



# Cultural differences between Danish and French contractors

OVERCOMING CULTURAL DIFFERENCES IN AN INTERNATIONAL COOPERATION

Vincent Maes | Master Thesis | spring 2016

## TITLE

Cultural differences between Danish and French contractors: overcoming cultural differences in an international cooperation

## EDUCATION

Master's program in Management in the Building Industry

## PROJECT LOCATION

A. Enggaard 's building site Østre Havn, Østre Havnegade 36, 9000 Aalborg, Denmark

## PERIOD

1<sup>st</sup> February 2016 – 1<sup>st</sup> June 2016

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## SYNOPSIS

[English]

This master thesis is dealing with the cultural differences that could be leading to issues when two contractors, a French and a Danish one would do a partnering for a construction project. Limits and a frame were set for this study that focussed on site managers in a partnering in the form of a consortium.

Culture was studied first for itself to elaborate the focus angle of the project, and then national cultures of both countries were examined to highlight differences which could be potential problems for the cooperation. Organisational culture was also looked into, in order to understand its challenges.

[Dansk]

Dette kandidat speciale handler om de kultur forskelle, der kunne føre til problemer når to entreprenører, en fransk og en dansk arbejder samme for et byggeprojekt. Grænser og en ramme blev fastsat til denne undersøgelse, som var så fokuseret på byggeledere i en partnering i form af et konsortium.

Kultur blev undersøgt først for sig selv for at finde den fokus vinkel til undersøgelse. Of derefter blev nationale kulturer i begge lande undersøgt for at fremhæve forskelle, som kunne være potentielle problemer for samarbejdet. Organisationskultur blev også undersøgt, for at forstå sine udfordringer.

## PREFACE

This report was elaborated in the context of a Master Thesis, as part of the Master's program in Management in the Building Industry at Aalborg University. This program is a two-year master's degree program in English for Civil Engineers, preparing students to take part of the management of construction projects or management in companies of the building industry.

The project was made during the last semester of the program, during the Spring semester 2016, from the 1<sup>st</sup> of February to the 1<sup>st</sup> of June, due date of the project.

The project topic was chosen on the base of suggestions from the university. No company was collaborating for this report and the problem is just a hypothetical situation, which could however be seen in reality. For these reasons, no sensible data has been given by companies for this project, making this project not confidential in any way.

The report being the result of an academic study, it is subject to the copyright law. Since it has been conducted for Aalborg University, by the student named on the first page of this report and under the supervision of Lene Faber, it may not be used, distributed or copied without the consent of them. They all are the copyright holders of this work.

## ACKNOWLEDGEMENT

A special thank you is given to Lene Faber who was supervisor for this project. She was always available for helping, answering quickly and involved to see that the project was going ahead. Her advice was of good help.

## READING GUIDE

The methodology used for this project has been placed right after the introduction to give the reader the possibility to understand the methods used in the gathering of information and in structuring of the report before its content. The Logical Framework Approach (LFA) which has been used for structuring the beginning of the report is detailed first, followed by the methods of gathering information. Follows the pre-analysis, leading to the problem statement. The main analysis of the project is divided in two main parts, which correspond to the two aspects of culture studied.

No interviews have been conducted and the data used has been selected. In consequence, there is only an opening study or explanation in the appendix for this project. The sources used are stated in the relevant sections and gathered in the bibliography in the end of the report. Among the sources are research papers, reports and other sources such as official websites. A reference in a sentence is referring to the idea or information preceding it. A reference after a paragraph refers to the previous paragraph(s). Only the name of the author (or corporate author), the year of the reference and when applicable the page(s) can be found in the text, the rest can be found in the bibliography. Sources cited in the appendix are also referred in the bibliography. This report also contains a table of figures, located at the end of the report as well.

## TABLE OF CONTENT

PREFACE .....	3
ACKNOWLEDGEMENT .....	3
READING GUIDE .....	4
TABLE OF CONTENT .....	5
INTRODUCTION.....	7
1. METHODOLOGY .....	9
1.1. <i>STRUCTURE OF THE PROJECT – LOGICAL FRAMEWORK APPROACH</i> .....	9
1.2. <i>DATA GATHERING</i> .....	10
2. PRE-ANALYSIS .....	13
2.1. <i>CULTURES</i> .....	13
2.2. <i>CULTURE IN INTERNATIONAL CONSTRUCTION PROJECTS</i> .....	31
2.3. <i>STAKEHOLDER MAPPING</i> .....	36
3. PROBLEM FORMULATION AND LIMITATIONS .....	42
3.1. <i>SUMMARY OF PRE-ANALYSIS, ELEMENTS FOR PROBLEM FORMULATION</i> .....	42
3.2. <i>PROBLEM TREE AND PROBLEM FORMULATION</i> .....	44
3.3. <i>LIMITATIONS</i> .....	46
3.4. <i>OBJECTIVE TREE</i> .....	47
4. ANALYSIS OF THE NATIONAL CULTURES AND THEIR CONSEQUENCES.....	48
4.1. <i>ANALYSIS OF THE CULTURAL DIMENSIONS</i> .....	49
4.2. <i>CULTURAL DIFFERENCES AND POTENTIAL SOURCES OF CONFLICT</i> .....	64
4.3. <i>OVERCOMING THE CONSEQUENCE OF THE CULTURE DIFFERENCE</i> .....	70
5. ORGANISATIONAL CULTURE: WHAT CAN BE EXPECTED IN THE VENTURE.....	74

5.1. <i>CULTURAL WEB OF AN ORGANISATION</i> .....	75
5.2. <i>CULTURAL DIMENSIONS: WHAT CAN BE EXPECTED IN THE JOINT VENTURE?</i> .....	77
CONCLUSION .....	81
BIBLIOGRAPHY .....	83
TABLE OF FIGURES .....	89
APPENDIX.....	91

## INTRODUCTION

Globalization is far from being a news topic, but is far from being part of the past either. Several facts are the base of this ineluctable and always faster change on our planet. First of all of the non-stopping development of technologies resulting in development of communication and transport means, globalization is getting easier. The world gets symbolically smaller since one can travel farther faster than previously. The dominance of the English language makes more and more people able to communicate together, and in addition to this, people also learn and master more languages than the previous generations. And most of all and most recent of all, getting in contact with someone far has become accessible for all and of an extreme simplicity; getting access to data created and stored far in everyday life tasks as well as exchanging information from one place in the world to another. Despite this technological ease in access and sharing of information as well as new language skills of the population, more and more information is accessible by more potentially interested people in several languages. One can notice for example legislation, company reports, cultural content, and much more. In other words, potential is rising. Potential in knowing more, in learning more, in doing more and all this from further away.

At the same time, the development within each region, country and continent leads to an always rising competition on existing markets. It has for effect that companies are sometimes obliged, and often motivated to enlarge their geographical markets to survive, consolidate their position or even match their growth ambitions. Specialized companies can also bring their skills to places where no other is able to perform the same. And the further the world gets in the process, the easier all of this becomes, and more and more companies feel the need for this. To answer to this need and to continue to develop always faster and cheaper, countries form partnerships or alliances, uniform legislations, rules and other ways of doing. As an example, from few countries making an economical community in Europe more than half a century ago, 28 countries in Europe built a union not only economic but also legislative, establishing even a finally unratified constitution in 2004 (Europa, 2008). In addition, The United States of America and the European Union are discussing the Transatlantic Trade and Investment Partnership (TTIP) which could among other uniform standards, remove custom duties and open public procurements (European Commission, 2015). To finish, further from the economical point of view and closer to Civil Engineering, Eurocodes uniformed the ways of designing in civil engineering in Europe (Danish Standards, 2016).

Consequently, as a matter of fact, companies go work abroad for single projects or by establishing departments or factories for example. If they can be strong from this legislation ease, similar standards, communication means, access to information, these organizations and projects can become really weak because of a sometimes unforeseen and more often neglected or misunderstood factor: the great power of culture. Any temporary or long-term organization is made up by and of people with different backgrounds. Backgrounds which are even more distant from each other if people from several countries are involved in this organisation. It can therefore be more difficult to create teams, to make people work together, to make them understand the ways of working and thinking of superiors and subordinates, clients and customer, supplier and subcontractors... In any industry it could easily lead to a failure of a project, not because of technical inability of the company to deliver quality products, but because of the incapacity of the company to make all minds and hands to work coordinated to the same goal.

For reasons stated previously as well as for costs, need of special skills and more, international cooperation in projects is more and more frequent, involving the cultural factor more often. In the building industry, technical and technological advances are not just confined to making buildings more efficient, but allow developers and contractors to meet challenges that were previously not accessible. We build higher towers, bridges with longer spans... These new opportunities lower the costs of gigantic infrastructure projects, and make them sometimes affordable by nations, while they were not before. This does not mean that every contractor is able to handle such projects. They can miss available manpower or financial strength for example. It can lead companies to do international partnerships, and share also among other the risk of such projects. Cultural differences are then much involved. It is on this idea that this research finds its background.

The report is dealing with highlighting the cultural difference existing between Danish and French Contracting companies. The pre-analysis has for goal to define what culture is, what it will be implying in the rest of the study and how it is affecting an organization. In addition to this, this pre-analysis will also try to have a closer look to potential international cooperation between French and Danish contractors to see if the context of the project is relevant.

The analysis is then studying the aspects of culture which can play a role in the present case, highlighting first these cultural differences and their potential reasons to be, and then trying to analyse how they could be overcome.



## 1. METHODOLOGY

The purpose of the research in this document is to highlight problematics that could rise due to cultural differences when two contractors from two countries are working together on a common project. Several topics need to be investigated, and the information that is wished to be obtained is expected to be quite various. All topics won't have the same role for the analysis that will follow. For these reasons several standard methods are used. To ensure the reader that the research is conducted properly, this section is explaining and justifying the methods used for this thesis, and the way the research was conducted.

### 1.1. STRUCTURE OF THE PROJECT – LOGICAL FRAMEWORK APPROACH

The Logical Framework Approach (LFA) is a well-known tool for objective-orientated planning of projects. These projects can be of many kind, often trying to solve problems of an existing situation in a company, institution, country, region or other organization. They could be social, health-related, financial or else.

The framework has been developed to analyse or assess the relevance, the feasibility and the sustainability of projects. It is far from being a complicated theory but is more to be considered as a check-list of 9 steps that offer a structure for a project where analysis tools as well as common sense can be used to ensure that all topics and sources of influence have been taken into account. LFA is made for helping in all stages in the project. First it helps to highlight the problems and the needs. It then gives a structure for planning the development of projects efficiently as well as the implementation. Finally, it allows to evaluate this implementation and helps to follow-up on it in an effective way. This student project is purely theoretical and even if its content would hopefully be able to be used for real projects, neither the implementation of a project and follow-up is possible to study in this context. This means that not all steps of the LFA are applicable to this research. Nevertheless, the steps being in a logical order, following the chronology of a project, all first steps can be used. We could categorize LFA steps in three stages: Analysis stage, Planning stage, evaluation stage. For the reason stated previously, the planning and evaluation stages become irrelevant for this study.

LFA is consequently used in this report as a structuring guide. This method has been chosen because of its widespread resulting from the recognition of its advantages. Indeed, it has been formally developed by the US Agency for International Development in the 1970s, based on the early developments of such a method by NASA and private organizations (European Integration Office, 2011 p. 11). It is still use nowadays, more

than fifty years after. Many founding agencies for example require it in the preparation of projects they finance (Örtengren, 2004 pp. 3,24,25). This method has therefore been tried many times and subjected by the test of time, meaning that it is a good tool to use. The sources used for this section and as base for the structure of this project were selected because they were both published by official organization and both described fully the different aspects of the methods on an efficient way. They can be used for further reading and explanation for readers not knowing LFA.

## 1.2. DATA GATHERING

### 1.2.1. RESEARCH DESIGN

This project is looking at the construction industry with a social more than technical point of view. This means that the research is actually social research and the following is applicable. When gathering data to conduct the analyses, it is necessary to do some research design. The goal is to define before thinking at the methods, what kind of research is needed and what is expected to obtain. There are two kind of social research, one having for goal to figure out what is happening somewhere or/and at some time -called descriptive research- and the other one leading to discover why something is going on -called explanatory research-.

The report does not have for goal to find reasons of why things are happening the way they do on French or Danish building sites for example, but tend to figure out what is happening, how things are working. This report is therefore built as the result of a descriptive research and not explanatory research. The information researched is facts that need to be accurate, focused to avoid wrong generalization and to answer the goal defined for each part of the research. This research design is based on the book "Research design in social research" (de Vaus, 2001 pp. 1-16).

### 1.2.2. RESEARCH METHODS

In order to obtain good results for the goals defined previously, research methods have to be selected. These ways of researching information are classified under the terms quantitative and qualitative research. Quantitative research is to give reliable and valid results, which are true over time and tries. The output of this research is for statistical analysis of results, and basically consists on the gathering of information by objective surveys, or structured interviews without leading questions.

In this report, quantitative research is actually used as secondary data collation and analysis, since it gathers existing information with the goal of using them for an other final goal than what they have been research for. In this project, articles, reports, statistics and other sources of information of this kind are used to gather quantitative information. For reasons stated later in this report, no survey has been done for this research, but some already existing and reliable survey research have been used. Those reliable sources provide therefore information that could not have been gathered by one person in one semester. Moreover, due to the variety of the information that is gathered, too many fields and resources would have to be applied to the project. For these reasons, official organisations, public statistics and so on are considered here as the best and most efficient way to obtain information needed for the analysis following the research. For the study of the external environment of the two countries, facts and numbers will be searched. For this, it is quantitative research that has to be done.

Qualitative research is on the other hand more subjective and has for goal to understand and compare to similar situations. Respondents to interviews or surveys are chosen because of their experience, and the output is not suitable for statistical analysis. (MacDonald, et al., 2009) But as stated previously, only results of existing research and surveys are used for this project. This analysis of those results concerning the culture in the different countries is therefore some qualitative research. The goal is to understand and apply those results to the present case, and not just get numbers.

These two methods are used with two different goals. The study of the external environment is aiming to get directly comparable data while the study of culture uses data to understand it, to find consequences.

The gathering of scientific papers and articles for this project can be divided in two stages. The first stage was conducted with the help of search engines on the internet, at the university or other library. For this, the topic was defined, giving key-words, redefined several times depending on the results and to obtain fewer but more relevant documents, until the amount and pertinence was good enough. This gave the first batch on documents for the research. But instead of just read the found documents and rely on them blindly, without knowing the quality of the researches, the search was quickly orientated towards the following proceeding (second stage). All paper used for the first part of the gathering referred to some other paper and authors. These documents cited in the bibliography were the sources for the rest of the research. Some of them were referred to several documents and seemed to have become some common reference within a topic, showing the quality of the works. For example, Edgar Schein or Hofstede with culture. These sources were preferred for the analysis.

## 2. PRE-ANALYSIS

In general, every new project comes with a set of new challenges, new cases and situations. Construction projects are all different, and even if the teams, the materials, the technics and the tools can be the same, there are always new challenges. The location, the environment, the ground, the ideas of the architects and designers are never the same, and it is quite rare to be have two projects that are really similar. It is one of the differences of the construction industry with other manufacturing industry. If manufacturing projects are of course all different, the final product is most likely to be produced several times, or even many times. A construction project is nearly always unique. However, all these technical challenges can be overcome more or less easily by a good planning. But even with the ideal preparation, even if every technical aspect has been thought through and every problem solved, there is one thing which is quite unpredictable: people, how they act and their relations towards each other. This is a challenge at every level, meaning between client or developer, contractor, consultant, and so on and obviously also within companies, on-site, inside working teams, etc. This human factor, which depends on the personality of all stakeholders, depends also greatly on the differences in the cultures of each of them.

Some projects might be more influenced than others by this factor, and when several companies work together in a partnering, culture like organizational culture for example plays an even more important role. And in addition to this, if the example of an international partnering project is taken, culture can become one of the most problematic challenge that can be encounter.

This section takes first a closer look at the different levels of culture which can have an influence on projects and then deals with international projects and what they consist of with a culture orientated approach. The goal of this pre-analysis is to define what is culture and why it is interesting for the analysis of this project. The aim is to help to define the problem formulation for this project.

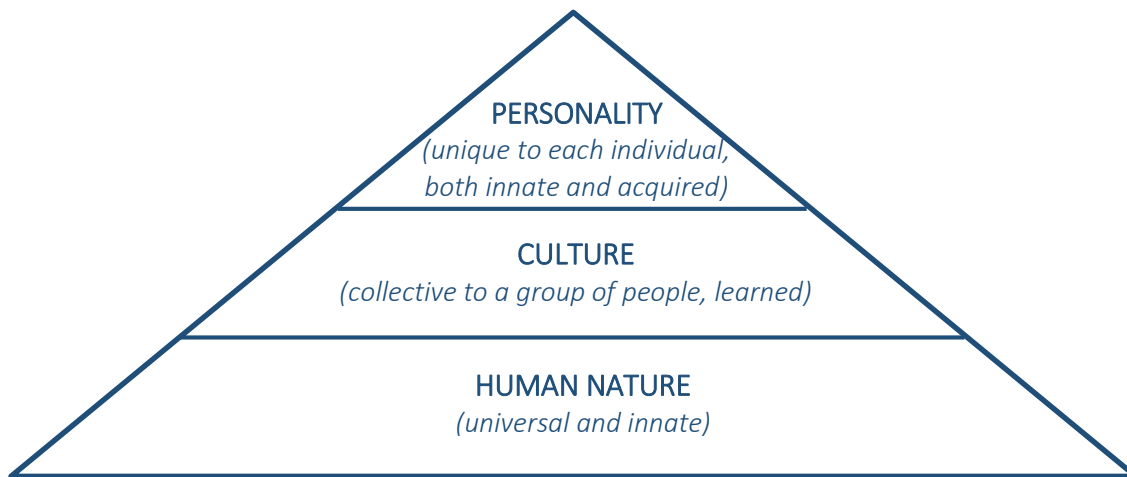
### 2.1. CULTURES

The concept of culture and how important culture is, can be found and is discussed extensively in a great amount of literature. However, it seems that some views and theories can be slightly different, and sometimes are competing with each other. (Schultz, 1995 p. 6) It appears moreover that it is very often the same research papers and researchers that are referred to for this matter. This project does not intend to do a deep research in these questions or to prove right or wrong a theory or an other one. It is neither an

anthropological nor a sociological research but this section aims to understand what culture is, what will stand behind the idea of culture in this report. For this reason, and because the models to explain are common to nearly all papers, it has been chosen to base this section on three main sources, (Schein, 2004) (Hofstede, et al., 2005) (Schultz, 1995). These books and authors are often taken as references in many other research paper, and that is why they have been selected for being the base of the following explanation.

(Schein, 2004 p. 17) defines culture as “a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.” To make it clearer, in *Cultures and Organization: Software of the Mind*, (Hofstede, et al., 2005 p. 2) compares culture to computer programming. As a computer program will react the way it has been made to, the way one person will think, behave and feel in the different situations of his or her life is depending among other on what that person experienced, and of course the social environment in which this person has been brought up. This means at first the family, then school and other organizations or any kind he or she will be part of as a young person and finally the workplace and living community. This is the way the author introduces to the term culture. Culture is not genetical but is something learnt, and it is what makes the difference with some behaviour due to human nature. Human nature is the way a human being would react naturally to physical or psychological things affecting him or herself. A smile as the reaction for satisfaction resulting from the positive interaction of two people is proper to human nature. On the other hand, a spoken thanks from one person for the same situation is culture.

Finally, culture should neither be confused with personality, which is what is proper and unique to every human being. Personality is the innate state of mind of an individual due to its personal set of genes, modified and influenced by what a person learns through experiences and social conventions. These three concepts, human nature culture and personality, which all influence the behaviour of humans are represented in FIGURE 1 as the levels of uniqueness of mental programming (Hofstede, et al., 2005 p. 4).



**FIGURE 1 LEVELS OF UNIQUENESS OF MENTAL PROGRAMMING**

The different social environments in which a person is developing along its life all have their own culture. Some have a bigger influence on the individual than some others, and they can be divided in categories called layers of culture. Some literature refer to them as levels, which won't be used here with this meaning to avoid confusion with the levels explained later in this section, and vice-versa. These following layers, not ranked by importance since it may differ totally from an individual to an other, can promote values in contradiction with one an other.

