

**THE AMERICAN UNIVERSITY OF PARIS
MASTER OF ARTS IN CROSS-CULTURAL AND SUSTAINABLE
BUSINESS MANAGEMENT**

**THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN
CROSS-CULTURAL AND SUSTAINABLE BUSINESS MANAGEMENT**

Market-entry strategies for Eiffage in Kazakhstan

**Aizhamal Sartbayeva
Contact e-mail: aizha.sartbayeva@gmail.com**

- Paris, 10 February, 2015-

ProQuest Number: 13833825

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13833825

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

THE AMERICAN UNIVERSITY OF PARIS
MASTER OF ARTS IN CROSS-CULTURAL AND SUSTAINABLE BUSINESS
MANAGEMENT

MARKET-ENTRY STRATEGIES FOR EIFFAGE IN KAZAKHSTAN

AIZHAMAL SARTBAYEVA

THIS THESIS WAS APPROVED BY:

Thesis Director _____
(Mehdi Majidi, PhD)

Program Director _____
(Mehdi Majidi, PhD)

Date: _____

STATEMENT OF AUTHENTICITY

I have read the American University of Paris's policies on plagiarism and I certify that the content of this thesis entitled Market-entry strategies for Eiffage in Kazakhstan is all my own work and does not contain any unacknowledged content from other sources.

I certify that I have also obtained authorization to use all images, photos, illustrations, maps and charts from their authors/publishers, unless they are mine or in the public domain.

Number of words: 13602

Signed: _____

Date: _____

Intellectual property and copyright statement:

The present Master's thesis -- in its printed and electronic version -- has been submitted to The American University of Paris Library in order to enrich its thesis collection and to grant scholarly access. As of today, I authorize the AUP Library to archive, catalog, classify, index, keep records of my thesis, to quote it, to produce abstracts and summaries and disseminate them in France or abroad.

In addition, I authorize AUP to provide free access to the entire work for on-site consultation, to lend it, and to perform inter-library loan transactions -- via Internet/Intranet - for as long as this work exists. AUP must acquire my explicit approval to make any additional copies of my thesis.

Je dépose l'intégralité de ce mémoire universitaire - sous format papier et sous version électronique - à la bibliothèque de The American University of Paris – AUP afin d'enrichir sa collection de mémoires universitaires. A partir d'aujourd'hui j'autorise la bibliothèque d'AUP à le cataloguer et l'indexer, à produire et disséminer ses notices, à l'archiver, à le citer, à en faire des résumés et à les diffuser en France ou à l'étranger.

Ainsi, j'autorise AUP à donner un accès gratuit à la totalité de l'oeuvre pour sa consultation sur place, son prêt et sa diffusion pour le prêt entre bibliothèques -- par internet/intranet- en France ou à l'étranger. AUP doit obtenir mon accord explicite pour toute reproduction ultérieure.

Signature

Date 2015

Acknowledgements

I would love to express my sincere gratitude to my supervisor Dr. Mehdi Majidi for his immeasurable invaluable support, precious mentorship and clear guidance throughout my studies at the American University of Paris. I cannot imagine a more perfect supervisor for my thesis. Dr. Mehdi Majidi supported me at every stage of this work and provided me constant encouragement and advice. The collaboration with him has been remarkable, and I cannot be more grateful for his participation.

I would also love to extend my deepest gratitude to Mrs. Valérie David, Director of Sustainable Development Department and Mr. Nicolas Moronval, Head of Phosphore® projects at Eiffage for their enlightening guidance and inspiring instruction during my internship at Eiffage.

Furthermore, I would love to express my warmest thanks to Lindsay Young for reviewing this thesis and making invaluable recommendations. Also, I would like to thank him for his constant precious support and encouragement.

I extend my very special thanks and appreciation to my parents for their infinite love, confidence and support.

MASTER OF ARTS IN CROSS-CULTURAL AND SUSTAINABLE BUSINESS
MANAGEMENT

MARKET-ENTRY STRATEGIES FOR EIFFAGE IN KAZAKHSTAN

Aizhamal Sartbayeva

Abstract

The purpose of this thesis is to propose the market-entry strategies for the French construction company, Eiffage, to implement their innovative sustainable technologies in Construction, Civil Engineering and Sustainable city industries in Kazakhstan. The thesis is prepared for the MA in Cross-Cultural and Sustainable Business Management and focuses on managing sustainability across cultures. The thesis argues that although the world is becoming more interlinked and interrelated due to the globalization, there does not exist a global homogeneous model of sustainable development. Each country has its own path of development, depending on the socio-cultural value system, historical roots of the nation, economic and environmental peculiarities. Another objective is to provide a better understanding about Kazakhstani business culture and practices for Multinational Enterprises, interested in expanding to Kazakhstani market and, most importantly, to cast a light and to increase awareness about certain environmental and economic issues in sustainable urban development of Kazakhstan.

Keywords: Sustainable, Cross- Cultural, Management, Kazakhstan, Construction

Table of contents

Executive summary.....	1
Research method.....	3
Research problem.....	5
Sustainability.....	6
Culture – the 4 th angle of sustainability	10
Kazakhstan: value system and cultural identity.....	13
Cultural dimensions in business environment.....	16
Establishing a moral business culture.....	20
Economy.....	22
Government policies and incentives.....	26
France: role of Sustainability in private sector	30
Eiffage.....	34
Kazakhstan: Challenges in sustainable urban development.....	38
Modernization of housing and utilities industry.....	38
Almaty oblast (region) - earthquake-vulnerable area.....	41
Reconstruction of the “Sorbulak” dam in Almaty region.....	44
Renovation of the roads.....	46
Conclusion: market-entry strategies.....	47
Recommendations.....	49

I. EXECUTIVE SUMMARY

This thesis is a part of my Masters of Arts in Cross-cultural and Sustainable Business Management at the American University of Paris. It is an opportunity to present my vision of sustainability, based on my studies and work experience at the Sustainable Development Department of the leading French Construction and Civil Engineering company Eiffage, to provide a guide about Kazakh business culture and practices for multi-national enterprises (MNE) that are interested in expanding to Kazakhstan and, most importantly, to cast a light and to increase awareness about certain environmental and economic issues in development of Kazakhstan.

It is essential to clarify that this paper *does not* serve as a marketing promotion or a decision-making tool for either Eiffage's executives or Kazakh authorities, but pursues the pure academic purposes to identify the main challenges in sustainable urban development in Kazakhstan, the most economically developed country in Central Asian region (OECD Central Asia Competitiveness Outlook, 2014), and to reveal possible innovative and creative Eiffage solutions suitable for the given situation and territory.

The first part of the thesis will discuss in-depth the notion of sustainability to explain the reasons why companies and countries should adopt and pursue the principles of sustainability in their development models. The second part will outline the role of culture in sustainable development. The underestimation of culture by both governments and companies in decision-making is very common and often results in devastating consequences. Culture shapes the behavior of groups and, therefore, affects the development of the country. Kazakh and Kazakhstani cultural values and norms will be analyzed based on historical background.

For business purposes, culture serves as an essential tool while implementing business strategies. In order to provide a better understanding of Kazakhstani culture for Eiffage's executives, a model assessing the cultural dimensions important for business decisions defined by G.Hofstede, such as power distance, uncertainty avoidance, and masculinity-femininity and long-term vs. short-term orientation and indulgence will be presented. Based on the discussed cultural dimensions, a moral business culture can be established by the organization, which seems neglected by many MNEs.

The analysis of the current state of economy of Kazakhstan is essential for the purpose of this thesis. The diversification strategy of Kazakhstani open market economy continues to attract enormous foreign direct investment (FDI) flows. The main strategies adopted by the government will be assessed, aimed at adopting a sustainable development model while

diversifying the political risks and decreasing the dependency from powerful neighbors, such as China and Russia.

In addition, this thesis explains the role and importance of sustainability in the private sector in France. The macro- and micro- approaches are used to measure the implementations of sustainable policies in France. The macro approach includes the government policies and regulations to enforce the private sector to conduct their business activities in a new way, with a respect to environment, stakeholders and future generations.

The micro approach includes an Eiffage company profile and its sustainable innovative technologies. Eiffage contributes to the industrial development necessary for the progress and economic growth of France; however, it takes a token from the environment. The concrete used in construction is one of the most harmful unrecyclable wastes; the natural resources are widely used in the construction of roads damages the natural habitat and destroys the biodiversity. Thus, Construction and Public Works industry attracts government's special attention, and is central to regulations and taxations.

In this thesis, Eiffage will serve as the main example of sustainable French MNE. After a brief historical background and the *savoir-faire* this paper discusses how the sustainability is integrated at the core of Eiffage's business strategies. The interview with the Director of Sustainable Development Department, Valérie David, and the Head of Phosphore® projects of the Sustainable Development Department, Nicolas Moronval, touches on the unique approach to integrating sustainability into the business strategy and anticipating and preventing the associated risks.

The next part focuses on the present challenges in the urban development of Kazakhstan. It stresses that sustainability is not only about creating SMART buildings in the capital Astana, but to also centralize efforts on the important environmental issues to prevent the damaging consequences in the future and provide the local population with a higher quality of life and safety. In the meanwhile, possible relevant Eiffage solutions are communicated.

In conclusion, based on the analysis of the local needs and on the review of competencies of Eiffage, this thesis will propose several market-entry strategies for Eiffage in Kazakhstan. The advantages and disadvantages of each strategy will be provided.

II. RESEARCH Question

The focus of this thesis can be formulated:

How Eiffage, a leading French MNE specialized in Construction and Civil Engineering industry, can successfully enter Kazakhstani market?

In order to respond to the main research question stated above, this thesis attempts to respond to four sub-questions:

How sustainability strategies can be used as a key competitive advantage in Kazakhstani market

The answer to this question will be found in

- a study of the notion of sustainability and the role of culture in sustainability;
- a research on the role of sustainability in the private sector in France;
- a study of Eiffage's company profile, current projects and sustainability policies

Why Kazakhstani authorities will primarily invest in sustainable practices?

At present, international sustainability norms and regulations enforce private enterprises to incorporate sustainable practices in the core of their business strategies. The Kazakhstani government understands the negligence of sustainability principles may lead to a failure in development. At the core of the national development strategy, there has been established the Concept of the Republic of Kazakhstan for the transition to a Green Economy. The main priorities in the State's transition to the green economy are:

- 1) increasing the efficiency of use of resources (water, land , biological , etc.) and their management ;
- 2) the modernization of existing and construction of new infrastructure ;
- 3) Improving the well-being of the population and quality of the environment through cost-effective ways to mitigate the pressure on the environment ;
- 4) improve national security, including water security. (Stratégie "Kazakhstan 2050", 2012)

This thesis will briefly discuss recent government incentives to attract more FDI and to facilitate the transition towards Sustainable Economy will be briefly discussed. The analysis of the economic environment and the investment climate assessment of Kazakhstan will be conducted.

Why culture is an important factor to consider when entering Kazakhstani market?

The answer to this question will be found in a study of:

- the value system in Kazakhstan,
- Kazakh and Kazakhstani cultural identities,
- Business culture in Kazakhstan.

After the in-depth examination of the local culture, this thesis will attempt to provide guidelines on how to establish a moral business culture in a given country.

What are the optimal strategies to expand the business activity in a target market?

Based on the responses to the previous sub-questions, on the research of the main challenges in urban development for Kazakhstan, and on the previous international expansion strategies of Eiffage, the conclusion for the proposition of several market-entry strategies will be made. When entering a new market, an MNE should consider the historical past of the country, the cultural values and norms, the current economic and political environment and challenges in development. Therefore, the above sub-questions will enable finding a solution to the main research problem of the following thesis.

III. RESEARCH METHOD:

The qualitative method will follow the guidelines and directions Sharan B. Merriam in her book “Qualitative Research: A Guide to Design and Implementation”. This type of research is appropriate to the following thesis, since it is defined as “a situated activity that locates the observer in the world and provides an understanding of the meaning people have constructed. That is how people make sense of their world and the experience they have in the world.”(Sharan, p.8) Thus, following the qualitative research method this thesis will attempt to reveal intangible socio-cultural peculiarities of Kazakh and French cultures in general, and on the organizational level. For this purpose, this thesis includes two interviews with French enterprise Eiffage’s top management executives:

- Valérie DAVID, the Director of the Sustainable Development Department
- Nicolas MORONVAL, the Head of Innovations in the Sustainable Development Department

The main objectives of these interviews are to understand the role and meaning of sustainability in France and at Eiffage in particular.

The research will also include the course materials studied during the MA in Cross-Cultural and Sustainable Business Management at AUP; the extraction of statistical and analytical data from the national agencies and government institutions in Kazakhstan, Eiffage’s publicly available communication materials, such as Annual reports, Website, Press releases and brochures.

IV. SUSTAINABILITY

My favorite definition of sustainability is the one provided by J.Ehrenfeld in his book "Sustainability by design": "Sustainability is a possibility that humans and other life flourish on the Earth forever." From the utilitarian perspective, by choosing a sustainable way of living, the humans can progress and flourish on Earth in harmony with the natural environment.

The notion of sustainability has been first introduced in April 1987 in the Report of Brundtland Commission (former World Commission on Environment and Development): "Our Common Future", also known as "The Brundtland Report." The Brundtland Commission has been established by UN to address the sustainability development of the nations in October 1984.

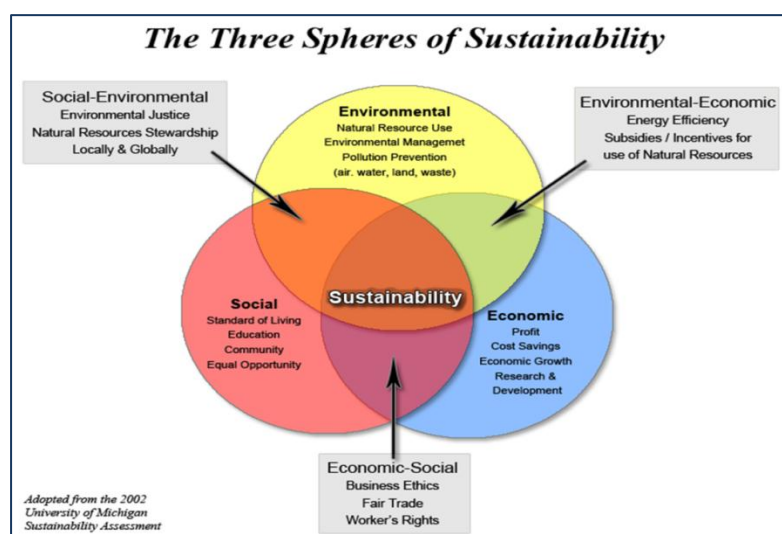
Humanity, philanthropy and empathy are the main pre-requisites of sustainable development. "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present generation without compromising the ability of future generations to meet their needs." (Brundtland Commission, 27) Philanthropy originates from the Greek language and means "the love for the humankind". The empathy is not just an ability to sympathize with others, but also the desire to improve someone's living: "Only curiosity about the fate of others, the ability to put ourselves in their shoes, and the will to enter their world through the magic of imagination, creates this shock of recognition. Without this empathy there can be no genuine dialogue, and we as individuals and nations will remain isolated and alien, segregated and fragmented." (Nafisi)

Brundtland Report identifies two key elements of sustainability:

- Concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given;
- Idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

The concept of sustainability is built upon the three pillars, such as, Environmental, Economic and Social equity. Together, these three dimensions compose a powerful innovative model for the Human Development. The higher quality of life can be achieved through the change in mentality and by the means of innovative technological solutions with respect to the environment.

