PROPOSAL OF NRGSUSTAIN

REPORT

RENEWABLE AND NON-RENEWABLE ENERGY SOURCES

SANOFI

By Ana Gomes, Catarina Camarate,
Hugo Pellé, Luis Silvano, Patrícia Brito

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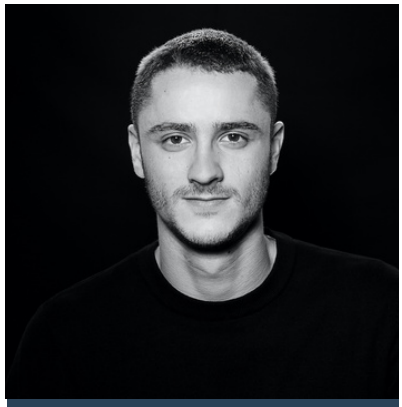
1. MEET OUR TEAM

Ana Gomes

Catarina Camarate

Luis Silvano

Patrícia Brito



Hugo Pellé

2. INTRODUCTION

According to scientific studies and projections, in the future there is a forecast of an increase in diseases, one of the main factors influencing this case is pollution which is verifiable its significant increase all over the planet, as for example in water, air and soil.

This leads to a major public health problem and something needs to be done to try and prevent the damage being so significant! However, of all the sectors that exist, the pharmaceutical sector is one that can never be extinguished as it plays a crucial role in people's health and wellbeing, so there is a great need to make it as sustainable as possible.

Therefore, as Sanofi is an internationally renowned company in its sector, its concerns to become sustainable are of utmost importance as it reflects its commitment to addressing environmental challenges and trying to convey the message of the need to do so today.

All his project is designed to help Sanofi become more sustainable.

3. COMPANY DESCRIPTION

Sanofi is a leading global pharmaceutical company dedicated to improving the health and well-being of people worldwide. With a rich heritage spanning more than a century, Sanofi is committed to discovering, developing, and delivering innovative healthcare solutions that address the evolving needs of patients and healthcare professionals.

Its mission is to provide access to high-quality, safe, and effective treatments across a range of therapeutic areas, including diabetes, cardiovascular diseases, rare diseases, vaccines, and oncology. They combine scientific expertise, cutting-edge research, and a patient-centric approach to develop breakthrough medicines and healthcare solutions that make a meaningful impact on patients' lives.

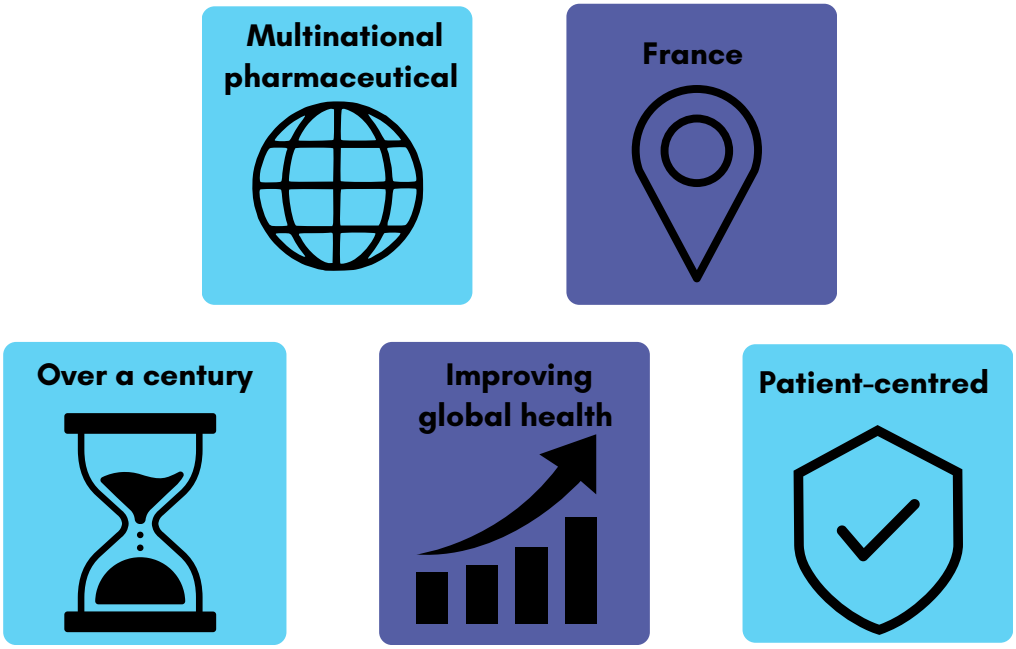
Sanofi operates across multiple business units, leveraging its diverse portfolio to cater to the diverse needs of patients and healthcare systems. Their pharmaceuticals division focuses on developing and commercializing innovative prescription drugs that target unmet medical needs, while their vaccines division plays a crucial role in preventing and controlling infectious diseases.

