMEs*, R. Ianna, IMELS

- *Energy Saving Projects and Financing Mechanisms*, L.Bano, Galileia S.r.l.
- *Economic Feasibility of the Technological Solutions for Industrial Energy Efficiency*, M. Fauri, University of Trento and Polo Tecnologico per l'Energia S.r.l.
- *Energy Efficiency in European Industries: Policies and Case Studies*, A. Lorenzoni, University of Padua
- *Law/Regulations and the Enforcement of the Laws: Procedure and Basis*, B. Li, Energy Saving Supervision Center of Sichuan Province

#### Green Innovation

- *Competitive Green Strategies: How to Benefit from Green Innovations*, V. De Marchi, University of Padua
- *Green Innovation in SMEs: Case Studies from the EU*, T. Daddi, Sant'Anna School of Advanced Studies
- *CSR in Innovative SMEs*, M. Fasan, Cà Foscari University of Venice
- *LCA Methodology and its Applications for a Green Growth*, L. Breedveld, 2B S.r.l.
- *Green Growth and Labels*, F. Balzan, eAmbiente
- *Technologies and Integrated Approaches for Resource Efficiency and Waste Prevention*, C. Brunori, ENEA

#### Tools for Promoting Industrial Energy Efficiency

- *Energy Efficiency in the World and Italian Energy Agenda: Scenarios and Opportunities*, P. D'Ermo, World Energy Council Italy - WEC Italy
- *Energy audits in Industry. Regulatory, Technical and Methodological Aspects*, N. Di Franco, ENEA
- *Carrying out Energy Audits after the EU Directive 2012/27: Conditions and Results*, N. Di Franco, ENEA
- *Energy Audit for Industrial Energy Efficiency*, M. Arnoffi, eAmbiente s.r.l.
- *Energy Management System in Practice*, M. Arnoffi, eAmbiente S.r.l.
- *Energy Management System and ISO 50001*, R. Selva, eEnergia S.r.l.
- *The Role of the Energy Managers in Italy*, D. Di Santo, FIRE, Italian Association for Rational Use of Energy
- *Energy managers and white certificates in Italy*, D. Di Santo, FIRE, Italian Association for Rational Use of Energy
- *New Professionals in Energy Efficiency Market: Escos, Experts, Auditors*, N. Di Franco, ENEA

#### Industrial Energy Efficiency in Practice

- *Industrial Energy Efficiency*, A. Lorenzoni, University of Padua
- *Energy Efficiency in Industrial Buildings and Process*, P. Romagnoni, IUAV
- *Energy Efficiency in Industrial Buildings*, A. Gasparella, Free University of Bozen - Bolzano
- *The Leonardo Energy Management Model*, G. Mameli, Leonardo-Finmeccanica
- *Energy Efficiency in the Industrial Use of Electricity: Electrical Motors for Automotive Applications*, V. Ravello, CRF - Fiat Chrysler Automobile Research Center

- 工业能效技术方案的经济可行性，M. Fauri, 特兰托大学及能源技术园区有限公司
- 欧盟工业的能效：政策与案例研究，A. Lorenzoni, 帕多瓦大学
- 法律法规的执行：程序与法律基础，四川省节能监察中心，李科峰，四川省节能监察中心

### 绿色创新

- 具有竞争力的绿色战略：怎样受益于绿色创新，V. De Marchi, 帕多瓦大学
- 中小企业的绿色创新：欧盟的案例研究，T. Daddi, 比萨圣安娜高等学
- 创新中小企业的企业社会责任，M. Fasan, 威尼斯卡·弗斯卡里大学
- 生命周期评价方法和绿色增长下的应用，L. Breedveld, 2B有限公司
- 绿色增长与标签，F. Balzan, eAmbiente
- 以提高资源效力及废物防治而应用的技术和综合做法，C. Brunori, 意大利新技术、能源与可持续发展委员会

### 推动提高工业能效的手段

- 世界和意大利能源议程：情景与机遇，P. D'Ermo, 世界能源理事会意大利分会
- 工业里的能源审计。规定及技术和做法方面，N. Di Franco, 意大利新技术、能源与可持续发展委员会
- 依照欧盟2012/27指令的规定进行能源审计：条件与成绩，N. Di Franco, 意大利新技术、能源与可持续发展委员会
- 提高工业能效的能源审计，M. Arnoffi, eAmbiente 有限公司
- 能源管理的实践，M. Arnoffi, eAmbiente 有限公司
- 能源管理体系与ISO 50001，R. Selva, eEnergia 有限公司
- 意大利能源经理人的职责，D. Di Santo, FIRE, 意大利能源联盟
- 意大利能源经理人与白皮证明，D. Di Santo, 意大利能源联盟（FIRE）
- 能效市场里的新职业：能源服务公司、专家、审计员，N. Di Franco, 意大利新技术、能源与可持续发展委员会

### 高能效工厂

- 工业能效，A. Lorenzoni, 帕多瓦大学
- 工业建筑和工业过程中的能效，P. Romagnoni, 威尼斯建筑大学
- 工业建筑物的能效，A. Gasparella, 波尔察诺私立大学
- 《莱昂纳多》能源管理模型，G. Mameli, Leonardo-Finmeccanica 公司
- 工业用电能效：汽车产业的电动发动机，V. Ravello, 菲亚特克莱斯勒汽车公司研究中心

– ZEB - Zero Energy Buildings, R. Zecchin, Manens-Tifs S.p.A.

#### **Site Visit**

- *Environmental Performance of Companies' Buildings*, Tifs Building, Manens-Tifs S.p.A.
- *Sustainable Transportation of Goods*, Interporto Padova S.p.A.
- *Environmentally Friendly Industry*, Ponte Rosso Consortium and Brovedani Group S.p.A.
- *Organic Farming*, Kiwiny S.r.l.
- *Waste Management in Practice*, Contarina S.p.A.
- *Green Innovation in Food Industry*, Latteria Montello S.p.A.
- *Innovative Industry*, Grafica Veneta S.p.A.
- *Energy Efficiency in Glass Production*, Stazione Sperimentale del Vetro, SSV Glass Research Center
- *Energy Efficiency in Ceramic Production*, Ceramica Dolomite
- *Energy Efficiency in Co-generation*, ICI Caldaie S.p.A.
- *Energy Efficiency in Industry*, Turboden S.r.l.
- *Environmental Performance of Industries*, Burgo Paper Plant, Burgo Group S.p.A.
- *Environmental Performance of Companies' Buildings*, Manens-Tifs S.p.A.
- *Energy Efficient Building in Industry*, POINT - POlo per l'INnovazione Tecnologica, Bergamo Sviluppo
- *The Safeguarding of Venice*, TEN Program for Sustainability, Venice International University

- 零耗能建筑, R. Zecchin, Manens-Tifs 公司

### 实地参观

- 公司建筑的环保绩效, Tifs 公司办公楼, Manens-Tifs 公司
- 商品的可持续运输, 帕多瓦货运村股份公司
- 环保型工业 Environmentally Friendly Industry, 红桥联营企业和 Brovedani 集团公司
- 有机农业, Kiwiny 有限公司
- 废物管理的实践, Contarina 股份公司
- 食品业的绿色创新, Montello 挤奶厂股份公司
- 创新性工业, Grafica Veneta 股份公司
- 玻璃生产过程中能效, 玻璃试验站研究中心
- 陶瓷生产过程中的能效, 白云石陶瓷
- 热电联合发电的能效, ICI 锅炉股份公司
- 工业能效, Turboden 有限公司
- 工业的环保绩效, Burgo 造纸厂, Burgo 集团股份公司
- 办公楼的环保绩效, Manens-Tifs 股份公司
- 工业建筑物的能效, POINT -技术创新中心, Bergamo Sviluppo
- 威尼斯的保护, 威尼斯国际大学 - 环境主题网络中心

Environmental Management, Monitoring and Control

Health depends on the quality of the environment. Pollution must be prevented, monitored and managed in order to guarantee general good health. Enforcement of environmental laws plays a fundamental role in preventing, reducing and controlling pollution. Environmental monitoring is also key to the process. Through continuous data collection and analysis we can better understand changes in the environment and identify pollution sources not only at national and local level, but also when dealing with larger scale pollution events.

Eight courses:

Delegation	Course	General Schedule
MEP	Water Pollution Prevention and Control	July 12 <sup>th</sup> – 15 <sup>th</sup> 2015, Italy
BMEPB	Environmental Law Enforcement	September 18 <sup>th</sup> 2015, Beijing
MEP	Technologies on Air Pollution Prevention and Control	September 21 <sup>st</sup> – 24 <sup>th</sup> 2015, Italy
BMEPB	Vehicle Emission Control	November 22 <sup>nd</sup> – December 2 <sup>nd</sup> 2015, Italy
BMEPB and SEPB	Water and Ecological Management	May 8 <sup>th</sup> – 18 <sup>th</sup> 2016, Italy
MEP	Soil Pollution Prevention and Control	June 26 <sup>th</sup> - July 9 <sup>th</sup> 2016
BMEPB - Beijing	Environmental Management in Cities	November 2016, Beijing
SEPB - Shanghai	Environmental Management in Cities	November 2016, Shanghai

Main objectives

- \_ To provide an overview of environmental policies to prevent pollution in Europe and Italy;
- \_ Present Environmental Law Enforcement main issues;
- \_ Introduce the air, water and soil pollution concept and the different pollution sources;
- \_ Discuss the new challenges in pollution control;
- \_ Discuss monitoring standards and management mechanisms of pollution at urban level;
- \_ Analyse local cases of pollution control and communication with the public.

Topics

Environmental Policies

- *Overview on EU Organisation and EU Environmental Policy*, A. Barreca, University of Siena, Environmental Legal Team
- *Environmental Law in Europe and Italy*, E. dell’Andrea, ARPAV
- *Overview on the European Union and EU Environmental Policy and Law*, M. Montini, University of Siena, Environmental Legal Team
- *Italian Environmental Policy and the Role of the Italian Ministry for the Environment, Land and Sea*, E. Vignola, Directorate for Sustainable Development, Environmental Damage, European Union and International Affairs, IMELS
- *EU Policies on Soil Pollution*, A. Barreca, University of Siena, Environmental Legal Team

环境管理、监测与管制

人类健康依赖环境质量，因此为了保障身体健康应当防治污染。  
在预防、防治与管制污染方面，贯彻落实相关法律极为关键。  
环境监测也相当重要。只有连续收集及分析环境数据才能鉴别污染源  
以及查明本地和全国层级的自然环境的变化，并应对大规模的污染事件。

八门课程:

代表团	课程	期间
环保部	水污染防治	2015年7月12日至15日，意大利
北京市环保局	环保法执行	2015年9月18日，北京
环保部	空气污染的防治技术	2015年9月21日至24日，意大利
北京市环保局	排气管排放管制	2015年11月22日至12月2日，意大利
北京市环保局 和 上海市环保局	水资源与生态管理	2016年5月8日至18日，意大利
环保部	土壤污染防治	2016年6月26日至7月9日，意大利
北京市环保局 - 北京	城市环境管理	2016年11月份，北京
上海市环保局 - 上海	城市环境管理	2016年11月份，上海

主要目标

- 提供欧盟和意大利防治污染政策的概况；
- 介绍执行环保法的主要方面；
- 介绍空气污染、水污染及土壤污染的概念和污染源；
- 讨论污染防治的新挑战；
- 讨论监测标准以及市级污染管理模型；
- 分析本地污染管制及相关信息公开的案例。

话题

环保政策

- 欧盟组织与环保政策， A. Barreca，锡耶纳大学经济法学院环境法研究组
- 欧盟与意大利的环保法， E. dell'Andrea，威尼托大区环保局
- 欧盟环保政策和法律框架， M. Montini，锡耶纳大学经济法学院环境法研究组
- 意大利环境、国土与海洋部， E. Vignola，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- 欧盟的土壤污染政策， A. Barreca，锡耶纳大学经济法学院环境法研究组



- *EU Policy and Recent Law and Standards for Vehicle Emission Control*, M. Strincone and R. Spinetti, Italian Ministry for the Environment Land and Sea
- *Air Emission Monitoring and Policies, the ISPRA Role*, R. De Lauretis, ISPRA
- *Italian Policies for Vehicle Emission Control and for Sustainable Mobility*, M. Strincone and R. Spinetti, Italian Ministry for the Environment Land and Sea
- *Environmental Law Enforcement at Local Level in Italy and Big Industry Monitoring*, E. dell'Andrea, ARPAV
- *The European Legislative Framework for Water Management and Protection*, M. Montini, University of Siena, Environmental Legal Team
- *Case Studies on the European Legislative Framework for Water Protection*, M. Montini, University of Siena, Environmental Legal Team
- *WFD 2000/60/CE and Watershed Management*, D. Rizzo, Directorate for Sustainable Development, Environmental Damage, European Union and International Affairs, IMELS
- *Soil Pollution Management: Legislation and Strategy Policies Adopted at European and Italian Level*, A. Vecchio, ISPRA
- *The Role of the Italian Ministry for the Environment, Land and Sea in Soil Pollution Prevention and Control*, L. D'Aprile, IMELS

#### Air Pollution Control

- *Emission Inventories at the Regional and National Scale: Lombardia Region and Italian Emission Inventory*, S. Caserini, Polytechnic University of Milan
- *Air Pollution Control and Communication to the Public: the Veneto Region Case Study*, E. Baraldo and L. Zagolin, ARPAV
- *Air Pollution and Pollution Sources*, A. Gambaro, Ca' Foscari University of Venice
- *VOCs Pollution in Europe and Italy, Technology Control Options and Related Policies*, R. Mabilia, CNR
- *New Challenges in Air pollution Control: PM<sub>2.5</sub>*, R. Zangrando, CNR, Institute for the Dynamics of Environmental Processes
- *Vehicle Emission Monitoring and Air Quality*, R. De Lauretis, ISPRA
- *Vehicle Emissions & Urban Air Pollution*, F. Petracchini, CNR
- *Mobility Management - Sustainable Mobility for a Sustainable Urban Development*, M. Infanti, Impronta
- *Methodology and Emission Factors to Calculate Emissions from Road Transport*, L. Susanetti, ARPAV
- *Air Pollution and Sustainable Mobility: the Milan Case Study*, M. Bedogni, Mobility and Environment Agency of Milan
- *Black Carbon Monitoring in Urban Air: Milan Case Study*, S. Moroni, AMAT
- *Emission Control: the Case Study of Cruises in Venice*, A. Gambaro, Ca' Foscari University of Venice
- *Vehicle Emissions Control - Fuels and Engines*, S. Casadei, Innovhub - SSI
- *Vehicle Emissions Control: Focus on Diesel*, S. Casadei, Innovhub - SSI

- ✎ 机动车排气管排放管制的欧盟政策、法律与现行标准，M. Strincone 和 R. Spinetti，意大利环境、国土与海洋部
- ✎ 空气污染排放检测与政策：意大利环境保护与研究院的作用，R. De Lauretis，意大利环境保护与研究院
- ✎ 机动车排气管排放管制及可持续交通的相关意大利政策，M. Strincone 和 R. Spinetti，意大利环境、国土与海洋部
- ✎ 意大利地级政府环保法的执行与大规模工业的检测，E. dell'Andrea，威尼托大区环保局
- ✎ 水资源保护管理的欧盟框架法，M. Montini，锡耶纳大学经济法学院环境法研究组
- ✎ 欧盟水资源框架法的案例研究，M. Montini，锡耶纳大学经济法学院环境法研究组
- ✎ 欧盟2000/60水资源框架法及流域区，D. Rizzo，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司
- ✎ 土壤污染管理：欧盟层级和意大利层级的策略，A. Vecchio，环境保护与研究院
- ✎ 意大利环境部在土壤污染防治方面的作用，L. D'Aprile，意大利环境国土与海洋部

### 空气污染管制

- ✎ 中央级和大区级的排放清单：意大利和伦巴第大区的温室气体排放清单，S. Caserini，米兰理工大学
- ✎ 空气污染管制与信息公开：威尼托大区案例研究，E. Baraldo 和 L. Zagolin，威尼托大区环保局
- ✎ 空气污染与污染源，A. Gambaro，威尼斯卡·弗斯卡里大学
- ✎ 欧盟和意大利的挥发性有机化合物污染。控制技术以及相关政策，R. Mabilia，意大利国家研究委员会 - 空气污染研究所
- ✎ 空气污染控制的新挑战：PM<sub>2.5</sub>，R. Zangrando，意大利国家研究委员会 - 动态环境过程学院
- ✎ 机动车排放监测与空气质量，R. De Lauretis，意大利环境保护与研究院
- ✎ 机动车排放与城区空气污染，F. Petracchini，意大利国家研究委员会
- ✎ 交通管理 - 走向可持续性城镇发展的可持续交通，M. Infanti，Impronta
- ✎ 计算道路运输的方法和排放因子，L. Susanetti，威尼托大区环保局
- ✎ 空气污染与可持续性交通：米兰案例研究，M. Bedogni
- ✎ 城区空气内的黑炭监测：米兰市案例研究，S. Moroni，米兰交通、环境与领土管理局
- ✎ 排放管制：威尼斯泻湖内游轮的案例研究，A. Gambaro，威尼斯卡·弗斯卡里大学

### Water Pollution Prevention and Control

- *Water Monitoring in Veneto Region. The Role of ARPAV - Veneto Region Environment Protection Agency*, F. Mion, ARPAV
- *Nitrogen Discharge Reduction in Inland Waters*, F. Mion, ARPAV
- *Water Basin Management: Adb Po Planning Activities and Zoning through Protected Areas*, B. Bertòlo, Po River Basin Authority
- *Public Participation and Information Disclosure in River Basin Management*, B. Bertòlo, Po River Basin Authority
- *Integrated Catchment Management: Supporting Decisions in a Changing World*, C. Giupponi, VIU - Ca' Foscari University of Venice
- *Integrated Groundwater Management*, A. Sottani, Sinergeo S.r.l.
- *Integrated Groundwater Management – Case Studies*, A. Sottani, Sinergeo S.r.l.
- *Monitoring of Chemical Pollutants in Surface Waters*, F. Zanon and R. Lava, ARPAV
- *Water Pollution Prevention: Animal Manure Management and Enhancement in Italy*, S. Piccinini, Centro Ricerche Produzioni Animali CRPA S.p.A
- *Water Monitoring Fixed Stations*, F. Riminucci, ProAmbiente
- *Mobile Stations*, A. Del Bianco, ProAmbiente
- *Innovative Methods for Water Treatment*, B. Esposito, ProAmbiente
- *Sustainable Management of Water Resources – Water Reuse*, D. Rizzo, Directorate for Sustainable Development, Environmental Damage, European Union and International Affairs, IMELS

### Soil Pollution Prevention and Control

- *The EU Soil Database*, G. Toth, JRC
- *Soil Pollution and Health: Main Issues - Porto Marghera Case-Study*, L. Pizzol, Ca' Foscari University of Venice
- *Soil Pollution and Industry: the Role of Insurance Companies*, G. Faglia, Pool Inquinamento
- *Site-Specific Ecological Risk Assessment (ERA) for Contaminated Sites*, A. Critto, Ca' Foscari University of Venice
- *Waste Management and Soil Pollution Prevention*, A. Muntoni, University of Cagliari
- *Contaminated Sites Identification and Monitoring*, P. Giandon, ARPAV
- *Soil Remediation Technologies: Methods and Costs*, R. Raga, University of Padua
- *Soil Monitoring and Remediation Activities: Case Studies*, A. Sottani, Sinergeo S.r.l.
- *Contaminated Sites: Intervention Strategies*, L. Mason, ARPAV
- *Contaminated Sites: the Role of Local Authorities*, P. Campaci, Veneto Regional Government
- *Phytoremediation in Contaminated Sites*, S. Breda, Ca' Foscari University Venice
- *Contaminated Sites Management: the Situation in the Veneto Region*, P. Giandon, ARPAV

- ✎ 机动车排放控制：燃料与马达，S.Casadei，Innovhub – 工业试验站点
- ✎ 机动车排放控制：柴油马达，S.Casadei，Innovhub – 工业试验站点

### 水污染防治

- ✎ 威尼托大区的水源监测。威尼托大区环保局（ARPAV）的职责，F.Mion，威尼托大区环保局
- ✎ 减少到内陆实体的氮氧化物排放，F.Mion，威尼托大区环保局
- ✎ 流域管理：Adb波河保护区的规划与分区，B.Bertolo，波河流域管理局
- ✎ 流域管理中的公众参与和信息公开，B.Bertolo，波河流域管理局
- ✎ 集水区综合管理：在快速改变的世界里支持决策，C.Giupponi，威尼斯卡·弗斯卡里大学
- ✎ 地下水的综合管理，A.Sottani，Sinergeo S.r.l.
- ✎ 地下水的综合管理 – 案例研究，A.Sottani，Sinergeo – 地质学联合事务所
- ✎ 地表水中化学污染物的监测，F.Zanon 和 R.Lava，威尼托大区环保局
- ✎ 水污染防治：意大利的动物粪肥管理与改善，S.Piccinini，牲畜研究中心（CRPA）股份公司
- ✎ 水资源的固定监测站，F.Riminucci，ProAmbiente
- ✎ 移动监测站，A.Del Bianco，ProAmbiente
- ✎ 水处理的创新性做法，B.Esposito, ProAmbiente
- ✎ 水资源的可持续管理：水重用，D.Rizzo，意大利环境、国土与海洋部可持续发展、环境损害、欧盟与国际事物总司

