



#### **OUR GLOBAL OFFER**

# Engineering Consultancy Project structuring Mobility services Operation Turnkey Urban planning, architecture & landscaping



# Target countries and regions France Middle East Brazil Indonesia India North, Central and West Africa





offering engineering, project structuring and operations services. In engineering and consulting its sectors of activity include transport, urban development, building, industry, water, environment and energy.

In roads and airports its offer is enlarged to encompass project structuring, equity investment, turnkey systems delivery, operation and mobility services.

Employing 12,000 people, including 7,800 in engineering, the group generated a managed turnover of €854 million in 2014.

Egis is 75% owned by the French "Caisse des Dépôts" and 25% owned by Iosis Partenaires, (a "partner" executive and employee shareholding)

#### **854** M€ MANAGED TURNOVER 78% 22% **Engineering** Road and airport operation Urban 21% & rail transport 20% Roads 11% Buildings 7% Urban development 7% Water & Environment 5% Industry & Energy 5% Aviation Other (multi-modal transport, sea and river 2% transport, waterways and miscellaneous) 7,800 4,200 employees employees 3700 4 100 **France** International





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#### **EDITORIAL**

## **NICOLAS JACHIET,**

**CEO** 

In 2014, our group made fantastic progress in the field of Corporate Social Responsibility (CSR). In a tense market, our CSR policy - more than ever before - is a means of differentiation for our customers, and a core value for our employees. Today, while we remain strongly committed to the French market, our growth opportunities are clearly international. These opportunities are numerous, but projects are often very complex, on an increasingly large scale, and bring our business strategy into question on a daily basis. Flexibility, responsiveness, innovation and technical excellence have become our watchwords, because ultimately, whether customers are French or international, their needs are constantly changing and our duty is to work with them, to satisfy them, and even to surprise them, by offering appropriate and optimised solutions to their increasingly detailed specifications.

To meet these requirements, it is vital that we continue to transform, and remain alert to the world around us so that we can define and offer innovative solutions that are respectful of both the environment and of people. Challenges related to climate change, and environmental and energy transition in particular are immense. We therefore see CSR as a source of opportunity and innovation that is reinventing our services and giving our company purpose and meaning. This is vital for our customers, but also for our employees who should be proud of the company where they work, both in terms of its technical expertise and its societal commitments. Our CSR strategy, designed to support our growth, is available in our new multi-year

WE SEE CSR AS A SOURCE

OF OPPORTUNITY AND INNOVATION

THAT IS REINVENTING OUR SERVICES

AND GIVING PURPOSE AND MEANING

TO THE COMPANY, IT IS PROVING

TO BE A TREMENDOUS TOOL

**GROWTH STRATEGY.** 

FOR THE DEPLOYMENT OF OUR

roadmap for 2014-2017. In this issue, you can read about what we have already implemented in 2014 and initiated in 2015. Our highlights this year range from publishing our code of integrity to developing new services (BNV Mobility, a system that encourages users to avoid using their vehicles during rush hour),

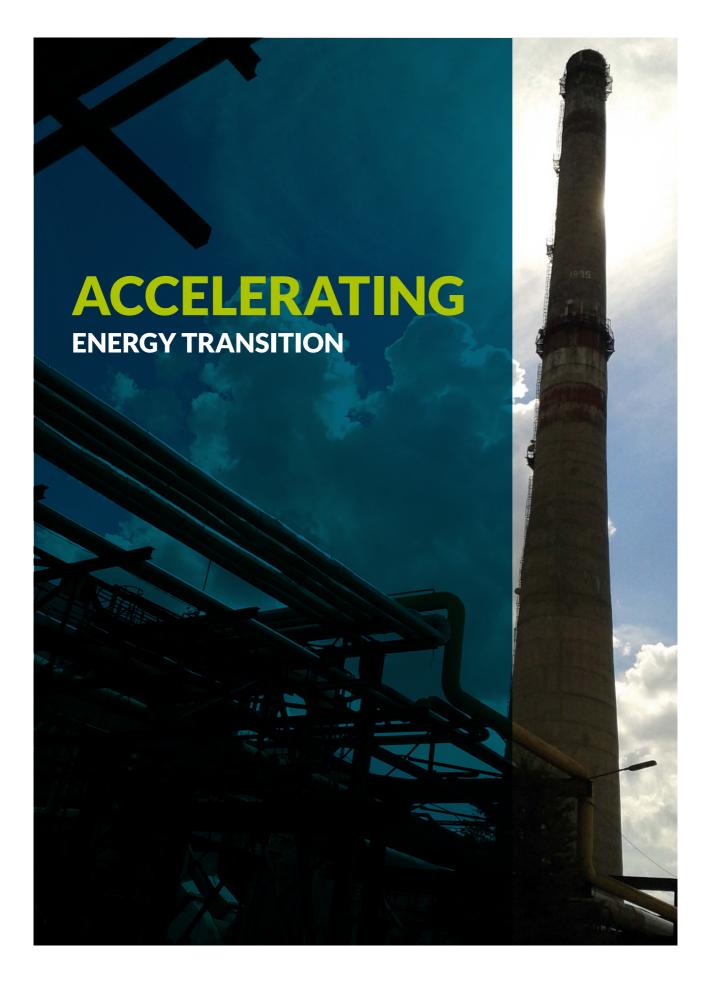
as well as designing new methodologies and new tools. Finally, it is always worth reiterating that CSR requires determination and humility, and we strive to continuously re-evaluate the challenges ahead as well as the measures we need to implement so as not to limit ourselves when



looking for new paths. Our approach requires us to anticipate, push the boundaries, make proposals, experiment, and capitalise on feedback in order to find, along with all our stakeholders, solutions that meet the priorities of today and tomorrow. This policy of openness, which is part of our DNA, reinforces our aim to continue dialogue with each other, and even to develop

it. By contributing to drafting the Comité 21 guidelines for constructive stakeholder dialogue, and by signing the text in January 2015, Egis has renewed its commitment to taking this ambition further, and to better take into account the varied (and sometimes divergent) interests of the parties involved, in order to work together to identify

shared solutions that are accepted by all. Every day we measure to what extent co-construction is a global factor for performance, innovation, competitiveness and differentiation. So to all of our stakeholders, both internal and external, we are extremely grateful.



#### **OUR AMBITION**

Our positioning as a designer for the long term is reflected in our comprehensive range of services, incorporating all disciplines, thus allowing sustainable development issues to be taken into account in every project we design, as well as in the services we operate, throughout their life cycle.

#### WHAT OUR STAKEHOLDERS THINK



#### Pierre-René LEMAS

CEO of Caisse des Dépôts\*

For good investments, you need good projects. And that is what Egis does best. Through its engineering and consulting activities, Egis works on designing the infrastructure and buildings of tomorrow, which will promote local development by integrating all the parameters of energy and ecological transition, as well as those of digital tech.

We are developing a varied and comprehensive range of products and services to support our customers in environmental and energy transition: regional energy strategy, measures to mitigate and adapt to climate change, thermal renovation of buildings, use of alternative energy resources, use of digital technology to optimise the use of buildings and transport, development of solutions for electromobility, waste recovery, protection of biodiversity, and so on.

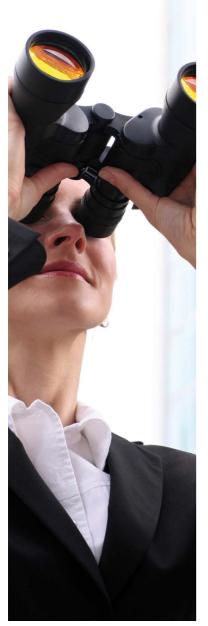
Our goal today, and we have everything going for us, is to be recognised as an accelerator of environmental and energy transition and among the key global players who truly count in the field of engineering in these areas. For this, we rely on the multidisciplinary and complementary nature of our subsidiaries, our commitment to sustainable development, our international expansion and the women and men who work in our group. To succeed, we must constantly adapt our human resources, which is why we are promoting mobility, developing our employees' careers, and improving cross-functional networks to work better together in complete transparency and confidence. We are also developing our international culture, while fostering a sense of pride in belonging to the group, and of its technical and social achievements.

<sup>\*</sup>Caisse des Dépôts is the majority shareholder of Egis

#### **OUR STRATEGIC AIMS**

In 2014, based on the review of the past three years, feedback from our stakeholders, and the Group's strategic objectives, we have established a new roadmap (2014-2017)

#### WHICH FOCUSES ON FOUR MAIN STRATEGIC AIMS:



## Nol

Making sustainable development (SD) a key means of differentiating our services and creating value, to ensure the competitiveness of our company as well as the attractiveness of the regions where we work, resulting in the following key themes:

- Ecological and energy transition EET (e.g. renovation of buildings, supporting the development of renewable energies, biodiversity in all surroundings, etc.).
- The sustainable operation of major motorway and airport infrastructures, facilities and new services (e.g. smart parking, electromobility, etc.).
- The development of sustainable cities, which give priority to living a better life, and which are resilient, allowing everyone to work, to grow, to move, to eat...





N°Z

**Developing local roots through a sustained policy of stakeholder involvement,** systematic consideration of social issues and responsible corporate practices.



N°3

Ensuring the widespread application of SD practices across all our businesses and in all teams, as well as developing new ones.

Nº4

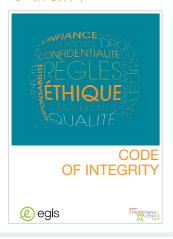
Consolidating and increasing the reliability of our extrafinancial reporting in order to integrate it into the group's performance.



#### **SOME ACHIEVEMENTS IN 2014**

#### All of these achievements are detailed in this report.

# PUBLICATION OF A CODE OF INTEGRITY



#### HEALTH AND SAFETY

Appointment of a Health & Safety coordinator and deployment of the 8 golden rules outlined in the safety attitude by Egis initiative.



#### INVOLVEMENT IN COP 21

Involvement in the events and actions of **the 2015 UN Climate Change Conference in Paris**, participation in the creation of a solutions platform for COP 21, and the publication of solutions.



# DEVELOPMENT OF NEW SERVICES FOR ECOLOGICAL AND ENERGY TRANSITION

With **Seaboost** (eco-design solutions for marine works), **BNV Mobility** (a "positive toll" that rewards users who adopt travel practices that reduce congestion) or **Wind-it** (an innovative solution for the micro-generation of renewable energy).



Seaboost: example of the sea urchin, micro habitat for structural cladding



BNV Mobility, to reduce traffic congestion Wind-it





#### BAT3DATA FOR TRACKING BATS

As part of the **Enterprises & Environment Award 2014**awarded by the French Minister of Ecology, Sustainable Development and Energy and the ADEME, Egis won the jury's "**Biodiversity and Business" award** for its 3D tool for tracking bats, **Bat3Data.** 

#### INDIA: HELPING STREET CHILDREN

Egis teams in India have become involved in the "Main tendue Charity Action" organisation in Delhi and the NGO Salaam Baalak Trust, in order to fund a **nutritional programme for children** in the Aasra centre, near the main railway station in New Delhi.

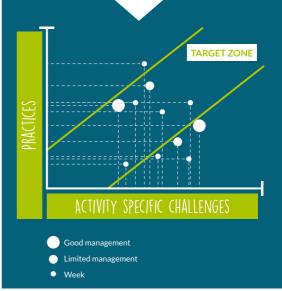


SKILLS SPONSORSHIP: EGIS IS A PARTNER OF THE "OUR NEIGHBOURHOODS HAVE TALENT" ORGANISATION.



#### CSR MATURITY MATRIX

A management tool to support the deployment of the group's CSR/SD roadmap. Its goal: to identify priorities in light of the stakes, according to a "principle of materiality", and gradually progressing to an evaluation of the sincerity of our approach by stakeholders.



Other highlights have marked 2014. You will find them presented later in the report.

#### **AREAS OF PROGRESS**

#### **REGARDING OUR RANGE OF SERVICES**

Ecological and energy transition (EET) is, and will be for many years to come, at the heart of our strategy for improvement. It concerns all our activities and represents a real opportunity for our group. Key to our work in research and development, our mission in the future will be to speed up this transition by offering new economic models based on innovation, digital technology and an economy of sufficiency.

These models will be automatically incorporated into our "Sustainable Cities" product, which we are continuously expanding, and which is also at the heart of our areas for improvement. On all these issues, we will continue to work in a collaborative fashion with key stakeholders.

With the Caisse des Dépôts (our main shareholder), we are already on track to design and test out transitional solutions in the fields of transport, spatial planning and construction, alongside several companies in the CDC Group (Transdev, Icade, SNI.).

