



ROLE OF GREEN MARKETING IN PROMOTING ECO-CONSTRUCTION IN ALGERIA

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The new trends and challenges of development policies in Algeria NTDP,
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Abstract:

Confronting sustainable development means that companies must take into account the following issues: global warming, greenhouse gases, ozone layer, drinking water, forest, land and sea conservation, waste management, recycling, reuse, recovery, "green" products and services... etc; as well as educating people through a good green communication strategy that is one of the components of the green marketing to react in the same way to have a clean and healthy environment. As a result of technological advances and population growth, human beings are the main cause of so-called "climate change". Therefore, ecological construction must be established within each society. Having an ecological home corresponds to the concern to build a more environmentally friendly housing.

Keywords: Business, environment; sustainable development, green marketing; green communication; ecological construction.

Introduction:

Responsible marketing is based on the principles of sustainable development: it involves integrating the latter into the marketing practices of companies not only by offering products and services that respect the natural environment and the health of consumers, but also by setting fair prices and using communication that respects the natural environment, that is honest and develops positive consumer behaviours.

The implementation of a responsible marketing approach implies a liability taken by companies that commit to it not only by becoming aware of their responsibilities towards the natural environment and consumers but also of the interest lying on reconciling their marketing practices and sustainable development.

The wealth of a country is often reflected in its ability to accommodate its inhabitants with dignity and to facilitate their travel as well as its offered services. The dynamism of a country is also often associated with the state of its construction activity, and its infrastructure (transportation, residential buildings, structures such as schools, hospitals... or industrial buildings).

This study aims to make the link between marketing practices and the approach to sustainable development; in particular in the field of eco-construction.

This research paper tends to answer the following question: **What is the role of responsible marketing in promoting eco-construction in Algeria?**

To answer this research problem, the following hypothesis is suggested:

Green marketing, particularly good communication, allows the promotion of eco-construction in Algeria.

Based on the above, this paper is organized as follows: First, a brief review of the literature bearing the presentation of key concepts related to the study is presented, namely: responsible marketing, sustainable development, corporate social responsibility (CSR). Then the ecological construction concept, the role of green marketing in promoting eco-construction and the sustainable neighbourhood are treated. Finally, some strategies for selling the idea of an ecological house are suggested. Afterwards, the study of the example of NGO R20med organization in the promotion of eco-construction in Algeria is presented, in terms of its definition, tasks and missions accomplished in this sector as well as its role and policy in the promotion of eco-habitat.

1- Definition of responsible marketing:

Responsible marketing can first refer to a practice that consists of a brand promoting “responsible” behaviour by customers or consumers. This recommendation can be made through a specific campaign or accompany the usual advertising and marketing speeches. In this context, responsible marketing practices can be linked to respect for the environment or to avoiding excessive or dangerous practices. Based on responsible communication, that is a set of advertising communication practices through which the advertiser more or less directly encourages the audience to adopt responsible behaviour in their practices of use and consumption of a product or service. The responsibility message can be associated with a classic advertising message or be the subject of a specific campaign and creation.¹

1-1- Contribution of marketing to sustainable development:

The implementation of a responsible marketing approach implies a responsibility taken by the companies that commit to it; it is a voluntary commitment on their part towards the sustainable development that reflects not only an awareness of their responsibilities towards the natural environment and consumers but also the interest that represents for them a reconciliation between their marketing practices and sustainable development.

It would be possible for a company to reconcile its own interest and that of society in general by adopting marketing practices which are more suited to a situation characterized by both environmental and social deterioration.

¹Glossaries: 1001 Marketing. Law and Ethics; by B. Bathelot; updated Nov. 23rd, 2016.

This new perspective is about “reinventing marketing and making it more accountable based on the 'Ps' of sustainability: people, planet, profits, and humanity's progress.”²

The first step in implementing responsible marketing is an analysis of how interested customers are in environmental and social issues, their requirements for the company's offer and their motivations for adopting responsible practices.

In this context, four categories of customers could be identified, according to their interest in the issue of sustainable development:

- **Engaged:** These are customers who have a strong belief that changes in the outside world depend on their commitments and are confident in their ability to adopt more responsible consumer behaviours. However, they all express the same requirement by companies (proof that products are manufactured in conditions that respect the natural environment and human beings). For this category, the role of marketing managers is to detect the sustainable development issues for which these customers are most sensitive, to demonstrate that they are taken into account in the design of the company's products and in all its practices in a way that respects the environment and human beings.
- **Sensitive inactive:** These are customers who say they are attracted by sustainable development and display good intentions to question their lifestyles and purchasing decisions but who, however, have difficulty translating their statements into actions. Therefore, there is always a gap between what they say and what they actually do. This category represents an opportunity for marketers (expand responsible consumer market). It is therefore essential to know and understand the factors that explain this gap between customers' statements of good intentions and their actual achievements in order to be able to propose adequate solutions.
- **Insensitive consumers:** These are customers who choose responsible products not for environmental and social considerations, as they have no conviction in terms of sustainable development, but in order to avoid or minimize possible negative consequences relating to the traditional choice. For this category, the job of marketing managers is to reduce the psychological strain on these customers by focusing on the benefits of the responsible offer they present.
- **Insensitive:** These are customers who have no attraction for sustainable development issues and are not ready to adopt more responsible behaviours. This category does not represent any current interest for the company that adopts a responsible approach, but its role remains to inform and sensitize them on sustainable development issues.