### 土壤污染防治

- ✎ 欧盟的土壤数据库，G.Toth，欧盟联合研究中心
- ✎ 土壤污染与人体健康的主要问题：玛格拉港口案例研究，L.Pizzol，威尼斯卡·弗斯卡里大学
- ✎ 土壤污染与工业：保险公司的作用，G.Faglia，Pool Inquinamento 协会
- ✎ 污染地区的专门生态风险评价（ERA），A.Critto，威尼斯卡·弗斯卡里大学
- ✎ 废物管理与土壤污染防治，A.Muntoni，卡利亚里大学
- ✎ 污染地区识别与监测，P.Giandon，威尼托大区环保局
- ✎ 土壤污染修复技术：做法与成本，R.Raga，帕多瓦大学
- ✎ 土壤污染监测与修复活动：案例研究，A.Sottani，Sinergeo 有限公司
- ✎ 污染地区：干预战略，L.Mason，威尼托大区环保局
- ✎ 污染地区：本地政府的职能，P.Campaci，威尼托大区政府
- ✎ 污染地区的植物修复，S.Breda，威尼斯卡·弗斯卡里大学

- *Focus on Soil Pollution from Agrochemicals Prevention*, G. Toth, JRC
- *Brownfields Reclamation and Redevelopment in Venice*, P. Scanferla, Ca' Foscari Foundation
- *Soil Pollution Control in Italy: Contaminated Sites of National Importance*, A. Vecchio, ISPRA

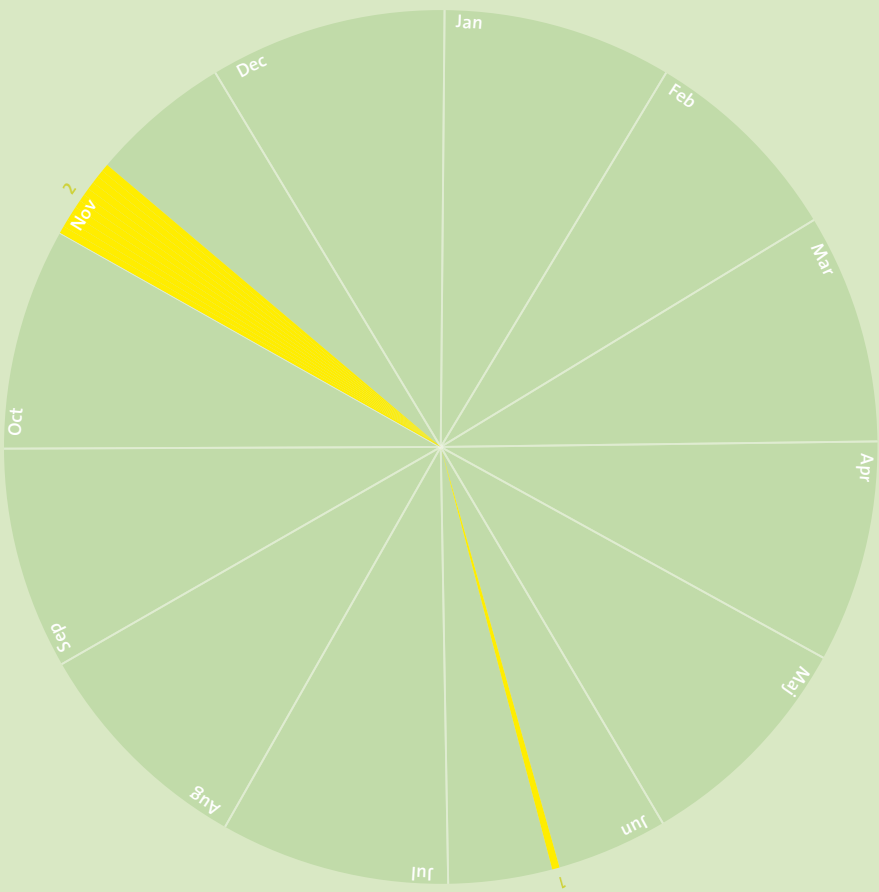
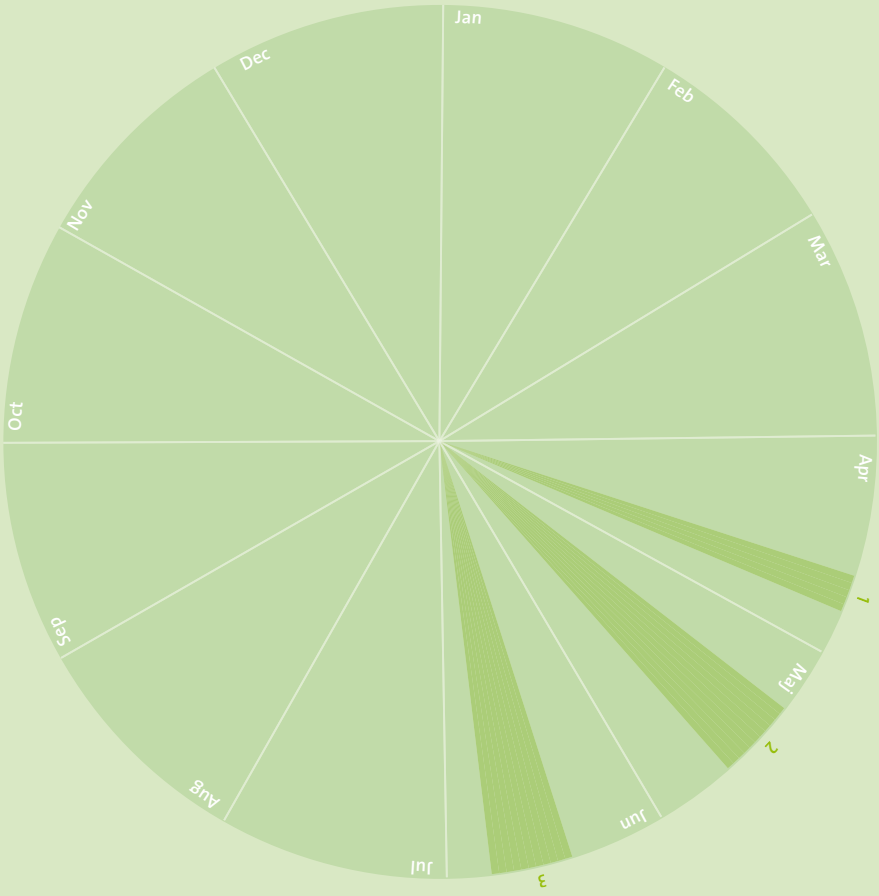
#### **Site Visit**

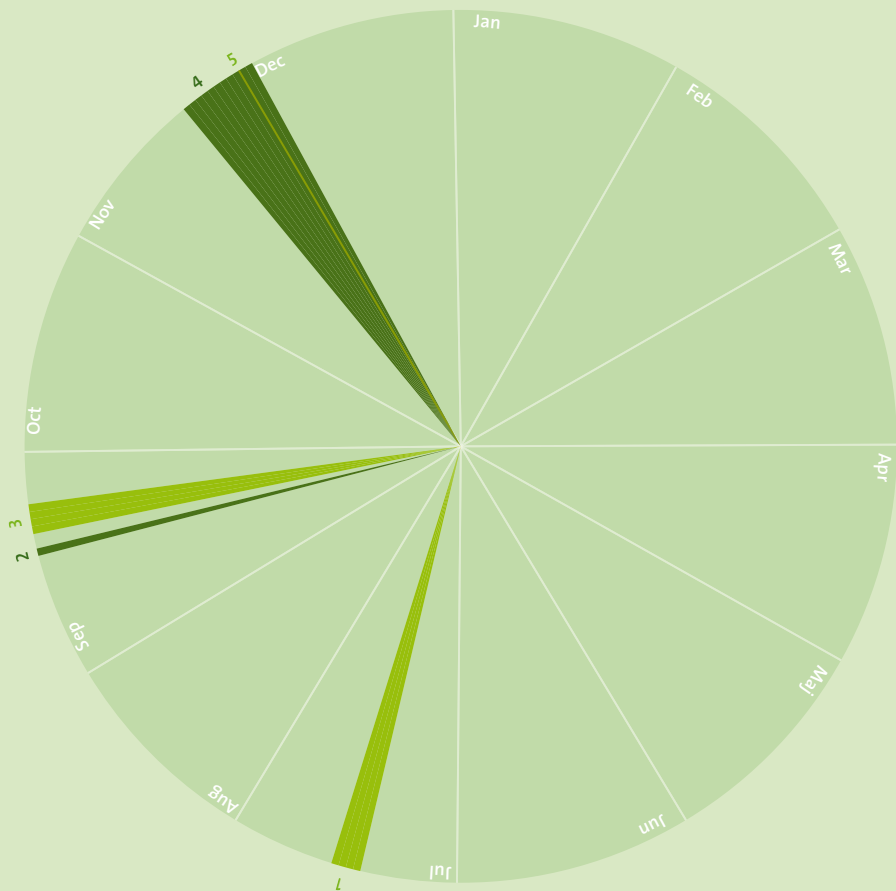
- *Air Emission Control*, Acegas Aps S.p.A., Padua Incineration Plant
- *Environmental Performance in Industry*, Cartiere Favini Rossano Veneto, Vicenza, Favini S.p.A.
- *Environmental Monitoring Instruments*, ProAmbiente CNR lab, Proambiente S.c.r.l.
- *Traffic Emission Management*, AMAT, Mobility and Environment Agency of Milan
- *Vehicle Emission Control*, INNOVHUB-SSI
- *Air Quality Control*, ARPAV
- *Integrated Wastewater Management*, PIF Waste Water Plant - Veritas S.p.A.
- *Sludge and Leachate Treatment*, Depuracque s.r.l.
- *Water Management in Paper Production*, Cartiere Favini Rossano Veneto, Vicenza, Favini S.p.A.
- *The Safeguarding of Venice*, TEN Program for Sustainability, Venice International University International University
- *Treatment of Polluted Soils and Industrial Waste*, Brescia PBR Soil Treatment Plant, INTERGREEN S.p.a.
- *Waste Management and Soil Pollution Prevention*, Padua Landfill, Gea s.r.l.

- 污染地区管理：威尼托大区的状况，P.Giandon，威尼托大区环保局
- 预防农药所导致的土壤污染，G.Toth，欧盟联合研究中心
- 废弃工业用地修复与重建，P.Scanferla，卡·弗斯卡里基金会
- 意大利的土壤污染管制：国家级的污染地区，A.Vecchio，意大利环境保护与研究院

### 实地参观

- 空气污染控制，Acegas Aps 股份公司，帕多瓦焚烧厂
- 工业的环保绩效，Favini造纸厂，Rossano Veneto镇，维琴察，Favini S股份公司
- 环境监测工具，ProAmbiente意大利国家研究委员会实验室，Proambiente 合营有限公司
- 交通排放管理，米兰市交通、环境与领土管理局
- 机动车排放管制，创新中心-工业试验站
- 空气质量控制，威尼托大区环保局
- 废水综合管理，Fusina 综合项目 废水处理厂，Veritas 股份公司
- 污泥与渗沥液处理，Depuracque 有限公司
- 造纸过程中的水管理，Favini 造纸厂，Rossano Veneto镇，维琴察，Favini 股份公司
- 威尼斯的保护，威尼斯国际大学 - 环境主题网络中心
- 污染土壤的处理与工业废物，PBR - 布雷西亚布回收平台土壤处理厂，INTERGREEN 股份公司
- 废物管理与土壤污染预防，帕多瓦填埋场，Gea 有限公司





2015

Training Contents  
培训内容

Clean Energy, Climate Change & SUD

- 1 Eco-Management: Strategies And Policies
- 2 Eco-Friendly City
- 3 Clean Energy and Climate Change

清洁能源、气候变化与可持续发展

- 1 生态管理的策略与政策
- 2 生态城市
- 3 清洁能源与气候变化

Green And Innovative Industry

- 1 Industrial Energy Efficiency
- 2 Industrial Energy Efficiency

绿色与创新性工业

- 1 工业能效
- 2 工业能效
- 3 工业能效

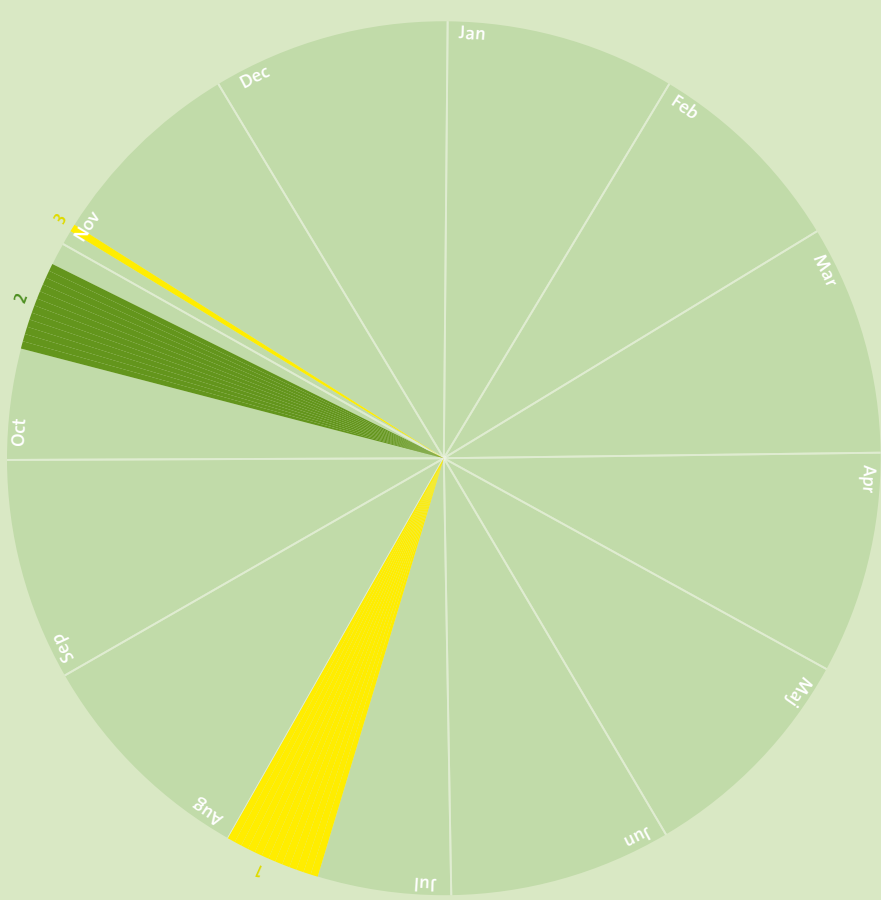
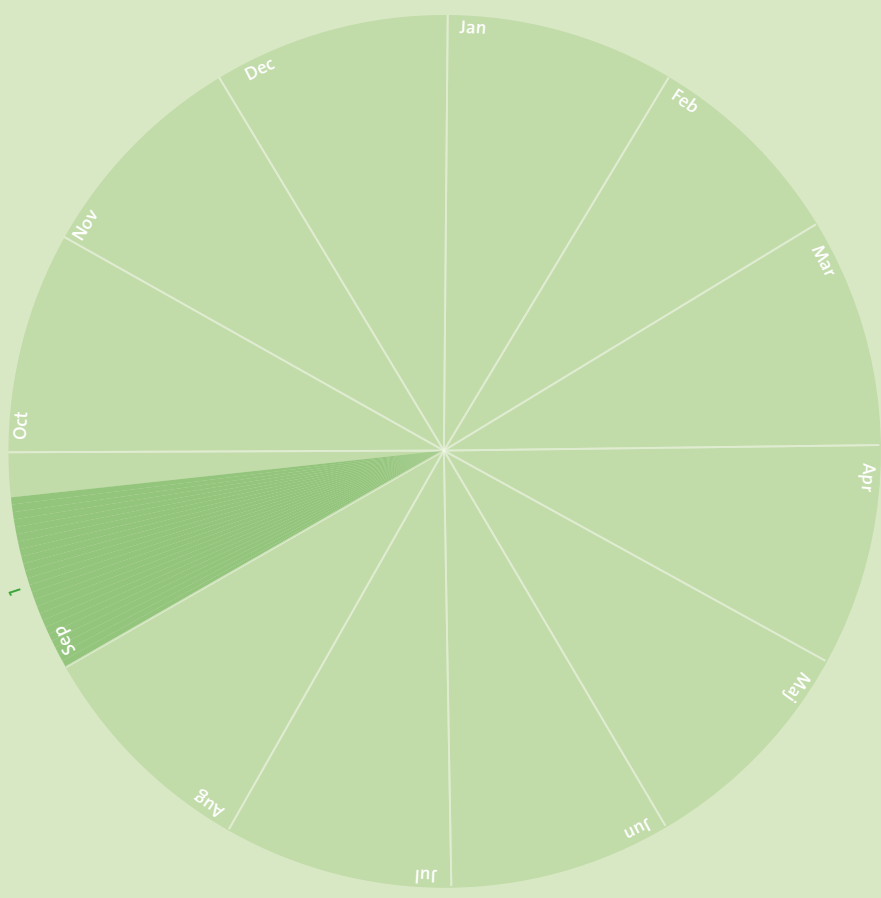
Environmental Management, Monitoring And Control

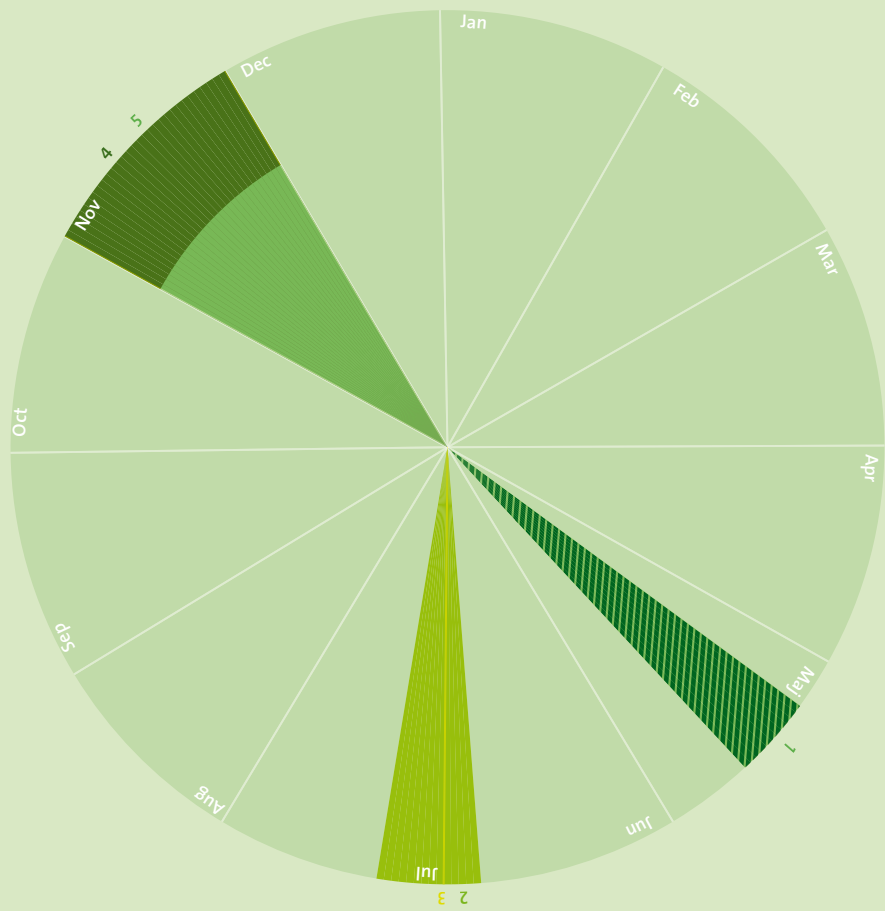
- 1 Water Pollution Prevention and Control
- 2 Environmental Law Enforcement
- 3 Technologies on Air Pollution Prevention And Control
- 4 Vehicle Emission Control

环境管理、监测与管制

- 1 水污染防治
- 2 环保法执行
- 3 空气污染的防治技术
- 4 排气管排放管制







2016

Training Contents  
培训内容

Clean Energy, Climate Change & SUD  
1 Capacity Building on Climate Change

清洁能源、气候变化与可持续发展  
1 气候变化的能力建设

Green And Innovative Industry  
1 Industrial Energy Efficiency  
2 Industrial Energy Efficiency  
3 Sustainable Development for Innovative SMEs

绿色与创新性工业  
1 工业能效  
2 工业能效  
3 创新性中小企业的可持续性管理



Environmental Management, Monitoring and Control  
1 Water Pollution Prevention and Control  
2 Soil Pollution Prevention and Control  
3 Environmental Management in Cities  
4 Environmental Management in Cities

环境管理、监测与管制  
1 水资源与生态管理  
2 土壤污染防治  
3 城市环境管理  
4 城市环境管理



## Site Visits and Institutions

The information reported in this section concerns companies and institutions that were both visited and involved in the training sessions. They have authorized the publishing of this document.



