



# Project Management Report (PMR)

☰ Phase	Closure
📅 Due Date	@June 24, 2022

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## Company Description & Organization

- As part of the work of a company's Strategic Planning team, the prioritization of its projects comes as one of the main activities. Using both internal and external factors, our product looks to assess in which initiatives should the company invest its time and resources.
- Our company decided to organize itself by attributing the following roles to their respective members:

Member	Roles
André Assunção	<i>Test Manager &amp; Client Communication</i>
André Malheiro	<i>Planning Manager &amp; Supervisor Communication</i>
Henrique Pereira	<i>Support Manager &amp; Planning Manager</i>
João Rocha	<i>Design Manager &amp; Implementation Manager</i>
João Romão	<i>Quality Manager &amp; Customer Interface Manager</i>
Miguel Gomes	<i>Customer Interface Manager &amp; Support Manager</i>
Paulo Ribeiro	<i>Supervisor Communication &amp; Process Manager</i>
Pedro Azevedo	<i>Implementation Manager &amp; Design Manager &amp; Test Manager</i>
Pedro Seixas	<i>Client Communication &amp; Quality Manager &amp; Process Manager</i>

## Communication and Coordination Mechanisms

- Apart from the *in-situ* meetings with the clients, the main strategies used to keep constant communication with them were the regular exchanging of e-mails and Microsoft Teams weekly virtual meetings, taking place at the beginning of the LGP practical class, with the objective of informing them of the current status of the project and deciding the next steps to be taken.
- The communication with the LGP agencies took place via e-mail messages, used to clarify quick doubts or confirm services, as well as Zoom meetings and Discord communication with their representatives, in order to detail our requests.

## Team Coordination and Work Planning

- The main communication between the development team took place on a Discord server, which allowed for a good organization of the different topics of discussion (aspects related to the client, LGP agencies, or the deliverables, for example). In addition to our weekly face-to-face meetings during the LGP practical class (on Fridays), the team usually met virtually to advance deliverables and develop the project.
- All deliveries, weekly briefs, meeting minutes, meeting agendas, or any other relevant documents were kept in a Notion workspace, which helped with the collaboration between all team members.
- Communication with the Supervisor usually took place on Fridays, during the LGP practical class, or via email in cases of urgent questions that occur outside class time. This constant coordination allowed us to contextualize the supervisor and know that we were heading in the right direction.

## Results from the Diagnostic Tool on Design Culture

The results are shown at the end of this document, in the [Annexes](#) section.

## Major Risks and Lessons Learned

The main risk during the development phase of the project was the NDA approval delay, which delayed the progress of the project and left us with less time than we expected to understand the data given by the clients and to develop the project. With this, we learned that there could appear risks outside of the scope of the team and that there is little we can do to resolve them.

Another important risk is the understanding of problems that the complex data given by the clients could generate. To mitigate or solve this risk we kept in touch with the client to understand some complex aspects of the data.

There were also other risks that have been taken into account and they are described in the Risk Register.

## Project Description and Client

- Vestas Wind Systems is a Danish wind turbine company. It operates across multiple countries worldwide, it has over 29000 employees, over 52000 active wind turbines and it had a multi-billion euro revenue in the last year. Vestas is the number one on-shore company, and it is their goal to also become the number one off-shore.

- Vestas Power Solutions is the business unit that we will be collaborating with and that is responsible for the development and design of wind turbines.
- We were commissioned to develop an app to help Vestas with portfolio prioritization, in order to better decide which products are best to invest both time and resources.

## Project Management Practices and Activities

We've adopted an agile methodology, being constantly attentive to the current risks.

The first step was to make sure that the project vision was right and that every team member knew exactly what it was. This helped and will continue to assist in the development of the whole application.

In order to keep the repository with clean code, every pull request needed the approval of other team members before being able to be merged.

The regular input from the clients was also very important to make sure that we were focusing on the main requirements. These meetings were also fundamental to deciding the features of the MVP, after knowing that we were going to have only three weeks for its development due to the delay of the NDA.

A risk register was used after a suggestion from our client. This document was useful to keep us all up to date with the current situation of the project and the actions to take to mitigate possible risks. We also found it useful to make someone responsible for each risk. We often used this document in order to know which risks were currently active.

For the deliverables, we got together every week to discuss what needed to be written or done and usually split the work. After the work was done we read everything and discussed if any changes needed to be done.

## Schedule Progress Against Plan and Degree of Completion

Our final product has some significant differences from the initial idea discussed in the first few weeks. These changes in objectives will be described in the next section, in which we will focus on the features developed and the current status of the project.

The schedule initially planned is totally different from the one that was actually applied, since the latter turned out to only be related to the last three weeks, which was the time when we had access to the data of the Vestas company (after signing the NDA), fundamental for product development.

