

**Streamlining Business Development  
Managers' and Proposal Team Members'  
Work with Acquisition of Data**

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Bachelor's Thesis

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## DEGREE THESIS

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### Abstract

This thesis is made on behalf of Wärtsilä Energy. The main objective was to create a platform with easy access and always updated data for sales projects and other data needed for business development managers and proposal team members, and on that platform responsible persons for specific topics and updated technical documents. Usually, the information for a sales project is available in the Wärtsilä's intranet but is scattered around and locations often change due to the organizational structure.

The theoretical part contains some information on what a good database and platform is, version management, and different ways of data collection to find a suitable method for the collection of data. With a focus on key parts for achieving a good database, on what to avoid and what to aim for.

The execution was done in a few steps, collection of information on the data needed from business development managers and proposal team members, then analyzing and processing the data. Collecting said data from within Wärtsilä's Intranet and creating a single platform to upload the data onto. The product is presented in the result.

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Language: English

Key Words: Data, platform, document

## EXAMENSARBETE

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Titel: Effektivisering av affärsutvecklingschefer och offertberedningsteammedlemmars arbete med datainsamling.

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### Abstrakt

Detta examensarbete är gjort på uppdrag av Wärtsilä Energy. Syftet var att skapa en plattform med enkel åtkomst och uppdaterade data för försäljningsprojekt och annan data som behövs för affärsutvecklingschefer och offertberedningsteammedlemmar, och att på den plattformen kunna hitta ansvariga personer för specifika ämnen och uppdaterade tekniska dokument. Vanligtvis finns information för försäljningsprojekt tillgängligt på Wärtsiläs intranät men den är väldigt utspridd och platserna är ofta ändrade på grund av organisationens struktur.

Teoretiska delen innehåller information om vad en bra databas och plattform är, versionshantering och olika sätt att samla in data för att hitta en lämplig metod för datainsamlingen. Med fokus på nyckeldelar hur man skapar en bra databas, vad man ska undvika och vad man ska sträva efter.

Utförandet gjordes i några steg, insamling av information om den data som behövs för affärsutvecklingschefer och offertberedningsteammedlemmar, analysering och bearbetning av den informationen. Sedan insamling av datan från Wärtsiläs intranät och skapandet av en plattform att ladda upp den insamlade datan på. Produkten presenteras i resultatet.

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Språk: engelska

Nyckelord: data, plattform, dokument

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# 1 Introduction

This chapter will provide an overview and background of this thesis, followed by the problem area and the purpose. Thereafter delimitation and the structure of the thesis to help readers better understand the paper's structure.

## 1.1 Background

At the end of 2022 a Wärtsilä General Manager, Proposal Management was contacted about the possibility of writing a thesis in collaboration with Wärtsilä. Two meetings were held about possible theses. Then the decision was made.

The thesis is about streamlining the sales process with the collection of data, to have updated data on a single platform for the people involved during the sales process.

During a sales project, the BDM, short for business development manager is the project owner and the one responsible for the customer therefore responsible for the marketing, commercial, and legal documents and it is the proposal leader who is in charge of calculating costs and providing technical documentation, for that purpose a tool called APEX has been developed.

Usually, the costs are based on agreements with suppliers and are available, but in all projects, there are Wärtsilä deliverables that have no information in the sales costing tool APEX.

Project-specific conditions will affect what type of equipment is needed, and the challenge is to find the real expert with the updated documentation needed.

Typically the needed information for a sales project is available on Wärtsilä's intranet, but the information is very scattered, and locations often change due to the organizational structure.

This means that the BDMs and proposal team members spend a lot of time locating the correct and updated documents, which leads to lower efficiency, increases the time to make an offer which leads to a less accurate offer, there is no time to find the updated

documentation or exact cost levels due to the deadlines for offers to be submitted, and increased stress in the organization, for the BDMs and both in the proposal team and supporting functions.

The above challenges are a global issue within Wärtsilä.

## **1.2 Purpose**

The main objective was to solve or mitigate the issues described above, i.e. create a platform with easy access and always updated data for sales projects and other data needed for BDMs and proposal team members, and on that platform easy to identify the responsible person for a specific topic and updated technical documents.

As a minimum requirement, there were some points set:

- To initiate meetings with platform developers in Wärtsilä to identify the most suitable solution, including timeline and scope, etc.
- Identify the typical data missing in the APEX tool, and other needed data that are needed during a sales project.
- Identify the responsible person/team that is maintaining said document or data.
- Conduct information meetings, where responsible persons/teams are informed, about what is under development.

As an additional requirement:

- Locate and assemble the typical data and information that is scattered.
- Fully working platform, way of working agreed with experts.

These requirements will be met with qualitative research.

- A survey asking the BDMs and proposal team members what data is missing and should be collected.

- Focus groups and meetings will be held with the appropriate people to gather the correct and latest information needed for this platform.
- Secondary research will be collecting the latest data that is scattered.

Deliverables, the thesis, and a fully working platform with the correct and updated data needed for sales projects.

### **1.3 Delimitation**

This thesis was ordered on the basis to get a more effective and smooth sales process with data collected on a single platform.

This thesis's main purpose was to create a platform for the BDM's and proposal team members to streamline their work during a sales project. Not for any other departments.

### **1.4 Structure of the Thesis**

In the first chapter, the reader is given a brief introduction on the background of this thesis, problem area, purpose, and delimitation.

The second chapter briefly presents Wärtsilä's main businesses.

The third chapter goes into theory in database design, data collection, and some version management.

The fourth chapter is a brief explanation of the responsibilities of a BDM and Proposal Engineer, to underline the importance of having a good platform for retrieving documents efficiently.

The fifth chapter is about the execution of the project, and how the data was collected and processed and later created into a platform.

The sixth chapter briefly presents the result of the project.

The seventh chapter is a short discussion.

