

42705

Knowledge based Entrepreneurship

Group 1

Business plan for

EMPC - Engineering Man Power and Consultancy ApS

Supplying Man Power and Consultancy to Danish Consultant Engineers

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1 Executive Summary

EMPC (Engineering Man Power and Consultancy ApS) will provide all the outsourcing services for assisting our Danish engineering consultancy clients to deliver their civil engineering projects in dues time while maximising their profitability.

Business description

The pain. Due to a shortage of engineers, Danish engineering consultancy companies are constrained to turn down work. These companies are currently short of more than 1000 engineers, resulting in loss of income of 500 - 700 MDKK every year. The need for engineering workforce applies to many sectors such as civil, structural, environmental, mechanical, water and electrical engineering.

The solution. EMPC will provide Danish engineering consultancy the opportunity to outsource design and drafting tasks for engineering purposes in China in order to address the critical shortage of highly skilled engineers at very competitive costs to our clients (Chinese engineers are paid 14 DKK / h, Danish engineers are paid 250 DKK / h).

Value Chain. EMPC will add value to our clients by facilitating outsourcing services such as the identification of relevant skill force, provision of outsourcing contracts, liability and risk assessment, and quality control of deliverables between the client and the outsourced resources.

Success factor. The decision from our clients to use our services will primary be based on our ability to deliver cost-effective services on time and budget with strict and agreed quality control.

Competitive edge. We believe that EMPC has a strong competitive advantage summarised in the following key points:

- First mover advantage
- Consultancy experience
- Multidisciplinary and multicultural team in all major engineering sectors
- Identification of the needs directly from our future clients
- Identification of reputable Chinese consultancies
- Strong international reputation of DTU (University of the core management team)
- Implementation of our Corporate Social Responsibility policy to ensure high business ethics

Management Team. EMPC Management team is small and comprehensive and will be well suited for high business performance and profit growth due to its unique complementarities, multidisciplinary and multicultural background.

Market Analysis

Our market analysis confirmed the market needs for outsourcing engineering tasks in the construction sector in Denmark. The key aspects of the analysis indicate that:

- There is growing construction need in Denmark, leading to a strong demand for highly skilled workforce.
- There is a clear shortage of workforce available in Denmark. This shortage is likely to increase with time according to prediction.

- We have identified strong opportunities that will be capitalised by our innovative, multidisciplinary and multicultural core team.
- We have identified a market niche that will enable us to address effectively competition by targeting small and medium size companies.

Operating Strategies

Our operating strategy is summarised in the following points:

- Regular communication and feedback with our clients and our outsourced workforce
- Day-to-day project management to keep the projects on-time, budgets and required quality.
- Incremental growth of our business through strategic hires
- Achieve excellence and efficiency by addressing cultural dynamics, project structures, communication and quality (appointing a Chinese engineer (Long Zhang)).

Financial Projections

The table below provides a 5-year earning outlook for our business model. Due to a low need for investments the earnings and cash flow is positive from the first year.

(x1000 Kr)	2008	2009	2010	2011	2012
Profit & Loss	1.131	1.131	4.269	4.269	4.077
Cash, end year	3.253	6.081	17.855	28.527	38.719
Investments	125	0	0	0	0
Loans	0	0	0	0	0

Business Risks

The main business risks are indicated below

- **Quality Assurance:** addressed by a robust quality control and feedback between our clients, EMPC and our outsourced staff.
- **Cultural differences:** EMPC will facilitate the communication between the different parties and minimize the cultural barriers.
- **Meeting client expectations:** EMPC staff have “hands-on” experience in a range of engineering fields.
- **Suitable liability assessment:** EMPC will facilitate, negotiate and suggest the most suitable and acceptable claim levels for both parties.
- **Competition:** A swot a competition analyses are addressed in this business plan.

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2 Business Description

2.1 The Pain

Due to lack of engineers, Danish engineering consultancy companies are forced to turn down work or give up participating in public tenders. The Danish consulting engineering companies need more than 1000 engineers resulting in loss of income of 500 - 700 MDKK every year. The required engineers are civil, structural, environmental, mechanical, water and electrical engineers. By taking advantage of this lack of engineers, we will provide Danish consultancy companies the opportunity to have some of their design and drafting jobs done in China. We can supply the work force needed at a barging price e.g. Chinese engineers are paid 14 DKK / h - Danish engineers are paid 250 DKK / h.

2.2 The Service

Our product portfolio is divided into two categories:

- Fixed price projects
- Professional human resources

Fixed price projects are best suited to small and medium size projects with definite scope and clear specifications of the projects. This service is recommended when a project is apparent from its beginning to its delivery. We recommend this type of projects for clients who have detailed project specifications, timelines and budget. Fixed price projects include design, drafting, project consulting, project management, structural inspections and quantity surveying.

Advantages using our Fixed price projects services:

- Fixed price projects are high quality solutions delivered on time and on budget
- Ensures minimal modifications during the execution of the project
- Experienced professional engineers will work on the project

Professional human resources are best exploited in large projects running over months or years. We recommend this type of services for clients who wants to increase participation in public tenders, test maturity before expansion of staff or need manpower for ad hoc tasks. Typically our clients send out an in-house project engineer to our Chinese office to manage and

control the professional human resource team in China. A typical team consists of 10-12 engineers.