1-2 Responsible communication at the heart of responsible marketing:

The responsibility issue in terms of communication, however, has timidly emerged in communication agencies and media community through the concept of “responsible communication”. If we refer to the definition suggested by AdWiser collective (a collective created in 2006 in a personal capacity around fifteen communication and sustainable development professionals), "Responsible communication is communication that evaluates the environmental, social and societal consequences of the means it implements and the messages it develops, which

²E. LAVILLE, "Green Corporation", p.276; 2007.

steer it responsibly. It favours eco-designed means and uses ecological arguments only when justified. It refuses to promote behaviours that will negatively impact the quality of our environment and our social relations, rather participating in the positive evolution of the ways of thinking and living of our society"³. Integrating communication within the scope of sustainable development means first of all determining its current drifts and giving itself the means to renew this field, its practices, to allow the emergence of a harmonious CSR approach.

Participation, association and sharing could be the keywords of sustainable marketing, which means profoundly renewing the classic vision, to consider it in the form of an informational, relational exchange, with a view to preventing and making individuals adopt appropriate behaviours⁴.

Setting up responsible communication requires:

- Design, develop and disseminate a responsible Charter;
- Train its teams in responsible communication;
- Design, develop, and facilitate an internal process for validating responsible communication;
- Involve service providers and subcontractors;
- Integrate external stakeholders;

Responsible or ethical communication responds to the emergence of a moral imperative, or rather a societal imperative within the company.

Ethics management is the integration of 3 dynamic principles:

- Preventive ethics: safety, environment, health
- Internal ethics: compliance with legal standards, ethics, employability.
- External ethics: transparency to stakeholders.

Responsible communication also aims to stimulate social change, that is to say, to contribute to changing behaviours for the benefit of the company, but also for the society as a whole.

2- Sustainable development:

It is a recent concept that refers to actions aimed at reconciling three different worlds, that of economy, ecology and social world. According to the Ministry of Ecology and Sustainable Development, "in the long term, there will be no possible development if it is not economically efficient, socially equitable and environmentally tolerable." This term, created in 1980, refers to a form of economic development respectful of the environment, renewal of resources and their rational exploitation, so as to preserve raw materials, but also to ensure socially equitable development. This development method meets the current needs without compromising the ability of future generations to meet their own needs. Since the Rio Conference (1992), sustainable development has been recognized as a goal by the international community⁵.

3- Concept of Corporate Social Responsibility (CSR):

³B. Parguel; Submitted on: Wednesday, Jan. 11th, 2012 - 1:11:35 PM; Last modification on: Thursday, Jan. 12th, 2012 - 3:33:38 PM; Document(s) archived on: Friday, May 11th, 2012 - 4:01:14 PM)

⁴Preface by T. Libaert; Sustainable Marketing; R. Fahd; © Magnard-Vuibert ISBN: 978-2-311-01294-1; September 2013.

⁵Environment dictionary definition, 1.001 words and abbreviations for environment and sustainable development

Corporate social responsibility or CSR has emerged as a major topic in recent years. It is defined as the way in which companies integrate, on a voluntary basis, social, environmental and ethical concerns in their economic activities as well as in their interactions with all stakeholders, whether internal (managers, employees, shareholders, etc.) or external (suppliers, customers, etc.)⁶

A company committed to sustainable development is a company that adopts responsible practices in all the functions that underpin its daily activities.

Thus, to better understand how sustainable development could be integrated into the daily management of a responsible company, it is necessary to see its impact on the management of purchasing, production, human resources and accounting functions:

3-1 Responsible procurement: Adopting a voluntary approach to sustainable development begins by integrating the principles of sustainable development into the company's purchasing policy. Purchasing managers must no longer settle for their traditional missions of seeking quality and low costs, they must develop responsible purchasing policies; it is about ensuring that the purchased products are manufactured in conditions that respect human rights and the natural environment.

This consists of⁷:

Raise purchasing managers' awareness of sustainable development issues;

Monitor the origin of purchased products/materials (e.g. prohibit the use of wood from threatened forests, etc.);

Ban any product that has a harmful effect on health and environment;

Favour proximity in the choice of suppliers, opt for environmentally friendly means of transportation (combined transportation) and use alternative fuels to reduce air pollution;

Require reasonable packaging, optimise loads and combine purchases from the same supplier to minimise waste;

Raise suppliers' awareness of sustainable development issues;

Develop sustainable partnerships with suppliers committed to a sustainable development approach, accompany and support them in their commitments...