## 2 Wärtsilä

Wärtsilä started as a milling company in 1834, the branch was later changed a couple of times until 1954 when the decision was made to commence their own design of a diesel engine. In 1978 51% of the NOHAB diesel business was acquired, later the remaining shares, setting the beginning of manufacturing operations. (Wärtsilä, 2022a)

Wärtsilä today is a global leader in lifecycle solutions and innovative technologies for the energy and marine markets. Wärtsilä creates tailor-made solutions according to customer needs and places a strong emphasis on innovation in sustainable technology and services to assist their clients in constantly enhancing their economic and environmental performance. (Wärtsilä, 2022a)

Net sales totaled EUR 5.8 billion, Wärtsilä has a team of 17,500 employees operating in more than 240 locations in 79 countries. Wärtsilä is listed on Nasdaq Helsinki. (Wärtsilä, 2022a)

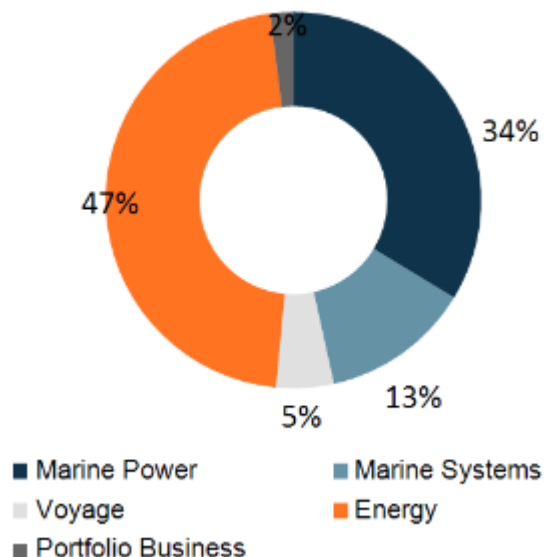


Figure 1. Net sales by business area 2022. (Wärtsilä, 2022c)

### Wärtsilä Energy

Wärtsilä Energy provides flexible solution power plants operating on different gaseous and liquid fuels to the energy market. WE lead the transition to a 100% renewable energy



future, they help their partners on their decarbonization road through market-leading technologies and expertise in power system modeling. WE's track record contains 76 GW of power plant capacity and 110 energy storage systems delivered to 180 countries around the world. (Wärtsilä, 2022b)

In the sales division, there are 51 BDMs and 35 Proposal leaders who work in the sales process, in charge of creating sales opportunities and handling proposal responses.

### **Wärtsilä Marine Power**

With its wide range of engines, digital technologies, propulsion systems, hybrid technologies, and integrated powertrain systems, Wärtsilä Marine Power supports its clients with the effectiveness, dependability, safety, and environmental performance that they require.

(Wärtsilä, 2022a)

### **Wärtsilä Marine Systems**

Wärtsilä Marine Systems provides support and high-quality products and lifetime services to customers with regard to the gas value chain, exhaust treatment, shaft line, and underwater maintenance. With a vision for a sustainable and safe future.

(Wärtsilä, 2022b)

### **Wärtsilä Portfolio Business**

In order to speed up performance improvement and unlock value through divestitures or other tactical options, Wärtsilä Portfolio Business Units are operated autonomously. Automation, Navigation and Control Systems (ANCS), Marine Electrical Systems, and Water and Waste are now included in Portfolio Business.

(Wärtsilä, 2022b)

### 3 Theory

This chapter will present the theory necessary to understand the problem, method, and result. The opening of this chapter will present A Good database, followed by Data collection and Version management.

#### 3.1 A Good Database

In the present era, we have a large amount of information available to us thanks to new information technologies. Despite this abundance, certain data remains elusive due to the lack of well-organized information. Research has become a constant in our daily lives, and it is playing a vital role in ensuring the availability of comprehensive data to enhance the quality and productivity of our work. Therefore, having a database is essential in every business: not only for easier retrieval of the information, but also to reach more users, thus, allowing the way for success. (ContentEngine, 2022)

A database is an organized collection of related tables that can be joined to provide information to users. (Cooper, 2013, p. 1)

Using modern tools, just about anyone can build a database. The question is, will the result be useful? (Stephens, 2009, p. 3)

The process of designing a database is a crucial preliminary step in any development project, and it should take place prior to initiating the coding and actual creation of the database itself. It's essential to have a clear understanding of the types of tables that need to be established before diving into the creation process. Consider the absurdity of developing a customer table without first identifying the specific customer data requirements for a company. For instance, some companies may require information about their customers' occupations, whereas others might not find this information relevant. In essence, the primary purpose of database tables is to store data that is essential for the organization's operations, ensuring effective utilization. Therefore, the precise determination of these data needs and the optimal database design to fulfill these requirements should be established before commencing the coding phase. (Cooper, 2013, p. 3)

A database is not of much use if you can't retrieve data from it consistently, reliably, and quickly. It will not be of use if it is full of incorrect data. It also will not be of use if the data is lost, stolen, or corrupted. All of these problems can be addressed by using modern tools, a good database design, and a pinch of common sense, if you have the ability to comprehend the problems to avoid them. (Stephens, 2009)

According to (Stephens, 2009) The key to comprehending the system you aim to design and construct lies in thorough customer interrogation. This process goes beyond casual conversations and involves an exhaustive exploration of customer needs. This may span days or even weeks, involving intense cross-examination, examination of existing practices, reviewing corporate documentation, and discreetly observing customers during their daily routines. Although the customers may not necessarily adore the process, a well-conducted question-and-answer session can yield a satisfying exchange of information. Dedicated customers, committed to their company, are often willing to address even the most complex queries. As Benjamin Disraeli aptly noted, "Talk to a man about himself, and he will listen for hours." Most customers are eager to share the intricacies of their business domain as long as the engagement remains tolerable.

Dos and don'ts when designing a platform according to (Basuthkar, n.d.)

### **Dos of platform layout**

1. Prioritize the use of user experience standards familiar to users.
2. Emphasize user-friendliness in your design.
3. Incorporate common design elements to enhance familiarity and usability.

When designing your platform, the key is to prioritize the user experience. Begin by implementing standard, user-friendly, and recognizable user experience practices. Ensure that your pages feature commonly used design elements to eliminate any confusion or time wasted on deciphering component meanings.

### **Don'ts of platform layout**

1. Steer clear of introducing overly complex or entirely new layouts.
2. Strike a balance and avoid an excessive focus on creativity.
3. Prevent clutter by organizing content and design elements effectively.

## Example of a bad layout design



Figure 2 (Kuharenko, 2022)

(Figure 2) above is a screenshot of bad layout design, animations, and cluttering grabbing attention making it hard to see the content. (Kuharenko, 2022)