#### IN OUR DAILY CONDUCT

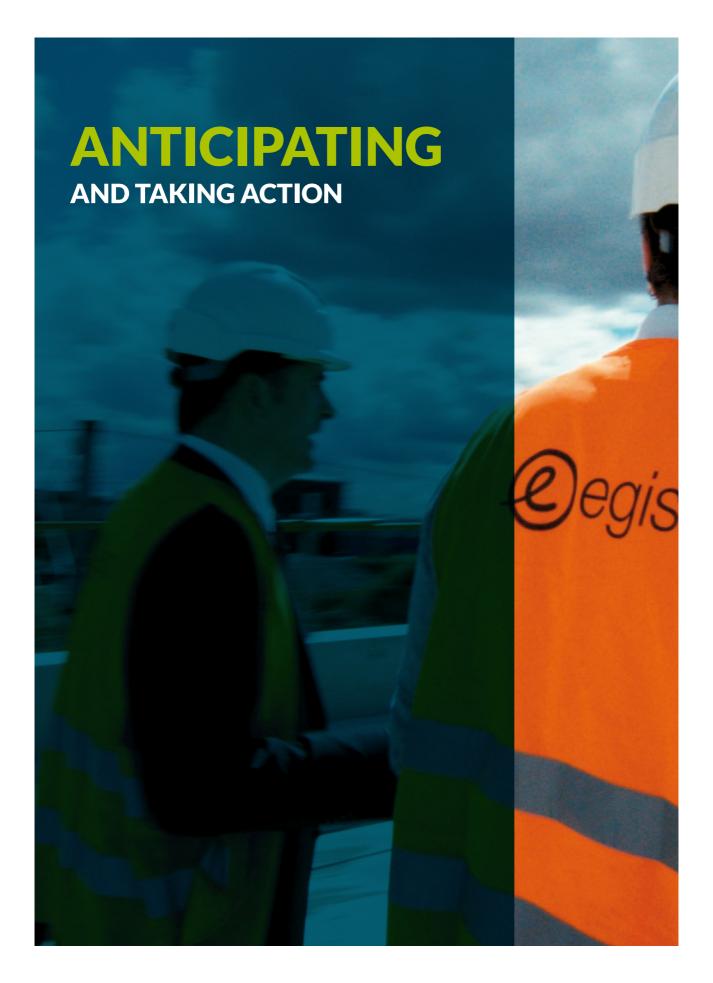
The integration of a CSR strategy into our management system remains a focus for continuous improvement. Although we have made progress on a number of topics, there is still plenty to do. Working on changing behaviour is a long-term mission that requires support and perseverance.

This important campaign was launched several years ago and is being pursued with all management system process coordinators. 2015 will therefore continue in line with the efforts already made. We will work on strengthening the HSE policy, on managing our ecological footprint, our ethics and our diversity, on strengthening the spirit of innovation at all levels, on responsible purchasing and on the reliability of our extra-financial reporting. All of which are longstanding challenges for the group.



Photo taken as part of the internal photo competition by Bruno Cognata of Egis Structures & Environment "The mark of a sustainable environment".





#### **COMPREHENSIVE SERVICES**

This is at the heart of our CSR roadmap: making sustainable development a way to ensure our services stand out. This means creating value, for the competitiveness of our company and the attractiveness of the regions where we work, with the focus on a positive and shared economy. Egis's leverage lies in its ability to achieve the most ambitious compromises between all the

economic, environmental and social functions of the projects entrusted to it by its customers. Quite a challenge when you are managing around 10 billion euros of investments each year. Egis has extensive expertise in analysing contexts and constraints for the present and future, and the association of stakeholders in a truly multidisciplinary procedure.

# OUR TEAMS FOCUS THEIR EFFORTS ON THREE PROCESSES THAT COVER THE ENTIRE PROJECT LIFE CYCLE

#### • Maintaining and strengthening our expertise on projects

- > Project development.
- > Functional optimisation of programs.
- > Continuous improvement in terms of the eco-sufficiency and efficiency of buildings and transport systems, including in their relationship to ecosystems.
- > Adaptation of urban systems to climate change.
- Local harvesting systems for renewable energy and recovery.
- > Intensification of the energy and ecological potential of conventional constructions.
- > Transformation of electrical power plants.

#### • Intensifying synergies in the sector

- > Optimisation of operating costs for industrial companies (manufacturers, operators, etc.).
- Support for the definition and implementation of an energy and environmental strategy in building and planning projects.
- > Advice and support for controlling technical and societal risks.
- > Facilitating cooperation between parties in one region or one sector to achieve collective EET goals.

#### • Developing comprehensive solutions for tomorrow, a differentiating factor with high added value

- > Policies for transitioning towards sustainable cities.
- > Development of renewable energy in the energy mix.
- > Fighting against energy poverty through renovation and social housing support.
- > Optimisation of public and private spaces by pooling uses.
- > Mobility services and digital development of the region.

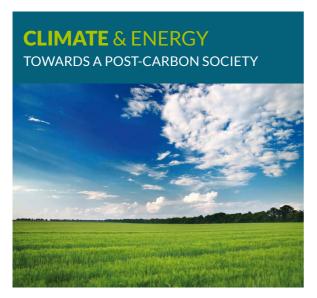


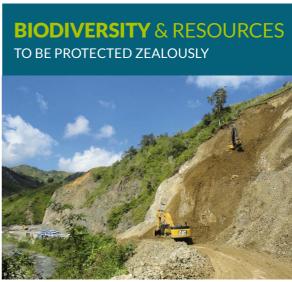
#### **SOLUTIONS WITH SIGNIFICANT**

#### "SUSTAINABLE DEVELOPMENT ADDED VALUE"

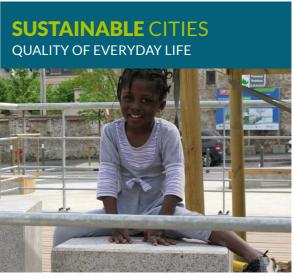
For 25 years, Egis has been developing a structured innovation policy to meet the everchanging needs and challenges of its public and private clients. This approach is based on a combination of listening to the market, the needs of customers and partners, and specialist high level skills throughout the life cycle of structures. It has a very operational approach aimed at both generating new knowledge and developing new applications. Our key focus

points are the pursuit of productivity and a response to the major challenges of sustainable development: climate and energy, biodiversity, the reduction in and strain on resources, mobility, and stakeholder dialogue. Our "ID2M" (Idea to Market) approach is designed to be very operational. Every year fifteen or so project concepts or developments are followed by this incubation process, until they reach the operational implementation phase.









#### **CLIMATE** AND ENERGY

Regions will have to quickly adapt to the multiple impacts of climate change. Global commitments are still not enough to reduce global warming to below  $2^{\circ}$ C. Egis is developing an extensive service focused on limiting impacts, and improving adaptation and resilience. Planning projects are opportunities to improve these characteristics, and to harvest energy from the earth, sun and wind, even exceeding operating requirements.

#### **SOLUTION**

#### **WIND-IT**



# An innovative solution for the micro-generation of renewable energy.

An ecological alternative for countries where there is little or no power network. Expected benefits: about 85% of annual operating costs and approximately  $70 \, \text{t CO}_2$  equivalent saved.

The Wind-it innovation consists of integrating one or more vertical axis wind turbines within a metal pylon that has been specifically designed to house wind turbines. The Wind-it range currently offers telecommunication towers for sites with no network or a poor quality network ranging from 25 m to 80 m high.

The solution integrates a photovoltaic source adapted to the installation location. Wind-it helps to considerably reduce, and even avoid, the use of the more traditional and expensive solution of fuel-powered generators. Furthermore, the Wind-it solution is scalable in such a way as to produce surplus energy, thus contributing to local electrification. In 2015, a full-size prototype (48 metres high/3 vertical wind turbines) was installed in Ille-et-Vilaine.

# In 2011, a first version of the Wind-it solution was presented to members of Egis's sustainable development steering committee (a committee of internal and external stakeholders). At that time, Wind-it suggested merging an electric pylon and wind turbine (solution for the production and transportation of wind power designed for emerging countries).

The committee had a very lively debate regarding the risks inherent to this type of solution, including in terms of production capacity, but mainly with regard to social acceptability. Based on these observations, Egis's teams set to work to design a viable solution and presented it to the committee in November 2014.

#### WHAT OUR STAKEHOLDERS THINK -



#### **Dorothée Briaumont**

Member of the sustainable development steering committee Egis and director of Solaal

Egis should be congratulated for being able to re-evaluate itself, for its transparency too, by offering us a completely different solution three years later that takes into account our suggestions and values our concerns. Well done for having transformed a sustainable development committee "mini crisis" into a responsible business asset.

#### **VILLAGES NATURE** (SEINE ET MARNE)



The Hanging Gardens, Promenade du Lac and the Aqualagon

A new tourist destination selected by the United Nations Environment Programme (UNEP) to incorporate the "Global Partnership for Sustainable Tourism".

Almost 100% of the destination's heat requirements will be covered by geothermal power (excluding maintenance periods and bad weather).

Based on a quest for harmony between humanity and nature, the Villages Nature site will be a new major European tourist destination and a key innovation in terms of sustainable tourism. Thanks to geothermal energy, 9000 tons of CO<sub>2</sub> should be avoided each year, compared to a gas solution. This energy strategy, coupled with the desire to cover Village Nature's electrical needs of (lighting, equipment, etc.) using additional renewable energy sources such as biomass (biogas), will contribute to achieving the "zero carbon" objective for all building-related emissions.

In charge of environmental consulting, Egis worked on all the project's environmental aspects to minimise wherever possible the destination's ecological footprint, and to achieve social and regional balance.

#### **Examples:**

- Bilan Carbone®: throughout the project, all constructive data are collected and integrated into the Bilan Carbone®\$1" carbon assessment method, to evaluate the impact of the site and guide constructive choices.
- Energy: over 97% of the site's heat will be supplied by a renewable geothermal source. The buildings are designed to be energy efficient, by anticipating the latest regulatory developments.
- Materials: the use of wood is preferred. For concrete, work with suppliers has enabled us to choose so-called "low carbon" concrete, which means concrete that contains less cement and more recycled aggregates.
- Mobility: public transport for access to the site will be widely encouraged and developed. The use of private cars on the site will be prohibited.
- Raising awareness: staying in the holiday park will be a very "eco" experience. An interactive farm and educational activities have been created to encourage the virtuous behaviour of the visitor.
- **Biodiversity:** neutral impact on the 72 protected species identified on the site, the actions taken are:
  - Protecting natural habitats of high ecological value within the Nature Villages area.
  - Promoting the continuation of species by limiting mortality during construction.
  - Creating favourable habitats for accommodating biodiversity: landscapes and amenities designed in a "positive biodiversity" approach.
  - Diversifying existing habitats.
  - > Managing areas to enable them to accommodate different species.
- Water: accommodation facilities will allow water consumption that is 20% below the national average. A 38% reduction of drinking water consumption through the Aqualagon compared to a conventional pool for sanitary use.

#### **BLUE ECONOMY:** THE MERIFIC PROJECT

#### To directly or indirectly help local stakeholders.



This European research project unites the areas of Cornwall in the UK and Finistère in France, as well as many academic, scientific and economic partners on the topic of marine renewable energy (MRE).

Its goal: to promote the development and acceptability of renewable marine energy projects in the Iroise Sea. Through research, feedback, and sharing of experiences, this project helps improve visibility and knowledge of this sector and promote its emergence in maritime areas with high energy potential. In this context, Egis has developed an operational guide and toolkit to promote the acceptability of MRE projects and to help local stakeholders, including elected officials and project developers to work together to create dynamic and accepted projects. By focusing from the outset on the issue of project acceptability, the key is to involve regional and local stakeholders as early as possible, especially those on islands where people (like those in Cornwall and Finistère) are particularly attentive and sensitive to the sustainable and controlled development of the area.

#### **PROJECT**

#### AN UNDERGROUND DATA-CENTRE IN SAUMUR

# Building on the past to develop in the future.



Project supported by the Pays de la Loire region, the Conseil Général du Maine- et-Loire and Saumur Agglo. Initiated by SO-PRAF, it brings together a consortium of stakeholders: the agency Enia Architectes, the telecom operator Céleste, and the Elioth\* and Critical Building pairing, both data centre experts.

\* Elioth: Egis entity specialised in innovative structures, building envelopes, and environmental design In a real first, this project uses the thermal characteristics of underground quarries to naturally cool servers without resorting to air conditioning. It's a model that will have a direct impact on the data centre's operating and investment costs, as well as its environmental footprint.

Data storage needs are continuing to grow. The underground world, owing to its land availability, thermal inertia and security, provides an environment that is ideal for meeting the ecological, economic and security challenges of the data centre activity. To check and confirm the hypothetical energy savings, a prototype data centre with very low energy consumption is being developed in the underground tunnels of Saumur, which will use the physical and thermal characteristics of the underground environment in order to naturally cool the servers.

#### This project illustrates:

- The ability of our teams to support operations related to data centres and, more generally, developing digital infrastructure for the regions.
- The need to combine on-site physical instrumentation approaches and digital simulation technologies, to support more avant-garde projects.

<sup>\*</sup>Marine Energy in Far Peripheral and Island Communities

#### **URBAN SOLAR INFRASTRUCTURE**

A new type urban and architectural initiative, to increase the robustness of supply, and boost renewable generation.

After studying the architectural translation of an office project in the light of major trends in coming decades (energy, climate, mobility. use, etc.), Elioth developed "169, architecture" representing a new architectural typology: Urban Solar Infrastructure (USI). This is not a question of anticipation, but of the credible preparation of new urban and architectural initiatives.

Ultimately, USI should help increase the robustness of supply and boost renewable generation. By pursuing the development scenario for USIs. it would be possible to initiate a major energy transformation, suitable for the entire sector. The third industrial revolution will also be that of the tertiary sector.