3-2 More responsible production methods:

The goal of sustainable development is not to produce and consume less but rather better, they have become aware of the dangers that their irresponsible production methods represent for the environment, human health and the need to adopt new, more responsible approaches to designing products and services that respect the environment and health.

a) Ecodesign: Is an approach that consists in taking into account the environment during the product design phase by analyzing, at each stage of its life cycle, its negative impacts on the environment in order to create a high-performance and environmentally friendly product throughout its life:

⁶Corporate Social Responsibility, Competitiveness Assessment and Strategic Approach; S. Benhamou; M-A. Diaye; in collaboration with P. Crifo; www.strategie.gouv.fr; January 2016

⁷INDIR: the National Institute for Sustainable Development and Corporate Social Responsibility.

- Reduce water and energy use
- Use renewable energy sources (solar, hydraulic,...etc.)
- Use recycled materials;
- Use non-toxic components;
- Use components from organic farming;

Design products that require low resource consumption for their use and operation that are easy to maintain and repair in order to last as long as possible.

Design products that require low resource consumption for easy to maintain and repair use and operation to last as long as possible.

- Treat and reuse waste;

The second, more creative approach to eco-design, which aims to better control the negative impacts of products or services whose components are not biodegradable.

This approach is not to sell the company's products but to offer lease deeds; it is in a way a leasing operation but more original one⁸ since it is intended for individuals and concerns products that are normally sold: (television, photocopiers, washing machines, air conditioners...etc). In this way, the company guarantees that the product will not be discarded at the end of its life but recovered; its components are either reused in the manufacture of another product or recycled to make other parts.

b) Biomimicry: Starting from the principle that "nature knows what works best and what lasts the longest on this planet"⁹, the followers of this approach consider that to produce responsibly it is necessary to go back to nature and find out if it has not already faced the same problem that the company currently faces and, if so, how it has solved it and then to imitate it.

Inspired by this model, a few companies have cooperated together in order to recover their waste by ensuring that the waste generated by ones serves as raw materials to feed the activities of others. This approach is known as "industrial ecology". Of course, the success of such an approach is based on certain conditions: the companies participating in it must have different and complementary activities for their waste to be exploited; the cost of transportation must not be excessive; managers must be able to create relationships of cooperation, communication and trust between them.

3-3 Responsible human resources management:

For a company that is committed to sustainable development, human resources management practices go beyond the strictly professional executive of the function; human resources managers must act responsibly not only by offering employees better working conditions that put an end to the stress to which they are subjected but also by working to find solutions that reduce social problems in order to contribute to the well-being of society as a whole. Responsible human resources management consists of:

⁸ www.indr.lu/content/download/421/1621/version/5/file/Brochure_INDR_2012.pdf (website)

⁹E. LAVILLE, "Green Corporation", Edition Pearson Education, France, P.202, 2007.

Provide equitable compensation that enables employees to support themselves and their families and to combat discrimination in hiring and job allocation by ensuring equal opportunities for women and men.

Implement training programs to reduce the frequency and severity of workplace accidents;

Promote the recruitment of young people; Support and facilitate the integration of newcomers through the implementation of mentoring actions by competent employees who themselves have received educational training in order to transmit their know-how;

Increase opportunities for dialogue and exchange in order to listen to its employees and establish a culture of debate and involvement of everyone;

Raise employees' awareness of sustainable development issues and the company's social responsibility so that they understand its commitments, adhere to them and disseminate them to customers...;

Improved productivity; a logical consequence of free of stress work environment, conflict and absenteeism, therefore, involvement of employees and their motivation to offer high quality products and services to customers;

Less resistance to change and greater capacity for innovation.

3-4 Social accounting:

Being responsible means “being transparent” to stakeholders and agreeing to report on how the company manages its activities, their economic, environmental and social impacts, the means put to be responsible and contribute to the realization of sustainable development, the obstacles encountered, the achievements and failures. To be able to report on its actions and their consequences, the company must gather and organize the information and then disseminate it. This represents, precisely, the role of accounting.

Thus, the information disseminated concerns, inter alia, both financial indicators and statements, objectives and practices concerning the company's relations with the natural environment (water and energy consumption, use of renewable energies, percentage of products recovered at the end of life for recycling, greenhouse gas emissions, etc.), human resources (salaries, training programs, measures taken in terms of health and safety, etc.), customers and suppliers (annual amount of purchases made from suppliers who have signed the sustainable development commitment, etc.). This information is intended for all parties with the right to be informed about the company's activities: government, shareholders, employees, customers, suppliers, financial intermediaries, etc.

4- Ecological construction definition:

It is a construction that has a low impact on the environment and that takes into account criteria such as: energy saving, durability and non-toxicity, even aesthetics. It also takes into account the conditions of the local environment and adapts to the lifestyle. Its function is to keep the planet and its inhabitants healthy. Ecological construction is therefore committed to non-toxicity that preserves a healthy outdoor and indoor environment¹⁰. Ecological construction, also called

¹⁰ Consult: <http://www.caue-martinique.com/media/fichepr-25-construction-ecologique-quelques-definitions.pdf>

sustainable construction or green construction, does not consist of a specific construction method, but brings together a set of techniques, materials and technologies that, properly integrated into a construction, contribute to enhancing its environmental performance.