## 现场访问与机构

本部分报告列出培训期间将访问的公司与机构的相关信息。  
上述公司已授权本报告的出版

#### Institution/Company

Acegas Aps S.p.A., Waste Incineration Plant

#### Institution/Company Profile

Acegas Aps Group is the most important multiutility company in northeast Italy. Specifically, the company operates in the management and distribution of water resources, electric energy and gas, and waste collection. It also carries out a series of activities complementary to and synergic with the supply of public benefit services, in particular: cemetery handling, total facility management, district heating, public lightning, traffic light management and re-lining (telecommunication networks). Established after the merger between Acegas and Aps on December 18, 2003, the company is currently mainly active in Trieste and Padova, but is progressively broadening the area of its activity both in Italy and abroad.

The Padua incinerator plant was built in the 1950s and began operations in 1962. It was the first waste management plant in Italy with energy recovery. Over the years the plant has been enlarged and upgraded, and works have been done in order to respect the ever-lower emission levels set by Italian law. This led to the achievement of the EMAS certification in 2001.

The current three lines of the plant can treat the waste coming from 20 municipalities in the Padua area, producing 78.4 GWh of electric energy per year.

The typologies treated are:

- \_ municipal solid waste;
- \_ special non-hazardous waste;
- \_ infectious medical waste (provided that it doesn't contain hazardous substances as defined by the law), medicines.

An online monitoring system collects the emission data and makes it available to the public on the company website, where other documents related to the general environmental performance of the plant can be found.

#### Site Visit

Air Emission Control

#### Objectives

To show advanced technologies for recovering energy and heat from waste incineration and the continuous monitoring of emissions from the plant, the resulting data being made available to the public in order to facilitate their involvement in the environmental issues of the area.

#### Reference Address

Viale Navigazione Interna 34, 35129 Padua  
[www.gruppo.acegas-aps.it](http://www.gruppo.acegas-aps.it) (only in Italian)

#### Institution/Company

AGROINNOVA - University of Turin

#### Institution/Company Profile

AGROINNOVA is a center of competence, developed by plant pathologists at the University of Turin.

It is located on the university campus of Grugliasco (Turin) and has modern and well-equipped laboratories, greenhouses and experimental fields. AGROINNOVA brings together the skills acquired thus far by public and private, Italian and international researchers in the fields of agro-environment, agriculture and the food industry. AGROINNOVA carries out research, knowledge and technology transfer, lifelong learning and communication on up-to-date topics in the above-stated sectors. AGROINNOVA's special features include four academic professors, 40 PhD students, postdoc fellows, consultants and technicians, more than 40 ongoing research projects worldwide, and 30 high-level courses carried out during the period 2003-2010. Currently, most of its employees are based in Italy while the rest are abroad.

AGROINNOVA mainly operates in Grugliasco and at the Ministry for the Environment, Land and Sea in Rome. In past years it has gained broad expertise in the coordination of European projects, as well as in the knowledge of technology transfer in emerging economies such as China. Agroinnova hosts the Presidency of the International Society for Plant Pathology.

#### Field of competence

Sustainable Agriculture

#### Objectives

To present AGROINNOVA's fields of interest in research and agro-environmental technology transfer and to illustrate some of Agroinnova's international cooperation programs and activities in China, as examples of sustainable agriculture.

#### Reference Address

Via Leonardo da Vinci 44, 10095 Grugliasco (Turin)  
[www.agroinnova.org](http://www.agroinnova.org)

机构/公司

Acegas Aps股份公司， 焚烧厂

机构/公司简介

Acegas Aps集团是意大利东北最大的综合性事业。

公司主要业务为供水、供电、供煤气以及垃圾收集。公司还从事一系列的为辅业务，均与公共产品有关的：坟墓和葬礼服务、综合性服务管理、分区供暖系统、公共照明、红绿灯管理、管道修铺（电信网络）。

于2003年12月18日通过 Acegas 和Aps的合并而成立的，目前公司主要给的里雅斯特市和帕多瓦市居民提供服务，有计划把其经营范围扩大到全国及国外。

帕多瓦焚烧厂早于1950年建立，1962年开始运作，是意大利第一家能源回收废物处理厂。

焚烧厂经过了几次扩大升级，以便符合意大利法律所规定的排放量标准。2001年获得了EMAS认证。

焚烧厂的三线每年处理来着帕多瓦省辖区的20个城镇，发电总量为78,4百万瓦小时。所处置的废物类型如下列：

- \_ 城市固体垃圾；
- \_ 特殊非危险废物；
- \_ 传染性医疗废物（只有不包含法律所限制的风险物质）；
- \_ 药品。

焚烧厂的在线监测系统以连续性方式收集排放数据；该数据以及有关焚烧厂环保绩效的文件均在公司网站上公开发布。

参观焦点

空气污染控制

实地参观目标

介绍焚烧厂热能回收的先进技术以及连续性排放监测系统。监测数据被公开，以便允许公众参与本地的环保事项。

联系地址

Navigazione Interna 大道34号，35129 帕多瓦市  
www.gruppo.acegas-aps.it (意大利语)

机构/公司

Agroinnova - 都灵大学的农业创新中心

机构/公司简介

坐落于都灵省，Grugliasco市校园里的都灵大学农业创新中心是植物病理学家创建的都灵大学权限中心。该中心把意大利及国外政府机构和私有企业研究员在农业-环保及食品工业领域中至今所获得的成绩和技能结合起来，并对上述领域的最新专题进行研究、知识与技术转让、终生教育以及交流。4位大学教授，40名博士研究生、博士后学生、顾问及技师、40项正在实施的世界性研究项目、2003至2010年间所开设的30门高级课程，这些都是都灵大学农业环境创新中心所特有的。目前，中心的大多数职员在意工作，其余在国外。除了在Grugliasco校园之外，中心还在罗马的环境、领土与海洋部进行业务。中心具有作为欧盟项目协调单位的多年丰富经验，并在新兴经济国家，包括中国在内，进行了技术转让。农业创新中心是国际植物病理学会会长所在地。

专业领域

可持续农业

实地参观目标

介绍都灵大学农业创新中心在研究和转让农业环境技术领域中的成绩，并介绍中心在中国所进行的一些国际合作项目和活动，作为可持续农业的实例。

联系地址

Leonardo da Vinci大道44号，10095 Grugliasco  
(都灵省)

www.agroinnova.org

#### Institution/Company

AMAT, Mobility and Environment Agency of Milan

#### Institution/Company Profile

In 2000, the municipality of Milan established an agency able to provide the indispensable technical support for the tasks of planning and programming.

The Mobility and Environment Agency of Milan is an innovative technical body, wholly controlled by the Municipality of Milan, primarily concerned with planning and implementing projects in both the mobility and the environmental domains. Urban traffic planning, regulation and control of local public transport, environmental planning in matters of air, energy, electromagnetic and noise pollution, and urban land use planning are among its tasks. Since 2001 the agency holds the ISO 9001 Quality Management System certification; the Quality System is used as a management control by the Municipality of Milan.

#### Site Visit

Traffic Emission Management

#### Objectives

To present the activities of the Mobility and Environment Agency of Milan and discuss the effectiveness of the interventions undertaken in order to reduce the amount of pollutants produced by urban traffic.

To view some traffic control systems that deal with public transport and regulate the access of private cars to the city center of Milan.

#### Reference Address

via Tommaso Pini 1, 20134 Milan  
www.amat-mi.it (only in Italian)

#### Institution/Company

ARPAV, Agenzia Regionale per la Protezione Ambientale del Veneto – Regional Environmental Protection Agency - Veneto Region

#### Institution/Company Profile

Law 61, passed in 1994, entrusted environmental prevention and control duties to the relevant “Regional Agencies” which became the centers nominated for environmental vigilance and control in local areas. The Veneto Agency ARPAV was established by Regional Law no. 32, passed on October 18, 1996 and became operative on October 3, 1997. The agency pursues two closely connected objectives: protection, through environmental controls safeguarding population health and territorial safety, and prevention, through research, training, information and environmental education. It operates on the basis of three-year plans and an annual program.

#### Site Visit

Air Quality Control

#### Objectives

To present the activities carried out by ARPAV in the field of air quality monitoring, both in urban and industrial areas.

An urban background monitoring station belonging to the provincial environmental monitoring network will be visited in order to observe the main equipment installed and the parameters checked to control air pollution in the city.

#### Reference Address

Via Lissa 6, 30171 Mestre (Venice)  
www.arpa.veneto.it (only in Italian)

### 机构/公司

AMAT 米兰市政交通与环境管理局

#### 机构/公司简介

2000年，米兰市政府设立了其交通与环境管理局，职能为交通筹划规划提供技术方面的支持。

米兰市政交通与环境管理局是具有高度创新性的技术机构，负责交通以及环境方面项目的设计及实施。其主要任务包括城市交通规划、本地公交的规范及控制、空气质量、电磁辐射及噪音等环境方面的规划任务。

#### 参观焦点

城市交通排放控制

#### 实地参观目标

介绍米兰市政交通与环境管理局的业务并讨论以减少城市交通所产生的大气污染而采取措施的效率。

参观管制米兰市公交并限定私人汽车进入米兰市中心的控制系统。

#### 联系地址

Tommaso Pini 街1号，20134 米兰市  
[www.amat-mi.it](http://www.amat-mi.it)（意大利语）

### 机构/公司

ARPAV - 威尼托大区环保局

#### 机构/公司简介

通过1994年的第61号法律各行政大区的环境局授予环境保护及相关监测的职能，因此大区环保局成为当地环境检查和守护中心。

威尼托大区环保局是通过1996/10/18第32号大区法律而成立的，于1997年10月3日开始正式运作。该局主要追求两个密切相连的目标：保护目的，即通过环境检查而保护居民的身体健康和国土安全；安全及预防目的，即通过研究、培训、宣传和环境教育等方式达到此目的。该局的运作方式为一份三年计划以及一份年度规划。

#### 参观焦点

空气质量控制

#### 实地参观目标

描述威尼托大区环保局所进行的城区及工业区内的污染监控工作以及空气监测工作，并介绍本地环保分局所进行监控工作的实践。

#### 参观焦点

工业污染监控

#### 实地参观目标

介绍威尼托大区环保局所进行的空气质量活动，包括在城区和工业区。

练习生将参观一台城区的监测站，以亲身理解所安装的设备及所采用的空气污染标准。

#### 联系地址

Lissa大道6号，30171 Mestre (威尼斯省)  
[www.arpa.veneto.it](http://www.arpa.veneto.it) (意大利语)



### Institution/Company

#### Bergamo Sviluppo

#### Institution/Company Profile

Bergamo Sviluppo was created as Bergamo Formazione in 1994 by the Bergamo Chamber of Commerce, with the aim of supporting the local industries and the territory in developing professional skills and projects.

In 2012, along with the new name, the mission changed, broadening its activities, which now also include innovation, technology transfer and internationalization.

Bergamo Sviluppo's office at PolnT - POlo per l'INnovazione Tecnologica (Technogical Innovation Center) provides workshops and training activities to promote the development of new technologies and innovation among enterprises, as well as services for companies, professionals and institutions:

- \_ identification of technical regulations (UNI EN ISO);
- \_ recommendations on patents and Industrial Property;
- \_ access to technologies databases;
- \_ organization of thematic training courses about innovative materials.

All these services aim at encouraging the technological development of companies, thus increasing their competitiveness, and facilitate the creation of new high and innovative technology enterprises.

An enterprise incubator, created by Bergamo Sviluppo in 2001, has been hosted at Point since the beginning of 2014. The incubator, which promotes the creation of innovative enterprises by providing working space and training services, has two sections: one for the tertiary sector and one for the manufacturing sector.

#### Site Visit

Technologies for Energy Efficiency in Practice

#### Objectives

To highlight the importance of the activities carried out by local agencies to promote innovation and sustainable development in harmony with the local environment and industrial sector characteristics.

#### Reference Address

c/o Point - POlo per l'INnovazione Tecnologica  
Via Einstein / angolo via Pasubio 5, 24044 Dalmine  
(Bergamo)  
[www.bergamosviluppo.it](http://www.bergamosviluppo.it) (only in Italian)  
[www.incubatore.bergamo.it](http://www.incubatore.bergamo.it) (only in Italian)

### Institution/Company

#### Brovedani Group S.p.A.

#### Institution/Company Profile

The Brovedani Group consists of three companies and six production plants. It manufactures mechanical components to high standards and technological specialization with an emphasis on the efficient use of raw materials and natural resources.

The company, within the framework of a production process that reduces its environmental impact to a minimum, is determined that its products and manufacturing processes should consume the least possible energy and non-renewable resources.

The Environmental Management System Certification obtained in July 2008 has stimulated the Brovedani Group to implement a constant and continuous improvement of its environmental performance by building strong points such as selective waste collection, water, soil and air resources protection.

#### Site Visit

Science Parks and Sustainability

#### Objectives

To present an example of an environmentally friendly industry applying advanced technologies such as grinding mud filtration and wastewater depuration equipment to reduce the impact on the environment.

#### Reference Address

Via Venzone 9, 33078 San Vito al Tagliamento  
(Pordenone)  
[www.brovedani.it](http://www.brovedani.it)

## 机构/公司

Bergamo Sviluppo – 贝尔加莫发展公司

### 机构/公司简介

原名为贝尔加莫培训，是于1994年由贝尔加莫商会设立以便辅助本地企业和工业提高其专业技能并开发新项目。2012年名称改为贝尔加莫发展公司并把其业务扩大到创新性、技术转让和国际化。

位于Point（技术创新中心）的贝尔加莫发展公司举行新技术和企业创新性的培训班与讲习班并对公司、自由职业者和国家机构提供下列的咨询服务：

- \_ 技术标准（UNI EN ISO）方面的咨询；
- \_ 专利和工业产权方面的咨询；
- \_ 技术数据库存取；
- \_ 创新材料的专题培训班；

上述服务旨在推动企业的技术创新因而提高其竞争力，以及促进高新技术企业的创立。

2001年贝尔加莫发展公司设立了一家企业孵化器，从2014年起坐落于技术创新中心内。孵化器包括第三产业以及制造业两个专题，并促进创新型企业的创业，提供办公地点以及培训服务。

### 参观焦点

能效技术

### 实地参观目标

介绍本地国家机构的关键作用，按照本地的产业特点和环境推动创新性并促进可持续发展。

### 联系地址

Point – 技术创新中心

Einstein 路和Pasubio 路角上5号，24044

Dalmine (贝尔加莫省)

[www.bergamosviluppo.it](http://www.bergamosviluppo.it)（意大利语）

[www.incubatore.bergamo.it](http://www.incubatore.bergamo.it)（意大利语）

## 机构/公司

Brovedani Group S.p.A. - 波维达尼集团股份公司

### 机构/公司简介

波维达尼集团由三家公司组成，其生产厂为六个。以原来和自然资源的高效率为目标，集团制造高质量标准以及技术专业化的机械部件。

集团的经营理念为尽可能低的环境影响，因此产品生产过程中尽可能降低能源和非可再生资源的用量。集团不断致力于提供其环保成绩，尤其是废物收集方面以及水资源、土壤和空气质量的保护，因此于2008年获得了环境管理的证书。

### 参观焦点

科技园与可持续性

### 实地参观目标

介绍环保型企业的榜样，具体介绍减少环境影响的技术，如磨叽泥浆过滤以及水净化设备。

### 联系地址

Venzone街9号，33078 San Vito al Tagliamento  
(波尔德诺内省)

[www.brovedani.it](http://www.brovedani.it)

### Institution/Company

Burgo Group S.p.A.

#### Institution/Company Profile

The Burgo Group was founded on June 21, 1905 in Verzuolo (Cuneo), northern Italy, and is one of the European's leading producers of coated papers. Today the Burgo Group is a complete system developed around all aspects of the the world of paper: production, distribution, paper recycling and processing of forestry products, the study, design, construction and engineering of paper industry plant systems, but also factoring and energy. The Burgo Group, as member of CEPI (Confederation of European Paper Industries), shares a commitment to promoting a responsible approach as regards resources, sustainable forest management and the implementation of environmental management systems. In this context, the Group not only implements policies to conform with existing regulations but also takes on board voluntary protocols (Agenda 21) and promotes staff training on issues of sustainable growth. Furthermore, Burgo Group plays an active role in, and is a promoter of, ICFPA (International Council of Forest and Paper Associations) in which fifty-six companies in the sector at international level have signed an initial declaration of sustainability. The results can be seen from relevant recognitions for products and processes: certifications ISO 9001:2008, ISO 14001:2004, FSC®, PEFC™, and the EMAS Registration . The Burgo Group has twelve plants in Italy and one in Belgium. The Sarego paper mill was set up in 1971 and annual strategic investments have ensured ongoing improvements in efficiency, productivity and maintenance of the plant's machinery. The mill is powered by a combined cycle power/heat system co-generating plant and has an innovative waste water purification system.

#### Site Visit

Environmental Performance of Industries

#### Objectives

To provide a practical example of how it is possible to manage the responsible use of natural resources for industrial processes while at the same time satisfying quality and environmental standards and efficient management requirements.

#### Reference Address

Via Guido Salvagnini, 70, 36040 Sarego (Vicenza)  
Via Roma 212, 31020 Villorba (Treviso)  
[www.burgogroup.com](http://www.burgogroup.com)

### Institution/Company

Ceramica Dolomite

#### Institution/Company Profile

Ceramica Dolomite was founded in Trichiana (Belluno) in 1965 in the shadow of the mountains which rise up from Belluno and range across the border between Italy and Austria. Its main products are sanitary ware for bathrooms and public use, designer washbasins, kitchen sinks, acrylic bathtubs, furniture, brassware and accessories. In 1992 a new production site in Pordenone was opened, and this was followed in 1995 by the acquisition of Ceramiche Senesi. In 2007 Ceramica Dolomite requalified itself as a leading local brand of Ideal Standard International (an independent and privately-owned company headquartered in Brussels). Ceramica Dolomite is actively pursuing sustainability in its productive processes. In 2013 a new cogeneration plant was installed in Trichiana. The steam produced by the furnaces generates electricity, which is re-used in the productive cycle and is also serves to illuminate the streets of the nearby town. Another example of Ceramica Dolomite's ecological commitment is the recyclability of its materials, respecting the environment and its resources.

#### Site Visit

Energy Efficiency in Ceramic Production

#### Objectives

To present the use of co-generation and other energy efficiency strategies in a ceramic production plant.

#### Reference Address

Via Cavassico Inferiore 160, 32028 Trichiana (Belluno)  
[www.ceramicadolomite.it](http://www.ceramicadolomite.it)

### 机构/公司

Burgo Group S.p.A. - Burgo集团股份有限公司

#### 机构/公司简介

早于1905年6月21月在意大利北部库内奥省Verzuolo小镇成立的Burgo公司是欧洲铜版纸的引导公。

前面，Burgo集团的业务包括纸张的整个生命周期，即纸张生产及推销、纸张回收并生产再生纸、森林产品处理以及造纸厂的工程设计、施工和代理经营。

作为CEPI（欧洲纸产业协会）的成员，Burgo集团承诺了将责任性地利用自然资源、进行可持续性森林管理以及实行环境管理体系。

在此背景之下，Burgo集团不仅遵守现行的相关法律，而且自愿参与国际协议（本地21世纪议程）并对工作人员举行可持续增长内容的培训班。Burgo集团也是ICFPA（国际森林与纸业联合会）的发起人和积极成员。该联合会的五十六家国际层级纸业公司签署了首次可持续性宣言。

集团的环保方面努力工作获得了明显的成果，而其生产过程和产品获得国际承认：ISO 9001:2008和ISO 14001:2004认证、欧盟环境管理与审计体系的认证、FSC®认证以及PEFC™认证。

Burgo集团所运行的造纸厂十三家，在意大利十二家，在比利时一家。Sarego造纸厂是早于1971年开工的；通过年度大量投资逐渐改善了效率、生产率以及工厂设备的维修方式。

造纸厂备有热电联产及联合循环发电厂以及先进的废水净化装置。

#### 参观焦点

工业的环保成绩

#### 实地参观目标

参观一家生产过程中合理利用自然资源的同时满足质量标准和环保标准，又符合高效率管理的标准的工厂。

#### 联系地址

Guido Salvagnini街 70号, 36040 Sarego（维琴察省）  
Roma街 212号, 31020 Villorba（特雷维索省）  
[www.burgogroup.com](http://www.burgogroup.com)

### 机构/公司

Ceramica Dolomite – 白云石陶瓷

#### 机构/公司简介

白云石陶瓷公司早于1965年成立在位于超越意大利与奥地利国境雄伟山脉脚下的Trichiana镇，贝卢诺省。

公司的核心产品为家用和共用的卫生器具、设计洗脸盆、厨房洗涤盆、丙烯酸浴缸、家具、黄铜制品及相关配件。

1992年，在波带诺内市另一家生产厂开业了，1995年还收购了 Ceramiche Senesi（锡耶纳陶瓷）公司。

2007年白云石陶瓷公司改名为Ideal Standard International（国际理想标准卫浴公司，一家独立的私营公司，总部在比利时布鲁塞尔），造成了卫浴品牌。

白云石陶瓷公司积极追求生产过程的可持续性。2013年在Trichiana镇安装了一台热电联供装置，用炉子所产生的蒸汽而发电，电能用于生产周期并照明附近小镇的公路。

白云石陶瓷公司所使用的材料均为可再利用的，说明公司高度重视环保事业。

#### 参观焦点

陶瓷生产中的能效

#### 实地参观目标

介绍陶瓷生产厂的热电联供装置及其它能效战略。

#### 联系地址

Cavassico Inferiore 公路160号, 32028 Trichiana（贝卢诺省）  
[www.ceramicadolomite.it](http://www.ceramicadolomite.it)

#### Institution/Company

Contarina S.p.A.