## Example of good layout design

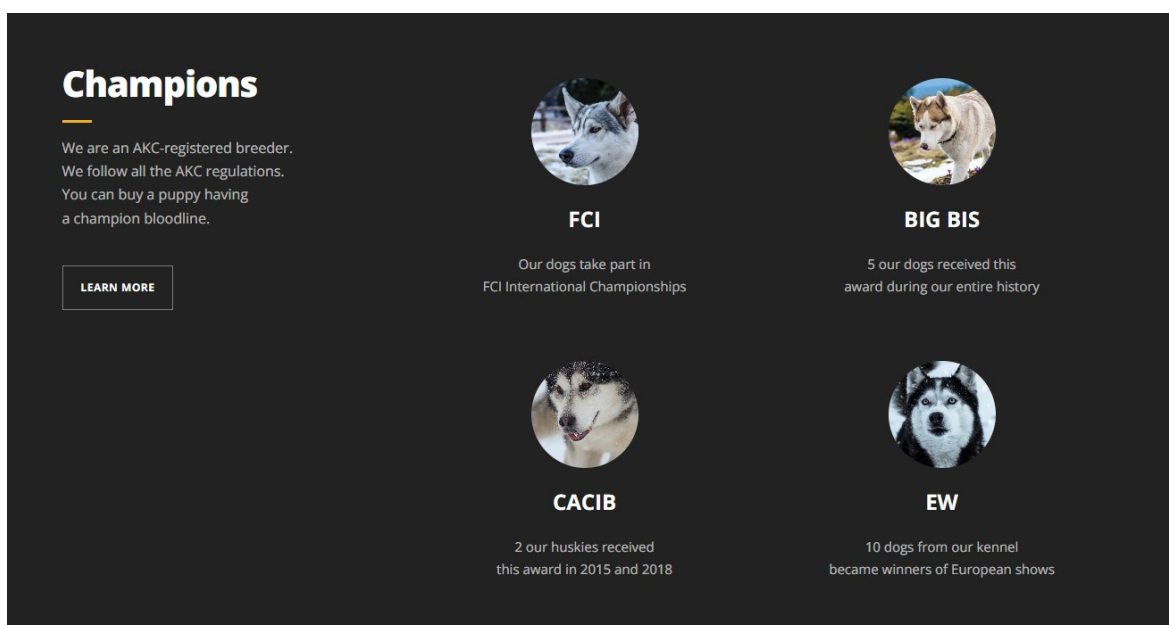


Figure 3 (Kuharenko, 2022)

In (Figure 3) above is a screenshot of good design, sections well-divided, no cluttering gaining attention, and the text is easy to read and logically distributed. (Kuharenko, 2022)

### **3.2 Version Management**

Version control or Version Management, also known as source control or revision control, is a fundamental and indispensable practice in the realm of software development. It serves as a systematic and collaborative method for managing changes to source code, documentation, and other project-related files. The primary goal of version control is to track and control alterations to a project's codebase, providing developers with a structured framework to collaborate, review, and manage the evolution of their software. (GitLab, 2023)

The "why" behind version control can be encapsulated in several key benefits. Firstly, version control enables developers to track changes to their code over time, creating a historical record of modifications. This historical trail not only aids in understanding the evolution of the project but also serves as a safety net, allowing developers to revert to earlier, stable versions in case issues arise. Additionally, version control promotes collaboration among team members by providing a central repository where developers can synchronize their work. This collaborative aspect fosters a more efficient and organized development process, minimizing conflicts and ensuring that everyone is working on the most up-to-date version of the codebase. (GitLab, 2023)

The question of "when" to use version control is straightforward virtually from the inception of a software project. From the very beginning, as code is being written and modified, version control systems, such as Git, come into play to manage these changes. Even in solo projects, the benefits of version control in terms of tracking progress, enabling experimentation, and safeguarding against inadvertent errors are highly valuable. As a project grows in complexity and involves multiple contributors, the need for version control becomes even more apparent. Collaborative development efforts without version control can quickly become chaotic, with developers potentially overwriting each other's changes, leading to confusion and inefficiency. In conclusion, version control is not just a tool but a foundational practice that underpins successful and collaborative software development. Its adoption is essential from the project's inception, ensuring a systematic approach to

managing changes, promoting collaboration, and safeguarding the integrity of the codebase. (GitLab, 2023)

At the heart of a version management system lies the ability to corral an array of files, from customer specifications and project manuals to reports, change requests, test cases, and source code. Each modification, meticulously recorded with a user ID and timestamp, becomes a traceable thread in the intricate tapestry of file evolution. This meticulous logging empowers the system to reveal not only what changes occurred but who instigated them and precisely when. The result is an environment where different file versions can be effortlessly compared, and, if necessary, older iterations can be seamlessly resurrected. The lifecycle of a file in version management involves a two-step process: "checking in" after editing, where the file is submitted for administration and storage, followed by "checking out" for subsequent processing, thus releasing it back into the workflow. The duality of these actions allows for a dynamic interplay between preservation and progression. (T2Informatik, n.d.)

### **3.3 Data Collection**

Data collection is a process of gathering and measuring information related to specific variables of interest. This process is designed to facilitate the answering of research questions, testing of hypotheses, and evaluation of outcomes in a structured manner. The practice of data collection is a fundamental aspect of research that is applicable across various fields of study, encompassing the physical and social sciences, humanities, business, and more. While the specific methods employed may vary depending on the discipline, the overarching focus remains consistent: ensuring the accuracy and integrity of the collected data. (Northern Illinois University Faculty Development and Instructional Design Center, N.D.)

#### **Examples of data collection methods:**

**Testing** is important when measuring learning in program evaluation. Comparing pre- and post-program tests is common. Improvement in test scores describes the change in skills, knowledge, or attitude attributed to the program. (Phillips & Stawarski, 2008, p. 13)

**Interviews** are a useful data collection method. Program staff, the participant's supervisor, or an outside third party can conduct interviews. Interviews can secure data that are not available in performance records or data that can be difficult to obtain through written responses or observations. (Kvale, 1996)

**Observations** are a useful data collection method when recording changes in behavior. The observer may be a staff member, participant's supervisor, or external party, a third party can offer a more objective view. (Phillips & Stawarski, 2008, p. 29)

A **focus group** is a group discussion in which the participants respond to questions that are based on a single topic. The coordinator meets with a group of people to collect qualitative information about the group's ideas, attitudes, perceptions, and experiences on the defined topic. Focus groups originated as a method in marketing research for collecting information about consumer perceptions and attitudes. (Marrelli, 2008, p. 39)

A **survey** is a distinct form of questionnaire that serves various purposes in evaluating the success of a program. Surveys are employed when the goal is to gather insights into individuals' attitudes, beliefs, and opinions. In contrast, questionnaires offer greater versatility by collecting a broad spectrum of data, spanning from attitudes to specific improvement metrics. (Phillips & Stawarski, 2008, p. 1)

The logical starting point for developing a **questionnaire** is asking yourself what your broad aims are, and what are you trying to find out. (Gillham, 2007, p. 15)

According to (Gillham, 2007, p. 22) a **semi-structured questionnaire** is the preferred technique with some groups. Asking an open question with ample space for a written response. Gives the advantage of:

- Content analysis is relatively easy.
- You can get a lot of information with little effort, provided you have identified the right topic through a preliminary discussion group.
- Writing makes people get to the point.

Choosing and selecting the most suitable data collection method involves considering nine key factors according to (Phillips & Stawarski, 2008).