Figure 1. The Framework of Sustainability



Source: University of Michigan Sustainability Assessment, 2002

The social element of sustainability is based on John Rawls's Theory of Justice (1971), which envisions a society of free citizens holding equal basic rights cooperating within an egalitarian economic system (Stanford Encyclopedia of Philosophy). Socio-economic fairness or social justice is placed at the core of sustainability. Sustainable development is an inherent moral good. The equal opportunity results in an inclusive economy and solidarity with the poor - fostering economic development for them will enhance sustainability.

Three main forms of capital have been identified by the World Bank for the Sustainable Human Development: natural capital (land, water, forests, and subsoil assets), man-made capital (assets and financial resources) and human capital. This thesis argues the role and meaning of the latter has been underestimated. The advancement of the nation will only be achieved if there will be a balance between all three capitals.

Those who are disadvantaged cannot be further disadvantaged, and those include natural capital: natural resources and ecosystems. Humans should be a part of ecosystems and not use natural capital as the means towards achieving their own well-being. From a teleological angle: sustainability urges humans to consider the well-being of future generations and leave a positive footprint. Alternative resources, such as wind and solar energies can be managed so as to provide a continuous source of goods.

Another important concept is environmental justice, which is defined by the U.S. Environmental Protection Agency as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. It will be achieved when everyone enjoys the same degree of protection from environmental and health

hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.”

Stewardship is the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society. (Worrell and Appleby).

The economic profit in sustainability is not achieved at the expense of people or planet, but is viewed as a means to achieve a well-being and higher quality of life of not only present, but future generations, too. “Financing sustainable development should begin by investing in education, financing microenterprises, and by promoting social responsibility.” (Garcia, 135) Thus, individuals will learn how to make the choices favorable for the society and concepts, such as equity, sustainability and social integration will be dominant. “The sustainable development mindset encourages sufficient involvement in Research and Development on macro (government) and micro (enterprise) levels to create an excess capacity to transform a country and an organization into a sustainable ecosystem”.(Majidi, Sustainable Business Management class, Spring 2014).

It is essential to note that sustainability is not Luddite. The use of technologies is highly encouraged and needed. It is about *how* we manage and use them. In his book “Sustainability by Design”, John R. Enherenfeld argues that innovative technologies can be both destructive and beneficial for the humankind and the environment. It depends on how people apply it. “We should be able to redesign the specific forms of technology we use to reveal the world rather than hide it from us, and to open us up to the authenticity” (Enherenfeld, 122).

In terms of human capital, on an organizational level Corporate Social Responsibility (CSR) strategy should be efficient and effective. CSR is defined as a business approach that contributes to the sustainable development by delivering economic, social, and environmental benefits to the society. Within the scope of CSR is ensuring the use of alternative energies, the application of environmentally friendly technologies and providing the safe and fair working conditions to their employees. It suggests following both environmental and ethical conduct. The eco-efficiency is about maximizing the value added while minimizing resource consumption, waste and pollution

Cesar Cuello Nieto, in his article “Toward a Holistic Approach to Ideal of Sustainability”, provides the most appropriate definition of the holistic approach in the sustainable development model: “Understood in a holistic form, sustainability is a complex

and multifaceted vision of development. It is a multidimensional model of development which limits economic growth and other human activities to the capacity of nature for self-regeneration, places the improvement of the human condition (social and human development) as its primary goal, and places respect for environmental quality and the limits of nature at the core of any economic, political, educational, and cultural strategy. This understanding of sustainable development implies respect for the integrity of nature and for the needs and rights of present and future generations” (Cesar, 41).

The sustainable development also should be achieved by international involvement and cooperation. Ideally, international institutions should implement such policies to encourage the private companies to address the development challenges and promote innovation. The conclusion drawn from the “2010 UN MDG Summit” is relevant: “Sustainably addressing the needs of the developing world represents huge opportunities for business, given the long-term demand for investment, infrastructure, products and services it will trigger”.

V. CULTURE – THE 4TH ANGLE OF SUSTAINABILITY

The existing sustainability model is imperfect, since it lacks a very important element - culture. UNESCO defines culture as “a set of distinctive spiritual, material, intellectual and emotional features of society or a social group, which encompasses not only art and literature, but lifestyles, ways of living together, value systems, traditions and beliefs.” For the French novelist André Malraux, “culture is the sum of all the forms of art, of love, and of thought, which in the course of centuries have enabled a man to be less enslaved; it is the combination of mysterious responses that makes one human.”

US originator of developmental psychology Clare W. Graves defines the value system as a set of morals, ethics, standards, preferences, belief systems and world views that come together through self-organizing principles to define an individual, a group or a culture. A more broader definition of the values is provided by the Webster Dictionary: “beliefs of a person or social group in which they have an emotional investment (either for or against something)” (Webster Dictionary).

Culture shapes the behavior and norms for groups of individuals. In his article ‘The centrality of culture: Notes on the Cultural Revolutions of Our Time’, Stuart Hall states that codes which constitute culture define the social action as cultural and result in signifying practices. The culture defines the social order, needs and tendencies, which are necessary to consider when entering the new market.

This thesis emphasizes the management of sustainability across cultures. In fact, sustainability can be equalized to culture, since both concepts mean the way of living. In other words, sustainability is a new form of culture. Culture does not necessarily imply the national background. For a new culture to appear, it is essential to have an influential leader with new values and vision, who will passionately share them with his followers. Some individuals do not agree with cultural norms in their countries of origins, and prefer not to be associated with them. Instead, they create their own culture suitable to their spirits and, adopt new behaviors and norms, which they find appealing.

The modern world is becoming more interlinked and interrelated due to the globalization, meanwhile there does not exist a global homogeneous model of sustainable development making diversity a key to sustainability. G.Pascal Zachary insists: “Diversity defines the health and wealth of nations in the new century. The hybrid is hip. The mixing of races, ethnic groups and nationalities -- at home and abroad -- is at a record level. The impure, the mélange, the adulterated, the blemished, the rough, the black and blue, the mix and match – these people are inheriting earth. Mixing is a new norm” (Zachary, 55).

Businesses have become more interested in the new market opportunities outside their domestic economies for the purpose of diversifying their risks and increasing profits, which gave a rise to international, multinational and transnational companies.

This paper discusses multinational enterprises (MNEs) - new driving forces of the modern market, and powerful agents in politics. The main advantage of MNEs is the diversification of their resources and markets. In comparison to international companies, MNEs can freely move their resources across the borders to minimize their production costs. The financial resources, global presence and diverse range of activities allow MNEs to participate in the development of the countries. In many cases, they represent main providers of jobs and contribute to the industrial development.

In South Korea, *chaebols* (Korean for “business family”) are business conglomerates, which are closely connected to the government agencies, and represent the « trunk » of South Korean economy. By collaborating with *chaebols* the South Korean government intervenes in regulating the market in a sophisticated way – through the private sector agents. One of the well-known and influential *chaebols* is Samsung Group – a multinational company headquartered in Samsung Town, Seoul. Samsung Group, mainly known for Samsung Electronics abroad, also specializes in shipbuilding, construction and engineering, insurance services, theme parks development and advertising. In 2013, Samsung’s revenue reached 17% of the country’s GDP. For MNEs the cross cultural management is one of the keys to success, since:

- it explains the behavior of people in organizations across the world;
- it describes and compares organizational behavior across countries and cultures;
- it seeks to understand and improve the interaction of co-workers, managers, executives, clients, suppliers and alliance partners.

On a macro-level, culture is even more important and should be considered as a primary element in government’s decision-making. Each country has its own path of development, depending on the socio-cultural value system, historical roots of the nation, economic and environmental peculiarities. At present, many governments of the emerging countries have a tendency to pay foreign consultants from the developed world to find the best possible solutions for the economic growth for their country, while undermining their own national identity and culture. Imposition of development model, which has been successful in one country does not guarantee any success for another nation (Majidi, Sustainable Business

Management class, Spring 2014). On the contrary, such practices can lead to failure and even crisis.

Unfortunately, Kazakhstan is not an exception. Kazakhstani government employs reputable experts from the Western world, such as famous American economist Jeremy Rifkin at Nazarbayev University in Astana. In his book “The Third Revolution, How Lateral Power is Transforming Energy, the Economy, and The World”, J. Rifkin argues that in the 21st century humankind is faced with the Third Industrial Revolution – a transition to zero carbon emissions economy, based on combination of renewable energy and the internet. His ideas have been endorsed by the European Union and the United Nations and embraced by world leaders including Chancellor Angela Merkel of Germany, President François Hollande of France, and Premier Li Keqiang of China.

However, Rifkin generalizes all the nations as one common group – humankind, without considering the cultural and economic differences. His model is applicable to the Western developed world, which has already been through the First (1760 -1850) and Second (1850-1910) Industrial Revolutions. Throughout centuries, Western sedentary cultures have been modernizing their ways of living by inventing more and more of the new technologies. At present, the Western world is going through a smooth transition towards a sustainable way of living. The use of alternative energies is the conscious choice of the citizens. The use of latest IT technologies and Internet is a norm, even for elderly generations. By combining two of these elements – green energies and technologies, the progress can gradually be achieved. The Western society is prepared and willing to accept this change.

VI. KAZAKHSTAN: VALUE SYSTEM AND CULTURAL IDENTITY

Kazakhstan has not been through the same stages of development as the Western countries and it is crucial for Kazakhstani government to realize the connection between the past, present and future in order to truly advance economically, technologically and socially. Only by learning about and fully accepting our past, we can move forward into the future. If we voluntarily decide to deny and forget our past, because of its implications and imperfections, we will then not be capable of seeing into the future with its great opportunities and accomplishments.

In this paper, it is important to distinguish Kazakh and Kazakhstani cultures. Kazakh is referred to the ethnic national culture, whereas Kazakhstani to the culture of the total population of Kazakhstan, 63,1% of which are Kazakhs, 23,7% - Russians, 2,9% - Uzbeks, 2,1% - Ukrainians, 1,4% - Uighours, 1,3% - Tatars and 1,1% are Germans.

Kazakh culture is the opposite of sedentary - *nomadic*, which means they did not have any permanent houses and travelled across the country in tribes with cattle in search of fertile pasture and water. The word “kazakh” translates from Kazakh language as a “free man”. Kazakhstan is the 9th largest country in the world with diverse natural habitats and weather conditions. The climate is continental, with extreme cold and hot temperatures. The territory is vast and very diverse, ranging from rocky Tyan-Shan mountains in the South; Kara-Kum (black-sand) deserts in the Central region to sub-Siberian North steppes. The territory suggests natural disasters, such as droughts, floods, and cold storms, which are manageable nowadays with the help of technologies, but not in the ancient times.

In addition to the severe climatic conditions, Kazakh people suffered from foreign invasions and wars. The most memorable and influential was the invasion of Djungarian (modern Mongolian) khanate from 17th century to the middle of 18th century. The war of more than half a century had an inerasable footprint in Kazakh history. Thousands of tribes were destroyed -- people were starved to death, humiliated and killed. In the 18th century, it seemed reasonable for Kazakh Khans to obtain the protection of the Russian Empire. However, they did not envision that Russian Tzars would colonize the Kazakh people for another two centuries. Though, the positive side of the Russian colonization was the change from the nomadic lifestyle to sedentary and husbandry.

Thus, to survive in such extreme climatic conditions and continuous attacks of foreign nations required to stay united as a community. Indeed, in crisis situations, the community members collaborate and such human qualities as compassion and empathy are evoked. This is why Kazakh people have always had the collectivist mentality.

Then, in 1930s, the Communist regime has been forcibly imposed during the Soviet Union. The strict Soviet regimes managed to “Russify” the Soviet Member States and to leave the indelible footprint. “Russification” did not only suggest the adoption of the Russian language and culture, but the rejection of the authentic native culture of the Soviet States. Kazakhstan, one of the Post-Soviet countries, has been largely influenced by Russia, since it has become aligned with Russian long before the formation of the Soviet Union. In the 18th century the Kazakh Khanate has voluntarily become a part of the Russian Empire in hope for the support in defense from its threatening neighbors, such as Chinese and Mongolians. The patronage of Russia indeed provided a protection, however, the toll from the Kazakh side was to shift from the nomadic way of living to the sedentary, as well as embrace the Russian culture and norms.

Indeed, Kazakhstan is probably the only country in Central Asia, in which the idea of self- identification and self-association with Russia has been a success. The “Russification” of Kazakhs reached its peak during the Soviet times. In 1925 there has been declared Kazakh Autonomous Socialist Soviet Republic (KazASSR). The official language of Kazakhstan until 1991 has been solely Russian. The education system entirely eliminated Kazakh language as a subject or a language of study. The cultural activities and events were held strictly in Russian, whereas the practice of any religion was banned. Kazakh children, such as my mother, studied their history and learnt about their traditions only through stories of their grandparents. Her parents were heavily influenced by the Soviet ideologies. Any propaganda of the native Kazakh culture was considered a threat to the Soviet society and was strictly punished.

Khrushchev’s plan of development of the Virgin lands of Kazakhstan led to the arrival of thousands of Russian, Ukrainians and other nations for the purpose of cultivation and industrialization of Kazakh steppes. Consequently, the native population comprised only 36% of the total population of Kazakhstan until 1991. In such circumstances, Kazakhs started to forget their language and their original culture.

The loss of cultural identity in Central Asia has been discussed by Kirghiz writer Chingiz Aitmatov. In his novel “The Day Lasts More Than a Century” (1980), Aitmatov introduced and popularized the term *mankurt* - a person, who is not aware of his own culture, language and historical background. The author presents a legend about a Kazakh shepherd, who was captured in the Chinese tribe Zhuan Zhuan and was severely tortured. As a result, the shepherd experienced the total memory loss, which turned him into a perfect slave, who would never attempt to return to his motherland and question the authority of his owner.

However, the blunt statement that Russian influence brought only a negative transformation in Kazakh culture would be unfair. With time these two nations got accustomed to each other, have voluntarily exchanged and adopted the cultural attributes and live in peace and mutual respect on the territory of Kazakhstan. The proof for the above statement is that the majority of Russians, as well as other nations, residing in Kazakhstan, associate themselves as Kazakhstanis. A symbiosis of Russian-Kazakh cultural traditions and customs appeared on the territory of Kazakhstan. Kazakhs started celebrating New Year and Christmas, whereas Russians adopted celebration of Nauruz. In some cases, Kazakhs started consuming pork (which is strictly banned by Islam), and Russians started eating the horse meat (which they never ate before). The Kazakh-Russian mixed marriages emerged and have become common. Nevertheless, the Russians did not forget their language, whereas Kazakhs started neglecting Kazakh language in their own homeland.

It is difficult to be assured of it *mankurtism* is an appropriate term to describe the situation in Kazakhstan. Nevertheless, the firm political decisions of USSR resulted in a threat of the loss of Kazakh identity. On December 16th in 1991, Kazakhstan has declared its independence and sovereignty and established new set of policies, aimed at stressing the national identity and reviving the Kazakh culture. Kazakh and Russian have been declared as official languages and mandatory to learn in schools. The previously banned literary has been rehabilitated and has become an obligatory subject in the education system. However, the return of Kazakh culture and language into its own original shell is very challenging and time-consuming process. One cannot just revive something, which has been destroyed for years. Kazakh, raised on the Russian culture have been often attempt to resist the abrupt changes. It will take years of hard work for Kazakhs to fully restore their identity, history and language.

