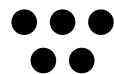


Feel inspired



Wallonia.be

Abundant and alive.
Established, rooted.
A land of variety. A thousand landscapes.
A territory, a world.
Millions of people. A focus for memories.
Scenic, open.
Vibrant and attractive.

Wallonia

Wallonia.be



- Multimodal platforms
- Colleges and universities
- Scientific parks
- Welcome Offices
- Eurostar, Thalys & TGV



WALLONIA

- > Surface area: 16,844 km²
- > Population: 3.4 million inhabitants
- > Population density: 201 inhabitants/km²
- > The densest multimodal communication infrastructure in the world, at the heart of Europe
- > Next to Brussels, capital of Europe, between London, Amsterdam, Paris and Frankfurt

- 2.46% of GDP invested in research
- Average annual growth rate since 1995: +6.1%
- Average share of exports in turnover: 70%

WALLONIA, WHAT YOU SHOULD KNOW

1 of the 6 european model
demonstrator regions
IN SUSTAINABLE CHEMISTRY



17 INNOVATIVE
materials & systems
for CONSTRUCTION



70 companies active in
BIO-BASED CHEMISTRY



5 RECYCLING INDUSTRY
value chains



Feel inspired

PACE



In April 2016, the Walloon Government has adopted an air, climate and energy plan (PACE). The objective of this plan is to achieve the 30% of reduction in greenhouse gas emission in Wallonia between 1990 and 2020.

The PACE includes 142 measures to reduce greenhouse gas emissions, increase air quality, improve energy efficiency and adapt Wallonia to the impacts of climate change.

All activity sectors are concerned: agriculture and forestry, industry, transport, buildings and waste.

The PACE is the instrument to achieve the objectives of Climate decree. In this decree there are two main objectives: -30% GHG emissions between 1990 and 2020 and - 80 to 95% GHG emissions between 1990 and 2050.

www.awac.be

Main Policies and measures by sectors of the “PACE”

ENERGY

The two main climate policy tools in the electricity generation and energy conversion sectors are:

- Firstly, application of the ETS system aimed at reducing greenhouse gas Emissions.
- Secondly, the green certificate to promote electricity generation using renewable energy sources and high- efficiency cogeneration.

These are supplemented by financial support (subsidies, grants and tax relief) for investment in these generation facilities.

BUILDING

Measures to promote rational energy use and the use of renewable energy sources in buildings focus on transposing the European Directives concerning energy performance of buildings and improving energy efficiency. These tools provide a timetable for the entry into force of increasingly stringent energy standards for new constructions and substantial renovations, including heating and hot water production facilities and financial support for upgrading the energy efficiency of existing buildings.

Mandatory preparation of an energy certificate for any building prior to a transaction (sale, rental) should offer, in the medium and long term, a way of attributing added value to the most efficient buildings.

INDUSTRY

In industry, the ETS system is a major tool for reducing greenhouse gas emissions in the most economically favourable way possible. A second crucial tool is the sectoral agreements drawn up between the regional governments and their industries concerning targets for improving their energy efficiency and reducing their greenhouse gas emissions. These agreements pave the way for opportunities to use renewable energy sources and develop “CO2 mapping” of the activity of industrial sites or commodity chains.

TRANSPORT

In the transport sector, the initiatives undertaken by the Walloon government mainly focus on:

- Limiting road traffic growth and incentivising the “modal shift” (towards public transport or waterways): improving public transport provision, promoting car-sharing, upgrading infrastructure.
- Encouraging drivers to acquire and use low-energy vehicles (information, tax incentives) and use them in moderation (eco-driving).

AGRICULTURE AND FORESTRY

Initiatives in the agricultural sector primarily focus on reducing greenhouse gas emissions, decreasing production (manure spreading standards, limiting the amount of livestock) and improving agricultural practices (processing, storage and spreading of manure, waste recovery, combating soil degradation, etc.). Reforestation and forest conservation are encouraged through specific legislation.

WASTE

The policies implemented to reduce the volume of waste and optimise its treatment are based on environmental taxation (promoting reusable packaging), stricter regulations (ban on landfill, mandatory treatment of landfill gases, standards for incinerators) and the development of specific channels for waste recovery and treatment.