\*Elioth: Egis entity specialised in innovative structures, building envelopes, and environmental design

#### **PROJECT**

#### **CAMBODIA:** ADAPTING THE ROAD NETWORK TO CLIMATE CHANGE

#### A necessity for a country where climate change is a threat to life.

Cambodia's vulnerability to climate change (CC) is explained by its particular geography, its complex river system and the fact that it is an underdeveloped agricultural country where 80% of the rural population is dependent on subsistence crops; added to this is the issue of inadequate infrastructure. Under the Pilot Program for Climate Resilience (PPCR) in Cambodia, Egis won a services contract entrusting it with the inclusion of climate change issues



in the plans to improve the road network in the provinces of Prey Veng, Svay Rieng, Kampong Chhnang and Kampong Speu in the centre and south-east of the country.

In this ongoing project, Egis has been assigned to model the impacts of CC and establish a GIS database of the vulnerabilities of the road network, as well as

to formulate design standards for roads and structures in line with climatic changes, to put forward adaptation measures such as tree planting, stormwater capture and storage, to develop systems for detecting major climatic events, and to train ministry personnel affected by CC.



Tree planting

#### **BIODIVERSITY** AND RESOURCES

The fragmentation and urbanisation of regions, and the exploitation of habitats and natural resources is continuing to rise. Faced with this pressure, loss of biodiversity and pressure on resources are having a negative impact on many regions. Egis has the necessary expertise to evaluate a region's resources and analyse the impacts of an activity, as well as define and implement solutions to prevent, reduce and - wherever possible - compensate for these damages. Without forgetting ordinary biodiversity and the proper governance required for the allocation of resources.

#### **SOLUTION**

#### **AULNES®**



> To take into account the services that nature provides to humanity in the evaluation of a project.

- > To contribute to the economic development of regions.
- > To protect biodiversity.

After four years of research, in partnership with the LAMETA (Montpellier Laboratory of Applied and Theoretical Economics) and a substantial investment in Research & Development, Egis has developed a method and toolkit entitled "Aulnes" \*1".

The tool is used to map the services provided by nature in a given area and to evaluate any variations to these services as a consequence of the implementation of a project (industrial, infrastructure) or of changes in management practices, or even of climate change. It is intended for project developers (public and private clients), property owners and/or managers, and local authorities.

#### The benefits that humanity derives from nature are divided into four categories:

- Provision services: raw materials (food, fibre, fresh water, pharmaceuticals)
- Regulation services: climate regulation (carbon cycle, water cycle, biological control, pollination, water retention, soil penetration, runoff limitation).
- Support services (self-maintenance): soil formation, primary production.
- Cultural services: recreation and tourism (parks, forests, ponds, etc.), culture and education (local heritage, environmental education, etc.).

#### WHAT OUR STAKEHOLDERS THINK





#### Alexis BONNEL

Environment and Development Adviser at the French Development Agency (AFD) and member of the Egis sustainable development steering committee.

In developing countries, natural resources are a key economic driver. We have identified several challenges in the AFD's biodiversity activities that the AULNES" solution could help with, in addition to the indicators already used.



#### Gilles BOEUF

Chairman of the Museum of Natural History in Paris.

Chairman of the Museum of Natural History in Paris. For a large engineering group, it is essential to take into account, for each project, the environmental impact and the loss of biodiversity, and to be attentive to the use of materials. Ecology is not a component that can be added at will to engineering depending on the project; it is an inherent part of it.

#### **SOLUTION**

#### **SEABOOST**



The speed at which the reed beds are colonised is amazing. Within months these modules have been invested with marine biodiversity

#### To restore biodiversity on the seabed.

Wharves, pontoons, wind turbine foundations, offshore platforms, bridge piers, dikes, breakwaters, piers, marine pipelines, and so much more. These marine structures built by humans all represent site opportunities that can be made proactive for biodiversity. In 2014, Egis created Seaboost, a company that develops and provides various ecodesign solutions to allow better environmental integration of maritime structures into their ecosystem. The design of Seaboost solutions finds inspiration in nature observation and adoption of the biomimetic concept.

#### This led to the creation of the following:

- The "Roselière" module (photo opposite) look like shelters set up by the roots of lagoon reed beds and by large marine algae.
- The "Sea urchin" module, inspired by the symbiosis between tropical sea urchins and the juvenile fish that find suitable shelter against predators among their spines.

Since May 2014, Seaboost submerged the "Sea urchins" and "Roselières" in the great seaport of Marseille.

The objective of this initiative was to develop the potential of marine structures as nursery habitats. Almost 150 m³ of micro-habitats were deployed to equip 240 linear metres of quays and dykes in the Grand Port Maritime of Marseille-Fos. These eco-designed dikes and docks now have the mission of protecting juvenile fish growing in the shallows of the harbour before their migration to the open sea when they have grown. Our group joined forces with industrial partners for these developments.

#### **SOLUTION**

#### Bat3Data\*





From left to right: Hippolyte Pouchelle, Environmental Engineer at Egis and Ségolène Royal, French Minister of Ecology, Sustainable Development and Energy

#### 3D TRACKING OF BATS.

As part of the Enterprises & Environment Award 2014 awarded by the French Minister of Ecology, Sustainable Development and Energy and the ADEME (a French Environmental and Energy agency), Egis won the jury's "Biodiversity and Business" award for its 3D tool for tracking bats, Bat3Data.

#### This project will enable us to:

- Diagnose a site through the precise and factual analysis of the behaviour of these bats, in three-dimensions and by differentiating individuals and species.
- Make recommendations to project designers on 3D ecodesign measures to reduce impacts on species: limiting collisions, preserving habitat, preventing fragmentation of the region, and so on. • Measuring and optimising the effectiveness of the solutions implemented (suitable passageways, guide plantations, etc.).

Eventually, the plan is to carry out 3D modelling of the movement of each species and to improve the way the ecosystem functions in the regions affected by developments.

<sup>\*</sup> patented software and trademark



#### **PROJECT**

#### **THE LOGIPARC** LOGISTICS PARK

# Environmental excellence\*.

\*Comments by Pierre-André Périssol, Chairman of Moulins Communauté and Mayor of Moulins. "The site has a lot of strengths, but we needed something extra to offer companies for them to come and settle here: environmental excellence" In 2014, in central France, the Moulins Urban Community inaugurated the Logiparc 3 logistics park (184 ha), an example of ecological engineering that goes well beyond environmental regulatory requirements. Egis worked on the project management of ecological engineering developments for this project. Major ecological diagnostic work was carried out over four years, as well as a major awareness campaign among stakeholders, which helped take into account the issues of biodiversity at all stages of the project. Charters were signed, an Environmental Management System was adopted, and the site was certified ISO 14001 (2004).

#### WHAT OUR STAKEHOLDERS THINK



Platanthera chlorenta, the greenflowered Greater Butterfly-orchid (a wild European orchid)



#### **Patrick BERTRAND**

**Egis Project Manager** 

Using swales, retention ponds, wetland maintenance and re-creation, and a biological treatment plant, every effort is being made to achieve a minimum of effluents in terms of water. The principle of the treatment plant is to achieve "zero" effluents.



#### Jean-Christophe GIGAULT

Director of the LPO (French Birds Protection League) Auvergne

We want to show that economic development is not necessarily incompatible with ecology... We needed to ensure the protection of areas with high ecological stakes within this project, and maintain green corridors with other natural sites in the Sologne bourbonnaise region, with one objective: improving biodiversity.

#### **RESEARCH**

#### **BLUE-BLOC**

# A concept of breakwater blocks that actively support biodiversity.

This research, conducted in partnership with a Dutch company, resulted in the creation of an ecological solution for coastal development. It is of particular interest for developers who need to implement structures to protect against marine submersion and who are anxious to limit their impact on the environment.

#### CERTIFICATION

# CONTAMINATED SITES AND SOILS

#### Egis Waste Management, specialising in the engineering of waste and contaminated sites and soils has obtained the certification LNE\* Service Sites & Sols Pollués.

It thus meets the new requirements of public and private clients involved in the redevelopment of polluted sites.

\*LNE: National Laboratory for metrology and testing

#### **COLLABORATIVE STUDY** ON LIVING ENVIRONMENTS



An approach for helping to understanding the issues of a region to optimise the acceptability of projects by locals.



It collects, maps and analyses the collective and subjective representations of a region by its inhabitants to integrate this data in the design of a project.

This solution was enhanced by suggestions from members of the Egis sustainable development steering committee. Presented at the meeting of 3 April 2014, members warmly welcomed this approach. They saw this solution as a way of opening up engineering to a more "social" angle, where there are strong expectations both in France and abroad, which could enhance and legitimise the perception of policy makers and other stakeholders.

**METHOD** 

#### **ECODESIGN** ACCESSIBLE TO ALL

# A guide to moving from concept to a shared strategy.



Ecodesign consists of integrating environmental protection into the design of infrastructure and development projects. In a broad sense, ecodesign includes all the methods and tools for incorporating the environment into project design in order to reduce their environmental impact throughout their life cycle. In the more narrow sense, ecodesign consists of looking for areas of improvement for reducing the environmental impact of a product.

This means going beyond environmental measures included in the project. The constituent structures of the project are designed for the purpose of avoidance and reduction of environmental impacts. Economic and social aspects are also fully integrated into this approach. The added value of the ecodesign approach is the fact that it considers all stages of the project life cycle: raw materials, manufacturing, transportation, use and end of life, and all the environmental impacts, such as effects on global warming, resource depletion and water pollution...

To facilitate the deployment of this approach, Egis has created a guide, developed as a toolbox, to leading and managing a linear infrastructure or development project (business parks, development areas) as part of an ecodesign and eco-construction process. It is based on the capitalisation of Egis's many experiences and good practices, in applying this approach across concrete development projects for twenty years.

#### **MOBILITY** AND TRANSPORT

In many parts of the world, it is still as important as ever to connect cities and move around within them. To meet these needs, we must establish good environmental standards, by focusing from the outset on the multimodality, maintenance and scalability of transport infrastructure. And all while promoting high levels of security.

At Egis, our vision of mobility in 2030 has led us to support two developments:

- The effectiveness of micro-mobility and the last mile.
- The treatment of transport as a set of interdependent systems, with the weakest endangering the whole. To achieve this, we are relying both on new technologies, to enhance services, and on our extensive experience in the governance of complex projects and fields.

#### WHAT OUR STAKEHOLDERS THINK



#### Eléna UMANETS

**Development Manager for inno**vative mobility services at Egis Projects.

In order to change users' travel habits, we worked on the assumption that it would be more effective to encourage their involvement rather than compel it.

#### **SOLUTION**

#### **BNV MOBILITY**



#### Rewarding the virtuous behaviour of motorists.

The initiative aims to reward users of road infrastructure for its "non-use" during peak hours and thus work towards reducing the intensity of traffic. On average, with a minimum reward level of 2.5 euros per avoided or deferred journey, the rate of active participation observed has been 40%. This allows an 5 to 10% reduction in traffic, which is enough to unclog peri-urban expressways at rush hour. BNV Mobility has won five tenders in the Netherlands to implement pilot projects over periods of 8-18 months.

#### **PROJECT**

#### **EXTENSION** OF THE T3 TRAMWAY IN PARIS

#### A major urban project that enhances the living environment.



Extending the tramway between Porte d'Ivry and Porte de la Chapelle in Paris involves a track of 14.2 km and 25 stations.

This is an ambitious urban project that links the challenges of mobility, living environment, employment, resource optimisation and solidarity between regions. It has been divided into three sectors. As an agent of the project management consortium for the City of Paris on sector no. 2, Egis has put forward various environmentally-friendly technical solutions that do not generate additional costs compared to basic solutions. In order to best compare the different variants, the team developed an eco-comparison tool to calculate the carbon emissions generated by each of the proposed solutions. The completion of the assessment for this project has enabled us to further formalise our sustainable development feedback in the form of SD Focus documents, all available online at www.egis.fr.





#### **SOLUTION**

#### **SHARED** SMART STREETS

A design process for adapting the street to changes in people's lifestyles.

Based on the dynamic allocation of street spaces, the smart street solution is particularly suited to highly restricted spaces within which we find seemingly incompatible and high intensity uses. It helps reconcile the uses and traffic capacity of the street. To avoid public spaces constantly becoming obsolete due to their inability to develop at the right pace, Egis has developed a design approach that makes public space scalable and which facilitates the expression of community life and living together within the city.

#### **SOLUTION**

#### **SELF-SERVICE** BIKES



# A necessity for modern cities.

They help reduce car traffic in cities and perfectly complement other urban transport modes. The **bikeU** solution includes stations, bicycles and software to operate the system. The aesthetics of the stations is designed to fit into both historical and modern cities. Each station is completely powered by a solar panel, so there is no need to interfere with the ground. Egis proposes this turnkey solution (provision of the station, operating solution, user account management). Solution implemented in several Polish cities.

#### **EXPERIMENTATION**

#### **A CROSSROADS** OF MOBILITY IN ÉCHIROLLES

To put pedestrians back at the heart of mobility and developments.

The objective of this experiment is to meet the growing challenge of multimodality in regional development, which means knowing how to use all the mobility solutions provided. All pedestrian routes have been enhanced by street furniture, well-lit pathways and arrows as well as a digital app, allowing users to rediscover the city and have easy access to all modes of transport (train, tram, bus, car parking, bicycle parking). This trial was conducted by SEMITAG (TAG network operator\*) and its partners (Transdev, Egis, Atelier Villes et Paysages, SCET) as part of the CDC Lab.