5- Concept of sustainable neighbourhood:

A sustainable neighbourhood is a neighbourhood whose inhabitants are identified with a sustainable way of life, that is to say by reconciling the three poles of sustainable development which are: society, economics and ecology.

Here are the 5 pillars of an eco-neighbourhood:

I. Housing: Build energy-efficient housing using renewable energy (solar, wind, etc.)

II. Travel: Walking; cycling; public transportation should be preferred and cars parked outside the neighborhood.

III. Waste: Reduce the quantities of waste through reuse, recycling and recovery...

IV. Cleanliness and water: Improve the cleanliness of the premises permanently and recover rainwater.

V. Plants: Improve natural spaces and the plant heritage that consumes CO₂¹¹.

6- Selling strategies of the ecological house idea:

Here are 8 strategies to promote green construction to convince a customer that his hard-earned money will be well invested through green products and services:

- Make sure you understand what “green construction” means to your customers: If you intend to implement a strategy to promote your green products or services, you must, first, tame the market in which you operate. Who works in the field of green construction? How receptive has your community been to green concepts and technologies? If you are a salesperson, you will need to know the level of knowledge and education your customers have when you meet them. Develop communication tools that will target your market since not everyone will have the same level of knowledge. Help your customers understand the overall approach to a healthier, more energy-efficient home.
- Have professionals trained in green construction on your team: Train yourself in green construction to make sure you understand it.
- Make sure you have selected the market you want to establish yourself in: Make sure that the services or products you want to promote are appropriate for the market you operate in. Take the time to determine what needs your customers are actually looking to fill. Next, think about how best to educate them about the other benefits of your products and services.
- Take the time to train and inform your staff.
- Set up incentives for your greenest clients: Stay up to date on financial aid and grant programs that could apply to your professional field and your clients' projects. You will have every interest in developing a structure that will encourage consumers towards a more eco-responsible lifestyle

¹¹Cause of MARTINIQUE; construction; color; sustainable development; urban planning; renewable energies; environment; ecological construction: Some definitions.

- Think beyond energy efficiency: Building sustainable homes also means building sustainable and living environments, offering environments where people will be happy and able to live healthy. So, it is crucial to integrate the other benefits of sustainable construction when developing marketing concepts. Green construction also focuses on sustainable materials, proper site operation, water conservation, waste management, material sustainability, etc. All of these aspects can also be of interest to your customers.
- Educate your stakeholders and communicate your vision in sustainable development and green construction: Green companies are recognized for their values and positioning, not for their products and services. Successful entrepreneurs are continually promoting their vision and the benefits of their products and services for their customers' homes. Consumers value how a company chooses its suppliers, how it produces, its packaging, how it disposes of its waste and even how it treats its employees. A company's transparency and authenticity are therefore essential to build and maintain buyer trust.
- Have impeccable customer service and products: It is no longer possible to make only an existing product greener. It will be equally important to develop impeccable customer service. From the very first meeting, through the signing of the contract and the follow-up of all the steps until the end of the site, the quality of the relationship with the client should be at all times in the mind of the construction professional.

At the European level, sustainable construction is part of the constant evolution of an increasingly proactive regulation in the field of energy and the fight against climate change. At the international level, the (non-binding) standard ISO 15392:2008 lays down general principles of sustainable development for the construction sector¹².

The sustainable development applied to real estate will have overall positive impacts for the user, both on their image, on the performance of their employees and on the overall real estate cost. "Progress is visible, but there is still a long way to go. »¹³

7- Presentation and operation of R20: Regions of Climate Action:

R20 is a non-profit non-governmental organization, founded in 2010 by several internationally renowned personalities including Arnold Schwarzenegger with the support of the United Nations and by representatives of territorial authorities, local and regional authorities, private companies, international organizations, academic and financial institutions.

R20 is connected to more than 560 sub-national governments around the world; it aims to promote and implement projects with high economic and environmental added value. The particularity of this NGO is to develop strategies to intervene at the regional level. Subnational governments that are fully aware of their territory's resources are in the best position to implement sustainable projects using renewable energy.

7- 1 Missions of R20:

R20's mission is to help states around the world develop a portfolio of sustainable economic projects, promote environmental policies and best practices for the defense of the planet. This will

¹² Consult: http://e-rse.net/definitions/construction-durable-definitionbenefices-labels/#gs._hMNQcY

¹³ The challenges of sustainable real estate for office tenant users; F. HAIAT; October 2010

strengthen local economies, improve public health services, reduce poverty and create new green jobs to reduce greenhouse gas emissions and streamline energy consumption.

7-2 Areas of Activity

R20 intervenes in three different areas:

- Waste recovery
- Energy efficiency: buildings, public lighting.
- As well as renewable energies.