Among all layers of culture, it can be noticed the national layer giving a national culture, the regional or ethnic layer, the religious layer, the language layer, the gender layer, the generation layer, the social class layer, the organizational layer. (Hofstede, et al., 2005 p. 11)

Some of these layers can also depend greatly on each other. For example, the gender layer can have a significance totally different in two countries, and therefore could be attached to the national culture. For country where there is a state religion, a unique language and so on, the same could be done. It seems that the national culture is often predominant compare to many layers, and at least quite influent. If in India, the social class (caste) from which one is from plays a major role in how the life of someone will end up to be, it is nearly not at all the case in Denmark where all citizens receive equal opportunities or close to it. The family in which one is from will of course still play a role in how a child will be open to learn, to develop culture and receive help from its parents with homework, answers to curiosity and more. But social class

won't play a role in whether or not a person deserves a kind of job, or the wealth of the family won't either play a major role in the studies a young person will choose, except in special cases. Keeping in mind that this project is having for goal to compare Denmark and France, it is rather confident to say that for these two cases the national layer actually includes some of the culture layers such as the regional or ethnic layer, the religious layer, the language layer, the gender layer, the social class layer. To make such a grouping of culture layer, which does not mean that it is a mix of them, it is essential to precise that only metropolitan France, and proper Denmark (not the two other constituent countries of the Kingdom, Greenland and Faroe Islands) are used for this study. Moreover, the regional differences, even if they exist are neglected. It is considered that the national culture itself is too common between regions to be noticed as different cultures in comparison to the differences in national cultures between Denmark and France.

The generation layer, although universal and timeless is not of such help or interest when studying cultural differences between contractors of different countries. (Horace, 20 BC) was certainly not the first one noticing the differences of cultures between generation when he talked about the loss of moral values from a generation to an other. However, this is only partly true, and this kind of cultural differences is not something that is possible to anticipate. It will therefore not be studied at all in this research.

Other than national culture and what is linked to it, and other important aspect of culture is the organizational culture. As stated previously, a human is partly the product of what it experienced in social environment or organizations during its life. From little kid with school to adult with work passing by other kind of activities, a person will for sure be part of several organizations, where rules are different, some ways of behaving are acceptable while some other are not. This dictates a lot the behaviour of people and their culture.

For these reasons, the study of this project will focus both and only on national culture and organizational culture.

Culture, being national as well as organisational, is obviously changing over time, and at very different pace depending on the various aspects, that can be called levels. There are four levels of culture. The most superficial of them is consisting of the *symbols* one has. Those symbols carry a meaning only for people sharing the same culture and will therefore be different from a culture to an other. They can be of different kind such as pictures, material things (clothes, objects), written or body signs, for example. Comes then the



*heroes*, which can be legendary or not, of our time or past, etc. They are less superficial on a cultural point of view because they last longer over time, several generations of people can identify themselves to them or get entertained for example. They can be gods or people in religious texts, as well as characters in cartoon. We can even take as illustration Rasmus Klump in Denmark or Bécassine in France which both created several generations ago and continue to be heroes for the children.

Deeper than these, can one find *rituals*. Rituals are the actions proper to a society or organisation, which are not at filling any purpose in survival, evolution or development of any kind, but which are anyway recognized as fundamental for that society or organisation. They could be assimilated with traditions. These can be really old, codified like the religious rituals and therefore are not just inalienable and superficial as symbols and heroes.

To finish, as the deepest level and base of all three other levels, are the *values*. They are the judgement one will have on something one experiences, sees, feel. They are what one will find good or bad, moral or immoral, dangerous or safe, allowed or not, etc. Unlike the other levels, the level of values is invisible. This way of viewing culture described by (Hofstede, et al., 2005 p. 7) can be visualized on FIGURE 2. In this case, culture is also a bit like an iceberg: what is visible is supported by something much more important (here, values), which is invisible from outside. Moreover, unlike the others, the value level is not part of practices but is really what an individual has inside. If the three first are part of culture, it is easier to see values as

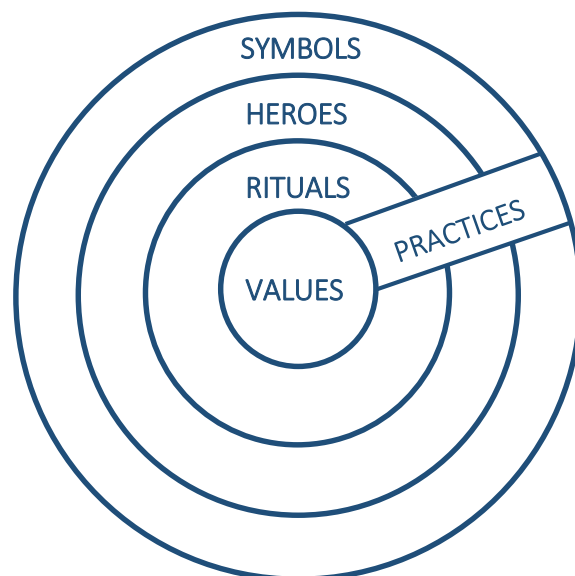


FIGURE 2 MANIFESTATIONS OF CULTURE AT DIFFERENT LEVELS OF DEPTH

proper culture and symbols, heroes and rituals just as manifestation of culture (Schein, 2004 p. 14) The value level is also the thing which takes the most and longest time to change. We can feel that cultures are changing fast if we just look at societies, seeing that haircuts and fashion are becoming more or less the same in larger parts of the world, that people see the same films, listen to the same music, prefer more similar hobbies depending on the trends. All those changes affect easily symbols, a bit less easily a great part of the heroes, and sometimes some of the rituals. The rituals or traditions are however much slower to change than the two previous. One can easily see that most rituals are mostly the same than the ritual their parent's generation and their grand-parent's generation and so on were having. And the values, even though they are of course changing, are globally remaining the same. The two other main documents used for this section describe levels a bit differently (Schein, 2004 p. 46) and (Schultz, 1995 p. 25) with only three levels, the principle is the same with artefacts (including symbols, heroes and rituals), believes and basic assumptions. And moreover, they all point out that levels interact with each other, changing but only slowly the surrounding levels. This point of extremely great inertia of the deepest level of culture can seem trivial for a study of culture in Danish and French contracting company but is actually extremely important. It means that no matter the effort one can do in the integration of both cultures in one single temporary organisation for one or several construction project, it will just be impossible to erase or even modify the values (what people will think about acceptable or not for example) of the individuals. The organisation will therefore have to be taking into account that the member will probably change some of the symbols, maybe heroes, perhaps also few ways of doing, but won't forget who they are and where they come from, what they like to do things. This is the reason why any change in any organisation takes a lot of time, why is can easily fail, why many people always come back to their original way of doing.

It also means that unlike for technical and technological matters, what concerns culture is quite stable over time. What was true fifty years ago concerning the global tendencies is probably nearly as true today. The surface of cultures changed, have been scratched a bit, but the deepest levels stayed the same. This stable-over-time aspect of values in culture is what (Schein, 2004 s. 14) also defines as a base of the concept of culture. A culture is not just something that people have in common, but it is supposed to remains if some people leave or come.

### 2.1.1. NATIONAL CULTURE: CULTURAL DIMENSIONS THEORY

As explained in the previous section, culture can be seen with different angles, that we defined as layers: gender, generation, national, language, social class, organization and more. From all these layers, two have a particular interest for this study, namely national culture and organizational culture. To understand what national culture will mean in the main analysis of this project, this part will be divided in two. The first one introduces national culture, and the second one explains the cultural dimension theory.

#### i. INTRODUCTION TO NATIONAL CULTURE

If nationality as a cultural identity is something quite recent, resulting of the end of colonial empires, it is possible now to recognize that citizens of one country globally share a common culture, and that the world slowly goes towards it. Indeed, when inhabitants of Algeria were French citizen, Indians were part of England, and Namibia belonged to Germany for example, citizens of one nations were not sharing at all the same culture, despite being ruled by the same people and having sometimes the same administration. This one culture per nation is of course still not a universal truth, since some ethnicities or other group of people still claim their independence for cultural reasons, Basques, Kurds, Chechens as (Hofstede, et al., 2005 p. 18) explains it. Without anybody seeking independence, it is clear for all Danes that in the small country that Denmark is, there are some clear differences whether one comes from Sjælland or Jylland. However, Danes, wherever they are from in the country share much more than they do with citizens of other country. There is a strong common culture always becoming more uniform, by the communication means like TV, radio and by the transport means developing and bringing the different parts of the country closer together. Culture as national culture is not a different concept than for the other layers. If one studies culture within a social class, or within a whole nation, the definition of culture remains the same. It is still among other, the similarities in the way of thinking or the common in values within a studied group. It is just the point of view one takes to study culture that is different. In this study, national culture is therefore what is globally typically Danish or typically French. The differences between these two countries will show potential sources of misunderstanding, differences of expectations if people from these two countries would have to work together. To see the problem in a wider windows than this project, all nations and ethnicities, linguistic groups and other are part of the same world. If all humans want to be able to continue to be part of it, there is as only solution so far to collaborate and to overcome cultural differences. (Hofstede, et al., 2005 p. 19) It is thus very important to know and understand cultural differences for not considering them

just as obstacles, but to use the way we want and get the positive impact they could have and maybe even recognize them as a chance. This does not mean that it is not a challenge. It is the basic idea behind this project.

Denmark and France share only little of history together. Consequently, it can be expected that there will be a lot of cultural differences of many kinds. Not all of them are relevant for this study and therefore not all of them will be treated. It would not explain any point to spend time on the children heroes for example. The choice has then been made to work with national culture in two ways. One of them, which will only be treated in the main analysis is a PESTEL analysis of both countries. It consists in having a look at each country, highlighting the main characteristics of each country, concerning the following factors: Political, Economic, Social, Technological, Environmental and Legal. The first letter of each factors is giving the acronym PESTEL. But it will follow an other part. The first way culture will be studied in this report is through the cultural dimensions theory, introduced hereafter.

## ii. CULTURAL DIMENSIONS THEORY

Geert Hofstede, Dutch mechanical engineer and social psychologist, who devoted his life in understanding culture becoming a reference in cultural questions, did develop along his works the cultural dimensions theory. After founding in 1965 the Personnel Research Department of IBM Europe he managed it for six years. (Hofstede, 2012) While being at this position, and enjoying the fact of being in an international company, having offices and a large number of employees all over the world, he conducted with his research teams an extremely large survey research to highlight the cultural differences in each country. This research, which will be referred to as “IBM Survey” had for starting point the works of several anthropologists from the USA (Margaret Mead, Ruth Benedict), who affirmed that the main problems of each society were the same, but that the way of dealing with them were the different. Even if those remarks are from the first part of the previous century, experts, still support the same hypothesis, (Schwartz, 2006 p. 141). This was followed by the publication in 1954 by Alex Inkeles, an American sociologist and his compatriot and psychologist Daniel Levinson.

The identified those common issues which could be found in societies all over the globe. Three themes were defined, whatever the chosen society was:

- What is the relation to authority?
- What is the relationship between individuals in the society; between one individual towards the society, and the personal view on masculinity and femininity?
- And as last issue, how are individuals handling conflicts, how they express their feelings and react to aggressions?

So, on these base, the survey was conducted within the subsidiaries of IBM. The respondents were having the same jobs, similar educational background, same status, etc. The only things which wasn't similar, was their nationality. It was therefore a good way to compare the values of people of different countries, without having the problems of mistaking a result by the effect of other layers of culture. (Hofstede, et al., 2005 pp. 22-24). The topics described by Inkeles and Levinsons in 1954 were developed for this IBM research. The data was collected between 1967 and 1973 from respondents of 50 countries at first. Replications of the study were then conducted in more countries and regions, so that today scores of more than 76 countries are available. (Hofstede Center, 2016) From the answers of these more than 116 000 respondents, the team of researchers analysed the data, to obtain at first four different dimensions which are characteristic from a society, to which they added afterwards two more to have in all six of them. Among the 140 replications of the studies or other studies about culture (all counting between 5 to 39 countries studied), all found similar results for the dimensions and confirmed the relevance of the dimensions chosen (Hofstede, 2001 p. xx). The dimensions reflect the ways of thinking of the individuals in each country, rather than the manifestation of culture, as explained previously with FIGURE 2. These dimensions measured by indexes, which are supposed to cover all main aspect of the deep levels of culture, explain the behaviour of people in these studied societies. Only a really brief explanation or example of these indexes is done in this pre-analysis, and they are detailed more in the main analysis, together with the results of the countries France and Denmark.

The teams of researchers analysed the data in a statistical way using correlation, allowing coefficients (importance) for each question of the surveys and linking the questions to some index(es). Questions can carry importance and information for several indexes at the same time. The statistical analysis gave scores for each country from 0 to 100 (with few exceptions). The indexes that have been highlighted as

characteristics of each society (and as a reminder on the basis of the topics from Inkeles and Levinson) are the following:

- *Power distance Index (PDI)*: represents the kind of power relationship or dependence between two individuals. With high power distance, comes hierarchy and emotional distance. At school for example, the teachers are lecturers and at work the structure is more being pyramidal and bosses being autocratic, with clear distinction of the roles between bosses/persons in charge and subordinates. On the contrary, with low power distance teachers would be more helpers or tutors, and bosses taking consulted decisions, in a flat organizational structure.
- *Individualism Index (IDV)*: is coming in pair for comparison with collectivism. It shows how loose or tight are the bonds between member of a group. In an individualistic society, the youth will take its independence rather soon, living his or her life only for the closest circle of relations like very closest family, best friends but most of all him or herself. On the contrary, collectivism represents societies where the ties in-between groups like families are stronger. An individual will look after the others of the groups as well as for its own needs. For example, societies where several generations of the same family are living together are typically collectivist societies.
- *Masculinity Index (MAS)*: is also coming in pair, but with femininity. It is not directly related to the domination of a gender over the other in the society, even though countries having a high masculinity index are often those where the gender plays a big role in the life of someone. But a country with a high femininity is not one where women have more power. Some characteristics are often associated to one gender. Characteristics associated to masculinity and which would define a masculinity society when they are promoted or preferred in the society would be challenge, search of material success, assertiveness. On the other hand, a society focused on the quality of life, equality, modesty would be defined as feminine. Those characteristics are the product among other reasons of the roles males and females had or have in the societies for thousands of years.
- *Uncertainty Avoidance Index (UAI)*: could be simply defined as the extent to which someone is uncomfortable with being in situations in which the issue is not predictable or situations which are

ambiguous. It directly has something to do with stress and anxiety, fear of the different, and worried about the things happening in life, financial situations, profusion of laws, etc.

- *Long Term Orientation Index (LTO)*: is partly transparent. It defines especially how a society looks at getting results for the different efforts and investments done. In a long term orientated society, rewards are expected to come in a long time, after hard efforts and perseverance. The society is more orientated to the future. While a Short term orientated society is more in the past and the present, expecting rewards fast.
- *Indulgence Index (IND)*: is the most recent of all indexes. It has been added in 2010, looking at new patterns in the answers of the survey. Indulgence is to put against Restraint. And indulgent society is socially allowing the fact in enjoying the pleasures of life, while a restraint society restrains, making many life pleasures as not socially acceptable or taboos, sometimes enforced by laws. The index won't play a great role in the main analysis, since it seems disconnected to the theme of this project, and since it seems obvious that it is not a work related issue.

Of course all these dimensions involve much more than the simple name they carry and the short explanation which was given. Deeper meaning and examples will be given in the main analysis, especially with the analysis of the scores for the concerned nations. What was measured was the repercussions of the values and not the values themselves. It is neither the heroes of the youth that have been highlighted. It is simply the way people from a specific culture act towards others, it is the reflection of their values.

### iii. ALTERNATIVES TO THE CULTURAL DIMENSIONS THEORY

The cultural dimension theory is far from being the only relevant classification of cultures. There are two other classifications that could have been taken for this project because they somehow fitted also well the purpose of the cultural difference between Danish and French contractors. They are the classification made by the professor S.H. Schwartz and the classification by the business consultant F.Trompenaars with samples gathered in different companies in several countries.

- The study made by Schwartz asked the respondents (all from of the educational world: university student as well as public school teachers) in fifty-six countries to prioritize fifty-six values depending

on their importance in each respondent's own life. The research resulted in a classification of the nationalities in seven different cultural orientation forming three cultural dimensions which are

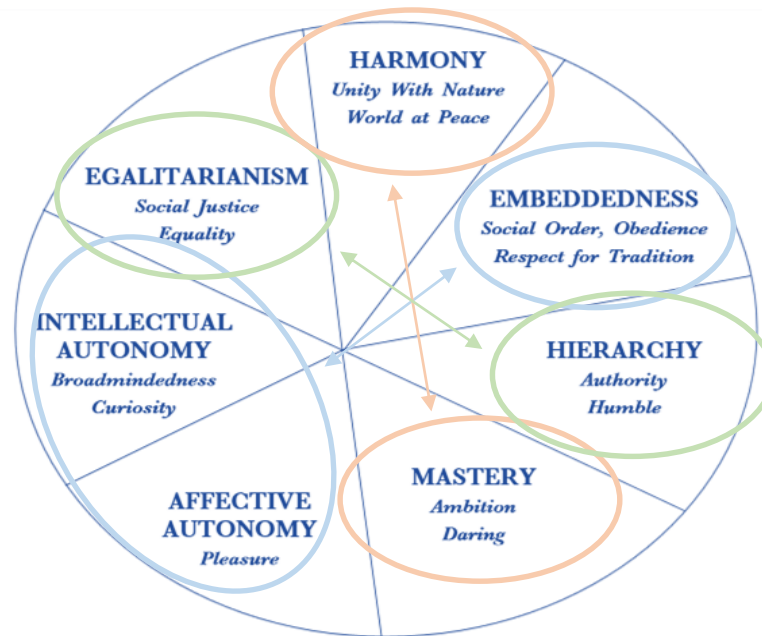


FIGURE 3 CULTURAL DIMENSIONS: PROTOTYPICAL STRUCTURE (SCHWARTZ, 2006 P. 142)

embeddedness versus autonomy, hierarchy versus egalitarianism, and mastery versus harmony, as shown on FIGURE 3 hereafter.

- The research from the team of Fons Trompenaars also was made by surveying. The researchers questioned nearly nine thousand managers from forty-three countries in two surveys in 1985 and 1993. In 1985, respondents had to say what would be their reaction in many different explained imaginary situations at first, and then pick one out of two proposed behavior of issues. It was design to show value dilemmas. (Trompenaars, et al., 1996). Data was then analyzed to highlight three measurements: Universalistic versus Particularistic Obligations, Achievement versus Ascription Orientation and Individualism versus Collectivism (Trompenaars, et al., 1996)

Even if these researches are internationally recognized, it has been chosen to exclude them for the project. Despite the fact that Hofstede -who is a pioneer and reference in this field- describes the classification of Schwartz as the most elaborated research, it seems not as relevant to use it since the respondents did not most likely have professional experiences in the private professional world. A big part of them were still student and therefore still “accumulating” culture and values, especially in some countries were the



independence from the family arrives later in the life of the individual. The arbitral choice to prefer a study where all respondents were “fully grown” professionals has been made in this context.

Concerning the research from Trompenaars, despite the fact that he really well knows in the business world, it seems like it does not cover all aspects of national culture (Hofstede, et al., 2005 p. 32). It gives therefore an image not fully right on the national culture, and thus somehow a bit distorted. It was for these reasons not chosen as the reference study for this project.

Making a new survey for this project could also have been an alternative, to adapt it to the problematics and countries this project is dealing with. The idea has however been abandoned for the following reasons. Trying to highlight the cultural characteristics of a nation is requiring to elaborate questions or a research method that is totally impartial. Therefore, people elaborating such research need to have a solid experience in cultural and sociological matter and often also psychological matter, to know what to avoid and how to ask, etc. Moreover, to get a clear tendency for the two countries studied, it is considered as essential that the sample of respondents is really extensive. It is believed that few dozens of respondents per country is the maximum that such a survey could reach in the conditions of this project. It is moreover believed that few hundreds respondents would be a minimum appropriate amount to be able to give real tendencies on what the culture is in a country.

Finally, should it have been following an existing model or answering to the need of a new model? The lack of knowledge about cultures lead to the fact that it is not possible to question the existing models. And consequently it would be necessary to choose an existing model. In this case, would the survey to create be giving better results than what is already available?