<sup>\*</sup> The CDC Lab is the Caisse des Dépôts innovative projects incubator

<sup>\*</sup>TAG: Transports de l'Agglomération Grenobloise

#### **SOLUTION**

#### **CHARGING** ELECTRIC VEHICLES



# KiWhi Pass: electric vehicle charging solutions for individuals and professionals.

- The KiWhi card allows zero emission drivers access to a growing network of charging stations, including fast charge terminals (full power in 20 min), and to adjust its power, easily and safely. The user manages their account and the terminals located near their home on the www.kiwhipass.fr website or using the KiWhi Pass mobile app.
- The pro service is intended for companies with a fleet of electric vehicles and the managers who run their power terminals on a dedicated web platform www.kiwhipro.fr: configuration of terminals, application of the tariff policy, management of the user profiles, and more.

**SOLUTION** 

#### **AVIATION:** A COMPREHENSIVE EGIS SERVICE

# WHAT OUR STAKEHOLDERS THINK

#### M. HADJ-LARBI

Managing Director of the Établissement de Gestion des Services Aéroportuaires de l'Ouest (EGSAO) - Algeria

Undoubtedly, the main innovation lies in the fact that forte first time, the option of renewable energy will be achieved with the installation of photovoltaic panels for the purposes of electrical power, thus proving that this option can go beyond the slogan stage.



The aviation industry is always looking to make progress: as well as financial performance, progress is expected in terms of a reduction in greenhouse gas emissions, adaptation to climate change, energy transition, the preservation of natural resources biodiversity, and the reduction of air pollution while maximisingpassenger comfort, the benefits of airport activity and ensuringlocal, regional, and national socio-economic benefits.

Given these challenges, Egis has undertaken an extensive programme to develop its aviation activity based on a shared vision of the criticality of these issues and a more consolidated organisation. These are the CSR commitments of the Egis aviation service.

# Oran airport: photovoltaics for the purposes of electrical power.

The new international terminal at Oran airport was designed entirely in compliance with a sustainable development approach:

- Use of renewable energy and limitation of CO<sub>2</sub> emissions
- with a roof completely covered in photovoltaic panels. Architecture
  of the façades and thermal insulation designed for hot countries, with
  awnings and sunshades.
- Insulating glass and minimisation of thermal bridges.
- Management of electricity consumption.
- Natural lighting.

Work also focused on proper management of water consumption and the well-being of passengers, with transparency to the outer green areas, skylights and green boxes. Controlling room temperature will also contribute to achieving a reasonable compromise between energy consumption levels and the thermal comfort felt by passengers.

#### **THE ODENSE** TRAMWAY IN DENMARK

#### A project not entirely like the others.



The aim of the project: to increase the use of public transport to 200% and bring new economic vitality to businesses.

As pointed out by Francis Crews, head of international development at Atelier VILLES & PAYSAGES (an Egis company), "we had to be creative in order to adapt to the demands of the city".

- Denmark has a very democratic approach to decision-making. The impact studies of the tram line thus required a year of public consultation. We also had to show contractual flexibility so as to allow the project to evolve and adapt to any new requirements that emerged over time. Incorporating a DBOM (Design, Build, Operate and Manage) contract with the builder is part of this approach.
- The tram line was designed to fit into the multimodal nature of the city: Odense is the second largest city in Denmark in terms of the number of bicycles per capita. It was therefore necessary to ensure excellent capacity for bike parking and to identify the most suitable places so that the network would be effective.
- In terms of ecology, given the high demands of this project, Egis offered specific features: station shelters with green roofs, limited public lighting to avoid light pollution, and plantations and lawns with no watering required. There were also proposals to make the line greener using native and economical species such as birch, pussy willow, flowery meadows and certain grasses.

#### **SOLUTION**

#### **SOFT** INFRASTRUCTURE

#### A key means of energising urban space.

Being urban today means enjoying the outdoors, experiencing your city, and making use of all it has to offer. And yet cities' road networks are still largely focused on the traffic aspect, and not enough on life. The concept of soft infrastructure, developed by Egis, involves rethinking the city as places of expression of community life. This means establishing a network between a city's "urban attractors" (administrative offices, economic and commercial locations, recreational activities, etc.), by creating a vast and complex public space, forming the infrastructure of a community life. Soft infrastructure is a vector, in the sense that it enables everyone to access the main amenities of soft modes of transport, as well as a destination, in that it supports different uses (strolling, gardening, sports, encounters, etc.). It is a powerful creator of local value (use, real estate and economic value) and brings together various policies (housing, travel, green infrastructure, etc.) promoting the regeneration of the city to make it more inclusive.



#### **PROJECT**

#### LES MUREAUX (YVELINES)



#### Developing soft infrastructure in one of the largest urban renewal projects in France.

Following its redefinition, the entire town will be crossed by a truly urban park. This new "backbone" is the missing link between the different areas: it is an ambitious planning project for strengthening social cohesion.

#### **SUSTAINABLE CITIES**

Urban areas are expanding every single year - and approximately one billion more people will need to be accommodated by 2030. In 2050, 2/3 of the population will be city-based, and several billion people will live in slums. Egis thus contributes to major challenges: ensuring the vitality and influence of regions, allowing everyone to work, develop and enjoy life, to travel while protecting the environment and quality of life. Offering new methods for designing and rethinking the city of tomorrow, and making use of the new services associated with this, means taking direct action on the essential components of a sustainable society. In addition to the efforts made daily in urban planning, architecture and design of cities, Egis is investing in the fields of:

- governance and resilience of services useful to cities,
- urban simulators,
- digital intelligence.

#### \_ WHAT OUR STAKEHOLDERS THINK



#### **Nicolas BLANC**

Innovation and sustainable development manager at the Caisse des Dépôts

Coming up with new methods for designing and planning the cities of tomorrow means directly addressing one of the main components of the global environmental problem\*. Egis is developing cities, where its expertise is recognised. The "My city by Egis" business line is a response to the design needs of sustainable and smart cities.

\*see the "Sustainable Cities" Vademecum on the Advancity business cluster website



#### **PROJECT**

# **ASTAINABLE:** SUSTAINABLE CITIES... FRENCH-STYLE

The Astainable urban simulator project® (a combination of Astana, thecapital of Kazakhstan, and the term sustainable) developed by Eiffage, Egisand Engie reflects a strong political commitment for the transition of the cityof Astana towards a sustainable and attractive urban development model.

The simulator will take into account the region's natural characteristics, including, notably, its severe climatic constraints. It will be a decision-making tool for the city of Astana, enabling it to define the possible major orientations for its urban development. Over 1500 companies including 1200 SMEs are working together to implement a shared methodological, conceptual and technical vision of a sustainable city based on a French model.

#### The following have been put forward this simulator:

- A master plan for "fast and soft mobility".
- A complete network of public spaces that runs throughout the city, structures its urban composition, and reveals - through immersion in the simulator -a real comfort of use for its inhabitants.
- An energy mix comprising 30% renewable energy, Smart solutions for the management of energy networks.
- Innovative solutions to optimise the urban ecosystem in terms of:
  - > waste (collection and energy recovery),
  - water (collection of the resource, supply, collection and treatment of storm water, recycling of grey water, requalification of wetlands),
  - ecological engineering with a focus on "nature in the city" (urban agriculture solutions),
  - > eco-tourism to showcase the great Kazakh traditions,
  - sustainable construction (eco-lodges, summer residences, high performance buildings, etc.).

For this major project, Egis brought together its best engineers, urban planners, architects, sociologists, landscapers, etc., to offer responses suited to the context of this new urban space, so promising for French expertise.

#### **COVERING INFRASTRUCES IN AN URBAN ENVIRONMENT**

# CANOPÉE, an ANR\* research project.

The goal is to develop methods and tools to optimise the planning, design, construction and operation of infrastructure covers in urban areas. In this project, Egis is specifically in charge of coordinating the proposed technical innovations for the design and implementation of these covers, offering an overview and coordinating feedback from the specific Paris Rive Gauche project.

\*ANR: French National Research Agency

#### \_\_ WHAT OUR STAKFHOLDERS THINK



#### Christian DEURÉ

Coordinator of the FURET project for Egis

Issues related to the pollution and discomfort generated by urban works are typically addressed at the time they appear, sometimes not until they are perceived as intolerable by the inhabitants and users of the city. Thanks to the Furet research, right from the initial study phase of a project, its partners can use this reasoning to establish and deploy a systemic approach that considers the constraints and discomforts as essential "entrants" of the project. Today, we have moved from the research stage to that of implementation, as the method is now being deployed for the BHNS\* projects in Nîmes and the 2nd section of Vichy urban boulevard, and is proving to be of great relevance and value.

#### **RESEARCH**

#### **FURET\***

# Minimising the pollution and discomfort generated by urban works: a culture change.

The FURET research project (an ANR\*/Advancity\* project) was conducted with the assistance of leading organisations in project management, engineering, business and research.

After working together for the past four years, they have created an innovative "co-construction" approach for sustainable cities, offering key solutions for societal, economic and environmental issues. The results of this project consist of multiple combinable bricks that connect decision-making tools and models to the choice of the most discreet options. Processes and methods for better recording projects in all the complexity of a 24-hour city are available.

#### A method that involves:

- Qualification of the different types of pollution and their level of discomfort. A list of objectives for project management.
- Incorporation into the design process and project reviews.
- Control throughout the design phase (possible adjustments).
- Monitoring of implementation.

The FURET project also enabled the development of a geographic information system (GIS) for project owners.

#### To learn more about FURET: www.agence-nationale-recherche.fr

\*FURET: Furtivité Urbaine Réseaux et Travaux

\*ANR: French National Research Agency

\*Advancity: A business cluster for sustainable cities and mobility

\* BHNS: High service level bus

#### **SOLUTION**

### CLIP'N CLIM





#### A "plug & play" active façade concept.

An independent and resilient module for renovating buildings with minimal intervention, exclusively from the outside based on the principle of a multifunctional façade panel, completely prefabricated in the factory.

Energy renovation will necessarily rely on the building envelope, bringing it additional intelligence. The concept thus addresses several issues: "low carbon" rehabilitation, high thermal and energy performance, air quality and comfort, cost control, rapid implementation, occupied site and/ or phasing. The Clip'n Clim module guarantees air quality and interior comfort, thanks to a double flow mechanical ventilation system, radiating panels for heating rooms and air change for summer with a dedicated opening. It is also possible to provide built-in photovoltaic panels.



#### **SOLUTION**

#### **REAL ESTATE OPTIMISATION**



To support its customers in an optimization process for creating value in real estate, whether it involves building or rehabilitating, Egis offers a comprehensive strategy based on:

- A needs assessment (purpose, organisation, work methods).
- An urban settlement strategy.
- The functional optimisation and streamlining of surfaces
- Optimisation of the technical and architectural quality of the property.
- Organisation of the property's function.
- Support for environmental and energy transition strategies.
- A comprehensive cost approach incorporating investment needs and operating costs.
- Options analysis for financial and operational arrangements.
- Support for the valuation of real estate.





#### **REGIONAL** ENGINEERING



# Bringing out projects in the regions.

The combined effects of regional restructuring currently underway in France, and the public finance crisis is now having an impact at local level.

Financial constraints and a slight change in the relationship between spatial planning and urban design are causing officials to:

- Make investment decisions.
- Focus on adapting projects to regional development strategies.

With this in mind, the simple financial analysis of local finance is not enough. To meet this need, Egis has developed a consulting and engineering service to support local authorities in optimising their internal operations (pooling, etc.), in the development of their regional strategy, the formulation of investment plans that will enable this strategy to materialise, and of course, more typically, as prime contractor on such projects.

Whether it be supporting prioritisation in projects, finding the best development method, setting up consultation strategies, or calculating a project's financial profitability, etc. Egis has all the expertise required to study regional development in a systemic way, including technology, finance and governance.

#### SOLUTION

#### **DATADESIGN**

# To structure, contextualise, problematize, visualise and communicate data for cities.

Elioth has developed customised applications to ensure direct, comprehensive and unbiased access to data.

In 2014 for example, Elioth designed the metabolisme. paris. fr website for the City of Paris. The aim was to make the concept of urban metabolism accessible to all: what kind of energy flows, materials and water are set in motion due to the activity of a region?

#### **ECO-NEIGHBOURHOOD** PROJECT IN ROUEN

#### \_ WHAT OUR STAKEHOLDERS THINK

#### **Frederic Sanchez**

President of the CREA (Métropole Rouen Normandie).



# The reconversion of industrial and port land for the construction of a new sustainable neighbourhood.

The Flaubert eco-neighbourhood project will contribute to regenerating a 90 hectare section of the city port interface, currently inaccessible but with significant urban potential. It will ultimately accommodate almost 10,000 users, making it an efficient solution to urban sprawl and the use of natural spaces by developing an urban wasteland that is heavily impacting the environment. This eco-neighbourhood project will offer 448,000 sqm of floor area including 42% housing, 4% business, 49% offices, 1% shops and 4% equipment. As part of its urban project management mission Egis implemented and monitored the project's sustainable development management system, focusing on seven strategic objectives:

- **1.** Fully integrating the neighbourhood into its urban environment.
- **2.** Creating favourable conditions for alternative and sustainable travel.
- 3. Creating pleasant living conditions for all.
- 4. Achieving energy efficiency.
- 5. Improving ordinary and extraordinary biodiversity.
- 6. Making the most of the location of the site along the Seine.
- 7. Involving local people and regional stakeholders.