Beyond pharmaceuticals, Sanofi also offers a wide range of consumer healthcare products that help individuals maintain their well-being and manage common health conditions. From over-the-counter medicines to skincare products, the company strives to provide accessible solutions that empower individuals to take charge of their health.

As a responsible corporate citizen, Sanofi is committed to sustainability and social responsibility. They prioritize ethical business practices, patient safety, and environmental stewardship in all aspects of our operations. Moreover, they actively engage with stakeholders, collaborate with healthcare professionals and organizations, and invest in research and development to drive scientific innovation.

With a global presence in over 170 countries, Sanofi operates through a network of research centers, production facilities, and commercial offices. It fosters a diverse and inclusive work culture that values collaboration, innovation, and continuous learning. Sanofi’s team of dedicated professionals works tirelessly to transform scientific advancements into real-world solutions that positively impact patients and communities around the globe.

At Sanofi, it is believed in a future where healthcare is accessible, effective, and patient-centered. Through the unwavering commitment to innovation and excellence, Sanofi aims to lead the way in improving health outcomes and enhancing the quality of life for individuals worldwide.



4. INITIAL PROJECT CHARTER

4.1 WHAT IS THE PROJECT IDEA

We want to improve the energy practices and the techniques of the actual company. The idea is to analyze the energy practices of the company and improve those procedures in a way to preserve future generations. The main goal is to use renewable and non-renewable energies in an efficient way.

Everybody uses Energy à Find a way to be more sustainable in the way use energy à Check about the consumption of energy à How other countries consume energy à What types of kind energy we will use and their costs (solar panels, Winter Energy) Efficient Energy à How to sell and how to use the energy à Management of the Energy inside of the company à Prices, Depreciation of few Resources (Oil) à Use in an efficient way the resources.

01 Everybody uses Energy

02 Find a way to be more sustainable in the way use energy

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05 What types of kind energy we will use and their costs

06 How to sell and how to use the energy

07 Management of the Energy inside of the company

08 Prices, Depreciation of few Resources

09 Use in an efficient way the resources

SDG 7 Renewable energy in the global energy mix

Sanofi is committed to implementing an energy efficiency approach and to decarbonize its energies by promoting the use of lower-carbon energies in projects and by purchasing electricity from certified renewable sources. Taking into account the constraints linked to the scarcity of fossil resources and climate change, Sanofi is committed in an energy efficiency approach (consume less and better) but also to decarbonize its energies (consume differently). Sanofi is also committed to a low-carbon energy policy by promoting the use of lower-carbon energies in projects and the purchase of electricity from certified renewable sources. An energy saving program is in place at all of our sites. In 2020, 28 of our sites received ISO 50001 certification (Energy Management Systems). At the end of 2020, over ten of our administrative buildings were certified LEED, BREEAM or HQE. In addition, a renewable electricity purchase contract (PPA Power Purchase Agreement) has been put in place with the company ENEL at Mexico to supply energy to the 3 Mexican sites in Sanofi. We also operate a low-carbon energy policy, favoring the use of lower-carbon energies for our projects and buying in electricity from certified renewable sources. In September 2020, we made a public pledge that by 2030, 100% of the electricity we consume will come from renewable sources, by signing up as a Gold Member of the RE100 initiative. In just two years, Sanofi has raised its use of renewables from 2%, first to 11% and then to 26% of its electricity consumption. The renewables we use are accredited under the Renewable Electricity Certificates (REC) program. By 2030, increase substantially the share of renewable energy in the global energy mix

SDG 12 Responsible Consumption and Production

Secondly, we want to turn into a sustainable supply chain by working with suppliers to ensure they adhere to sustainable practices, such as reducing waste and using renewable energy. Additionally, consider sourcing materials locally to reduce transportation emissions.