Professional human resources include civil/structural/mechanical/electrical engineers, IT specialists, project managers, draftsmen and quantity surveyors.

Advantages using our Professional human resources services:

- Professional engineers paid on an hourly fee will work on the project
- Our clients have maximum control over the project process
- Our clients have no employer responsibility towards the employed human resource team

2.3 Success Factors

Based on interviews with two Danish multi disciplinary engineering consulting companies, a small with 20 employees and the sixth largest in Denmark with 400 employees, the overall decision whether to use our services or not, will primary be based on our ability to deliver cost effective products on time. A critical issue for both companies was our ability to make them believe in our trustworthiness. As the director from the small company pointed out: *“There are two things in our business that I cannot buy for money: trust and time”*. Both companies state that they are interested in our idea and if they decide to use our services they would both start with a small low risk job and if we deliver a cost effective product on time they would take the chance with a larger and higher risk job. Both companies were aware that the two largest Danish consulting engineering companies, Cowi and Rambøll, are in process of establishing similar facilities as described in this document but none of the two companies in our interview have or have had plans or the resources for organising outsource services in-house.

2.4 Competitive Edge

EMPC has a strong competitive advantage summarised in the following key points:

- First mover advantage
- Consultancy experience
- Multidisciplinary and multicultural team in all major engineering sectors
- Identification of the needs directly from our future clients
- Identification of reputable Chinese consultancies
- Strong international reputation of DTU (University of the core management team)

- Implementation of our Corporate Social Responsibility policy to ensure high business ethics

First mover advantage. While Outsourcing is a well established in many sectors, we believe that no similar business models have been developed.

Consultancy experience. Our team has a good experience in the consultancy business with more than 15 years combined).

Multidisciplinary and multicultural team in all major engineering sectors. Our team is composed of staff from four countries (Denmark, China, Pakistan and France) with a very strong engineering background closely linked with the Technical University of Denmark.

Identification of the needs directly from our future clients. EMPC has already identified and interviewed a client who would be willing to use our outsourcing services. We have also already identified more 300 small and medium size companies in Denmark who would need our outsourcing services.

Identification of reputable Chinese consultancies. We have identified and communicated with a reputable multidisciplinary consultancy in China.

Strong international reputation of DTU (University of the core management team)

DTU has established a long and robust reputation at an international level. Most of the engineers working in our client companies have originated from DTU. DTU has a very strong brand of reputation and respectability.

Implementation of our Corporate Social Responsibility policy to ensure high business ethics

We can demonstrate our competitive edge by ensuring a very low outsourcing fee to our clients

2.5 The Management Team

EMPC is based in Denmark with 5 leading experts and engineers. Our company consists of highly skilled civil, environmental and biotechnology engineers with the objective to work closely with our clients from conceptual stage to project completion to achieve cost effective solutions.

Through our close links with the Technical University of Denmark we strive for technological excellence. We have an active interest in pursuing a multi-disciplinary approach to design and development by taking a proactive role to communicate with clients at all phases of the project.

Name	Expertise	Organizational Responsibilities
Mette Sanne Hansen	Strategic Simulation, Production Systems, Project Management	Marketing Manager
Emmanuel Gentil	Corporate Social Responsibility, strategy, environmental engineers	Resource Planning Manager
Long Zhang	Biotechnology, lipid technology, Chinese culture	Quality Control/ Assurance Manager
Sajjad Haider	Computational Fluid Dynamics, Quality Management, Marketing	Design and Technical Manager
Benjamin Riisgaard	Structural Design, Concrete and Steel Structures	Project Manager

Table 1. Core Management Team

The management strategy is to provide the customers with their satisfaction in the type of outsourcing services they need. Since the outsourcing projects vary in a broad spectrum of technology, skills and volumes, the management strategy and the corresponding organizational structure have been based to cope with those diversities. The company believes in a day-to-day project management and execution in order to keep the projects completed on-time and within the planned budgets. For a better performance and satisfaction of clients in the dynamic outsourcing market, the management strategy is to be adaptive to the future technical and organizational advances. This is achieved by continuous and incremental improvement in the

competitiveness and business process re-engineering to an earlier overhauling of the organizational structure and processes.

The company will also be observing the dynamics in the market demands. This will enable the company to an early assessment of the variation in types of the services required by the market clients and planning and implementing the steps necessary to be taken in order to maintain its competitiveness in the market. An example is the possible increase in demand for in-sourcing the labour work force. In that case, the company will adapt to the necessary changes in the management and organizational structure for a peak performance. However, the initial organizational structure is not based on the work force in-sourcing.

2.5.1 The Organisation

The organizational structure for the initial stage is given below. The hierarchy within the dashed area is subject to future change and adaptation based on the directions given by the steering committee.