VII. CULTURAL DIMENSIONS IN BUSINESS ENVIRONMENT

This chapter discusses how culture can be measured, compared and why culture is important in international business. Geert Hofstede, Dutch social psychologist, who has become the founder of comparative intercultural research after the publication of his scholarly book *Culture's Consequences* (1980, new edition 2001), created a model to measure culture through six dimensions : power distance, individualism-collectivism, uncertainty avoidance, masculinity-femininity, long-term vs. short-term time orientations and indulgence.

This method has evaluated cultures of 50 countries, and serves as a tool to provide a better understanding of the business culture in each of the countries. Hofstede's model is an invaluable help-book for the MNEs. However, it is important to consider the background of the individual with whom one starts a business, since exceptions always exist.

The role of cultural differences is often underestimated by managers, who are mostly fixed on numbers and forget that they actually manage real humans with feelings and emotions. Culture is a powerful tool for the success of organization. The robotic profit-fixed managers do not realize that financial remuneration is only one part of criteria when choosing a job. There are many other means to motivate your employees and increase productivity. The underestimation of cultural aspect has led to many M&A failures, such as Daimler and Chrysler.

In their book, "Understanding Global Cultures : Metaphorical Journeys through 29 Nations, Clusters of Nations, Continents, and Diversity" Martin J. Gannon and Rajnandini Pillau provide a 360° degree perspective on ways of living in diverse societies across the globe, using Hofstede's dimensions as the basis. In their classification of cultures, they identified countries, such as Mexico and Russia, as "torn national cultures" - societies, which went through oppressions, which led to significant enforced transformations.

Kazakhstani culture can also be related to the same cultural group, due to its historical background, discussed in previous chapter. Torn national cultures suffered from invasion, totalitarian political regimes, severe economic crises and famine. As a result, such cultures possess a high uncertainty avoidance and power distance. Kazakhstani culture is primarily family-oriented and collectivist. It is a norm for parents to sacrifice everything to provide a better life for their children.

Unfortunately, Doctor Geert Hofstede has not yet conducted his research on Kazakhstan, and therefore, there does not yet exist a comprehensive model to measure Kazakh culture. However, for the purpose of this thesis, Kazakhstani culture will be assessed

in accordance with Hofstede's cultural dimensions. However, this assessment will be purely based on subjective opinion and personal observations of a modern Kazakh young woman, who thanks to her studies and work had the chance to discover and integrate with various cultures across the globe.

Power distance

Hofstede defines power distance as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. Kazakhstani culture certainly suggests a high power distance, on the same level as Russia, which is 93/100. It is common for authoritarian traditional societies. The hierarchy at the workplace is highly defined. Authoritarian managers have a high degree of control over all activities without any meaningful participation of the subordinates; they define goals and the ways they should be achieved. Employees prefer to be provided with clear directions, tasks and missions. The age also matters in the hierarchy, since knowledge is associated with the experience. Traditionally, there is great respect towards the older people and the hierarchical management system predominates. Therefore, although there are always exceptions, there is a low chance a younger person gets a high-ranked position at the workplace.

Uncertainty avoidance

Uncertainty avoidance is the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these, which is reflected in the UAI score. Russian UAI score equals to 95/100. Kazakhstani score is around the same level, since risk-taking is not welcomed in family-oriented collectivist cultures. Workers prefer stability over one-time fortune. It is common to have long-term work contracts, rarely do people work free-lance as in US for example. The relationship comes over the business, which results in hiring relatives as the employees, regardless of their competencies and skills. Because of the oppressive past, it is hard to gain trust, for foreigners especially, from Kazakhstani people in business.

In torn national cultures, the trust is relatively hard to obtain, because a human is perceived as having being a mixture of good and evil. Octavio Paz describes a Mexican as a "person who shuts himself away to protect himself; his face is a mask..." (Gannon, Pillau, 2003). Paz's description corresponds well to typical Kazakhstani businessmen or government officials. In fact, many foreigners get astonished by the fact that Kazakhstani authorities rarely smile. In American or European cultures, a smile is a sign of respect, friendliness and politeness, which are essential to establish trustworthy business relations. However, for Kazakhstani authorities it is a sign of respect to follow the formalities and hold a distance.

Masculinity-Femininity

Masculine societies are driven by competition, achievement and success, with success being defined by the winner/best in field – a value system that starts in school and continues throughout organizational behavior. The higher the score, the more masculine society is. The fundamental issue here is what motivates people, wanting to be the best (masculine) or liking what you do (feminine).

It is common for individualistic societies, such as the US, where the highly-competitive environment pushes individuals to advance and grow, by providing better quality goods and services. Russian culture represents feminine society with its score 39, because of its collectivist and socialist values. Kazakhstani culture is even more feminine, since the sense of community, family and belonging is higher than in Russia. Altruism is highly appreciated and encouraged, and the quality of life is the sign of success. Therefore, when it comes to business, Kazakhstani workers need to primarily understand *why* their job is important and should be motivated by the *idea* behind their job. For instance, if it is a construction worker, he needs to know that he will be building the first in history a sustainable and intelligent hospital in Kazakhstan. Although, Kazakhstani society is feminine, the families always remain patriarchal.

Long- vs. Short-term orientation

This dimension shows how every society has to maintain some links with its own past while dealing with the challenges of the present and future. The long-term oriented societies think of future generations and are inclined to saving their wealth. In a Post-Soviet space, there is a large tendency to save among older generations, since they survived World War II and the crash of the Soviet Union, accompanied by long-term economic recession. Thus, even when a person increases his income substantially, he or she still has the mentality of saving “in case something bad happens”.

Due to the later modernization, the notion of wealth dominates, thus the working conditions matter, whereas the duration of working hours is almost unlimited. The future benefit anticipation is a good motivator, since people need hope. In Soviet times, the future-oriented development plans were popular, such as *pyatiletka* (Russian for a 5-year development plan). This explains the success of Kazakhstani government development strategies, such as Strategy 2030 and 2050.

The respect of time and deadlines are not well defined as in the Western world. Similar to oriental Middle-East society, Kazakhstanis may be late for meetings and not submit the work on time. They do not like to be rushed.

Indulgence

Indulgence stands for the extent to which people try to control their desires and impulses, based on the way they were raised. The Indulgence index for Kazakhstani society is relatively low and equals to 30. The strict social norms of Kazakhstani society suggest modesty and restraint, and the expression of emotions is not welcomed. These principles are common for the oriental cultures. When children are raised, they are taught that it is important to control your emotions and feelings if they want to succeed.

VIII. ESTABLISHING A MORAL BUSINESS CULTURE

After measuring and assessing a foreign culture, it is challenging for a business to establish an organization culture in a given country, in particular, how to convince the employee to believe in, respect and follow the ethics and values of the organizations if they are different from the host country values. The role of business is underestimated in societies transitioning towards democracy. When the market, which has been controlled for ages, suddenly becomes free, it is fairly easy to overstep the ethical norms and get involved into corruption activities. South Africa is illustrated as an example of such economies. Under the apartheid system, the market was dominated by the conglomerates that have good ties with the government to maximize the income of the white race at the expense of the black race.

Such economic regime is similar to the South Korean, where the *chaebols* - business conglomerates, under the patronage of the government make a major contribution to the GDP of the country. In Western European countries, such as Germany and France, the government prevents the creation of monopolies and supports SMEs through subsidies and other development programs. In newly formed democracies, such as South Africa and Kazakhstan, the government the free market may be seen as opportunistic (self-interest). It is more difficult for small businesses to overstep the market barriers established by the large companies, supported by the government.

In their article “Establishing Moral Business Culture in Newly Formed Democracies”, Gedeon and Rossouw argue that it is possible to establish a solid moral business culture in societies transitioning towards democracy and provide several recommendations to the businessmen.

Moral business culture is defined as a commitment by a company to conduct business in a manner which will respect the interests of all stakeholders affected by their activities within the framework of a competitive market driven economy (Gedeon, Rossuw, 1998). The starting point of an ethical business is to treat employees fairly and in respectful ways. The main purpose should be to motivate the employees and maintain their loyalty. This simple factor is logical and applies to reality. If companies fail to motivate their employees, their productivity levels become low.

The trust and equality between individuals in the society should be slowly developed in emerging Post-Soviet countries, such as Kazakhstan, where the business is usually established only with the people you trust. The primacy of relationship over business is common. To reduce the need for trust and provide investors with confidence in the secure investments, Kazakhstani government should comply with international regulations as well as

introduce additional domestic laws and regulations to protect the investors. The establishment of intermediaries, such as Ombudsman, financial and legal services agencies is essential.

The ethical business can be constructed on three simple components: “self, good and the other” (Gedeon, Rossouw, 1998). Individuals can overcome their self-centered behavior, when they realize they are responsible towards others in the society. The responsibility to not cause harm from their activities can be externally (through education) or internally (self-consciousness) induced. These three components can be taught in schools to the future generations, since the past and present generations have a strong vision of doing business, which is uneasy to move and change. Plus, even if one initiates such behavior, it may be interpreted as against the community, and, he thus, can put not only his business, but also his life under a threat.

IX. ECONOMY

After the collapse of the Soviet Union, the economy of Kazakhstan was in a deep recession and the government had to adopt a new economic and political structure and development strategy. At present, the population is faced with a major transition from communist to free market system, which is complex and should be implemented in a smooth systematic manner on a multi-dimensional scale. The most challenging parts of transition is the shift in the mentality and society, which has been oppressed for centuries and in the past 22 years has been finally liberated.

In 1997, President Nazarbayev launched a sustainable development strategy called "Kazakhstan 2030", with the slogan, "Let's build the future together". Within ten years, by the virtue of this strategy, Kazakhstan managed to make qualitative breakthrough in the economic development, concentrating on seven long-term priorities: national security, internal political stability and consolidation of the society, development of energy resources, provision of sustainable economic growth, based on principles of open market economy, healthcare, education, and Kazakhstanis welfare, infrastructure development and formation of professional Government. (Stratégie "Kazakhstan 2050", 2012)

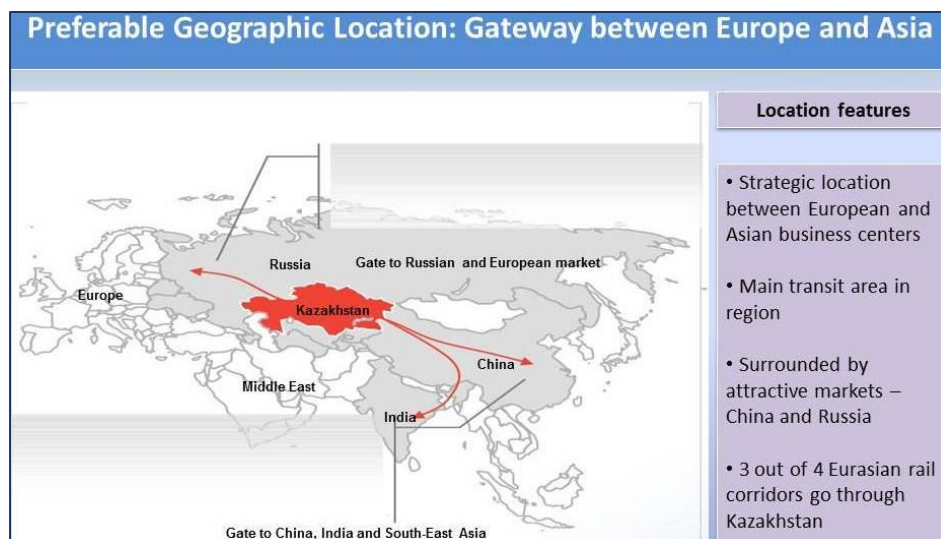
Liberalization of private initiative and enterprise, active external trade and attraction of investments are the base of our economic progress. In the recent decade GDP has increased from \$ 22 bln to \$ 100 bln - almost by 5 times. Since 2010, Kazakhstan takes the first place in uranium mining in the world. In terms of oil reserves, it holds the second place after Russia among the former Soviet countries. In 1997-2006 republican budget allocated over KZT 280 bln for construction and reconstruction of 4 000 km of motor roads and reparation of 13 000 km of RK roads. 2016 RK Transport Strategy was adopted in 2006. In its frames about 80 investment projects worth \$ 30 bln will be implemented. Kazakhstan is a member of the United Nations, OECD, North Atlantic Cooperation Council, Commonwealth of Independent States, the Shanghai Cooperation Organization, and NATO's Partnership for Peace program. There are predictions that Kazakhstan will be among 5 top oil producers in the world in the near future. (Stratégie "Kazakhstan 2050", 2012)

The Kazakhstan free-market economy approach demonstrates the absence of barriers for international trade and the presence of the willingness to engage with a variety of countries without favoring anyone in particular. The Princeton University defines a free market "as a market in which there is no economic intervention and regulation by the state, except to enforce private contracts and the ownership of property. It is the opposite of a

controlled market, in which the state directly regulates how goods, services and labor may be used, priced, or distributed, rather than relying on the mechanism of private ownership.”

The main attractiveness of Kazakhstan is its vast territory, strategic geographical location between West and East and rich natural resources base. KZ’s natural gas resources account for 65-70 trillion cubic feet, which is comparable to Canada and Kuwait and ranking it in the top 20 countries in the world (World News Kazakhstan Energy Report). In addition, Kazakhstan is known for its large deposits of copper, zinc, rare-earth metals, coal, iron, silver, gold, bauxite, natural gas and oil. Since 2010, Kazakhstan holds the first place in uranium mining in the world. In terms of oil reserves, it holds the second place after Russia among the former Soviet countries. There are predictions that Kazakhstan will be among the five top oil producers in the world in the near future. Companies such as Chevron, British Gas and Texaco made considerable investments into the development of production base of Kazakhstan. Moreover, Kazakhstan is a net exporter of gas.

Figure 2. Geopolitical location of Kazakhstan



Source: KAZNEX

On the other hand, the economy is mainly based on natural resource extraction, and the use of alternative energies accounts solely for 3%. The transition to the green economy will not be that smooth as in Europe, and will require the right choices, which can be achieved through reinventing the Kazakh national identity and education of citizens about sustainability. The major challenge for Kazakhstan is to adopt a sustainable economic and industrial development model, in which the conservation of the national identity is placed at the core of the development strategy.

Since the collapse of the Soviet Union, the country went through a recession and then experienced rapid economic growth mainly due to the export activities, domestic production

and capital investment. Kazakhstan possesses a rich base of natural resources, however, for further growth Kazakhstan needs to redefine its focus from producing and exporting the unprocessed raw materials to producing and exporting the higher value-added refined goods and services as well as to encourage the development of the local markets.

The environmental factors should lie at the core of the sustainable business strategy, especially in the construction industry. The climate of Kazakhstan is continental, with extreme cold and hot temperatures. The territory is vast and very diverse, ranging from rocky Tyan-Shan mountains in the South; Kara-Kum(black-sand) deserts in the Central region to sub-Siberian North steppes. The territory suggests natural disasters, such as droughts, floods, and cold storms, which are manageable nowadays with the help of technologies, but not in the ancient times.