Everybody uses Energy - Find a way to be more sustainable in the way use energy - Check about the consumption of energy - How other countries consume energy - What types of kind energy we will use and their costs (solar panels, Winter Energy) Efficient Energy - How to sell and how to use the energy - Management of the Energy inside of the company - Prices, Depreciation of few Resources (Oil) - Use in an efficient way the resources.

4.2 WHY THIS PROJECT DESERVES EXECUTION?

More sustainable environment	Biological footprint	Supply chain challenges and solutions

In every aspect of ESG, the supply chain is a critical focus. Streamlined supply chains can help the pharma industry to reduce emissions, whether through the adoption of electric vehicles for transport and logistics, or through the introduction of energy-efficient production processes. In terms of waste, packaging companies will play a vital role through the wider use of recyclable materials and the reduction of plastic. In addition, a focus on product safety will contribute to the health and safety aspect of the social pillar of ESG.

5. PROJECT SCOPE AND GOALS

5.1 WHAT NEEDS TO BE ACCOMPLISHED

The main focus of this project is to change the supply chain of Sanofi by making it more sustainable than any other pharmaceutical company in the business. As so, we thought that the easiest, fastest and least expensive way was by changing the type of energy used in our line of production.

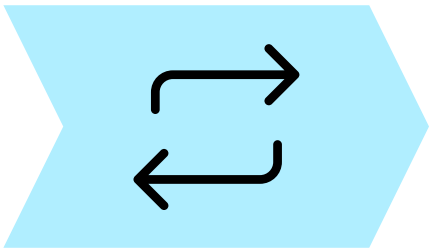
After a long and detailed research over all the available methods to innovate and make more sustainable our resources, we came to several conclusions.

First, we reached some companies that could help us in the process of installing renewable energy infrastructures to create our own source of energy. Among all the available options that were presented to us, some of them were immediately discarded due to the high initial investment, hard construction work and the difficulty to implement given the prolonged timeline. So as a result of that, Eolic energy and Solar energy were the most viable options.

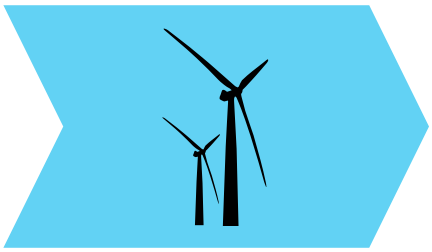
However, when comparing both sources of energy, we realized that eolic energy takes higher investments in technology to guarantee the efficiency and security of the equipment contrary to solar panels. In addition, the cost of installing wind energy is higher since the infrastructure required is larger than that of solar panels, requiring more land, which in return increases the cost of materials and the need for specialized labor.

To sum up, according to the data collected, the most suitable source of energy for this project is Solar Energy.

The main accomplishment for this project is to establish a 100% renewable energy chain in all European Countries where the company operates. In 2020, Sanofi was able to use only renewable energies in its line of production in Italy, Hungary, Poland, Ireland, UK and Spain.



Change the supply chain

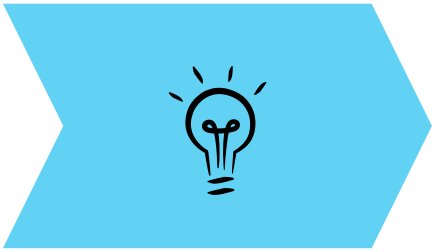


Renewable energie

5.2 WHAT DELIVERABLES ARE EXPECTED

By changing the energy used in its supply chain, Sanofi expects to become more sustainable and in line with future concerns. There is a worldwide tendency among companies to rethink its electricity supply choices, and Sanofi is not different. With the measures that are going to be implemented, not only the planet will benefit from it but also the company in the long-term.