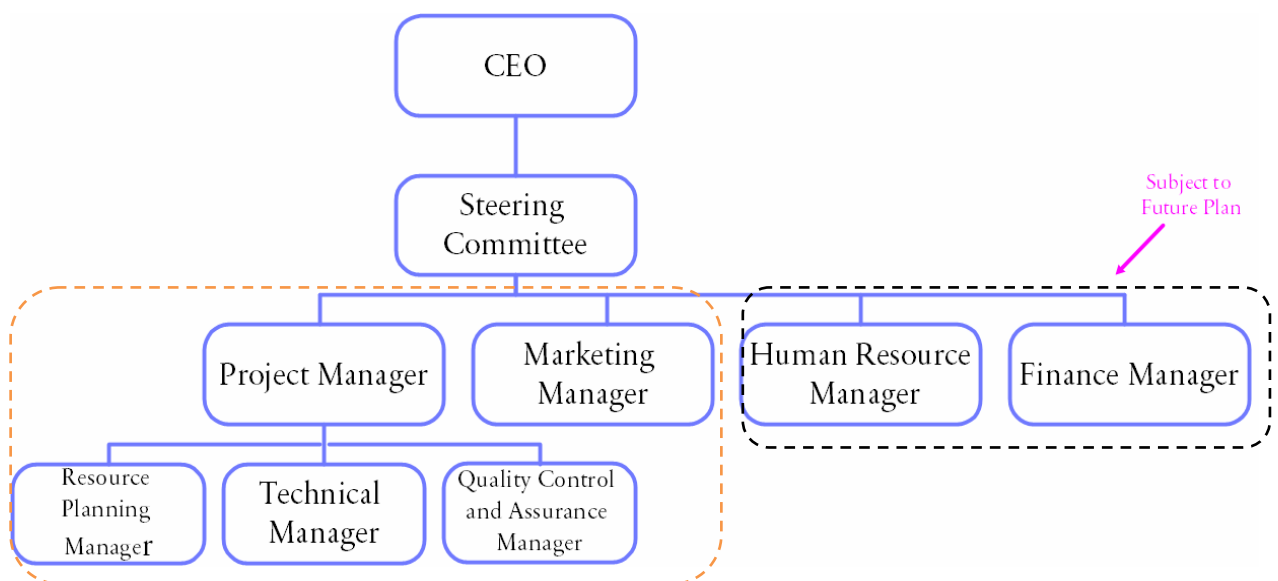


Figure 1. Organizational Structure EMPC

Chief Executive Officer: The CEO is responsible for overall management and performance activities of the company and also head of the ‘Steering Committee’.

Steering Committee: This role of this committee is planning and setting up the Marketing, operational and management strategies and structure the organizational hierarchy in order to improve the efficiency and competitiveness. The committee will work on periodic basis so as to synchronize with the dynamics of the outsourcing market.

Marketing Manager: The marketing manager deals with the sales and marketing. Analysis of the market is carried out regularly, based on the current and future trends and feedbacks from the clients. Submits reports and suggestions to the ‘steering committee’ regularly and maintains efficient and effective communication with the ‘project manger’ in order to facilitate the project management.

Project Manager: is responsible for the overall planning and execution of the projects and reports to the steering committee and in direct communication with the ‘Marketing Manager’. The project manager has a team of three sub-ordinate managers dealing with the management of projects’ resource, engineering/ technical aspects and quality control and assurance.

Resource Planning Manager: develops projects costing and billing, estimates and monitors time and expense and controls activity management.

Technical Manager: is responsible for the design and engineering aspects of the project as per technical standards considering both the client country and China. Strives to maintain the projects technical capabilities as per demands of the clients

Quality Control and Assurance Manager: ensures the quality control and assurance. Works in China where the project is to be accomplished.