**Type of Data:** Choose methods aligned with the type of data needed; some, like follow-up questionnaires, observations, interviews, focus groups, action planning, and performance contracting, are particularly well-suited for application data.

**Investment of Participants' Time:** Minimize participants' time investment; sampling and methods like performance monitoring require less participant time compared to interviews and focus groups.

**Investment of Managers' Time:** Minimize managers' time involvement; methods like performance contracting require significant managerial engagement, while others like questionnaires need no manager time.

**Cost:** Consider the cost; interviews and observations are expensive, while surveys, questionnaires, and performance monitoring are usually more affordable.

**Disruption of Normal Work Activities:** Minimize disruption; techniques like performance monitoring and questionnaires generally cause minimal disruption, whereas focus groups and interviews may disrupt work units.

**Accuracy:** Consider the accuracy of the method; performance monitoring tends to be accurate, while questionnaires may be subject to distortion.

**Built-In Design Possibility:** Evaluate how easily the method can be integrated into the program design; some, like action plans, can be easily built in, while others, like observation, are more challenging to integrate.

**Utility of an Additional Method:** Assess the added value of each additional method; if the extra time and cost don't justify the value gained, reconsider its implementation.

**Cultural Bias of Data Collection Method:** Consider the organizational culture; methods should align with the organization's philosophy, and cultural bias towards certain methods should be considered.

When incorporating these considerations into your decision-making process, you'll be better equipped to choose a data collection approach that aligns with the specific



requirements and characteristics of your evaluation or research endeavor. Balancing these factors ensures that the chosen method is not only effective but also practical within the context of your organization or project.

## 4 Current State as Business Development Manager and Proposal Engineer at Wärtsilä

The proposal manager will assemble a proposal team with the expertise to develop and submit a successful proposal while coordinating and producing the proposal (RFI, PPQ, ITT, RFP, etc.) response. The development and execution of all essential proposal governance processes are among the responsibilities. The capacity to operate under pressure and to strict deadlines is necessary for this highly networked position. Typically the proposal manager is engaged in the beginning of a bid and exits with the clarification stage.

### Main responsibilities

- Delivery of professionally created proposals within customers' timeframe.
- Review, edit, and coordinate input from a variety of stakeholders, contributions involving product teams, legal, finance, sales, marketing, commercial, and delivery.
- Influence and communicate.
- Document template management in line with company branding.
- Having the ability to coach sales teams and have strong time management and prioritization skills.
- Experience in proposal software.

(Bidsolutions, 2023)

### Business Development Management, New Built Wärtsilä

As a Business Development Manager (BDM) for Wärtsilä's New Built division, your main responsibilities include:

#### Sales Opportunities Creation:

- Generate sales opportunities for EPP New Build business.

- Lead B and C-class EEQ sales for New Built engine power plant opportunities.

**Collaboration and Coordination:**

- Collaborate with Sales Directors on EPC and A-class EEQ New Built engine power plant sales opportunities.
- Work closely with the Sales proposal team to ensure correct pricing strategies and support cost estimates.

**Customer Relationship and Satisfaction:**

- Develop and ensure long-term customer relationships and satisfaction.
- Promote Wärtsilä products/solutions for a strong market presence.

**Market Information and Data Utilization:**

- Gather and provide market information, product needs, and customer references.
- Utilize data for assessing correct cost estimations and schedules.

**Project Sales Team Leadership:**

- Lead the Project Sales Team for successful sales opportunities closure.
- Conduct Sales proposal kick-off meetings for all firm proposals.

**Sales Documentation and Compliance:**

- Ensure tenders and requirements are thoroughly understood within the project sales team.
- Prepare high-quality proposals and ensure data quality in CRM.

**Risk Management and Compliance:**

- Evaluate risks with the entire project sales team.
- Ensure necessary internal offer and contract reviews are conducted, approvals received, and sales contracting policies are followed.

**Contract Negotiation and Lifecycle Value:**

- Lead contract negotiations and the contracting process, supported by the project sales team.
- Promote the full life-cycle value for customers and collaborate on building service agreements with Business Development Manager(s) Lifecycle.

**Legal and Regulatory Compliance:**

- Develop a solid understanding of relevant local rules and legislation.
- Understand the requirements of doing business in each assigned region or area.

**Project Management and Reporting:**

- Manage, follow-up, and report on the progress of sales projects.
- Ensure proper sales documentation and a seamless transfer of sales projects to the project delivery team.

By efficiently managing these responsibilities, a BDM contributes to the success of Wärtsilä's New Built business and helps build lasting customer relationships.

(Wärtsilä, Internal document, 2023)

**Conclusion**

In this chapter, I wish to underline the importance of having a good platform for documents and information in these lines of work, since there is a lot to keep track of.

## 5 Execution

This section presents the gathering of data and information required for processing it and the practical work methods for creating the platform.

### 5.1 Questionnaire

Choosing the approach for this task I reviewed my theory and decided it would be a questionnaire of some sort or interviews but when considering the task and what I needed from the proposal engineers and BDMs to be able to do it, it was mostly a sheer amount of information I needed, like a list of documents and other things they use for a sales project. So instead of interviewing a couple of people, I could send out a questionnaire to more of the ones being influenced by my task. So for me, it made more sense to go with a questionnaire to get out to more of them.

I chose Bill Gillham's (Gillham, 2007) semi-constructed questionnaire, it seemed like the most appropriate way to get content out of the BDMs and Proposal Engineers, giving them the freedom to openly write since there was a lot to be retrieved. So the questionnaire requested what documents they usually use during the sales process and other key materials they would want assembled on this platform I was going to create. The BDMs and Proposal Engineers were chosen in unison with the General Manager for Proposal Management, and it was 20 in total who received this questionnaire. They were chosen based on their experience in the sales process and equally many from each area, Americas, Europe and Africa, and Middle East Asia. They were chosen from different areas to get any necessary information that may differ between them and based on experience for the most efficient work.

#### **Personal communication**

Besides the questionnaire, I also spoke in person with 3 of the BDMs, and 3 of the Proposal Engineers based on their questionnaire answers for follow-up questions and to

gain more information since I deemed it to be beneficial for getting further information. On answers that I did not fully understand or if there was any other uncertainty.