Become more sustainable



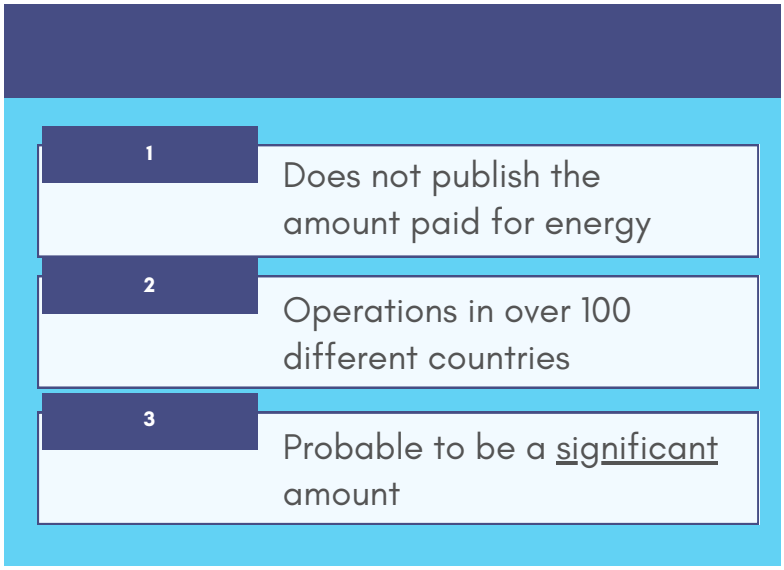
In tune with future concerns

6. BUDGET AND COST/BENEFIT ANALYSIS

Sanofi does not publicly disclose how much it pays for energy. However, the company has said that it is working to reduce its energy costs by improving energy efficiency and investing in renewable energy. In 2020, Sanofi reported that it had reduced its energy consumption by 3% compared to 2019. The company also said that it had signed contracts to purchase renewable energy for its operations in the United States and Europe.

Based on the company's public disclosures, it is likely that Sanofi pays a significant amount for energy. The company has operations in over 100 countries, and energy costs can vary significantly from country to country. In addition, the cost of energy has been rising in recent years. As a result, it is likely that Sanofi's energy costs are a significant expense for the company.

Sanofi is taking steps to reduce its energy costs by improving energy efficiency and investing in renewable energy. These efforts are likely to help the company save money on energy in the long run. In addition, Sanofi's commitment to sustainability is likely to improve its reputation with investors and customers



7. PROJECT RISK'S

7.1 MAJOR CONSTRAINTS / RISKS (SOLAR ENERGY, AND EOLIC ENERGY)

Risks Assessments

#A: Difficulties in Founding Renewable Energies.
#B: Dependency on Nature Factors (Sunlight and Wind).
#C: Suite Location for use of Renewable Energies.
#D: Renewable Energies Equipment Performance and Maintenance.

The criteria we will use will be a scale between **(1-5)**:

Very low	Low	Moderate	High	Very High

7.2 LIKELIHOOD OF RISK ASSESSMENTS

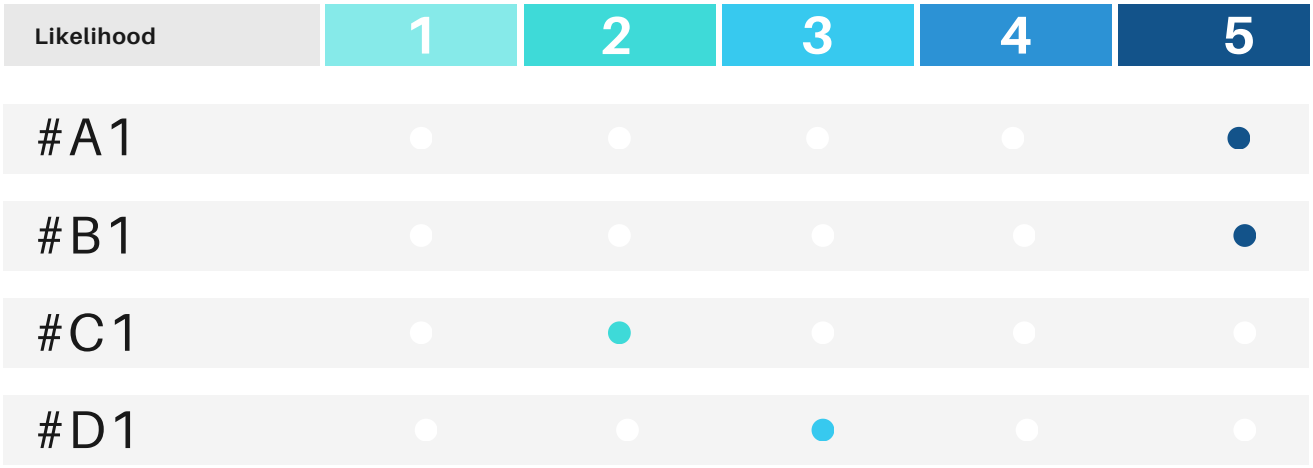
The probability or chance of a risk event occurring.