These were some of the questions leading to putting aside the idea of conducting the research independently for this project. In conclusion, it has been chosen with reasons, that it would not be interesting to “do badly”, what professionals already “did well”.

### 2.1.2. ORGANISATIONAL CULTURE

Despite the fact that national culture and organizational culture both carry the word culture in their name, the concept is a bit different. The definition of culture itself is still the same. For all levels (nation, generation, organization, gender, etc.) culture is the common patterns in the way of thinking, acting and reacting, the common symbols, heroes and rituals of a defined group of people. The difference comes mainly from when the culture is learnt. From birth to teenage years, a child learns the values of his parents and of the rest of its environment. They will then be deeply present in its mind. Of course there will be influences and changes, but the mental program is already there when the same person will enter an organisation like a company. It seems obvious than in this case, the person will not rewrite completely this mental programming, especially since the person is most likely going to change company several times in the professional life. People do not grow in the organization and will not stay there their full life. Instead, a person may adopt the company values for the working hours.

The values of a company are in general not to consider in conflict with the national values, since the workforce is also in general from the same country, and thus sharing the national values. But national values might have an impact on the choice of values by a company.

Therefore, the culture of an organisation is more like an addition, a plug-in (to stay in the mental/computing programming metaphor). Values of an organization are not necessary having the same meaning than those of a national culture. They actually are between what the organization believe in, and their goals. FIGURE 4 shows as an example the values of the three biggest contractors respectively in France and in Denmark.

Vinci Construction Grand Projets	Bouygues Construction	Eiffage Construction
Excellency, recognition, security, responsibility, innovation, profit (Vinci, 2016)	Workforce satisfaction, client satisfaction, quality, creativity, innovation, respect, recognition, training, youth, challenges, good spirit (Bouygues, 2016)	responsibility, trust, transparency, exemplary, lucidity, courage, pugnacity (Eiffage, 2016)
Per Aarsleff	MT Højgaard	NCC Construction Danmark
Engagement, focus, aspiration, responsibility (Aarsleff, 2016)	Respect, partnership, professionalism (MT Højgaard, 2016)	Honesty, respect, trust, pioneering (NCC, 2016)

**FIGURE 4 VALUES OF BIGGEST CONTRACTORS IN FRANCE AND IN DENMARK**

If it is clear that some things like respect, honesty, good spirit are values, but innovation, profit, focus or professionalism are clearly more visions or ambitions. There are obviously still some symbols, heroes, rituals and values in organization culture. But as seen, values are more superficial, and some values stated by big companies on FIGURE 4 are more related to practices. Heroes and symbols might not be the same than in national culture, but there might still be someone who is a reference for employees or something that is only understood by insiders.

It has previously been seen that culture is common to a certain group of people. In the case of national culture, it is common to most people in one specific country. And culture will be different from a country to an other. Likewise, organizational culture is common to the people in an organization and is different from an organization to an other, an in this case, a construction company. Once again this point which seems logical and trivial has actually great impact. It is essential to understand that the uniqueness of the culture in a firm leads to the fact that it is impossible to generalize organizational culture. One can definitely define the culture in many companies, for example in France and in Denmark, but will certainly not be able to say that the organizational culture in France is this way and the organizational culture in Denmark that other way. It would not make sense. It is then the national culture which has an impact on the way many

companies of this country do things. There can of course be similarities in the way of doing things or in the processes, but it will not be the organizational culture that is the same, but the national culture, or the industry culture for example. To add an explanation by analogy, if several families have some common traditions, heroes or whatever else which is part of culture, it is not the family culture which is the same, it is the family culture that takes elements from a larger group of people, which could be the nation as well as the social class or other group. National culture has of course a big influence on the way companies achieve their business, get organized and so on, but it would not be exact to generalize, especially in a world where many companies are international. The industry and the size of the firm studied can also change completely the organizational culture. A big old banking corporation will not be having the same kind of organizational culture than a young start-up designing apps, even if they might come from the same country.

The fact that organizational culture is an add-in to national culture and that it is more superficial does not mean that it is to neglect. For a new employee, it can be hard to “fit” in an organization because of its culture, and this without even talking about national culture differences, if this employee is a foreigner compared to his already employed colleagues. But in this case, the employee is the only one who has to adapt. So if the integration can be difficult, it has rather limited consequences for the company. The more the cultural differences are great, the more it will be difficult, but still with limited consequences. Moreover, the more important is the new employee, the bigger can be the consequences. By analogy, a really high voltage (cultural difference) is more dangerous if the amperage (key role of the employee) is great.

This means that when the cultural difference affects not just one of the employees, but that the full organization is having to deal with cultural differences, the problems can be much greater. In the case of a partnering where two companies have to become one unique organization, the problem of organizational culture is major.

Many publications about the topic lead to isolate few equally important factors conditioning the good functioning of any partnering. Among them can be found commitment, collaboration, communication, tools, policies, procurement, trust and to finish, culture. Even if they all need to be handled and prepared with the same attention, it seems that the importance organizational culture is often neglected when coming to the development of partnering. (Abdul-Nifa, et al., 2010 p. 2)

There can be also several different cultures in one company even present in only one country. It is well known that the building sites and the headquarters of a company have really different organisations as well as ways of working. Culture can in this case have different effects. Thus, and because it is on an international building site that people with different cultures will have to deal the most with each other, what happens in headquarters, local agencies of companies or else will be omitted to focus on building sites in this paper.

Some survey studies have also been made in some companies at great scale, but sometimes with consulting purposes. One study in particular defined culture in some companies, according to dimensions corresponding to the common themes of problems within every company. This is kind of the same principle than for the national culture with the cultural dimension theory and the IBM study. It was lead in 1985 and 1986 by the Institute for Research on Intercultural Cooperation (IRIC). It was conducted in 20 companies in Denmark and Netherlands, counting between 60 and 2500 employees, and being from different businesses such as private corporations in electronics, retail, chemicals, service and also public companies or organizations. (Minkov, 2013 p. 398)

Questions in the survey were about demographics, heroes, symbols and rituals and of course also values and were for most of them of the kind shown on FIGURE 5.



FIGURE 5 EXAMPLE OF QUESTION OF THE IRIC STUDY

Respondent had to choose on a scale from 0 to 5, what would be the most appropriate answer. They were also build to cover the dimensions as follows:

- *process oriented versus results oriented*: It shows the degree to which following a procedure is important for the company or department. A company like Novo Nordisk which produces pharmaceutical products is most likely to be among the most process orientated companies, while a small retailing business might be more goal orientated.

- *employee oriented versus job oriented*: This dimension highlights the level of importance of the workforce. If the employees are at job only to get tasks done, fast and well under a high pressure, the company is job orientated. If on the other hand the concerns of the employee are taken into account, if the employee is there both to flourish personally and achieve tasks for the employer, the company can be considered as employee orientated
- *professional versus parochial*: It shows if only the professional skills or professional background of an employee counts to get the tasks done, or if the company considers that the personality and the private life or background of that employee has an importance in the company.
- *open versus closed*: This point is describing the level of difficulty for a new comer in the organization to find a social place in a company. If the company is open to new people it will be easy to feel good and welcome. If the company is closed, it will take more time and efforts for a new person to be accepted as part of the group. It is also linked to the atmosphere at the workplace, and the communication level.
- *loose versus tight*: It is simply the level of structure there is in the company. Punctuality, high regard on spending and relaxed environment are part of this dimension.
- *normative versus pragmatic*: This last dimension is the external point of view of the previous dimensions “loose or tight” (loose corresponding to pragmatic and tight to normative). While the previous focusses on the structure within the company, normative versus pragmatic focusses on the structure of the company towards the outside such as clients, suppliers and other. The goal of satisfaction of the client no matter the procedures is pragmatic, while having clear and unbreakable rules on how to behave with the client is normative.

As explained, it is not possible to generalize what is the organizational culture of the construction companies in France or in Denmark which could participate to an international partnering.

## 2.2. CULTURE IN INTERNATIONAL CONSTRUCTION PROJECTS

When looking at culture, the potential problems can be apprehended in many different ways. As seen in section 2.1.2. , it is believed that not all consequences of cultural differences are equally important or critical. If just an employee with a different culture integrates a company, the probable problems are not as critical than if two organizations are cooperating together for one project. Studying the case of international project for context of the analysis is therefore the path that has been chosen. This part tends to see when international cooperation happens between two contractors and if culture is potentially as critical and interesting to study as expected. One of the ideas behind this project is to see the problems related to culture in the worst case scenario in order to highlight its effect. This section deals with the following questions: Is international cooperation of contractors something common and relevant? How would they cooperate, with what organisation? Where is culture involved?

### 2.2.1. *INTERNATIONAL COOPERATION OF CONTRACTORS: WHY A PARTNERING?*

Made to answer the needs of civilisations and contribute to their development at all times of history, or built for the posterity of big egos, infrastructures can be complicated and extensive projects. Every developing society is facing an always more important urbanization, and with this the densification of towns. To avoid slums and usual down sides or fast urbanization in many countries, the construction of good and adapted infrastructure is essential. As examples of great projects, one can name bridges, road systems, tunnels, sewer systems and plants, power plants, dams, etc. These kind of projects contribute greatly to the prestige of contractors even though it is far from being the most profitable contracts. But all those constructions they are commonly long to achieve, they are really expensive investments and therefore carry a lot of risk for companies. Some of the risks can be:

- Requiring a too great part of the available workforce for only one project.
- Technologies and technics to which the company is not used to use, or at least to such a scale.
- Complicated structure
- Amounts of money involved too big
- Machinery difficult to obtain
- Knowledge or expertise missing for some tasks

For some of the risks, a company willing to bid on a project can plan to hire subcontractors and rely on their expertise in some specialized works. But sometimes it is smarter to share all those risks more or less equally with other companies, which would not be subcontractors, but partners. The companies would then share their expertise, their workforce, their financial risk, etc. These partnerships can be done at a national level as well as at an international level. They can take the form of a joint-venture.

### *2.2.2. JOINT-VENTURE IN CONSTRUCTION*

"Partnership is a collaborative relationship between entities to work toward shared objectives through a mutually agreed division of labour." (World Bank, 1998 p. 6)

A joint venture is before all a partnership, in the form of a temporary company created for a definite project only (called in this case a consortium) or for a definite period of time by two or more companies, with the goal of uniting their expertise, financial and/or human resources. In order to create this joint venture, the different parties contribute to the new entity equity, not necessary on an equal basis. Consequently, they manage the new entity together and share the expenses, but also assets and finally revenue depending on their share in equity.

Joint venture is common in international projects, since they can allow to penetrate new markets, take an advantage on a big competitor, etc. Sony Ericsson, from the Japanese multinational electronic company and the Swedish telecommunication equipment firm is a well-known example of joint venture. In the construction industry, joint venture is also widespread for extensive projects. It allows companies to take part of projects they would maybe not be able to handle alone. A famous example is the Joint venture BBMV, which is formed by four companies among the European leaders, namely Balfour Beatty (UK), BeMo Tunnelling (Austria), Morgan Sindall (UK) and Vinci (France). These firms gathered together to take part of the works of the project Crossrail in the United Kingdom which will be renamed Elizabeth Line after completion (BBMV, 2016) (DailyMail, 2016) . In short, Crossrail is the biggest current construction project in Europe which started in 2009 and planned to be fully completed first in 2019. The project consists of a railway over more than 100km supposed to increase the rail transport capacity in London of 10%, by the creation of a new main line (from East-South-West London) passing under London downtown. (Crossrail, 2016) The project is said to cost around 15 billion pounds, which is astronomical. Despite maybe BeMo which is rather specialized, all the companies could have technically been able to lead a part of the project



by themselves, using subsidiaries for the different kind of works, or/and subcontractors. But on such a big project, there are such risks that they preferred to do this alliance to decrease the risks but still be part of a big and prestigious project.

It has been chosen to take the example of an international joint venture for this report, since the two organizations mingle into one at one level or another by the fact that it is one single entity for the time of the joint venture. Moreover, the parties work as equals and therefore it is not one of the parties which has to adapt to the way of working of the other one. On the contrary, all parties have to understand the culture and way of working of the others. Because of this, cultural differences are then believed to be more critical in this case. Taking this example sets the state of mind which is wanted to study culture for the analysis. Moreover, it has also been chosen to focus on big infrastructure project as framework for this imaginary joint venture, to make the case more real and give relevance to the need of a joint venture.

### *2.2.3. EXAMPLES OF SITUATIONS WITH DANISH AND FRENCH CONTRACTORS*

Even though the situation of partnership with a joint venture between some French and Danish contractors is only an arbitrary suggestion, it seems important to highlight projects and companies which could be taking part of such partnership to see if the idea is relevant.

#### *i. PROJECTS WHICH COULD INVOLVE DANISH AND FRENCH CONTRACTORS*

As explained previously, a project that would gather several “main” contractors to work on the same project is either of high complexity, or too big to handle for one company without risks. These kind of project are often infrastructure and often publicly financed. They could therefore be bridges, water treatment/sewer systems, tunnels, harbours, train lines, roads, dams, etc. Infrastructure in France and Denmark are globally already well developed, and new big infrastructure are not common projects.

However, there are in France several projects which could be interesting and big enough for Danish contractors. Among those the extension and renovation of 11 harbours are planned, and partly financed by the EU (European Commission, 2016), or the new partly underground railway system around Paris called Grand Paris Express, or even the high speed train project between Lyon and Torino (Italy), which will be crossing the Alps.

Denmark is also a land where French contractors have potential work in big infrastructure. In particular, one project is quite interesting: The Fehmarn Belt Fixed Link will be joining the Danish island of Lolland with the German island of Fehmarn, both already linked to Sjælland and Germany mainland by bridges.

This construction project is particularly interesting for this thesis because it is actually an example where several contractors from different countries will perform the works as part of a consortium (joint venture for one project only). And it seems to be the most relevant example because in March 2016, the firm representing the public authorities Femern A/S has been assigned the task to start the negotiations with the preferred bidders for this project, which happens to be a consortium of several companies including two French and Danish companies, Per Aarsleff and Vinci Construction. Negotiations for the contract were planned to lead to the signature of the contract in May 2016 (Femern, 2016) (Transport- og Bygningsministeriet, 2016). But they were finally signed the 30<sup>th</sup> May 2016 (Femern, 2016)

#### ii. FRENCH AND DANISH CONTRACTOR COMPANIES ABLE TO HANDLE SUCH PROJECTS

Other companies in both countries are able to conduct big projects that would lead to French-Danish consortiums. On the Danish side, Despite Per Aarsleff, MT Højgaard could also maybe do such construction. Mt Højgaard participated to the construction of the bridge between Copenhagen and Malmö. By looking a bit wider, it could be that Vestas could take part of big infrastructure project, if windmills were included, or Maersk Oil in case of offshore works. On the French side, despite Vinci, the firms Bouygues, Eiffage, or Razel for example have all departments specialized in international projects but are not the only ones.

By the fact that it is easy to find international projects and companies which are likely to create a situation where French and Danish contractors would cooperate with a joint venture, it seems that the theme of the project is relevant and applicable in reality.

#### iii. SUCCESS OR FAILURE OF THE CULTURAL ASPECTS OF THE JOINT VENTURE

It is believed and assumed that culture differences can be a really important and determinant factor in the managing of an international project. This assumption is supported by (Schein, 1999 p. 185): *“If you are serious about managing culture in your organisation, the biggest danger you face is that you do not fully appreciate the depth and power of culture.”* One can then wonder what is the possible consequence of culture, if it is handled well and if it is not. What would be the effect of cultural matters in an organization.

For this report, and since the worst case is considered to highlight the most the problematics, it is assumed that a good handling of the culture difference and therefore the success of the cultural aspects will be reached if employees can consider the learning of the cultural difference as flourishing. If employees get to know and understand the other culture(s), and moreover adapt the organization consequently, the experience would have been a success humanly. On the other hand a failure in handling the cultural aspects could be seen in two ways. First if the employees have a hard time working and collaborating with employees from other nationalities, it would mean that culture hasn't been taken seriously enough in the organization. It could lead to personal problems and a staff not satisfied of their own situation. The staff could be leaving the company for this reasons. The company would then have maybe to train new employees, or change the organisation. Second, if these cultural differences lead to some blocking situations or misunderstanding, some delays could be happening or some errors in the implementation. This could have a negative effect on the financial situation of the consortium and would define simply a failure of the project by the consortium.

### 2.3. STAKEHOLDER MAPPING

In order to see a bit clearer where culture could also be involved in an international construction project with a Danish-French joint venture, it seems important to do a mapping of the stakeholders. It is the second stage of the Logical Framework Approach, following the Context Analysis previously done. A stakeholder analysis allows to first identify who plays a role in the case studied and then to try to assess their influence and therefore importance. (Johnson, et al., 2011 pp. 141,142). Stakeholder analyses often have a strategy goal, directly link with making happy the client(s) and taking care of the other important stakeholder. But in this pre-analysis, the stakeholder mapping is made with a cultural point of view. In this part and this project in general, the study focusses on overcoming the potential problems resulting from cultural differences. It is in this context and with this background idea that the stakeholders have to be seen in this project. Some stakeholders which might have an important role if strategy was studied, might not have an important role when culture is the point of focus, and vice versa. It has been chosen ten categories of stakeholders which are having a role in a big infrastructure project. If the project was just national, the same categories would still be valid, but the importance may be different. At first, the contractors have been divided in three categories: the workers, the managers on site and the top management of the firms. Second, the “civilians” are also divided in three, with the direct neighbours if there are any, the press and the other taxpayers. Third, the other stakeholders are the client, the public authorities, and the consultants. And additional category could have been the competitors. However, this project does not focus on anything with the tendering process and only considers a joint venture which is already built. The competitors are therefore put aside.

- *Workers*: The workers will be the first people impacted by any cultural problem. They do what they are told to and somehow rent their expertise to their contracting company for doing the manual tasks. They are the productive category. Whatever the situation they could be in (management from an other country or management from the same country), they will be directly impacted by the confusions that can occur on the level above them, namely the managers on site. Their interest in having the cultural matters no being a problem is therefore high. If there happens to be trouble between the different part of the management, the workers can easily loose motivation and

momentum or even refuse their conditions of working, leading to possible strikes, or pulling out of subcontractors for example. The project would then become a failure. They might not always have an active influence on how the cultural matters are handled, but they have an active reaction power. The category workers is also including the unions

- *Managers on site:* The employees that will be managing the project are having more than their usual responsibilities in a case of an international project handled by companies from different countries in a joint venture. They represent the interests of their contractor and have been assigned not only tasks but a full and risky mission to lead a project to its success, bringing good publicity, prestige and hopefully profit to the company. As explained before in 2.2. , international projects are likely to be more difficult than usual ones. And this can be by their size, their complexity or the political challenges linked to every big infrastructure construction. In addition to this, the relations with other stakeholders which can already sometimes be complicated are becoming a real challenge for the managers. Indeed, they are the corner stone of the success of the project. They ensure the fluidity of information between from the different players in the enterprise and the external stakeholders like the neighbours, the cohesion of the teams, etc. Consequently, for every single problem linked to culture, the site managers have both an unyielding interest and power.
  
- *Top management of the companies:* The companies which can participate to such projects are usually big company, where there is limited exchanges and discussion between site managers and “production people” on one side, and the top management on the other side. Top managers are more concerned by strategic choices for the firm in order to have a good reputation and a healthy financial situation. Thus, what is happening on site is sometimes of little concern for them as long as the reputation of the company is not tarnished and that the project is profitable. Cultural matters and differences are therefore assessed not to be of particular high interest for the top management unless it becomes a too big problem for the success of the project. However, it benefits of a really high power on it if necessary. Members of the top management can remodel the teams to adapt it to the needs as they want. And by changing the players, they can change the way the site managing team deals with cultural differences.

- *Client*: If the project is a big infrastructure project, it is probably public companies, local authorities, states, European union or institutions of this kind which will finance the construction project. It could be Vejdirektoratet, the transport company DSB or Danish regions for example in Denmark, or departments / regions, the transport company SNCF for example in France. In this case politics has often a major role. Thus the image the building site sends out is important for the client. Infrastructure and construction in general have always been in history a way to posterity for leaders, partly because they sometimes give landmarks in addition to the fact that they allow economic development. For this reason, it is in the interest of the client that the project becomes a success not only technically, but also socially and therefore that collaboration between countries becomes also a success. However, the power of the client is existing but not that big in a non-corrupted society, since the public tenders do not take this kind of factors in the criteria for awarding future contracts. But they can however use their contract for the present project to put pressure on the contractor.
  