## Sales compass survey

1. Global market information available in public domain
    - a. Tender documents
      - i. Balancing power plants
      - ii. Base load
      - iii. Peaking
    - b. PPA
    - c. Competitor information
  2. Reference list of engine models
    - 1) Standard sales presentations.
    - 2) Typical simple feasibility sheets, (to calculate PB, IRR, NPV)
    - 3) Project data sheet (to be filled by customer acc to requirements)
    - 4) Standard mechanical and electrical minimum scope sheets (excel)
    - 5) Typical tender supportive documents
      - a. Typical layouts
      - b. DG set dimensional drawings,
      - c. DG set foundation dimensional drawings
      - d. Standard main flow diagrams
      - e. Typical SLD and automation layouts
      - f. Draft Terminal points/battery limits sheet,
      - g. Utility consumption list, cooling water, lub oil, coolant etc (excel based to estimate)
      - h. Standard engine maintenance, turbocharger tool lists
      - i. Engine / DG set transportation drawings.
      - j. Standard maintenance schedule for engine alternator and other main auxiliaries etc.
      - k. Simple project schedule (excel based template)
      - l. Write up on the project handling (or more elaborate the same in tech specs)
    - 6) Customer reference letters
    - 7) Quality supportive documents
    - 8) Typical Supplier registration documents, (ISO certificates), QA plan
    - 9) Typical simple feasibility sheets,
    - 10) Information about Wärtsilä Service agreements, (link)
    - 11) Standard Contract templates incl appendixes
    - 12) Typical blank deviations sheet (standard, everybody can use the same format)
- [Engine Availability page](#)
  - [Typical Auxiliary equipment availability \(exhaust gas boilers, step-up transformers, control system items,\)](#)
  - Layouts simplified and CMMPP + MPP
  - Generating set drawing for sales purpose in dwg/dxf for all portfolio engines
  - Generating set foundation drawing
  - Energy Business grouping & coding of processes & signals
  - Anti-corrosive treatment instructions
  - Cyber security information sheet
  - Start-up time and loading for all engine types
  - Suppliers list

Figure 4

- Quality management plan
- Preliminary commissioning procedure
- List of approved subcontractors
- Generating set leaflet
- Environmental and management plan
- Dimensional drawings, flow diagram and device list for Wärtsilä designed modules and units
- Dimensional drawings, flow diagram and data sheet for third party modules such as HFO and LO Separators, air compressors charge air silencers, exhaust gas silencers and radiators
- Guideline for mechanical installation
- Engine hall process ventilation unit drawings
- QHSE manual external version
- Engine noise data sheet
- Wärtsilä Finland certificate for annual liability insurance
- Valid Wärtsilä ISO Certificates such as ISO 9001, ISO 14001, ISO 45001
- Wärtsilä code of conduct sheet
- PCT (Product conformity test) specification for all portfolio engines
- Generating set transport drawing for all portfolio engines
- Information of thermal insulation of modules and pipes

|

### Figure 5

In (Figure 4 and 5) are screenshots of the first information of request gathered from BDMs and Proposal Engineers. This is straightly taken from my mail answers to a Word document. All this is some sort of typical data that a BDM or a Proposal Engineer needs during a sales project, most of the things listed are named documents scattered around the Wärtsilä's Intranet or data wished to be seen on the platform. In this first approach for retrieving data six out of the 20 chosen answered the email. This data was received via the questionnaire and through personal communication and I decided to gather it in Microsoft Word for further processing.

## 5.2 Data Processing

With the initial questionnaire and personal communication done, I had a list of requested documents and data gathered seen in (Figure 4 and 5) With the amount of data received it was time to put it into groups to get a clearer picture. The selection and processing of the data was done in collaboration with my supervisor at Wärtsilä a General Manager.

We chose to divide the data into five sections, Technical, Marketing, Commercial, Quality, and Learning. Also three subsections under Technical, those are Electrical, Mechanical and Civil. The goal is to have a clear core structure, Wärtsilä standard for user-

friendliness, as (Basuthkar, n.d.) notes, steering clear of new or complex layouts and instead incorporating the standard design.

When the grouping was done, I started searching and retrieving documents and information from within Wärtsilä's intranet, if I couldn't find material there, I contacted experts within the area of question, for example with the training materials a lot was outdated as can be seen in the bottom of (Figure 8) I did not find any useful material and links so I got together with a Sales Management team and a couple of meetings were held, they helped out in reaching out to document owners regarding training material to be reviewed if still to be used, updated or removed. We also discussed what training material is most useful to add to the platform to not fill it with too much information, such as guides to the APEX for newer employees and other important training that older employees will find useful.

In (Figures 6,7 and 8) screenshots can be seen when the first processing of the data was done in Word. Headers selected, a grouping of the data, information, and documents gathered, some new material in and some out.

To keep track of everything for myself I used color scheming in my Word document on the data. The blue text in (Figure 6,7 and 8) are direct links to documents or Intranet pages with information and more documents that will be used in the platform. I used yellow marker color for things that were not available as standard documentation, like documents that always have to be made new for a certain project. The lines marked in green were under progress or incoming material.



## 1. Technical

- 1) ~~Project data sheet (to be filled by customer acc to requirements)~~
- 2) Standard mechanical and electrical minimum scope sheets (excel sheets on my pc)  
[Mech Elec](#)
- 3) ~~Draft Terminal points/battery limit sheet~~
- 4) ~~Standard maintenance schedule for engine alternator and other main auxiliaries etc.~~  
<https://offeringcatalogue.wartsila.com/offering/a1gw0000003S3SBAA0>  
<https://tkb.wartsila.com/?id=491482>
- 5) Information about Wärtsilä Service agreements, ([link](#))
- 6) Anti-corrosive treatment instructions  
[Quality Integration File \(sharepoint.com\)](#)
- 7) Suppliers list  
<https://wartsila.sharepoint.com/sites/INT-EnergySupplyChainManagement?web=1>
- 8) Performance manual, engine-> engine manuals
- 9) Installation manual, engine -> engine manuals  
[Power Generation Equipment - Home \(sharepoint.com\)](#)

### 1.1. Electrical

- 1) [Elwis](#)
- 2) Typical SLD and automation layouts.  
<https://legacy04.wdm.wartsila.com/Default.aspx#F919AE80-CFA0-4497-ABD0-4A04A24FFC7F/object/A6CB300C-10F0-4E2F-8834-5FF42F423641/latest>
- 3) Energy business grouping & coding of processes & signals (under ELWIS links) [link](#)
- 4) Cyber security information sheet  
<https://wartsila.sharepoint.com/sites/INT-cyber-security>  
[External](#)