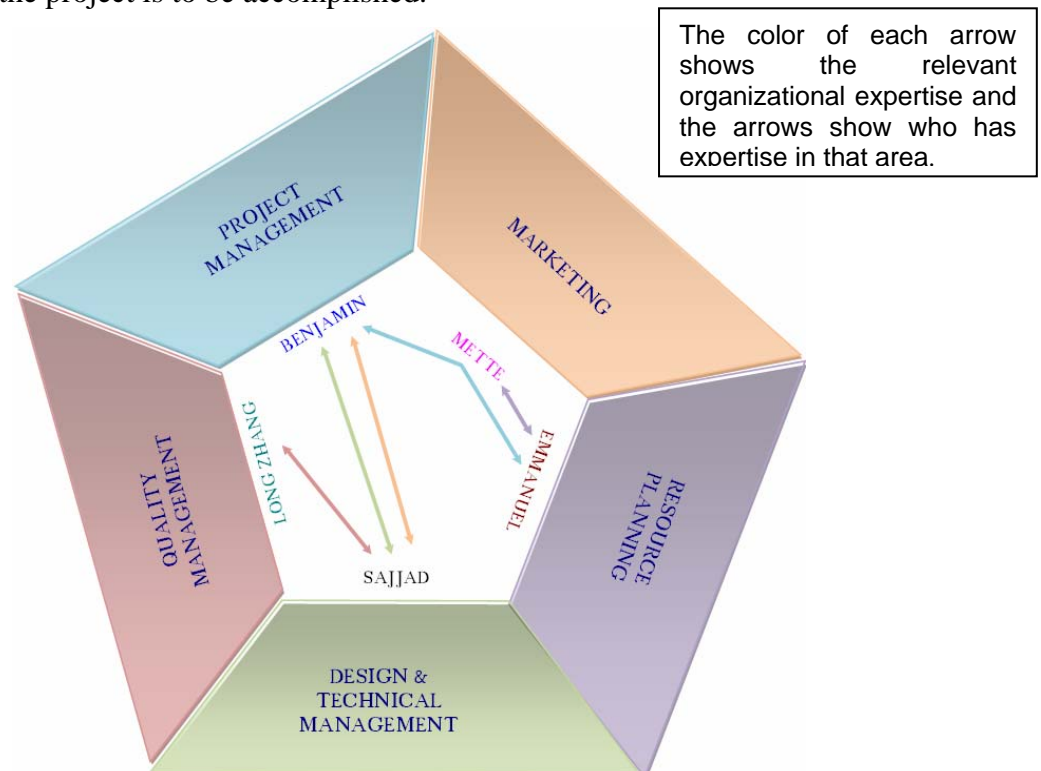


Figure 2. Key Personnel Expertise considering Organizational Structure of EMPC

2.6 Chinese Partnership

China was selected as our prime reservoir of highly skilled engineering resources for the following reasons:

Attractive economic environment. From the last 26 years, Chinese GDP increased more than 8 % every year, and the sustained economic growth of China is well known. The economic situation benefits from the stable policy and the encouragement from government. The economic environment has already attracted significant foreign investment. More than 300 companies from the largest 500 companies in the world have already invested in China.

Large resource pool of qualified engineers. Our investigation have concluded that China has very high resource of skilled engineers educated to very high standards. All the young graduates have strong English language capabilities.

Competitive engineering fees. It has been estimated that the average salary for engineering consultancy is about 2000 DKK per person per month in most of the cities except Beijing and Shanghai. In Beijing and Shanghai, the average salary for engineering consulting is around 3500 DKK per person per month.

Strong quality assurance of products and services deliverables. EMPC has identified consultancies firms in China with strong and internationally recognized quality assurance standards and policy (ISO 9001 and ISO 14001). We have also identified organizations who have already undertook some engineering projects in Europe to ensure that our Chinese partnership has a good understanding of the quality control and quality management approached requested in Europe.

Strong support of foreign investment. Foreign investment is strongly promoted by the Chinese Government. This is considered to be a strong element that will play favourably in our business model.

China International Engineering Consulting Corporation (CIECC)

www.ciecc.com.cn

EMPC has identified a Chinese Partner based on key parameters:

- Large consultancy, well established in China
- Multidisciplinary engineering skills
- Proven track records of a number of international engineering projects
- Recognised Quality Management and quality assurance standards

CIECC has been established since 1982 with its headquarter in Beijing. CIECC is a multidisciplinary engineering consulting company that has provided consultancy services in many areas including engineering design and design review, project management, investment opportunity study, cost assessment, construction supervision, etc.

As the largest and most comprehensive engineering consulting organization in China, CIECC has completed more than 9000 projects of consultancy services at all levels, with the total amount more than billion RMB 10600 (billion DKK 7852) investment involved in these projects. CIECC has provided consulting services for a large number of world famous projects, such as Gas Transmission from the West to the East, Qinghai-Tibet Railway, Shanghai International Shipping Centre, South-North Water Diversion, National Grand Theatre, Expansion of Beijing Capital Airport, Athletic Facilities for Olympic Games, etc.

We selected CIECC because it is the largest engineering consulting organization in China, and the quality of consultancy services from CIECC would meet or exceed the request of international standard. CIECC has already obtained MOODY INTERNATIONAL Certificate and the Certificate of ISO9000 since 2000. CIECC cooperated with a number of companies from other countries and therefore has established strong communication skills and tools.

Long Zhang (appointed as our main point of contact with CIECC) has contacted CIECC through E-mail and telephone to initiate and present our business model. The objective of the discussion was to assess the interest of the concept and identify whether such an organisation would be interested in such Partnership. The response from CIECC was very positive.

3 Market Analysis

3.1 Market Size and Growth

According to Dansk Industri (Confederation of Danish Industries), “The Danish labour market is dominated by a strong scarcity of labour. The unemployment is at the lowest point in 30 years, and the Danish companies are therefore forced to reject orders”.

We believe that the demand in outsourcing services is the greatest for engineering consultancy firms considered to be small to medium size. This is explained by the fact that SME have fewer resources available for in-house outsourcing activities. The employment expectations in the construction is growing (Statistics Denmark) based on recent historical evolution, however there is an expected shortage of manpower in Denmark (Flere og bedre ingeniører, 2005).