**SOLUTION** 

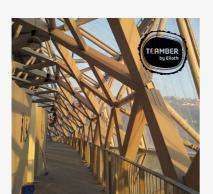
#### **EGIS'SCOPE**

A tool for collecting and managing multisite data on tablets for audits and master plans.

In the current economic climate, more and more property owners and investors need to be supported in their strategic property management decisions. At a time of digital 2.0 technologies, Egis has developed a tablet tool for systematising its audits and giving customers a better solution for decision support. Egis'scope carries out the architectural and technical review of a building almost in real time. The aim is to determine the performance of existing buildings for rehabilitation, or the sale and purchase of real estate.

**SOLUTION** 

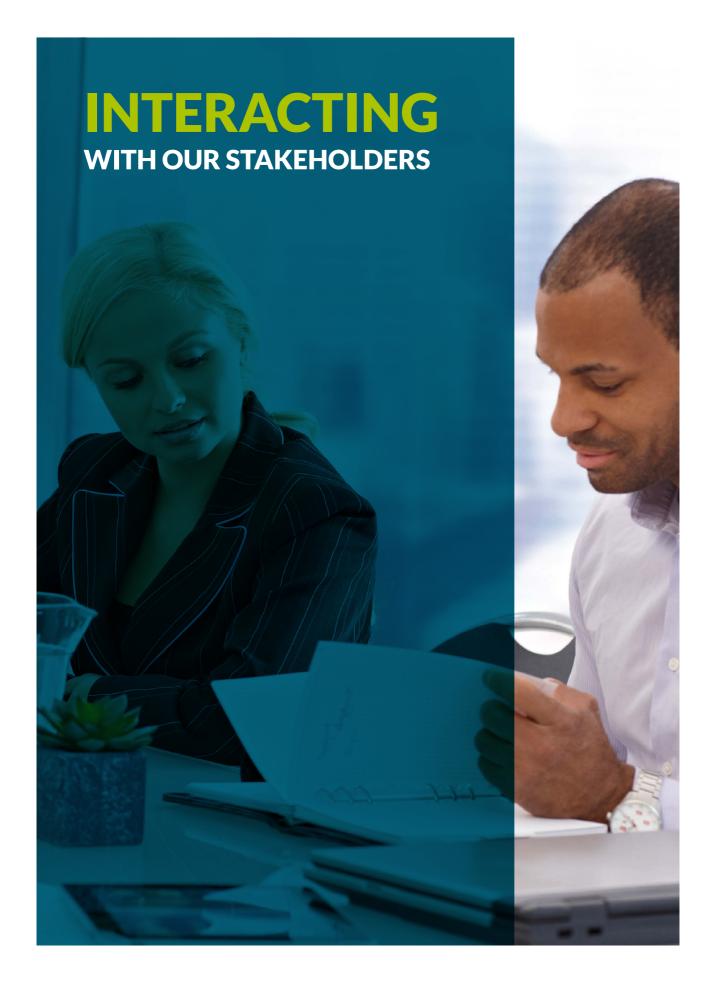
#### **THE OBVIOUS VALUE OF WOOD**



Teamber focuses all Elioth's business expertise \* on the use of wood, and offers a comprehensive approach to using wood in construction.

For its design activities, Egis has a major responsibility in terms of the embodied energy of buildings. To minimise the energy intensity of buildings, the use of a renewable resource is an obvious choice. Wood, a traditional material, opens the way forward for responsible construction. Whether for the structure, façade, insulation or energy systems, wood can be used in many forms.

\*Elioth, an Egis entity, is a member of the YES club for wood and administrator of the Francilbois association in the Research and Innovation college



### **OUR STAKEHOLDERS**

	STAKEHOLDERS	THEIR EXPECTATIONS
ECONOMIC STAKEHOLDERS	<b>Customers</b> Public and private clients	<ul> <li>Ethical behaviour</li> <li>Quality services, observance of deadlines and competitive prices</li> <li>Commitment to and familiarity with their own challenges and markets</li> <li>Listening, consulting</li> <li>Innovations that meet the challenges of their projects with a "co-construction" approach to solutions if relevant</li> </ul>
	Funding partners Shareholders, investment banks, lenders	<ul> <li>Economic performance</li> <li>Risk management</li> <li>A medium and long-term vision</li> <li>CSR commitments (reputation)</li> </ul>
	<b>Economic partners</b> Joint contractors, subcontractors, service providers, suppliers, insurance	<ul><li>Relationships of trust</li><li>Shared values</li></ul>
	Professional groups and think-tanks Federations and professional associations, Business clusters, think-tanks	<ul> <li>Sharing of best practices</li> <li>Joint actions with regard to the authorities (influence)</li> <li>Contributions (provision of skills, expertise)</li> </ul>
INSTITUTIONAL & LOCAL/REGIONAL STAKEHOLDERS	<b>Regional stakeholders</b> Local authorities, local residents affected by a project, local associations	<ul> <li>Special focus on the CSR impact of projects</li> <li>Contribution to local debate</li> <li>Contribution to local economic development</li> </ul>
	Other public authorities The EU, French government (group headquarters), other states (locations of subsidiaries, countries of operation), administrations, regulatory bodies	<ul> <li>Job creation</li> <li>Contributions to consultations on regulations (to change regulations)</li> </ul>
SOCIAL STAKEHOLDERS	Employees Employees, temporary workers, trainees, etc.	<ul> <li>The preservation of the employability</li> <li>Decent working conditions (remuneration, mobility, offices, HSE, balance private life/professional life, diversity)</li> <li>Values</li> <li>Profit sharing</li> <li>Training and information</li> </ul>
	Social partners Employee representatives, trade unions, etc.	<ul><li>Social, environmental and economic information</li><li>Social dialogue</li></ul>
SOCIETAL STAKEHOLDERS	Schools, Universities, research laboratories, scientific community, Academia, foundations	<ul> <li>Contributions to education (pooling and sharing knowledge)</li> <li>Partnerships</li> <li>Financial support</li> </ul>
	<b>Civil society</b> Citizens, organisations, non-governmental organisations, media, local associations	<ul> <li>The consideration of their interest in the projects</li> <li>Information</li> <li>Support</li> </ul>

The dialogue implemented by Egis is not limited to projects. Now that co-construction has proven to be useful and a source of progress, Egis identifies the most suitable means of cooperation to reach a shared consensus among all stakeholders. This approach is reflected in its numerous participations in think tanks, through partnerships, memberships, or contributions. The dialogue takes the form of direct, physical or digital exchanges and can cover a local, national or international scope. The dialogue process is either one of simple consultation or more collaborative dialogue.

#### THE EGIS SOLUTIONS

- An ethics approach in 2014: publication of the code of integrity, continuation of managers training
- A clear CSR policy with public commitments (Global Compact)
- Customer satisfaction surveys consolidated at Group level
- Quality, Environment, and Health & Safety Certifications (ISO 9001, ISO 14001, OHSAS 18001) à in 2015: progress towards a
  consolidated Group-wide performance management system, gradually incorporating Corporate Social Responsibility (CSR) criteria
- The establishment of a CRM (Customer Relationship Management) system in 2014
- New solutions and services developed to respond to the challenges of environmental and energy transition as well as digital transition
- Changes to our working methods to focus on BIM (Building Information Modelling)
- Partnerships on issues of common interest
- Communication on our Vision, a multi-annual SD/CSR roadmap in alignment with the strategic direction of the group
- Financial and extra-financial reporting
- A structured risk approach (liabilities committee)
- Negotiation of contracts for services and supplies incorporating CSR specifications
- Due diligence on partners
- Negotiation of contracts for services and supplies incorporating CSR specifications
- Due diligence on partners
- Active contribution (Chair, Board member) to various organisations in 2014, the CEO of Egis was appointed Chairman of Syntec Ingénierie, Egis is a board member of an association of sustainable development managers (C3D) and member of the SD Club France for the preparation of the COP21
- Presence in 5 business clusters, including Advancity (design and development of sustainable solutions for cities, urban mobility and eco-technologies)
- The development of solutions to reduce the negative impacts and maximise the positive impacts of a project for the region in question
- The development of solutions to reduce the negative impacts and maximise the positive impacts of a project for the region in question
- Expertise in socio-economic studies, impact studies, evaluation of carbon emissions, noise analysis, consultation, organisation of local democracy
- Egis, representing interests at the French Senate and the National Assembly
- Participation in national and international working groups
- Egis is a member of Vivapolis (promotion of French expertise on sustainable cities for export)
- Clear values, an ethics and compliance charter, a code of integrity
- A social barometer
- A CSR policy (disability, safety, health, etc.)
- Agreements with social partners
- The implementation of an employee shareholding scheme (25% of the capital)
- Training plans and Egis Campus corporate university
- A comprehensive approach to management of jobs and skills
- A diversity think-tank
- In 2014: launch of a mentoring scheme
- An ID2M (idea to market) process to develop innovating in-house + a CDC Lab (our principal shareholder) process
- A group committee, a Works Council, a Health, Safety and Working Conditions Committee
- Courses in educational establishments
- Sites open to students (site tour, visit to our offices)
- An Egis foundation to support innovative actions for sustainable development as well as educational activities
- $\bullet \ The \ development \ of a `Social \ Imprint' methodology \ to \ assess \ the \ societal \ impact \ of \ a \ project \ development$
- Solidarity-based investment fund: the "fond épargne insertion emploi dynamique solidaire" (the "employment integration savings fund") within the Egis FCPE
- The organisation of solidarity-based actions (plenty of participation)
- The organisation of donations (fundraising in the event of a disaster)

#### **EXAMPLES** OF COOPERATION









#### **AT INTERNATIONAL LEVEL**

With **Vivapolis**, an umbrella brand that aims to bring together French stakeholders -both public and private- in order to increase international awareness of French excellence when it comes to sustainable urban development. An approach collectively developed and supported by the French authorities and by professional federations in the private sector.

Involvement in Climate Paris 2015, with the Sustainable Development Club France: contribution to the preparation of the **international UN conference on climate change (COP 21)** and to the climate solutions hub, which promotes initiatives and solutions for the climate.

With associations such as **PIARC** (World Road Association), which brings together the road administrations of 122 governments and has members (individuals, companies, authorities, organisations) in over 140 countries. It encourages discussion and the sharing of knowledge on roads and road transportation.



Comité 21

SYNTEC-INGÉNIERI



CCC

climat



**Comité 21,** a network of actors involved in the operational implementation of sustainable development. Its role is to create the conditions for discussion and partnership between its members so that they can take ownership of sustainable development and implement it together across a region.

**The ViTeCC Club** (for Cities, Regions, Energy and Climate Change), which aims to share the results of academic and applied research to the economics of climate change, making it usable by regional decision-makers, institutions and businesses. This club combines international expertise (the ViTeCC club is run by CDC Climat Recherche).

**The Green Building Plan** which brings together a wide network of key players in construction and real estate, focused on a common mission: achieving the objectives of energy efficiency in this sector.

**Syntec Ingénierie:** Egis's CEO was appointed Chairman in September 2014. Egis is represented on several boards and commissions and also chairs the Innovation Commission.

The Climate and Energy club of Saint Quentin en Yvelines – SQY (the Egis headquarters are located in Guyancourt, one of the towns in the SQY agglomeration) whose aim is to promote and implement sustainable city demonstrators.

St-Quentin

en-Yvelines

# **OUR SD STEERING COMMITTEE**

## SUSTAINABLE DEVELOPMENT

While the group has always maintained good relationships with key stakeholders, owing to its business activities and the need to be open to other external parties. Stakeholders are at the heart of the Egis CSR approach. The need for a general understanding of the stakes, for definition and for co-construction have led the group to see dialogue as central to its governance.

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Created in 2010 and chaired by the group's senior management, this committee includes a dozen internal Egis representatives, and some twenty external figures, recognised in the various fields of sustainable development affected by our activities: transportation, urban planning, consultation and the environment. It meets twice a year with a view to preparing and enhancing Egis's policies for sustainable development and corporate responsibility bringing different viewpoints on the development strategy, on solutions and dilemmas that the group encounters during projects.

In 2014, with regard to the internationalisation of Egis's activities to respond to members' suggestions, Egis invited Mr Bertrand Gallet to join the Egis sustainable development steering committee. Mr Bertrand Gallet is CEO of Cités Unies de France (United Cities of France), an association that brings together the French local authorities that have chosen to expand internationally by creating ties with one or more international authorities

#### The two annual events have helped to discuss and especially to enhance new solutions with added value in terms of sustainable development, developed by Egis and to refine its CSR strategy.

# The solutions in question are mostly presented in this report. They are:

- Two new offers with a social vocation: the first concerns a participatory living environment study (details on page 21), which was the subject of a trial implementation, and the second covers "soft" infrastructure in urban areas (details on page 25).
- New types of governance in terms of urban planning (consulting services).
- Tools for evaluating the services provided by nature (details on page 18).
- The development of the "Wind-it" project, which was presented to committee members in 2011 (details on page 14).

As for the CSR strategy, members were consulted on the contents of the new 2014-2017 CSR roadmap and on the qualitative assessment of Egis's CSR report in 2013. This collective work has helped to redirect certain stages of the multi-year action plan and refine the content of this CSR report.