Kazakhstan increased its investment attractiveness. Among recent achievements, Kazakhstan now takes first place in the world for the flour export and the 7th for wheat export. From the Figure 2 below, France ranks as the 6th largest investors in Kazakhstan. In 2013, 100 French enterprises operate in Kazakhstan, such as Total, Areva, Alstom, EADS, Thalès, Lactalis, Soufflet etc.

Figure 2. Gross FDI inflows and outflows, 2005-2013, bln.\$

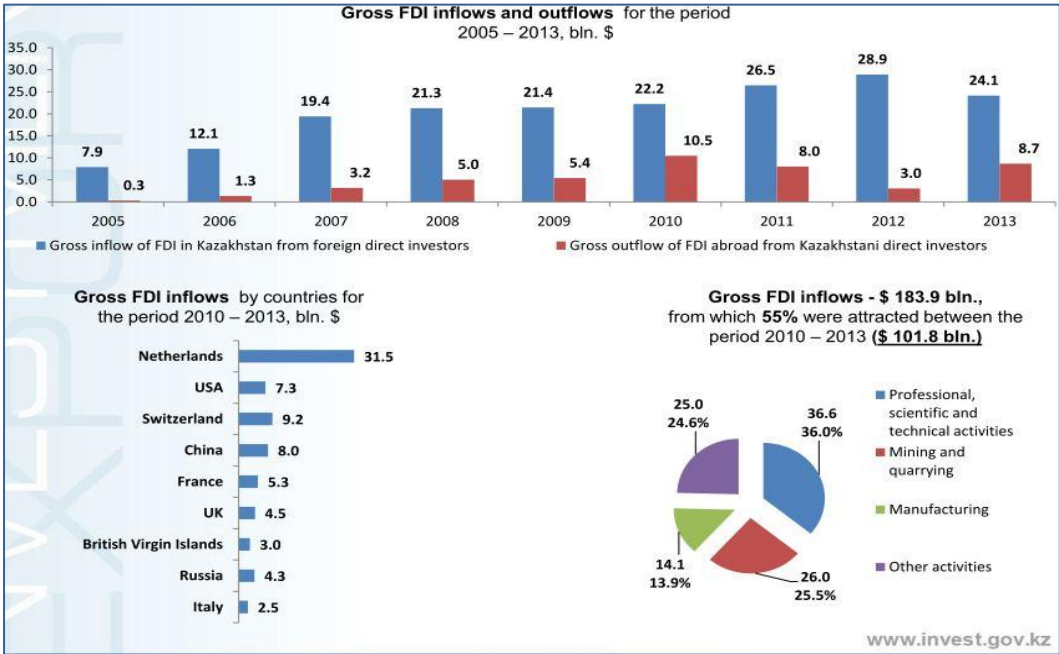


Figure 3. Kazakhstan GDP, 1992-2013, bln.\$



Source: TradingEconomics

Around 80% of all foreign investments drawn to Central Asia proceed to Kazakhstan, which proves confidence in Kazakhstan’s future. President Nazarbayev comments on the improvements in foreign policy: “Liberalization of private initiative and enterprise, active external trade and attraction of investments are the base of our economic progress. In the recent decade GDP has increased from \$ 22 bln to \$ 100 bln - almost by 5 times.”

X. GOVERNMENT POLICIES AND INCENTIVES

KAZAKHSTAN-2050

On December 14, 2012, President Nazarbayev established the national strategy “Kazakhstan-2050”, aimed at sustainable economic, social, political and cultural development of Kazakhstan. At the core of the strategy lies the motivation to become one of the top 40 world powers and position Kazakhstan as an international center of stability in the service of peace. Within “Kazakhstan-2050, there are several sub-strategies, such as “Green Economy”, “State Program of Forced Industrial and Innovative Development” (SPFIID) in 2 phases: 2010 - 2014 and 2015 – 2019. The main purpose of the SPFIID 2010 – 2014 was to start the industrial diversification and overcome consequences of global crises. The program goal for 2015 – 2019 is to promote diversification and increase industry competitiveness (KAZNEX).

Figure 4. Goals and target indicators of the Green Economy

Sector	Target description	2020	2030	2050
Water resources	Eliminate water gap on national level	Provide all population with access to water	Provide agriculture with water (by 2040)	Solve water resources problem forever
	Elimination of water gap on basin level	Fastest closure of water gap by basins all together (by 2025)	Elimination of water gap in each basin by 2030	
Agriculture	Labor efficiency in agriculture	3-fold increase		
	Wheat yields (ton/ha)	1.4	2.0	
	Water spent on irrigation (m/ton)	450	330	
Energy efficiency	Reduction of energy intensity of GDP from levels of 2008	25% (10% by 2015)	30%	50%
Power sector	Share of alternative sources ¹ in electricity production	Solar and wind: not less than 3% by 2020	30%	50%
	Share of gas power plants in electricity production	20% ²	25% ²	30%
	Gasification of regions	Akmola and Karaganda regions	Northern and Eastern regions	
	Reduction of current CO ₂ emissions in electricity production	Levels of 2012	-15%	-40%
Air pollution	SO _x , NO _x emissions into environment		European levels of emissions	
Waste recycling	Municipal solid waste (MSW) coverage		100%	
	Sanitary utilization of waste		95%	
	Share of recycled waste		40%	50%

Source: “Concept for transition of RK to Green Economy”

ASTANA EXPO 2017

One of the main government's incentives to increase FDI and address the sustainability issues is ASTANA EXPO 2017 was the first EXPO in Central Asia: "On Nov. 22, 2012, the 156 member nations of the International Exhibitions Bureau (BIE) met in Paris and decided by an overwhelming majority vote of 103 countries that EXPO 2017 will be held in Astana" (EdgeKZ). The theme "Future Energy" is part of the national development strategy « Green Economy ». The exhibition will take place from June 10 to September 10, 2017 on a 25 hectare site in the tax free Special Economic Zone (SEZ) in Astana. The organizers expect more than 5 million visitors for this event.

The government of Kazakhstan has allocated 250 million euros (\$325.25 million) to construct the EXPO site and build a new generation of mass transit and roads to serve it. The government also expects to attract 1 billion euros (\$1.3 billion) in foreign investments for the new buildings, roads and transit systems, including a new city railway system. The expected return of this event is 283 million euros (EdgeKZ).

SPECIAL ECONOMIC ZONE

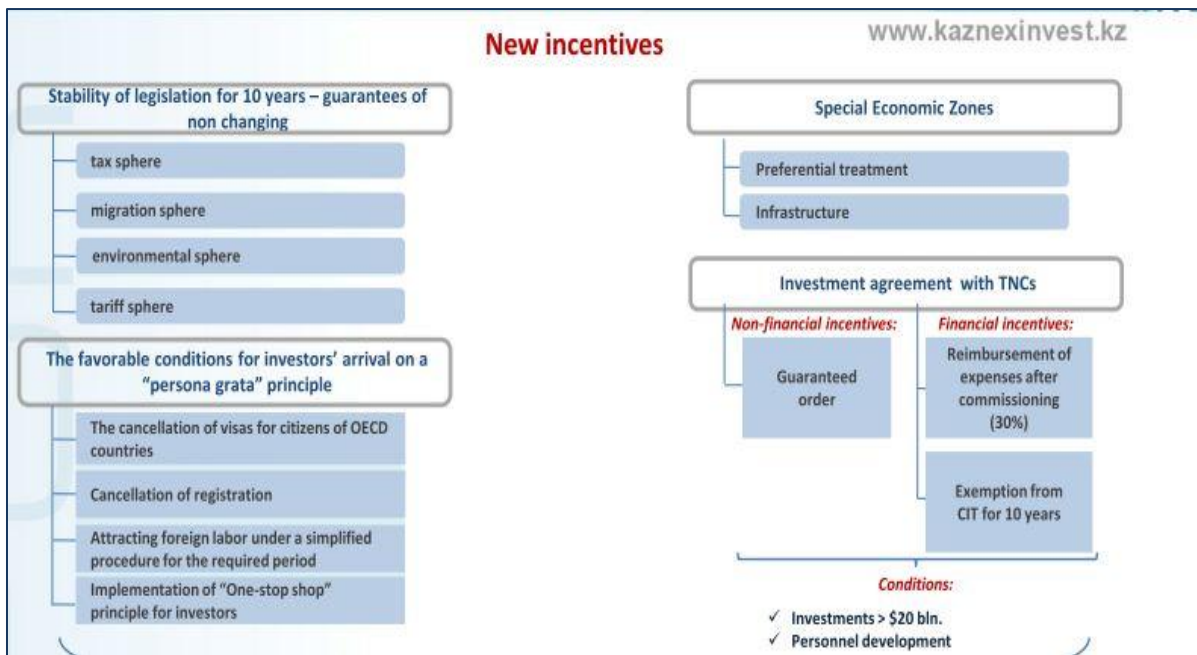
In order to increase investment attractiveness the government created a Special Economic Zone (SEZ), which includes the exemption from corporate tax, land tax and property tax. However, these goods must meet all requirements of SEZ creation purposes according to the list of goods defined by the Government of the Republic of Kazakhstan. «Special economic zone» – it is strictly delimited area of the Republic of Kazakhstan with special legal regulation of special economic zone to implement activities of highest priority (The Law «About special economic zones»).

Figure 5. Special Economic Zone



Source: KAZNEX

Figure 6. New Government Incentives, 2014



Source: KAZNEX

In order to create a sustainable and efficient development model for Kazakhstan, it is important to learn lessons from the advanced countries, known as “exemplary” in sustainable development, while considering the national culture to adopt the most suitable way of development. French sustainable practices are central to this thesis because of the interest of the French companies in expanding to Kazakhstani market and because of my personal work experience at the French sustainable and socially responsible enterprise Eiffage.

For the successful practical implementation of sustainability, the shift in the mentality and belief should be accomplished first. In modern France and in Europe, in general, there persists a concept of European dream, discussed by Jeremy Rifkin: “The European Dream emphasizes community relationships over individual autonomy, cultural diversity over assimilation, quality of life over the accumulation of wealth, sustainable development over unlimited material growth, deep play over unrelenting toil, universal human rights and the rights of nature over prosperity rights, and global cooperation over the unilateral exercise of power” (Rifkin, 2004: 3).

Due to the nomadic past and Soviet Union Membership Kazakhstani society still has the collectivist socialist values. Nomadic tribes needed to remain strongly united communities in order to simply survive in constrained climate conditions and defend their resources from other tribes. Marxist collectivist ideologies were imposed in all Soviet countries: “If we have chosen the position in life in which we can most of all work for mankind, no burdens can bow us down, because they are sacrifices for the benefit of all; then we shall experience no petty, limited, selfish joy, but our happiness will belong to millions, our deeds will live on quietly but perpetually at work, and over our ashes will be shed the hot tears of noble people” (Marx, 1837).

Future orientation is another feature suitable to Kazakhstani mentality. European dream is an inspiring future-oriented belief in collective well-being; constant improvement of standards of life and conservation of nature. It requires the efforts and contribution of each person of the society to the common welfare on the daily basis to achieve the European dream and enforce the EU integration. Thus, on the example of France, Kazakhstan can learn about and adopt or exclude some aspects when implementing the sustainable development model.

XI. FRANCE: ROLE OF SUSTAINABILITY IN THE PRIVATE SECTOR

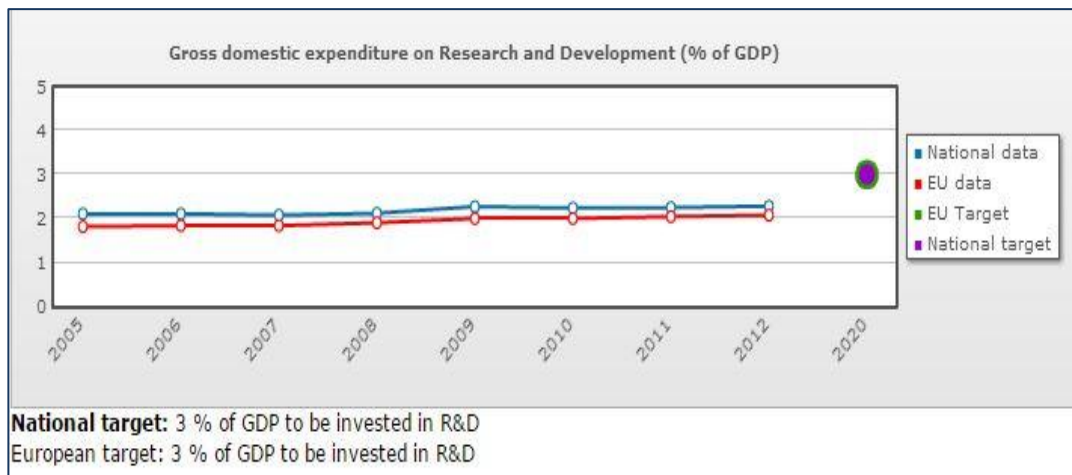
Some scholars believe that private sector should be the major player in implementing sustainable development. In his article, “Sustainable Development and the Private Sector: A Financial Institution Perspective” Enrique Garcia argues that the sustainable development should be primarily the objective of the private sector. He stresses that economic activities can be performed more efficiently by the private sector, rather than by the “heavily-regulated” government: “Efficiency, enhanced productivity, world-wide based markets demand competition, technology transfer, strategic alliances, and investment can be performed more dynamically by the private sector.” Nevertheless, government regulations can provide directions and incentives for the private sector for making the right choices. France is a good example of Public-Private partnership, aimed at improving standards of living.

France is Europe’s second largest economy and the fifth largest in the world. France is Europe’s second largest consumer market, with 65 million inhabitants. Country’s Gross Domestic Product is US\$ 2.886 trillion (Global Finance 2014 estimate) and consists of agriculture: 1.9%, industry: 18.7% and services: 79.4% (2013 estimate). France is Europe’s largest aerospace and nuclear industries, second largest agri-food and chemical industries, third largest ICT and pharmaceutical sectors (Invest in France).

Highly advanced industrial development takes its toll from the environment. For this purpose, the European Union as well as French government established set of sustainable development policies for France. The EU Commission implements different policies aimed at supporting and ensuring the development of SMEs, through various subsidies, accessible loans, microcredits and financial aid from the European Investment Bank. Unsurprisingly, Europe has been the role model for the sustainable and innovative development.

The Europe 2020 strategy is about delivering growth that is: smart, through more effective investments in education, research and innovation; sustainable, thanks to a decisive move towards a low-carbon economy; and inclusive, with a strong emphasis on job creation and poverty reduction. The strategy is focused on five ambitious goals in the areas of employment, innovation, education, poverty reduction and climate/energy (EU Commission). The EU set specific targets for all its members to be met until 2020. France spends 2.2% of its GDP on Research and Development, whereas EU 2020’s target is set at 3%.