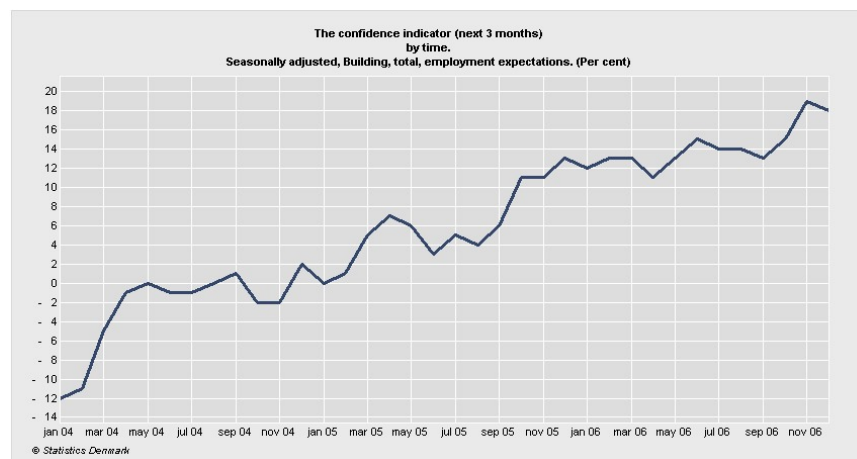
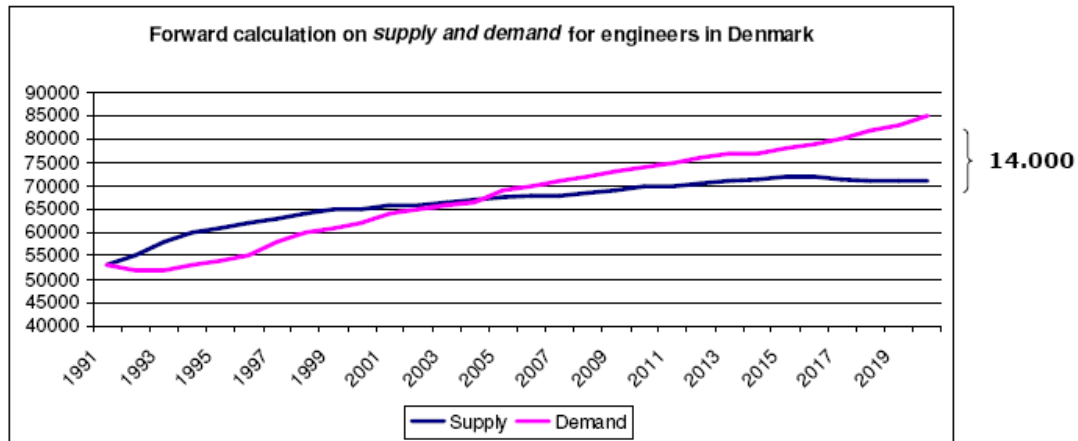


Figure 3. Employment growth between 2004 and 2006 in the construction sector (Statistics Denmark)

Forward calculations indicate a mismatch between supply and demand for engineers in Denmark. Predictions indicate, that Denmark will need 14.000 engineers in 2020 (Below Figure). (Source: VTU, Flere og bedre ingeniører, 2005)



Source: VTU, Flere og bedre ingeniører, 2005

Figure 4. Forecasted Supply and demand for engineers in Denmark

FRI (the Danish Association of Consulting Engineers) and IDA (The Danish Society of Engineers) confirmed to EMPC that the need for engineers within engineering consultancy is the highest ever. By end of June 2007 - a report will be released stating that the actual demand for consulting engineers is around 1000. In this report the actual demand is divided into both geographic regions and types of consulting engineers.

FRI is considered to include most of the engineering consulting firms as members of their association. We have identified about 350 firms which we believe could benefit from Outsourcing services.

Our Target: Approach 350 engineering consultancy firms in Denmark

The target markets are:

For the Danish Market (350 firms targeted)

Client company size: between 50 and 200 employees

Type of consultant engineers: Structural, Mechanical, Electrical, Fire, water supply, heating.

Other markets: As part of our business extension, we would consider expanding towards other engineering fields such as:

- Environment (Indoor climate, solid waste, water and waste water, soil pollution and hydrology, acoustic and noise)
- Transportation (Rails, Road and bridges, traffic planning)

- Utility and services (Sewerage, water supply, heating, oil and gas, power)
- Other services (Project management, quality and risk management, health and safety management, environmental management, process engineering, biotechnology engineering)

3.2 SWOT Analysis

We undertook a systematic review of the market situation in order to determine the strengths weaknesses, opportunities and threats of the market requirement for outsourcing and combined it with the SWOT aspects of the specific business of outsourcing. We believe this approach indicate clearly the synergetic effects between the market aspects and our business services.