##### Institution/Company Profile

Contarina is responsible for the management of waste from the municipalities belonging to the Bacino Priula, within the province of Treviso, in the Veneto region (Italy), in an area covering approximately 1,300 square kilometres with about 554,000 inhabitants, through an integrated system involving waste from production to collection, treatment and recovery, ensuring a positive impact on the environment as well as on the lives of the citizens.

The company was founded to manage the waste collection system and later waste disposal by setting up and managing landfills. All this was done according to the systems and directions established by the Consortia. Subsequently, Contarina's mandate expanded to include services such as road sweeping and the collection of special and hazardous waste, in addition to the collection and disposal of urban waste.

Contarina's success is based on a curbside collection system with a "pay as you throw" rate: a model that has been thoroughly tried and tested. For years, Contarina and the other members of the Consortia have been European leaders in recycling and are examples of cutting-edge public entities in terms of services and results, working with the community to achieve a common goal: the protection of the environment.

##### Site Visit

Waste management and reduction

##### Objectives

To present a successful example of waste management and the application of circular economy principles.

##### Reference Address

Via Vittorio Veneto 6, 31027 Lovadina di Spresiano (Treviso)  
[www.contarina.it/en](http://www.contarina.it/en)

#### Institution/Company

Depuracque Servizi S.r.l.

##### Institution/Company Profile

Depuracque is an industrial group established in the early 1970s to design and build industrial wastewater treatment plants.

Today it operates in the field of environmental protection and reclamation all over Italy.

The main activities of Depuracque Servizi S.r.l. are the treatment, recovery and disposal of special, toxic/noxious, hazardous and non-hazardous waste on behalf of third parties, and the implementation of safety measures, monitoring, design and reclamation of contaminated sites with both mobile and stationary onsite equipment. Depuracque s.r.l. carries out the design and construction of waste disposal, recovery and management plants, water treatment and purification, and the design and operation of soil reclamation activities in industrial or otherwise contaminated sites.

##### Site Visit

Soil Reclamation Activities, Sludge and Leachate Treatment

##### Objectives

To present the activities of a company that treats polluted waters and soils, both on site and off site. The visit will help understand the main steps of ground-contaminated water and wastewater disposal, through chemical, physical, biological and vacuum evaporation treatments. The processes leading to the design and operation of a soil contamination treatment unit will be discussed.

##### Reference Address

Depuracque Servizi S.r.l.  
 Via Roma 145, 30030 Salzano (Venice)  
[www.depuracque.it](http://www.depuracque.it)

机构/公司

Contarina S.p.A. - Contarina股份公司

机构/公司简介

Contarina 负责威尼托大区，特雷维索省 Priula 流域区内城镇（面积为1300平方公里，人口为515万4千人）垃圾的管理，其一体化系统包括废弃物的整个周期，即垃圾生产、收集、处理并回收，因此对周围自然环境以及居民的生活质量产生良好的影响。

公司以管理垃圾收集业务而成立的，后来建成了垃圾处置的一所填埋场。这是根据原有联营公司所制定的方式和指导方针而进行的，因此后来Contarina公司的职能扩大到街道清扫及特殊和有毒废物的收集业务。

Contarina 公司的成绩为其垃圾收集方式，即路上垃圾桶根据“扔多少、付多少”的原则，一种经过长期试验的模型。长年以来，Contarina 和垃圾管理联营公司站欧洲垃圾回收的领先地位，并作为服务和成绩方面的尖端事业企业，社区居民共同努力以达到共同的目标：环境的保护。

参观内容

废物管理并减少

机构/公司简介

介绍一个的废物管理的成功例子，依照循环经济的原则。

联系地址

Vittorio Veneto街 6 号, 31027 Lovadina di Spresiano  
特雷维索省)  
[www.contarina.it/en](http://www.contarina.it/en)

机构/公司

Depuracque Servizi S.r.l. - 水净化服务有限责任公司

机构/公司简介

水净化公司是在于70年代初成立的一家工业集团，目标为设计并建设一家工业污水处理厂。目前，集团公司从事环保和开垦领域的业务。

水净化公司的主要业务包括为第三方处理、回收和处置特殊、有毒、有害废物及无毒废物、实施安全措施以及通过固定的和移动设备监测并恢复污染地点。

另外，该公司还进行废物回收利用处理厂的设计和建设，并进行污水处理和净化服务。

参观内容

污泥及渗漏处理

实地参观问目标

使实习生理解到污染地下水及污水处理的主要过程，即化学、物理、生理以及真空蒸发的处理法。

联系地址

水净化服务有限责任公司  
Roma路 145号, 30030 Salzano (威尼斯省)  
[www.depuracque.it](http://www.depuracque.it)

### Institution/Company

Favini S.p.A.

#### Institution/Company Profile

Favini was founded in 1736 and annually produces 60.000T of the finest papers. It is organized in 3 divisions. The first is devoted to graphic specialties with two plants in Italy: one in Rossano Veneto and the other in Crusinallo, producing paper and board for design and print. Casting release and products for the fashion and automotive industries is produced by the second division, in Crusinallo. Finally, the third division is in Rossano Veneto and it is devoted to high-end stationery for business, home and education use.

Favini has an environmental policy that covers the whole production process and has gained several certifications: FSC, ISO 9001, ISO 14001, OHSAS 18001.

#### Site Visit

Environmental Performance in Industry

#### Objectives

To introduce an example of a company that monitors its environmental impact over the whole productive cycle and strives to improve its performance through best environmental practice.

#### Site Visit

Renewable Energy Use and Resource Conservation in Industry

#### Objectives

To introduce examples of strategies adopted at corporate level to reduce CO<sub>2</sub> emissions.

#### Site Visit

Water Management in Paper Production

#### Objectives

To show in practice how an industry traditionally based on intensive use of water can manage this resource in a sustainable way through reuse and recycling.

#### Reference Address

Favini S.p.A.  
Via Alcide De Gasperi 26, 36028 Rossano Veneto (Vicenza)  
[www.favini.com](http://www.favini.com)

### Institution/Company

Gea S.r.l.

#### Institution/Company Profile

Gea is a company belonging to Green Holding Group, one of the most important private Italian companies in the integrated management of urban waste and industrial plants.

Gea has been operating for almost thirty years in the Veneto region with the construction, operation and post-operation of plants of final disposal of municipal and similar waste, now called non-hazardous.

The Sant'Urbano landfill has been active since 1990, it stretches over a gross area of approximately 55 hectares, has a planned volume of 3,878,000 cubic meters and a nominal capacity of 500 tons of waste per day. The landfill bottom and sides are completely lined and waterproofed, and both the biogas and leachate produced by the accumulated waste are collected and disposed of.

A comprehensive environmental monitoring program is enforced and all the environmental matrices are monitored according to a precise protocol established with the competent institutions. The samples are analyzed by an official authorized laboratory and at least annually by ARPAV (Environmental Protection Agency of Veneto Region).

The Public Authorities (Province, ARPAV) responsible for environmental controls, periodically visit the facility to verify that all operations are carried out in accordance with the requirements of national and local authorities and in compliance with the conditions of the landfill specific permit.

The company has also organized its own system of periodic procedures and inspections, to avoid the occurrence of both environmental and operational problems. The company's effort and commitment has been formally recognized in 2001 by obtaining the Certification of Environmental Quality ISO 14000:96 and subsequently ISO 14001:2004 (for "non-hazardous waste landfill (municipal and similar waste) with activities of energy recovery from biogas for electricity production"), by Bureau Veritas Quality International Italy (BVQI), for the Sant'Urbano landfill, thus making it the first company certified in this area of the Veneto region. This commitment has continued by integrating the Environmental Quality System with the Quality Certification ISO 9001:2000 in 2002.

#### Site Visit

Waste Management and Soil Pollution Prevention

#### Objectives

Present an example of landfill managed with the most advanced technologies and strictest



机构/公司

Favini S.p.A. - Favini股份公司

机构/公司简介

Favini造纸厂是早于1736年开业的，目前的高质量纸张年度产量为6万吨。集团由三个部门组成的。第一部门经营图形产品，在Rossano Veneto工厂生产印刷用纸和图画用纸，第二部门经营时尚和汽车工业应用的型纸，在Crusinallo造纸厂生产的，第三部门在Rossano Veneto工厂生产并经营商业生活用纸。

Favini公司的环境管理体系覆盖整个生产过程并获得了多种认证：FSC、ISO 9001、ISO 14001和 OHSAS 18001。

参观焦点

工业的环保成绩

实地参观目标

介绍一家环保型，即监测全部生产过程的环境影响，并通过最佳环境实践不断提高其环境成绩。

联系地址

Favini 股份公司  
Via Alcide De Gasperi路 26号，36028 Rossano Veneto（维琴察省）  
www.favini.com

机构/公司

Gea S.r.l. – 地球有限责任公司

机构/公司简介

Gea 有限公司为Green Holding Group（绿色集团公司）的附属公司，该集团是意大利城市垃圾和工业废物综合管理领域的最大公司之一。

Gea 有限公司在威尼托大区已具有30多年的经营经验，从事城市垃圾及类似废物处理厂（即非危险废物类）的建设、经营并关闭之后监测的。

Sant’Urbano填埋场是1990年开业的，总面积为55公顷，容积为387,8 万立方米，废物的日处理量为500 吨。

填埋场的底部和侧面全衬砌不透水隔层，这样可以收集并处置填埋垃圾所产生的沼气和渗沥液。

填埋场实施综合性的环境监测计划，各环境基质都根据主管当局所制定的程序而监测。样品由一家授权实验室分析，每年威尼托大区环保局（ARPAV）还进行一次分析。

环境监察主管当局（威尼托大区政府环保部、环保局）定期考察填埋场，以检查公司是否依照国家和本地法律以及许可证而进行操作。

公司还制定了自己的监测程序和定期监察，以避免环境事故和操作问题。2001年公司环保方面不懈努力获得了承认，即Sant’Urbano填埋场由必维国际检验集团意大利分公司被授予ISO 14000:96环境质量认证，然后再得到了ISO 14001:2004证书（回收沼气能源用于生产电能的非危险废物填埋场）使地球公司成为威尼托大区首家得到该证书的公司。公司坚定不移地践行其环保承诺，2002年又获得了ISO 9001:2000 质量认证。

参观焦点

废物管理与土壤污染防治

实地参观目标

介绍一家备用先进技术、符合严格规定的填埋场，以预防环境污染为目标。



safety regulations to prevent environmental contamination.

#### Reference Address

v. Brusà 6, 35040 Sant'Urbano (Padua)  
[gruppogreenholding.it/company/gea/](http://gruppogreenholding.it/company/gea/) (Italian only)

#### Institution/Company

Grafica Veneta S.p.A.

#### Institution/Company Profile

Established in 1982 in Trebaseleghe (Padua), Grafica Veneta offers advanced services to meet the diverse needs of modern publishing: its advanced know-how enables the company to carry out the entire production cycle for magazines and books independently, from printing to binding to in-house packaging. The company produces 90 million books per year. The services include a 24/7 printing capability, for up to 10,000 copies, starting at any time.

The president Fabio Franceschi has driven the expansion of Grafica Veneta in less than a decade, transforming his family business into one of the most important European companies in the publishing sector and he is already looking ahead to new, ambitious projects in the future.

One of the strong points of Grafica Veneta is its commitment to sustainability.

Grafica Veneta for quite a long time now has been using solar energy for the production of electricity, being a 100% "carbon free" company. A photovoltaic system, installed on the roof of the premises, occupies 100,000 m<sup>2</sup> and produces 8 MW of energy, driving the entire production cycle.

The paper used for printing comes from certified sources (FSC/PEFC) and the ink is free from toxic substances.

Moreover, the company holds the main environmental certifications on health and safety, product development and operations (ISO 9001, OHSAS 18001, ISO 14001, ISO 2600).

#### Site Visit

Innovative Sustainable Industry

#### Objectives

To present a leading printing company that unites innovation with respect for the environment.

#### Reference Address

Via Malcanton 2, 35100 Trebaseleghe (Padova)  
[www.graficaveneta.com/en](http://www.graficaveneta.com/en)

### 联系地址

Sant'Urbano 填埋场 – Brusà 公路 6, 35040  
Sant'Urbano (帕多瓦省)  
[gruppogreenholding.it/company/gea/](http://gruppogreenholding.it/company/gea/)  
(意大利语)

### 机构/公司

Grafica Veneta S.p.A. - 威尼托印刷厂股份公司

### 机构/公司简介

于1982年在Trebaseleghe (帕多瓦省) 成立的威尼托印刷厂公司提供先进服务以便满足现代印刷业的不同需求。基于其长期积累的诀窍, 公司能完成杂志和书籍的整个周期, 包括印刷、封皮和厂内包装。书籍年度印刷量为9千万本。其服务还包括H24即时书籍的印刷, 在24个小时内提供1万本以下的印刷和封皮服务, 而无需提前预定。

Fabio Franceschi董事长在不到十年的时间内把原来的家庭公司发展成欧洲印刷业最重要公司之一, 并还在筹备更雄心勃勃的新项目。

威尼托印刷厂的优势之一就是其可持续性的承诺。长期以来, 公司使用太阳能发电, 是一家100% “无碳” 公司。工厂顶上所安装的光伏系统的面积为十万平方米, 发电量为8兆瓦, 能满足整个生产周期的能源需求。

所使用的纸张都来自被认可来源 (FSC/PEFC), 墨水是无毒的。

另外, 公司获得了健康、安全、产品开发和经营方面的环保认证 (ISO 9001、OHSAS 18001、ISO 14001、ISO 2600)

### 参观内容

可持续性创新工厂

### 实地参观目标

介绍一家把生产创新和环保目标连起来的领先公司。

### 联系地址

Malcantone 街2号, 35100 Trebaseleghe镇 (帕多瓦省)  
[www.graficaveneta.com/en](http://www.graficaveneta.com/en)

### Institution/Company

HiRef S.p.A.

### Institution/Company Profile

HiRef was founded in 2001 as a company focused on the production of air conditioning units for technological environments (Data Centers and telecommunications shelters); today the brand is known all around the world as being strongly innovative, technological, and product customization-oriented.

With its own highly dynamic and specialized in-house research and development center, and internal mechanical, electrical and software development design department, along with its internal semi-finished product manufacturing departments, HiRef has, over time, acquired the necessary competences to not only offer products, but also complete solutions for the world of air conditioning and chilling. It is this philosophy that has allowed HiRef to offer its customers truly valuable services, such as assistance in plant engineering planning and streamlining system performance, completing its line of highly customized products.

The objective of HiRef is to fulfil the requirements of its customers without compromising the thermo-hygrometric parameters of the air-conditioned rooms: extensive knowledge on plant engineering, combined with a wide experience with innovative technologies make it possible to reach the energy efficiency levels required to achieve meaningful monetary savings and reduce the impact on the environment.

Over the years the company has experienced rapid growth, overcoming many challenges affecting the sector, thanks to a truly unique resource that has led its success: its people. By recognizing and using the talent of each individual human resource, HiRef is now one of the companies that can boast non-stop product innovation and high quality levels, combined with extreme flexibility.

### Vision

"We see HiRef as a reference point in the future IT cooling market. Our aim is to innovate, build, manage and develop thermal plants in a green way and with sustainability, within the target socioeconomic context."

### Mission

To develop technical competences, technologies and an attitude to relationships which involves sharing on a daily basis with our partners of the IT cooling world.

We believe this is the only way to foster successful and long lasting cooperation with a view to solving the end user's problems.

To each problem its own solution: with efficiency

and effectiveness, thanks to a fully managed supply chain and the provision of ancillary services.

### Site Visit

Energy Efficiency in Industry

### Objectives

To present a company that produces high performance solutions for the HVACR world (heating, ventilation, air conditioning and refrigeration). The core business of the company is IT cooling (air conditioning for server rooms and telecommunication shelters). Innovation and energy efficiency are key words in their production system, throughout the R&D, design and production phases, which are all based in their Italian premises.

### Reference Address

Viale Spagna, 31/33, 35020 Tribano (Padova)  
www.hiref.it

### 机构/公司

HiRef S.p.A. – 高技术冷却装置股份公司

### 机构/公司简介

于2001年成立的，HiRef 公司的核心业务为用于高技术环境（数据中心及通讯装备室）的冷却装置；目前公司已成为高创新性、高技术并产品客制化的全球品牌。公司备有一所高度专业化研发中心以及机械部门、电力部门、软件开发设计部门以及半成品制造部门。依赖多年的经验，目前公司除了产品以外还可提供空调系统和冷却装置的全方位解决方案。凭着其经营理念，公司给客户提供高价值的服务，包括工厂工程计划及系统成绩简化的顾问服务，均为高度客制化。

公司的目标为满足其客户的需求而不影响到冷气房的温湿标准；广泛工厂工程设计经验以及创新技术的诀窍使公司达到所需的能效水平的同时让客户降低成本并减少对环境的影响。

多年来，公司保持了快速增长并克服了影响到该领域的不少挑战。其成绩的原因位于独一无二的资源，即其工作人员。公司一贯信守“发挥各位工作人员的天才”原则，因此目前HiRef 公司以不断产品创新、高质量水平以及高度灵活性为荣。

### 公司愿景

“HiRef 肯定将成为将来通信冷却市场的参照公司。在目标社会经济背景之下，我们创新、管理并开发热电厂的能力符合可持续发展的原则。”

### 使命

开展技术能力、先进技术以及良好沟通态度并把它天天共享与通信冷却界的伙伴。

我们认为这是唯一的走向成功的长期合作道路，以便解决最终用户的问题。

每个问题都有各自的解决方案，凭着全程供给链我们能保证高效力高效率并提供附加服务。

### 参观焦点

工业能效

### 实地参观目标

介绍一家生产高技能HVACR（暖通空调冷

却系统）领域产品和解决方案的企业。该企业的核心业务为通信设备的冷却（数据中心及通讯装备室空调）。其生产过程中，创新和能效为关键词。企业的研发部、设计部和生产地点都在意大利境内。

### 联系地址

Spagna 大道 31/33 号, 35020 Tribano (帕多瓦省)  
[www.hiref.it](http://www.hiref.it)

### Institution/Company

ICI Caldaie S.p.A.

#### Institution/Company Profile

ICI Caldaie S.p.A is a company with over 50 years of history and experience in energy management and heat production. It is an Italian and European leader in heat production systems in both the domestic and residential fields; the cornerstones of this development have been energy efficiency, environmental sustainability and cost savings for the user. The company can count on a worldwide network of skills and partnerships. Its offices are in Verona and it has various foreign branches: England (Manchester), Spain (Madrid), Romania (Bucharest), China (Beijing), Russia (Moscow) and Kazakhstan (Almaty).

With a continuing respect for the environment, ICI Caldaie has further enhanced its products with control systems that allow a reduction in consumption while optimizing the operation of the generator and the elements connected to the system.

Our range includes:

- \_ residential heating systems from 20 to 20,000 kW;
- \_ residential services for managing and optimizing heating systems using a remote control (E-term);
- \_ steam generators and fire-tube hot water generators, diathermic oil generators and heating plant elements;
- \_ industrial services for managing and optimizing the operation of generators, also using remote control;
- \_ fuel cell cogeneration systems (Sidera 30);
- \_ special projects for transportable central heating plants, water tube boilers and exchangers for biomass fumes.

