A Work Project, presented as part of the requirements for the Award of a Master Degree in Management from the NOVA – School of Business and Economics.

ECOPRENEURSHIP IN PORTUGAL:

A CONTEXT & MARKET ANALYSIS

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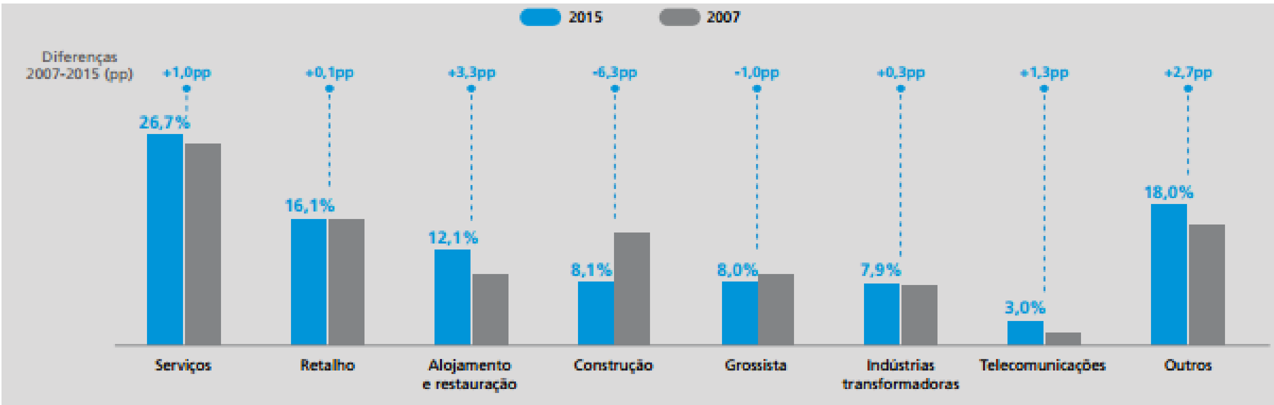
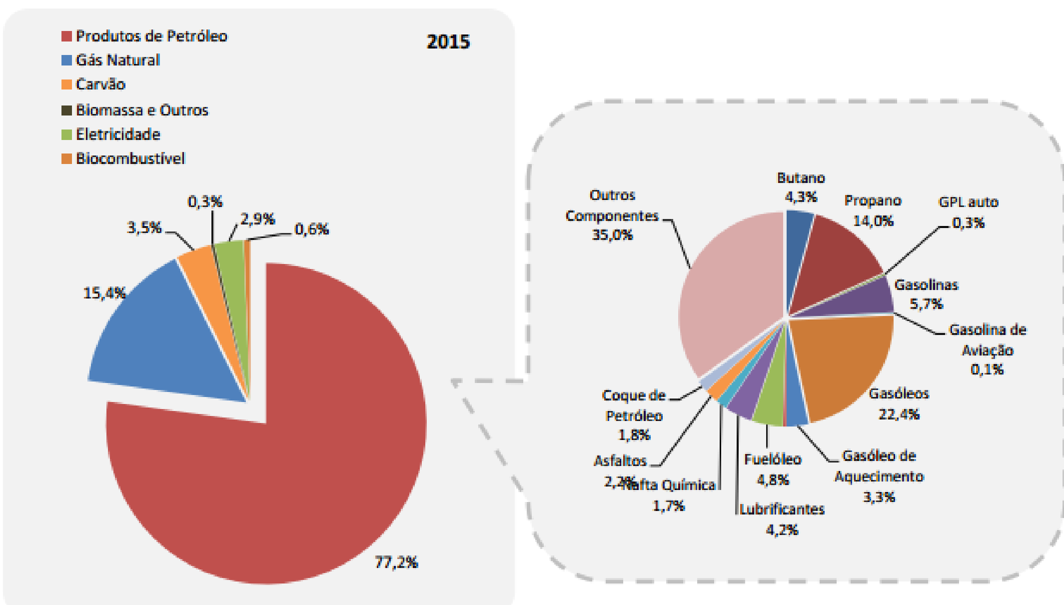
8. TABLES AND FIGURES

Figure 1 – Birth of Start-Ups by Sector in Portugal in 2007 and 2015.