### 1.2. Mechanical

- 1) DG set dimensional drawings  
<https://wartsila.sharepoint.com/sites/INT-Power-Generation-Equipment/SitePages/W%C3%A4rtsil%C3%A4-32---Power-Generation-Equipment.aspx>
- 2) Standard main flow diagrams  
<https://app.powerbi.com/groups/me/reports/dce862c0-dfdf-401f-82cb-24e582fd7758/ReportSection?ctid=37155b7b-4b0e-488c-b3fe-e84c1d1b7f85>
- 3) ~~Utility consumption list, cooling water, lub oil, coolant etc. (excel based to estimate)~~
- 4) Standard engine maintenance, turbocharger tool lists. Engines -> [Lifecycle](#)
- 5) Engine / DG set transportation drawings / Generating set transport drawings for all portfolio engines  
[Power Generation Equipment - Home \(sharepoint.com\)](#) Engine -> Engine and genset Transportation
- 6) Generating set drawing for sales purpose in dwg/dxf for all portfolio engines  
<https://deta.wdm.wartsila.com/Default.aspx?#77E47AB8-D74B-41B6-BC40-F96E3B316F0F/object/E8B04155-6DAC-4C60-905E-0C0B3EFE22A7/latest>
- 7) Start-up time and loading for all engine types. [Start-up](#)

Figure 6

- 8) Preliminary commissioning procedure, [Commissioning and Site Management \(sharepoint.com\)](#)
- 9) Dimensional drawings, flow diagram and device list for Wärtsilä designed modules and units. [Link](#)
- 10) Dimensional drawings, flow diagram and data sheet for third party modules such as HFO and LO Separators, air compressors charge air silencers, exhaust gas silencers and radiators Mechwis, some [exist](#)
- 11) Guideline for mechanical installations [Installation Support \(sharepoint.com\)](#)
- 12) Engine noise data sheet  
<https://wartsila.sharepoint.com/sites/INT-Energy-Emissions/SitePages/Noise-Data-Sheets.aspx?web=1>
- 13) PCT (Product conformity test) specification for all portfolio engines  
<https://wartsila.sharepoint.com/sites/INT-RD-and-Design-Testing-Validation/SitePages/Engine-Testing-%26-Finishing.aspx#production-conformity-test>
- 14) Information of thermal insulation of modules and pipes, in guidelines for mech installation. 9.6

### 1.3. Civil

- 1) Typical layouts.  
<https://wartsila.sharepoint.com/sites/INT-EPP-Solutions/SitePages/Solution-Portfolio.aspx>
- 2) DG set foundation dimensional drawings.  
<https://wartsila.sharepoint.com/sites/INT-Power-Generation-Equipment/SitePages/W%C3%A4rtsil%C3%A4-32---Power-Generation-Equipment.aspx>
- 3) Layouts simplified and CMMPP + MPP (see 1.3.1))
- 4) Generating set foundation drawing  
[Foundations \(sharepoint.com\)](#)
- 5) Engine hall process ventilation unit drawings

## 2. Marketing

- 1) Global market information available in public domain [www.wartsila.com](http://www.wartsila.com)
  - a. Competitor information (Wärtsilä business intelligence)
- 2) Reference list of engine models <http://fis0733.accdom.for.int/PowerMap/>
- 3) Standard sales presentations. <https://www.wartsila.com/energy/towards-100-renewable-energy/power-system-modelling>
- 4) Generating set leaflet  
[Power Generation Equipment - Home \(sharepoint.com\)](#) Engine -> Marketing Materials

## 3. Commercial

- 1) Typical simple feasibility sheets, (to calculate PB, IRR, NPV)  
<https://feasibility-tools.app.wartsila.com/>
  - a. Simple project schedule (excel based template) does not exist, would be great to have
- 2) Customer reference letters, tbc
- 3) Standard Contract templates incl appendixes [Contract Templates \(sharepoint.com\)](#)
- 4) Engine availability page  
<https://wartsila.sharepoint.com/sites/INT-Power-Generation-Equipment/SitePages/Engine-Availability.aspx?web=1>
- 5) Typical Auxiliary equipment availability (exhaust gas boilers, step-up transformers, control system items)  
[link](#)

Figure 7

- 6) Suppliers list  
[Energy Supply Chain Management - Home \(sharepoint.com\)](#)  
[directlink](#)
- 7) Wärtsilä Finland certificate for annual liability insurance.  
Certificates Wärtsilä Finland [M-Files Web \(wartsila.com\)](#)
- 8) Valid Wärtsilä ISO Certificates such as ISO 9001, ISO 14001, ISO 45001  
[Link](#)
- 9) Wärtsilä code of conduct sheet  
[Code of Conduct - Home \(sharepoint.com\)](#)

#### 4. Quality

- 1) [Energy management system, processes and certification \(sharepoint.com\)](#)
- 2) Quality supportive documents, link under QEHS  
<https://dcae.wdm.wartsila.com/Default.aspx?#F9103D78-0C97-4324-A23C-0237CF85334C/object/94C9E25A-9843-4D74-93BE-6D236285BE66/latest>
- Typical Supplier registration documents, (ISO certificates) QA plan  
<https://dcae.wdm.wartsila.com/Default.aspx?#F9103D78-0C97-4324-A23C-0237CF85334C/object/98EAB1EB-793C-4B4E-8BD1-20CD6963617B/latest>
- 3) Quality management plan, [Quality Management \(sharepoint.com\)](#)
- 4) [QHSE](#) manual external version (quality/commercial)  
[Site Handbook - Energy QEHS Manual - External version.pdf - All Documents \(sharepoint.com\)](#)

#### 5. Sales Process

- 1) [Sales Process \(sharepoint.com\)](#)  
Power Plant Sales Process <https://deaa.wdm.wartsila.com/Default.aspx?#09A71704-7183-41DF-AB4E-40E31D17A663/object/7C06082C-FF56-4520-B8A3-90723DC80745/latest>
- 2) Sales tools  
[Sales Toolbox \(sharepoint.com\)](#)

#### 6. Training

- 1) [Techbiz](#)