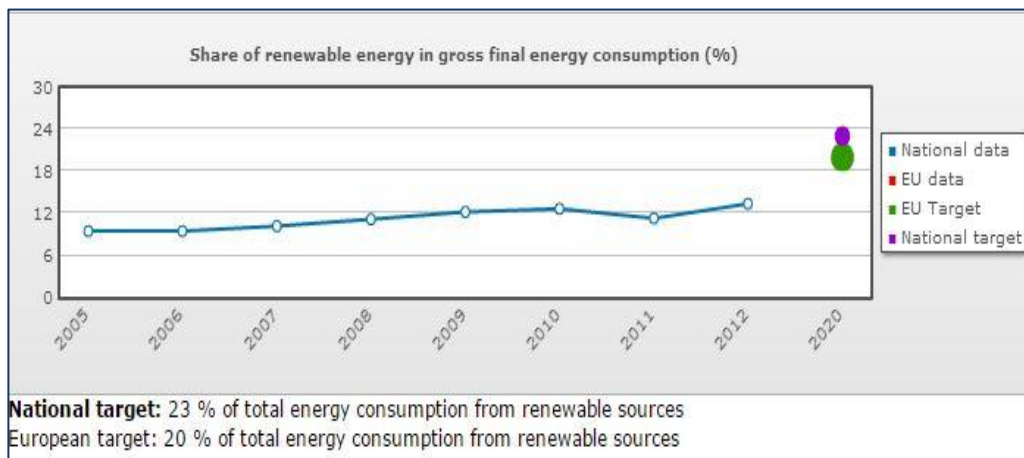
Figure 7. Gross domestic expenditure on Research and Development (% of GDP)



Source: Eurostat

In terms of renewable energy resources, the French national objective is to reach 23% of its final energy consumption from renewable sources by 2020, by sector: Heat (geothermal, biomass, solar, heat pumps, and renewable portion of waste) at 33%, 27% and electricity transport 10.5% (MESDERF).

Figure 8. Share of Renewable Energy in gross final energy consumption (%)



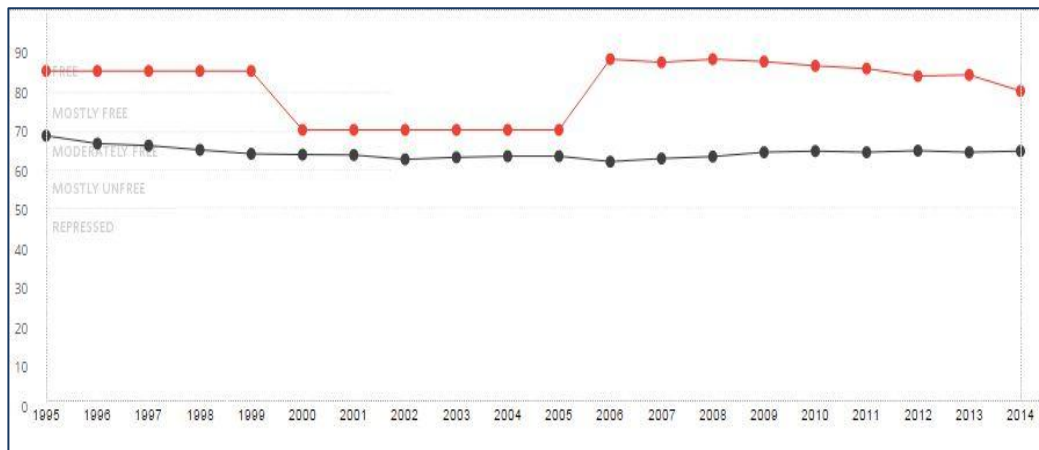
Source: Eurostat

In 2007, the French government established the Ministry dedicated to the Ecology, Sustainable Development and Energy and responsible for State Environmental Policy (Preservation of Biodiversity, Climate Kyoto Protocol Application, Environmental Control of industries, etc.), Transportation (air, road, railway and sea regulation departments), Sea, and Housing Policy.

The government intentionally creates a pressure on the commercial companies, such as the increase in carbon tax and, thus, enforces the companies to search and/or invent other solutions, such as alternative energies or new building materials. As a result, 12 French

companies or institutions are among the 100 most innovative organizations in the world (Thomson Reuters, 2013). Despite the government regulations, business activities are encouraged and favorable domestic and export market conditions, such as import tariffs, low corruption index, strong legal protection and export promotion policies, are implemented. In 2014, Business freedom index is 79.9 (Heritage).

Figure 9. Business freedom in France



Source: < <http://www.heritage.org/index/visualize>>



The French CSR reporting system introduced the “Grenelle II article 225”, which is one of the world’s most comprehensive acts, since it encompasses the social and environmental consequences of the activities of both unlisted and listed companies in the French stock exchange. The environmental impact is measured by the implementation of the general environmental policy, pollution and waste management, sustainable use of resources, climate change and protection of biodiversity. The social impact incorporates company’s territorial impact and economic and social activity; external relations with individuals or organizations interested in the company’s activities; subcontracting and suppliers; loyalty practices and human rights. In addition, French article 225 obliges the enterprises to release the data about their social commitments to sustainable development in their annual reports.

In terms of the impact of private sector on the environment, France is classified in the top 30, measured by The Environmental Performance Index (EPI), developed by Yale University. The index consists of the Environmental Health and the Ecosystem Vitality and measures the protection of human health from environmental harm, ecosystem protection and resource management. In 2014, France has been ranked 27th among 178 countries with the EPI score 71,05/100, whereas Kazakhstan is listed as 84th with the EPI score 51, 07.

The World Energy Council introduced the Energy Sustainability Index, which ranks countries in terms of their likely ability to provide sustainable energy policies through the three dimensions of the energy trilemma:

- Energy security: the effective management of primary energy supply from domestic and external sources, the reliability of energy infrastructure, and the ability of participating energy companies to meet current and future demand.
- Energy equity: the accessibility and affordability of energy supply across the population.
- Environmental sustainability: the achievement of supply and demand-side energy efficiencies and the development of energy supply from renewable and other low-carbon sources.

Figure 10. Top 10 countries according to Energy Sustainability Index (ESI), 2013

					
RANK	Environmental Sustainability	RANK	Energy Equity	RANK	Energy Sustainability Index (2013)
1	Switzerland	1	United States	1	Switzerland
2	Costa Rica	2	Canada	2	Denmark
3	Albania	3	Australia	3	Sweden
4	Colombia	4	Luxembourg	4	Austria
5	Uruguay	5	France	5	United Kingdom
6	Sweden	6	Switzerland	6	Canada
7	Austria	7	Austria	7	Norway
8	Norway	8	United Kingdom	8	New Zealand
9	France	9	Qatar	9	Spain
10	Denmark	10	Norway	10	France

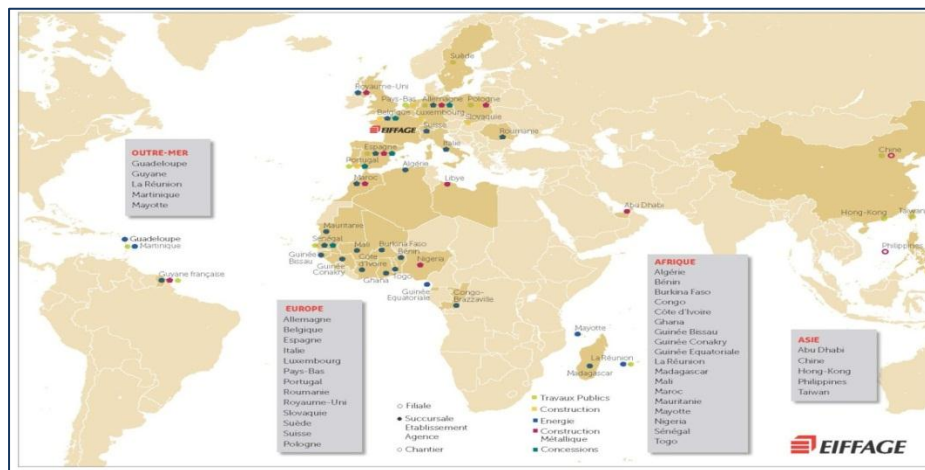
Source: <http://www.worldenergy.org/data/sustainability-index/>

XII. EIFFAGE

Eiffage is the third largest Construction and Civil Engineering company in France, operating through five business lines: Construction, Energy, Public Works, Metal Construction, Concessions and public-private partnerships (PPPs), construction, civil engineering. In 2013, company's revenues accounted for € 14,3 billion and the total number of employees constituted 70 000 employees, 81 % of which are company's shareholders.

Eiffage's CEO Pierre Berger expressed his strategy of further international expansion in Group's Annual Report 2012: "Eiffage aims to develop its international activities outside Europe. Although the Group's main target is Africa, it is also seeking opportunities in the Middle East and certain Asian countries that are rich in natural resources and mining deposits but poor in infrastructure."

Image 1. Eiffage International Presence



Source: Eiffage Sustainable Development Department

In 2013, Group successfully won several contracts and tenders. In December 2013, Eiffage Construction signed an €80 million contract to design and build the annex to the National Assembly in Libreville, Gabon. One of the main highlights of 2013 includes Eiffage Senegal's August 2013 handover of the Dakar-Diamniadio toll motorway, Subsaharan Africa's first transport infrastructure built on a concession basis.

Figure 11. Eiffage Consolidated Revenue, € million, 2013

CONSOLIDATED REVENUE BY ACTIVITY (EXCLUDING VAT) (€ million)			
	2012	2013	Change
CONSTRUCTION	3,798	3,715	-2.2%
Of which Property	599	662	
PUBLIC WORKS	3,941	4,215	+7%
ENERGY	3,229	3,159	-2.2%
METAL	892	914	+2.5%
TOTAL CONTRACTING	11,860	12,003	+1.2%
CONCESSIONS (excluding IFRIC 12)	2,175	2,261	+4.0%
TOTAL GROUP (excluding IFRIC 12)	14,035	14,264	+1.6%
Of which : France	11,889	12,034	+1.2%
Rest of Europe	1,903	1,924	+1.1%
Rest of world	243	306	+25.9%

Source : Eiffage Annual report 2013

In February 2014, the Consortium Eiffage - Egis - GDF SUEZ won a tender, launched by the French Ministry of Foreign Trade and the General Treasury Department (GTD), to implement the "sustainable city simulator" – Astainable[®], which serves as a tool in urban design to present the French sustainable technical and industrial solutions in urban development and adapted to the territory of Astana, capital of Kazakhstan. The project Astainable[®] is implemented by the Sustainable Development Department (SDD) of Eiffage, and proves the interest of Eiffage executives in Central Asian region.

Astainable[®] is derived from contraction of the terms “Astana” and “sustainable”. Astainable[®] is a pioneer and unique project in the history of the business development in France, since it includes more than 1500 French enterprises of all sizes, ranging from small family businesses to international corporate giants and clusters, united in Industrial Club[®] and collaborating in a systemic manner in the field of sustainable urban development on a foreign territory. The main objectives of the project include:

- The diagnosis of the needs for fostering the urban sustainable development in Astana in the fields of green transport, formation of local energy mix, sustainable construction and urban ecosystems (water and waste management and rehabilitation of sites) ;
- The proposals of the French technological and industrial solutions appropriate for the following diagnosis as well as the consideration of the natural attributes of the territory, known for the strong climatic constraints ;

- The production of an interactive urban design tool, based on the advanced technologies of the video game and featuring the French solutions, presented in « immersive manner » and in synthesis of 3D images. (Eiffage SDD)

Eiffage Sustainability policies

During the interview on 12 December, Valérie David, Director of the Sustainable Development of Eiffage to the question: “Why should one care about sustainability?” answered: “In order to give sense and meaning to the work performance. Otherwise, we work for either the growth of the company or the percentage of revenue, or for the increase in dividend payments for the shareholders. It is either for the profit of the minority of the people...It is, therefore, not interesting to work if there is no meaning to it” (cf. Interview appended).

The sustainability practices are truly implanted at the core of Eiffage’s business strategy. Eiffage implements sustainable policies in four dimensions:

"Corporate" dimension is responsible for organization of sustainable development policy in all divisions as well as for monitoring and reporting of measures included in the action plans.

“Anticipating the consequences of climate change” dimension deals with the adaptation to possible energy and climate constraints, which potentially possess a threat to the sustainability of the enterprise. The R&D laboratory Phosphore® is dedicated to perspectives in sustainable urban development via application of holistic approach.

“Answers to strategic tenders” includes all aspects of sustainable development in response to calls for tenders for large linear infrastructure (motorways, high-speed lines ...) or large facilities (universities, hospitals and stadiums ...)

"Integration of sustainable development in specialized areas" dimension applies know-how and the innovative solutions in social and environmental terms, invented by Phosphore® laboratory or developed in order to participate in calls for strategic tenders.

In 2005, Eiffage introduced a common reporting system for all Group divisions- NER (New Economic regulations) , designed to collect data relating to the key social, societal and environmental challenges associated with Eiffage’s business lines. Energy efficiency issues are widely integrated within the Group’s activities. As concerns impacts on biodiversity, EIFFAGE plays a leading role through its initiatives in terms of “ecological transparency”.

Triple Bottom Line at Eiffage :

- People: Human Capital (Investment in employees development)
- Planet: Natural Capital(Respect and Preserve natural habitat and biodiversity)

- Profits: Economic Value created (Improve standards of living by building universities, schools, hospitals, bridges, roads, sustainable cities); often engaged in Public-Private partnership.

At Eiffage, innovations are equal to sustainability (David, 2015). The key innovation to the company is Phosphore[®] is a forward-looking laboratory for sustainable development, with a view to designing and implementing the city of the future. It is aimed at anticipating the risks, to which Eiffage is threatened in the future. Involving all the core businesses of the Group, Phosphore[®] acts as a space of creative freedom that encourages engineers, architects and urban planners to unleash their thoughts and disrupt their traditional experts points of view to contribute to a sustainable city based on its uses, scalability of its resistance capacity when faced with natural risks (Eiffage, 2013). Phosphore[®] is based upon High Quality of Life[®] (HQV[®]) principles implemented in each of company's divisions:

- 1) Respect of the land and ground engineering
- 2) Rational management of flows and mobility
- 3) Intensification and evolution of uses
- 4) Cohesion, health and well-being
- 5) Prevention of risks and resilience

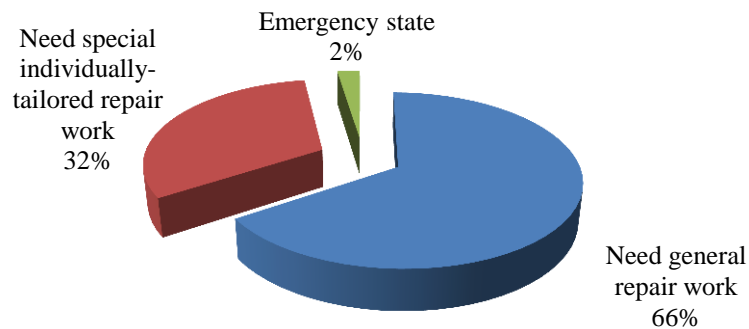
XIII. KAZAKHSTAN: CHALLENGES FOR SUSTAINABLE URBAN DEVELOPMENT

The purpose of this thesis is to identify the challenges in the sustainable development of Kazakhstan in order for Eiffage to communicate the relevant innovative solutions. Considering Eiffage's expertise in urban development, maintenance and facility management, sustainable construction, civil engineering, construction and reparation of the dams, roads, motorways and other large infrastructures development, this chapter will identify the weak spots in different economic sectors of Kazakh economy, where Eiffage's technology may be applied.

13.1 MODERNIZATION OF HOUSING AND UTILITIES INDUSTRY

At present there exists a great need for modernization of Housing and Utilities sector. According to the European Bank for Reconstruction and Development, the industrial sector of Kazakhstan's energy consumption is five times more than in the EU countries. More than 65% of current residential buildings need reconstruction.