- *Consultants*: In this category are included the architect, and other designers but also the possible assistant developer or other controllers. The consultants might also be impacted by the challenge of the cultural differences. But it is chosen to focus on the potential problems between the contractors of the joint venture. In this case, since they are consultants, they have a role of advisors and have a limited power on the potential conflicts that could arise within the joint venture. And the joint venture standing as one and single entity, it is not much of their interest of how that entity is working. In the specific case of an assistant developer, if there is any, the same interests and power than the client are applicable, since it stands for the client.
  
- *Press*: If the project is extensive or remarkable by any way, the press will for sure play a role. They are the voice of every other stakeholder. It is indirectly important that the cultural matters are handled well within the company, because else the press could report those kind of troubles and the venture could risk distrust from the other stakeholders as client and taxpayers or neighbours, which would not make the project any easier.

- *Direct Neighbours:* The people living in the neighbourhood (if there are any) are usually people that need to be kept satisfied. However, the internal functioning of the company does not seem of any interest and the power is as low when it comes to cultural differences between the contractors of the joint venture. But of course if the company is not seeming like being able to manage its own problem, it is not a good sign for the neighbours that might already be have to endure inconvenience because of the works. Problems within the venture can lead to delays and therefore longer inconvenience for the neighbourhood. So there is somehow anyway an interest that is considered as rather low. Their power is only through public authorities and is only indirectly linked to cultural issues in the ways of working. Neighbours are also part of the taxpayers described hereafter.
  
- *Taxpayers:* By taxpayers is meant people in general which indirectly contribute to the financing of the works by the taxes, and who are susceptible to use the infrastructure. Still considering the fact that these kind of projects are having a political dimension, taxpayers play an indirect role. Their satisfaction can influence local elections and therefore the success of the project is of some importance. Success, which can be conditioned sometimes not only by technical problems, but in the present case, also by a good intern cooperation of the entities of the venture in all its dimensions, culture included. Moreover, in addition to what could be called “usual taxpayers”, the category englobes the activist groups which are sometimes the spokespersons of the silent majority.
  
- *Public Authorities:* They wear more than one hat in this case. From law enforcing institutions to elected representatives, all publics authorities have an interest of the success of the project. But on a cultural point of view, they only get the consequence of the satisfaction or not of the taxpayers.
  
- *Suppliers:* Problem within the company, whatever they could be, are sign a weakness. It there are important problems to solve, other things matter less or at least are not the priority. So if the venture has some troubles, they are weakened towards all other stakeholders and especially those they are in direct contact with like suppliers. It does not mean that the suppliers have an interest in the situation being bad. Whereas, a project which goes well is also synonym of stability for them,

so they are having a high interest on it. If the cultural point of view is only restricted to the internal problems of the joint venture, suppliers are considered of having very low power.

From all these assumptions on the different stakeholders, a score for their power and interest for not having cultural problems is assigned in the table of FIGURE 6. The chosen scale is from one to five, considered to be sufficient showing the differences between stakeholders. It is considered that strictly no power is not representative of the reality, and neither is strictly no interest. Therefore, the scale does not include it. Scores are corresponding to what is specified on top of the figure.

STAKEHOLDER	Power and Interest	
	INTEREST	POWER
Workers	5	4
Site Management	5	5
Top Management	3	4
Client	4	2
Consultant	2	1
Press	3	3
Direct Neighbours	3	2
Taxpayers	3	1
Publics Authorities	4	2
Suppliers	4	1

**FIGURE 6 ASSESSMENT OF THE INTEREST AND POWER OF THE STAKEHOLDERS ON A SUCCESS OF THE PROJECT WITH CULTURAL POINT OF VIEW**

To have a visualization of this analysis, FIGURE 7 shows the mapping of the stakeholders according to the scores presented in FIGURE 6. This mapping is based on the example from the book “Exploring Strategy” (Johnson, et al., 2011 p. 142).



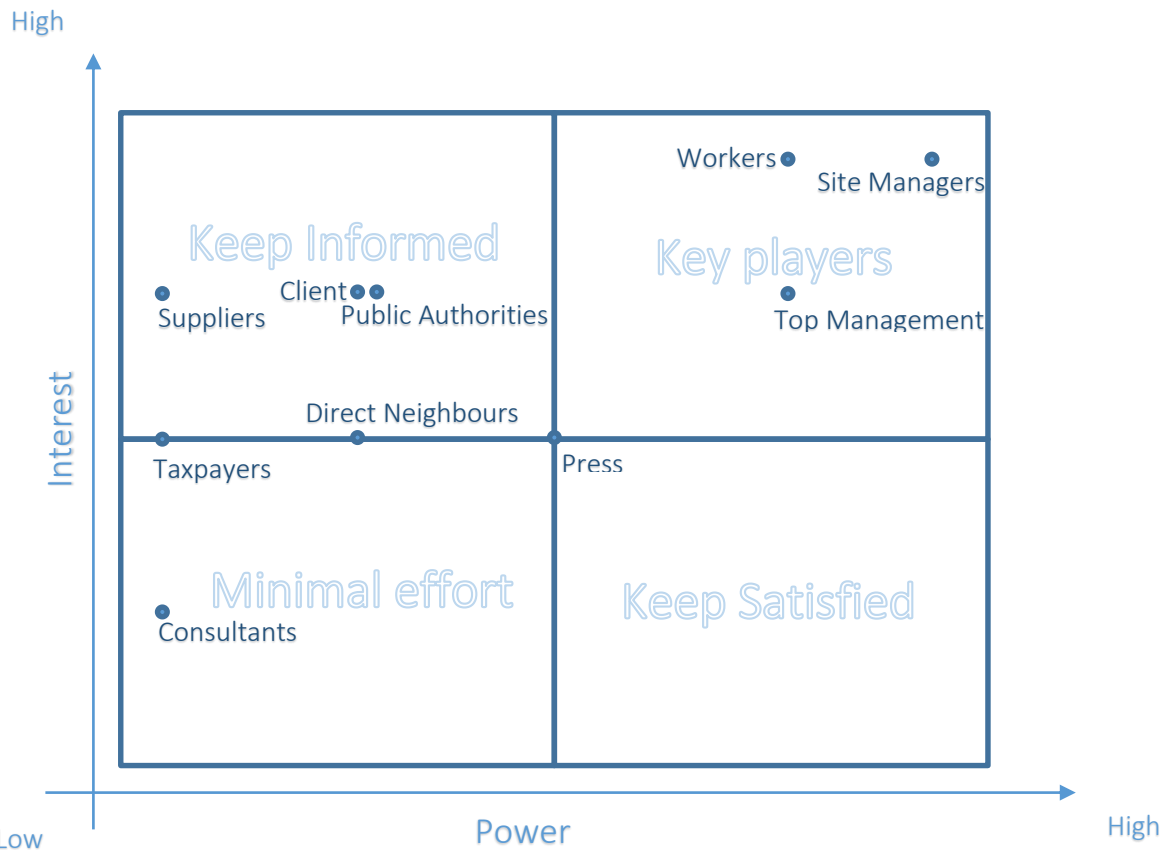


FIGURE 7 POWER-INTEREST MATRIX MAPPING THE STAKEHOLDERS CONCERNING CULTURE PROBLEMS WITHIN THE JOINT VENTURE

This matrix organizes the stakeholders in four groups according to their interest and power concerning the potential issues linked to culture within the joint venture. This tool is designed normally to see where to put the effort in the company, and how to orientate the strategy. Here the goal was different, but it still shows well and easily the groups of stakeholders, and their importance towards the problem studied, but also towards each other. Here it is then easy to see that the different stakeholders linked to the joint venture are the key players, and that they are both the most impacted and the ablest to act. The press seems to be the link between every group, which seems relevant. Concerning the others, their role is more limited.

### 3. PROBLEM FORMULATION AND LIMITATIONS

Even if the general topic of studying culture in the construction industry was chosen from the beginning, the first investigations in the context of the pre-analysis lead to the selection of a more defined problem formulation. While studying the different topics of the pre-analysis, a certain amount of elements within the first general topic were selected, choices and trades-offs were made to arrive to the point of focus of this chapter. These choices and foundations of this report are stated hereafter as a summary of the pre-analysis. This part is followed by the problem formulation and additional limitations giving the frame of the study.

#### 3.1. SUMMARY OF PRE-ANALYSIS, ELEMENTS FOR PROBLEM FORMULATION

The technical and technological advances in the world lead to an always faster and ineluctable Globalisation. Business borders get slowly erased or not as hard to cross by a communication always more easy between countries, standards and legislation getting uniformed and so on. All industries get affected and even the construction industry. Interaction between people from different countries is therefore more common. The technical challenges in always unique construction projects are possible to overcome by a good preparation, but relationships or human factor can be more difficult and underestimated.

International partnerships between companies are happening in the construction industry, especially in case of big infrastructure projects. It has been chosen to take the case of partnership in the form of consortium (joint venture for a single project), which is a temporary company created by several existing companies. The choice was made to study the case of international consortium for a big infrastructure project in order to study the most critical situation for cultural problems.

All humans learn how to behave with the contact of others from the day they are born. It will influence completely the way of thinking and acting of a person, on the same way that a computer acts as programmed to. This mental programming is the culture. "Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values." (Kluckhohn, 1951 p. 86). Culture is common to a group, not just one person, and not part of the human nature. Is rather constant over time, changing just on the superficial point, but keeping its main characteristics. The values

and deeper levels of culture which were true 50 years ago, still are today, the mentality does not change much. Culture can be seen with different angles: different groups of people have different cultures. Nations, social classes, generations, organizations, etc. have their own culture. This project focusses only on national and organisational culture. There are of course cultural differences within countries (between Nord-Jylland and Sjælland if we take Denmark as an example) but people from one country share more together than with people from other countries. Therefore, culture in France and Denmark is considered for this project as one and only in each of these countries, also because the kind of organizations chosen for the project are at least national companies. However, other nations of the kingdom of Denmark are not taken into account (Greenland and Feroe Islands), and only metropolitan France is studied.

The cultural dimension theory is chosen for studying national culture in this project. This theory classifies culture in 6 aspects and measurable by the following indexes:

- Power Distance
- Individualism
- Masculinity
- Uncertainty avoidance
- Long Term
- Indulgence

Organizational culture is more superficial than national culture and is more of an extension to national culture. It is handled in this report on the same way than for the national culture, namely with indexes. The analysis has been chosen to be based on the study conducted by the Institute for Research on Intercultural Cooperation (IRIC). The different indexes defining the culture in an organisation are the following:

- Process orientated versus Results orientated
- Employee orientated versus Job orientated
- Professional versus Parochial
- Open versus Closed
- Loose versus Tight
- Normative versus Pragmatic

Culture has been expected to be able to be a source of failing of the consortium in two ways. The first one being that employees can feel dissatisfaction or unease in working if culture would not be handled well. The second way is that culture could lead to delay or problems having a bad financial effect. Finally, it has been seen with the stakeholder mapping that the key players concerning culture in the chosen situation would be the workers, the site managers and the top management of the contractors. And the focus will be made on the culture on-site and not in headquarters of the companies.

### 3.2. PROBLEM TREE AND PROBLEM FORMULATION

The previous summary gave the bases for the reflection of this project. It has moreover been put as a problem tree on FIGURE 8. The problem tree is built in three parts. The first one is the causes. Causes are what has been highlighted in the pre-analysis. Unlike a classical problem tree, the causes are not a gathering of already existing problems, but just a gathering of true facts having a link together since they lead to a common focus. The common focus, which is the second part of the problem tree, is giving the point of study of this report. This point of focus, usually called focal problem, is in the present case a hypothetical situation resulting from the causes shown on the problem tree. Finally, as a last part of the problem tree, come the consequences. Here, since the focal problem is a non-specific situation, the consequences are also not already existing, but possible bad consequences instead.

Taking the problem tree for base, it is now possible to formulate the problem on which the rest of the project is focussing and is as follows:

**What are the cultural differences affecting a consortium of French and Danish contractors for an international infrastructure construction project?**

**Are there solutions to avoid culture to become a problem?**

In order to handle the problem properly and fully, the analysis is built in two main parts. The first, through the cultural dimensions theory, the national culture of Denmark and France will be analysed for each of the indexes briefly explained in the pre-analysis. This will give an idea of how are people in companies in each country, their relations to colleagues, and so on. The second, to finish with the study of culture itself, an attention will be given to the organizational culture, applying the differences in national cultures. Both of these parts will try to give elements or tools to overcome cultural differences.

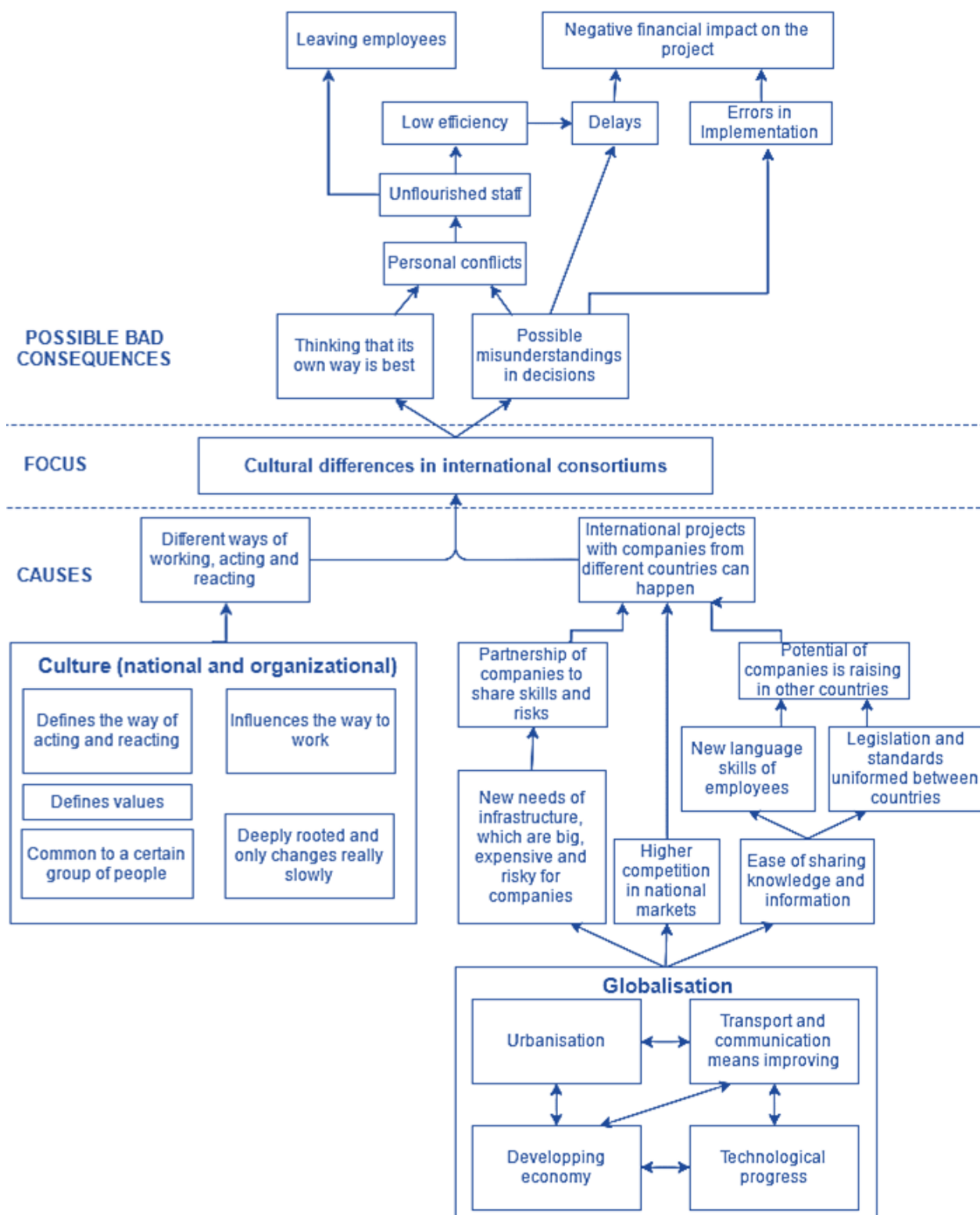


FIGURE 8 PROBLEM TREE

It is usual that when using the Logical Framework approach to build a project, an objective analysis is performed, on the model of the problem tree. The goal of it is to reverse the problem tree, finding results of activities to counter effect the “causes”, a main objective to counter effect the focal problem, and detailed objectives to counter effects the part “consequences” of the problem tree. In the case of this report and as explained in the previous section, the problem tree hasn’t been used as usual, since it does not answer to a real and existing problem in an organisation. The goal of this study is more preventive. Therefore, there is no “problem” to solve. In these conditions, the objective tree does not have this link to the problem tree, but is still useful as it gives a clear picture of the importance of a good culture management. It is presented in part 3.4.

### 3.3. LIMITATIONS

Some limitations are applied to the study for several reasons. Some have already been made in the pre-analysis, and others are added here. All limitations are however gathered in this section, to the risk of being redundant to the pre-analysis, but to make sure that the reader finds here answers to possible reasons why the problem has been covered the way it is in the main analysis.

- The joint venture case is chosen quite arbitrarily. It is believed to be the case where cultural differences will have the biggest effect on the organization, since the different parts of the consortium are working as equals.
- The cultural problems in a joint venture could impact all levels of the organisation, and so groups of people having totally different kind of relation. In order to simplify the problem, only the culture among the site management is looked at
- It is assumed that only a French and a Danish contractor would be part of the joint venture, to focus on the cultural differences impact of these two countries only.
- It is assumed that the consortium is already formed and in phase of preparing for the works. No bidding is to be done, the consortium is already the main contractor.
- Culture, which is a wide topic, is only studied through national and organizational culture.
- Culture is generalized to be the same in each of the countries studied (same country all over Denmark, and same country all over France) concerning the national culture, for a simplification. Only the metropole part of France is considered and the other nations of the Kingdom of Denmark are excluded.

### 3.4. OBJECTIVE TREE

As stated previously, the objective tree is usually a pragmatic answer to the problem tree. The problem tree identifies the many problems in an organization, coming to a focal problem and then the consequences of all causes of troubles in the organisation. With the objective tree goals are assigned to each cause of trouble, giving a main goal for the focal problem and then supposes the positive consequences. Here, since no existing problem is treated, the causes are not problems to be solved. The problem tree however included possible bad consequences to the point of focus. Thus, the objective tree cannot be complete, but is anyway showing on the main objective and the expected positive results.