#### Site Visit

Energy Efficiency in Co-generation

#### Objectives

To present the use of hydrogen and fuel cells for co-generation in industrial and civil boilers, with the aim of improving the energy efficiency of the system.

#### Reference Address

Via G. Pascoli 38, 37059 Zevio Fraz. Campagnola (Verona)  
[www.icicaldaie.com](http://www.icicaldaie.com)

### Institution/Company

INNOVHUB-SSI

#### Institution/Company Profile

Innovhub – Stazioni Sperimentali per l'Industria (Innovhub – SSI), a Special Agency of the Milan Chamber of Commerce, is a national center for research, innovation and technology transfer. Its main goal is to provide solutions to companies' needs, operating specifically within the textile, carton and pulp, fuels and oils and greases sectors; it also supports public administrations willing to enhance national competitiveness, through the promotion and support of innovation and scientific / technical development.

The services offered by the Fuels Area are:

- analysis and advice on fuels;
- research and experimentation, developing both research themes promoted and financed independently or projects commissioned by third parties (industry, public, private);
- technical training.

The Fuels Area operates in two sectors:

- traditional fuels (oil, coal, gas) and main products;
- alternative fuels (biofuels, waste fuels, biomass), through analysis, studies and research on various aspects: commodity, energy, motorsports, environmental, safety and regulatory.

#### Site Visit

Vehicle Emission Control

#### Objectives

To present the activities of Innovhub – Stazioni Sperimentali per l'Industria (Innovhub – SSI) and its research activities with a special focus on vehicle emission control, fuels and engines. The visit will include a tour of the Automotive Emission Laboratory.

#### Reference Address

Via Galileo Galilei, 1, 20097 San Donato Milanese (Milan)  
[www.innovhub-ssi.it](http://www.innovhub-ssi.it) (only in Italian)

## 机构/公司

ICI Caldaie S.p.A. - ICI 锅炉股份公司

### 机构/公司简介

ICI 锅炉股份公司具有50多年的能源管理与热能生产领域的历史和经验，是住宅热能生产系统的意大利及欧洲主导公司。其发展的基础为能效、环境可持续性以及最终用户的成本节省。另外，公司的伙伴网络延长到在全欧洲国家。除了维罗纳的总部之外，公司在下列国家都有分公司：英国（曼切斯特）、西班牙（马德里）、罗马尼亚（不加雷斯特）、中国（北京）、俄罗斯（莫斯科）、哈萨克斯坦（阿拉木图）。

ICI 锅炉公司致力于不断提高其环保绩效及产品的质量，所研发的产品控制系统降低了能源消耗并优化了发电机以及相关部件的操作性能。

公司所提供的产品如下列的：

- \_ 20至20000 KW的住宅供热系统；
- \_ 通过远控系统(E-term)管理并优化住宅供热系统的服务；
- \_ 蒸汽发生器以及水火管锅壳式锅炉、导热油锅炉以及供热系统的部件；
- \_ 管理并优化发生器的操作性能的工业服务，包括应用远控方式；
- \_ 热电联产人类电池（Sidera 30）；
- \_ 移动集中供热系统、热水锅炉以及生物燃料烟雾转换器的特殊工程。

### 参观焦点

热电联合发电的能效

### 实地参观目标

介绍用于工业和生活锅炉的氢能燃料电池热电联合发电方式，目标为提高系统的能效。

### 联系地址

G. Pascoli街 38号，37059 Zevio镇Campagnola (维罗纳省)

[www.icicaldaie.com](http://www.icicaldaie.com)

## 机构/公司

INNOVHUB-SSI - 创新中心-工业试验站

### 机构/公司简介

创新中心-工业试验站——米兰商会所属特级机构是国家级的研发、创新及技术转让中心。中心主要旨在向公司提供特定解决方案作为，尤其是在纺织品、纸浆与纸品、燃料石油与油脂产品方面。中心还支持要提高国家经济竞争力的国家机构，推动并支持科技方面的开发。

所提供的服务如下列：

- \_ 燃料的分析及相关顾问
  - \_ 研究与试验，包括独立融资的研究项目以及由第三方（工业、国家机构及私人中心）融资的项目开发。
  - \_ 技术方面的培训
- 燃料部门从事两个领域的业务：
- \_ 传统燃料（石油、煤炭、天然气）及其主要产品
  - \_ 代替燃料（生物燃料、废物燃料、生物质能）通过不同方面的分析研究：商品、能源、摩托车运动、环保、安全及法律框架

### 参观焦点

机动车排放控制

### 实地参观目标

介绍创新中心-工业的试验站的业务，尤其是机动车排放控制、燃料和马达方面。参观当中还将介绍汽车排放实验室。

### 联系地址

Galileo Galilei 街 1号 - 20097 San Donato Milanese (米兰省)

[www.innovhub-ssi.it](http://www.innovhub-ssi.it) (意大利语)

#### Institution/Company

Interporto di Padova S.p.A

#### Institution/Company Profile

Operative since April 21, 2004, Cityporto of Padua is a project aimed at rationalizing the distribution of goods so as to contribute to traffic decongestion within the city center.

The project is promoted by the Municipality and Interporto di Padova, in collaboration with the province, the local Chamber of Commerce and A.P.S. Holding S.p.A. – Mobility Division. Cityporto of Padua is one of the few projects of this kind successfully operating in Italy. It also involves private transport operators.

The project Cityporto works on three aspects: the reduction of truck numbers while maintaining effective delivery in the city center, the rationalization of freight flow and optimization of vehicle capacity, and the use of low-emission vehicles (mostly methane and LPG).

The model that the Cityporto of Padua is based on is an extremely simple one: the transport operators (couriers and enterprises) deliver the goods to a logistics platform (warehousing belonging to Interporto), located on the city outskirts, where they are temporarily stored; ecological vehicles with low environmental impact depart from there to distribute goods in the city center (the “final mile”).

The vehicles used are allowed to travel in the reserved lanes in the city center and have 24-hour free entry and parking inside the Z.T.L. (limited traffic zone).

#### Site Visit

#### Objectives

To show how the distribution of goods is organized in the city of Padua in order to reduce traffic in the city center and vehicle emissions into the atmosphere

#### Reference Address

Galleria Spagna 35, 35127 Padua  
[www.cityporto.it](http://www.cityporto.it)

#### Institution/Company

Istituzione Bosco e Grandi Parchi - Comune di Venezia (Green Areas – Venice Municipality)

#### Institution/Company Profile

S. Giuliano Park:

- is a green area 74 hectares wide, divided into two sub-areas: the one named A2 extending for 12,4 hectares and a second, named B1, extending for 61,6 hectares;

- is a part of a wider area (of about 700 ha) embraced by the San Giuliano Park’s master-plan. This project included land reclamation of an area 30 hectares wide, polluted by urban and industrial waste dumping.

#### Site Visit

Landfill reclamation in practice

#### Objectives

To see an example of a formerly polluted area now reclaimed and again available for public use.

#### Reference Address

[www.boscoegrandiparchi.it](http://www.boscoegrandiparchi.it)

机构/公司

Interporto di Padova S.p.A 帕多瓦货运村股份公司

机构/公司简介

自2004年4月21日开始运行的帕多瓦货运村项目旨在货物配送的合理化，以便减少城市中心的交通量。

该项目的举办单位为帕多瓦市政以及帕多瓦货运村，在本地商会和 A.P.S 控股公司交通司的合作之下。帕多瓦货运村是意大利少数同类项目之一，而且运作得很成功。货运村的项目分成三个主要方面：第一，减少去市中心送货的卡车数量，第二，货物流量的合理化以及机动车容量的优化，第三所应用的大部分机动车排放量都很小（甲烷及液化石油气）。

帕多瓦货运村的运行模型极为简单。货运公司（特快专递和企业）到一站坐落在城市郊区的物流站台（即帕多瓦货运村拥有的仓库）送货并把货物暂时存在仓库里。然后小排量的生态机动车把货从仓库配送到城市中心的目的地（所谓的最终英里）。

货运村的机动车允许开在城区的专用道，24个小时都可以免费进入交通禁止区并在那里停车。

参观焦点

可持续运输

实地参观目标

介绍帕多瓦市的旨在减少城区交通及机动车排放量的货物配送组织方式。

联系地址

地址：西班牙走廊 35，35127 帕多瓦市  
[www.cityporto.it](http://www.cityporto.it)

机构/公司

Istituzione Bosco e Grandi Parchi - Comune di Venezia (Green Areas – Venice Municipality)  
威尼斯市政府- 森林与大公园机构- 威尼斯绿区

机构/公司简介

S. Giuliano 公园：

- 74公顷大的绿区，分成两个分区：12.4 面积为12.4公顷的A2分区及面积为61.6公顷的B1分区。

- 依照S. Giuliano公园总体规划，是更大的面积（700公顷）绿区的一部分。  
通过该项目修复了面积30公顷的工业废物污染地区。

参观焦点

污染地区修复

实地参观目标

参观原来污染、现在修复并供给市民享用的一块地区。

联系地址

[www.boscoegrandiparchi.it](http://www.boscoegrandiparchi.it)



### Institution/Company

Kiwiny S.r.l.s.

#### Institution/Company Profile

Based in Gaiavera del Montello, north of Treviso, Kiwiny is a company headed up by the Breitenberger brothers, whose business and entrepreneurial philosophy is based on quality products and environmental sustainability. Kiwiny is a young company inspired by a regional tradition of high-quality workmanship whose two deep-rooted fundamental principles, meticulous care and responsibility, govern the entire production cycle.

From ten hectares of organic farmland, without synthetic chemicals and in compliance with organic certification standards, they produce two types of kiwis: Hayward and Soreli Gold.

A policy of transparency and respect for people and for the environment also governs the production of the three processed lines: Kiwiny Smoothies, Kiwiny Jams and Kiwiny Juices.

The Company's approach to the production of fresh and processed food productions is based, on the one hand, on natural and direct consumer relations and, on the other, on the most advanced technology.

In the interest of sustainable development, the Company has chosen to maximize the use of natural recyclable materials, guarantee a controlled production chain free of synthetic chemicals, and has installed a 100 kW photovoltaic power system. In 2013 Kiwiny was among the finalists of the prestigious Oscar Green award in the "Exporting the Territory" category.

#### Site Visit

Organic Farming and Innovation

#### Objectives

To present an organic farming company that unites innovation and respect for the environment.

#### Reference Address

Via Caramini 21, 31040 Gaiavera del Montello (Treviso)  
www.kiwibio.com/en

### Institution/Company

Latteria Montello S.p.A.

#### Institution/Company Profile

Latteria Montello began activities in 1947 inside a small dairy with just one wood-fired boiler. The company has developed over the years and is now leader in the premium segment of the Italian *stracchino* market with its "Nonno Nanni" fresh cheeses.

The values of the company can be summed as:

- \_ the constant pursuit of improved quality;
- \_ genuine products and high quality raw materials and final output;
- \_ tradition and passion for its history and its own corporate identity;
- \_ long experience in production;
- \_ scrupulous monitoring of the entire production cycle.

These values are reflected also in the importance that Latteria Montello has always given to the protection of the environment.

The company implements a range of initiatives for greater energy savings and efficient management of cheese wastes:

*Waste Management:* the percentage of packaging recovery has doubled during the recent years; the container which is inside the packaging of cheese consists of 100% recyclable materials, thus reducing environmental impact as much as possible;

*Water Management:* wastewater is conveyed into a biological purification plant and subsequently used in agriculture;

*Energy savings:* a number of process indicators have been established to monitor the development and consumption of resources (water, gas, energy power) in order to verify any eventual non-standard or unjustified consumer points;

*Reduction of CO<sub>2</sub>:* minimization CO<sub>2</sub> emission during production (purchase of containers for "spread out" packaging which is completed at the dairy, concentration of the whey coming from processing, centralization of the management system of product washing) and distribution (reduction of vehicular traffic);

*Clean electric energy:* Nonno Nanni uses only clean electricity from renewable energy sources, like solar, water and wind;

*Cogeneration:* Nonno Nanni uses a 1MW electricity output methane cogenerator plant;

*Carbon footprint:* Latteria Montello has developed a project aimed at calculating and minimizing its "Carbon Footprint". The study, performed using strict scientific criteria, takes into account the entire production chain, both direct (CO<sub>2</sub> generated from the production of cheese) and indirect (CO<sub>2</sub> generated by the production of milk in the barn) of

机构/公司

Kiwiny S.r.l.s. – Kiwiny 有限公司

机构/公司简介

在位于特雷维索省东北部的Giavera del Montello镇，Breitenberger兄弟是Kiwiny公司的持有者。公司的经营理念基于产品的质量和环境可持续性。这家年轻公司的灵感为传统的高质量工艺，而本地传统工艺的根深原则，即责任感与体贴入微，就是整个生产周期的指导方针。公司的有机耕种面积为10公顷，因此根据有机农业认证的标准不应用何合成化学肥料。公司耕种的两种猕猴桃——Hayward和Soreli Gold——，备有于下列产线：即Kiwiny沙冰、Kiwiny果酱和Kiwiny果汁。生产过程当中，公司高度重视透明性、环保标准及工作人员的尊敬。公司所生产鲜果和加工食品基于最先进技术以及与客户的关系。在可持续发展的概念之下，公司使用尽可能多的自然可回收材料，保证其产品的生产链都不用合成化学品，并安装了功率为100千瓦的光伏系统。2013年Kiwiny公司是有名绿色奥斯卡“开发本地”范畴的参加决赛者。

参观内容

有机农业与创新

实地参观目标

介绍一家把创新与环保连起来的有机农场。

联系地址

Caramini 街21号，31040 Giavera del Montello 镇  
(特雷维索省)  
www.kiwibio.com/en

机构/公司

Latteria Montello S.p.A. - Montello挤奶厂股份公司

机构/公司简介

Montello挤奶厂是早于1947年开业的，当时是一家只有一台木材蒸汽锅炉的小型挤奶厂。年又一年公司不断发展扩大，而目前其Nonno Nanni（奶尼老爷）冷湿奶酪（stracchino）系列产品是意大利相关市场环节的引导品牌。

公司一直坚持下列原则：

- \_ 不断寻求质量的改善；
- \_ 高质原料，以生产纯真并优秀质量的制品；
- \_ 尊重上一代传下来的传统，热爱公司的历史和特色；
- \_ 挤奶的长久经验；
- \_ 产品的严格并精确检验。

和上述原则一致的，Montello挤奶厂公司高度重视环保事业。

公司采取了节能方面和奶酪生产过程的废料管理方面的如下措施：

- \_ 废物管理：最近几年包装的回收率增加了一倍；奶酪塑料盆100%用料为可回收材料，因此大量减少了对环境的影响。
- \_ 水管理：废水被输送到生物净化装置，处理之后就用于灌溉农田。
- \_ 能：若干工艺指数设置监测资源消耗（包括水、天然气和电能），以便查到标准外的高峰消耗。

二氧化碳排放削减：尽量削减二氧化碳排放量，又在生产环节（购买可延伸、厂内安装的奶酪盒、工艺乳浆的浓度、产品清洗环节的集中化），既在物流环节（减少了路上运输）。

- 清洁电能：奶尼老爷生产厂的全部电能来自可再生能源，如太阳能、水能和风能。

热电联合发电：奶尼老爷生产厂备有1兆瓦电能容量的甲烷联合发电装置

碳足迹：挤奶厂开发旨在计算并尽可能减少生产厂的碳足迹。该计算模式基于严格的科学标准和数据，而考虑到4种奶尼老爷奶酪（Stracchino、带有益生菌发酵剂的Stracchino、Squaquerello和Robiola）生产的全

4 Nonno Nanni cheeses (Stracchino, Stracchino con Fermento Probiotico, Squaquerello and Robiola). In order to offset its environmental impact and any pollution produced, Nonno Nanni has contributed to two environmental sustainability initiatives, one in Italy and one abroad.

#### Site Visit

Environmental Impact Reduction in Firms

#### Objectives

To present a company investing in the protection of the environment throughout the production cycle.

#### Reference Address

Via Fante d'Italia, 26, 31040 Giavera del Montello (Treviso)

[www.nonnonanni.it](http://www.nonnonanni.it)

#### Institution/Company

Manens-Tifs S.p.A.

#### Institution/Company Profile

TiFS is an engineering company operating in the plant engineering sector with a high level of specialization and specific expertise in HVAC, public health, fire protection, electrical, communication, safety, security, lighting systems, etc..

We have an established track record in the design of integrated plant for large public and private buildings (offices, airports, hospitals, universities, shopping centre, hotels, business/congress centre, etc.).

Experience of a similar importance has also been gained in the specific sectors of lighting for places of high historic and artistic content and acoustics for theatres, conference centres, etc..

We have earned widespread esteem for our collaboration with constructors, suggesting solutions and innovations to standard production devices in accordance with specific requirements of different projects.

The common aspect of all the TiFS projects is the constant pursuit of innovative solutions based on a respect for the environment compatible with security and a global economy.

We look on the assignment of a new project as an opportunity for research and growth, for the development of new technological solutions and the acquisition of new competence and knowledge. At a time when a work of architecture is more and more like a technological structure, integrated building-plant design becomes an essential prerequisite to a correct approach; with this in mind, TiFS promotes the development of methods, know-how and competences even in such new sectors as day-lighting, acoustics, energy.

The company was set up in 2001 by the merger of Fellin S.r.l., Siper S.r.l. and Studio Tecnoimpianti, consolidating their thirty years' design experience. TiFS is structured in separate divisions: electrical and lighting, mechanical and acoustical. A special group is involved in research and modelling.

The staff currently comprises some 75 employees; the turnover is about 6,0 mil. Euro.

In May 2004 a new headquarters was inaugurated in Padua: a 2200 sq metres building, innovative in architecture and installation, in a word a synthesis of TiFS projecting style.

TiFS obtained certification of its Quality System in accordance with ISO 9001 standard in 1999, prior to the merger.

At present TiFS is one of the most important engineering companies in Italy, highly esteemed all over the country, thanks to its over 30 years' experience and to the competence and know-how of the staff.

部环节的因素，包括直接的（奶酪生产过程的二氧化碳排放量）以及间接的（牛厩里生产牛奶的二氧化碳排放量）。为了抵消对环境的影响以及所产生的污染，奶尼老爷产品生产公司参与了意大利和国外的不少环境可持续性举措。

#### 参观焦点

企业削减的环境的影响

#### 实地参观目标

介绍一家公司在全部生产过程的环保型上投入了大量投资。

#### 联系地址

Fante d'Italia街, 2  
www.nonnonanni.it

#### 机构/公司

Manens-Tifs S.p.A. Manens-Tifs 股份公司

#### 机构/公司简介

2001年设立的TiFS公司是一家从事工厂设备的高度专业性工程公司，尤其在供暖、通风和空调系统以及公共卫生、消防、电力、通讯、安全设施、保安设施、照明系统等方面具备专门知识。

在设计大规模的国家 and 私人建筑物（办公楼、飞机场、医院、大学、商务中心、酒店、商务与议会大厦）里的综合装置方面具有长期经验。

在历史地点的照明方面、剧场、会议中心等的音响方面也有相当长的工作经验。与建筑师合作时，公司专家获得其高度尊敬，由于提出了标准生产装置的创新性解决方案，能够满足不同项目的需求。

TiFS公司所进行的项目均有个共同特点，即在全球经济和安全之下不断地寻找环境友好的创新方案。

我们把各项目视为研究与扩大经验、开发新的技术方案、取得新知识的一个机会。目前，建筑物越来越成为一种技术结构，因此建筑物-设备的一体化设计是最合适的做法；在这一框架之下，TiFS推动自然采光、音响、能源等新领域内诀窍和能力的开发。

公司于是于2001年成立的，通过Fellin有限公司、Siper有限公司以及Tecnoimpianti 事务所的合并，因而巩固三家公司的三十多年的设计经验。

公司结构包括两个总部：电能与照明、机械与音响。另外，还有研究模型的特殊工作组。

目前，公司的工作人员人数为75人，营业额为6百万欧元。

2004年4月份，帕多瓦的总部开业了。由本公司设计的2200平方米大的总部办公楼反映公司的设计风格，即建筑概念又装备都高度创新。

合并之前，1999年TiFS公司已获得了ISO 9001质量系统的认证。

目前，TiFS公司为意大利最重要工程公司之一，其30年长的经验及人才素质是全国著名。

### Site Visit

#### Eco-Building in Practice

### Objectives

To present an example of eco-building - how it is built and how it functions - in order to underline the importance of, and opportunities for, energy efficiency in buildings.

### Site Visit

#### Environmental Performance of Company Buildings

### Objectives

To present an example of eco-building applied to corporate buildings, as part of firms' green strategies.

