Curso de Empreendedorismo

José Cavalheiro

(Relatório de Atividades)

Resumo— Durante os meses de março a junho, realizei um curso de empreendedorismo, onde assisti a aulas online sobre o tema, preparando de seguida um relatório juntamente com o meu colega de grupo. Alguns dias depois de preparar cada relatório assisti a sessões presenciais relativas a diferentes lugares relevantes no contexto do empreendedorismo em Portugal. Visitei algumas incubadoras como a fábrica de startups [5] ou a beta-i [3] e estive em contacto com empreendedores, que relataram as suas experiências e esclareceram questões. No total despendi cerca de 45 horas nesta atividade.

Não é resenha do documento!

Palavras Chave—Empreendedorismo, Empreendedor, empresa, "startup", incubadora, relatório, curso online

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1 INTRODUÇÃO

DURANTE os meses de março a junho realizei um curso de empreendedorismo, organizado pelo Professor Miguel Mira da Silva. O curso consistiu em assistir a aulas online no portal da *Udemy* [1] e executar uma série de exercícios de aplicação dos conhecimentos adquiridos. O resultado prático desses exercícios foi depois sintetizado em relatórios. Os exercícios implicaram discutir ideias, contactar empreendedores e validar as mesmas ideias, consultando indivíduos com capacidade para as avaliar e validar.

Como forma de complementar os conhecimentos adquiridos, tive a oportunidade de assistir a sessões dadas por empreendedores em algumas incubadoras e até no próprio Instituto Superior Técnico (IST).

No final do curso, tivemos (em grupo) a oportunidade de apresentar o resultado do nosso trabalho perante o grupo de colegas a realizar o curso em simultâneo, obtendo também "feedback" de alguns empreendedores.

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2 AS AULAS ONLINE

No curso que realizei, o conhecimento teórico era proveniente de um curso online, na plataforma da *Udemy* [1]. Os vídeos das aulas foram elaborados pelo Professor *Jeff Cornwall*, da universidade de *Belmont*, ele que é também um empreendedor com experiência e bastante reconhecimento.

As aulas consistiram na exposição de matéria teórica, intervalada com a exposição de alguns casos práticos.

Foram abordados temas mais introdutórios como o que é o empreendedorismo e qual o papel do empreendedor, mas também temas mais avançados como modelos de negócio, formas de financiamento, mercados e validação de ideias com os clientes. Em anexo encontra-se a lista completa de temas das aulas. *Qual?*

Apesar de no total as aulas terem uma duração relativamente curta, considero terem sido uma iniciativa positiva pela oportunidade de ter ficado a conhecer bastante melhor o tema.

3 PREPARAÇÃO DE RELATÓRIOS

Depois de assistir a cada capítulo do curso online, como forma de aplicar os conhecimentos teóricos adquiridos, o grupo de trabalho teve de entregar relatórios em que descrevia o resultado da aplicação prática dos conhecimentos.

		ACTIVITY					DOCUMENT						
(1.0) Excelent		Objectives x2	Options x1	Execution x4	S+C x1	**SCORE**	Structure x0.25	Ortogr. x0.25	Gramm. x0,,25	Format x0.25	Title x0.5	Filename x0.5	**SCORE**
(0.8) Very Good													
(0.6) Good													
(0.4) Fair		1.6	0.8	3.2	0.5	6.1	0.25	0.23	0.23	0.25	0.5	0.5	1.96
(0.2) Weak													

Os relatórios foram avaliados pelo Professor Miguel Mira da Silva.

Cada relatório tinha um objetivo diferente:

- O primeiro relatório consistiu numa entrevista a um empreendedor, para que tomássemos contacto com as condicionantes, os desafios, as dificuldades e os riscos inerentes à criação duma "startup".
- No segundo relatório foi-nos pedido que identificássemos e descrevêssemos possíveis ideias de negócio, selecionando uma dessas possibilidades e validando-a com potenciais clientes.
- Verificado o interesse no desenvolvimento de uma das ideias, pela validação junto dos potenciais clientes, foi elaborado um relatório, o terceiro, com o objetivo de desenvolver o modelo de negócio correspondente.
- Elaborado o modelo de negócio, foi preparado um quarto e último relatório, com o objetivo de servir de suporte à apresentação da ideia de negócio a investidores e analisar as formas mais adequadas de financiamento.

3.1   Organização do trabalho

Durante o desenvolvimento de cada etapa (relatório) do trabalho, o grupo efetuou o seguinte:

- Identificámos e debatemos as soluções e ideias para cada questão, dos diferentes relatórios.
- Decidimos, o que incluir e modo de o fazer.
- Definimos as tarefas a concretizar, nomeadamente quem contactar para resolver algumas das questões.

Concluídas as ações acima, discutimos os resultados e elaborámos o relatório respetivo.

A elaboração de cada relatório decorreu com a participação dos dois elementos do grupo, através de sucessivas fases de elaboração por um e análise e correção pelo outro. O processo terminou quando ambos concordámos com a solução obtida.

4   SESSÕES PRESENCIAIS

O objetivo das sessões presenciais foi complementar os conhecimentos teóricos adquiridos com as aulas online e aplicados na elaboração dos relatórios.

Ao longo das várias sessões fiquei a conhecer algumas incubadoras e alguns empreendedores, que transmitiram ao grupo a realizar o curso a sua experiência pessoal.