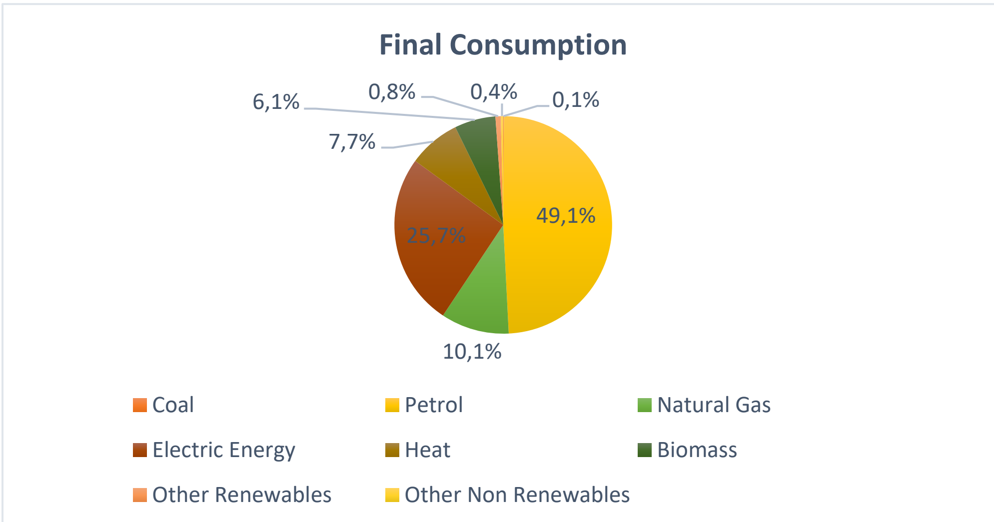
Source: Dun & Bradstreet

Figure 2 – Portuguese Energy Imports by Source of Energy in 2015 (% of Total Energy Imports)



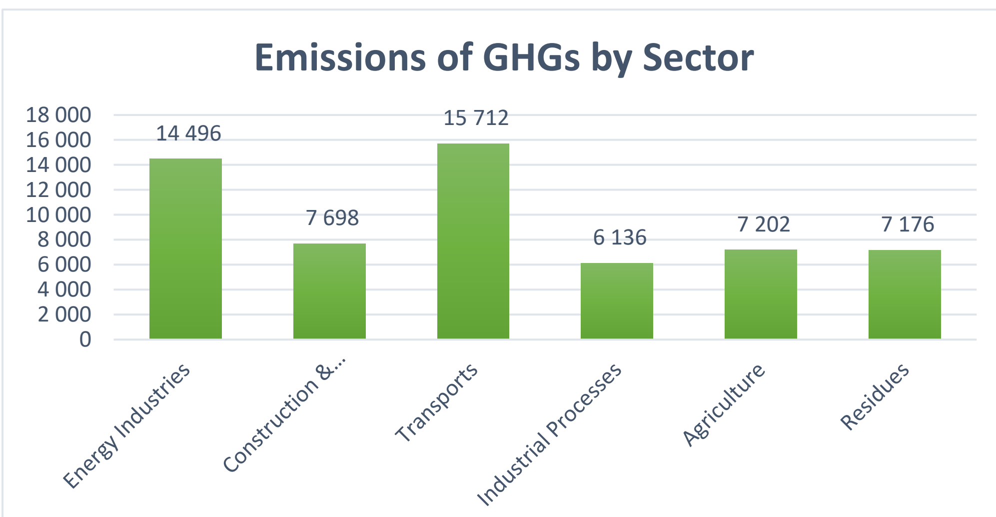
Source: DGEG

Figure 3 – Consumption of Energy, by Source of Energy, in Portugal, 2015 (% of Total Final Energy Consumption)



Source: APREN

Figure 4 – Emission of GHGs by Sector in Portugal in 2014 (Tons of CO_2 Equivalent)



Source: PORDATA

Figure 5 – Total Amount of Waste Produced per Sector in Portugal in 2014 (Tons)

Source: PORDATA

Table 2 – Final Consumption of Primary Energy by Source of Energy in Portugal, 2014 (Tons of Oil Equivalent)