7-3 Members of R20:

- Northern Region of Africa: Algeria, Burkina Faso, High Basins Region, Burkina Faso, Oriental Region, Morocco, Delta State, Nigeria, Western Province, Rwanda, Dakar, Senegal, Matam, Senegal.
- Pacific Asia: State of Gujarat, India, Cebu, Philippines, Gyeonggi Provincial Government, South Korea, Istria Europe, Croatia, Ile-de-France, France, Apulia, Italy, Azores, Portugal, Alba, Romania.
- North America: Province of British Columbia, Canada, State of Baja California, Mexico, State of Campeche, Mexico, State of Chiapas, Mexico, State of Quintana Roo, Mexico, State of California, United States, State of Michigan, United States.
- South America: State of Acre, Brazil, Pichincha, Ecuador.

8- R20 MED Oran:

The Mediterranean cluster (R20 MED) was installed in Oran (Algeria), following an executive partnership agreement between R20 and the Ministry of Regional Planning and Environment signed on Jun. 25th, 2013 in Algiers. R20 MED Oran acts as a facilitator to bring together decision-makers, technology holders and investors, acting at 3 levels:

- Carry out technological and financial support work to set up low-carbon pilot projects.
- Foster and facilitate partnerships between regions for rapid action.
- Mobilize technology, public financing and the private financial sector.

Its mission is to initiate and implement demonstration projects with low greenhouse gas emissions in the province of Oran as a pilot region for the development of a green economy.

8- 1 R20 partners in Oran:

- The public authorities, in priority the County managers (Governor, Environment and Energy Directorates, inter alia),
- Home office
- Public and private economic actors and the Chamber of Commerce and Industry,
- Civil society (associations and neighbourhood committees).

8- 2 Description of the projects and tasks carried out by R20 MED:

R20 MED Oran in support of its partners and the associative movement anchored in the field has decided to continue and strengthen training, communication and information actions with

citizens and traders to ensure the sustainability and reliability of its practices in the field of sustainable development starting with:

- a- **Selective sorting project:** On Mar. 24th, 2015 in Oran, the Governor of Oran officially instituted by decree, a monitoring committee for "Selective sorting at the source of household waste" in the County of Oran.

Its missions are as follows:

- Create and implement a process for the selective sorting of household waste.
- Supervise and monitor the selective sorting of waste.
- Organize communication, education and training actions in the field of sorting and recycling of household waste.
- Ensure the cleanliness of the Environment.

Targeted objectives:

- Educate, inform and sensitize citizens, traders, teachers and students to the practice of selective sorting at the source of waste.
- Contribute to the improvement of management and recovery of household waste, for preservation of environment and sustainable development of region.
- Promote consultation, mobilization and collaboration between actors for the improvement of public hygiene and the quality of life in neighborhoods.
- Promote the creation of green jobs and companies linked to the development of new waste recovery sectors.

b- Project to set up a pilot composting unit for organic waste:

A pilot operation for the recovery of organic waste and green waste has been set up at the Hassi Bounif Technical Landfill Centre (CET) in Oran.

R20 took charge of the feasibility study of project and training on the specific compost production technique as well as the acquisition of equipment of pilot unit with two containers.

Compost is produced from waste generated at the wholesale market in Oran (4 to 12 tons of waste/day including 80% organic from fruits and vegetables) and green waste. Sorted and collected, this waste is transferred to the CET for compost production. As a preparatory measure, the company responsible for managing the wholesale market has begun to selectively sort the waste it generates, thus producing a significant amount of dry recyclable waste that is sent to the sorting chain recently put into operation at the Hassi Bounif CET. Also, a partnership is signed with the environmental protection division of the town halls of Oran and Bir-El-Djir as well as with the Forest Conservation Directorate, for the recovery of green waste from pruning.

For the management of this project, a technical team was set up. It is responsible, among other things, for the installation of the composting unit, control and monitoring of the process.

Targeted objectives:

- Promote the challenges of composting in the organic waste sector
- Acquire knowledge of composting principles and new techniques
- Establishment and management of a pilot composting unit in Oran.

c- Geographic Information System (GIS) Launch:

County of Oran has a new decision support system. Initiated as part of the executive partnership agreement between the Algerian government and R20, a geographic information system (GIS) dedicated to waste management and public lighting is being developed for the benefit of the institutions of county of Oran, with the support of R20, by a team of national experts in consultation with all stakeholders and potential users.

In collaboration with county of Oran and the Directorate of Environment, the project entitled "Mapping of territory with inventory and analysis of opportunities related to waste management and public lighting in Oran" was launched in May 2014. The platform uses a set of high-resolution satellite images and data, enriched with information that reflects the reality of the field (location of light points and electrical cabinets, etc.) to give accurate simulations in various fields of application, in particular: waste management and public lighting. This platform provides the opportunity for potential users of this system to collaborate and use it for operational, decision-making and strategic purposes.