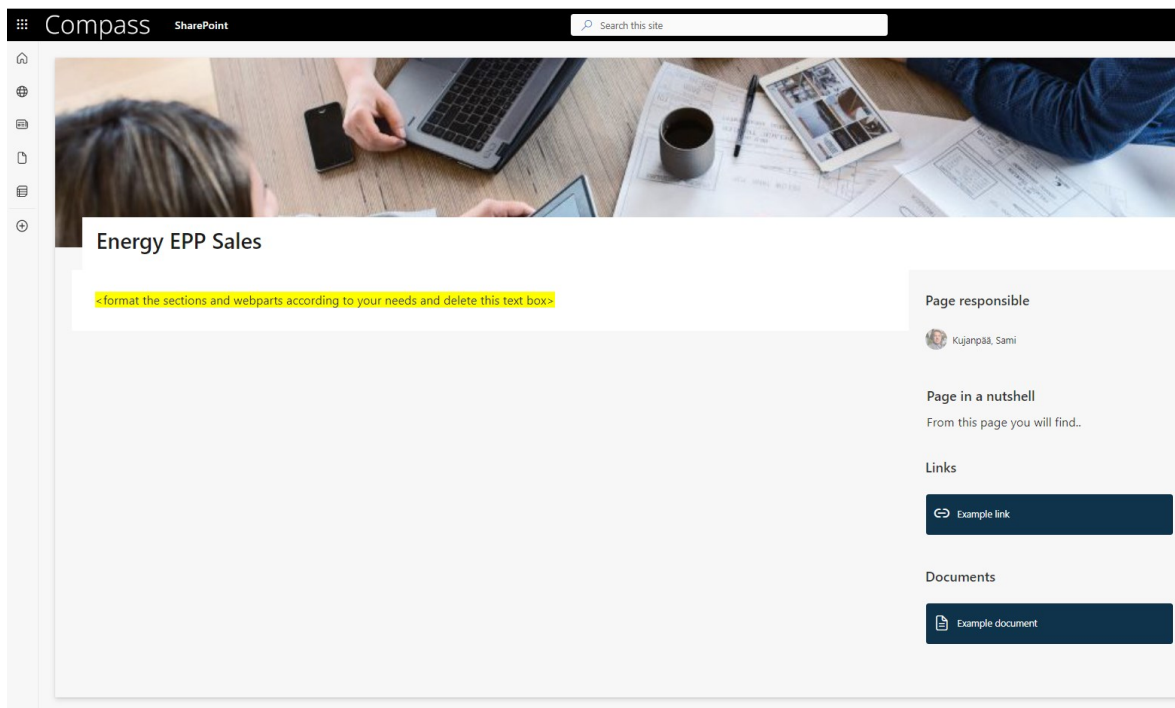
Figure 8

When all documents and information had been found and gathered into the Word file seen above, all the documents were to be reviewed to be sure it is the latest revisions and that the data was correct, this is very important, especially for Wärtsilä's customer deliverable documents, we do not want to be sending old, corrupted, or incorrect data to customers. This was done in collaboration with a Process Development Manager. For each area, technical, marketing, quality, etc. experts had to be contacted to ensure the documents or information were valid or if they should be renewed or thrown away, this

was quite some work, I participated in weekly meetings for two months with the Process Development Manager to find these experts and have them review the documentation. This was done with personal meetings, Microsoft Teams meetings and, emails.

### 5.3 Platform Creation

The platform was created on Wärtsilä's Compass as a site page which is on Microsoft's SharePoint. I was given a short training in page handling on Wärtsilä's compass.



**Figure 9**

In (Figure 9) above. is a screenshot of when the page was created and still without the content from the Word file.

When creating a site page it has some Wärtsilä standardization rules, it must have a page owner and he/she should be shown, and in general, the page should look somewhat similar to other site pages, for user-friendliness. Otherwise, I was quite free in designing the layout, I had received input from the BDMs and the Proposal team members that they wanted it to be simple so it is easy to find all data and information quickly so that was the main goal. Also looking back to (Chapter 3.1) to the examples of a good and a bad platform it is quite logical how to stay out of the bad example. The good example

however shows a good core structure and I aimed to have that, even if my platform will be more text-based and will not contain a lot of images.

So the page I created mostly consists of document download links and links to other sources of information required for sales work. To achieve the simplicity and yet some finesse I made collapsible sections for the headliners, and wanted to put some of the most usable links outside the sections that I figured would be mostly used. I decided to put links to engine site pages on the right side of the page, since they are needed in every project and hold much information, they can be seen in (Figure 11) on the right side, and right below I put quick links to related sites which may have further information required for the customer.

In (Figure 10) below I created a short introduction on the page that can be seen, explaining what the content is, and to make it easier to walk around the page I made the five big headlines as collapsible sections since there's a lot of material that is available on the single page.

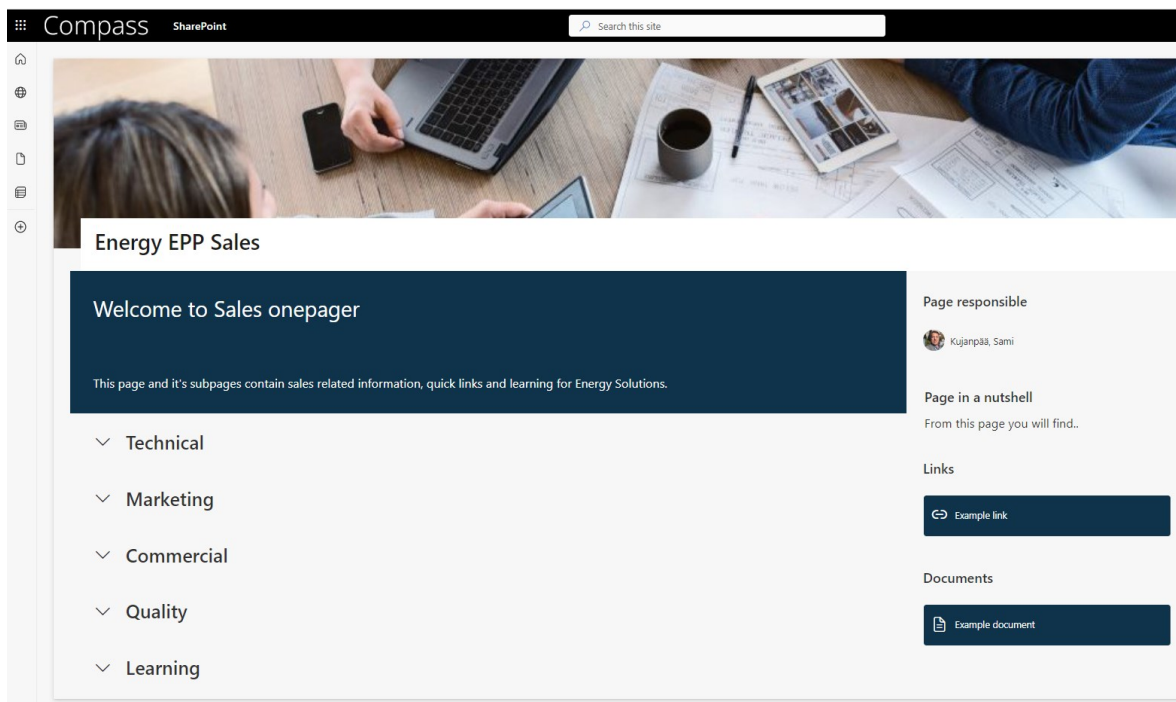
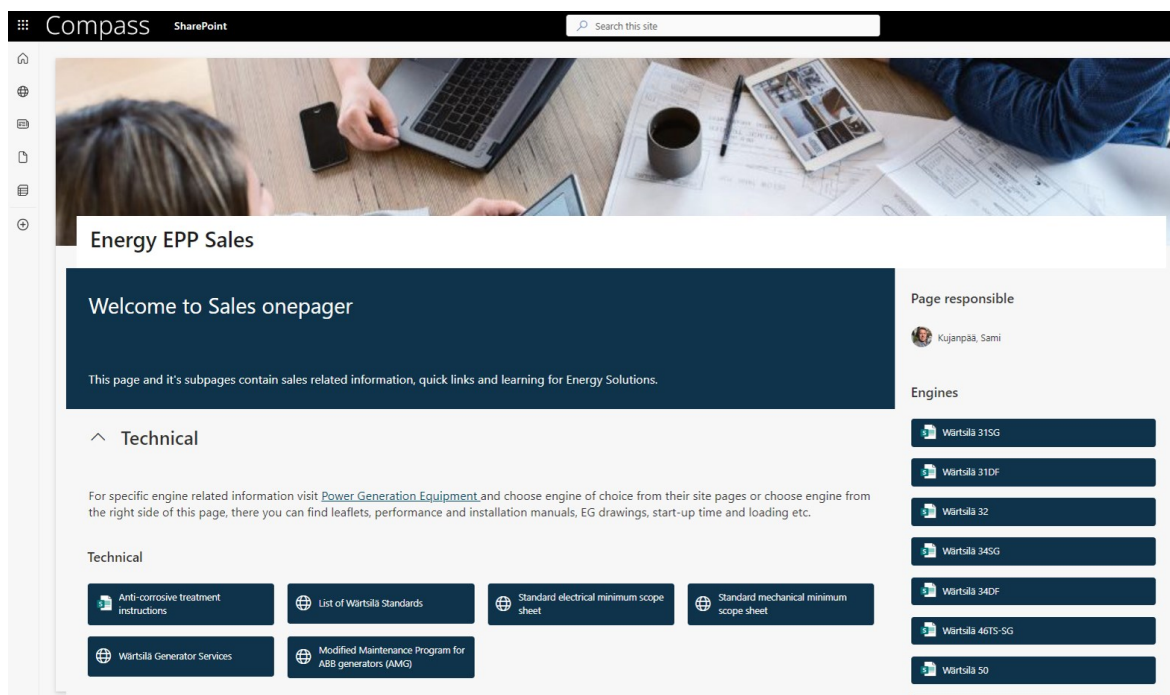