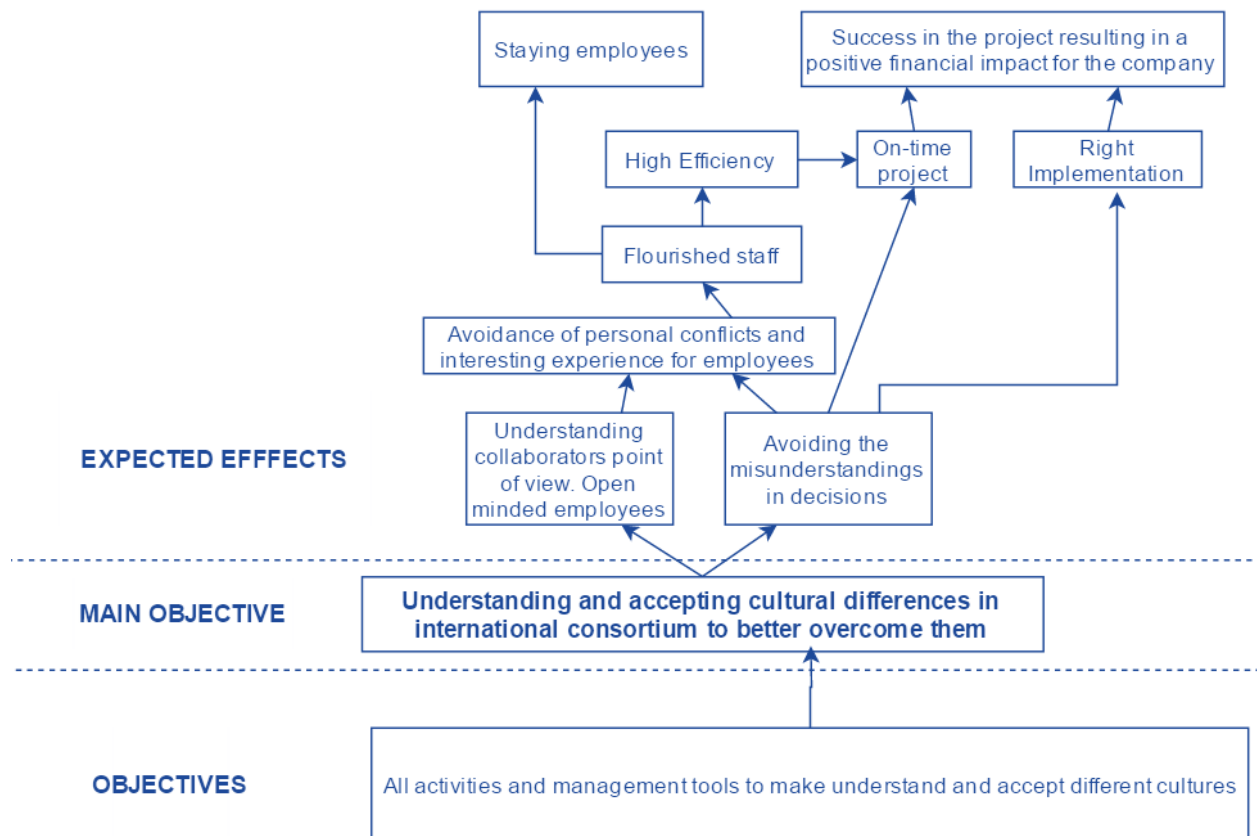


FIGURE 9 OBJECTIVE TREE

## 4. ANALYSIS OF THE NATIONAL CULTURES AND THEIR CONSEQUENCES

When working with people from different countries, it is mostly the differences with national culture which will be noticed. There are of course cultural differences which will come from other sources like social class or whatever else, but in the case of a joint venture between a French and a Danish contractor, it is likely that the generalization of the behaviour of each party would be according to the nationality, and not according to the according to the organization employees are from. If the joint venture FLC - Femern Link Contractors - for the tunnel between Denmark and Germany would do the It could be “the Danes do like this” and “the French do like that”, more than “employees from Aarsleff do like this” and “employees from Vinci do like that”, even though some of the differences might be due to the way each company is used to work no matter their nationality. In general, nationality is the easiest way to categorize people by their way of thinking. Since the difference in national culture seems to be the one people pay the most attention to, and sometimes mistaking national culture differences with other kind of differences in culture or way of behaving, this part will define the national culture in the two countries Denmark and France, in order to highlight the differences, not on prejudices but based on the cultural dimension theory presented in the pre-analysis in chapter 202.1.1. ii. . As a reminder, this theory developed after a wide survey research among the employees of subsidiaries of the company IBM, defining five and then six dimensions believed to correspond to the values and way of feeling or reacting of people in different countries. With this study and 140 replications and other similar studies, the results have always been confirmed (Hofstede, 2001 p. xx), making this study a reference in the cultural world. The results of the study are presented for the two countries studied in this part, but the statistical analysis is not explained, since it is not considered relevant for the issue of this report. However, further research could be made with the book *Culture's Consequences* (Hofstede, 2001), which is detailing the research, the results and the methods. This section of the project is moreover showing how the different dimensions have an effect on the countries at different levels, but with a major focus on the consequences on working organizations.

The study lead by Geert Hofstede in the IBM multinational company and some of the replications of this study resulted in a ranking of many countries for each of the dimensions. The scores were modified with coefficients in the statistical analysis to arrive to a scale from zero to a hundred of a bit more in order to give a clear and understandable ranking. A small difference is not really significant between countries, but the most important is the comparison to other countries. In the present report, it is especially interesting



since the goal is to compare two countries, namely Denmark and France. If the difference is small in the ranking, it can be considered that the topic on which the focus is, is not a potential issue. On the other hand, if the difference in the ranking is important, it is worth to get a bit closer look to it in order to understand it and better apprehend it.

#### 4.1. ANALYSIS OF THE CULTURAL DIMENSIONS

Despite the fact that there are in total six dimensions concerning the national culture according to the theory, this section analyses only five of them, namely power distance, uncertainty avoidance, individualism, masculinity and long term orientation. The sixth dimension, indulgence, is put aside because of the lack of relevance of the business and construction world, since the shareholders all have a professional relationship between them.

##### 4.1.1. POWER DISTANCE

Power distance is directly related to inequality in status, which status can come from power in an organization, money, other social status or characteristics inherent to each individual (physical as well as mental). It defines the behaviour and social conventions for the relationships between subordinates and superiors. In a family, this could be between parents and children, at school between teachers and students or pupils, at work between boss and employees for example. In practice, it can correspond to the fear of disagreeing to a superior from a subordinate, the kind of decisions making methods of a manager (e.g. consultation of the teams or not). The studies revealed that the power distance is not gender dependent. On the other hand, it can change a bit depending on the kind of job or the organization. Nonetheless, there are clear tendencies at national levels, countries not having the same importance of power distance.

FIGURE 10 hereafter is showing the power distance index (PDI) values for 75 countries among which France and Denmark, organized from the country where there is the biggest power distance to the country with the smallest.

With a score of 18 (lowest being Austria with 11, and Highest being Malaysia with 104), Denmark is ranked 73<sup>rd</sup> country out of the 75, meaning a really low power distance index. France on the other hand scored a PDI of 68 on the same scale, meaning that the country is ranked 27<sup>th</sup>. Behind those numbers hide the

Rank	Country	PDI	Rank	Country	PDI	Rank	Country	PDI	Rank	Country	PDI
1	Malaysia	104	20	Croatia	73	39	Belgium Flemish	61		Luxembourg	40
	Slovakia	104	21	Slovenia	71		Uruguay	61		United States	40
3	Guatemala	95	22	Bulgaria	70	41	Greece	60	60	Canada Total	39
	Panama	95		Morocco	70		South Korea	60	61	Netherlands	38
5	Philippines	94		Switzerland French	70	43	Iran	58	62	Australia	36
6	Russia	93		Vietnam	70		Taiwan	58	63	Costa Rica	35
7	Romania	90	26	Brazil	69	45	Czech Republic	57		Germany	35
8	Serbia	86	27	France	68		Spain	57		Great Britain	35
9	Suriname	85		Hong Kong	68	47	Malta	56	66	Switzerland	34
10	Mexico	81		Poland	68	48	Pakistan	55	67	Finland	33
	Venezuela	81	30	Belgium Walloon	67	49	Canada Quebec	54	68	Norway	31
12	Arab Countries	80		Colombia	67		Japan	54		Sweden	31
	Bengladesh	80	31	Salvador	66	51	Italy	50	70	Ireland	28
	China	80		Turkey	66	52	Argentina	49	71	Switzerland German	26
15	Ecuador	78	34	East Africa	64		South Africa	49	72	New Zealand	22
	Indonesia	78		Peru	64	54	Trinidad	47	73	Denmark	18
17	India	77		Thailand	64	55	Hungary	46	74	Israel	13
	West Africa	77	37	Chile	63	56	Jamaica	45	75	Austria	11
19	Singapore	74		Portugal	63	57	Estonia	40			

FIGURE 10 POWER DISTANCE INDEX VALUES PER COUNTRY (HOFSTEDE, 2001 P. 87) (HOFSTEDE, ET AL., 2005 P. 43;44)

everyday aspects of what power distance is explained after. A low score for Denmark for the power distance index shows obviously that there is not really a distance between the person detaining power and its subordinate. This is nevertheless not at all the case in France, who scored a rather high PDI. As explained in the pre-analysis in the introduction about culture (chapter 2.1. ), the culture is learned from youngest age, at first within the family and then in the different environments a kid or a young person will be in, especially like school. When the person will arrive at a workplace, the basis of the way of behaving will already be set in the mind. For this reason, despite studying contracting companies and therefore only what happens with adults, this sections states also a bit more briefly what shows the power distance index in the family and also at school, before focussing on the work place. The score of PDI is just showing numerically the extent of the following statements.

Within the family environment, a small distance to power means at first that the relationships are based on equality. Parents do not treat their kids as inferior, and vice versa, the children do not treat or consider parents and older people as superior. Children should not respect their parents for the only reasons that they are parents and older; there is no such thing as birth right for the eldest child compared to other siblings. In parents old age, children are not expected to play a role in their parents' security and everyday life. They are not supposed to support them financially or to take care of them. (Hofstede, 2001 p. 107)

This is of course in the extreme case. In the case of the highest power index, the total contrary become the truth.

Within the school and university environment, in addition the equal relationship between pupils or students and teachers or professors, a very low power distance index implies that the teachers are more considered as experts who transfer their knowledge by two-ways communication with the students and not just plain lectures. Therefore, the quality of the education is not only depending on the expertise and skills of the teacher, but more on the collaboration between teachers and students. The focus is made on the students with an average and lower level to reach the maximum audience. Whereas a high power distance will be characterized by a more elitist form of learning, a focus on the bests students to make them go higher. The teachers are more distant and considered as guarantors of the quality of the education, initiating all communication. (Hofstede, 2001 p. 107)

The mind shaped by these family and educational environments, adults behave in their workplace consequently. Bosses become the teachers or parents, initializing communication and to whom respect is due in case of a high power distance. In this case, it would be common to find pyramidal working organization, with clear hierarchy inducing a big salary difference between top and bottom. Approval of superiors is necessary and decisional power is centralized; low level of consultation is seen in decision making. Leadership is more of an authoritative type than of a consultative type. High power distance is usually leading to overload of work for the employees, who can feel underpaid and not satisfied in their career. Power distance induces a quest of status and therefore managing jobs are more valued than execution work, and privileges are expected to compensate the overload of work, the salaries not as high as they are expected to be. Once again, a low power distance would be characterized by the contrary. (Hofstede, 2001 p. 107;108)

Assuming this is true for any contracting company of each country, one could draw the first lines of an identikit of the two potential companies who would have to collaborate. This can be seen on FIGURE 11 POWER DISTANCE: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY, taking into account the description of high and low power distance, and the scores of Denmark and France on this point.



### TYPICAL DANISH CONTRACTOR



### TYPICAL FRENCH CONTRACTOR

Very flat organization	Quite hierarchical organization
Inequality of roles only by convenience	Inequality between superiors and subordinates
Managers consult other and are consulted	Managers can consult others and can be consulted
Managers are open to suggestions from subordinates	Managers are open to suggestions to a certain extent
Managers will take decisions depending on the suggestions of the consultations	Managers will primarily take decisions themselves, but also can the suggestions of others into account
Easy possibility to avoid overload of work and clarification of the roles	Frequent overload of work, and sometimes ambiguity in roles
No status for managers	Managers beneficiate of a status
Salary differences reasonable between superiors and subordinates. Feeling of fairness	Salaries differences are marked, even though there is a feeling of insufficiency

FIGURE 11 POWER DISTANCE: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY

#### 4.1.1. UNCERTAINTY AVOIDANCE

Uncertainty in life is driving the way of doing everything. Not knowing what is going to happen, can make people more or less uncomfortable. For many situations, human kind succeeded to avoid the anxiety of the uncertain, through religion, law- or rulemaking and technology. Religions allowed throughout history to accept the uncertainties humans cannot do anything about what is after death. Law- or rulemaking is to avoid the uncertainties due to the way of behaving of other people of the society. And finally technology helping to avoid the anxiety for uncertainties that come from what is around, nature. It is not the same than risk avoidance. On the contrary, with the goal of settling what is not sure, one can take risks to force the issue of the situation. (Hofstede, 2001 pp. 146-151;169-170)

Before detailing further the characteristics of uncertainty avoidance, FIGURE 12 shows the uncertainty avoidance index values for 74 countries or regions in the world. France, with a score of 86 is ranked 17<sup>th</sup> country where uncertainty is tried to be the most avoided, out of 74 countries (Greece scoring the highest

with 112 and Singapore scoring lowest with 8). It is a rather high score and ranking, reflecting a quite high level of anxiety to unknown or non-predicable situations. Whereas Denmark, with a score of 23 is ranked 72<sup>nd</sup> out of 74, showing a really low level of discomfort with uncertain ways out of situations.

Rank	Country	UAI	Rank	Country	UAI	Rank	Country	UAI	Rank	Country	UAI
1	Greece	112	86	France	86	39	Taiwan	69	58	South Africa	49
2	Portugal	104		Chile	86	40	Arab Countries	68		New Zealand	49
3	Guatemala	101		Costa Rica	86		Morocco	68	60	Indonesia	48
4	Uruguay	100	23	Turkey	85	42	Ecuador	67		Canada Total	48
5	Belgium Flemish	97		South Korea	85	43	Germany	65	62	United States	46
6	Malta	96		Bulgaria	85	44	Thailand	64	63	Philippines	44
7	Russia	95	26	Mexico	82	45	Bengladesh	60	64	India	40
8	Salvador	94		Hungary	82		Canada Quebec	60	65	Malaysia	36
9	Belgium Walloon	93	28	Israel	81		Estonia	60	66	Great Britain	35
	Poland	93	29	Colombia	80	48	Iran	59		Ireland	35
11	Japan	92		Croatia	80		Finland	59	68	China	30
	Serbia	92	31	Venezuela	76	50	Switzerland German	56		Vietnam	30
	Suriname	92		Brazil	76	51	Trinidad	55	70	Hong Kong	29
14	Romania	90	33	Italy	75	52	West Africa	54		Sweden	29
15	Slovenia	88	34	Czech Republic	74	53	Netherlands	53	72	Denmark	23
16	Peru	87	35	Pakistan	70	54	East Africa	52	73	Jamaica	13
17	Spain	86		Austria	70	55	Australia	51	74	Singapore	8
	Argentina	86		Luxembourg	70		Slovakia	51			
	Panama	86		Switzerland French	70	57	Norway	50			

FIGURE 12 UNCERTAINTY AVOIDANCE INDEX VALUES PER COUNTRY (HOFSTEDE, 2001 P. 151) (HOFSTEDE, ET AL., 2005 P. 168;169)

On the same model and for the same reasons than for power distance, some of the main characteristics and consequences of uncertainty avoidance are stated hereafter, starting by the family and school environment to continue with the uncertainty avoidance at the workplace.

A low uncertainty avoidance in a country, like in Denmark, will usually be reflecting the following characteristics within families. There are usually few rules for the children, which rules can be changed and adapted depending on if the children cannot obey them, in other words, a quite high flexibility on the rules. The children are easily put in situations they do not know and are not taught that danger is everywhere in the surrounding world. There is in general less rules for what is taboo or dirty, and difference is more easily accepted. (Hofstede, 2001 pp. 146-151;169-170)

At school, learning is more based on open learning situations, where truth is relative. The good discussion is preferred to the right answer. Courses are not expected to be fully structured by teachers, and teachers can say they do not know something. Moreover, the way to see success is different. A low uncertainty avoidance is characterized by a hope of succeeding more than a fear of failing.

At work, low uncertainty avoidance results in employees more willing to leave companies since they are not anxious of what can happen. They are less loyal to their company. Managers are not only concerned by getting tasks done, but are involved in the strategy. This means that they are not directly focus on the concept of “time is money” but are also thinking of the strategy to achieve good results rather than have a higher productivity possible. This implies also that the relationship orientation is prevalent to the task orientation. It also implies that the focus on experts and reliable technical solutions is not that important. This more strategical way of doing leaves more place to creativity and therefore innovation is in spite of implementation. Moreover, the decision process is getting high attention while the decision content is not the only thing that matters. There is not that much a need of the clearest organization structure as possible and rules should be put only when it is necessary. Finally, the hard working periods are rarer and only answer a need. (Hofstede, 2001 pp. 146-151;169-170)

Weak uncertainty avoidance seems to describe places where there is a prevalence of leadership on management to achieve the goals of the organization. Indeed, leadership relies on giving vision rather than giving pragmatic tools to make employees achieve the same goal. Moreover, it can be noticed a correlation between some characteristics of power distance and uncertainty avoidance, like for the way the structure of an organization is: both low power distance and low uncertainty avoidance favour a less structured organisation. (Hofstede, 2001 pp. 146-151;169-170)

An extremely low uncertainty avoidance index in Denmark, and a rather high uncertainty avoidance index in France lead to expect contractors in Denmark and France to be as in FIGURE 13. This table is in the continuity of FIGURE 11 drawing an identikit of the companies in both country concerning power distance.



### TYPICAL DANISH CONTRACTOR



### TYPICAL FRENCH CONTRACTOR

Flexible organization	Really structured organization
Independent employees, likely to leave for other opportunities	Loyal employees, staying many years
Relationship orientated	Task orientated
Importance of smart decisions to achieve results	Importance of productivity to achieve results
Leadership orientated	Management orientated
Importance of decision making process	Importance of decision
More creative, good at innovation	More pragmatic, good at implementation
Rules only if necessary	Importance of many rules
Hard working only in really busy periods	Need to feel busy and importance to work hard

FIGURE 13 UNCERTAINTY AVOIDANCE: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY

#### 4.1.2. INDIVIDUALISM AND COLLECTIVISM

Individualism in this context is not to be understood with the pejorative sense of selfishness. Individualism here is to oppose to collectivism and not altruism and is referring as the way the society is built. For example, a society which is functioning in tribes would be considered as collectivist and an other centred on restrained families would be considered as individualistic, even though the family is still involving several individuals. The easiest way to understand individualism versus collectivism is to see it in the animal kingdom. Some kind of animal need others to survive, they live in packs like wolves or colonies like ants forming small or big societies where each has a role and a position needed for the sustain the group. Other kind of animals are more independent and need to leave their mother as soon as they are able to provide themselves. This could be polar bears and many kind of big cats. Human societies are usually none of these two extremes, but closer to one or the other one. This is what is meant when talking about an individualistic or a collectivistic society. The more independent is a person expected to be by the society that persons belongs to, the more individualistic that society is. The inverse is true, the more the person is expected to support the family (in broad sense), the more the society is collectivistic.

FIGURE 14 presents the scores and ranking of 74 countries for the individualism index (IDV). Both scoring a high individualism index, Denmark and France are respectively 10<sup>th</sup> and 13<sup>th</sup> out of 74 countries, with scores of 74 and 71. For reference, the United States is the country scoring the highest with 91 and Guatemala the lowest with 6. This means that the difference between France and Denmark is rather small and both country are quite individualistic, even though France can be considered slightly but not significantly more collectivistic than Denmark. Not particularly related to the main topic of this project but nonetheless interesting, one can notice that most western countries are scoring high on IDV.