### Reference Address

C.so Stati Uniti, 56, 35127 Padua  
[www.manens-tifs.it](http://www.manens-tifs.it)

### Institution/Company

PBR S.r.l. (Piattaforma Bresciana Recupero – Brescia Recovery Platform)  
 INTERGREEN SPA (Owning group)

### Institution/Company Profile

PBR S.r.l. (Piattaforma Bresciana Recupero – Brescia Recovery Platform), is a company owned by the INTERGREEN Group, an early pioneer in waste treatment and disposal in the national and international sphere. PBR has some 30 years' experience behind it in setting up and managing plant to treat industrial waste, their facilities always using state-of-the-art technology for waste treatment and the recovery of raw material from waste. PBR has obtained the UNI EN ISO 9001:2008, 14001:2004 and OHSAS 18001 (safety Accreditation) Certificates from the DNV Certification Agency and the EMAS Registration Certificate (Environmental Management and Audit Scheme). The PBR Complex at Maclodio (BS) covers an area of 50,000 sq.m and has been authorised by a Lombardy Region Ministerial Decree for the treatment, disposal and recovery of 147,000 t/y of special hazardous and nonhazardous waste by the following processes:

- \_ inertization process, authorised to treat and dispose of 35,000 ton/year of special hazardous and non-hazardous waste;
- \_ biological clean-up process, authorised for 32,000 ton/year of special hazardous and non-hazardous waste;
- \_ contaminated soil/waste washing process, authorised for 75,000 ton/year;
- \_ warehousing and volume reduction, authorised for 5,000 ton/year;
- \_ cogeneration plant, authorised for 5 MW and fed by renewable energy sources.

In the year 2003, in the course of implementing the European Community programme aimed at seeking and recovering raw materials from residues, an agreement was signed with the University of Brescia's Faculty of Environmental Engineering and a technical/operational section created at the PBR Plant for research and practical tests linked with the development of new manufacturing technologies, using materials recovered from waste and in particular from cleaned-up soils and slag.

### Site Visit

#### Treatment of Polluted Soils and Industrial Waste

### Objectives

To present a plant that treats contaminated soil and industrial waste, with energy and raw material recovery.

### Reference Address

Via Molino Emili, 22, 25030 Maclodio (Brescia)  
[www.pbr-intergreen.it](http://www.pbr-intergreen.it)

### 参观焦点

#### 绿色建筑物

### 实地参观目标

介绍一座生态建筑的实例并展示建筑的建设方式和功能，以便强调建筑能效的重要性及商机。

### 参观焦点

#### 公司办公楼的环保成绩

### 实地参观目标

介绍一座环保型办公楼的例子，作为公司绿色战略的组成部分。

### 联系地址

Stati Uniti 大道56号, 35127 帕多瓦市  
[www.manens-tifs.it](http://www.manens-tifs.it)

### 机构/公司

PBR S.r.l. (Piattaforma Bresciana Recupero – Brescia Recovery Platform) 布鲁西亚回收平台有限责任公司

INTERGREEN SPA (Holding- Owner) 集团公司

### 机构/公司简介

布鲁西亚回收平台有限公司是INTERGREEN集团的下属公司，国内外废弃物处理处置领域的先驱。

PBR 公司拥有工业废弃物处理设备实施与操作的三十年多经验，持续实现废弃物原料处理与回收的尖端科技。

PBR 公司获得了 DNV 认证机构核发的 UNI EN ISO 9001:2008、14001:2004与OHSAS 18001（安全认证）认证，以及EMAS注册证书（欧盟环境管理和审计计划）。

位于意大利Maclodio镇(布鲁西亚省)的PBR厂区将近5万平方公尺，通过隆巴第省一条行政令授权每年处理14万7千吨的有害与无害废弃物，采用下列产线：

— 惰化线，授权处理并排放每年3万5千吨的有害与无害废弃物；

— 有机废弃物再生线，授权处理并排放每年3万2千吨的有害与无害废弃物；

— 受污染之废弃物与土壤清理线，授权每年7万5千吨；

— 容积调整储存线，授权每年5千吨。

— 再生能源废热发电厂能产生5兆瓦电力。

2003年以设施欧盟旨在回收废弃物再生原料规划，公司与布雷西亚大学环境工程学院签订协议，将技术与实际操作外包，在PBR厂内进行关于人工生产新科技发展的研究与实务测试，研究使用废弃物回收原料，特别是清洁土地与干燥废弃物。

### 参观焦点

#### 污染土壤及工业废弃物处理

### 实地参观目标

介绍一家处理污染土壤及工业废弃物、有害及无害回收原料工厂。

### 联系地址

Molino Emili 公路, 22 - 25030 Maclodio镇(布鲁西亚省)  
[www.pbr-intergreen.it](http://www.pbr-intergreen.it)

### Institution/Company

Proambiente S.c.r.l.

### Institution/Company Profile

Proambiente is a CNR (National Research Council) spin-off and operates as an R&D and technology transfer division, dealing with environmental themes.

Proambiente mostly works for companies that need non-standard and innovative solutions for:

- \_ environmental impact reduction and increase in productivity;
- \_ environmental monitoring in air, water using advanced and innovative techniques;
- \_ the development of new instruments and sensors for environmental monitoring and contaminants reduction.

Proambiente unites many decades of research activities and the participation of renowned researchers with access to labs, instruments and the know-how of the CNR personnel

### Site Visit

Environmental Monitoring Instruments

### Objectives

To illustrate practical examples of environmental monitoring instruments in the field of air and water.

### Reference Address

via Gobetti 101, 40129 Bologna  
[www.consorzioproambiente.it](http://www.consorzioproambiente.it)

### Institution/Company

Stazione Sperimentale del Vetro – SSV Glass Research Center

### Institution/Company Profile

Stazione Sperimentale del Vetro is a glass science and technology research institute, created in 1956 and operating since then with the mission of supporting the whole national and international glass industry (hollow, flat and technical glass, glass fibres, hand-made glass, raw materials, refractories, furnaces, etc.) with scientific and technological expertise, acting as a strong link between research on one side and industrial application on the other. Its headquarters are located in the island of Murano-Venice, while the testing laboratories for architectural glazing, as well as the base for the mobile laboratories for environmental onsite analyses, are located on the mainland in Marghera. SSV is at present a non-profit private company, 75% owned by the Chamber of Commerce of Venice and 25% by Assovetro Servizi (the Association of Italian Glass Industries). The main activities carried out at SSV are developed in two main directions: technical assistance, analytical support, expert consultancy on one side, and applied research on the other, either precompetitive (e.g. under EU, Italian or other funding) or under NDA.

SSV is entitled by the Italian law n.46, 1982 to High Qualification in the Applied Research Field. In 1993 it was recognized as a Test Laboratory in compliance with UNI-EN 45000. It is, at present, accredited by ACCREDIA in compliance with UNI CEI EN ISO/IEC 17025 n° 0073 for the tests reported in [www.accredia.it](http://www.accredia.it) and in “Services” and is a Notified body in the European Union (N. 1694) for the application of the EU Regulation n.305/2011 on architectural glazing.

The analytical equipment, staff expertise and constant refresher training, and the mobile laboratories are all designed to afford timely intervention and to provide prompt answers and solutions to the problems submitted by glass factories.

SSV services range from complete glass characterization (chemical, optical, thermo-physical, mechanical), to food contact and pharmaceutical analyses, from batch characterization and optimization (raw materials and cullet quality control, formulation and colour changes, fining optimization, redox control), to onsite furnace emissions sampling and analysis, from complete furnace audits (energy balance, endoscopic inspection, external thermography, combustion optimization, NOx reduction) to defect analysis and interpretation (fractography, micro-analysis of stones and cords, gas bubble analysis), etc.



### 机构/公司

Proambiente S.c.r.l. Proambiente合营有限公司

#### 机构/公司简介

Proambiente是意大利国家研究委员会的衍生单位，作为环保事业的研发外包单位。

Proambiente的对象为要求非标准化的、创新的解决方案公司，主要在下列领域：

- \_降低环境影响并提高生产率
- \_采用先进的创新技术的空气监测及水质监测

\_用于环境监测及缓解污染的新仪器仪表及感测器

Proambiente有几十年的研究经验，工作人员包括著名的专家及研究员，并能够使用意大利研究委员会的实验式及设备。

#### 参观内容

环境监测设备

#### 实地参观目标

介绍空气质量及水质监测的实施

#### 联系地址

Gobetti 街 101号, 40129 波洛尼亚市  
[www.consorzioproambiente.it/](http://www.consorzioproambiente.it/)

### 机构/公司

Stazione Sperimentale del Vetro – SSV Glass  
Research Center

#### 玻璃试验站研究中心

#### 机构/公司简介

自从1956年成立以来，玻璃试验站是一所玻璃科技研究所，其使命为支持国内外玻璃产业的科技开发（空心玻璃、平板玻璃、手工玻璃、原料、耐火玻璃、玻璃热熔炉）并作为研发界和工业应用之间的重要桥梁。

公司总部位于威尼斯的穆拉诺岛，但建筑玻璃的实验室以及环境分析移动实验室站都位于威尼斯大陆的玛格拉镇里。

目前，SSV是一家非盈利的私营公司，股权的75%由威尼斯商会持有的，25%由Assovetro Servizi（意大利玻璃产业协会）持有的。SSV所从事的业务主要有两种：一方面，提供技术援助、解析支持和专家顾问废物，另一方面进行应用研究，包括竞争前研究（比如由欧盟、意大利或其它基金会的资金）或者以保密协议（NDA）的方式。

通过于意大利1982年第46号法律SSV被认可为国家高级应用研究所。1993年获得ACCREDIA（国家实验室认可系统）实验室0073号认可，依照UNI-EN 45000标准，又获得依照UNI CEI EN ISO/IEC 17025标准的认可。所认可的测验种类目录可在[www.accredia.it](http://www.accredia.it)网站参考。

SSV还被获得欧盟第1694号依照3011/35条例的建筑玻璃的相关认可。

所备用的分析设备、移动实验室站以及经过不断培训的专业化工作人员允许公司保证实时干预并对玻璃工厂提出的问题提供适当的解决方案。

SSV公司所提供的服务包括全范围的玻璃特性分析（化学的、光学的、热物理的、机械的）、食品接触及药学分析、批次间特性与优化（原料及碎玻璃质量控制、制定与变色、精细优化及氧化还原势控制）、实地热熔炉排放取样及分析、全部热熔炉审计（能源平衡、内体检查、外壳印刷、燃烧优化、一氧化氮排放削减）以及缺陷分析及解释（断口组织试验、石头的微量分析、气泡分析等）。



#### Site Visit

Energy Efficiency in Glass Production

#### Objectives

To present the experience developed by the SSV research center in reducing energy consumption in the glass production industry.

#### Reference Address

Via Briati 10, 30141 Murano (Venice)  
www.spevetro.it

#### Institution/Company

TEN Program for Sustainability –  
Venice International University

#### Institution/Company Profile

“Element opposes element”. This is how Bernardo Trevisan described the lagoon in 1718, as an environment subject to the actions of different forces, natural or man-made, which oppose one another.

The lagoon is in fact a wetland coastal area in a continual state of instability which communicates with the sea through openings, or inlets, in such a way that the movement of water inside it is governed by the tides. In this way, lagoon morphology depends on the relationship between the amounts of solid material brought by the sea or the rivers and the erosive forces of waves and seas. Communication between the lagoon and the sea guarantees, among other things, the survival of the lagoon and its unique semi-saline water environment. The physical shape of the lagoon is modified and moulded through the daily entrance and exit of the sea through the lagoon inlets. The sea can also be considered one of the main risk factors involved in the evolution of the lagoon basin, especially if the erosive actions of wave motion and coastal currents predominate over the build-up of sediment accumulation. About 78% of the lagoon surface is covered by vast expanses of water which are criss-crossed by a dense network of channels of varying depth. The sea and the lagoon are connected through the three inlets of Lido, Malamocco and Chioggia.

About 8% of the overall surface area of the lagoon area is made up of wholly dry land, natural or artificial (coastal strips, reclaimed areas, islands and banks) of the lagoon. The remaining 92% is made up of the water system which includes canals (11.9%) and shallows, mud flats and salt marshes (80.1%).

#### Site Visit

The safeguarding of Venice

#### Objectives

To understand the fragile ecosystem of the Venetian Lagoon, its strengths, weaknesses, and the human impact on it.

#### Reference Address

Isola di San Servolo, 30100 Venice  
www.univiu.org/ten

### 参观焦点

玻璃生产的能效

### 实地参观目标

解释 SSV 研究中心在玻璃产业节能方面所累积的经验。

### 联系地址

Briati 街 10 号, 30141 穆拉诺岛 (威尼斯省)  
[www.spevetro.it](http://www.spevetro.it)

### 机构/公司

环境项目网络中心 - 威尼斯国际大学

### 机构/公司简介

“相互对抗的多种元素” 1718 年 Bernardo Trevisan 是这样描述威尼斯泻湖，来比喻受到互相对抗的自然和人造力量影响的环境。

威尼斯泻湖是一块不稳状态中的沿海湿地而通过若干进水口通往大海，使之其内水飘动由海潮控制。因此，泻湖的形态依赖海流河流所带进来的固体物与波浪侵蚀力的互动关系。大海与泻湖之间的涌流保证泻湖的生存以及其唯一的淡盐味水环境。泻湖的物理形态是由通过进水口日常流进的海水来形成并更改的。另一方面，大海也是对泻湖进展主要风险之一，尤其当波动的侵蚀力和沿海水流比沉积物累计量大时。泻湖面积的 78% 由广大水域组成并由不同深度渠道的密集网络交叉的。

泻湖地区的土地系统总面积为 8% 并全部由干土，包括自然土地和人造土地（沿海带、土地复垦、岛屿及堤岸）形成的。剩余的 92% 由水系统组成的，包括渠道（11.9%）和浅水、泥滩以及盐沼地（80.1%）。

### 参观焦点

威尼斯保卫

### 实地参观目标

了解威尼斯泻湖的易碎生态系统，包括其强点和弱点以及人类的影响。

### 联系地址

San Servolo 岛屿, 30100 威尼斯市  
[www.univiu.org/ten](http://www.univiu.org/ten)

### Institution/Company

Turboden S.r.l.

#### Institution/Company Profile

Turboden is a European leading company in the design, manufacture and service of ORC (Organic Rankine Cycle) turbogenerators. This state-of-the-art unit generates heat and power from renewable sources and from heat recovery from industrial processes, engines and gas turbines, suitable for distributed generation.

Founded in Milan in 1980, in 2013 Turboden became part of Mitsubishi Heavy Industries group, providing a wide range of products and services for thermal power generation systems.

Turboden today has more than 320 plants in 34 countries, producing over 7,800 GWh and clocking up more than 8 million working hours.

Main application fields include:

- \_ biomass cogeneration/trigeneration for district heating networks, sawmills, wood pellet factories, MDF industries, thermal baths, greenhouses, refrigeration plants (with absorption chiller)
  - \_ waste heat recovery: electrical power production from exhaust streams in industrial processes (e.g. cement, glass, steel, Oil & Gas, waste incineration, other ferrous and non-ferrous metals)
  - \_ small combined cycles: electrical power production from reciprocating engines or gas turbines
  - \_ geothermal: mainly from medium-to-low sources (100-200 °C)
  - \_ concentrated Solar power (CSP): electric energy production from medium high temperature solar collectors
  - \_ steam&Power ORC: a new technological solution for combined steam & power generation. It allows the production of electricity and a valuable high temperature heat carrier, such as steam, directly exploitable in manufacturing processes.
- Turboden ORC units can generate up to 40 MW of electricity per single generator.

#### Site Visit

Energy Efficiency in Industry

#### Objectives

To present a company that produces turbogenerators mainly fuelled by renewable sources, thus maximizing CO<sub>2</sub> emission reductions and energy efficiency in industrial and public installations.

#### Reference Address

Via Cernaia, 10, 25124 Brescia  
[www.turboden.com](http://www.turboden.com)

### Institution/Company

University of Siena, Environmental Legal Team

#### Institution/Company Profile

The University of Siena is one of the oldest universities in Europe, which celebrated its 750th anniversary in 1990. The University of Siena has expanded through the centuries from the original School of Law, School of Grammar, and School of Medicine. It is currently composed of 14 Departments and has approximately 20,000 undergraduate and postgraduate students.

The Environmental Legal Team (ELT) is a university-based research and consultancy group of legal experts, directed by Prof. Massimiliano Montini, which specialises in International and European environmental and energy law and policy. ELT has its headquarters at the Department of Business and Law (Dipartimento di Studi Aziendali e Giuridici) within the University of Siena.

ELT operates in conjunction with the Regulation for Sustainability (R4S) research group, an interdisciplinary group providing innovative research on legal and economic aspects of sustainability. R4S builds upon the legacy of the research center REPROS, active at the University of Siena from 2008 to 2012.

#### Field of Competence

International and European environmental and energy law and policy, climate change and regulation for sustainability.

#### Objectives

To provide specific knowledge on International and European environmental and energy law and policy.

#### Reference Address

Piazza San Francesco, 7, 53100 Siena  
[www.elt.unisi.it](http://www.elt.unisi.it)

机构/公司

Turboden S.r.l. - Turboden有限公司

机构/公司简介

Turboden是设计、制造并经营ORC(有机朗肯循环)涡轮式发电机的欧洲引导公司。ORC涡轮式发动机用可再生能源和工业过程余热回收发电,适用分散发电。

在米兰于1980年创立的,2013年Turboden成为了三菱中工业的分公司,提供火力发电装置的广大系列产品和服务。

Turboden 在全世界34个国家有320多所工厂,总发电量为780万兆瓦并达到8百万多工时。

主要的应用领域包括:

\_ 区域供热网络应用的生物量联合发电/冷热电三联发电、锯机、木屑颗粒机、中纤板、温泉设施、温室、冷却装置(备有吸收式冷冻机)。

\_ 余热回收:工业过程余热回收发电(包括水泥厂、玻璃厂、钢铁厂、石油与天然气、废物焚烧厂、其它含铁和非含铁金属生产过程)

\_ 小型联合循环发电厂:往复蒸气机联合装置或燃气涡轮发电

\_ 地热能:主要用中低温来源(100-200 °C)

\_ 聚光太阳能发电(CSP):中高温集热器

\_ 燃气蒸汽联合发电:燃气蒸汽联合循环发电的新技术,高温热载体——蒸汽直接用于生产过程。

每台Turboden发电机发电量为40兆瓦。

参观内容

工业能效

实地参观目标

介绍一家可再生能源产涡轮式发电机的公司,这样减少二氧化碳排放量并提高能效。

联系地址

Cernaia 路 10 号, 25124 Brescia布雷西亚  
www.turboden.com

机构/公司

锡耶纳大学, 环境法团队

机构/公司简介

锡耶纳大学是欧洲最古老大学之一,于1990年庆祝了成立750周年。最早的锡耶纳大学只有三个学院:法律学校、语法学校和医学学校。经过多次扩大,今天锡耶纳大学由14个学院组成。目前大学生人数2万多,包括本科生、研究生和博士生。

队长为 Massimiliano Montini接受的环境法团队是锡耶纳大学由一批高素质的法律专家组成的研究组,就国际环境法、欧盟环境法、欧盟能源法与相关政策进行研究并提供咨询服务,所在地为锡耶纳大学的商务与法律学院。

环境法团队与R4S(可持续性的规则)研究组配套工作;后者就可持续发展的经济及法律方面进行跨科目研究。R4S继承了REPROS,从2008年至2012年为锡耶纳大学的联合研究中心的遗产。

参观焦点

国际和欧盟的环境、能源、气候变化法律和政策以及可持续性管理。

实地参观问目标

提供国际和欧盟环境法、能源法及相关政策的详细体知识。

联系地址

San Francesco广场 7号, 53100 锡耶纳市  
www.elt.unisi.it

### Institution/Company

Veritas S.p.A.

### Institution/Company Profile

Veritas S.p.A. is the principal multi-utility in the Veneto region in terms of size and revenues, and one of the biggest in Italy: it is the eighth largest integrated water cycle service and the fifth largest environmental service, behind companies also operating in energy management but in more densely populated areas.

The company serves 25 municipalities within the province of Venice and part of the province of Treviso, in addition to the more than 30 million tourists visiting Venice, the coast and the surrounding areas each year.

Veritas provides its services (many of which are certified) to citizens, firms and the territory in general. It operates in the integrated water and environmental services cycle, and it sells and distributes energy through its subsidiaries. Furthermore, it provides urban, community, territorial and industrial services, managing cemeteries and wholesale markets and carrying out environmental reclamation work.

### The Wastewater Treatment plant in Fusina

The plant has a capacity of 400,000 PE, with an average flow of 100'000 m<sup>3</sup>/day. The four treatment lines process water from different sources:

- \_ the civil sewage from Mestre, Marghera and the Mirese area (17 Municipalities);
- \_ the industrial sewage water from Porto Marghera Industrial zone;
- \_ water from contaminated groundwater wells.

The aim is to reduce the pollution load of the waters entering the Lagoon of Venice and to optimize the use of water resources by reusing the treated water in the industrial installations in Porto Marghera.