Targeted objectives:

- Design information platform relating to the themes targeted by the study.
- Map the information characterizing waste and lighting consolidated by county, town hall, urban sector, etc.
- Provide an effective, efficient decision-making tool that serves as a reference accepted by all.
- Identify the potential of the regions in terms of waste recovery, energy efficiency and the implementation of smart solutions for public lighting.
- Promote led technology as a solution for street lighting....

d- Trainings:

Several training courses were provided by R20 MED in the field of waste management; selective sorting; composting; energy efficiency; renewable energy and thermal insulation at the national level on the following counties: Oran; Algiers; Annaba... In parallel, a training in Specialized Master's degree has been launched; This training focused on the four strategic sectors in environmental matters: renewable energy, energy efficiency, sustainable waste management and sustainable mobility, whose objectives are:

- Understand the challenges of this change towards a green economy and be part of it by becoming the bearer of a green infrastructure project or portfolio of projects.
- Train national and territorial executives on public policies, technologies and financial models in the field of renewable energy, waste management and mobility.
- Train specialists in setting up urban projects that are technically and economically viable in waste management, energy efficiency of public lighting buildings and renewable energies.
- To be able to assess the feasibility of a green infrastructure project,
- To be able to manage green infrastructure projects...

e- Events

- R20 MED present at the International POLLUTEC Exhibition held from Feb. 13th to 16th, 2017 in Algiers (SAFEX). The purpose of which is to present the various projects and training courses launched by R20 MED.

- Visit of M. Arnold Schwarzenegger to Oran on Sept. 26th, 2016; This visit was an opportunity to see firsthand the achievements and projects developed by R20 and local partners on the ground.
- Participation in the celebration of Children and Environment Day in Oran.
- Participation in MED COP21 in Marseille from Jun. 4th to 5th, 2015; This forum was an opportunity to recall the urgency of defining a shared strategy to fight and adapt to climate change and a collective mobilization in the Mediterranean,
- Conference on Construction and Sustainable City in Mostaganem; which took place on Apr. 01st, 2017. This event will be an opportunity to share and communicate with participants, on good practices and eco-citizen behaviors to concretize local-environmental programs.
- R20 MED participates in the Recycling Expo Fair; which was held from Apr. 24th to 27th, 2017 at the Oran Convention Center (CCO). During this event, R20 MED team also informed on the launch of the 2nd promotion of the Specialized Master's Degree "Territory, Technology and Portfolio Financing of Innovative Projects for the Green Economy", initiated in partnership with the National Polytechnic School of Oran (ENPO) Maurice Audin and Mines School of Saint-Étienne, as well as on the organization of the international competition "Green Solutions Awards 2017" as part of the Construction21.dz platform. On the sidelines of the Fair, R20 MED made a presentation on the experience of territorial promotion of the green economy, during the seminar on waste management, organized on April 25th by the National Waste Agency (AND) which knew the participation of more than 150 person.



9- Promotion of eco-construction of County of Oran:

9-1 Launch of eco-construction promotion pole of County of Oran:

After its creation in December 2014 by decision of the Governor of Oran, the eco-construction promotion pole was officially set up by the Director of Environment. Initiated by Maghreb Business Network for Environment (REME), Batimatec and R20 MED, among others, this cluster aims to encourage the various operators and actors in the building sector to integrate systems that preserve the ecological aspect and reduce energy use in construction. It has three main missions:

1. Organize consultation between different local actors and institutions, administrations and national public and private organizations concerned by the theme.
2. Initiate and develop demonstration projects in the field of eco-construction, organize meetings, seminars and workshops on any issue related to energy management policy and energy efficiency in buildings.
3. Issue opinions and recommendations on any project that will be submitted to the hub by the Governor of Oran.

Objectives of the promotion of eco-construction in County of Oran:

- Initiate and develop demonstration projects in the field of eco-construction, organize meetings, seminars and workshops on any issue related to energy management policy and energy efficiency in buildings.
- Issue opinions and recommendations on any project that will be submitted to the hub by the Governor of Oran.

9- 2 Launch of the sustainable city platform (Construction 21 Algeria):

Construction21 Algeria platform which was created in November 2015 is officially operational. Mr. Abdelghani Zaalene, Governor of Oran launched it on November 17th, 2015 at the conference room of the Oranie Chamber of Commerce and Industry (CCIO).

The President of the CCIO co-chaired this event with the Director of R20 MED. In addition to the presence of Mrs. Véronique Pappé, co-director of Construction21 International, many local and national personalities were present at this ceremony: local elected officials, local government officials, academics, architects, contractors, developers and others interested in eco-construction...

Eleventh national platform usually diffused online; "Construction21 Algeria" platform is supported by "Oran eco-construction promotion centre". The launch and animation of this media are part of the objectives outlined by the centre.