	STRENGTH	WEAKNESS	
STRENGTH	<ul style="list-style-type: none"> Multicultural team International communication Strong technical capabilities Access to latest knowledge from DTU Broad skill base Can adapt quickly to change Experience in consultancy Client decision support tool Strong Quality Control 	<ul style="list-style-type: none"> Project Management Limited network of clients New market entrant Language skills other than English are scarce English can be spoken with a heavy dialect Tax expertise Contract negotiation 	WEAKNESS
THREAT	<ul style="list-style-type: none"> Student employed temporarily Existing large Civil Engineering companies Existing Outsourcing companies Opening of Danish borders to increase foreign workforce Potential competition with other outsourcing countries (New EU member States) Risk of bankrupt of the outsourced staff 	<ul style="list-style-type: none"> Growing needs in construction and engineering consultancy Growing demand from SMEs Shortage of newly graduated skilled force in Denmark Large consultancy fee differences Capitalise on time difference between China and Denmark Strong venture capital interest in investing in growth opportunity and business niche Large talent pool of skilled graduates Low cost and high education levels of staff Large number of English speakers (India, Pakistan and China) 	OPPORTUNITY
	THREAT	OPPORTUNITY	

Figure 5. SWOT Analysis of EMPC

Strength and Opportunities

The SWOT analysis is well balanced where the strengths and opportunities are stronger than the threats and weaknesses. **Our strengths are characterised by a multicultural team with a strong and multidisciplinary engineering and consultancy background, originating from**

one of the leading engineering universities in Europe (DTU). The opportunities are clear with a rapidly increasing demand in the construction sector and associated engineering consultancy. There is a clear demonstrated **difficulty to meet strong demand from the Danish engineering consultancy market**, which we have **identified as a strong business opportunity for EMPC**. Further our investigations have concluded that there is a large pool of highly skilled engineers, who can work in English. This **resource pool is ideal for meeting the needs and matching the expectations of our clients in Denmark.**

Weaknesses and threats and how to address them

We believe we should be transparent about the market situation and our business. We are confident about our innovative strengths and opportunities however we should ensure that we are aware of our internal weaknesses and external threats. As a new market entrant, we are aware of our limited access to our potential clients. However we are addressing this by targeting existing contacts who **have already established some working relationship**. Contract negotiation and senior project management skills have been identified as weaknesses. This will be addressed by **hiring the necessary key personnel**. We should also be aware of the external threats that could potentially expose our business negatively. We have identified that the **threats are mainly competitive** (competition by temporary staff and student doing internship, large consultancy organisations, ...). There is also a potential risk for our outsourced resources to become insolvent. **We will address these market threats by targeting a specific market niches; the small and medium sizes companies with up to 300 employees.** We will minimise the risk of bankruptcy by working with respected engineering consultancy business in China and the regular analysis of the financial health and economic trends in China.

3.3 Competitor Analysis

The main competitors have been categorised using the Porter's five forces model.

Bargaining power of customers. The typical customers who will have a strong bargaining power are the larger consultancies, who have the internal human and financial resources to identify external resources to complete project tasks. Our solution is to target small and medium size consultancy organisation who do not have the resources to address outsourcing directly without support.

Bargaining power of suppliers. We anticipate a relatively low level of bargaining power from our suppliers (outsourced workforce), since the provision of this type of service is innovative in this construction sector. There are lot of big consulting companies with high quality and low price service in China. So Chinese company has very limited bargaining power.

The threat of new entrants. The threat of new entrants is potentially significant. We are planning to address this threat by providing exclusive added value services to our clients such as our proprietary resource risk assessment tool and the provision of an integrated service based on our engineering background.

The threat of substitute services. The potential threat of substitute services can be expected if for example Company China takes the decision to use its engineering workforce to work directly with our customers or to tender directly for European based projects. We are planning to address this threat by providing an integrated interface between our clients and our suppliers to ensure that the outsourcing service is considered to be essential in the short to medium term (6 years) and guarantee a high level of quality with an appropriate professional liability premium on the based of shared risk approach.

The intensity of competition. We are perfectly aware that a significant number of organisations have developed strong outsourcing services capabilities for a number of years. However our research has indicated that the intensity of competition is non-existent in Denmark in the field of civil and environmental engineering outsourcing. We therefore strongly believe that the provision of these new services will be carried out with a low competition threat.

4 Operating Strategy

EMPC overall strategy is based on a continuous improvement process of setting objectives, measuring results, and providing feedback to facilitate further growth and progress.

EMPC plan is to rapidly develop marketing alliances with industry leaders and pursue new sales of its services to the global civil engineering arena. The market strategy is to capitalize on Civil Engineering alliances by securing contracts with both private & public sector in the European market.

EMPC has adopted a corporate strategy that is dedicated to improving the performance of activities on the critical path of its customers' projects. The company does this by building on its core strengths, innovative, design engineering expertise, and project and site management, within an environment of safety excellence.

In order to address our client concerns for using outsourcing services, we have obtained key responses from the Outsourcing Institute based in the USA, as summarised in Appendix 2.

5 Financial Analysis

The financial projections are quite encouraging. The growth in need of Danish engineers together with the man power available in China provide a unique, yet short window of opportunity for us to be a first mover. The following sections provide a synopsis of the financial outlook for the business.

5.1 Financial Plan

The table below provides a 5-year earning outlook for our business. Due to a low need for investments the earnings and cash flow is positive from the first year.