#A1: The probability of this risk occurring is very high because to start a business that focuses on renewable energy, we need always make a giant investment.

#B1: The probability of this risk occurring is very high because using renewable energy, we are very dependent on nature energies, and we cannot predict when the specific weather is.

#C1: The probability of this risk occurring is low because the company contract specialists to analyze which are the best place according to weather experiences in the past.

#D1: The probability of this risk occurring is medium because the company will have to see if their renewable energy machines are working and do a constant inspection of their equipment.



7.3 IMPACT OF RISK ASSESSMENTS

The impacts according to the likelihoods.

#A2: If the company has a high investment in energy-renewable systems, they will have giant costs, but it will allow us to achieve our goal which is to be aware of the future generation's health. This risk is important at the beginning because without the investment we cannot continue the implementation of Sanofi process improvement.

#B2: If the company has a giant dependency on Nature Factors (Wind and Sunlight), Sanofi cannot always guarantee 100% efficiency in energy production in their renewable equipment, which could lead to energy production instability.

#C2: If the company will not use specialists to understand where the best location is to produce renewable energy, could lead to failure for the company. They are making giant investments, but the costs are even higher compared to investments, which could lead to bankruptcy. This risk greatly impacts the success of this new implementation and must be implemented at the beginning of our project.

#D2: If the company always takes care of its renewable equipment, it will have efficient energy production and will not have mistakes in energy counting. This risk has a medium impact and must be implemented once in a respective interval of time.

Impact	1	2	3	4	5
#A2					●
#B2					●
#C2				●	
#D2			●		

7.4 DETECTION DIFFICULTY OF RISK ASSESSMENTS

The detection of difficulties according to the likelihood.

#A3: It is very low risk to detect when the company needs investments in energy renewables products.

#B3: It is low risk to detect how the company is dependent on natural resources.

#C3: It is very low risk to detect the best places to install the new Eolic and solar panels.

#D3: It is a moderate risk to detect where the parts of the renewable equipment need maintenance.

Detection difficulty	1	2	3	4	5
#A3	●				
#B3		●			
#C3	●				
#D3			●		

7.5 TIME OF OCCURRENCE OF RISK ASSESSMENTS

The Time of Occurrence according to the likelihood.