	Total	Agriculture & Fishing	Industry	Transports	Domestic	Services
Coal	12 385	-	12 385	-	-	-
Petrol	**7 371 585**	346 165	903 739	5 469 198	467 886	184 597
Natural Gas	1 527 486	4 754	1 036 213	12 141	259 203	215 175
Electricity	3 886 109	70 912	1 338 912	25 395	1 024 064	1 426 826
Heat	1 226 407	1 203	1 194 123	-	-	-
Renewable Energies	1 057 295	4 841	162 314	4 858	801 756	83 526
Waste	85 513	-	85 513	-	-	-
Total	**15 166 780**	427 875	4 733 199	5 511 592	2 552 909	1 941 205

Source: Apren (Associação de Energias Renováveis)

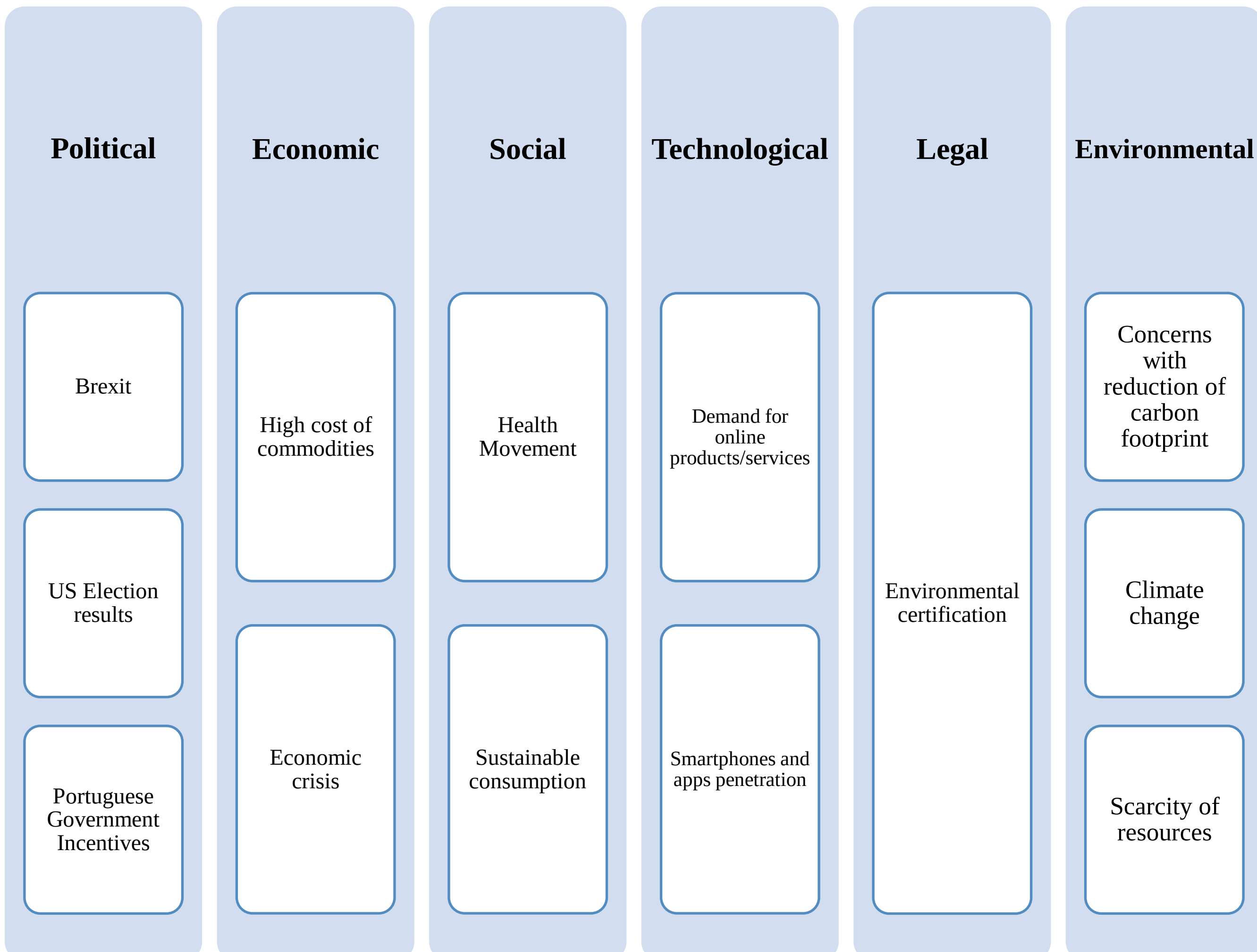
Table 3 – Annual Sales Turnover of Companies Producing Environmental Related Goods and Services in Portugal, from 2011 to 2015 (Thousands of Euros).