# The objectives of the steering committee:

- To hold discussions on the major stakes, terms of implementation and prospects related to sustainable by development and planning of regions in France and abroad
- To provide a critical and constructive view of the solutions and responses proposed by and responses proposed by Egis and discuss the dilemmas encountered during projects



From left to right: Michel Duret, Director of the Energy business line at Egis, Christian Brodhag, Director of Research at the École Nationale Supérieure des Mines de Saint -Etienne and Christine Grezes, Director of Sustainable Development at Bouygues Construction



From left to right: Elisabeth Laville, Founding Director of Utopies, and Dorothée Briaumont, Director of SOLAAL

# **OUR CONTRIBUTIONS TO DEBATES**

## WITH REGIONAL STAKEHOLDERS

## EGIS, A PARTNER OF SOLAR DECATHLON



#### An experiment in the gardens of Versailles.

Created at the initiative of the *US Department of Energy*, Solar Decathlon is an international biennial competition of architecture, design, urban planning and engineering open to multidisciplinary university teams. It rewards the best production of a solar home assessed during ten trials. France hosted Solar Decathlon Europe for the first time this summer. An event that's all about innovation. As a key player of the "city of tomorrow", Egis took part. Raphaël Ménard, director of the group's foresight department and CEO of Elioth, an Egis entity, outlined the challenges and opportunities of solar-powering a region during a round-table discussion.

To support the parties involved in the construction of cities and places to live. The result of an initiative by companies in the real estate industry, Fondation Palladio, under the aegis of the Fondation de France, was created in 2008 to focus on the major challenge of the 20th century: the construction of cities and their living spaces. It is the place where City policymakers, thinkers, investors and directors work together on designing the city of tomorrow. It works directly with stakeholders, who

have or will have the responsibility for building the city, by creating the support tools necessary for taking a step back (institute), for preparing links (future

#### EGIS, A FOUNDING MEMBER OF THE PALLADIO FOUNDATION



Handover between Jean-Louis Borloo and Alain Juppé, sponsors of the 2014 and 2015 cycles of the Institut Palladio (respectively), on 25 November 2014 at the annual conference of the Institut Palladio at the Collège des Bernardins



cluster) and anticipation (research centre). The working method used is that of exchanging viewpoints and debating between leaders and experts, students and business activities, PhD students and operational managers.

#### In 2014, thanks in part to the support of Egis, the Fondation Palladio:

- Developed the Institute's 3rd annual course for leaders and decisionmakers on the theme of "The City of Tomorrow, for what purposes?".
- Awarded 12 scholarships for research students.
- Organised the 3rd international research conference on real estate and construction in cities for PhD and postdoc students on the theme of "New tools for real estate and urban development".

# **SOLIDARITY AND SUPPORT**

# Egis Foundation Responsible campus trophies: the École des Mines in Douai won the sustainable commitment award, supported by the Egis Foundation.

The school was recognised for its comprehensive approach since 2009, giving a precise quantification of the improvements carried out, and affecting many areas of campus life: student training, research and innovation related to sustainable development, reduction of the ecological footprint on campus, and more.

In parallel with the partnerships and support actions that Egis implements as part of the projects and actions led by the Egis Foundation, various initiatives allow employees to invest personally in socially responsible or eco-friendly initiatives. At Egis, we do whatever it takes to work to support each other. To facilitate corporate sponsorship initiatives, in 2014 Egis specified the nature of eligible actions.



Awards ceremony attended by Najat Vallaud-Belkacem, French Minister of Education, Higher Education and Research

# Skills mentoring Egis, a partner of the "Our Neighbourhoods have Talent" (NQT) organisation.

Committed to equal opportunities, NQT has set up an initiative aimed at promoting the professional integration of young graduates aged under 30, from priority neighbourhoods or disadvantaged social backgrounds, through a system of mentoring by company executives with experience in business.

In 2014, the year the partnership was launched, Egis mentored 28 young people and of those 28, six were hired while two have resumed their studies. For Frédéric Périn, Human Resources Director at Egis "it is still not enough, but we have no intention of stopping there. Feedback from our sponsors is very encouraging. We plan on rolling out the venture by communicating more about the value of these experiences".

# \_\_\_ WHAT OUR STAKEHOLDERS THINK



# MENTEE Emilie DESLANDES

25, currently looking for a position as a sustainable development project manager.

In her arsenal: a Masters Level II in AFL and sustainable development (communication and consultation strategy) and a Masters Level I in Russian Language and Literature in St. Petersburg.

The work with the mentor goes even further than with the APEC\*: if I have any questions whatsoever I just send an email, and also, thanks to my mentor, I get tome business specialists to enhance my expertise and above all, learn more about the job I am aiming for.

Now when I am applying for a job, I feel much more confident. My mentor is like a coach to me. He is always there on the sidelines, cheering meon throughout my research venture.



MENTOR
François GAU

45, leads a team of 20 people conducting studies on the organisation of travel, transport economics and the environment at Egis.

Emilie is my second mentee. My first found work after just six months. This is my greatest satisfaction. If I can be of help, simply because I am lucky to have a job in a great company, I would do it again with pleasure. It doesn't take up much of my time, roughly one to two hours a month. I help them tweak their CVs and cover letters, I try to open doors for them in my company or network, and most of all, I get them to "swim" in the corporate world that they know so little about. Our meetings give them momentum. For some, they are the only meetings they have. My goal: for Emilie to find a job in her chosen field.

#### India. Helping street children.



Egis teams in India have become involved in the "Main tendue Charity Action" organisation in Delhi and the NGO\* Salaam Baalak Trust, in order to fund a nutritional programme for children in the Aasra centre, near the main railway station in New Delhi. For Ashish Tandon, CEO of Egis India "CSR at Egis India is a lifestyle. We encourage our employees to participate in activities that develop their karma and help them grow as individuals. When an employee grows as a person, they automatically grow professionally too."

\*NGO: Non Governmental Organisation

#### Cameroon. Give your time, give hope.



Egis Cameroon organised a discovery day for disadvantaged children, residents of an orphanage near the Yaoundé-Ebolowa road construction site. The idea comes as the result of an unfortunate event that took place on a site cleaning project. In response, women from Egis's Cameroonian subsidiary organised a solidarity action that was followed by all staff: they decided to give the children from the orphanage an insight into the business world, to encourage them to work hard at school. They visited the construction site and offices, and relaxed together around a meal. This CSR action demonstrates the Egis's commitment to organising, as part of its projects, voluntary actions for the benefit of local people.



#### The Philippines. Road safety awareness for young residents.

Tollways Management Corporation (TMC), the subsidiary of Egis Road Operation\* in the Philippines, organised road safety training for young people in communities and students from schools located along the motorway. Specifically designed for young people (aged 18 or under), this training offered scenarios based on practical exercises to facilitate learning. All workshops were led by volunteer employees, demonstrating their commitment to society.

\*Egis Road Operation, an Egis entity specialising in the operation and maintenance of road infrastructure projects

#### MOROCCO. Support for five projects led by Experts-Solidaires

With the support of Egis, Experts-Solidaires assisted four towns in the Bassin de l'Oued d'Arghen in Morocco to set up concrete initiatives for water management: drinking water, sanitation, integrated resource management. In these towns, residents have access to water from tanks. Sanitation is non-existent in most cases.



#### FRANCE. Giving second life to building waste with Extramuros.

As part of the project to renovate a Haussmannian building\*, items of furniture (cash registers, desks, desks, tables) were designed using the old wooden floor of the building. For Violaine Dubreux, head of building and environment PMC\* "it is particularly satisfying as part of a project to be able to offer a second life to beautiful aspects of the buildings we renovate".

\*Delivered in 2014 (Triple BREEAM, HQE, LEED certification Environmental PMC led by Egis) \*PMC: project management consultancy

## \_\_\_ WHAT OUR \_\_stakeholders think

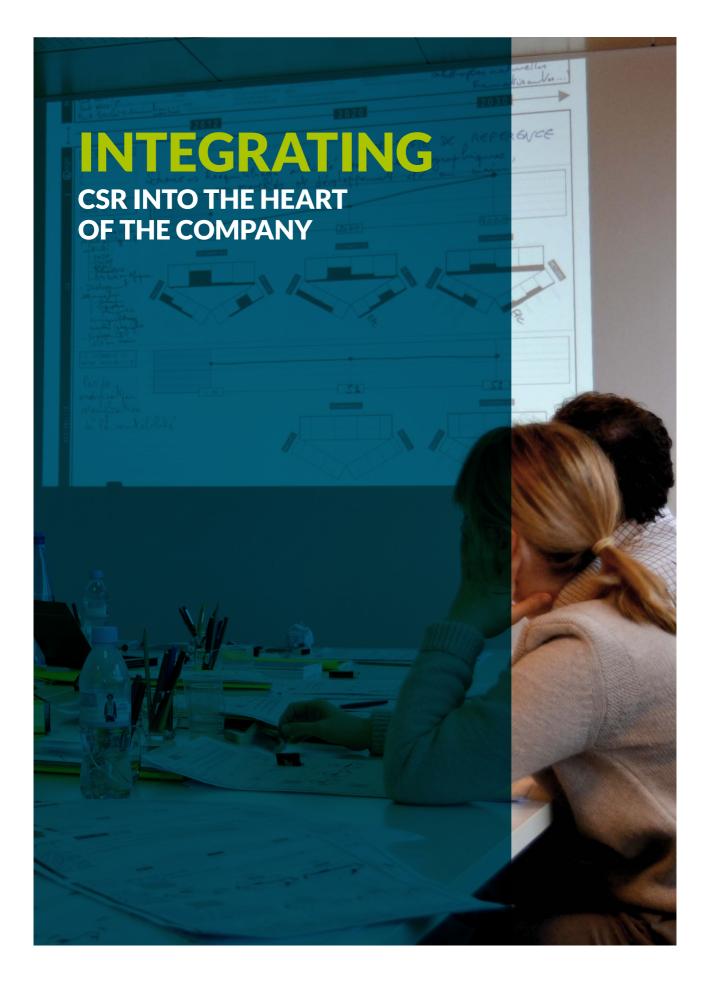
#### Julien RICHARDSON

**CEO of Extramuros** 

there is nothing creative without ecology, no ecology without social support, no social support without economy.







# MANAGING THE DEPLOYMENT

## OF THE CSR PROCESS

The world is changing and tomorrow will not be like today. Having realised the need to adapt constantly and quickly to keep up, Egis has developed systems that aim to create momentum, to spread good practices, and to transfer knowledge. Through training, long courses at the Egis Campus university and business activity networks, and thanks to new sharing and communication tools, all initiatives complement or combine with each other. The CSR maturity matrix, set up at the end of 2014, will allow us to assess annually whether this deployment is working, and to adjust, where necessary, the systems in question.

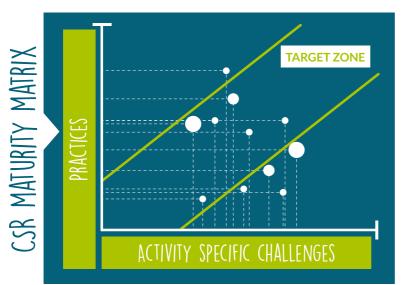
# A MATURITY MATRIX

When it comes to getting their bearings in terms of sustainable development issues, everyone can be confronted with two recurring difficulties:

- How do I describe what is sustainable in my work, my profession?
- How do I situate myself in relation to an ideal, the demands of my stakeholders, my responsibilities?

# In short, can my work form a successful link between global challenges and the reality of my markets?

In response, the network of Egis SD correspondents' has developed an internal tool: the SD/CSR maturity matrix. Inspired by our good practices in terms of risk management, it is designed as a tool for dialogue and coordination of the deployment of our SD/CSR roadmap. It also includes an assessment of our CSR management processes principle of materiality. We have identified the elements that we feel are significant in terms of our strategy and we will steadily move towards an assessment of the sincerity of our practices by our stakeholders.





In concrete terms, we cross-reference our CSR management processes on the one hand (vertical axis) and on the other, an analysis of the CSR issues in the market (horizontal axis): The graphical representation will change every year: a level of practice that was acceptable in 2014 may end up out of step with the needs of the market or new issues the following year. The evaluation of our CSR management processes is based on five themes, such as our CSR commitments or our range of "sustainable" solutions.

Our best practices involve a high level of interaction with stakeholders. Come and challenge us!



# **A NEW ORGANISATION**

## OF CSR AT EGIS

The deployment of the CSR policy needs the company's key functional teams to work together and involves the creation of group-wide management structures.

ETHICS AND COMPLIANCE MANAGER

Ethical aspects of CSR

# HUMAN RESOURCES DEPARTMENT HUMAN RESOURCES RESOURCES DIVISION The eco-responsibility component

**DEPARTMENT** The eco-responsibility component CSR and labour relations of CSR

## INNOVATION CLUSTER SUSTAINABLE DEVELOPMENT MANAGER

 $Coordinating \ cross-business \ innovations, managing \ the \ sustainable \ development \ approach, and \ establishing \ the \ extra-financial \ reporting$ 

#### PERFORMANCE

Incorporates CSR criteria within the processes

The Caisse des Dépôts (Majority shareholder) and the Board of Directors are setting strategic guidelines.

The executive committee
Defines a vision, a strategy,
a medium-term plan,
guidance in terms of CSR.

# STRATEGY

The Egis Sustainable
Development steering
committee, a forum for
dialogue with internal
and external stakeholders,
prepares and enhances
the Group CSR policy,
challenges its innovative
offers, and debates the
dilemmas encountered
on projects.

#### **MANAGEMENT**

# Network of managers and coordinators sustainable development

Rolls out the guidelines of the sustainable development and CSR roadmap in an action plan specific to their activities.