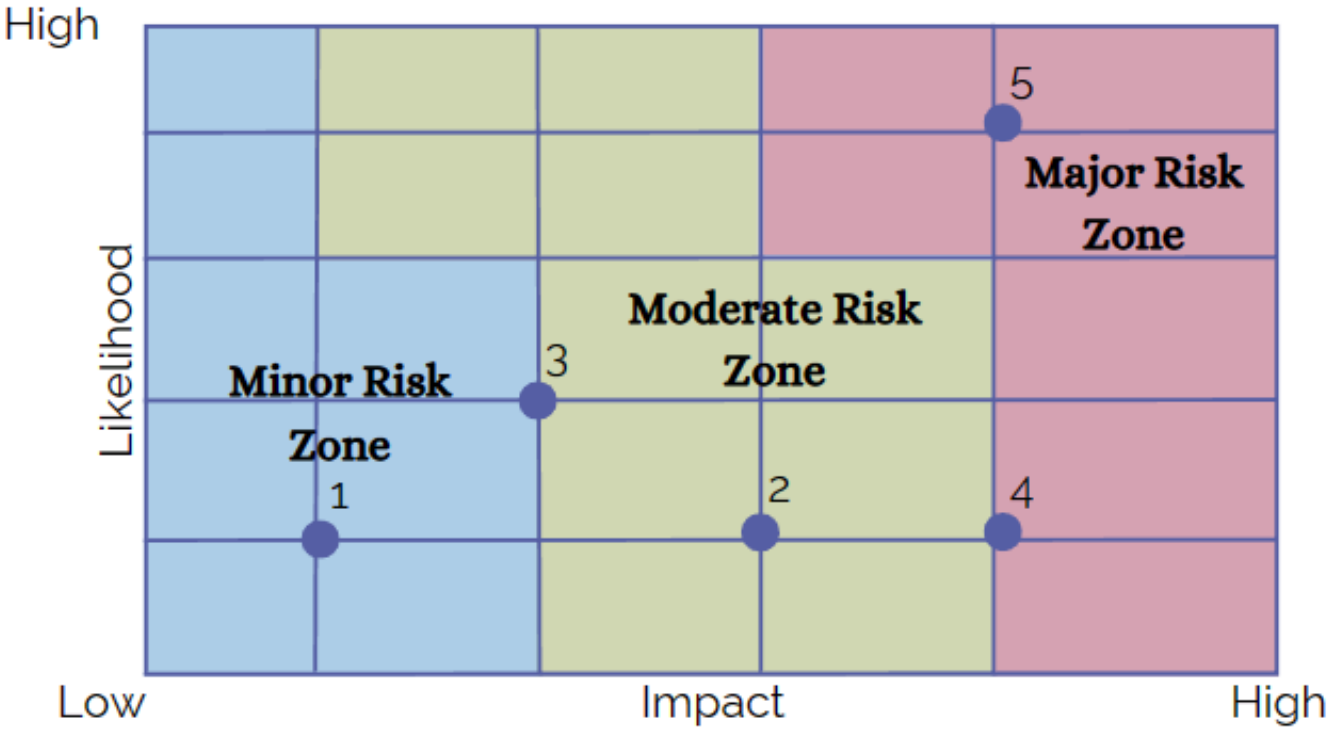
#A4: It will happen in the **beginning** phase of the project.

#B4: It will happen during the **entire** phase of the project.

#C4: It will happen in the **beginning** phase of the project.

#D4: It will happen during the **entire** phase of the project.

7.6 RISK SEVERITY MATRIX



8. WORK-BALANCE STRUCTURE

Improving Energy Practices and Techniques at SANOFI

8.1 PROJECT OVERVIEW

The purpose of this project is to enhance energy practices and techniques at SANOFI, focusing on improving energy efficiency, reducing energy consumption, and promoting sustainable energy sources. The project aims to create a comprehensive plan that addresses energy management and conservation across SANOFI's operations.