(Unit, 1000Kkr)	2008	2009	2010	2011	2012
Profit & Loss	1.131	1.131	4.269	4.269	4.077
Cash, end year	3.253	6.081	17.855	28.527	38.719
Investments	125	0	0	0	0
Loans	0	0	0	0	0

Table 2. EMPC 5 year earnings outlook

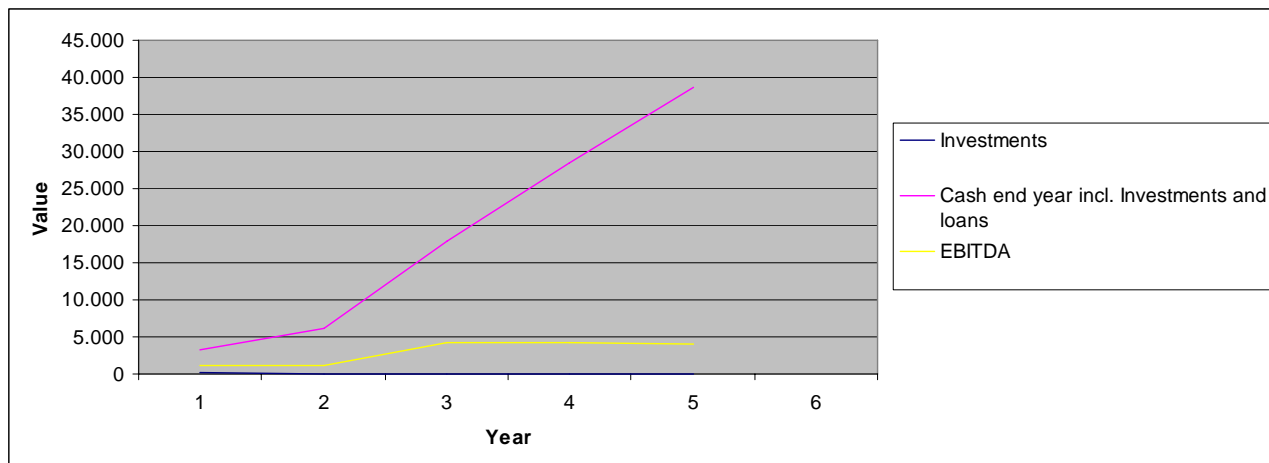


Figure 6. Cash flow and EBITDA for EMPC

Table 5.2 shows the cash flow on a yearly basis for the next 5 years. There is cash in hand as we assume that we are making a test case the first 2 years where we are all still PhD students, and therefore we get our own salary from DTU, we already have computers and we have our current offices and homes to work from. It is not until 2 years after kick-off that we will get salaries from the company and that we need an office and computers.

DKK 1000	2008	2009	2010	2011	2012	
Item						
CASH IN						
From sales of engineers	4.800,00	4.800,00	24.000,00	24.000,00	24.000,00	
Investment funding team	125,00	0,00	0,00	0,00	0,00	
From investor A	0,00	0,00	0,00	0,00	0,00	
From investor B	0,00	0,00	0,00	0,00	0,00	
From investor C	0,00	0,00	0,00	0,00	0,00	
CASH IN	0,00	4.925,00	4.800,00	24.000,00	24.000,00	24.000,00
CASH OUT						
Salaries	1.600,00	1.600,00	12.320,00	12.320,00	13.400,00	
Rent	18,00	18,00	27,00	27,00	27,00	
Consultancy	0,00	0,00	0,00	0,00	0,00	
Travels	75,00	75,00	75,00	75,00	75,00	
Equipment	0,00	0,00	48,85	0,00	0,00	
Initial investments	0,00	0,00	61,06			
Other	0,00	0,00	0,00	0,00	0,00	
CASH OUT		1.693,00	1.693,00	12.531,91	12.422,00	13.502,00
VAT outgoing		0,00	0,00	12,21	0,00	0,00
VAT incoming		1.200,00	1.200,00	6.000,00	6.000,00	6.000,00

DKK 1000	2008	2009	2010	2011	2012
VAT reimbursement	0,00	-1.200,00	-1.200,00	-5.987,79	-6.000,00
	<hr/>				
CASHFLOW	4.432,00	3.107,00	16.255,88	11.590,21	10.498,00

Table 3. Expected Cash flow of EMPC

5.2 Estimates of work flow and company value

KICK OFF 2008

The founders establish a private limited company investing each DKK 25.000 DKK plus expenses setting up the company. Total kick off capital DKK 125.000

100 shares of 1250 DKK

Company Value 125.000 DKK

Kick-off	Contribution	Ownership
EMPC	125.000	100 %
Total	125.000	100 %

FIRST 2 YEARS

The kick of capital is to keep us up and running until we start having a cash flow. The first 2 years there are no salary or expenses for office etc. since we use the facilities at DTU. There will be some expenses for travelling.

An average. workflow of 10 full time Chinese engineers the first 2 years is assumed. Based on assumptions we estimate our cost price of these engineers to 100 DKK / hour. Based on interviews with two Danish companies we can expect to get paid not less than 300 DKK / hour.

NEXT 3 YEARS – 2 years after kick off

P/E of the company is set to 10

100 shares of 12.500 DKK

Company Value 1.250.000 DKK

Kick-off	Contribution	Ownership
EMPC	125.000	100 %
Total	125.000	100 %

It is now assumed that we all work full time in the company with full salary. There are expenses for office, account, travelling etc. It is assumed that another 4 Danish project managers are employed.