#### **DEPLOYMENT**

#### Cross-business and thematic networks (e.g. environmental, hydraulic, etc.)

Stimulate and manage ideal and discussions on strategic areas for the development of Egis and for which skills are still shared between several companies.

#### **IMPLEMENTATION**

Employees contribute to innovation and the implementation of the CSR policy both in projects and in internal practices.

# **CONTINUOUS PROFESSIONALISATION**

#### A sustainable development booklet for tender managers.

To support employees and especially tender managers, Egis has created a booklet on sustainable development. Designed as a methodological guide, this tool offers benchmarks for integrating - at the right time and at the right level - proposals that aim to improve the sustainability of projects.

#### Development of SD practices: the strength of networks.

In each subsidiary of the group, an SD Manager and Coordinator pairing has been established. Its role is to ensure consideration of SD issues within their company's development policy and to offer its management strategic SD objectives to follow in line with the group CSR roadmap. This pairing is the key contact point for the Innovation and Sustainable Development Department. Some subsidiaries are themselves organised into sub-networks to facilitate deployment, either by region or by business activity.

At the rate of 3 or 4 meetings per year, the network holds telephone conferences to discuss, inform each other, and share good practices or dilemmas.

A newsletter summarises the topics discussed, and is available to all on the group's intranet. Once a year, a tutor-led seminar at the group's headquarters is a chance for the network to come together, as well as a certain number of key players identified for their contributions to sustainable development.

#### An annual seminar dedicated to sustainable development.

This traditional annual event is an opportunity to take stock of the past year and prepare for the following year in the best conditions. What better to unite and engage the forces of the group? It brings together the network of sustainable development coordinators and managers and all key contributions

such as the Ethics and Compliance Director, project managers who have implemented innovative techniques, and so on.

Almost 60 people meet annually, to discuss and learn from each other. On the programme for this year are new businesses developed by the group related to sustainable mobility and energy, as well as workshops for discovering new sustainable solutions and a remarkable presentation by Christine Cayol, philosopher and writer, founder of Synthesis for the "long term".

## WHAT OUR STAKEHOLDERS THINK



#### Martial CHEVREUIL

Director of Innovation and Sustainable development

With some 12,000 employees, it is impossible for a sustainable development department to act independently in an effective way. By relying on a network of SD coordinators and managers in each subsidiary, deployment and sharing is much more efficient. Acting as key links between the field and headquarters, these correspondents are an essential means of rolling out CSR procedures, facilitating their application by operational teams.





#### A key conference on time, a 21st century managerial challenge.

As a designer for the long-term, Egis invents structures and developments for its customers and partners, intended to exist for 10, 20, 30 years or more. Conversely, in these times of crisis, there is huge temptation to live in the moment, to seek immediate results, to provide short and medium-term responses. It is precisely to discuss our relationship to time and to debate these dilemmas, that Egis invited Christine Cayol, philosopher, writer and founder of Synthesis to its network's annual seminar. For Christine Cayol, "The managerial challenge of 21st century is our relationship to time, the ability of organisations to rethink their relationship to time, and more generally, the way in which we reconcile continuous performance with a means of reflection, a means of inspiration, and creation that we all need if we are to advance towards the future. The difference between 21st century managers will be in their ability to be more open, not to apply a formula, but to get involved in a mode of being that is a means of dialogue, openness and understanding the world".

#### SD takes the spotlight at Egis Campus.

A module dedicated to sustainable development within the Complex Project Management course at the Egis Campus University. EGIS Campus University implements long courses of high-level training in strategic areas of the business. Created to support the Group's growth and meet the challenges of the future, these courses are designed for long-term employees, for whom the group establishes career development plans. They aim to promote the understanding and anticipation of major market developments and key players, develop internal synergies and working methods to support innovative and comprehensive solutions. In 2014, we organised a training course for advanced project managers into which a specific sustainable development module has been integrated. These project managers are key players in Egis's business activities. The ultimate team leaders, they act as ambassadors for sustainable development vis-à-vis the teams and more generally with regard to all project stakeholders.



# Fewer and longer training courses, in a career development approach.

Egis offers its employees a range of training and workshops to support them in their careers. In a context of continuous market developments, Egis needs employees whose profiles are both open and specialised, capable of supporting its international development, developing strong expertise in fields for which Egis is sought after, or offering multi-disciplinary skills on certain business activities. In 2014, training efforts were particularly focused on the adaptation of skills and fewer training courses, but which were longer and more targeted were provided. In parallel and in a context of economic constraint, Egis continued to develop new forms of learning such as mentoring, tutoring and e-learning on very specific subjects.

## \_ WHAT OUR STAKEHOLDERS THINK



#### Eric Denèle

Project manager in of aviation and air traffic control at Egis

During the intersessional work, I focused on alternatives that allowed me to offer our customers environmentally friendly optimisations... an airport has a life span of 100 years, an aircraft will be used intensively for 25 years, this shows the potential for innovation and optimization that we can offer

# Collaborative tools to speed up discussions and sharing.

A collaborative portal called "My Egis" was created for employees to facilitate networking and develop discussions. With a customizable homepage, different areas are offered like technical communities, project sites and social networks. "My Egis" is also a group directory, providing

access to the profiles of all employees (position, career, specialist areas, interests, etc.). Very useful when identifying a key skill in sustainable development. A specific community on CSR is under consideration.



myegis | Nos talents connectés

# **DEVELOPMENT OF OUR**

#### **WORKING METHODS**

# EGIS, DEVELOPER OF BIM

The challenges of sustainable development and the transformation initiated by the Grenelle de l'Environnement forum require the integration of the entire life cycle of structures and regions through closer interaction between stakeholders: local authorities, project managers, project owners, companies and users. BIM (Building Information Modelling) facilitates this interaction.

BIM by Egis is a real business project. Committed to research, internal training and promoting innovation among stakeholders in the construction industry, Egis represents this revolution in France and abroad, in its engineering and operations in all its areas of activity.

By actively participating in research programmes and networks (Mediaconstruct\*, MINnD\*), the group helps to develop methods and expertise in both France and Europe. Through an extensive internal training programme, Egis boasts recognised experts and specialist teams in the management of BIM. With a successful experience in the Building sector, Egis's strategy is to expand BIM and its applications to include all business areas and particularly linear infrastructure.

The benefits of BIM are well established for all business activities at all stages of a project: design, implementation, acceptance of the works, management and operation of the works, renovation.

With digital data integration and 3D visualisations, BIM now offers stakeholders tools that help to optimise the technical and energy performance of works.

#### BIM establishes a sort of health insurance for structures, thus contributing to:

- Simplifying changes to the way structures are used during renovation operations.
- Assessing the resilience of structures in the face of climatic hazards.
- Establishing an energy audit for structures, to measure their environmental impact and optimise them in terms of these criteria.
- Optimising their maintenance and consequently their operation.
- Maintaining the value of property.

But BIM is still at the early stages of its development in France. Many innovations are underway in the group regarding the interoperability of models, procurement, systems engineering (to link the digital model with the regulatory requirements of a programme) as well as the translation of technical data into financial values to remain leaders in the field.



# Examples of projects that benefitted from Egis's expertise in BIM digital modelling:

the Philharmonie de Paris, Rennes metro, Grand Paris, the coastal road in Réunion, the L2 ringroad in Marseille, the "Doha expressways" project in Qatar, the Grande Vitesse Sud Europe Atlantique (LGV SEA) high speed rail line.

\*Mediaconstruct: An association promoting digital modelling in France, member of BuildingSmart International \*MINnD: National Project for Modelling Interoperable Information for Sustainable infrastructure

# **IMPROVING INTERNAL PRACTICES**

To be in tune with Egis's values, meet the group's commitments, and improve its performance, initiatives for improving responsible practices have been integrated into the management system. With the same objective and in parallel with these initiatives, various tools are under development or being trialled.

# Health and Safety: deployment of the eight golden rules of Safety Attitude by Egis.



Several Egis entities have longstanding experience in health and safety at work, particularly in industrial environments. In 2014, Egis decided to roll this out, under the label "Safety Attitude by Egis". A health and safety coordinator was appointed in June to deploy the rules, advise HSE (Health, Safety & Environment) managers in the subsidiaries,

implement awareness modules and define indicators. These indicators will help coordinate the process and report to stakeholders on any progress made. An e-learning course that is currently being developed in French and English will detail the eight rules of our Safety Attitude:

- Assess HSE risks and deploy the necessary actions.
- Train our employees.
- Implement HSE best practices.
- Respect and enforce the behaviour and attitude and the use of personal protection equipment.
- Adopt responsible and safe conduct.
- Report all dangerous situations and accidents.
- Behave appropriately in the event of accidents.
- Audit our projects and site activities.

#### Safety and security internationally.

A major challenge for employees permanently working abroad or on short stays. In light of recent events and as a responsible employer, Egis has sought to strengthen its security protocols to ensure a protective environment suitable to each employee. And whenever stronger measures are necessary, they are put in place without delay. As soon as we feel it is necessary to prohibit the continuation or initiation of activities, the decision is taken quickly. At the heart of the initiative is a country ranking, updated monthly, which defines the safety procedures for each country where Egis operates. Countries are broken down into four categories according to their degree of exposure to risks, formalising the instructions given to employees. In addition, each employee is obliged to report their movements and a travel notebook given is to each individual to remind them of the precautions to take before leaving, during the trip, on a daily basis, and that specifies what to do in an emergency.

## 



**Nicolas Jachiet** 

CEO

Getting involved in the group's "Safety Attitude" means intensifying efforts and vigilance in the field of health and safety, for our employees, our partners, and for users of the equipment we design and operate. I must emphasise the word "attitude": it is everyone's business, in the office, when travelling, in our theatre of operations. This approach is fully in line with our policy of corporate responsibility with regard to all employees of the group. It also meets the expectations of our customers.



#### **Liliane Dupont**

**Human Resources Director** 

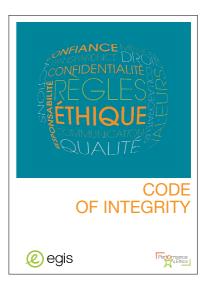
I have always worked in Human Resources with people involved in projects abroad. Issues of safety and security are constantly in the background; daily business is on a global scale, with contexts, potential, and risks; to conduct this daily business, we must support our employees in the best possible conditions.

#### Publication of a code of integrity.



Integrity has always been at the heart of Egis's values, but advocating Zero tolerance is not enough. So that the rules are clear to everyone, a code of integrity expressing the behavioural principles that Egis has established in this regard was personally distributed to all employees.

This code is available in eight languages: French - English - Spanish - Portuguese - Polish - Arabic - Romanian - Hindi. It deals with different themes related to integrity, such as the prevention of corruption, respect for free competition, personal integrity in assignments, conflicts of interest, gifts and hospitality, and protection of assets. In parallel, training has been continued, ethical analysis and monitoring has been reinforced, and new ethics clauses are now applicable to co-contracting and subcontracting contracts.



#### Making environmental management efforts visible.

For the third consecutive year, we are using the "Empreinte à la trace" (tracing our footprint) tool to illustrate the environmental impacts of our offices. This online platform offers the interactive visualisation - with geographic location - of four environmental indicators: energy, waste, paper, water.

In 2014, the "footprint" covered over 65% of office space and employees in France, for engineering activities and project development. From 2012 to 2014, water consumption stayed at the same level, while energy consumption fell by nearly 20%. Behind these averages lie contrasting results: details of the data help us take action where the differences are significant, drawing on practices on the best sites.



#### Ecodriving. Learn the basics of economical, safe and relaxed driving.

In 2014, awareness-raising workshops were held at the Egis group headquarters during Sustainable Development week with the suggestion of a trial at the end of the workshop so that everyone can verify the benefits of the new behaviour. The trial involved cute little cars to be won (made from recycled materials). A leaflet recalling the ten golden rules was circulated to everyone; a recap to be kept in your car.

In its Austrian motorway operation subsidiary, BONAVENTURA STRASS ENERHA LTUNGS - GmbH, three employees were trained with a view to gradually deploying training to operating staff (40 people). Over a distance of 48 km, these three employees were able to "live" the 10 golden rules and achieve nearly 20% fuel savings. Without even counting the other benefits that are expected in the longer term: improved security, less pollution, lower maintenance expenses, etc. the benefits are already clear.



Raising awareness workshop





# Diversity think-tank. Taking another step forward together and helping women succeed.

Launched in 2012, this think tank started as an informal discussion group with varying formats.

Then the organisation became more structured with a quarterly steering committee comprising the CEO, the Director of Human Resources, Director of Talent and members of the think-tank. Three years after its launch, its ambition remains the same: to focus on gender equality and make it a common topic of interest in the company for the long term, to collect data to establish observations, and take action where efforts are needed.

#### Four key actions have already been achieved by this group:

- The launch of a mentoring programme.
- The involvement of women with successful careers in days devoted to new recruits (to show new recruits that women can succeed in an engineering group essentially composed of men).
- Training of local managers on issues of diversity and self-censorship.
- Monitoring of specific indicators. Four indicators have already been put forward: the number of women by Syntec coefficient (our trade union), the number of female executives and key contributors, the number of women on boards of directors, the number of women in executive committees.

# Mentoring. As beneficial for the company as it is for employees

The culture of the Group is constantly evolving. In 2014, to renew the traditional forms of employee development and to promote cross-business networking in the group, a mentoring scheme was launched.