The targeted objectives of Construction 21 Algeria platform as media are:

1. Deploy its activities towards companies and institutions involved in the approach of sustainable development, in general, and construction, in particular.
2. Valuing concrete actions and providing momentum in the building materials sector.
3. Provide interesting visibility for economic actors by highlighting local products and solutions.
4. Develop partnerships with the media and thus establish itself as a specialized partner in the field of construction and sustainable cities.

9-3 City 21 Platform: City21 (Sustainable City Observatory):

Is the name of another platform that went live in December 2015 and was dedicated to the sustainable city. Oran was selected as a case study in the implementation of a policy in line with the Sustainable Development Goals and Algeria's commitments at CoP21.

City21 a training workshop for future contributors (early adopters) of this platform was held on Nov. 16th, 2015 at the headquarters of R20 MED.

The workshop was co-hosted by Mrs. Véronique Pappé, co-director of Construction21 international, and Mr. Abderrahmane Zidane, founding member of the cluster in charge of training and facilitator of the platform. The workshop was attended by about fifteen participants from

different profiles (design companies, architects, academics) from various regions of the country (Oran, Algiers, Blida, Batna, Tlemcen). The workshop focused on the facilitation and enrichment of different sections of the platform: Articles and agendas, communities, forum, etc. A detailed tutorial was given to the contributors at the end of the training.

10- Other communication tools and promotion of eco-construction used by R20 MED:

R20 MED has a website that has been on the web for several months, via R20 website, www.regions20.org, [facebook.com/R20MED](https://www.facebook.com/R20MED) page and @R20MED twitter account. In November 2015, R20 MED set up its own website, in order to give even more visibility to the implementation of the executive partnership agreement between R20 and the Ministry in charge of Environment. This website www.R20MED.org is designed to facilitate, through the home page, access to diversified and up-to-date information. It favours a thematic structure directing the user to the projects, training actions and events in which R20 MED participates. They give increased visibility to actions carried out on the ground under the Green Economy Pilot Programme. The information is continuously communicated to journalists at local and national levels.

Environmental communication on the ground is one of the action components of R20 MED. It is the dissemination and communication around environmental projects initiated in order to maximize their impact. Within this framework, R20 MED team participated on Nov. 5th, 2015 in a local radio broadcast (Oran El Bahia) in preparation for the Entrepreneurial Days "Undertaking in the selective sorting and recovery of waste", held on 18 and 19 of the same month.

A second intervention by Zidane Abderrahmane, on December 31st, 2015, on the green program of Radio Algérie Internationale under the title: renewable energies, balance sheet 2015. This component also results in participation through stands and local actions. R20 MED team was present in the field, alongside the Directorate of Environment, by leading an awareness-raising tent on the management of household waste. This action took place in a new city in town hall of "Oued Tlélat", targeting the relocated populations previously living in slums.

11- Real case study on eco-construction in Algeria: Green Solutions Awards Competition:

Algeria participates for the first time in GBSA; Green Building Solutions Awards (GBSA) is an international competition for exemplary buildings and solutions for sustainable construction. Organized by the international platform "Construction21", it makes it possible to make available to professionals a database of the best achievements in several categories: energy saving, use of bio-sourced materials, reduction of greenhouse gas emissions and protection of environment, as well as helping to limit global warming above 2°C. The competition is also supported by institutional partners, media and industry fairs, but also by many professional organizations that mobilize their own members, in each country and internationally. In Algeria, many partners contribute in this competition.

Internationally, the competition is part of the Global Alliance for Buildings & Construction and benefits from the support of renowned international NGOs such as Arnold Schwarzenegger's R20, ICLEI, World Climate or World GBC.

The official launch of the competition took place on May 10th, 2016.

Despite the fact that this field is relatively new in Algeria, local and national avenues have been identified and all the conditions are in place to present case studies that take into account national conditions. This will certainly create interest and momentum in this area.

This international visibility of the cluster and its activities has interested many international personalities and has made it possible to highlight Oran through the image of a city determined to be part of an ecological approach.

The two award-winning projects in Oran: Oran and "Construction21" were in the spotlight on September 26th, 2016. Indeed, it was at the State Residence of County of Oran that the award ceremony of the national competition of the "Green Building Solutions Awards 2016" took place.

The three Algerian winners received their prizes from the Governor of Oran, the President of the People's County Assembly and a distinguished guest, Arnold Schwarzenegger.

Hasnaoui Group with Oran real estate project "Ryad Residence" classified in the "building" categories:

This residence which was delivered in 2013; has a set of model elements in terms of management and operation meeting the needs of the residents so it is built with adequate environmental standards. It is also equipped with thermal insulation applied from the outside with various advantages, either in terms of construction thanks to its speed of execution or in aesthetic terms, because this "cladding" of the building corrects all the defects of execution of masonry walls. This solution allows buildings to be energy sustainable, significantly reducing energy consumption. The final liner mortar is flexible to withstand temperature deviations and prevent cracking due to expansion, a dust-proof finish is applied to reduce maintenance costs.