Figure 12. State of residential buildings



Source: < <http://www.zhkh.kz> >

The government institution responsible for reconstruction and reparation of public and residential buildings is Kazakhstan Housing and Utilities Research Center. In 2011, the investment in Housing industry in Kazakhstan increased by 1.5 billion USD and continues to grow steadily over time. Due to the limited energy resources, the high cost of energy, the negative impact on the environment, the energy efficiency improvement is one of the government's most important and costly projects.

According to the Statistical Agency of Kazakhstan the worn out heat networks lead to the heat loss of 20% every year. The current heat sources are characterized by an efficiency of about 60%, and high specific fuel consumption, which leads to excessive consumption of 645,300 tons of fuel per year, or 1.75 billion KZT (5.3 M EUR), plus the additional emissions into the environment. Thus, at present, over 60% of heating systems need to be replaced.

The electrical systems of Kazakhstan are even at a worse state. Around 70% of the electrical networks need to be totally renovated. Technological obsolescence of the existing electrical equipment (transformer stations, in-house distribution systems, networks) and its low energy efficiency are the reasons of technical and commercial losses of electricity, which is a consequence of the insufficient use of new technologies (energy-efficient equipment, self-supporting insulated wire, automated accounting system resources and energy).

Image 2. Old heating tubes to be renovated by KHURC



Source: <<http://www.zhkh.kz>>

In terms of gas supply, the total length of the gas network in the whole country is 27.3 thousand km and 54% of the network is in need of repair. It is important to note that the count of services consumed in the gas supply system is not accurate. The counters were established in the 90s, and do not necessarily meet the requirements of accurate record keeping. The inspection and maintenance services of gas networks need to be significantly improved as well.

Furthermore, the inefficient use of energy produce is a huge amount of solid waste, which pollutes the environment. According to the Ministry of Environment Kazakhstan have accumulated 22 billion tons of waste, of which 96 million tons is represented by the municipal solid waste. In fact, the rate of accumulation of waste per person does not correspond to the actual performance, since the volume of solid waste is continuously increasing. The waste mass has not been sorted and has been stored in the open-air dumps.

Lack of adequate infrastructure and proper administration of collection and disposal of waste increases the number of dumps in the cities and requires more spending from the government on its elimination. More importantly, the waste creates a threat to the health of Kazakhstan citizens, causing a wide range of diseases such as respiratory problems and cancer.

KHURC defines the main problems for municipal infrastructure:

- High level of wear of utilities and structures;
- Low level of provision of metered consumption of resources;
- Technological backwardness of the industry, including poor practices of innovative energy-saving technologies and activities;
- Inadequate funding of projects on reconstruction of buildings and extra budgetary sources;
- Low investment attractiveness;
- Imbalance in available capacity and technical and technological solutions.

Since the year of its creation KHURC has been executing several strategies:

- Increasing the efficiency of heating networks by replacing metal pipes with asbestos cement; setting electrochemical protection of metal pipes and applying systems of remote diagnostics of pipelines etc.
- Enhancing the energy efficiency of power grids and lighting systems by eliminating the overload of transformers; installing grids distributing the energy for reactive power compensation and systems that automatically maintain the desired lighting level using frequency controls of the fluorescent lamps
- Boosting the energy efficiency of water supply systems by setting water recycling systems at water intakes; optimizing cleaning filters and substituting the metal tubes with polyethylene
- Applying the untraditional by methods to save energy by positioning solar collectors for additional hot water and heating in the buildings; developing a system of seasonal and daily accumulation of heat and replacing circulation pumps with steam-jet injectors.

Eiffage relevant Renovation and Restoration solutions:

Eiffage's Innovative buildings Renovation technology **Rénovalis** consists of five parts and enables to implement a customized approach in design-building-operations-maintenance:

- Overall analysis (site environment, energy audit, acoustics, air quality, etc.).

- Appropriate proposals (energy performance, comfort, attractiveness, disabled access, financial arrangements, etc.).
- Tracking of the work progress with guaranteed price and met deadlines.
- Support in building use, consumption monitoring.
- Energy performance guaranteed by monitoring consumption.

Among recent Eiffage's achievements in renovation and restoration are The Grand Louvre, Paris Picasso Museum, and former Hôtel-Dieu hospital in Marseille entirely converted into a five-star InterContinental Hotel.

Image 3. Hôtel Dieu



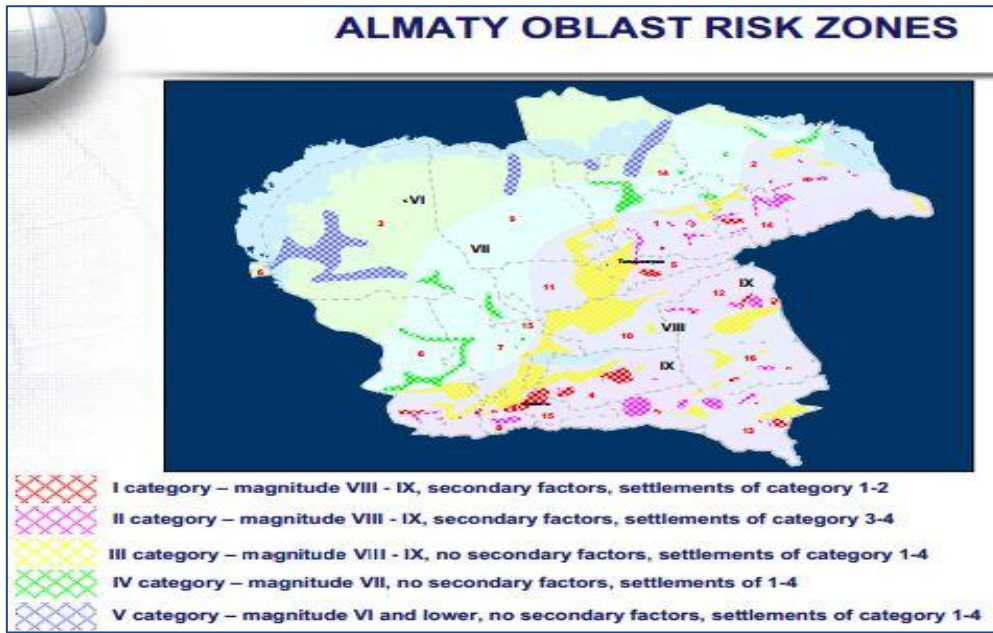
© Hervé Fabre photographies.

Source: Eiffage website

13.2 ALMATY OBLAST (REGION) - EARTHQUAKE-VULNERABLE AREA

Almaty region is classified as the earthquake-prone zone with a magnitude of 9 on the Richter scale. The poor state of the current residential and business buildings possesses a serious threat for the local population. If the government truly intends to implement sustainable strategies, renovation of Almaty region should be a priority.

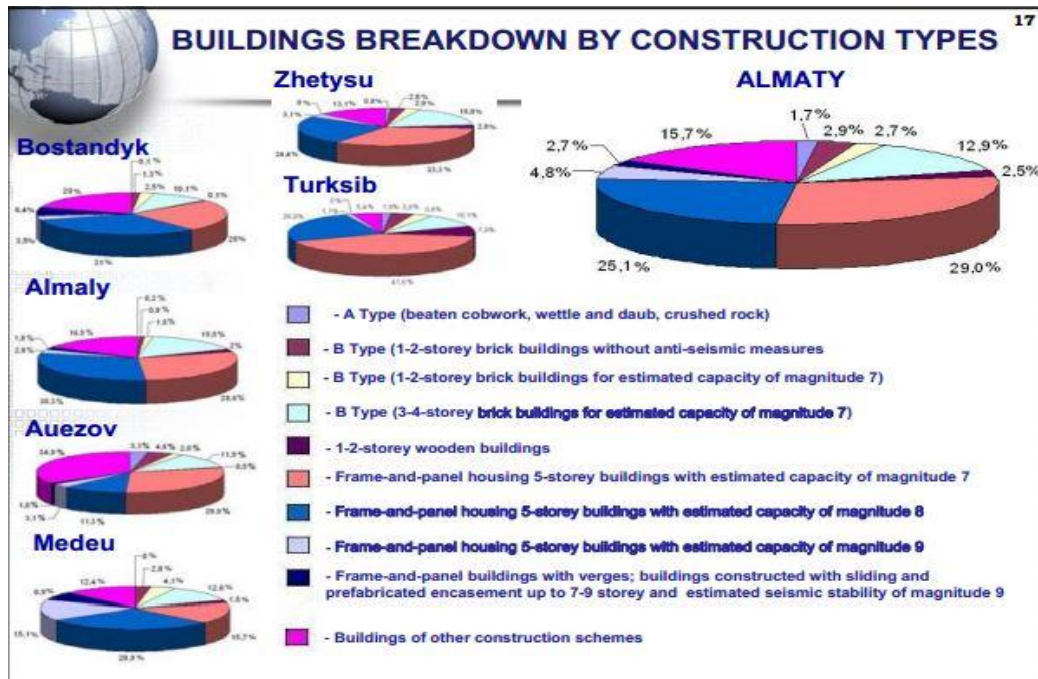
Figure 13. Seismic risk assessment for Almaty region



Source : RSE «Center for Earth Sciences, Metallurgy and Concentration : Seismology Institute»

- **I risk category zones** (earthquakes of magnitude 8-9 and higher, secondary factors, settlements of category 1-2) are located on the foothill plains of Zaili and Jungar Alatau within Karasai, Talgar, Panfilov, Aksu, and Sarkand Regions with settlements of 4,000 and more population and number of economic entities of 1,000 and more.
- **II risk category zones** (earthquakes of magnitude 8-9, secondary factors, settlements of category 3-4) are located within the territories of Karasai, Raiymnek, Uigur, Panfilov, Aksu, Sarkand, and Alakol Regions with settlements of 2,000 - 4,000 population and number of economic entities of 500 - 1,000.
- **III risk category zones** (earthquakes of magnitude 8-9, secondary factors, settlements of category 1-4) – Enbekshikazakh, Karasai, Ili, Jambyl, Raiymnek, Uigur, Panfilov, Kerbulak, Koksus, Karatal, Aksu, and Alakol Regions with settlements of 500 - 2,000 population and number of economic entities of 100 - 500.
- **IV risk category zones** (earthquakes of magnitude 7, settlements of category 1-4) – Jambyl, Balkhash, Aksu, Sarkand, and Alakol Regions with settlements of mainly 500 population and less than 100 economic entities.
- **V risk category zones** (earthquakes of magnitude 6 and lower, settlements of category 1-4) – Balkhash, Karatal, and Sarkand Regions with settlements of mainly less than 500 population and less than 100 economic entities (Seismic risk assessment for Kazakhstan territory).

Figure 14. Buildings Breakdown by construction types for Almaty city



Source : RSE «Center for Earth Sciences, Metallurgy and Concentration : Seismology Institute»

Eiffage Construction relevant solutions:

Innovative Sustainable Construction technique “**Lignum® 3D Concept**”, based on laminated solid wood won Grand Prize at the 2013 Eiffage Innovation Awards. It allows to stack modules seven stories high, even in earthquake-prone areas. In addition, the building is passive and stores more than 600 tones of net carbon. Lignum® concept is the result of Eiffage’s efforts to develop an environmentally-friendly DRY-PROCESS² construction method tailored to customer demand. The term “DRY-PROCESS²” refers to all construction techniques that do not require water, in contrast to conventional approaches based on the use of concrete and cement.

Inspired by the Phosphore® sustainable urban development research program, in 2013 Eiffage Construction built Jean Jouzel student residence in La Rochelle, based on the Lignum 3D Concept and represents three-dimensional glue-laminated solid wood modules (Eiffage Annual report 2013).

Image 3. Jean Jouzel Student Residence



©Photo by Pascal Couillaud

Source: <http://www.sudouest.fr/>

13.3 RECONSTRUCTION OF THE “SORBULAK” DAM IN ALMATY REGION

The artificial lake “Sorbulak”, which serves as stock of wastewater from the city of Almaty and Almaty region, poses a serious threat to local residents. The local union of environmentalists “Tabigat” voiced their concerns about the possible danger of the lake multiple times in public, however, their request have ignored by the local authorities. According “Tabigat”, if the government does not take urgent measures, the breakthrough of the lake “Sorbulak” will result in a spill of 55 billion cubic meters of water and mud on more than 50 000 inhabitants in the Balkhash region (Alatoday).

Image 4. “Sorbulak” dam in the Almaty region



Source: <<http://www.alatoday.info/?p=9669>>

Mels Eleusizovn, Kazakhstani ecology expert argues: “The capacity of “Sorbulak” is estimated as 1 billion cubic meters. The lake includes all the stock wastewaters from Almaty. The danger is that the 60-meter high dam is made of sand, which is mixed with clay. It is a common knowledge, that Almaty region is classified as 9 on a 10 logarithmic Richter scale, and earthquakes are very frequent. Any vibration can result in a small “crack” in the dam, which will bring the devastating consequences.”

Eiffage Travaux Publics (Public Works) relevant solutions:

Dams, atmospheric pressure coolers, electric power stations, refrigeration, water and waste treatment plants but also car parks and sports stadiums are just some of the many state-of-the-art structures bearing the Eiffage Travaux Publics hallmark. These infrastructures are often created in the company's design and engineering offices, and play a role in the development of regions where they are built, with utmost concern for environmental protection (Eiffage Public works website).

Eiffage Travaux Maritimes et Fluviaux (Maritime and River Works), Eiffage Travaux Public (Public Works), Eiffage Energie (Energy) and Asten rebuilt the Villeneuve-sur-Yonne dam in the lower valley of the Yonne. Following demolition of the old port and construction of all the civil engineering works, valves, cylinders and bridges were installed for refilling in late October 2012 according to deadlines set by the VNF (Waterways of France) prior to the flood risk period (Synergie January 2013).

Image 5. Villeneuve-sur-Yonne dam before reconstruction



Image 6. Villeneuve-sur-Yonne dam after reconstruction



13.4 RENOVATION OF THE ROADS

The estimated length of highways in Kazakhstan is equal to 73665 km, 50% of which are paved. From 2005 the construction and repair of highways was conducted with the axle load up to 13 tones, all international corridors are the second technical category and go through the five stages of quality control. Over the past 10 years, investment of 994.2 billion KZT has been allocated.

The second five-year plan 2015-2019 development was approved by Resolution of the Government of the Republic of Kazakhstan No. 1497 dated 31 December 2013 and concentrates on the industrial development. According to the strategy "Nurly Jol", 7.5 miles km of motorways will be built and rebuilt in 2020. Around 4000 km will be ranked as first technical category with 4 and 6 lanes of traffic. The 200,000 new jobs will be created. The Kazakh government will invest 3 billion KZT each year from 2015 to 2017 in the development of infrastructure projects in Kazakhstan.

Priority highways include:

- International Transit Corridor "Western Europe - Western China". On the territory of Kazakhstan road length equal to 2787 km. 2,452 km are currently under reconstruction. The total cost of renovation works estimated as KZT 825 billion.
- Construction of regional roads in three directions:
 1. South - Centre (Astana - Karaganda Almaty- Kapshagai) 273 km;
 2. Centre - East (Astana - Pavlodar Kalbatau - Semipalatinsk) 570 km;
 3. Centre - West (Astana - Arkalyk - Torgai - Irgiz - Shalkar - Beineu - Aktau).

Eiffage Relevant solutions:

Eiffage Travaux Publics has expertise in all businesses relating to road and rail construction, civil engineering, drainage and earthworks, and is also a leading supplier of aggregate, binders and coated aggregate (Eiffage website).