Feel inspired Green Wallonia

GreenWin promotes collaborative R&D projects around 3 axes: sustainable chemistry (biobased chemistry, use of CO₂, ...), sustainable materials in the building sector (energy storage & efficiency, new materials, ...) and environmental technologies (waste & recycling management, water/soil/air treatment,...). It brings together:

- 146 industrial members including world leaders
- 150 university departments
- 5 research centers & 1000 researchers

www.greenwin.be

GEOGRIND

- Geogrand develops applications based on the geopolymer technology: green concrete, fire resistant insulation panels & coatings, refractory bricks, ...
- More than 40 % of the raw materials are recycled products
- Geopolymer are considered as “cradle to cradle”

www.geogrand.be

AMB - ECOSTERYL

- World-renowned patented technology to disinfect used medical materials
- Up to 300 kg/hour of treated materials
- Cheapest operational costs of the market

www.ecosteryl.com

PRAYON

- World leader in phosphates, Prayon manufactures products that are used in food, fertilizers and industrial applications
- Prayon contributes to sustainable development by providing solutions that can improve plant yields, better preserve food and save energy

www.prayon.com

CELABOR

- CELABOR is a private laboratory and research center
- Sustainability & green chemistry are considered as main challenges in private and collaborative projects that target industrial sectors in food, vegetal extraction, packaging, environment & textile

www.celabor.be

DERBIGUM

- Recycling and circular economy as priorities
- With the reuse of bituminous waste as secondary raw material for high-end products, Derbigum can offer a roofing membrane: Derbigum® NT, and an underlayer: Derbicoat® NT with respectively 25% & 30% recycled material

www.derbigum.com

CLAY & PAINT FACTORY

- New acrylic paint without solvents (EU standards COV 2007-10 + Toy regulation EN 71)
- Non toxic components, COV rate 60 times lower than all other paints
- For all buildings, schools, hospitals, nurseries... No impact on environment and global warming!

www.lacouleurestdanslepre.be

MENART

- Municipal waste is preoccupying in terms of pollution, treatment capacities and landfill saturation
- Processing organic from municipal waste into fertiliser offers solutions. This is the goal of MENART by realizing Material Recovery Facility and Mechanic Biological Treatment.

www.menart.eu

AIRRIA

- Airria designs and develops decentralized ventilation systems - without ducts - with heat recovery
- Thanks to high heat recovery (up to 92%) and low power consumption, the technology permits huge energy savings in terms of building heating: both for building refurbishment and new buildings

www.airria.be



Feel inspired

ECO BUILDING

Gathering most of the actors and experts of the whole Walloon eco building sector (approximately 270 members), the Cluster Eco-Construction main goal is to boost a booming market. Its numerous engagements aim at:

- Increasing the quality and quantity of the economics actors offers
- Facilitating the exchanges of skills, sharing experiences and gaining knowledge of its members

<http://clusters.wallonie.be/ecoconstruction-en/>

<p>PCIM</p> <ul style="list-style-type: none">• Specialized in the production of thermal and acoustic cellulose insulation• Enforce a pioneer technology in a brand new facility <p>www.i3-cellulose.be</p>	<p>ARGIBAT</p> <ul style="list-style-type: none">• Manufactures and markets natural building materials from clay• They provide thermal inertia, help to naturally maintain a comfortable room temperature and acoustic comfort, and regulate indoor humidity <p>www.argibat.com</p>	<p>HINS</p> <ul style="list-style-type: none">• Specialist in the extraction and processing of natural clay• This company offers a range of high quality clays for the preparation of clay products (bricks, tiles, refractories and natural plasters) <p>www.hins.be</p>	<p>ISOHEMP</p> <ul style="list-style-type: none">• Innovative company active in the industrial production of hemp insulation blocks composed of natural and local raw materials for the sustainable construction sector <p>www.iso hemp.be</p>	<p>ACOUSTIX</p> <ul style="list-style-type: none">• Specialized in the manufacturing of innovative acoustic panels, 100% made from recycled material and 100% recyclable• Manufactured from a mix of two cellulose origin materials: recycled paper and flax shives <p>www.acoustix.be</p>	<p>PAILLE-TECH</p> <ul style="list-style-type: none">• Innovative company manufacturing insulated straw bale prefab constructive wood frame• Efficient system to quickly build healthy passive buildings <p>www.pailletech.be</p>	<p>STABILAME</p> <ul style="list-style-type: none">• Specialized in high technical quality wood structure with excellent environmental management• Construction system using local wood, creating a dynamic source to the final process of transformation <p>www.stabilame.be</p>	<p>MOBIC</p> <ul style="list-style-type: none">• Innovative company in high energy performance timber-frame construction industry since 20 years• Housing, holiday housing, timber curtain walls, multi-storey buildings, Patented processes, such as Argimob® - wooden frame thermal inertia <p>www.mobicsa.be</p>
--	--	--	--	---	--	---	---