Rank	Country	IDV	Rank	Country	IDV	Rank	Country	IDV	Rank	Country	IDV
1	United States	91	20	Switzerland French	64	39	Brazil	38		West Africa	20
2	Australia	90	21	Finland	63		Arab Countries	38		Bengladesh	20
3	Great Britain	89	22	Estonia	60	41	Turkey	37		China	20
4	Canada Total	80		Luxembourg	60	42	Uruguay	36		Vietnam	20
	Hungary	80		Poland	60	43	Greece	35	62	Salvador	19
	Netherlands	80	25	Malta	59	44	Croatia	33	63	South Korea	18
7	New Zealand	79	26	Czech Republic	58	45	Philippines	32	64	Taiwan	17
8	Belgium Flemish	78	27	Austria	55	46	Bulgaria	30	65	Peru	16
9	Italy	76	28	Israel	54		Romania	30		Trinidad	16
10	Denmark	74	29	Slovakia	52		Mexico	30	67	Costa Rica	15
11	Canada Quebec	73	30	Spain	51	49	Slovenia	27	68	Pakistan	14
12	Belgium Walloon	72	31	India	48		Portugal	27		Indonesia	14
13	Sweden	71	32	Suriname	47		East Africa	27	70	Colombia	13
	France	71	33	Japan	46	52	Malaysia	26	71	Venezuela	12
15	Ireland	70		Argentina	46	53	Hong Kong	25	72	Panama	11
16	Norway	69		Morocco	46		Serbia	25	73	Ecuador	8
	Switzerland German	69	36	Iran	41	55	Chile	23	74	Guatemala	6
18	Germany	67	37	Jamaica	39	56	Singapore	20			
19	South Africa	65		Russia	39		Thailand	20			

FIGURE 14 INDIVIDUALISM INDEX VALUES PER COUNTRY (HOFSTEDE, 2001 P. 215) (HOFSTEDE, ET AL., 2005 P. 78;79)

A high individualism index as for the two countries studied France and Denmark, is usually synonym of small restraint families, where children support themselves and leave their parents' place as soon as they can. It is moreover an option to get children or not. Family does not have such a strong meaning as in a low individualism index scoring country. Divorces are more frequents, and older members of the family are not supported by younger members. People have personal opinions of their own and they are responsible of their own actions. Consequently, mistakes and misbehaving brings shame and problems to them only and not shame to the family. Following the personal opinions, friendship and marriage are chosen and supposed to be affinity based and love based, but not restricted on social classes, groups or castes. Moreover,



expressing disagreement is normal and accepted, leading to direct confrontation with family, friends and others. (Hofstede, 2001 pp. 209-245)

In a school environment, students are considered as an assembly of individuals and not a homogeneous group. They receive therefore more attention from the teachers. The goal of the education is to learn how to learn more than to learn the way to do things. In general, students are more modern and progressive than they are traditionalists. Their personality and self-confidence has an importance in their education and is an asset to succeed. And as individuals, they are expected to show what they can, to speak up in front of groups. (Hofstede, 2001 pp. 209-245)

Concerning the workplace, the effect of a high individualism society is as follows. There is more interest for working environment. The individual is the centre of the interest of the company and not the family or other group. This means that people work often better as individuals, having a busy family life can be seen as a disadvantage, taking the focus of the employee away for the work. The employees are dedicated to their employer. Getting a job a promotions is depending on personal background and skills mainly and should be done without taking into account affinities. Team building is done the same way. The teams should be created depending on the need of performance, and according to the skills, not just acquaintances. If some things in the job-market depend on networks, it is primarily thanks to a personal network, but not in the interest of a full family or group. More generally, relationships are developed and maintain for personal interests. Relationships between company and employee is purely business. Social things set up by the company usually do not have an unselfish goal: for a company, a happy employee is a productive employee. Concerning productivity, the promotion and recognition of performance has also a goal of enhancing the general productivity. Productivity and performance is a condition to keep a work. In a more collectivistic society, poor performance to a job would rather lead to a change in the tasks given, more than a firing. Like for the school environment, an employee is trained better, when the training is focused on persons more than groups. And related to this, the best way to manage people is to see teams as assembly of individuals that need to be managed all differently according to their own need. It is not just the management of a team as a whole. (Hofstede, 2001 pp. 209-245)

Resulting from these characteristics from individualism, the extrapolation to Danish and French contractors can be done and the description of a typical Danish and French contractor can be continued, as for the previous dimensions. Here, France and Denmark showed a level of individualism really similar. It is

therefore not expected that the contracting companies would be any different on this point. Thus, the following table (FIGURE 15), is therefore gathering the two companies in one, since the characteristics are the same.

 TYPICAL DANISH AND FRENCH CONTRACTOR 

Importance of working environment
Training is focus on individuals
Employer-employee relationship is business
Good Relationship maintain personal interests
Network is personal
Employees have a high dedication to job and employer
Teams are managed as assembly of individuals, not as a whole group
Teams are built for performance
Performance gives promotion, poor performance is a possible reason for dismissal
Rewarding performance is there to increase productivity

*FIGURE 15 INDIVIDUALISM: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY*

*4.1.3. MASCULINITY AND FEMININITY*

Masculinity and femininity are not to be understood as which gender is having the power in the society, even though there is a correlation between masculine society, and differentiation of the gender roles in this society. This dimension describes more which kind of values are promoted in the studied society. Sociologists associated different kind of values to a behaviour that would be described as masculine or feminine, based on what can be observed in most cases. When looking at life, jobs, family and more, most women and men *usually* do not have the same goals, *usually* do not get satisfaction of the same things, and *usually* do not express their emotion the same way. This could be due both to the role each gender had during the development of humanity, depending the biological differences. All this is of course relative.

Based on what men are more often attached to than women, and what women are more often attached to than men, the following points describe some of the values that would fit a definition of a masculinity and femininity in a society:

- | Masculinity            | Femininity        |
|------------------------|-------------------|
| - Assertiveness        | - Modesty         |
| - Risk                 | - Security        |
| - Toughness            | - Tenderness      |
| - Not showing emotions | - Emotional       |
| - Material success     | - Quality of life |

Taking this as a base, the studies linked to the dimension theory orientated some of the questions and analysed the answers, to evaluate the masculinity index (MAS). Results of the study established the scoring and ranking shown on FIGURE 16.

Rank	Country	MAS	Rank	Country	MAS	Rank	Country	MAS	Rank	Country	MAS
1	Slovakia	110	20	Australia	61	39	Israel	47		Vietnam	40
2	Japan	95	21	Belgium Walloon	60		Malta	47	59	South Korea	39
3	Hungary	88	22	New Zealand	58	41	Indonesia	46	60	Uruguay	38
4	Austria	79		Switzerland French	58		West Africa	46	61	Guatemala	37
5	Venezuela	73		Trinidad	58	43	Canada Quebec	45		Suriname	37
6	Italy	70	25	Czech Republic	57		Turkey	45	63	Russia	36
	Switzerland	70		Greece	57		Taiwan	45	64	Thailand	34
8	Mexico	69		Hong Kong	57	46	Panama	44	65	Portugal	31
9	Ireland	68	28	Argentina	56	47	Belgium Flemish	43	66	Estonia	30
	Jamaica	68		India	56		Iran	43	67	Chile	28
11	China	66	30	Bengladesh	55		France	43	68	Finland	26
	Great Britain	66	31	Arab Countries	53		Serbia	43	69	Costa Rica	21
	Germany	66		Morocco	53	51	Romania	42	70	Slovenia	19
14	Philippines	64	33	Canada Total	52		Spain	42	71	Denmark	16
	Poland	64	34	Luxembourg	50		Peru	42	72	Netherlands	14
	Colombia	64		Malaysia	50	54	East Africa	41	73	Norway	8
17	South Africa	63		Pakistan	50	55	Salvador	40	74	Sweden	5
	Ecuador	63	37	Brazil	49		Bulgaria	40			
19	United States	62	38	Singapore	48		Croatia	40			

FIGURE 16 MASCULINITY INDEX VALUES PER COUNTRY (HOFSTEDE, 2001 P. 286) (HOFSTEDE, ET AL., 2005 P. 120;121)

With a really low score in masculinity index (16), Denmark is definitely among the countries with the highest femininity. The country with the highest score is Slovakia (110) and the one with the lowest is Sweden with

5. Denmark is ranked 71<sup>st</sup> out of 74 countries. It is interesting to see that the three Scandinavian countries in this ranking, are among the four with the lowest masculinity index.

France on the other hand scored 43, ranking 47<sup>th</sup> which corresponds to around the end of the second third of the scores. This means that the country does not completely promote values corresponding to full femininity, but is anyway closer to it than to masculinity.

In practical situations, a low masculinity like in Denmark is usually the sign that within the family or society frame, there is not a differentiation of the roles depending on the gender, for the children as well as for the parents. There is a weak differentiation of the expectations and the rights depending on the gender as well. The games of the children can be the same, without distinction of their sex. Showing emotions is perfectly normal for everybody, and are not a sign of weakness. However, anger and aggressive behaviour are not accepted. Modesty is taught to kids. Family is not completely prevailing to friendship. (Hofstede, 2001 pp. 279-318)

In the school environment, the social aspect is a point of focus. It means that the social adaptation is essential, that no one should be put aside, that having friendly teachers is important. The school system is not elitist, and the extra effort of the teacher is put on weaker. Finally, there is no differentiation in the curriculum of girls and boys, who receive moreover same attention. (Hofstede, 2001 pp. 279-318)

This is setting the mind of the population which will act consequently at work. This low masculinity at work means that more women are manager and have key roles. Career plans are a choice, both for men and for women. A man choosing to prioritise other things in life than work is not discriminated. In general, the mentality is more oriented on having a work to live rather than living for having a work. Employees prefer working less than having higher salaries. Consensus, intuition and feelings are really important in decisions for a manager. A manager is not just having to be firm on decisions. Moreover, conflicts are solved with compromises and negotiation. Competition is not common within organization concerning promotions. Employees are not really assertive, even when applying to jobs, people tend to underestimate and undersell themselves. Work is not taking over on family life; a career is adapted in function of family life, and not the contrary. And therefore there is more sickness leaves, without it having much consequences for the employee. A good working environment and a good atmosphere are important. This results in a search for

more equality, more solidarity and a flourishing work life not only orientated on success. (Hofstede, 2001 pp. 279-318)

From this elements, a new dimension and its characteristics can be added to the identikit of the typical companies in France and Denmark. For this and according to the score of masculinity index, Denmark is completely feminine, and France is mainly feminine, but with nuances of masculinity.



 TYPICAL DANISH CONTRACTOR	 TYPICAL FRENCH CONTRACTOR
Women as men can be managers, indifferently	Women as men can be managers, but there will be more men in key positions
No or few internal competition	If it is not the common rules, internal competition can happen
Work-life balance is essential; work will not take over family life	Work can overtake often on social and family life
Staying at home is obvious if kid or self is sick	If possible, despite kid or self is sick, work needs to be done
Salaries are important, but not to any price	Sacrifices can be made for higher salaries
Fair consensus, intuition and feeling are often great part of making taking a decision	Being firm and keep its interest will be the first choice in making decisions but consensus and intuition are also options if necessary
Solving problem consists in finding the best compromise after negotiations	Solving problems consists in negotiating to find the best solution if possible for self
Good atmosphere at work is very important	Good atmosphere at work is important

FIGURE 17 MASCULINITY VS FEMININITY: IDENTIKIT OF A DANISH AND A FRENCH CONTRATING COMPANY

#### 4.1.4. LONG TERM ORIENTATION

The long term orientation is a dimension which has been elaborated only after the first studies like the IBM survey, on studies that focussed on Asian countries. On the same principle and with same method than the first studies, new surveys have been made for replications of the IBM survey, with also some questions

determining the orientation of societies about long-term and short-term. This dimensions had not been thought true by the researchers who started surveys about culture, maybe blinded by their belonging to western cultures. (Hofstede, et al., 2005 pp. 207-212)

Long-term orientation refers to the state of mind which favours the long effort and perseverance to achieve goals, waiting patiently for positive results. The orientation is on the future, not necessary close future. On the other side, short-term orientation is more favouring the quick results, the short-term investments (financial as well as personal). The orientation is more on the past (for comparison), and the present or really near future, where benefits are expected.

FIGURE 18 presents the long-term orientation index values (LTO) of 39 countries around the world, according to available results and combining several studies and replications, like for the previous dimensions. Both Denmark and France are in the first half of the countries studied when it comes to Long-term orientation. More precisely, Denmark is ranked 12<sup>th</sup> with a score of 46, and France 19<sup>th</sup> with a score of 39. If the ranking is taken into account, it can seem that Denmark is quite more long-term oriented than France is. But here, it seems more relevant to look at the score more than at the ranking. Indeed, the lowest score is 0 for Pakistan, while the highest score is 118 for China, which itself is far ahead the other countries or regions follower like Hong-Kong, Taiwan.

Rank	Country	LTO	Rank	Country	LTO
1	China	118		Slovakia	38
2	Hong Kong	96	22	Italy	34
3	Taiwan	87		Sweden	33
4	Japan	80	24	Poland	32
	Vietnam	80	25	Austria	31
6	South Korea	75		Australia	31
7	Brazil	65		Germany	31
8	India	61	28	Canada Quebec	30
9	Thailand	56		New Zealand	30
10	Hungary	50		Portugal	30
11	Singapore	48	31	United States	29
12	Denmark	46	32	Great Britain	25
13	Netherlands	44		Zimbabwe	25
	Norway	44	34	Canada	23
15	Ireland	43	35	Philippines	19
16	Finland	41	36	Spain	19
17	Bangladesh	40	37	Nigeria	16
	Switzerland	40	38	Czech Republic	13
19	France	39	39	Pakistan	0
20	Belgium	38			

FIGURE 18 LONG TERM ORIENTATION VALUES PER COUNTRY (HOFSTEDE, 2001 P. 356) (HOFSTEDE, ET AL., 2005 P. 211)

This scale of results can show that compared to China and even the five other Asian countries or regions in the top of the ranking, neither France nor Denmark can be considered as really long-term oriented. They are actually much closer to Pakistan which is really short-term oriented than they are to China which is completely long-term oriented. It can then be assessed that Both countries, which actually have pretty close results (46 for Denmark and 39 for France) are slightly more short-term oriented than long-term

oriented, even a bit more for France than for Denmark. However, their “middle score” means that on some levels, they must present some long-term orientation characteristics.

To be more objective and to be able to assess better, on which level the two countries are more long-term or short-term oriented, it is important to see what is considered long-term or short-term elements. And this, on the same model than for the previous dimensions, meaning that considering culture and values are learnt first within the family and at school, it is the first presented. They are the reasons of what is happening in the workplace, which is presented after.

High long-term orientation index is often synonym of an education based on teaching children to save for later and investing in their future and education. This can be through presents for example, which would not be things the children would enjoy right away but would appreciate more afterwards. Concerning the structure of the families, marriage is seen as practical more than moral, and should bring concrete advantages for the future life of the spouses. Living with the family of the husband or wife is not an issue but advantageous, and all the family has power on the younger, even older siblings. (Hofstede, et al., 2005 pp. 210-225) (Hofstede, 2001 pp. 353-367)

At school, it is necessary to work hard. Not working hard enough is the only cause seen for failure. Students are equal and everybody should succeed. Therefore, students should put a lot of effort until they reach success. More concrete subjects are priorities, like applied sciences, mathematics and rational problems, more than analytical or creative like literature, arts and so on. (Hofstede, et al., 2005 pp. 210-225) (Hofstede, 2001 pp. 353-367)

In professional relations and at work, the attitude is similar. It is necessary to build a good and strong network in order to have more fructuous results later, rather than searching for small results from the beginning. Building the best market position possible is the priority, over benefits. An important part of benefits is saved. Investing in real estate, and long-term and stable investment is more important. Status is important and changes totally the way the relationship between two persons is. Leisure time is not as important and hard-working is always required. (Hofstede, et al., 2005 pp. 210-225) (Hofstede, 2001 pp. 353-367)

Given those elements of description of typical long-term behaviour in the family, at school and at work, and given the fact that France like Denmark are assumed to be a bit more short-term oriented than long-

term oriented (according to their scores), the table of FIGURE 19 presents what is assumed to be the typical way of thinking of companies in both countries.

 TYPICAL DANISH AND FRENCH CONTRACTOR 

Network is rather important should have effects both on the long term and on the short-term

Benefits rather quickly are as important as benefits in the long run

Benefit are re-invested to give more benefits at short term

Hard Working is required mainly in case of rush periods

Leisure time is essential

*FIGURE 19 LONG-TERM ORIENTATION: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY*

Since the two countries are pretty similar on the long-term versus short-term orientation, it is considered that there is no fundamental difference which could lead to potential conflicts.

#### 4.2. CULTURAL DIFFERENCES AND POTENTIAL SOURCES OF CONFLICT

The previous section analysed five aspects of the cultural dimension theory, noticing that for three of them (power distance, masculinity and uncertainty avoidance) the culture in France and in Denmark is significantly different, while for two others (individualism and long-term orientation), the culture is really similar and therefore not likely to create any misunderstanding or conflict if contractors from each country were having to work together. For each cultural dimensions, it has been assessed according to the results of studies (IBM survey and replications) how the culture was and how could it be seen in what has been called a typical contractor for each country. These characteristics are gathered and organized by type in FIGURE 20. In addition, the table contains the assumption of potential conflict or misunderstanding for each point. These assumptions are extreme cases, based on theory. It is likely that the construction industry presents deviances, and that not all differences are found in reality. Moreover, not everyone would be affected the same way by the differences and consequences, and therefore, consequences can have a much more limited effect.



 TYPICAL DANISH CONTRACTOR

 TYPICAL FRENCH CONTRACTOR

POSSIBLE CONFLICT OR MISUNDERSTANDING

<p>Very flat and flexible organization where rules are only there if necessary</p>	<p>Quite hierarchical and really structured organization, with many rules</p>	<p>Confusion in the roles and responsibilities of Danish employees can happen from French employees. There can be a feeling of messy organization.</p> <p>Danish employees can feel that the French company is too rigid, and slowed down by many rules and complicated organization.</p>
<p>Managers are not having any special status, can be women as well as men, and no inequality on this point. Differences in roles only makes an inequality in power if necessary. The salary differences are reasonable between superiors and subordinates which both feel good about.</p>	<p>Managers benefit of a status, and a bit more often men than women, especially in key positions. Superiors and subordinates are not getting the same advantages, and the salary differences are marked, even though all have a feeling of insufficiency.</p>	<p>Career path goals would be the main issue there. The fact that on one side equality and fairness suits all, while on the other side feeling that one climbs a ladder of positions getting higher status is important, can bring tensions within the organisation.</p> <p>This aspect of culture might be difficult to understand and to accept by the two parties.</p>
<p>Managers will take decisions depending on the suggestions from all, seeking for consensus, and using intuition and feelings. More generally, solving problem consists in finding the best compromise for all, after negotiations.</p>	<p>Managers will primarily take decisions themselves, for their own interest (interest of their company), but also can take the suggestions of others into account. Being firm and confrontation will be part of the negotiation process in order to get the best issue for self.</p>	<p>In case of negotiation or dispute, Danes could be shocked of the way of acting of French employees. The fact that confrontation is the culture and way to solve disagreement could alter relations.</p> <p>On the other side, French could feel that the constant seek of consensus could not benefit the interests of the joint venture.</p>

<p>Leadership and relationship oriented, with seek of smart decisions and actions to achieve results. Decision making process is important.</p> <p>Employees are more creative, good at innovation</p>	<p>Management and task oriented, productivity is seen as key to achieve results. Taking fast and pragmatic decisions is more important than how decisions are taken.</p>	<p>Still concerning decision making, the way to lead the joint venture can be problematic since the vision to lead manage or take decisions is not the same.</p>
<p>Easy possibility to avoid overload of work and clarification of the roles. Hard working and long working days are only limited to busy periods.</p> <p>Work-life balance is essential and work will not take over family life. Sickness leave are common if kid or self is sick. Good salaries are important, but not to any price. Good atmosphere at work is very important and no or few internal competitions can happen.</p>	<p>Frequent overload of work for managers, hard-working and long working days are the rule, answering to a kind of need to feel busy.</p> <p>Work can overtake often on social and family life. There are few sickness leaves, only when it cannot be overcome. Employees are ready to sacrifices can be made for higher salaries.</p> <p>Good atmosphere at work is important but it happens sometimes that atmosphere undergoes internal competition.</p>	<p>Danes could feel that French are understaffed, and French that Danes could work more.</p> <p>In case of delays on work schedule, tension could arise concerning the personal investment or human resources of each party. It could alter the relations and the atmosphere and harm the good progress of the works.</p>
<p>Independent employees, likely to leave for other opportunities.</p>	<p>Loyal employees, staying many years</p>	<p>Even if it is presented as a cultural difference, the independence of the employees is hard to see it as a potential threat on a joint venture. Leaving employees happen more or less often, but is never so often that a company is in constant critical reorganization.</p>

FIGURE 20 EXPECTED DIFFERENCES IN DANISH AND FRENCH COMPANIES

From this can be seen that three main themes constitute the differences potentially leading to misunderstandings and conflicts: Ways of organizing, working environment and decision making with solving disagreements. Before assuming blindly that these are all relevant in the construction industry and in a joint venture configuration, these three selected themes of potential conflicts can be developed a bit more.

#### 4.2.1. *WAYS OF ORGANIZING*

In sections 2.1.2. about organisational culture and **Error! Reference source not found.** about culture involved in aspects of international projects as well as in the limitations, it has been stated that the focus was made on the organization on the building site but not in the headquarters. This has been made, because organization on building sites is very different than in usual offices structure. The organization on a building site is likely to change rather often. The structure is supposed to change at the end of every project. It is rare that a company starts a project from the beginning right when a previous project is terminating. Moreover, the need of staff on a building is changing a lot depending on the phases of the construction. This means that managers come and go (mainly at the beginning and the end of the project) from and to other building sites, with different organizations. The fact that these organizations are so temporary, makes that a really rigid and formal organization does not have time to start forming and that whatever the country or the culture, it is believed that the structure will be more or less flexible.