XIV. CONCLUSION: MARKET-ENTRY STRATEGIES

An international market entry strategy is a comprehensive plan which sets forth the objectives, goals, resources, and policies that will guide a company's international business operations over a future period long enough to achieve sustainable growth in world markets (Root 1987).

Based on the analysis of Kazakhstani economic and cultural environment, the strong intention of Kazakhstani authorities for a transition towards sustainable development and Eiffage's competencies in Sustainable Construction and Public works, and Eiffage's willingness to expand to Kazakhstani market, this thesis proposes three possible optimal short-term market-entry strategies:

1. Joint-venture

Joint-venture can be defined as "an enterprise in which two or more investors share ownership and control over property rights and operation" (FAO). This type of partnership allows sharing risk, knowledge and competencies for the common growth. It is one of the most convenient entry strategies for foreign markets. Eiffage can establish a joint-venture with an established local reputable company in the Construction and Civil Engineering industry. It will enable to mitigate financial risk and to benefit from the local knowledge, existing equipment, reliable suppliers, client database and educated workforce.

The disadvantage will be shared decision-making and, therefore, less control over the operations. Joint-venture also implies a shared liability in case of violation of the quality standards, accidents in construction sites, and environmental accidents. Therefore, Eiffage should evaluate the reputation of their partner and preview possible risks, as well as contribute to the control of the day-to-day operations.

If the long-term joint-venture partnership is considered risky for Eiffage's executives, there may be formed Consortiums with local companies for each project exclusively. Thus, there will be less liabilities and risks for both parties.

2. Acquisition

Another option is the acquisition of an existing Kazakhstani company which implies 100% ownership. The advantages will be the established reputation, established suppliers and

clients bases and knowledge of the local market. Eiffage will not have to go through the exhausting registration procedures. Although the financial risk may be much higher Eiffage will have the full management control, which is very important.

Eiffage can establish their preferred policies, train the workforce and manage resources. The company will be capable of previewing and mitigating the internal company risks, such as operational risks. However, there will always exist external risks, therefore, there should be an established monthly or even weekly reporting on ongoing political and economic events and changes. When operating in such unstable environments, such as emerging countries, it is important to be well-informed, and then, the appropriate action to mitigate the risk can be taken immediately to minimize the financial losses.

3. Public-Private Partnership (PPP)

The two previous strategies suggest the partnership in the private sector. However, it is also possible to engage into Public-Private partnership by participating in Kazakhstani government tenders. The World Bank defines PPP as arrangements between the public and private sectors whereby part of the services or works that fall under the responsibilities of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/ or public services. This type of partnership is common for Construction and Public works industry and is highly encouraged by the Kazakhstani government. Depending on the situation, this type of strategy may be the less or most risky.

In reality, there always will exist risks when expanding internationally. However, successful companies can preview and mitigate a large portion of the risks, if:

- the analysis of internal and external environments is implemented on a daily basis and the continuous re-invention and adaptation of business strategy in accordance with changes;
- the direct and open communication between company's divisions exist ;
- the solid organizational culture is established, with a respect to cultural differences and national mentalities (Majidi, Cross-cultural Business Management class, Fall 2014).

XV. RECOMMENDATIONS

Based on thorough analysis of this thesis, several recommendations in terms of entering Kazakhstani market for Eiffage's executives are proposed. All the listed strategies above may be appropriate for Eiffage depending on the projects. Nevertheless, the main purpose of this thesis was not to advise which market-entry strategy to choose, but to provide some necessary information about Kazakhstan, which may be useful in decision-making, such as historical and cultural background, cultural dimensions in business environment, new national strategies and major issues in sustainable economic.

Considering the vectors of national development strategy Kazakhstan 2050, aimed at regional industrial development, Eiffage should not limit their activities to capital Astana. For example, the construction and renovation projects of 22 000 kilometers of the automobile roads within the national strategy "Nurly Jol"; the construction of municipal buildings for social development, such as hospitals, schools, universities, student campuses, and stadiums are suitable to apply Eiffage's technologies. Within coming decades, there will be a large amount of Kazakhstani government's and foreign development banks' investments in the infrastructure development. Asian Development Bank, World Bank, EBRD continuously fund the industrial and social development projects in Kazakhstan

Kazakhstani government understands the importance of technology transfer and invests a large amount of national funds to attract best foreign companies to facilitate a smooth transition towards sustainability. The introduction of national strategies and laws, discussed in this thesis proves that Kazakhstani government is highly determined to improve and diversify their economy by attracting more FDI. The necessary favorable conditions, such as a legal protection for the investors and conformity to international regulations and norms, including social and environmental responsibility are being created.

The key success factor is Eiffage's *savoir-faire* in building sustainable innovative cities. As a current employee at Eiffage and a citizen of Kazakhstan, I strongly believe that Eiffage technologies will be appropriate to Kazakhstani territory. Eiffage applies a truly holistic approach to sustainable city design and development with respect to the territorial peculiarities, such as culture, climate, social and economic conditions etc. Eiffage technologies *do not* represent common futuristic SMART unintuitive technologies, but stress the primacy of comfort and high quality of life and preservation of natural environment in their innovative sustainable cities. These factors differentiate Eiffage from their competitors and make them suitable for Kazakhstan.

References

1. Eiffage. "Annual Report 2013." Retrieved December 21, 2014, from <http://eiffage.com/>
2. Eiffage Construction. "Construire Durable. " Juin 2012. Retrieved December 21, 2014, from <http://eiffage.com/>
3. "Doing Business in Kazakhstan Report 2014." 11th edition.
4. "Innovations 2013." Eiffage Construction. Direction Développement Durable.
5. "Message du Président de la République du Kazakhstan, Leader de la Nation Noursoultan Nazarbaiev, au peuple kazakhstanais. Stratégie "Kazakhstan 2050" : nouvelle orientation politique de l'état établi." Astana, le 14 décembre 2012.
6. "Жилищно-коммунальное хозяйство Республики Казахстан" (n.d.). Retrieved December 22, 2014, from <http://zhkh.kz/>
7. "Of Cities and People: Contributions of Eiffage Phosphore Laboratory to Sustainable cities." Eiffage, Department of Sustainable Development. 2013
8. Act with confidence in a complex world. (n.d.). Retrieved December 22, 2014, from <http://thomsonreuters.com/>
9. Azar Nafisi, *Mysteripus Conntections that Link Us together*, National Public RadioMorning Edition, July 18 2005
10. Cesar Cuello, *Holistic Approach to Ideal of Sustainability*. PHIL & TECH.2:2 Winter 1997
11. Ehrenfeld, J. (2008). *Sustainability by design: A subversive strategy for transforming our consumer culture*. New Haven: Yale University Press.
12. Eiffage | Savoir faire la différence. (n.d.). Retrieved December 22, 2014, from <http://www.eiffage.com/>
13. France: A dynamic economy and world-class industrial sectors -IFA. (n.d.). Retrieved December 22, 2014, from <http://www.invest-in-france.org/us/why-choose-france/a-country-with-a-global-outlook.html>
14. Garcia , Enrique. *Sustainable Development and the Private Sector: A Financial Institution Perspective*. Bridges to Sustainability. CAF. Web. 17 Feb 2014.

15. Gedeon, Rossouw. *Establishing Moral Business Culture in Newly Formed Democracies*. Print
16. Global Finance (Magazine) | Online references | cyclopaedia.net. (n.d.). Retrieved November 22, 2014, from [http://www.cyclopaedia.info/wiki/Global-Finance-\(Magazine\)](http://www.cyclopaedia.info/wiki/Global-Finance-(Magazine))
17. Hall, Stuart. *The centrality of culture: Notes on the Cultural Revolutions of Our Time*. 1997.
18. Majidi, Mehdi. *Cross-Cultural Business Management class*. AUP. Fall 2014
19. Majidi, Mehdi. *Sustainable Business Management class*. AUP. Spring 2014
20. Martin J. Gannon and Rajnandini Pillau. *Understanding Global Cultures : Metaphorical Journeys through 29 Nations, Clusters of Nations, Continents, and Diversity* .SAGE publications Inc. 4th edition. 2003. Print
21. Marx, K. (1837, November 10). Letter from Marx to his father.
22. Merriam-Webster dictionary | American reference work. (n.d.). Retrieved November 22, 2014, from <http://www.britannica.com/EBchecked/topic/376313/Merriam-Webster-dictionary>
23. Mozur, J. (1987). *Doffing "Mankurt's cap": Chingiz Aitmatov's "The day lasts more than a hundred years" and the Turkic national heritage*. Pittsburgh, PA: University of Pittsburgh Center for Russian and East European Studies.
24. National export and investment agency "KAZNEX INVEST" (n.d.). Retrieved December 22, 2014, from <http://www.kaznexinvest.kz/en/>
25. OECD. *Competitiveness and Private Sector Development: Central Asia Competitiveness Outlook*. OECD, 1 Jan. 2010. Web. 1 Jan. 2014. <<http://www.oecd.org/investment/psd/46973993.pdf>>.
26. Official website of the European Commission - Please choose a language. (n.d.). Retrieved December 22, 2014, from <http://ec.europa.eu/>
27. Rawls, J. (2005). *A theory of justice* (Original ed.). Cambridge, Mass.: Belknap Press. Retrieved December 22, 2014, from <http://www.heritage.org/>
28. Rifkin, J. (2004). *The European dream: How Europe's vision of the future is quietly eclipsing the American dream*. New York: Jeremy P. Tarcher/Penguin.
29. Rifkin, J. (2011). *The third industrial revolution: How lateral power is transforming energy, the economy, and the world*. New York: Palgrave Macmillan.

30. Rinat, Ulpan, and Cornelis Alexander Baardemans. "*Management strategies in transitional economies.*" Linnaeus University. School of Business and Economics. : 116. pag. Print.
31. Sharan B., M. (2009). "*Qualitative Research: A Guide to Design and Implementation*". (3d ed., Vol. 1). San Francisco, CA: Jossey - Bass.
32. *The Brundtland report: Seizing the opportunity : IIED thoughts towards the follow-up of the WCED report "Our Common Future."* (1987). London: International Institute for Environment and development.
33. UNESCO website.. Retrieved from <<http://fr.unesco.org/>>.
34. W. Graves, C. (1965). *Value Systems and their Relation to Managerial Controls and Organizational Viability*. Retrieved from http://www.clarewgraves.com/articles_content/1965/1965_1.html
35. World Bank Group. (n.d.). Retrieved November 22, 2014, from <http://www.worldbank.org/>
36. World Energy Council | Referências na Internet | cyclopaedia.net. (n.d.). Retrieved December 22, 2014, from <http://pt.cyclopaedia.net/wiki/World-Energy-Council>
37. World News. *Kazakhstan Energy Report*. Web.12 Aug.2005. Retrieved December 22, 2014, from <http://archive.wn.com/2007/05/02/1400/kazakhstanenergy/>.
38. Worrell, R., & C. Appleby, M. (2000). *Stewardship of natural resources: Definition, ethical and practical aspects* (3rd ed., Vol. 12, pp. 263-277). Journal of Agricultural and Environmental Ethics.
39. Your key to European statistics. (n.d.). Retrieved December 22, 2014, from <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>
40. Zachary, G. Pascal. *The Diversity Advantage: Multicultural Identity In The New World Economy*. 1st ed. Vol. 3. Basic, 2007. Print.
41. Zalta, E. (n.d.). *Stanford encyclopedia of philosophy*. Stanford, Calif.: Metaphysics Research Lab, Center for the Study of Language and Information, Stanford University.
42. Retrieved December 22, 2014, from <http://www.alatoday.info/>
43. Eiffage Synergie . Print. January 2013
44. Root, F. R. (1987) *Entry Strategies for International Markets*. Lexington,MA: D.C. Heath.
45. FAO.org. (n.d.). Retrieved December 22, 2014, from <http://www.fao.org/home/en/>

Interview with Valérie David, Director of Sustainable Development Department of Eiffage

Date : 12 December 2014

Location : Eiffage, Asnieres-sur-Seine

Language : French

Summary¹

In this interview, Valérie David, Director of Sustainable Development Department of Eiffage emphasizes when sustainability is integrated at the core of the business strategy of the organization, it provides an opportunity for the employees to generate a social benefit. Working in sustainability is rewarding, because it adds a social value not only for present, but for the future generations. Eiffage is particularly interested in the sustainable city industry, because it represents an opportunity to participate in an exceptional market and a possibility to produce a positive effect for the planet in terms of minimizing consequences of climate change, since it is a common knowledge that the city is the major generator of greenhouse gases. For Eiffage sustainability consists of two pillars: prevention and management of the risks and maintaining a competitive edge.

Construction and Civil Engineering industry generates pollution of water, air and land. It also requires the consumption of natural resources, such as water, sand, stones and asphalt. There is a need to decrease a dependence on fossil fuels and exhaustible natural resources. Construction and Civil Engineering industry is also highly exposed to the social risks, such as a threat of « modern slavery » - the exploitation of the workers. This is why, Eiffage is obliged to integrate sustainability at the core of its business model.

The second reason why Eiffage is concerned with sustainability is because sustainability implies innovation, which serves as a competitive advantage in the market. At Eiffage, all innovative solutions usually include sustainable elements. The best example is Eiffage's laboratory Phosphore®, specialised in designing and implementing a sustainable city by 2030 in a context with serious environmental constraints resulted from the greenhouse gas emissions.

1. Pourquoi devrions-nous nous intéresser au développement durable?

C'est une question de *why-what-how*. La question de *why* est plus importante, c'est pour donner du sens à la performance. L'expression j'aime bien : donner du sens à la performance, parce que sinon on travaille pour un point croissance, un pourcentage de

¹The included original interview was in French language. For this purpose, the summary of the interview in English is provided.

chiffre d'affaires ou pour une augmentation de dividende de l'actionnaire. Ça n'a pas de sens. C'est à la fois au profit de très peu des gens, et en même temps ça peut être distrayant quelques mois. Donc ce n'est pas intéressant de travailler s'il n'y a pas de sens. La ville durable c'est le meilleur exemple. Eiffage c'est une entreprise de bâtiment et travaux publics, qui peuvent être ensemble de la ville. Pourquoi ? Moi, j'ai travaillé dans la banque, et j'ai travaillé comme fonctionnaire.

Et aujourd'hui c'est en travaillant chez Eiffage que j'ai une impression d'avoir une petite utilité, pas très grande à mon niveau, mais une petite utilité pour l'avenir, parce que la ville durable pour une entreprise comme Eiffage, c'est à la fois une perspective du marché exceptionnel et en même temps la possibilité de faire un business, qui a un effet positif sur les conséquences des changements climatiques, en prenant en considération les nécessités de mitigation, puisque on sait que la ville c'est le metteur de gaz d'effet de serre numéro 1 dans le monde. Alors, on peut parler de l'industrie, mais dans les pays occidentaux c'est vrai que l'industrie aujourd'hui est très réglementée. Moins en Chine, moins en Inde, mais comme dans tout façon dans ces pays-là les industries sont en ville, travailler pour avoir un écosystème urbain, moins un metteur de gaz effet de serre, c'est la solution la plus efficace avec l'effet de la ville les plus importants. Alors, dans l'entreprise Eiffage, c'est sûr c'est différent si vous parlez des entreprises qui vont des lois réglementaires. C'est presque pareil. Et certaines entreprises notamment dans les services, considèrent qu'ils sont moins concernés par la *sustainability*.