Feel inspired SUSTAINABLE CONSTRUCTION

Wallonia has a long tradition of innovation in the building sector. Now, the Region develops innovation to realize sustainable building, eco-districts and smart cities. New building methods for Near Zero Building, new materials, new systems, renewable energy, smart buildings and solutions for living cities are proposed by Walloon companies.

- 180 members: architects, contractors and producers (material and equipment); research and training centers

www.cap2020.be

A + CONCEPT

- Consulting engineer in sustainable development and in technical equipment
- Offering completed services from conception to exploitation
- Specialized in environmental friendly approach and energy monitoring

www.aplusconcept.be

ENERSOL

- Installer of photovoltaic and thermal solar power plants, cogeneration, biomass boilers. Integrator of energy efficiency solutions.
- Partner in a project of an energy self-sufficient residential resort in Marrakech with hybrid renewable production and storage.

www.enersol.be

HELIUM 3

- Helium3 positive architecture office, based in Liege, is a multi-disciplinary team proposing optimistic architectural concepts.
- A specific unit analyses numerous sustainable development criteria e.g. energy, environmental concepts, mobility and social impact

www.helium3.com

THOMAS ET PIRON - ECO-VILLAGE IN JAMBES

- A high-potential living environment located in a green lung along the water
- Mixed and sustainable buildings with rational use of natural resources
- Based on the SUSTAINABLE NEIGHBORHOODS reference published by the Walloon Region

<http://www.thomas-piron.eu/eco-quartier-Jambes>

SAINT-GOBAIN

- 350 years of experience in designing, manufacturing and distributing materials and solutions
- Solutions that can be found everywhere: in buildings, transportation, infrastructure and many industrial applications
- Leader in sustainable housing, providing comfort, performance and safety

www.saint-gobain.com

SMARTNODES

- Intelligent street lighting: "Light where and when needed, at the right level", maximal energy savings while maintaining quality of light and security.
- Smart City solutions integrating sensors (air quality, parking...) on public lighting networks ... through web-based software.

<http://www.smartnodes.be>

ISSOL

- BIPV manufacturer, project developer of Active Glazing Solutions
- Give an architectural function to the PV technology, replacing traditional by active building materials producing electricity
- Engineering company for the product design and project management

www.issol.eu

ST.AR.TECH MANAGEMENT GROUP

- A multidisciplinary team of experts
- Integrated architectural design to promote multidisciplinary, the interaction of all the project's actors and to integrate innovative and creative solutions
- Bioclimatic architecture as a central concept

<http://www.startech-group.eu/>

Feel inspired SUSTAINABLE ENERGY

Cluster TWEED is a Walloon organization that plays a major role in the business development of “sustainable energy” sectors in Belgium. It gathers most of the Walloon and Brussels organizations in those sectors and has more than 100 members, including 80% of enterprises. Visit **www.REWallonia.be**: the portal of the renewable energy sector in Wallonia and Brussels, powered by TWEED !

<http://clusters.wallonie.be/tweed-en/>

I-CARE

- I-care has been created in 2004 as a Predictive Maintenance company, focused in Vibration/ Lubricants analysis.
- During our 2 first years, we added more Condition Monitoring technologies to our portfolio: Vibration Analysis, Lubricant Analysis, Motor Current Analysis, Infrared Thermography, Ultrasound.

<http://www.icareweb.com/>

XYLOWATT

- Leveraging more than 10 years of experience, Xylowatt has developed the NOTAR® cutting-edge technology, which efficiently turns biomass or waste into a clean and cold gas fit for powering a cogeneration engine or for replacing fossil fuels in an industrial furnace.