The treatment system applies the Best Available Technologies and includes an artificial wetland area which is used for the finishing treatment and can be used also as a recreational area.

### The Drinking Water Treatment plant in Ca' Solaro

The plant has a treatment capacity of 1000 l/s and the raw water comes from the Sile River, 10.5 km away, via an artificial canal.

Water quality at the entrance and at the output of the system is checked with continuous monitoring instruments. Manual samplings and analyses are periodically performed in order to comply with the quality standards set by Italian law, in accordance with a program approved by the Health Authority. The plant provides only a fraction of the drinking water distributed by Veritas in the

province of Venice. The greater part comes in fact from groundwater wells mainly located in the neighboring Provinces of Treviso and Padua. However, the system also provides the water for the industrial network as well as to the fire prevention system.

Beside potabilization, the plant operates also as the management center for the waterworks network of the Municipalities of Venice, Cavallino Treporti, Mogliano, Preganziol and Quinto di Treviso. The control room receives data from and supervises the functioning and quality parameters of water distributed by several minor plants, including groundwater wells, high lift stations, storage tanks etc.

Electromechanical and instrumentation maintenance for around twenty plants are also managed from the site of Ca' Solaro – Favaro Veneto.

### Site Visit

Integrated Waste Water Management

### Objectives

To present an example of urban and industrial wastewater treatment combined with water reuse.

### Site Visit

Drinking Water Supply

### Objectives

To present a drinking water treatment facility and discuss initiatives for the protection of public health.

### Reference Address

Santa Croce 489, 30135 Venice  
[www.gruppoveritas.it](http://www.gruppoveritas.it) (only in Italian)

机构/公司

Veritas S.p.A. - 威尼斯能源、水资源、领土与环境服务股份公司

机构/公司简介

威尼斯能源、水资源、领土与环境服务股份公司是威尼托大区规模和营业额最大的国有多种公益事业，以及全国最大事业之一，综合水循环方面占全国第八，环境服务方面占全国第五位。

公司对威尼斯省25个所辖城镇、特雷维佐省所辖的部分城镇以及每年参观威尼斯及其周围地区的3千万旅游者提供服务。

Veritas 公司给居民和工业提供废物处理的服务（大部业务分已获得相关认证）。公司提供污水和城市垃圾的综合服务，并通过其分公司供电。另外，公司还提供城市、社团、土地及工业方面的服务并处理坟墓和葬礼服务，批发市场的清洁及环境回收工程。

Fusina污水处理厂

处理厂的水用量为40万人口当量，平均流量为10万立方米/天，备有处理如下来源污水的四条处理线：

- \_ 来自Mestre、Marghera 和 Mirese 地区的生活污水（17所城镇）
- \_ 玛格拉工业区的工业废水
- \_ 来自地下水井的污染水

目标为削减进入威尼斯泻湖水量的污染负荷并通过被净化的工业废水的回用而优化水资源的应用。处理系统应用最佳可用技术并包括用于最后处理环节的一块人造的湿地。该湿地也用于娱乐公用区。

Ca' Solaro饮用水处理厂

通过一条人造水道，原水来自10,5公里远的Sile河；处理量为1000升/秒。

管道系统输出各端部都进行连续性水质监测。依照卫生局所批准的计划，定期的还进行人工的取样分析，以检查是否符合意大利法律所规定的标准。

我公司在威尼斯省内供水量的一小部分是该处理厂处理的，大部分来自位于附近特雷维索省和帕多瓦省的地下水井。另外，该系统还提供工业网络以及防火系统所用的水。

水饮用化之外，我公司还经营威尼斯

市、Cavallino镇、Treporti镇、Mogliano镇、Preganziol镇以及 Quinto di Treviso镇地下水道网络的控制室。控制室接收来自若干小型水处理厂，包括地下水井、喷站、蓄水库等的数据库、检查水工程的实用性并监测水质质量标准。

Favaro Veneto镇的 Ca' Solaro处理厂还负责二十多家处理厂所应用仪器仪表的电子机械维修。

参观内容

污水综合管理

实地参观目标

介绍生活污水和工业废水处理方式以及废水回用。

参观内容

饮用水供给

实地参观目标

介绍一家饮用水处理厂并讨论以保护人类健康而所需的措施。

联系地址

Santa Croce城区 489号，30135威尼斯  
www.gruppo-veritas.it（意大利语）

### Institution/Company

ZIPR – Consorzio per la Zona Industriale Ponterosso  
- Ponte Rosso Industrial Development Consortium

### Institution/Company Profile

The consortium aims to create optimum conditions for the establishment and development of industrial activities by managing infrastructures and business services within its specific geographic area.

The consortium promotes sustainable development and recognizes the relevance of the natural environment in the promotion and the economic and social development of the area.

Priority is given to promoting startups and satisfying the consortium members' requirements in order to create the necessary conditions to set up and develop productive activities in the industrial and small business sector. This is achieved by managing the infrastructures and services offered to businesses, evaluating and reinforcing positive environmental outcomes and equally preventing, eliminating or minimising events that could lead to environmental emergency situations. For all these reasons the ZIPR decided to adopt a Quality and Environmental Integrated Management System that complies with UNI ESO 14001:2004 and UNI EN ISO 9001:2000 standards.

The consortium specifically deals with:

- \_ land acquisition and design of industrial areas equipped with infrastructures destined for industrial startups including promotional activities on behalf of the new companies; design and building development plans, as well as tooling up public areas;
- \_ sale or assignment of lots to enterprises in equipped areas;
- \_ building of plants, laboratories, warehouses for industrial and handicraft activities;
- \_ sale or rent of industrial buildings or plants in equipped areas;
- \_ building and management of enterprises' wastewater treatment plants;
- \_ recovering industrial buildings for production purposes;
- \_ management of combined production systems and distribution networks of energy and heat self-sufficiency systems;
- \_ supply of any other services to established enterprises.

The ZIPR is equipped with a double sewerage system: a 14,920-meter-long blackwater sewerage network and an 8,014-meter-long greywater system. A treatment plant collects the wastewater at the bottom of the sewerage system. It is based on activated sludge processes which treat the wastewater with the best cutting-edge technologies.

Before reaching the river Roja, the outgoing water is treated once again in a marine-plant system made up of three settling ponds, thanks to a non-stop horizontal submerged flow system. Water is treated naturally thanks to the presence of *Phragmites*.

### Site Visit

Environmentally Friendly Industry

### Objectives

To introduce the role of industrial zones in helping companies to reduce their impact on the environment.

### Reference Address

Via Forgaria, 11, 33078, San Vito al Tagliamento  
(Pordenone)  
[www.zipr.it](http://www.zipr.it)



## 机构/公司

ZIPR – 红桥工业开发区联营企业

### 机构/公司简介

该联营公司的目标是对成员企业提供开业并发展业务的可持续性条件。联营公司持有开发区的基础设施并提供相关的商业服务。联营公司鼓励可持续发展并意识到当地社会经济发展过程中自然环境起着是一个非常关键的作用，因此保护周围环境意味着发挥当地区域的潜在力。

联营公司的核心业务为吸引新开企业并满足成员企业的需求，即建设良好生产环境使其生产业或零售业健全发展。因此，联营公司负责基础设施和服务的管理方面，鼓励环保型技术并防治或减少能够引起环境紧急情况的因素。联营公司采取了符合 **UNI EN ISO 9001: 2000** 族标准的环境综合管理系统。

联营公司的具体业务如下列的：

- \_ 购买土地产权，设计备有基础设施的工业分区，进行相关的宣传活动；设计并建设厂房的开发计划以及装备加工机械；
- \_ 把备有设备的场地分配或出售给企业；
- \_ 建立工厂、厂房、仓库以及手工车间；
- \_ 出售或出租备有设备的工业楼或工厂；
- \_ 建立并管理企业的废水处理厂；
- \_ 修复工业楼以商务用途；
- \_ 管理电热联产自足系统以及相关配电网络；
- \_ 给成员企业提供其它所需服务；

ZIPR 备有两套地下水管道体制，即 **14.920** 米长的下水道网络以及 **8.14** 米长的白水系统。收集废水的处理厂采用活性污泥法，即废水的最佳尖端技术。

排到 **Roja** 小何之前，出水又进行一次处理，在三块海水沉淀池，通过一台不断横行流动的淹没机制。这样，水是由海水里的双齿围沙蚕而自然地净化。

### 参观内容

环保型工业

### 实地参观目标

介绍工业区在援助企业降低其环境影响方面所发挥的重要作用。

## 联系地址

Forgaria 街 **11** 号, **33078** San Vito al Tagliamento (波尔德诺内省)

[www.zipr.it](http://www.zipr.it)



**Belluno (1)**

Ceramica Dolomite

**Bergamo (1)**

Bergamo Sviluppo - POINT -  
POLO per l'INnovazione  
Tecnologica

**Bologna(1)**

Proambiente S.c.r.l.

**Brescia (2)**

Turboden S.r.l

Intergreen S.p.A. - PBR S.r.l.  
(Piattaforma Bresciana  
Recuperi - Brescia Recovery  
Platform)

**Milano (2)**

AMAT, Mobility and  
Environment Agency of  
Milan

INNOVHUB-SSI

**Padua (6)**

Manens-Tifs s.p.a.

Acegas Aps S.p.A.

HiRef S.p.A.

Interporto di Padova S.p.A

Grafica Veneta S.p.A.

Gea S.r.l.

**Pordenone (1)**

Brovedani Group S.p.A.

**Treviso (4)**

Burgo Group S.p.A.

Kiwiny S.r.l.s.

Contarina S.p.A.

Latteria Montello S.p.A.

**Venice (6)**

ARPAV S.p.A.

Veritas S.p.A.

Venice Lagoon

Stazione Sperimentale del  
Vetro - SSV Glass Research  
Center

Depuracque Servizi S.r.l.

Istituzione Bosco e Grandi  
Parchi - Comune di Venezia  
(Green Areas - Venice  
Municipality)

**Verona (1)**

ICI Caldaie S.p.A.

**Vicenza (2)**

Favini S.p.A.

Burgo Group S.p.A.



Training Profile Data

## 培训简况及数据

Training courses

2015-2016\*

\*Data concerning courses that took place after September 30<sup>th</sup>, 2016 are to be considered provisional

Delegation	Course	General Schedule	Participants
CASS Beijing	Eco-Management: Strategies and Policies	Apr. 20 <sup>th</sup> -24 <sup>th</sup> 2015, Beijing	80
CASS	Eco-Friendly City	May 10 <sup>th</sup> – 20 <sup>th</sup> 2015, Italy	42
CASS	Clean Energy and Climate Change	Jun. 14 <sup>th</sup> – 24 <sup>th</sup> 2015, Italy	42
MIIT - Chengdu	Industrial Energy Efficiency	Jun. 16 <sup>th</sup> 2015, Chengdu	50
MEP	Water Pollution Prevention and Control	July.12 <sup>th</sup> – 15 <sup>th</sup> 2015, Italy	6
BMEPB - Beijing	Environmental Law Enforcement	Sept. 18 <sup>th</sup> 2015, Beijing	60
MEP	Technologies on Air Pollution Prevention and Control	Sept. 21 <sup>st</sup> – 24 <sup>th</sup> 2015, Italy	6
MIIT	Industrial Energy Efficiency	Nov. 1 <sup>st</sup> – 11 <sup>th</sup> 2015, Italy	28
BMEPB	Vehicle Emission Control	Nov. 22 <sup>nd</sup> – Dec. 2 <sup>nd</sup> 2015, Italy	20
BMEPB and SEPB	Water and Ecological Management	May 8 <sup>th</sup> – 18 <sup>th</sup> 2016, Italy	29
MEP	Soil Pollution and Prevention and Control	Jun. 26 <sup>th</sup> - July 9 <sup>th</sup> 2016, Italy	20
MIIT	Industrial Energy Efficiency	Jul. 17 <sup>th</sup> – 30 <sup>th</sup> 2016, Italy	11
NDRC	Capacity Building on Climate Change	Sep. 11 <sup>th</sup> – 24 <sup>th</sup> 2016, Italy	29
MOST	Sustainable Development for Innovative SMEs	Oct. 16 <sup>th</sup> – 28 <sup>th</sup> 2016, Italy	20
BMEPB - Beijing	Environmental Management in Cities	Nov. 2016, Beijing	60
SEPB - Shanghai	Environmental Management in Cities	Nov. 2016, Shanghai	60
MIIT - Beijing	Industrial Energy Efficiency	Nov. 3 <sup>rd</sup> 2016, Beijing	60

Total courses in Italy 2015-2016: 11  
Total courses in China 2015-2016: 6  
Total participants 2015-2016: 623

培训课程

2015-2016 年\*

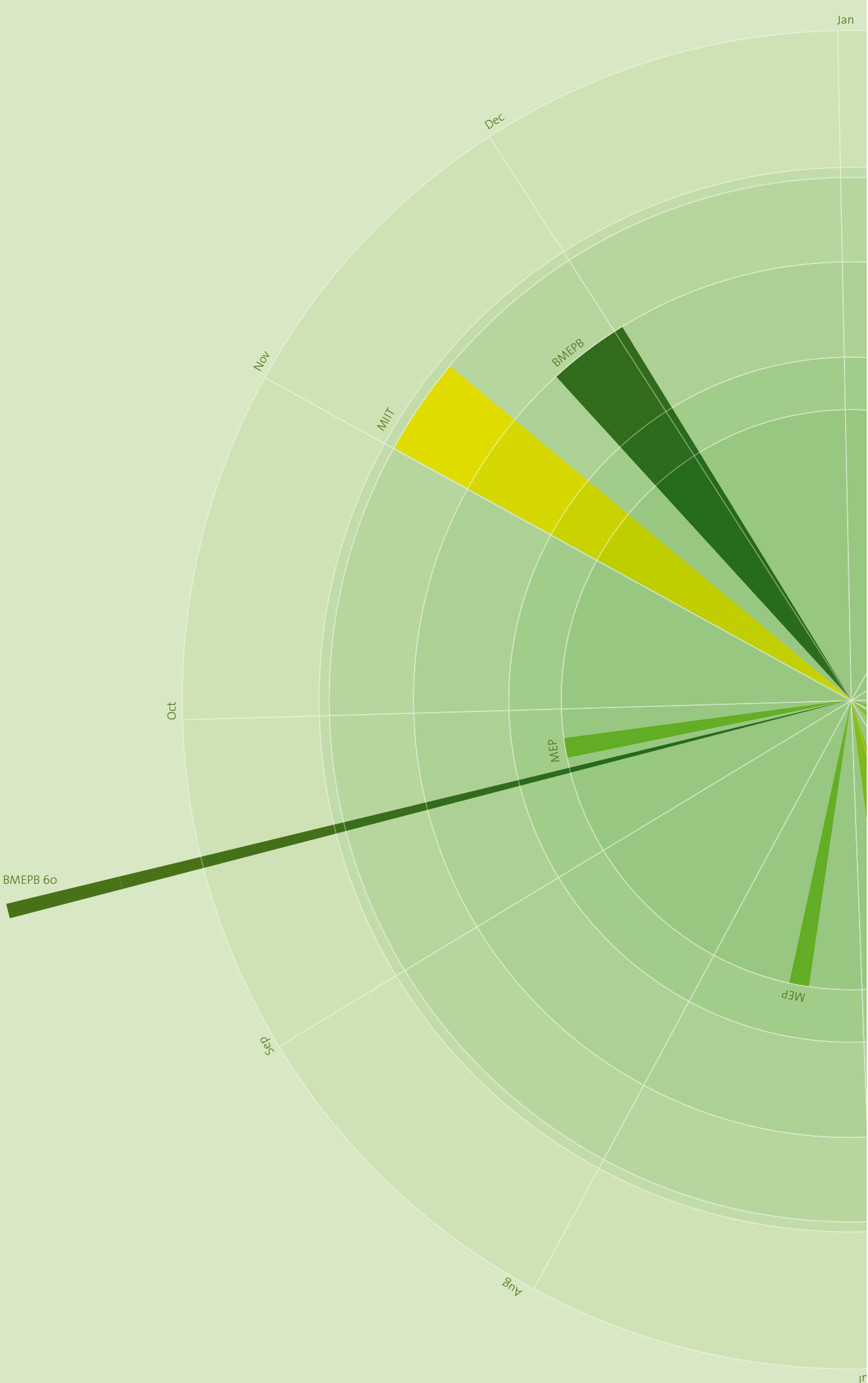
\*2016年9月30日之后课程的相关数据是临时的，与具体数据会有略微区别。

代表团	课程	总日程	人数
中国社会科学院 – 北京	生态管理的策略与政策	2015年4月20日至24日，北京	80
中国社会科学院	生态城市	2015年5月10日至20日，意大利	42
中国社会科学院	清洁能源与气候变化	2015年6月14日至24日，意大利	42
工业和信息化部 – 成都	工业能效	2015年6月16日，成都	50
环保部	水污染防治	2015年7月12日至15日，意大利	6
北京市环保局	环保法执行	2015年9月18日，北京	60
北京市环保局	排气管排放管制	2015年11月22日至12月2日，意大利	6
工业和信息化部	工业能效	2015年11月1日至11日，意大利	28
北京市环保局	排气管排放管制	2015年11月22日至12月2日，意大利	20
北京市环保局 和			
上海市环保局	水资源与生态管理	2016年5月8日至18日，意大利	29
环保部	土壤污染防治	2016年6月26日至7月9日，意大利	20
工业和信息化部	工业能效	2015年7月17日至30日，意大利	11
发改委	气候变化的能力建设	2016年9月1日至24日，意大利	29
科技部	创新性中小企业的可		
	持续性管理	2016年10月16日至28日，意大利	20
北京市环保局 – 北京	城市环境管理	2016年11月份，北京	60
上海市环保局 – 上海	城市环境管理	2016年11月份，上海	60
工业和信息化部 – 北京	工业能效	2016年11月3日，北京	60