Figure 10

In (Figure 11) below is an example screenshot of how the platform looked when it evolved a bit further.



**Figure 11**

Some content has been added to the platform, including the five headliners as collapsable sections and documents and information added to the sections, typical technical data needed for proposals, marketing, and commercial links for BDMs, etc.

The platform was shortly released to the main users after this draft and some minor tweaks.

### Feedback

With the platform released to main users, I chose to use a feedback form at the bottom of the page using Microsoft application Forms, so if problems were found or if the users saw any typical document missing, or if they had any idea for tweaks, they could easily write and click send in the forms and I could fix the problems.

For later updates, I also added on top right of the page a box with “latest updates” so the users would know if any document has been added or changed.

## 6 Result

This chapter presents the result.

The objective of this thesis was to streamline the sales process with the collection of data and to have updated data on a single platform for the people involved during the sales process. This was done in line with the requirements set in unison with Wärtsilä.

In practice, a platform was created to streamline the sales process based on a sent-out questionnaire and theoretical references.

The screenshot shows a SharePoint page titled "Welcome to Sales onepager". The page header includes the "Compass" logo and a search bar. The main content area is divided into several sections:

- Navigation Menu:** A vertical sidebar on the left contains icons for home, search, and other functions. Below the icons are expandable sections for "Technical", "Marketing", "Commercial", and "Quality".
- Welcome Message:** A dark blue banner at the top of the main content area reads "Welcome to Sales onepager" and "This page and its subpages contain sales related information, quick links and learning for Energy Solutions."
- Text Content:** Below the banner, there is a paragraph of text explaining the role of the Project Quality Assurance department. Below this, there are three questions: "Is there a need to review and identify the Quality requirements in Tender documents or in Sales Project?", "Is there a need to identify the Risks related to Quality Management in Project?", and "Is there a need to estimate Quality Management cost of Project?".
- Document Deliverable to Customer:** A section titled "Document Deliverable to Customer" contains several document icons with titles: "Energy QEHS Manual - External version.pdf", "SQUAD system description", "Quality supportive documents", "Quality Policy", and "ISO Certificates".
- Generating sets:** A vertical list of document icons with titles: "Wärtsilä 315G", "Wärtsilä 31DF", "Wärtsilä 32", "Wärtsilä 345G", "Wärtsilä 34DF", "Wärtsilä 4615-SG", "Wärtsilä 50", "Wärtsilä 505G", and "Wärtsilä 50DF".
- Related pages:** A section titled "Related pages" contains a small image of an industrial facility.
- Page responsible:** A section titled "Page responsible" shows a profile picture and the name "Kujanpää, Sami".
- Contact Information:** At the bottom of the page, there is a list of contact information: "Project Quality Management Plan - Contact [pqm@wartsila.com](mailto:pqm@wartsila.com)", "Inspection and Test Plan - Contact [pqm@wartsila.com](mailto:pqm@wartsila.com). Required input: Scope of supply", and "Site Quality plan - Contact [pqm@wartsila.com](mailto:pqm@wartsila.com)".

**Figure 12**

In (Figure 12) above is an example of how the sections look in the platform, providing information about the section, document deliverables to customers, expert contacts, and links to knowledge material.

The requirements were met, and the project was deemed a success by the customer Wärtsilä.

### Future development

A consideration for future development of the platform would be to have all the documents to be automatically updated when new revisions are made. Right now some

of the links are to a folder in M-files where the document can be updated so the link always stays relevant.

## **7 Discussion**

With this thesis I got a lot of insight into the importance of having a good platform for documents, it can reduce the strain of the workload significantly, being able to quickly gather most of the important data for a project.

The practical challenge of this thesis was finding and getting the latest revisions of documents, but with some help reviewing and questioning experts it was solved. But the biggest challenge for me was writing this thesis.

In the execution part, I could have added more explanation of the tools used when creating the platform on Microsoft SharePoint but the use was so straightforward that I chose to leave it out.

Something that came to mind while doing this, as mentioned in the previous chapter for future work, is that it would be great to have all documents automatically updated on the platform. That it would be certain that all the documents linked from M-Files are being renewed so the link always stays relevant.

However, I am grateful to Wärtsilä for giving me this opportunity, and that I got the chance to meet and work with a lot of amazing people. And a big thanks to my supervisors both at Wärtsilä and Novia for pushing me along the way.



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