<http://www.xylowatt.com/>

STUV

- Stuv creates, produces and markets wood burning stoves, pellet stoves, fireplaces, wood inserts, open fires and gas fires designed to magnify the fire.

<http://www.stuv.com/>

DAPESCO

- DAPESCO is a consulting firm specializing in energy efficiency. Dapesco was established more than 10 years ago and is the Belgian leader and a global player in energy monitoring. Dapesco is also an engineering consultant specialized in energy.

<http://www.dapesco.com/en/projects/>

CMI BALTEAU

- EPC contractor in pumping stations and treatment plants for drinking, waste and industrial water & hydropower plants
- Possible assistance to find the best funding solution
- Balteau is part of the CMI Group, a two-hundred-year-old Belgian company operating on the five continents

www.balteau.eu

ACTE

- Annular heat exchangers are dedicated to heat recovery from fumes and exhaust gases with particular attention paid to valorization optimization and impact reduction on the upstream process.
- This technology is an answer to those whose aim is to put emphasis on energy efficiency.

<http://acte-sa.be>

GREEN

- Green is the ideal partner for the design, implementation and financing of a photovoltaic installation project, regardless of its size and power.
- With more than 1000 installations, Green proposes the technology best suited to energy needs.

<http://www.green.be>

3J-CONSULT

- 3j-Consult is an engineering company specialized in energy with more than 35 years' experience.
- 3j-Consult provides solutions to its industrial customers and helps them improving and optimizing their Energy & Environment performances as well as their costs.

www.3j-consult.com

Glass, permanent material Now, for our future

© Saint-Gobain Glass Solutions

The Federation of the Glass Industry represents enterprises involved in the manufacturing, processing or shaping of glass products.

- The industry calls on legislators to recognise the importance of increased use of permanent materials – like glass in legislations to build an authentic circular economy
- Every ton of recycled glass saves energy and 670kg of CO² emissions
- Natural and 100% endlessly recyclable : glass can be recycled time and time again

www.vgi-fiv.be

AGC GLASS EUROPE

- European branch of AGC Glass, the world's largest producer of flat glass
- Production, processing and distribution
- Flat glass for the construction (external glazing and interior decorative glass), the automotive (original and replacement glass) and the solar sectors

www.agc-glass.eu

3B-FIBREGLASS

- Performance composite applications and wind energy solutions provider
- Producing 100% boron-free, clean, eco-responsible fiberglass
- Fibreglass allows composites to be reliable, stronger, longer living and lighter in various industries and environments of use

www.3b-fibreglass.com

DUROBOR GROUP

- Manufacturer of glass tableware, renowned for its quality and its almost centenary innovative design
- Sustainable shapes and sizes, designed to maximize re-use
- Glass is flavourless and odourless and doesn't alter the taste of food and drink

www.durobor.com

GERRESHEIMER MOMIGNIES

- Leading global partner for the pharma and healthcare industries
- Increasing re-use of raw materials : -50% recycled glass in the production process
- The European Commission recommends glass as the safest packaging for feeding bottles intended for infants

www.gerresheimer.com

KNAUF INSULATION

- Visé plant : largest glass wool manufacturing site in Europe
- ECOSE® Technology : revolutionary sustainable binder technology based on rapidly renewable bio-based materials
- Circular economy : today up to 80% of recycled glass is used as raw material

www.knaufinsulation.com

MD VERRE

- Fostering the sustainable development of glass containers
- Innovative design : bottles are already 30% lighter than 20 years ago whilst maintaining their quality
- 73% of all glass bottles in Europe are collected and recycled, in Belgium this rate goes up to 95%

www.vidrala.com

NIPRO PHARMAPACKAGING BELGIUM

- Advanced pharma packaging products and complete packaging solutions
- Glass as packaging is a unique partner as it never leaches toxic chemicals into its content
- Glass is an inert, pure and 100% all-natural material : the safest choice for health

www.nipro-pharmapackaging.com

SPRIMOGLASS

- More than 120 years experience in transformation and processing flat glass
- High-tech factory and high services
- High-performance double and triple glazing, warm edge, solar control, design, acoustic and safety glass

www.sprimoglass.com



Feel inspired

WBI & APEFE

The Maison de la Cédraie – an example of a project in the field of sustainable development and the environment – is the culmination of a long collaboration between Walloon and Moroccan forestry operators. It will be inaugurated in Ben Smim in the Moroccan province of Ifrane in early 2017. It is a unique place in terms of biodiversity. Commissioned by the Moroccan High Commission for Water and Forests and the Fight against Desertification, it comprises a permanent exhibition covering 1,200 m² and serves as a tool for educating and raising awareness about the protection of natural resources.