The team decided to dedicate the first of these three weeks to understand the data we received and to use the remaining two weeks for its development.

### Our final product includes:

- A Home page, containing the description of our application, and the team's contacts
- An Input page, where the user can load the data of his company's projects, clean the current database or restore its previous state. It is also allowed to change the attributes of each program and its sub-projects, being able to mark a given program as strategic or change factors such as its name, cost, demand, etc.
- A Program Ranking page presents a list of programs ordered by priority, thus indicating the most profitable for the company. Additionally, a chart is displayed where you can easily compare each of the programs in a given period. It is also possible to change the "cost per hour" factor, which

indicates the importance to be given to the hours that the program requires, and these changes are immediately visible in the graph. This graphic is fully interactive, allowing you to zoom, resize, scroll, or even save it as a png or pdf.

- A Program Matrix Page, which shows a Value-Effort matrix of the various programs, allows an alternative way of comparing programs. This matrix allows the same interactions as the graph on the previous page.
- A Program Status page allows you to see a more detailed description of a specific program, providing an overview of its cost and capacity. This page also allows you to see the timeline of a given program (or also compare it with the timeline of other programs), allowing you to understand the temporal distribution of its different stages.
- A Settings page allows you to change fixed factors used in calculating each program's score. This way, the user will be able to adapt the importance to be given to each factor according to their preferences.

A more detailed description of the implemented user stories can be seen in the Minimum Viable Product (MVP) document.

## Final Scope Compared to Plan

In comparison with the scope initially planned, we were not able to implement the dynamic timeline that could be changed by the user and that would directly affect the results of the calculation of the ranking, plot graph and matrix.

This feature was not included in the MVP and because of that, it was not a top priority. Matter of fact this feature had the lowest priority of them all.

As we approached the final delivery, we realized we wouldn't have time to implement it. However, during that meeting, the clients themselves told us they were not sure how they would want this dynamic timeline to work and what exactly they were expecting of it. This caused us to drop that feature and focus on building a mature tool.

In conclusion, there were two main reasons this feature was not implemented and the clients were promptly informed and took part in the decision of abandoning it.

## Planned Versus Actual Resourcing

Our project depended on several resources, such as LGPCoins, Time and the number of developers available.

- LGPCoins

Until the Review phase we used the following services:

- Logo creation with À Tona (1500 LGPCoins);
- UI Prototyping of 1 page with À Tona (350 LGPCoins);
- UI Design of 1 page with A Risca (2000 LGPCoins);
- Document Review with MESG (350 LGPCoins).

After the Review phase we also used this service:

- UI Design of 4 pages and usability tests with A Risca (4000 LGPCoins);

We used this resource as we had originally planned.

- Number of developers

We used the number of developers originally planned. Every member of the company contributed to the development.

- Time

Time was the most important resource. Originally our planned start date coincided with the start of the Build-Measure-Learn phase. However, the NDA delay forced us to only start developing the core of the product after the end of the Academic Week.

## Current Quality Findings

In order to test our application, we contacted the MESH agency to run some usability tests, so that we could evaluate how the users worked with the app. Keep in mind that these tests were made with 5 users that were not inside the project, and only had an overall idea of what was its purpose. We took 2 conclusions from these tests:

- Users that did not work with these specific environment characteristics and were not inside the project had some difficulties understanding where some buttons were located, where to look for functionalities, and what were the capabilities of the application. These aspects of the usability tests needed to be ignored, since they will not exist in production, as the users will be workers in the client's company and will be aware of what and where everything is.
- On the other hand, some design aspects were actually very helpful. These tests were made with the mockups, and not with the application itself (since there were some delays that prevented us to run them with the functioning tool), which helped improve them and update them even before building the app. Some changes made included:
  - Changing one tab title to a more understandable and intuitive name.
  - More intuitive legends in graphs and plots.
  - Adding the functionality of scrolling in a timeline, instead of changing the start and end date manually.

With the usability tests, we could successfully improve our application. Further tests are being conducted at the moment with the clients, in order to get a more realistic view of the app's usability.

In terms of code, the team ensured the code was clean and self-documented so that the project could be used by other developers to add more functionality to it.

## Lessons Learned

Since the start of the project, one aspect that stood out was the good relationship with our client. This made it easier to have a better understanding of the product to be developed and all the requirements.

The frequent contact with the client called for proper planning of the meetings in order to get the most out of it. Meeting agendas were elaborated in advance throughout the course containing not only the topics to be discussed but also references to possible next steps. This dynamic alongside the periodic update of the risk register was key to having the team and the client on the same page.