Year	2011	2012	2013	2014	2015
Turnover	4 637 221	4 685 664	4 523 037	4 490 641	4 726 339

Source: INE

9. APPENDIX

Appendix A: PESTLE Analysis: Macro-economic trends that may affect a green start-up in Portugal



Political:

<u>Brexit</u>: The exit of the United Kingdom from the European Union might hinder the trading relationship between Portugal and the UK.

US Election Results: The election of Donald Trump as President of the United States may alter the trading relationship between Portugal and the US.

Portuguese Government Incentives: The incentives and aid programs in place by the Government are helpful and encouraging to entre and ecopreneurs.

Economic:

High Cost of Commodities: The most used source of energy in the country is petrol and this commodity is an expensive one.

Economic Crisis: The Portuguese Economic crisis is still affecting a lot of companies and making it harder for new companies to successfully arise in the country. Recently though, the situation has somewhat attenuated.

Social:

Health Movement: Lately there has been a growing concern for health which leads to better life choices, especially when it comes to eating habits. More and more people are looking for food products that are less harmful to the human body, more natural foods, with less chemicals which also happen to be better for the environment.

Sustainable Consumption: For a few years now, the increased environmental awareness and health movement trend have led to a higher overall demand for green products which consists of an opportunity for green start-ups to rise up to meet this demand with sustainable products. Another type of sustainable consumption is sustainable tourism. The eco-friendly touristic establishments are growing in importance.

Technological:

Demand for Online Products: The trend of ordering goods and services from the comfort of one's home has been a noticeable trend for years now and more and more companies have been adhering to this trend by offering their products both physically and online.

Smartphones and Apps Penetration: The higher and higher rates of penetration of smartphones and apps is an opportunity for all types of companies. But by matching this trend to the demand for green products and to the demand for online products a new opportunity arises here for green companies to provide green goods and services in a completely new way. An example of this is My Farm, a Portuguese company created by Portuguese students took a well renowned game such as Farmville and made it into a reality. My Farm is a virtual farm that allows its users to virtually plant organic products of their choosing which will be delivered to them, at their door step, on a weekly basis.

Legal:

Environmental Certification: In order to be a recognized environmentally friendly company, the proper certifications are required. The company can possess a product/equipment certification, a building/establishment certification or an enterprise certification. With sustainability being almost considered a requirement in business nowadays, lately, a significant number of companies has been trying to become more sustainable or, at least, to pass on the image of sustainability. This means that many companies who do not in reality have any connection to the environment have been acquiring certification seals in order to deceive the customer. This creates an issue for companies who are indeed green and are now forced to compete with companies who despite not being sustainable, are making the customers believe otherwise.

Environmental:

Concerns with Reduction of Carbon Footprint: Both people and companies have for a few years now, shown a growing concern with the reduction of CO_2 emissions, be that by altering simple day-to-day habits such as reducing the use of cars and increasing the use of bicycles or public transportation or by reducing the emissions of factories or the use of fossil fuels at a company level.

Climate Change: This trend has been a reality for a while now and it has encouraged people to take action in order to try to stop it or reduce its pace.

Scarcity of Resources: The scarcity of natural resources is also a reality at the moment and it creates an opportunity for companies that intend to preserve these resources in new and innovative ways to enter the market.

Appendix B: SWOT Analysis for a green startup in Portugal

Strengths	Weaknesses	Opportunities	Threats
Ecopreneurs have knowledge of environmental issues	Ecopreneurs may not have a lot of business experience	Higher demand for green products	Long-term enterprise survival rates
Ecopreneurs are eager to make a difference	Small and new company	Higher demand for sustainable tourism	High risks
Ecopreneurs are persistent, innovative and creative		Higher awareness of environmental issues	Uncertainty
		EU community funds	Economic Crisis
		Reduction in IRC	High competition in the green industry (certificatoin seals)