In addition to this and as explained in part 2.1.2. , every company of every industry has not the same organization like for instance with the given example off the app developing start-up and the bank. Partly because of the same reason that gives a more flexible structure in building site organizations, it is believed that those organizations do not have a structure that fits with the typical French company, as described in FIGURE 20. On the contrary, it seems that whatever the culture is, the needs of a building site require an organization looking more like what was described as the typical Danish company.

Furthermore, since the frame chosen for the international cooperation is a joint venture, a new organisation has to be created from the start. The organisation will be structured by both companies, on the model that might be the most suitable to both Danish and French company.

From these assumptions it is deducted that the cultural differences about the tendency of structuring organizations one way or an other is not going to be an issue in the case of a joint venture.

#### 4.2.2. *WORKING ENVIRONMENT*

Working environment usually refers to all health (mental and physical) and safety matters at a work place, but also everything related to good or bad conditions of working. Therefore, the place, the facilities, the atmosphere for example are also components of the working environment. When in this analysis working environment is mentioned, it is not the health and safety regulation that is meant, since the analysis is about the consequences of culture. Moreover, both countries have quite strict regulations about this, especially since they both are part of the European Union and so subjected to the EU labour law, which main component concerns working environment. But what is made by the company for having happy employees is maybe what could be a cultural difference, with rhythm of work is different, ways of communicating, work-life balance for example. Nonetheless, it is supposed that when two major companies create a joint venture for a big infrastructure project, it is not necessarily local teams that will be working on it, at least for sure for one of the two parties. If the site is in Denmark, French teams would be sent, and vice versa. And if the works are neither in Denmark nor in France, both teams would be sent. In addition to this it is often special teams that are working on these project, with people willing to work on such projects, with the consequences it has, to the condition of higher salaries. In this conditions, it can be common that the employees working far from their home, work significantly more than normally, often six days a week, beneficiating from more holidays though. The rhythm of work would consequently not be that different between the companies. Concerning the work atmosphere, it is believed that even though there is a tendency per country, the work atmosphere is too depending on the industry and the organization itself to be able to generalize.

From these elements, it is assessed that the working conditions and working environment are not what could create conflictual situations because of culture.

#### 4.2.3. *TAKING DECISIONS, SOLVING DISAGREEMENTS*

The third topic identified as potentially source of problems by the national culture analysis is the taking of decisions and the way to solve disagreements. Danes seem to take decisions according a big importance in involving others, while French seem to take unilateral decisions primarily according a big importance in the decisions itself and not the way to make it.

When it comes to conflicts, Danes seem to look for compromises before all, while French seem not to mind to go to confrontation to solve issues.

A Danish researcher from Copenhagen Business School got interested in the question and published her work "Cultural dimensions of decision making: Denmark and France compared", published in the Journal of Managerial Psychology in 2001. The researched is based on the fact that decision making is often believed to be a similar process around the globe. The way of comparing was to ask through interviews French managers employed in Danish companies or in companies with Danes and vice versa, about their perceptions of the other's (Frenchmen and Danes) way of taking decisions.

French are seeming to as rationalism as an ideal, following the Cartesian way of thinking (Schramm-Nielsen, 2001 p. 408), inherited from René Descartes, scientist and philosopher of the 17<sup>th</sup> century. It could be explained by the fact that Descartes was product of the same French culture than French managers first, and also because he became a part of that culture, which has been taught to French managers.

In the report of her study, (Schramm-Nielsen, 2001 pp. 410-411) gives extract of the interviews, among which a top manager explains:

*"They [Danes and Frenchmen] do not analyze and synthesize the same way. The French tend to think that Danes are not thorough enough, and the Danes tend to think that the French are too complicated. [...] When he has analyzed a case and has come to a conclusion, then he would like to go over it once more. I think that Frenchmen think in a more synthetic way [...] And he has a tendency to say: "well yes, but what if it can still be done in another maybe smarter way". This means that in fact he is wasting time instead of making improvements."*

Among the other answers, some Danish managers support this statement, adding that if there are problems, some Danish managers prefer to analyze them with Danish technicians which bring the problem to a sensible level, since French tend to exaggerate it. Some others notice that French tend to be impulsive, taking hasted decisions, measuring consequences afterwards. (Schramm-Nielsen, 2001)

This study and statements confirm first that decision making is truly a cultural difference that is leading to potential problems within the multi-cultural Danish/French joint-venture taken as a frame for the project.

But in addition, the statements from the Danish managers show a paradox and disagreements about what is typically French in the way of taking decisions, even if rationality comes back often as characteristics of French decision makers. This proves that despite the studies of national culture carried out in many countries with many respondents, culture and ways of behaving are a tendency but not a universal truth, and everything is perceived differently by everybody confirming also what has been stated in the analysis of section 4.2.

### 4.3. OVERCOMING THE CONSEQUENCE OF THE CULTURE DIFFERENCE

There is unfortunately no magic potion to solving cultural differences in general and no easy tool or dispositions to follow. However, this part highlighted the main problem that could be the consequence of cultural differences, and this is a problem which is not only happening because of national culture differences. To see how solving disagreements and overcome the problem of differences in taking decisions, the two problems will be taken together. Indeed, taking decisions differently is not a problem itself, but can lead to disagreements about the way of doing, which enters in the category of solving disagreements and therefore negotiations. However, it is important to remind that the two countries were not found to have cultures completely different from one another, but were often two different sensibilities of the same culture group for nearly each dimensions. This problem highlighted of ways of taking decisions is exaggerated to see better the difference.

No real tool exists for handling the problems of culture. Only making sure that teams are opened minded, aware of the other culture, and ready to communicate are essential for overcoming cultural differences.

The closest tool which could be used is the technics of intercultural negotiations. Christopher W. Moore with the help of Peter J. Woodrow, who are both experts and renown mediators for intercultural and international negotiations studied the question deeply in the book "Handbook of Global and Multicultural Negotiation".

In this handbook, negotiation is said to be completely influenced by culture. In the present case, it was highlighted that Danes are used to negotiate with an opening of consensus, while Frenchmen are used to negotiate with confronting powers. For the authors, negotiation is a goal oriented process where communication is a condition of success. Both parties are supposed to take advantage of it and learn of it. It is a decision making process, an agreement and exchange process to solve problems, generate options

and ideas, using of course influence and persuasion. Negotiation is nothing if it does not end up in an implementation. (Moore, et al., 2010 pp. 11-54)

They recognize also five different possible strategies for cross cultural negotiations: Adhering, avoiding and contending, adapting, advancing, adopting. They depend on the ability or readiness of the two parties to adapt to each other's culture. These strategies are illustrated on FIGURE 21.

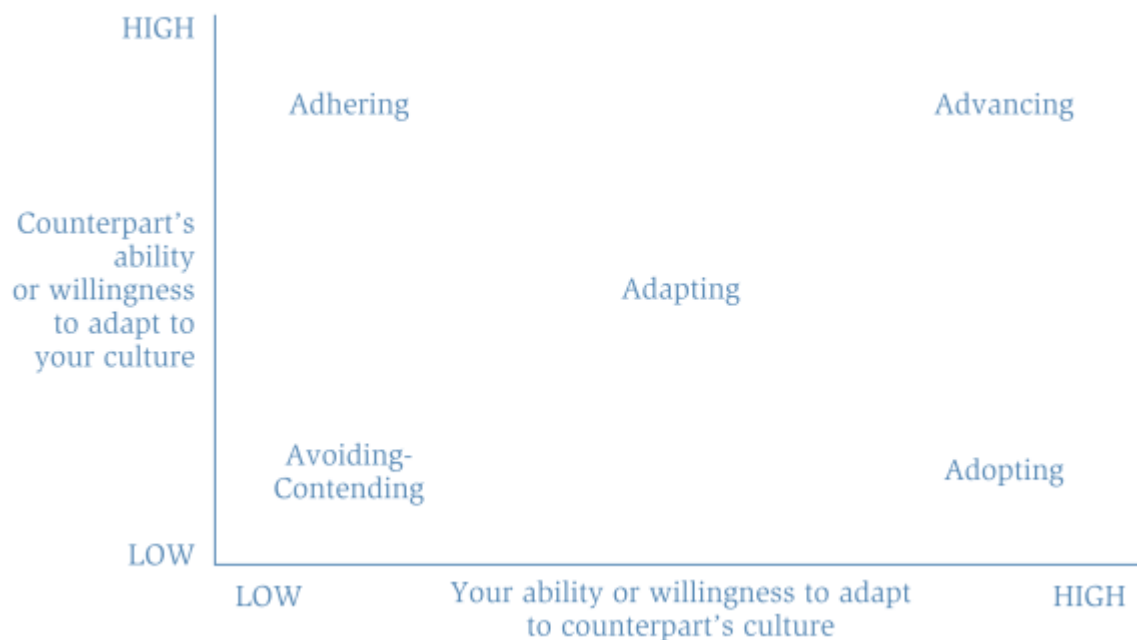


FIGURE 21 TYPES OF STRATEGIES FOR INTERCULTURAL INTERACTIONS (MOORE, ET AL., 2010 P. 64)

- Adhering: It is the strategy chosen by the part that will not change from what it is used to, while the other part accepts to be flexible, and therefore to its disadvantage. It can be when the other's culture is not familiar enough to negotiate with fair chances, or that the other part or the matter does not fit deep personal values or ethic for example.
- Avoiding or contending is when none of the parties want to adapt to the other's culture, for political or personal reasons. It is probably not the kind of strategy to adopt when internal conflicts emerge in a joint venture.

- Adapting means doing compromises on the way to proceed. It requires that the two parties know and understand each other's culture at least partly.
- Adopting is somehow the contrary than adhering. When one adheres, the other one adopts.
- Advancing is negotiating not just on a mid-way way of proceeding like adapting is, but more on a new way of proceeding, unfamiliar to any of the parties, and "invented" for the occasion.

(Moore, et al., 2010 pp. 64-73)

The strategy chosen depends on the circumstances like the familiarity of each other's culture, but also and most of all on the kind of relationship the parties want to maintain afterwards. In the case of long term or business relationship, adhering and avoiding-contending are not good options.

It is important to remember that the frame chosen for this project is related to managers on site of related with the execution, and not the top management. This means that all parts of the consortium on site, whatever company they are from have a common goal which is leading the project to a success. If the point of view of top managers was taken, this success would be focussed on the financial part. To illustrate with a metaphor, the managers on site are all on the same boat and need to avoid that it sinks despite the storms and waves, not just because of the goods it contains (focus of the top managers), but because they are there for long, and that all their tasks are dependent on each other's. If the frame chosen would not have been a joint venture, but just a contractor-subcontractor relationship, the challenges would not have been the same. For instance, the project could have been a success for the main contractor, but not to the sub-contractor. And it is this point that is essential when looking at negotiations. In the joint venture, the companies have the same power if they injected the same equity. Negotiations are therefore there to defend the interest of everybody, and not individuals' interest. For these reasons and in the present study, the negotiation strategies *adapting* and *advancing* are what seems the most profitable.

Since the frame of the project defines that the interests are common, in order first to overcome the potential problems due to culture, it is essential that the employees get to know the culture of the others and that understand that they actually become members of one team, who need each other to reach their common goals. Knowing this and what type of strategies could be adopted in disagreements, they could be driven to collaborative ways of solving problems, like an adapting or advancing strategy.



Depending on the kind of conflict to resolve, or the kind of negotiations to lead, many aspects are to take into account. But in the present case, both parties agree have the same practical and financial interests. The case is therefore not a typical case of negotiations. It is instead solving disagreements about the way of doing and different ways of taking decisions. The main principle of resolution stays however the same, namely, identifying the acceptable and unacceptable issues of the discussion, and see what is common on the panel of solutions that the parts can come up with.

One of the models of Moore in the book about multi-cultural negotiations is giving a frame of how conflicts can be solved. But this frame (see FIGURE 22) is only partly applicable in the case of this project.

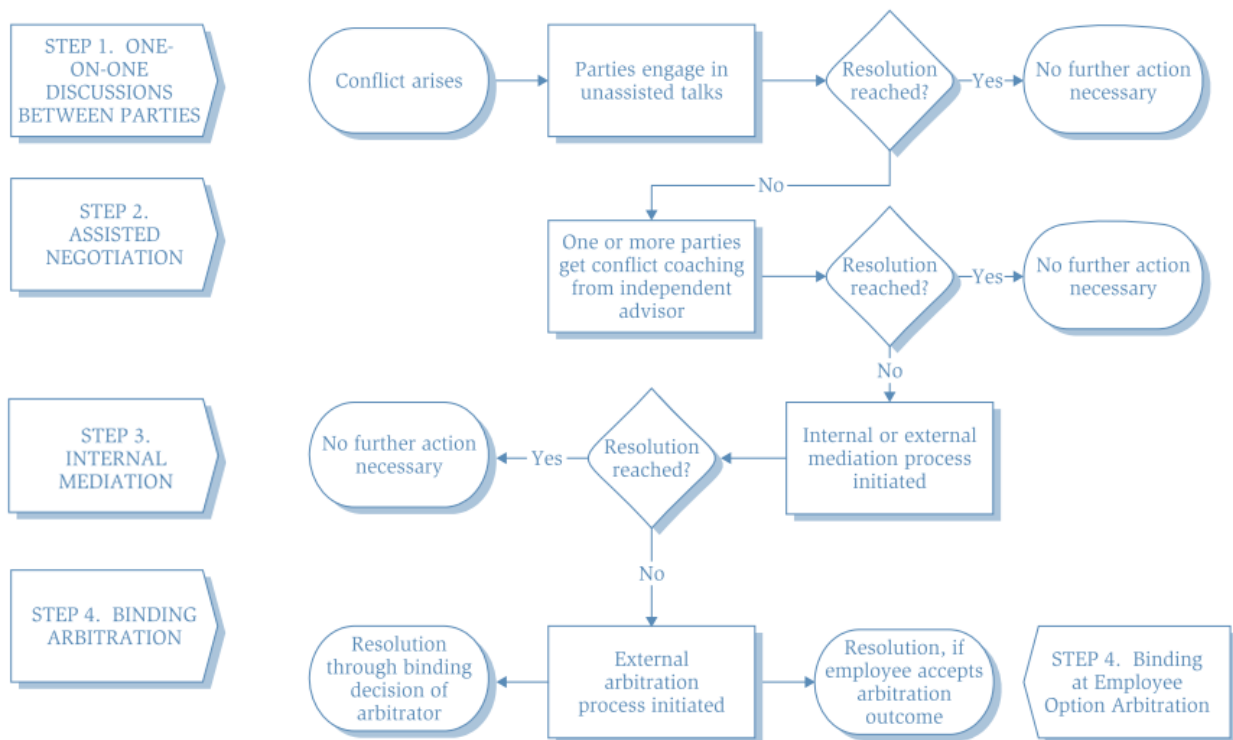


FIGURE 22 DISPUTE RESOLUTION SYSTEM (MOORE, ET AL., 2010 P. 403)

In this system, the parties try to resolve the disagreement themselves. If this doesn't work, the next step is to get help from someone else, until arbitration. But if managers were to disagree, the people who would come to help would simply be high managers, until one has an arbitrational power.

## 5. ORGANISATIONAL CULTURE: WHAT CAN BE EXPECTED IN THE VENTURE

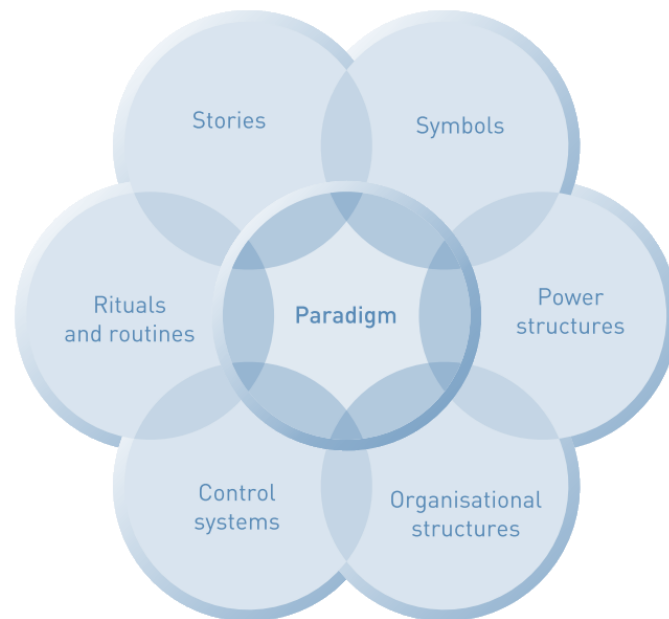
Organisational culture, as explained in part 2.1.2. of the pre-analysis, is the culture proper to one organisation only, and cannot be generalized. It is the centre of many attentions and really often comes back in the profuse literature about culture. Most of the resources about culture of this project like for instance (Hofstede, et al., 2005) (Trompenaars, et al., 1996) (Abdul-Nifa, et al., 2010) (Schein, 2004) (Schultz, 1995) (Johnson, et al., 2011) explain the importance of considering culture while managing an organisation, and warn about the fact that it is often overlooked by managers in their strategical decisions. But in the literature, the study of organisational culture implies that the organisation studied already shares a common culture. In the case of this thesis, the organisation (Danish-French consortium) is unknown and hypothetic. There is therefore no existing culture. Only the existing companies forming the joint venture already have a culture.

Among all the different ways of looking at organisational culture, two are particularly interesting because of their complementarity and are used for this analysis. Often, theories compete for the truth, but these two do not, and it is for this reasons that they are used. Since there is not an existing culture in the consortium when it is created, it is judged to be interesting to look at organisational culture from two different points of view. Indeed, it is not possible to describe the culture, or to give sources of conflicts because of the national culture differences when it comes to organisational culture. But since all agree that organisational culture is essential for managing an organisation and that a common culture can federate employees together, a closer look to organisational culture is considered as being relevant anyway. It can help understand how to overcome employees' differences, like national culture differences, by setting employees together under an other culture.

The first of the two theories on which this chapter focuses is the one described in the book "Exploring Strategy" (Johnson, et al., 2011 pp. 168-183) and is the one on which the first part of this chapter deals with. The second one, corresponding to the second part of this chapter is the dimensions of organisational culture supported by Geert Hofstede, and which was introduced in the pre-analysis. All two, see the organisational culture as the glue holding all parts of the organisation together.

## 5.1. CULTURAL WEB OF AN ORGANISATION

Based on the vision of culture from (Schein, 2004) who sees culture as the values, beliefs, behaviours and taken-for-granted-assumptions (paradigm) of a group, (Johnson, et al., 2011 p. 176) proposes the use of a model, called the cultural web of the organisation. This model presented on FIGURE 23 can be used when analysing culture within an organisation (which is as explained not possible in this project).



*FIGURE 23 CULTURAL WEB OF AN ORGANISATION (JOHNSON, ET AL., 2011)*

Despite paradigm which corresponds to the most fundamental aspect of the company (building for a contractor or doing good actions for a charity) and which is the basis of the culture web model, the following aspects also are considered as part of the culture:

- Stories
- Symbols
- Rituals and Routines
- Control systems
- Organisational structure
- Power structure

Even though the model is a bit different than the definition of culture of Hofstede used largely in this report, it can be noticed that many of the aspects are quite well related. Stories, symbols, ritual fit well with the definition of culture of Hofstede, power structure fits well with the power-distance dimension of this same

professor. The advantage of looking at “Johnson’s model” of the cultural web of an organisation is that it gives a picture less abstract of what is organisational culture. The different aspects are briefly defined hereafter:

- Routines are what is happening in the organisation, every working day, repetitively. The way things work, the processes for approval are part of the routines
- Rituals are things happening carrying a special importance like promoting after good achievements, training employees at new skills, etc.
- Symbols are the material or non-material elements which characterise the organisation in its functioning, and to which employee refer. It can be job titles (or absence of titles), the level of formality, places, logo, motto and more.
- Power structure defines the way power is shared and used in the organisation. Who holds power? To which extent? How is it used? Those are questions defining the power structure.
- Stories are the telling about events lived by the employees, common in their memory that they share between them or with outsiders, and which have a meaning for the history of the company. It could be past successes or difficulties of the company, social events or else.
- Organisational structures are linked to the power structures, because it corresponds (as the name suggests) to the way the organisation is structured, the positions, roles and responsibilities of all employees.
- Control systems is also rather transparent, since it represents the ways and procedures to check and reward the work. Setting bonuses, setting competitions or goals are part of it, and are made to support and make sure that the objectives set by the company will be reached.