Furthermore, the compromise of building a real product and developing it so that it is ready to use and approved by the client when delivered was a new challenge for most of the elements of our team. Extra efforts were put into building quality and readable code in order to ease possible future improvements that

the client may intend to do. This differed from academic course work not only due to the fact that the main focus of the project was not just having a good final score but also because we believe that the project will not die at the end of the course and will have a real use.

## Plan for the Hand-Over

As for the handover, we will provide Vestas with the source code, user manual on the usage of our application and a document describing the architecture of our software and technologies used to allow Vestas to be able to implement new features in case they choose to do so.

As for the integration of our tool, their IT team is experienced with developing and adding Microsoft Teams Apps so they proposed to do the integration for us.

## ▼ Annexes

### Diagnostic Tool on Design Culture

**Nome da empresa:** WindPlan

**Parceiro(s)/Cliente(s):** Vestas

**Cargo do(s) entrevistado(s):** Membros da Equipa

**Nome(s) do(s) estudante(s):**

- André Assunção
- André Malheiro
- Henrique Pereira
- João Rocha
- João Romão
- Miguel Gomes
- Paulo Ribeiro
- Pedro Azevedo
- Pedro Seixas

## 1) COMPETÊNCIAS TÉCNICAS

1.1) Existe departamento de design?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

1.2) Costumam contratar serviços de design externo?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

1.3) Costumam desenvolver produtos diferenciados da concorrência?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

1.4) A estética é o fator mais importante para o desenvolvimento de novos produtos?

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

1.5) Existe trabalho de design na maioria dos vossos produtos?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

1.6) Costumam realizar benchmarking? (análise frequente da concorrência)

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

## 2) COMPETÊNCIAS ORGANIZACIONAIS

2.1) Segue-se algum cronograma de desenvolvimento de produto de forma rigorosa?

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.2) Existe um briefing (requisição de especificações) com os requisitos para o desenvolvimento de um produto novo?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente



2.3) Existe investimento em comunicação (marketing, anúncio em revistas, catálogos, photoshoot profissional dos produtos/serviços)?

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.4) Os vossos produtos têm características diferenciadoras da concorrência?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.5) Conhecem as necessidades e os problemas atuais dos consumidores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.6) Fazem entrevistas aos revendedores e consumidores de forma a saberem o que estes querem comprar?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.7) Todos os vossos desenvolvimentos têm foco nas necessidades e experiências dos vossos consumidores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.8) Testam todos os produtos e recebem com frequência comentários dos consumidores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.9) Sente-se a necessidade de mudança de processos criativos ou produtivos?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.10) Existe a necessidade de adaptação a novos processos produtivos de acordo com um novo design?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

2.11) Um dos objetivos principais é o desenvolvimento de produtos inovadores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

### 3) FATORES SOCIAIS

3.1) Existe espírito colaborativo da equipa no desenvolvimento de novos produtos?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.2) Existe espírito colaborativo de todos os colaboradores no desenvolvimento de produtos inovadores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.3) Existe espírito de mudança entre os colaboradores?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.4) Existe mais cooperação do que competição entre departamentos/serviços?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.5) As decisões importantes são sempre tomadas em reuniões com os colaboradores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.6) Fazem-se reuniões de equipa para debaterem questões globais, de visão de novos produtos, sem abordarem problemas específicos do dia-a-dia?

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

3.7) A comunicação flui de forma acessível, atualizada e compreensível entre fornecedores, parceiros, consumidores e colaboradores?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

#### 4) FATORES CULTURAIS

4.1) Conhece os valores, missão e visão da sua empresa? Se sim, quais são?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.2) Os gestores de sucesso são os que fazem as coisas de forma diferente do habitual?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.3) Promove-se um equilíbrio entre a vida pessoal e a vida profissional?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.4) A experimentação e a inovação são encorajadas?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.5) Existe uma preparação dos colaboradores para adaptação a mudanças de mercado ou de conjuntura?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.6) Existe abertura para aplicação de metodologias do pensamento de design e workshops para melhorar o negócio?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.7) Procura-se desenvolver produtos influenciados por questões ambientais ou culturais?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.8) Existe um posicionamento da empresa diferenciador e claramente entendido pelos consumidores quanto a mudanças climáticas, políticas ou sociais?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.9) Promove-se uma colaboração entre os fornecedores locais?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.10) Trabalha-se para uma sustentabilidade de matéria-prima ou fabricantes de proximidade territorial?

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

4.11) Existe algum trabalho de parceria com a concorrência?

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discordo Totalmente	Discordo	Nem concordo, nem discordo	Concordo	Concordo Totalmente

Observações:

Muitas das questões do questionário não se aplicam ao modelo de negócio da empresa WindPlan.