#### Wat is mentoring?

It is a relationship between two people, the mentor and mentee. The mentor is an experienced person with a capacity for individual support, who shares their experience and knowledge, and contributes to the personal development of the mentee, with a professional goal. The mentor is voluntary and acts outside the direct chain of command. This relationship of support, discussion and learning is based on honesty, sincerity and caring. Both parties gain from the relationship. In 2014, a first programme involving 20 mentees, mostly women, from all backgrounds and of all ages, was launched. It goal: to help build a career development plan with the objective of moving towards positions of responsibility.

# \_\_ WHAT OUR STAKEHOLDERS THINK



#### **Noémie Bercoff**

Director of Egis Rail and Egis Diversity think tank

Very recent studies show that gender equality is a key performance driver for organisations. Based on this premise, and without truly knowing if Egis was a good or bad student, we initiated a Diversity think-tank to initiate internal dialogue on the topic, to see where we were starting from and to mobilise the men and women at Egis around a subject of common interest. There is still a lot to do, but every step forward is a small victory. I am and I remain convinced that we have everything to gain.



# **SOLUTIONS TO RECONCILE**

## PERFORMANCE AND FULFILMENT IN THE WORKPLACE

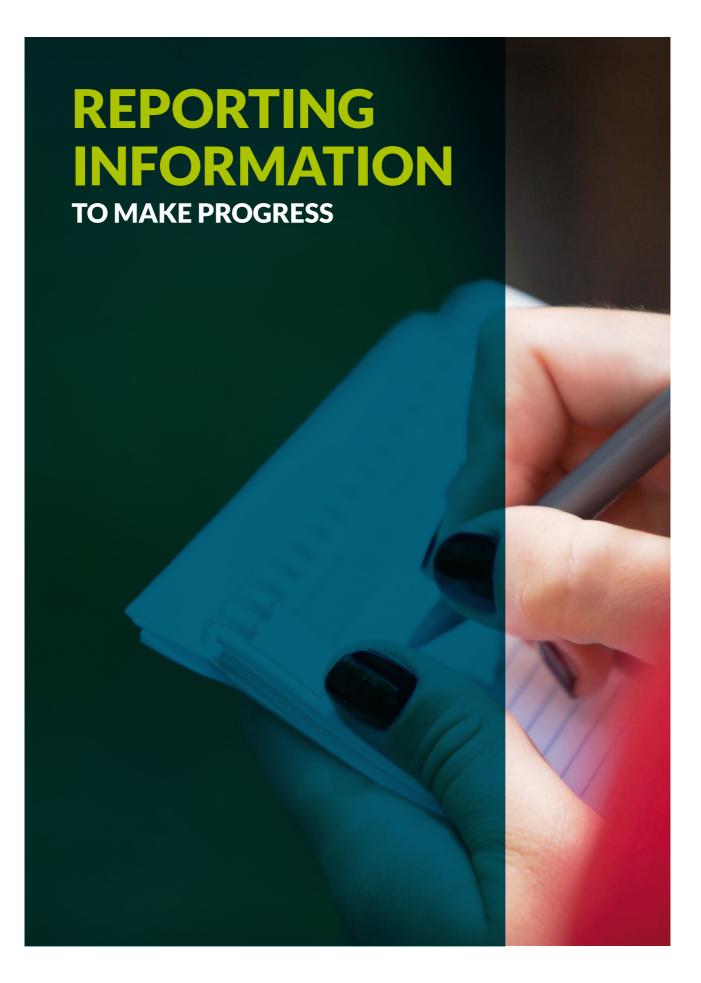
Egis is constantly seeking to reconcile its focus on economic growth with the career development of its employees. Listening to the needs of employees, continuing a rigorous and constructive social dialogue, are the key elements of this approach.

 Egis has an active policy of developing internal mobility, which responds to both employees' career aspirations, and the Group's changing needs. Egis acts as a responsible employer by giving preference to the long-sustainable employment and by favoring the professional development of its collaborators. At the end of 2014, more than 95 % of employees\* are under a permanent contract.

\*French perimeter

- Communication campaigns were organised in 2014. "My career with Egis" meetings have been organised by site to discuss the opportunities for mobility, both professional and geographical, that exist at Egis. Two awareness videos were broadcast, in addition, to all staff in 2013 and 2014.
- This policy helped to significantly increase (+ 35%) professional and geographical mobility in the group in 2014.
- Employment and careers are the subject of intense social dialogue. A group agreement on employment has been renegotiated, as well as an agreement on teleworking.
- In accordance with its "generation contract" framework agreement, Egis increased its rate of employment of over 55s in 2014 to 14% of the workforce. It also increased the proportion of overall recruitment of employees under 30, which in 2014 represented over 45% of recruitment.
- For the professional integration of people with disabilities, Egis applies a group agreement established with social partners. The rate of employment of people with disabilities has been steadily increasing for five years now.





# A FOCUS ON TRANSPARENCY THAT DRIVES US TO MAKE IMPROVEMENTS



For several years now, Egis has been committed to voluntary extra-financial reporting. This was partly in order to anticipate regulatory changes, but above all to learn to value and structure a set of positive actions for monitoring "CSR risks".

In connection with our performance approach, every year we collect a lot of data related to the description and management of our activities (operating as business activities). The data is not publishable, but it is certainly auditable.

#### We use this material in several ways:

- For our own management needs.
- To respond to CSR questionnaires and audits commissioned by our customers (especially in industry and public development assistance.)
- To contribute to the extra-financial reporting of the CSR Caisse des Dépôts, our majority shareholder.



 For the annual edition of our own selection of indicators, entitled "OUR CHALLENGES".

It is this selection that is found in this booklet and on our website www.egis-group.com. Our four challenges are broken down into 14 ambitions, illustrated by the indicators, highlights and strategic aims of the current year. According to our SD/CSR roadmap for 2014-2017, it must take on an increasingly strategic management approach.

This content is gradually evolving, as our business and our operations develop, and as new demands emerge. It is a way of ensuring we keep to our commitments, by encouraging questions and suggestions from our stakeholders.

## \_\_ WHAT OUR STAKEHOLDERS THINK

#### **Auditeur Afnor**

The Auditor AFNOR Egis has continued its strongly rooted in the group's performance management. The very comprehensive 2013 Corporate Social Responsibility Report highlights the challenges of this approach, which is a key means of differentiation for the development of the group's activities.

Extract of the certification audit report October 2014

# **TABLE OF COMPLIANCE WITH**

## THE GLOBAL COMPACT

Egis's first COP (Communication on progress) was published in November 2012 for 2011 data. For each principle, it explains the policy implemented, the objectives and the associated indicators. The second and third COPs published in 2013 and 2014 respectively for the 2012 and 2013 data were integrated into the CSR reports.

#### The table of compliance below invites the reader to:

- Recap on the 2011, 2012 and 2013 COPs to see policy details and associated achievements (on www.unglobalcompact.org).
- Discover the new measures implemented in 2014 and described in this report.

#### **Human Rights**

PRINCIPLE OF THE GLOBAL COMPACT	SOURCES
Support and respect the protection of internationally proclaimed human rights.	Procedure
Make sure that their companies are not complicit in human rights abuses.	Procedure

#### Labour

PRINCIPLE OF THE GLOBAL COMPACT	SOURCES
Uphold the freedom of association and recognise the right to collective bargaining.	ProcedureSee COP 2011
	Labour relations and working conditionsCOP 2012 + COP 2013 + PP. 32-33
Eliminate all forms of forced and compulsory labour.	ProcedureSee COP 2011
Abolish child labour.	Abolish child labour ProcedureSee COP 2011
Eliminate discrimination in respect of employment and occupation.	ProcedureSee COP 2011  Equality, diversity and social diversity



#### **Environment**

PRINCIPLE OF THE GLOBAL COMPACT	SOURCES
Support a precautionary approach to environmental challenges.	Procedure
	CertificationsCOP 2012 + COP 2013 + P. 20
	NetworkingCOP 2012 + PP. 42-43
	R&D and distinctionsCOP 2012 + COP 2013 + P. 19 Environmental trainingCOP 2012 + P. 44
	Measuring our progress/indicatorsCOP 2012 + COP 2013 + P. 51
Undertake initiatives to promote greater environmental responsibility.	Procedure
	TrainingCOP 2012
	SponsorshipCOP 2012 + COP 2013 + PP. 37-39
	School RelationsCOP 2012 + COP 2013 + PP. 32-33
	Eco-responsibilityCOP 2012 + COP 2013 + P. 47
	Measuring our progress/indicatorsCOP 2012 + COP 2013 + P. 51
Encourage the development and diffusion of environmentally friendly technologies.	ProcedureCOP 2011 + COP 2013 + PP. 12-30
	Research and developmentCOP 2012 + COP 2013 + PP. 16-17+ P.20
	Training

## Fight against corruption

PRINCIPLE OF THE GLOBAL COMPACT	SOURCES
Work against corruption in all its forms,	ProcedureCOP 2011 + COP 2013 + P. 47
including extortion and bribery.	EthicsCOP 2011 + COP 2013 + P. 47

# THE EGIS CSR REPORT GOES ONLINE

This year we wanted to go further in our CSR communication by putting on line an interactive version of the report on our site www.egis-group.com. This interactive version will bring you additional educational or expert information on our CSR commitments.

#### You will find:

- The pdf report with active links to third party content (web pages, additional documents, etc.).
- An online "feedback" survey to collect your opinion on our report and help us to guide our CSR priorities.

Go on http://www.egis-group.com/action/csr

#### REPORTING INFORMATION TO MAKE PROGRESS

# **ONLINE SURVEY**

YOUR OPINION MATTERS: TELL US ABOUT YOUR PRIORITIES!

Your opinion matters! Help us work... and be more accessible. Answer our online questions about the web space dedicated to the CSR report.

# FEEL FREE TO CHALLENGE US!

# YOU ARE ANSWERING AS:

- ☐ Client (public or private client)
- ☐ Financial partner (shareholder, bank, investor, lender, etc.)
- Economic Partner (subcontractor, joint contractor, supplier, insurance, etc.)
- Professional association (think tank, federation, business cluster, etc.)
- Regional stakeholder (local authority, resident, local association, etc.)
- Government stakeholder (EU, government, regulatory authority, etc.)
- Employee of the Egis Group
- ☐ Social partner (employee representative, trade union, etc.)
- Working in academia (school, university, research laboratory, foundation, etc.)
- A representative of civil society (citizens, NGOs, media, etc.)
- □ Other (s): .....

# 7/YOU HAVE

- A job related to topics of social responsibility/CSR expertise
- General knowledge of CSR
- Notions or no knowledge of CSR

3/YOUR LEVEL OF KNOWLEDGE ABOUT THE EGISGROUP (ACTIVITIES, ASSIGNMENTS, ETC.) IS:

- None
- Low
- Medium
- □ High

# WE HAVE EMBARKED ON A NEW CSR OADMAP FOR 2014—1017, WHICH PROVIDES FOUR MAIN STRATEGIC AIMS. WHICH ONE(S) DO YOU SEE AS A PRIORITY?

- Making SD a key means of differentiating our services and creating value
- Developing local roots through a sustained policy of stakeholders' involvement
- ☐ Ensuring the widespread application of SD practices across all our businesses and in all teams
- Consolidating and increasing the reliability of our extrafinancial reporting

# 5/ THE CORPORATE BUSINESS ACTIVITY CHALLENGES THAT YOU ARE MOST INTERESTED IN RELATE TO:

- Énergie Climat
- ☐ Biodiversité / ressources
- Mobilité Transport
- Ville durable
- ☐ Autre(s)

# THE FEDERATION OF ENGINEERING PROFESSIONALS, SYNTEC INGÉNIERIE, HAS DEFINED A LIST OF PRIORITY CSR ISSUES FOR OUR ACTIVITY SECTOR.

#### Which two issues do you feel are a priority?

- ☐ Competitiveness of engineering companies
- Promoting CSR among their customers and meeting their demands
- Innovating to meet the requirements of sustainable development
- Creating sustainable solutions
- Attracting talented employees

# ABOUT WHICH TOPICS DO YOU EXPECT THE MOST REPORTING ON OUR PART?

# 8/ WOULD YOU SAY THAT OUR CSR REPORT MEETS THE FOLLOWING REQUIREMENTS:

- ☐ Balance: reflects the positive and negative aspects of the performance of our activities
- ☐ Comparability: can be used to compare our development and performance to that of other companies year on year
- Accuracy/reliability: accurate and detailed information for assessing the relevance and veracity of information
- ☐ Clarity: understandable and accessible information
- □ Completeness: All issues are addressed

# 9/ WHAT TYPES OF INFORMATION DO YOU FIND MOST INTERESTING?

- □ Project feedback and testimonials
- □ The key sustainable development solutions developed by the group
- □ Details of the CSR policy, our approach and goals
- Key figures

# WHICH OF OUR ACTIVITIES ARE YOU MOST

- Roads
- Rail and urban transport
- Buildings
- Cities
- Water
- Aviation
- □ Industry
- □ Large structures (viaducts and tunnels)
- ☐ Ports and coastal, river transport
- Environment, waste, polluted sites and soils
- □ Energy, mines
- All

# WHICH OF OUR ASSIGNMENT(S) ARE YOU MOST INTERESTED IN?

- Engineering
- Consulting
- Project development
- Mobility services
- Operations
- □ Turnkey
- Urban planning, architecture and landscape





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