Amidou Foundation of Ghardaia for the realization of the Saharan city "Ksar Tafilelt Tajdite" classified in the "building" categories:

History on "Ksar Tafilelt Tajdite": A rocky hill, thousands of housing demand, the need to safeguard fertile land, an adaptation to economic conditions, from there was born the Tafilelt Tajdite project, an extension of the old ksar of Beni Izguen? No, rather a new ksar built according to ancestral principles, combining tradition and modernity, tradition in ancient know-how and in the use of local materials, an economic and social approach in line with contemporary uses and above all the integration of modern equipment and technologies. The foundation continues to manage the new ksar, to maintain it and to meet the daily needs of the city: waste, water, mobility, all old knowledge based on contemporary models in accordance with the sustainable equation: economics, society and environment.

The name "AMIDOUL" itself has quite a symbolic meaning in Berber "The main road". In fact, in every ksar in the M'zab Valley, a main road runs right through it, like a guide.

The assets of the site placed as a model of ecological habitat: An economic and environmental social success; the Ksar Tafilelt Tajdite of Béni-Isguen (Ghardaïa) is one of the most exemplary achievements in Algeria and, particularly, in an extreme environmental environment. This unique Ksar combines architecture and sustainable development with intelligence. Made by local means and local know-how for local use, the Ksar is above all a unique experience, combining with an ingenious mix economy, preservation of environment and societal living environment that characterizes the region. It complies with the requirements of sustainable development and is a fine

example of a sustainable city combining educational architecture and ecological principles, with the aim of meeting a very strong social demand, thus contributing effectively to the fight against housing crisis.

Advocating for the preservation of architectural heritage by combining modernity and tradition, the designers of this project within Amidoul Foundation have proven their acute awareness of climate issues. This new urban centre, built with local materials, has integrated the standards of responsible water management, wastewater recycling and recovery of household waste by appropriate channels, Ksar Tafilelt deserves all the attention it deserves. This ksar is part of a logic of balance between man and his environment. Tafilelt project aims to restore certain ancestral customs based on faith and "relying on oneself", which have allowed the oases, in general, and those of M 'zab, in particular, to survive in a hostile environment, and to build what is now known worldwide as a Millennium Architecture worthy of the name "sustainable development". Launched in 1997, this new ksar, which stretches over a 22-hectare rocky site, has more than 1,000 homes and was designed for a better quality of life.



Conclusion:

Green communication in companies acting in the environmental field has been less developed than that of conventional goods of eco-construction, which already seems to be taking on great proportions, in fact, building "sustainable" requires taking into account the living environment of the occupants of the building and in this regard, different parameters must be taken into account. We must first imagine a quality living space, and architecture of the building is very important in this regard, especially for collective housing. The establishment of green spaces, essential in a coherent eco-construction project, also goes in this direction. In this regard, it should be noted that social housing tends to be considerably revalued by dynamics of eco-construction: the imperatives imposed on social entrepreneurs by public authorities in terms of environmental quality tend to give real added value to this type of housing and on the particularities of its green constructions that communication must emphasize its challenge and value this area to convince consumers to invest.

Indeed, in Algeria, the environmental issue began to emerge when the ecological situation was seriously threatened, as several factors of development of the country are at the origin of degradation of natural environment in our country. The most striking factor is that of the accelerated industrial development experienced just after independence. The ecological context has reached a

level of gravity that risks not only compromising much of economic and social achievements, but also limiting the possibilities of welfare gains for future generations¹⁴.

Indeed, this study was conducted on the project example: R20 MED Oran. The latter is an NGO operating in the field of environmental protection and human welfare services.

Regarding our hypothesis, we noted a lack in the tools for promoting eco-construction in Algeria following the absence of companies that make specific advertisements in this field of activity. Because of this, the majority of people do not have this idea of ecological housings due to the lack of specialists in green communication.

Ecological construction in Algeria is starting to emerge in small projects on a national scale such as the two examples of "Hasnaoui" and "Ksar-Tafilelt" cited above. This is due to the absence of executives and professionals specialized in the field of eco-construction. As a result of these findings, we conclude that ecological construction in Algeria will only see the light of day in the coming decades provided that a good green communication policy for better promotion to involve consumers further, and persuade them to invest more by making it easier for them to access this type of project through some facilities (financial bank credit with other facilities ...).

On the other hand, it is desirable that R20 MED will contribute more in the promotion of ecological and sustainable housings by:

Launching trainings for craftsmen and professionals in the building sector in relation to construction and energy renovation techniques on a national scale;

Raising awareness among external partners and consumers (architects, builders or craftsmen) of the environmental performance of green products. Advising and accompanying individuals in their eco-housing projects; joining international groups that work in the field of ecological housing.

Finally, the Algerian State must take this aspect into consideration, for both citizens and country's economics.

To conclude, we can say that the Algerian citizen is still at the stage of experimentation, pilot projects initiated and supported by the State deserve to be published and to benefit from more visibility. Building on the existing political will expressed, it is imperative to commit to integrating the issue of Energy Efficiency in buildings in a more sustained way.

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