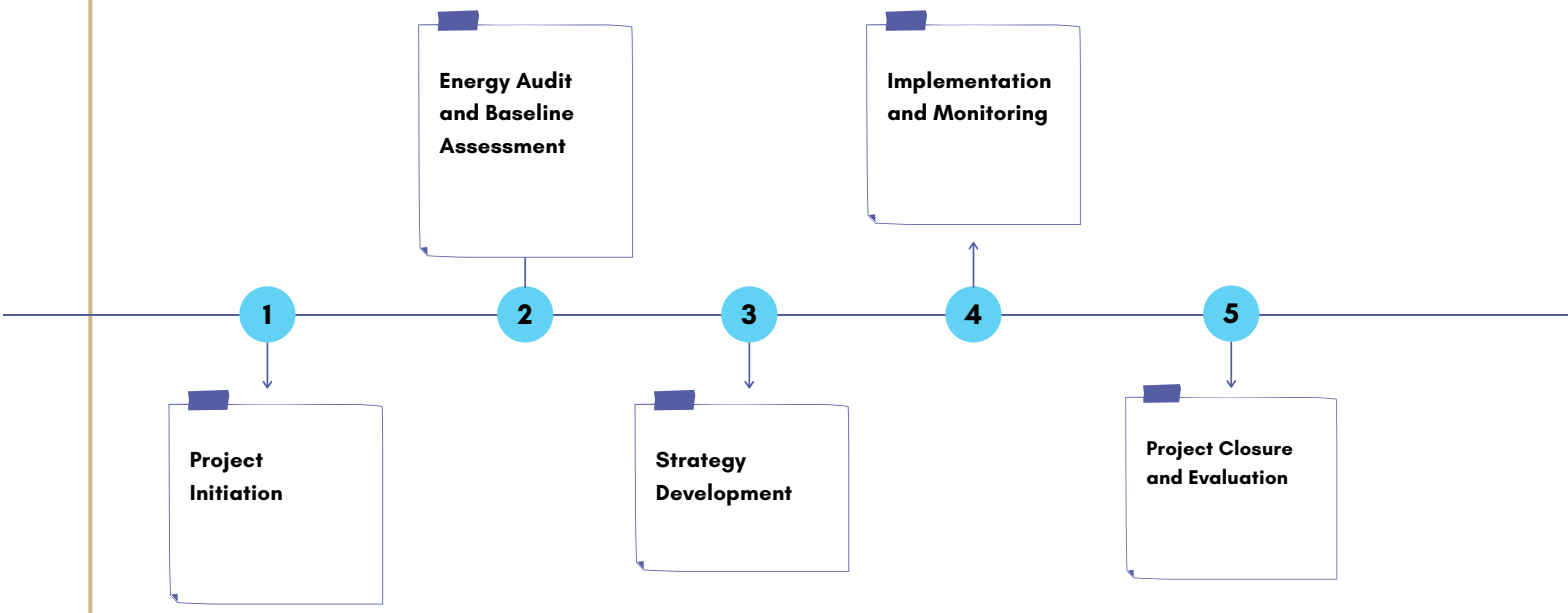
8.2 PROJECT OBJECTIVES

- Conduct an energy audit to assess current energy practices, identify areas of improvement, and set baseline metrics.
- Develop and implement energy management policies and guidelines to promote energy conservation and sustainability.
- Identify and implement energy-efficient technologies and solutions.
- Raise employee awareness and encourage behavioral changes to reduce energy consumption.
- Explore and integrate renewable energy sources into SANOFI's energy mix.
- Measure and monitor progress through regular energy performance evaluations.
- Develop a long-term strategy for continuous improvement in energy practices.

8.3 PROJECT SCOPE

- Conduct a comprehensive energy audit across SANOFI's facilities, including manufacturing sites, offices, and warehouses.
- Identify energy-intensive processes and equipment for potential optimization and efficiency improvements.
- Assess the feasibility of renewable energy sources, such as solar, wind, or geothermal, for integration into SANOFI's energy infrastructure.
- Evaluate existing energy management policies and practices and propose updates or new guidelines.
- Develop a training and awareness program to educate employees about energy conservation and encourage sustainable behaviors.
- Collaborate with suppliers and contractors to promote energy-efficient equipment and technologies.
- Implement monitoring and reporting mechanisms to track energy consumption and performance.

8.4 PROJECT PHASES AND TIMELINE



Phase 1: Project Initiation (2 weeks)

- Define project goals, objectives, and scope.
- Establish project team and assign roles and responsibilities.
- Develop a project charter and gain stakeholder buy-in.

Phase 2: Energy Audit and Baseline Assessment (4 weeks)

- Engage energy consultants to conduct a comprehensive audit of SANOFI's facilities.
- Collect data on energy consumption, equipment efficiency, and operational practices.
- Analyze findings and identify key areas for improvement.
- Establish baseline metrics for energy consumption and efficiency.

Phase 3: Strategy Development (6 weeks)

- Review existing energy management policies and guidelines.
- Research and benchmark best practices in the pharmaceutical industry.
- Develop updated energy management policies and guidelines.
- Explore renewable energy options and assess feasibility.
- Create a long-term strategy for continuous improvement in energy practices.