En fait aujourd'hui on voit bien à travers des fractures différentes, en termes de richesse, de technologie et en termes d'espérance de vie, en termes de l'accès à la technologie on est dans un monde trop frontal, que n'est pas durable, et avec les nouvelles technologies d'information il y a un bouleversement complet. Les gens veulent pas de rester où ils sont, comme ils sont valeureux, ils veulent de partir, parce que ils ont des moyennes pour savoir qu'est-ce que c'est passé ailleurs. Et donc, moi, qu'est-ce qui m'intéresse c'est réellement l'acte politique au sens grecque du terme - « police » « la cité ». L'acte politique, qui est la construction d'une cité durable. C'est à côté utopiste, au sens philosophique du terme, mais ça donne du sens au travail. Ça permet de relativiser les sujets de danger du pouvoir, de confrontation concurrentiel *day-to-day*, parce que on sait que finalement on travaille pour la ville de demain et c'est ce que je disais dans mon *toast* avec Talgat Ashim (Directeur d'Astana Innovations), j'ai dit finalement: « On travaille, parce que on doit travailler, mais on a quand même d'avoir un travail, qui concerne les générations futures. Et pour Eiffage, mais ça c'est *generally*, c'est vrai que chez Eiffage on a une grande chance de travailler pour *sustainable world*, mais *concrete world*.

2. Pourquoi Eiffage s'engage au développement durable?

Alors, j'ai une partie répondu à cette question, dans la première. En fait, pour nous dans *sustainability* il y a 2 piliers : la prévention et la maîtrise des risques. Pourquoi, parce qu'on travaille dans les travaux publics, par exemple, on peut générer la pollution grave, la pollution de l'eau, de l'air. On utilise des ressources naturelles – l'eau, les granulés, les pierres, le bitume. Donc c'est ça les ressources naturelles, et ces ressources naturelles se puisent. Donc, pour ceux des raisons là on est obligé de penser du caractère durable de notre business model. Si on est trop exposés à la variabilité de prix des énergies fossiles, on est en danger. Si on est trop

exposé au prix des matériaux entrants, on est en danger. Tout ce qui est volatile nous met en danger. Donc, ça c'est la partie de dépendance des ressources naturelles, et puis, la partie de pollution.

Les pollutions, surtout, en Europe comme vous générez une pollution, vous êtes poursuivi une justice, vous avez une amende. Cette amende est extrêmement importante. Imaginez-vous si en France, on a par exemple, une pollution de ruisseau, l'amende c'est 75 euros. Ce n'est pas beaucoup, sauf que pour la maison maire, c'est 5 fois ce montant-là. C'est pour obliger le maire à s'intéresser à la façon dans une petite filiale qu'il connaît parfois très mal, ce qu'on porte avec une problématique environnementale. Et puis, dans nos métier nous sommes exposés toujours dans la maîtrise des risques, toujours le premier pilier, très exposés aux risques sociaux, notamment avec la problématique de travailleurs étrangers sans papier dans bâtiment.

Et donc, là on a un gros risque, d'exploitation du travail des personnes en difficulté. Donc, les risques de cette personnes-là soit traité comme des esclaves modernes, et aussi le travail sera mal fait, parce qu'ils ne sont pas forcément qualifiés. Donc, tous ces risques-là génèrent du risque d'image, du risque de réputation si vous voulez, mais aussi du risque pénale, et du risque financier. Le deuxième pilier pour lequel Eiffage s'est intéressé par *sustainability* c'est la compétitivité. C'est l'avantage concurrentiel – l'innovation. Comme j'ai vous dit nos métiers sont liées à la configuration du monde de demain. Donc, plus on arrivera, nous à mettre dans nos métier les précautions sociales et environnementales, plus on sera compétitive parce que on rassurera nos clients. Nos clients seront si le chantier fait par Eiffage, il n'y aurait des problèmes de pollution. Ça c'est devient à la belle qualité, ça devient à la belle de garantie pour les clients et donc pour nous un avantage compétitif et concurrentiel.

3. À votre avis, est-ce que la durabilité représente un catalyseur de l'innovation, ou, à l'inverse, l'innovation est un catalyseur de la durabilité?

C'est très intéressant comme question. En fait, chez Eiffage on essaie de faire en sort, on essaie, je dis bien, on essaie de faire en sort qu'il n'y a pas des innovations qui sont pas durable. Le meilleur exemple c'est laboratoire Phosphore®. Laboratoire Phosphore® de perspective sur la ville durable nous projetait artificiellement en horizon de 2030 dans un contexte qu'on a imaginé extrêmement dure avec des émissions de gaz de serre tellement grave que on pouvait plus travailler si on mettait le gaz d'effet de serre. Ce qu'est fait aujourd'hui nous ne pouvons pas travailler. Et l'objectif c'était que toutes les innovations qui sortent de laboratoire Phosphore® soient *sustainable*.

De fait, comme je me rencontre aujourd'hui, comme je regarde les innovations de la branche construction ou de la branche travaux publics, ils sont toutes les innovations qui ont les avantages environnementaux, ou des avantages sociétaux, comme par exemple, logement évolutifs, qui répondent aux mutations des modes de vie et qui, par exemple, va permettre d'avoir une pièce en plus dans l'appartement, parce que on va recevoir, parce que on va se marier avec une femme qui a des enfants ou on se remarie à 45 ans et refait des enfants ou parce que on va avoir une

bureau dans son appartement. Cette adaptation aux modes de vie sont avantages sociales. Ca fait progresser nos métier, mais en termes d'usage ça apport une innovation soit pour l'environnement soit pour la société. Donc, aujourd'hui j'ai tendance à dire que il y a n'y a pas des innovations qui sont pas *sustainable*.

Interview with Nicolas Moronval, Head of Phosphore® projects at Eiffage

Date : 12 December 2014
Location : Eiffage, Asnieres-sur-Seine
Language : French

Summary²

Nicolas Moronval, Head of Phosphore® projects at Eiffage has provided an insight on the French vision of sustainability, the principal challenges in implementing sustainability for the organization and explained what are the main strengths of sustainable projects of Eiffage.

French vision of sustainability mainly differs from other countries, because of the centuries-old history of the cities, which are very complex. For historical cities, sustainability is implemented through building a city in the city. A city serves as a key to sustainability and to the change of existant practices. For example, Paris is complex ancient city, which experiences a complex evolution. It is essential to consider every detail while facilitating the change, since Parisian system is interlinked. This is why, French vision of sustainability implies a thorough holistic analysis.

Phosphore® innovative laboratory specialized in sustainable city design and implementation has been founded in 2007 at Eiffage. As a manager of pioneer and innovative projects, Nicolas Moronval experienced several challenges. The main difficulty was transforming the mindset of coworkers by convincing that sustainable development is essential in business. Despite the minor difficulties, within a short period of time, Phosphore® projects have been a true success, attracted a large number of followers and quickly spread across all the company's divisions.

One of the main strengths of Eiffage is sustainability implementation is that they are involved in the Consturction and Civil Engineering industry. Thus, by nature, Eiffage are intergrators and creators of the cities, which implies a lot of responsibilities, such as making important decisions while taking into account social, societal and environmental factors.

² The included original interview was in French language. For this purpose, the summary of the interview in English is provided.

1. Qu'est-ce qui rend la vision française du développement durable différente d'autres pays?

Pour répondre à cette question sur la différence de la vision française en termes de soutenabilité ou durabilité par rapport aux autres pays, je dirais qu'il y a là une question historique et culturelle. La France fait partie du vieux continent, et donc, qui dit vieux continent, dit longue histoire et donc des villes qui se sont construites depuis des siècles. Le principe qui a souvent été évoqué dans les conférences de construction de la ville sur la ville est très spécifique aux villes historiques. Construire la ville sur la ville, c'est probablement ce qu'il a de plus complexe, notamment, parce que tous les systèmes sont existants, imbriqués et totalement en interface. Ces systèmes ont ainsi évolué au cours du temps, et c'est ce qui donne faussement la sensation qu'ils sont superposés d'une manière simple et évidente. Mais cette histoire et ces multiples imbrications les rendent très complexes, et rendent leur évolution encore plus complexe. Hors, on sait qu'aujourd'hui qui dit durabilité, dit inmanquablement ville, car elle est vraiment la clé de la durabilité, des changements de nos pratiques et la source majeure des productions de gaz à effet de serre notamment.

Donc, c'est vraiment sur la ville, qu'on a tout à faire. Pour revenir à ce que j'indiquais au début, il est vrai que la vision européenne et, notamment française, est assez différente des autres pays du monde car leurs villes ont connus des énormes évolutions ces dernières 50 ans. En ce moment, on travaille avec fortement sur Astana dans le cadre du projet de « simulateur ville durable » Astainable®. Astana est une ville nouvelle, et c'est donc quasiment un *green field* sur beaucoup d'aspects, même si ça bouge très vite et que beaucoup des travaux sont déjà en cours depuis 15 ans. C'est assez impressionnant, mais ça reste un *green field* pour beaucoup des sujets, et donc, un grand nombre de bonnes pratiques qui sont mises en place à travers le monde peuvent être positionnés quasiment *from scratch* sur le développement de capitale. Quand on parle du cas de Paris, c'est une ville ancienne complexe et donc toutes les évolutions conduisent à retravailler sur les niveaux des détails qui sont absolument infinis et qui causent des impacts et parfois des dégâts collatéraux importants sur les autres aspects d'une analyse systémique. Donc, effectivement la soutenabilité à la française, c'est probablement une vision un peu plus détaillée, un peu plus poussée de l'analyse systémique, mais nous avons l'obligation de la mettre en place si on veut obtenir des effets plus positifs que négatifs.

2. Quels sont les principaux défis de la mise en œuvre des projets de développement durable à l'intérieur et à l'extérieur de l'entreprise?

Cette seconde question, je la mettrai fortement en relation avec le projet Phosphore®, qui a été développé à la Direction Développement Durable depuis 2007. C'est un exemple type. En deux mots, le laboratoire Phosphore® est un laboratoire de R&D sur la ville durable avec un certain nombre d'hypothèses d'entrée imposées, notamment les émissions du gaz à effet de serre, la diminution des ressources, la prise en compte des importants changements climatiques, voire la mise en place

d'une taxe carbone. L'objectif de ce laboratoire interne était de monter en compétence et de se préparer aux changements à venir qui sont inévitables, et pour éviter que notre business model soit caduc quand ces hypothèses ne seraient plus des hypothèses, mais des réalités. Ce laboratoire a débuté en 2007 et est toujours en activité aujourd'hui.

Les membres des différentes branches du groupe qui ont participé à Phosphore[®], ont tout d'abord été les personnes qui étaient convaincues, sans aller trop loin, on dirait presque militantes. Les gens qui tout de suite ont compris les enjeux et les avaient eux-mêmes intégrés ont été les premiers leaders, c'était sur les années 2007, 2008, 2009. Depuis, Phosphore[®] a beaucoup de *followers*...

A partir du moment, où le projet Phosphore[®] a trouvé réalité, c'est à dire a disposé de livrables, a été partagé au sein du groupe, on a eu les capacités en interne à à trouver un certain nombre de *followers*, mais c'est quelque chose qui prend beaucoup de temps. Et donc, la difficulté en interne c'est le fait qu'il faille transformer la mentalité de manière lente, immanquablement lente, d'autant plus que pour beaucoup des collègues le développement durable ce n'est pas forcément synonyme de business. On sait que dans une entreprise ce qui compte c'est le cash qui nous fait vivre, c'est une réalité. Donc, l'aspect durabilité qu'on a systématiquement mis en œuvre et démontré dans laboratoire Phosphore[®] n'a pas tout de suite, parce que c'était l'interne, recueilli une adhésion large.

Je mettrai interne et externe en relation, car ils vont ensemble en fait. La soutenabilité et tous les efforts que nous y avons intégrés vont systématiquement de pair entre l'interne et l'externe. On a commencé par l'interne avec tous les enjeux qui étaient l'autres et les freins qui j'ai avant évoqués. Dès qu'on a eu un certain nombre des livrables, nous avons rapidement été exposés aux regards extérieurs.

Ce qui est très intéressant c'est qu'au bout de deux ou trois ans on a commencé à avoir une certaine renommée. Cette renommée, parce que les gens de l'extérieur le faisaient ou auraient eu l'envie de le faire dans leurs entités respectives, nous a amené un retour très positif. Grâce à cela on a eu une boucle qui s'est opérée entre l'interne et l'externe. Les premières militants, qui ont convaincus un certain nombre de *followers* se sont trouvés renforcés en retour par les messages positifs qui venaient de l'extérieur, et tout ça a bouclé systématiquement après les premiers Phosphore[®] (I et II). Par la suite, dans les laboratoires Phosphore[®] 3 et Phosphore[®] 4, on a ainsi eu de nouvelles vocations internes qui sont déclenchées (les *followers*). Ces personnes n'étaient, à priori, pas venus au départ sur le projet parce que il leur apparaissait peut être trop exotique, trop fantaisiste. Mais la donne a changé.

Donc c'est toujours en duo, on ne peut pas séparer interne et externe ; l'un aide l'autre. Il faut souvent commencer par l'interne, avoir un retour en provenance de l'externe pour pouvoir reboucler à l'intérieur de la structure.

3. Quels sont les principaux avantages de la mise en œuvre de des projets de développement durable d'Eiffage?

Pour cette troisième question, je vais à nouveau mettre l'accent sur ce projet auquel j'ai d'abord participé, que j'ai ensuite dirigé sous le management de Valérie David, qui est projet Phosphore[®] dont on a parlé dans la question précédente.

Là, nous pouvons aller plus loin sur le sujet. Un des avantages certains du groupe Eiffage c'est qu'il s'agit d'une entreprise de BTP. La soutenabilité que l'on a mis en place, notamment au travers du programme Phosphore[®], c'est un avantage fort parce que le fait d'être Eiffage, et donc du monde de BTP, nous sommes par nature des intégrateurs. Quand on se retourne à 360 degrés au sein d'une ville, il n'y a pas un endroit qui n'a pas fait appel à du génie civil, à des constructions bâtimementaires, à du réseau électrique, à du réseau d'évacuation d'eau, des STEP... Donc, les BTPistes ont une position naturelle. Elle n'est pas hégémonique, parce que qu'au-delà des BTPistes, la ville a besoin d'autres compétences. Mais, on est souvent les premiers à travailler sur ces territoires.

Pour la réalisation des éco quartiers démonstrateurs, qu'ils soient virtuels ou réels, il est naturel que les pouvoirs publics fassent confiance aux entreprises de BTP, notamment à Eiffage, puisque nous avons souvent la maîtrise foncière. Nous avons le plus souvent achetés les terrains, et nous engageons un certain nombre de travaux qui amènent derrière une cohorte de différents secteurs, comme j'ai évoqué récemment que ce soit les sujets autour de la production d'énergie, les systèmes communicants, les transports. Tous ces secteurs participent à la ville durable.

Vue que nous sommes des bâtisseurs de la ville, des intégrateurs, cela nous donne un impact important et donc des responsabilités importantes. Et qui dit responsabilités importantes dit prise de décisions en tenant compte de multiples critères sociaux, sociétaux et environnementaux. Certains de ces choix et volontés amènent parfois des succès, d'autre fois moins, mais toujours l'obligation de faire un maximum d'efforts, d'être les plus vertueux possible pour atteindre les objectifs de soutenabilité, qui d'années en années s'imposent toujours plus à nos métiers.