An average. workflow of 50 full time Chinese engineers the next 3 years is assumed. Based on assumptions we still estimate our cost price of these engineers to 100 DKK / hour. Based on interviews with two Danish companies we can expect to get paid not less than 300 DKK / hour.

6 Business Risks

Key business risks have been identified. Complementary analyses highlighting the business risks are presented in section 3.

Quality Assurance. The quality assurance of the deliverable is seen as essential in the engineering consultancy business. This will be addressed by a robust quality control and feedback between our clients, EMPC and our outsourced staff.

Cultural differences between the customers and the outsourced teams. The core staff of EMPC are multiethnic and multicultural, which will facilitate the communication between the different parties and minimize the barrier in cultural.

Communication difficulties are addressed by understanding the technical requirements of our client to ensure that the appropriate skill is utilised to address the customer's needs. EMPC staff have "hands-on" experience in a range of engineering fields.

Suitable liability assessment. Professional liability insurance premiums can be different between the outsourced team and the customer. EMPC will facilitate, negotiate and suggest the most suitable and acceptable claim levels for both parties. EMPC can suggest project-based risk management plan to ensure the most suitable non performance claim level.

Appendices

Appendix 1: Corporate Social Responsibility

EMPC is an active member of society and works with exceptional and highly skilled human resources. As such we recognise that our Corporate Social Responsibility policy is the underlying force of our business. We strongly believe that sound and demonstrable performance in relation to corporate social responsibility policies and practices is a fundamental part of our business success.

Every employee and outsourced staff have a part to play in creating customer satisfaction and employees are expected and encouraged to contribute to organisational advancement. We operate a policy of continual improvement, of both our business processes and the skills of our people, to take best advantage of advances in civil engineering practices and modern communication. This will ensure that we will continue to add value to our customers' businesses.

We recognise that people are our principal asset and the foundation of our business. Employee policies have been designed to meet the needs of our business, and follow best practice, whilst complying with local legislation where necessary. These policies encapsulate our culture and values which are then reflected in and through our people.

We are committed to ensuring that our business is conducted in all respects according to rigorous ethical, professional and legal standards.

We seek to provide our customers with a service relying on the highest levels of integrity, quality and care for all the engineering projects involving our skilled outsourced workforce.

We respect the Universal Declaration of Human Rights and seek to be guided by its provisions in the conduct of our business.

We are committed to providing a safe working environment to ensure that Health and Safety is respected

We are committed to a programme of management, continuous improvement and reporting of our direct and indirect environmental impacts

Our CSR policy will be reviewed annually to ensure that continuous improvement is monitored and reported annually to our stakeholders and also to demonstrate an increased economical, social and environmental return on investment to our shareholders.

Appendix 2: Minimising Outsource risks - Key responses from the Outsourcing Institute (USA).

Key questions have been addressed to minimise the risks of outsourcing. There are summarised in the following document

How reliable is the Outsourced company?

Ask the Outsourced company for details such as number of years in business, number of employees, financial background and so on. Get a thorough picture of the Outsourced company's history.

Does the Outsourced company provide quality products/services?

Outsourced companies need to provide solid customer references as well as emphasize the processes that are followed within their organization to ensure quality products and services. Certifications such as ISO 9000 and CMM from independent agencies are important.

What is the Life Cycle cost of the Products/Services provided?

Cost is obviously a key reason to outsource. But while choosing a service provider, make sure you look at hidden costs from maintenance, connectivity/infrastructure, training, transition etc. instead of just the obvious costs such as licensing and consulting costs.

Will the Outsourced company be able to meet delivery deadlines?

Make sure Outsourced companies promise realistic commitments taking care not to overstretch resources to a point where quality might suffer.

How safe is my data?

While addressing these data privacy related concerns, make sure your Outsourced company meets your requirements in critical areas related to infrastructure security (Firewalls, Access Controls, Data Encryption, etc) as well as those that are human resource related (Pre-Recruitment checks, Non-Disclosure agreements, etc.)

What kind of risk am I taking on with this Outsourced company?

Ensure that the Outsourced companies provide evidence of Business Continuity/Disaster Recovery plans and risk mitigation plans. These arrangements go a long way in minimizing business risk.

What are the effects of the Outsourced company's employee attrition on me?

Ensure that Outsourced companies have cross-trained employees and have maintained sufficient buffer capacity to take care of such events.

Will the Outsourced company be fair and transparent in his financial dealings with my organization?

Outsourced companys need to be fair in matters related to invoicing especially in Time and Material type of contracts. Again, check with previous client references to ensure that the Outsourced company is fair and transparent in his financial dealings.

Does the Outsourced company comply with statutory laws and regulations?

If your Outsourced company is not compliant with statutory laws, you stand a chance of being held responsible for violations of laws or regulations carried out by Outsourced companies. Increasing public scrutiny has ensured that customers are morally, if not legally, responsible for their Outsourced company's actions with respect to environmental damage, working conditions, etc. Therefore, make sure that none of the Outsourced company's actions violate established laws.

Does this Outsourced company's culture match that of our organization?

A certain degree of 'fit' must exist between the two organizations in terms of work ethics and culture for smooth interaction. The best indication of this is your Outsourced companies initial communication with you.