Phase 4: Implementation and Monitoring (12 weeks)

- Pilot energy-efficient technologies and solutions in selected facilities.
- Conduct employee training and awareness programs.
- Collaborate with suppliers and contractors to implement energy-saving measures.
- Integrate renewable energy sources into SANOFI's energy infrastructure.
- Establish energy performance metrics and implement monitoring systems.
- Regularly evaluate progress and adjust strategies as needed.

Phase 5: Project Closure and Evaluation (2 weeks)

- Conduct a final evaluation of project outcomes and performance.
- Prepare a project closure report, including lessons learned and recommendations for future energy initiatives.
- Present project findings and recommendations to SANOFI's management.

8.5 PROJECT RESOURCES:

The purpose of this project is to enhance energy practices and techniques at SANOFI, focusing on improving energy efficiency, reducing energy consumption, and promoting sustainable energy sources. The project aims to create a comprehensive plan that addresses energy management and conservation across SANOFI's operations.

8.6 PROJECT COMMUNICATION

- Regular project status updates to stakeholders, including SANOFI's management.
- Employee newsletters and awareness campaigns to promote energy conservation.
- Meetings with suppliers, contractors, and energy consultants to ensure alignment and progress.
- Presentations and workshops to educate employees about energy practices and techniques

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8.7 PROJECT RISKS:

The purpose of this project is to enhance energy practices and techniques at SANOFI, focusing on improving energy efficiency, reducing energy consumption, and promoting sustainable energy sources. The project aims to create a comprehensive plan that addresses energy management and conservation across SANOFI's operations.

9. GANTT CHART

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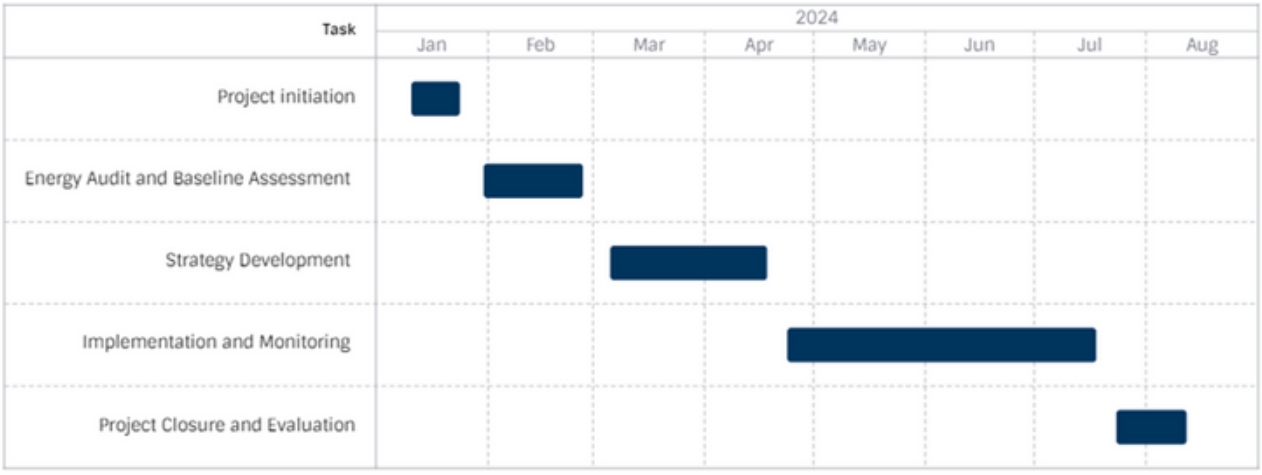

10. CONCLUSION

Our group after analyzing how is Sanofi's energy performance processes, can conclude that the company only has a 100% renewable chain Energy in European countries such as Italy, Hungary, Poland, Ireland, the United Kingdom, and Spain. The company must improve and expand the way how it produces its energy in a sustainable way, such as by promoting lower carbon energies in projects, and purchasing electricity from renewable sources (Solar Panels, and Wind Panels) but depending on the characteristics of each country (their weather, their soil), reducing energy waste, adopting electric vehicles for transport logistics, and a new creative way of energy-efficient production processes. For that must follow our plan project idea, understand the scope and goals of our project, what must be accomplished first for implementation of the project, what are the costs and benefits of implementing the project, and what are the risks of their implementation.

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