Wallonia-Brussels International

WBI is the public service in charge of the international promotion of French-language Belgian operators in all areas of expertise, foreign trade excepted (entrusted to AWEX). Wallonia-Brussels, which represents the Walloon Region and the Wallonia-Brussels Federation, has enjoyed a lasting partnership with Morocco since 1999.

This takes the form of a work programme, renewed every two years, focusing on Education - Higher Education - Cultural dialogue, Vocational training, Sustainable development and the Values of modernity.

Over the years, the framework cooperation agreement between WBI and Morocco has gone from strength to strength, with a film co-production agreement between the Film and Audiovisual Centre of the French Community of Belgium and the Moroccan Cinematographic Centre (2003), an Understanding between the Parliament of the Wallonia-Brussels Federation and the Chamber of Representatives of the Kingdom of Morocco (2003) and an agreement on «Teaching the language and culture of origin» (2006).

Association for the Promotion of Education and Training Abroad

APEFE has been present in Morocco since 1994. It works with the Belgian Development Cooperation (DGD) through locally recruited staff and is an operator of WBI programmes.

To step up its action, APEFE has notably signed sectoral agreements with Moroccan institutions. Most recently with the Ministry of Employment and Vocational Training, ANAPEC (National Agency for the Promotion of Employment and Skills), AFEM (Association of Women Entrepreneurs of Morocco) and Al Amana Microfinance (July 2013).

APEFE has been particularly active for several years within the framework of the Min Ajliki programme, which provides support to female entrepreneurship in Morocco, reflecting the commitments made by His Majesty Mohammed VI and the Moroccan government to improve the status of women in Morocco. Its main objective is to contribute to the building of entrepreneurial capacity in the Greater Casablanca, Tangier-Tetuan and Meknes-Tafilalet regions through the creation of business incubators. This is the first, and only, exclusively «gender» economic project in Morocco, and is, moreover, in the form of a public-private partnership (PPP).

WBI is represented in Rabat by the Wallonia-Brussels Delegation.

Address: Rue Jaâfar Assadik, 4 - 10000 Rabat - Tel.: +212 537 67 40 87

www.wbi.be

In addition to its diplomatic and cooperation functions, the delegation serves as an interface between operators in Morocco and in Wallonia and Brussels looking for exchanges and partnerships. Welcoming spaces have been set up, providing information and documentation on the culture of partners, for example allowing young Moroccans to learn about study opportunities in French-speaking Belgium.

APEFE is represented in Morocco by a Programme Manager based in the same building as the Delegation. Tel.: +212 537 674 115 - www.apefe.org



Feel inspired

WBI - RESEARCH AND INNOVATION PLAYERS

AGREEN WORKING GROUP

Member of LIEU (Liaison Enterprises-University)

- The network of technology transfer professionals from Universities
- Unique access point to the skills of the Belgian speaking Universities and Higher Education Institutions
- Over 1.000 research units and 7.500 researchers

Working Group responsible for technology and knowledge transfer in the fields of

- Agro-industry
- Environment
- Energy

Expertise

- Rational use of energy and renewable energies
- Energy and Transport
- Energy and Buildings
- Urban and Land Planning
- Soil - Air - Water
- Waste
- Environmental Management
- Green Chemistry
- Ecology

www.reseaulieu.be

EMRA

The association of 6 Research Institutes:

- CRIBC
- INISMa
- Certech
- INS
- CTP
- Materia Nova

Expertise

- Materials - from the origin of raw materials to their second life
- Process - from lab scale to pre-industrialization
- Environment - contribution to a healthier and safer environment