2015-2016 年在意大利的课程总数： 11

2015-2016年在中国的课程总数： 6

2015-2016年参加者总人数： 623



Jan

Feb

Mar

Apr

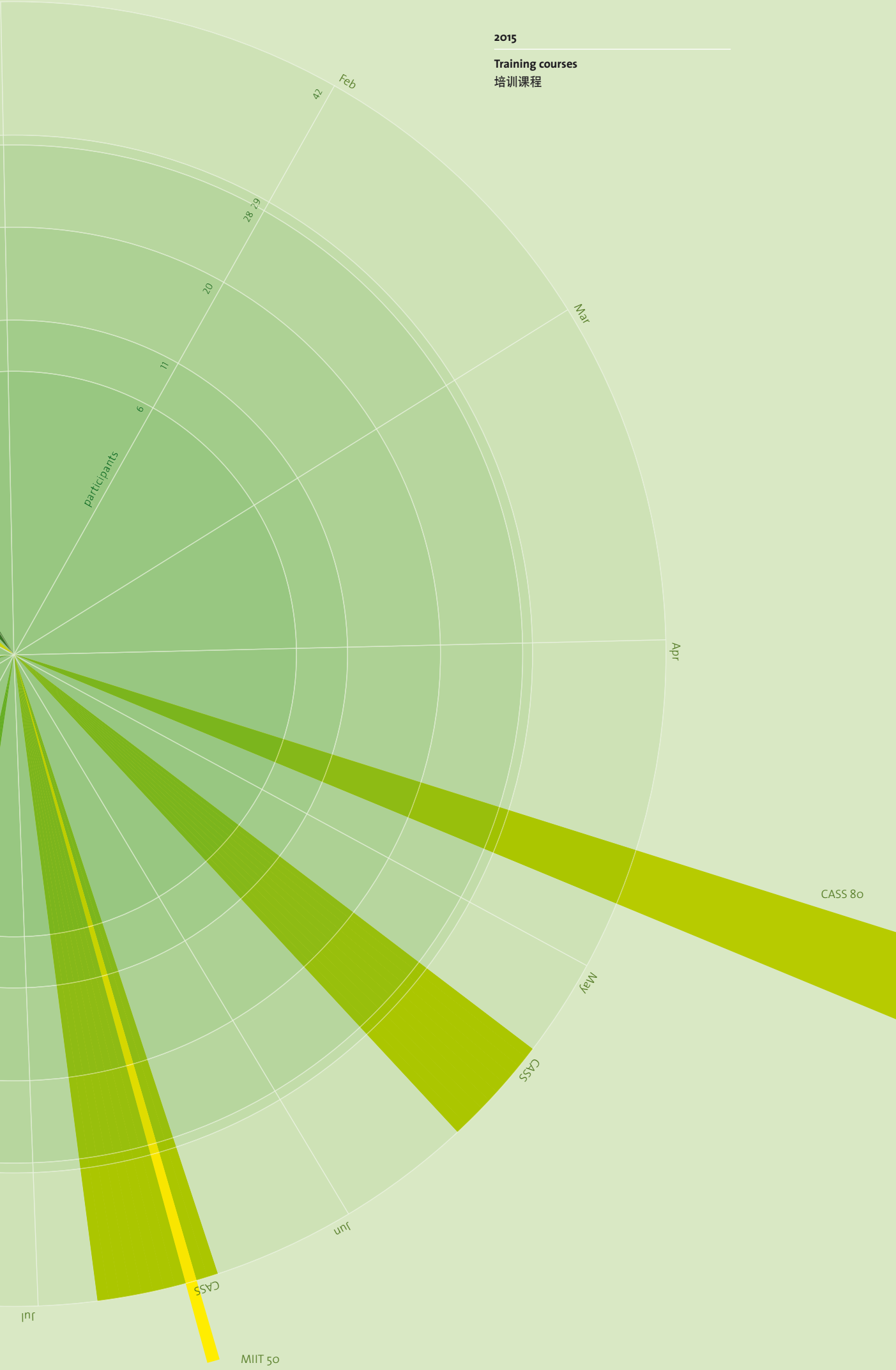
May

Jun

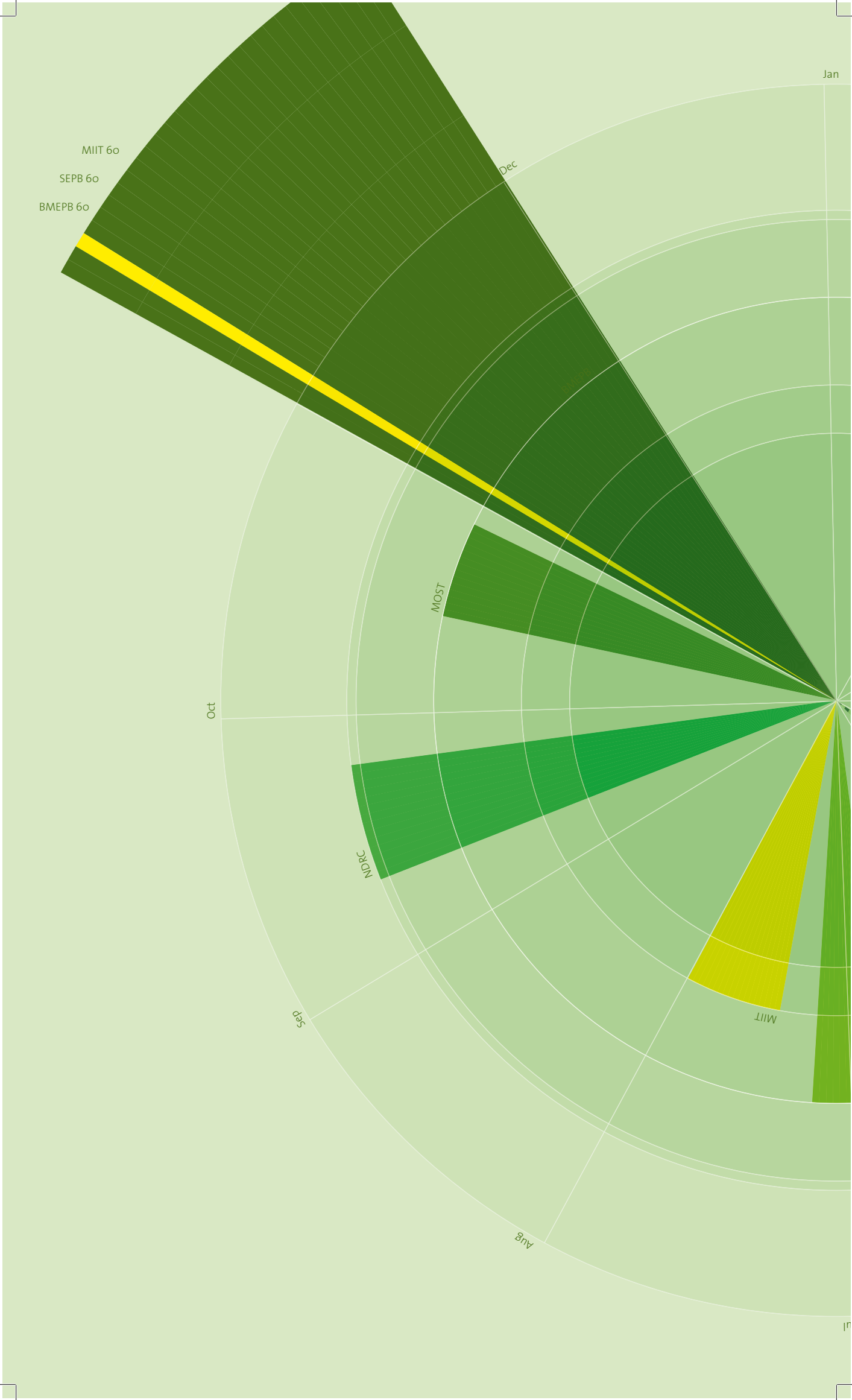
Jul

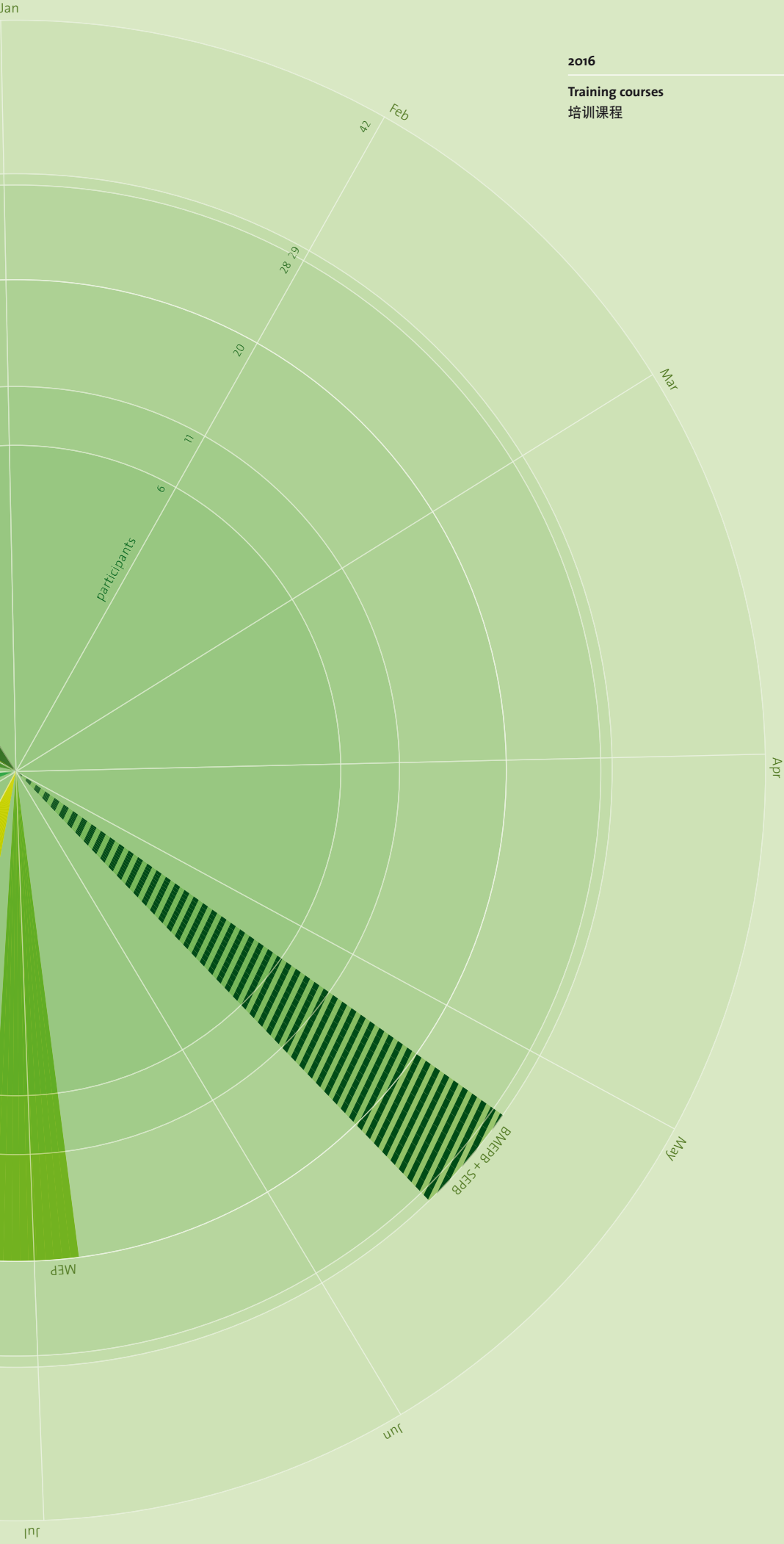
2015

Training courses  
培训课程









---

**Training lecturers**

More than 125 lecturers/speakers from academia, the public sector and private companies were invited to cover a wide range of topics, discuss different theoretical and practical aspects of environmental management and sustainable development, present case studies and exchange experiences with the participants.

**培训讲师**

为了涵盖广泛范围的课题，并能够讨论环境管理以及可持续发展的不同理论和实践方面、介绍案例研究并与培训参加者进行经验交流的目标，来自学术界、国家机构和私有公司的100多位讲师受到邀请

---

**Training participants**

More than 600 participants attended the Advanced Training Program in 2015-2016. The largest group of trainees came from Beijing, and the number coming from the other municipalities, provinces and autonomous regions was approximately the same as in previous years. The large number of provinces involved ensured that the needs, peculiarities and specific issues of all China's regions were represented.

**培训参加者**

2015-2016年参加高级培训计划共有600多人。  
培训参加者的大部分来自北京，来自中国各省市及自治区的人数大概保持了前几年的比例。  
参加者来自中国各省市，因此代表各个省市的需要、特征和具体议题。

---

The training courses were aimed at Chinese government officials, academics and representatives of the private sector involved in the broad field of environmental management.

从事环保事业的国家机构、学术界和私有领域的培训参加者。

Figure 1. Lecturers' affiliation  
图1. 讲师来源

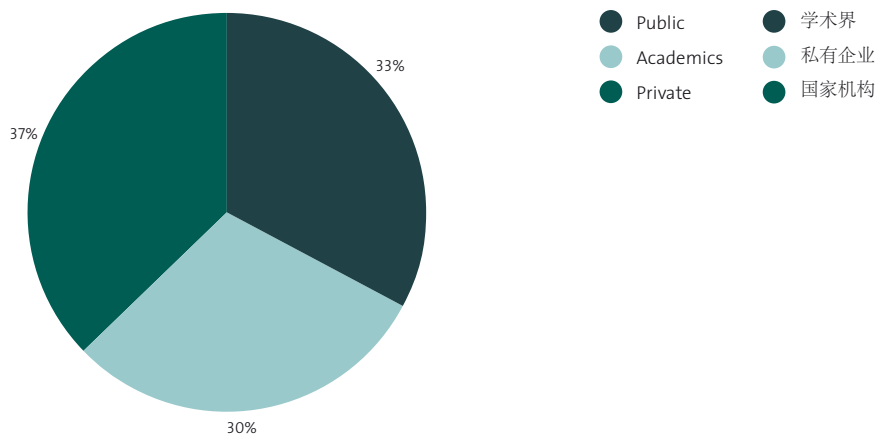


Figure 2. Trainees' provenance  
图2. 培训参加者来源

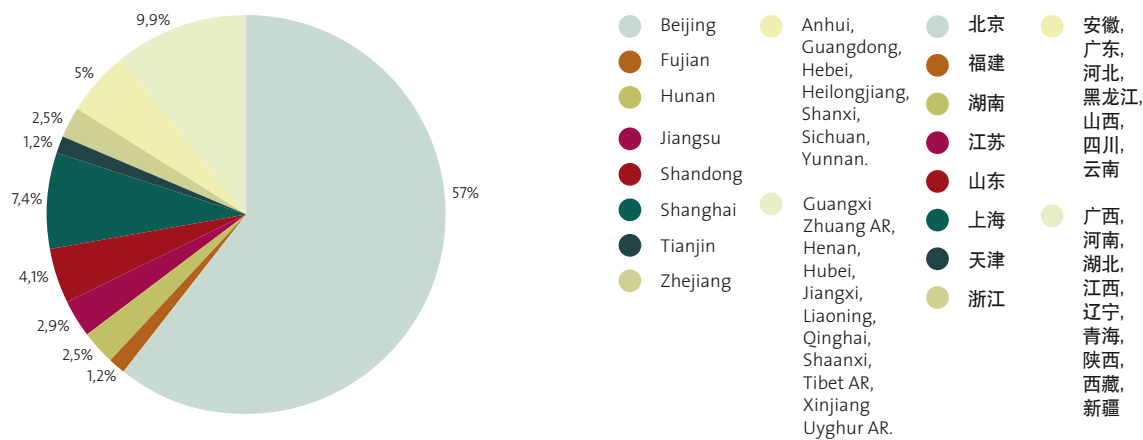
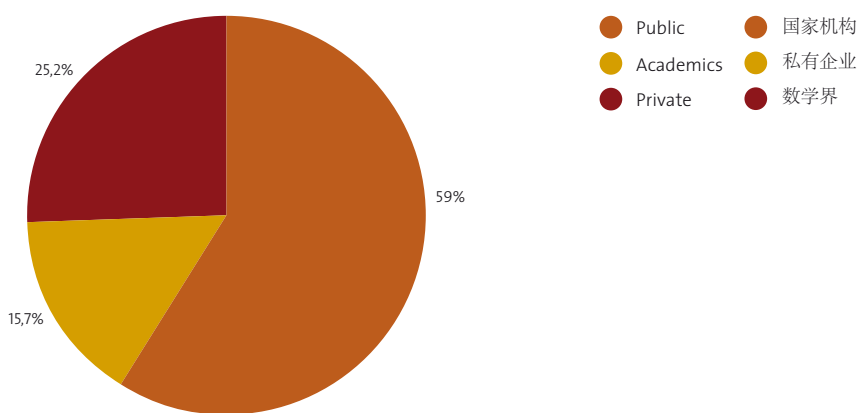


Figure 3. Trainees' affiliation  
图3. 培训参加者来源



## List of Acronyms

首字母缩略词列表

AMAT	Mobility and Environment Agency of Milan
ARPAV	Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto - Veneto Regional Agency for Environmental Prevention and Protection
BMEPB	Beijing Municipal Environmental Protection Bureau
CASS	Chinese Academy of Social Sciences
CRF	Fiat Chrysler Automobile Research Center
CSR	Corporate Social Responsibility
CSP	Concentrated Solar Power
CMCC	Euro-Mediterranean Center for Climate Change
CNR	National Research Council
CNR-IIA	National Research Council, Institute for Atmospheric Pollution
CO <sub>2</sub>	Carbon Dioxide
ELT	Environmental Legal Team
EMAS	Eco-Management and Audit Scheme
EN	European Norm
ENEA	Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile - Italian National Agency for New Technologies, Energy and Sustainable Economic Development
ENEL	Ente Nazionale per l'Energia Elettrica - National Agency for Electric Energy
eq	Equivalent
ETS	Emissions Trading Scheme
ESCo	Energy Service Company
EU	European Union
FIRE	Federazione Italiana per l'Uso Razionale dell'Energia - Italian Federation for Rational Energy Use
FSC®	Forest Stewardship Council
GWh	GigaWatt hour
HVACR	Heating, Ventilation, Air Conditioning and Refrigeration
ICFPA	International Council of Forest and Paper Associations
ICT	Information and Communication Technology
IMELS	Italian Ministry for the Environment, Land and Sea
ISO	International Organization for Standardization
ISPRA	Istituto Superiore per la Protezione e la Ricerca Ambientale – Higher Institute for Environmental Protection and Research
ITS	Intelligent Transport System
IT	Intelligent System
JRC	Joint Research Centre

AMAT	米兰市政交通与环境管理局
ARPAV	威尼托大区环境预防和保护局
BMEPB	北京市环境保护局
CASS	中国社会科学院
CRF	菲亚特克莱斯勒汽车公司研究中心
CSR	企业社会责任
CSP	聚光太阳能站
CMCC	欧洲地中海气候变化研究中心
CNR	意大利国家研究委员会
CNR-IIA	意大利国家研究委员会-空气污染研究所
CO <sub>2</sub>	二氧化碳
ELT	环境法律研究小组
EMAS	欧盟管理与审计体制
EN	欧盟标准
ENEA	意大利新技术、能源与可持续发展委员会
ENEL	意大利国家电力公司
eq	当量
ETS	欧盟排放交易机制
ESCo	能源服务公司
EU	欧盟
FIRE	意大利能源联盟
FSC®	森林管理委员会
GHG	温室气体
HVACR	供热、通风、空调与冷却
ICFPA	国际森林与纸业联合会
ICT	信息通信技术
IMELS	意大利环境、领土与海洋部
ISO	国际标准化组织
ISPRA	意大利环境保护与研究院
ITS	智能交通系统
IT	智能系统
JRC	联合研究中心
LCA	生命周期评价



kW	kilowatt
LCA	Life Cycle Assessment
LPG	Liquefied Petroleum Gas
l/s	liter per second
m2	square meter
m3/day	cubic meter per day
MEP	Ministry of Environmental Protection of China
MIIT	Ministry of Industry and Innovation Technology
MOST	Ministry of Science and Technology of China
MW	Megawatt
MWp	Megawatt Peak
OHSAS	Occupational Health & Safety Advisory Services
NDRC	National Development and Reform Commission of China
NDA	Non-disclosure Agreement
NOx	Nitrogen Oxides
ORC	Organic Rankine Cycle
PBR	Piattaforma Bresciana Recupero – Brescia Recovery Platform
PEFC™	Programme for the Endorsement of Forest Certification
PIF	Progetto Integrato Fusina - Fusina Integrated Project
PM2,5	Particulate Matter 2.5 microns in diameter and less
POInT	POlo per l'INnovazione Tecnologica – Technological Innovation Hub
R&D	Research and Development
REGES	Riduzione delle Emissioni di Gas ad Effetto Serra – Greenhouse Gasses Emission Reduction
REPROS	Interdepartmental Center on Regulation, Environmental Protection and Sustainable Development
S.c.r.l.	Società Consortile a Responsabilità Limitata - Limited-liability Consortium
S.p.A.	Società per Azioni - Joint-stock Company
S.r.l.	Società a Responsabilità Limitata – Limited-liability Company
SEPB	Shanghai Municipal Environmental Protection Bureau
SICP	Sino-Italian Cooperation Program
SME	Small and Medium Enterprises
SSI	Stazioni Sperimentali per l'Industria – Industrial Research Center
SSV	Stazione Sperimentale del Vetro – Glass Research Center
T	Ton
TEN	Thematic Environmental Networks

LPG	液化石油气
l/s	升秒
m2	平方米
m3/day	立方米/天
MEP	中国环境保护部
MIIT	工业和信息化部
MOST	中国科学技术部
MW	兆瓦
MWp	兆瓦（功率）
NDRC	中国国家发展和改革委员会
NDA	保密协定
NOx	一氧化氮
OHSAS	职业健康安全管理体系族
ORC	有机朗肯循环
PBR	布鲁西亚回收平台
PEFC™	森林认证体系
PIF	<b>Fusina</b> 综合项目
PM2,5	直径2.5微米以下的颗粒物质
POInT	技术创新中心
R&D	研究开发
R.E.G.E.S.	温室气体减排
REPROS	法规、环保与可持续发展的联合研究中心
S.c.r.l.	联营有限责任公司
S.p.A.	股份公司
S.r.l.	有限责任公司
SEPB	上海市环境保护局
SICP	中意环保合作项目
SME	中小企业
SSI	工业试验站
SSV	玻璃试验站研究中心
T	吨
TEN	环境主题网络

UN	United Nations
UNI	Ente Nazionale Italiano di Unificazione - Italian Organization for Standardization
VIU	Venice International University
VOC	Volatile Organic Compounds
WEC	World Energy Council
WFD	Water Framework Directive
ZEB	Zero Energy Buildings
ZIPR	Zona Industriale Ponte Rosso (Ponte Rosso Industrial Zone)
Z.T.L.	Limited traffic Zone

UN	联合国
UNI	意大利国家规范化当局
VIU	威尼斯国际大学
VOC	挥发性有机化合物
WEC	世界能源理事会
WFD	水资源框架法
ZEB	零能源紧张
ZIPR	红桥工业开发区
Z.T.L.	交通限制区

Graphic Design  
**Volta Studio**

Print  
**Grafiche Veneziane**

Venice  
**September 2016**

Printed on  
**FSC Mixed Sources**  
**and Ecolabel certified paper**

美术设计  
威尼斯**Volta Studio**工作室

印刷厂  
**Grafiche Veneziane** 有限公司出版

威尼斯  
**2016年9月**

在得到桑林管理委员会  
国际认证和欧盟生态标记  
认证的纸张上印刷