When starting an organisation, stories, rituals, routines are not existing yet. Symbols can be partly set beforehand, like for the “values” of the organisation, the logo, the motto if there are some. Some others will be set along the life of the company. On the other hand, some of the aspects of the organisational culture according to the writers of *Exploring Strategy* (Johnson, et al., 2011), can already be set with the creation of the company. Indeed, the control systems, the organisational structures and the power structures are things that can be decided and set from the beginning.

If this is applied to the case of the creation of a joint venture between a Danish and a French contractor, managers could use this model in the reverse way for which it has been designed for. The model is made to analyse an existing structure to make better decisions about the way to manage, and to help to establish a realistic strategy (strategy connected to the abilities and identity of the company). Managers of the consortium, while creating the structure, could use this model to adapt the power structures, organisation structures and other aspects to the ambitions they have of the venture.

## 5.2. CULTURAL DIMENSIONS: WHAT CAN BE EXPECTED IN THE JOINT VENTURE?

Forgetting the previous part, we can now look with a new angle at the organisational culture: the dimensions of Hofstede. If we assume that the culture that will be in the joint venture formed of both a Danish and a French contractor would be some kind of merging of the organizational culture in both companies, it would be relevant to study what they are. An in-depth study of the two organisations could be then performed on the same model than the one the IRIC (Institute for Research on Intercultural Cooperation study) conducted in the Danish and Dutch companies in the Eighties and presented briefly in the same part 2.1.2. . Nevertheless, it would be difficult to assess what part of the organisational culture is taken from which company. Understanding the organisational culture of each company would possibly help to understand the behaviour of the employees that will take part of the project and help to adapt the way of managing the teams. But thinking that the two cultures merging into one is not understanding organisational culture. As a reminder, whatever the model taken as referenced, the one of Hofstede, of the one of Schein, culture is always containing level more or less superficial, and a level deeply rooted in the mentality of people. Even organisational culture, which is kind of an additive to national culture and is supposed to be superficial compared to national culture, has roots in the history of the company, from the moment it has been created. So since parts of the two organisations forming the consortium are merging

into a wholly new one, with people who can come from different parts of the two organizations, this model of merging culture cannot be applied. The reality might be more complicated than this.

Of course, we can expect that the organisational culture of both parties of the joint venture shaped the employees and could have an influence on the organisational culture of the new organisation. But it is not possible to know to what extent. It is therefore assumed that a new organisation culture would be created, resulting from the needs of the building site itself, from the leaders of the venture, from the parties forming the consortium, from the works to perform and from the employees themselves. But in order to get to understand a bit clearer how could be the joint venture, this section endeavours to define the organization type of the consortium, for each of the organisational culture dimensions presented in the pre-analysis, from the researches lead by IRIC. This will only give a part of the organisational culture, the ways of working. It is indeed not possible to define what would be the heroes, rituals for instance.

- process oriented versus results oriented:

Depending on the kind of works the consortium would have to perform the partnership can be of both kind, process like result oriented. Like for the example given earlier with Novo Nordisk, some works require great application and always exact same results, which means that in this case process oriented is the form the organisation should take. In the case of a joint venture with contracting companies, the principle is exactly the same. For instance, the consortium Femern Link Contractors (FLC) which is the preferred consortium for the Fehmarn Belt project between Lolland and Fehmarn, and which consists of a Danish and a French contractor among others, is appointed for negotiations for different kind of works. (Femern, 2016) Among those, they could be conducting the following contracts: Immersed tunnel and tunnel factory, and Portals and ramps. In the case of the immersed tunnel (with prefabricated tunnel elements assembled), the culture might be more process oriented, since the works are potential dangerous, and need to be executed perfectly, without problems. On the other hand, in the case of portals and ramps, which are more common type of works, the culture might be more result oriented.

- employee oriented versus job oriented:

As assumed in the previous chapter, section 4.2.2. , employees which might participate to this kind of project are most-likely far from home, working in unusual conditions. They will probably have longer days, and be working harder than they are used to, or at least on a different rhythm. Moreover, the organisation of a consortium is temporary, with employees from different countries. Their definition of working conditions, and their expectations are not the same. Furthermore, this kind of infrastructure projects are expensive and complicated. Thus, the main goal of the venture is to get the tasks done well and fast. The personal flourishing of a person on this kind of project is different. The priority is not really the work-life balance. Therefore, it can be assumed that the culture will be more job oriented.

- professional versus parochial:

When sending some staff sometimes far, and for risky contracts, an employer needs to be as sure as possible that the employee is able to handle the tasks assigned of course, but that the employee will also be able to handle difficult situation, maybe more stressful, where other skills than the usual professional skills might be needed. By this is meant human and social skills. Since not only the professional aspects of the employees are important to carry out the project satisfyingly, it is assumed that the culture of the new organisation will be parochial.

- open versus closed:

Since the organisation is just created, all employees arrive in the new company as new comers. After that, the project and the organisation are just temporary. During the different phases, the need in staff might change a lot and as noticed earlier in this report, some employees might be coming and going more often than in the type of organisations of manufacturing companies for instance. Employees come from different countries, and all in the same case, living an international experience. In this kind of environment, the people open up more easily. For these reasons, the culture is expected to be open, and not at all closed.

- loose versus tight:

This aspect of organisational culture has already been answered earlier in the part 4.2.1. about the WAYS OF ORGANIZING. And in the previous section about open versus closed culture. The organization on a building site being expected to change regularly, combined with the fact that the organisation has to be started from scratch and that many people with many different kind of jobs interact on site, makes the structure is supposed to be flexible, not formal and therefore the culture quite loose.

- normative versus pragmatic

For the exact same reasons that the organisation culture is could be process oriented or result oriented depending on the kind of works, the culture will be normative or pragmatic also depending on those works. If pernicky tasks constitute the works to be done, the culture will probably be more normative to ensure a quality of the products and performance of suppliers for example. On the other hand, if usual and non-complicated works are to be done, the culture will be pragmatic.

From this way of seeing organisational culture has been assessed for each dimensions how the organisation is likely to be. To summarize these aspect of organizational culture, it is expected that the consortium would be as follows on FIGURE 24, depending on the kind of works.

TYPE OF WORKS	CULTURE					
	Process oriented	Job oriented	Parochial	Open	Loose	Normative
Fastidious, complicated or risky works						
Common construction works	Result oriented	Job Oriented	Parochial	Open	Loose	Pragmatic

FIGURE 24 ORGANISATIONAL CULTURE, DEPENDING ON THE TYPE OF WORKS



## CONCLUSION

The different parts of studies in this report presented the two aspects of culture that were selected in the pre-analysis, according to their relevance in the construction industry. Before the main analysis, by studying what culture is, it has been possible to understand how it could affect a company and in which kind of organisation it would have the supposed biggest effect, and namely in a joint venture. Because of the principle of equality in power, culture is most critical in a joint venture than in an organisation with main contractor and sub-contractors. This was chosen because it was supposed to highlight the different problems that cultural differences would bring.

The main analysis and more particularly the analysis of national culture showed by the analysis of the cultural dimensions that even if the national culture in France and in Denmark might be really different in symbols, heroes and rituals, the deep values are for most not fundamentally different. The two countries are nearly as individualistic, and short term oriented. Of course, Denmark is a country more oriented towards femininity than France, and with an uncertainty avoidance and a power distance much lower, but these differences were not assessed to have many consequences in the organisation. The only real potential problem due to cultural differences is the way to solve disagreements and take decisions. Taking as example two other countries with more different cultures, could have highlighted more problems and more interesting problems. Because of the limitation of the study to a special case (the joint venture), it has been seen that both parties share the same interest and therefore are not likely to fight for their decisions or to have profound disagreement that could not be solved easily. Therefore, despite what was believed when making the limitation, the frame of the joint venture wasn't probably the case where cultural differences would have the biggest impact. A relation contractor and sub-contractor, where interest are different, would be the theatre of more suborned behaviours and therefore culture would be having more effect. This could be an interesting way to challenge this project, giving an other perspective to the problem of culture.

However, taken into account the fact that both parties in the joint venture cooperate to the same goal with the same interests, it is assessed that cultural difference within the joint venture could be overcome by making sure that employee working there is open-minded enough and most of all informed about the culture of the other. When a behaviour is understood, it is much easier to deal with it. In addition to the results of the existing studies about culture like the one used for this project, culture could be presented

to employees by several means and documentation. An effective way to present culture and a country is by the mean of a PESTEL analysis. In order to go a bit further than the conclusion reached in this report, this is explained in the appendix.

The second part of the main analysis highlights that culture proper to an organisation is important to take into account when making strategic decisions, but that organisational culture takes time to create. It depends on the kind of works, and on the history of the organisation. The joint venture being hypothetical, it is not possible to study organisational culture within it. Nevertheless, some aspects of the organisational culture could be predicted. Since the culture has been assessed to depend on the type of works, the organisation has been deducted to be job-oriented, parochial, open and loose whatever happens. In addition to it, it would also be process oriented and normative if the works are complicated and risky, or result oriented and pragmatic if the works are common construction works.

Knowing this, the managers could build the power structures, organisation structures and other aspects of organisational culture to the ambitions they have for the consortium.

To finish this conclusion, this project has been really polyvalent in the kind of knowledge it mixed. Courses used from every semester have been used, such as strategy, law, problem based learning, management of the construction process. These topics have been widened and put in a total different perspective than in class, and have been widened by culture, and therefore sociology and anthropology. It allowed also to use the personal insight from both countries, and personal as well as professional experiences.

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## TABLE OF FIGURES

FIGURE 1 LEVELS OF UNIQUENESS OF MENTAL PROGRAMMING .....	15
FIGURE 2 MANIFESTATIONS OF CULTURE AT DIFFERENT LEVELS OF DEPTH .....	17
FIGURE 3 CULTURAL DIMENSIONS: PROTOTYPICAL STRUCTURE (Schwartz, 2006 p. 142) .....	24
FIGURE 4 VALUES OF BIGGEST CONTRACTORS IN FRANCE AND IN DENMARK .....	27
FIGURE 5 EXAMPLE OF QUESTION OF THE IRIC STUDY .....	29
FIGURE 6 ASSESSMENT OF THE INTEREST AND POWER OF THE STAKEHOLDERS ON A SUCCESS OF THE PROJECT WITH CULTURAL POINT OF VIEW .....	40
FIGURE 7 POWER-INTEREST MATRIX MAPPING THE STAKEHOLDERS CONCERNING CULTURE PROBLEMS WITHIN THE JOINT VENTURE .....	41
FIGURE 8 PROBLEM TREE .....	45
FIGURE 9 OBJECTIVE TREE.....	47
FIGURE 10 POWER DISTANCE INDEX VALUES PER COUNTRY (Hofstede, 2001 p. 87) (Hofstede, et al., 2005 p. 43;44) .....	50
FIGURE 11 POWER DISTANCE: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY.....	52
FIGURE 12 UNCERTAINTY AVOIDANCE INDEX VALUES PER COUNTRY (Hofstede, 2001 p. 151) (Hofstede, et al., 2005 p. 168;169).....	53
FIGURE 13 UNCERTAINTY AVOIDANCE: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY .....	55
FIGURE 14 INDIVIDUALISM INDEX VALUES PER COUNTRY (Hofstede, 2001 p. 215) (Hofstede, et al., 2005 p. 78;79) .....	56
FIGURE 15 INDIVIDUALISM: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY.....	58
FIGURE 16 MASCULINITY INDEX VALUES PER COUNTRY (Hofstede, 2001 p. 286) (Hofstede, et al., 2005 p. 120;121) .....	59

FIGURE 17 MASCULINITY VS FEMININITY: IDENTIKIT OF A DANISH AND A FRENCH CONTRATING COMPANY .....	61
FIGURE 18 LONG TERM ORIENTATION VALUES PER COUNTRY (Hofstede, 2001 p. 356) (Hofstede, et al., 2005 p. 211) .....	62
FIGURE 19 LONG-TERM ORIENTATION: IDENTIKIT OF A DANISH AND A FRENCH CONTRACTING COMPANY .....	64
FIGURE 20 EXPECTED DIFFERENCES IN DANISH AND FRENCH COMPANIES.....	66
FIGURE 21 TYPES OF STRATEGIES FOR INTERCULTURAL INTERACTIONS (Moore, et al., 2010 p. 64).....	71
FIGURE 22 DISPUTE RESOLUTION SYSTEM (Moore, et al., 2010 p. 403) .....	73
FIGURE 23 CULTURAL WEB OF AN ORGANISATION (Johnson, et al., 2011) .....	75
FIGURE 24 ORGANISATIONAL CULTURE, DEPENDING ON THE TYPE OF WORKS .....	80

APPENDIX

### *PESTEL ANALYSIS AS A TOOL TO OVERCOME CULTURAL DIFFERENCES*

As suggested in the conclusion of this report, giving each company forming the consortium enough information about the culture of each other can be beneficial in the effort of overcoming cultural differences. One of the way of doing so would be to give a PESTEL analysis. PESTEL is the acronym of different factors as known as Politic, Economic, Social and demographic, Technologic, Environment and Legislative. PESTEL is to consider as a simple check-list of factors, and is not a fancy and complicated method. It helps simply to organise interesting information. The different elements of each factor are summarized on the picture next page. Such an analysis can be conducted with any kind of depth depending on the need and expectations of what it has to be used for afterwards. For example, one could write full books about how is the political system in France or Denmark. Not everything in a PESTEL analysis would be related directly to culture. But it illustrates well consequences and manifestations of culture in the countries' systems. Moreover, knowing the country and its situation can help understanding the culture, and vice versa. Here, a full analysis is not performed, but only the political factor is detailed, to show the relevance of this kind of analysis for the topic of this project. Elements of the political factors are easily comparable to the findings of the main analysis of the national culture in the report.

FACTORS	ELEMENTS INCLUDED	
Politics	<ul style="list-style-type: none"> <li>- Political system</li> <li>- Administration</li> </ul>	<ul style="list-style-type: none"> <li>- Trade Unions</li> <li>- Corruption</li> </ul>
Economy	<ul style="list-style-type: none"> <li>- Unemployment</li> <li>- Growth</li> <li>- Inflation</li> </ul>	<ul style="list-style-type: none"> <li>- Public debt</li> <li>- Economic freedom</li> <li>- Kind of industries</li> </ul>
Social and demographics	<ul style="list-style-type: none"> <li>- Population trends</li> <li>- Education</li> <li>- Unemployment benefit</li> <li>- Healthcare system</li> </ul>	<ul style="list-style-type: none"> <li>- Wages</li> <li>- Household debt</li> <li>- Security feeling</li> <li>- Satisfaction with the system</li> </ul>
Technology	<ul style="list-style-type: none"> <li>- Innovation</li> </ul>	<ul style="list-style-type: none"> <li>- general situation</li> </ul>
Environment	<ul style="list-style-type: none"> <li>- Trends</li> <li>- Environmental regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Energy saving situation</li> </ul>
Legislation	<ul style="list-style-type: none"> <li>- Legislation system</li> <li>- Standard documents</li> </ul>	<ul style="list-style-type: none"> <li>- Basic legal acts</li> </ul>

*ELEMENTS INCLUDED IN PESTEL ANALYSIS*

**POLITICAL FACTOR IN DENMARK**

The Political factor is one of the PESTEL topic which is the most related to culture. It is indeed typically the result of history and fits quite well to the value (not necessarily moral, but cultural) the people have.

Denmark is a constitutional monarchy, with Lutheran Christianity as state religion, where the Queen has no political power, despite few political roles. The Constitutional Act from 1849 defines the role of the Queen and is the base of all other laws of the country. It guarantees the separation of powers independently between the Parliament, the government and the courts. The judicial power is separated from the other powers. The members of the Parliament are elected by direct elections with universal suffrage every fourth year. Resulting from these General Elections, the person getting the support of the majority of the Parliament is appointed as Prime Minister by the Queen, and then forms the government. It allows the government to have the support of the majority of the parliament to facilitate its action. The Parliament has for role to vote the laws, and check the action of the government. Denmark is a land with a

large variety of political parties with many opinion, and were the creation of alliances is necessary for creating a winning bloc for the elections. All these opinions gathering for forming a majority can be seen as the results of a culture of consensus in Denmark. Denmark is administrated at a local level by municipalities and regions, for which the councils are elected every fourth year at the time of local elections with universal suffrage. In addition to country politics, Denmark is part of the European Union but keeps its own currency.

The country is counting many and powerful trade unions, organized for many by sectors. Around two-third of Danish Employees are member of a union. These unions, if they compete a bit for membership, usually get along well together. (Worker Participation, 2014) Unions are a big part of the Danish culture. Their power is used in collective negotiation every third year (Worker Participation, 2014) with employers in which the public powers do not generally interfere. Fruit of conflicts mainly from 1899 to 1908, the rules and laws still apply today, fitting to the reality of nowadays. These regulations inherited from history and Danish tradition are based on consensus (Daniel, 2003).

Denmark is the less corrupted country in the world according to (Transparency International, 2015). The organisation Transparency International ranks every year countries in the world (168 in 2015), and Denmark is always among the best.

Danes are attached to their Queen and Royal family, since one reference person is representing and federating the country over decades, whatever the changes in the political life are. It is also part of the traditions which Danes appreciate, with the Queen's speech for New Years for example.

#### POLITICAL FACTOR IN FRANCE

After analysing all the factors for Denmark, the same analysis is made for France in this section.

France is a democratic republic, laic, indivisible and social. The political life and all political institutions in France are based on the Constitution from 1958 (French Constitution, 1958). This Constitution takes itself attachment in the Declaration of the Rights of Man and of the Citizen from 1789, the Preamble to the constitution of 1946 and the Charter for the Environment from 2004. The Rights of Man are taken as reference very often in the political life. It symbolizes for the French the abolition of the French monarchy and the feudalistic society. It is the basis of the French motto Liberty, Equality and Fraternity, who also plays an important role in France, taught to children from youngest age, being a real value of the French Republic.

The Constitution is making the political situation stable in France by the way it is built, since it was actually made to answer the political instability from after the second world war in the country. Generally, the political life in France is strongly related to the history of the country. (The Guardian, 2003) The country respects the separation of the three powers: executive, legislative and judicial.

There is a president elected by direct elections universal suffrage every five years, appointing his prime minister. They together appoint ministers. The president can change prime minister and government when he wants, usually in period of contestation from the people. Altogether, they represent the executive power. The power of the president is strong and so is the one of the executive power in general. This strength of the executive makes France a rather interventionist country. For example, the government has a lot of influence on the economy, the social matter and more. It can be like for social conflicts with big companies, especially since many of the big companies are partly state owned. The government priorities also the calendar of law voting at the parliament depending on its political priorities. However, the legislative power is held by the National Assembly (low chamber of the parliament) and the senate (high chamber) together. The deputies of the national assembly are elected every five years by direct universal suffrage, few weeks or months after the president, to allow him to have the support of a majority at the parliament. The senators are elected by indirect universal suffrage every six years. Elections happen every third year, replacing half of the senate. The Judicial power is held by the different independent institutions. It will be developed in the Legal factors later in the report, together with the legislative power.

Despite two or three main political parties, many small political parties exist, with radically different opinions, from communist parties to nationalist parties. This variety can sometimes play a role in some elections, since alliances with the middle parties can change the balance. However, the government has been of only two different parties since the constitution was adopted. The political life is based on a constant hard conflict between majority at the parliament with the government, and the opposition (The Guardian, 2003).

Labour unions are really political in France, nearly always far-left orientated and often Marxist. Unions in France are competing for membership and are so rivals, and are also based on contestation. (Worker Participation, 2014) Despite the fact that only eight percent of the active population is part of a union (Visser, 2015), labour unions enjoy a high power thanks to many demonstrations, strikes and blocking. They are much stronger in the public sector than in the private sector. Negotiations between employers and

employees do not always lead to agreements, and are often fruitless because of the fact that none of the parties is satisfied of a consensus.

France is not a particularly corrupted country, but is not as clean in that matter as Denmark is. On the same ranking as used for Denmark previously in this report, France is Ranked 23<sup>rd</sup> less corrupted country in the world, out of 168 countries checked. (Transparency International, 2015)

The country is member of the European Union without reserves, since 1958.

Finally, concerning the local political life, French administration is organized in municipalities, departments and regions. The municipal- , departmental- , and regional- councils are all elected by direct universal suffrage every sixth year.