International services

- Analysis
- Tests
- Counsel
- Expertise
- Certification
- Product & Process development
- Research & Innovation

www.emra.eu

Walloon Platform for IPCC

Research project

- Initiated by Jean-Pascal Van Ypersele, Former Vice-President of IPCC
- Carried out by the Center of Research on Earth and Climate Georges Lemaître - Catholic University of Louvain
- Supported by the Walloon Government

Missions

- Creation of a register of the walloon expertise in the field of climate change
- Scientific monitoring and information to the decision makers
- Coordination and support for Academics who participate in the works of the IPCC
- Sensitization and promotion of the scientific works of the platform
- Support to the organization of the Air-Climate colloquium
- Participation to the works of the Expert-Committee of the walloon Climate Decree

www.ipcc.ch

SCIENTIFIC AND TECHNOLOGICAL KNOW-HOW

The potential of the environmental sciences & technologies in Wallonia is supported through three types of players:

- Academic actors : LIEU - AgrEEn Working Group, the Technology Access Partner in the fields of Agro-Industry, Environment and Energy
- Research Institutes : EMRA (Environment and Materials Research Association), the Association of Environmental Research Centers
- Climate experts : Walloon Platform for IPCC - the Intergovernmental Panel on Climate Change

Feel inspired AWEX



INVEST IN WALLONIA

The place to be for your leading business in green technologies

Centrally located in Europe, Wallonia is your gateway to Europe, the world's largest market for green products and technologies, with the world's highest environmentally aware customers and the most developed environmental regulations encouraging the development of green business.

Sustainable chemistry, sustainable materials & construction and environmental technologies are the most promising fields of development for business.

<http://www.investinwallonia.be>

WALLONIA EXPORT-INVESTMENT AGENCY, YOUR GATEWAY TO EUROPE

AWEX (Wallonia Export-Investment Agency) is the governmental agency of the Walloon Region of Belgium in charge of foreign trade promotion and foreign investment attraction.

As a foreign trade agency, AWEX carries out a mission of promotion and information for the benefit of both Wallonia and the foreign business community.

Upon request, AWEX assists buyers, decision-makers, importers and foreign prospects by:

- Providing economic data on Wallonia and its export potential
- Identifying companies in Wallonia for international partnerships
- Distributing lists of exporters from Wallonia

As an export partner for Wallonia-based companies, AWEX offers a wide range of export oriented services and activities:

- Market studies tailored to specific areas upon request
- Organization and planning of marketing activities
- Establishing contacts with international organizations
- Promoting Wallonia's export potential abroad
- Financial support and export financing

As a foreign investment agency, AWEX has an overall responsibility for the attraction of foreign investment in Wallonia. This includes seeking out and providing information to potential foreign investors. The Agency also offers a pro-active follow-up service to investors already established in Wallonia. In addition, it is in charge of identifying new foreign investors for the acquisition of industrial sites under restructuring.

www.wallonia.be

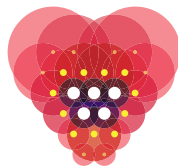
KEY ASSETS OF WALLONIA:

- First class business and scientific networks quickly accessible through AWEX
- Existing and thriving business environment in cleantech sectors
- Historical strong leadership in Chemistry and Materials
- Clear Regulations and superb support mechanisms aimed at promoting better technological solutions and investments
- Affordable land and ideal logistic locations
- Exceptional overall quality of life (healthcare, security, food,...) and very attractive Expats packages



Page 4 - 5	Wallonia
Page 6 - 7	PACE – Air, Climate and Energy Plan
Page 8 - 9	Green Wallonia
Page 10 - 11	Eco Building
Page 12 - 13	Sustainable Construction
Page 14 - 15	Sustainable Energy
Page 16 - 17	Glass, a sustainable material
Page 18 - 19	Wallonia Brussels International & APEFE
Page 20 - 21	WBI - Research and Innovation Players
Page 22 - 23	Wallonia Export-Investment Agency

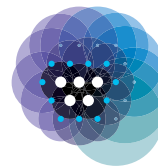
Feel inspired



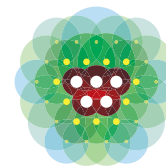
SENSE OF SHARING



ACCESSIBILITY



TECHNICAL KNOW-HOW



QUALITY OF LIFE