4.1   Visita à Fábrica de Startups [5]

Esta primeira sessão foi conduzida pelo Professor *António Lucena de Faria*, presidente da *Fábrica de Startups* e Professor de empreendedorismo na *Católica Lisbon School of Business and Economics* [12] e pela empreendedora *Karina Martins da Costa*, Diretora da *Fábrica de Startups* [5].

À data da visita à *Fábrica de Startups* [5], esta ainda não tinha sido inaugurada, contudo a boa receção pela direção, permitiu conhecer de forma detalhada a sua organização.

Hoje é uma das muitas incubadoras que dão suporte aos empreendedores. Fornecem espaço de trabalho, formação e apoio na divulgação de ideias e produtos.

Durante a sessão foi explicada a importância das incubadoras e dos programas de aceleração que fornecem. Foram também descritos alguns casos práticos de empresas que começaram em incubadoras como aquela viria a ser, e foi realçado que mais do que uma ideia e um produto, é preciso que exista um mercado com necessidade desse produto.

Foi também referido que para que uma "startup" tenha sucesso, é preciso juntar na mesma equipa um conjunto de pessoas com conhecimentos diversos mas complementares para o projeto em questão. Foi dado como exemplo que uma equipa de apenas engenheiros terá dificuldade em garantir a saúde financeira da empresa, mas uma equipa de apenas gestores não terá capacidade para desenvolver um produto que envolva tecnologia.

4.2   Visita ao DNA Cascais [2]

Ao contrário da primeira sessão, o *Founder institute* [4] que tem no *DNA Cascais* [2] a sua sede em Portugal, tem como objeto principal dar formação na área do empreendedorismo, olhando para o empreendedorismo como um negócio.

A sessão foi conduzida pelo Dr. *Carlos Silva*, representante do *Founder Institute* [4] em Portugal, e focou-se durante a primeira parte, na forma dos empreendedores validarem e divulgarem os seus produtos e ideias. Foi também explicado o papel dos investidores e "business angels" na vida das "startups".

Numa segunda parte da sessão foram apresentados alguns casos de sucesso, como por exemplo o da *Seedrs* [6], uma plataforma online com grande sucesso na gestão do financiamento de "startups" e que permite que qualquer pessoa possa comparticipar em investimentos nas "startups" que utilizam essa plataforma para se financiarem .

4.3   Sessão IST LaunchPad

O *IST LaunchPad* [7] é um evento em que se reúnem no IST diversos empreendedores que apresentam as suas experiências e explicam as razões e fatores dos seus sucessos e insucessos.

Nesta sessão foi apresentada a *Startup Lisboa* [10] pelo seu diretor executivo, *João Vasconcelos* e transmitida a experiência do empreendedor *Vasco Pedro* até se tornar Co-Fundador da *Unbabel* [8], empresa que fornece uma plataforma de tradução de documentos online. Mais do que perceber a razões que segundo ele levaram a que algumas das suas "startups" não continuassem, a descrição da forma como funciona o *YCombinator* [9], uma incubadora em *Sillicon Valley*, permitiu-me comparar o modo de funcionamento das incubadoras em Portugal com uma nos Estados Unidos.

Enquanto nas incubadoras Portuguesas existe um foco em oferecer formação e espaço de trabalho por exemplo, O *YCombinator* não fornece nenhuma das condições anteriores. A metodologia passa por tornar o acesso altamente restrito aos participantes, dar acompanhamento às "startups" por alguns dos empreendedores mais importantes do Mundo e limitar os possíveis investidores a um grupo selecionado.

4.4   Visita à Startup Lisboa [10]

Por motivos de sobreposição com outro compromisso inadiável, não pude estar presente nesta sessão, mantendo contudo o interesse de numa próxima oportunidade o fazer, mesmo depois de concluída a atividade.

4.5   Visita à Beta-i [3]

No dia em que me desloquei às instalações da *Beta-i* [3] tive a oportunidade de entrar em contacto com equipas a participar no programa de aceleração *Lisbon Challenge* [10]. Nessa ocasião pude questionar alguns membros dessas equipas acerca dos seus modelos de negócio, planos futuros ou a forma como divulgam os seus produtos. Deste modo foi-me possível tomar conhecimento de casos concretos de empresas que apesar de ainda só terem alguns meses, devido às exigências impostas pelos critérios de seleção dos júris do programa de aceleração, tinham o seu trabalho e planos muito bem definidos e apresentavam já algum sucesso. Um desses casos era uma empresa que criou uma plataforma onde se podem comprar pacotes turísticos para pessoas com problemas de mobilidade [13].

Tratando-se de um nicho de mercado tive curiosidade em perceber como era feita a divulgação. Foi-me explicado que era feita integralmente pelas agências de viagens, que não têm uma solução própria para responder a esses casos.

4.6   Sessão final no IST

A última sessão presencial do curso serviu para que cada grupo pudesse apresentar o resultado do seu trabalho, recebendo de seguida "feedback" por parte do empreendedor *André Marquet*, diretor da *Beta-i* [3].

No nosso caso, a ideia apresentada foi bem recebida e o empreendedor *André Marquet* sugeriu que nos candidatássemos ao programa de aceleração *Lisbon Challenge* [10].

Em traços gerais, a ideia consistia em recolher os dados dos consumos energéticos de um edifício e permitir aos gestores monitorizar e regular esses consumos.

No geral as ideias apresentadas pelos restantes colegas foram também bem aceites e o "feedback" que os alunos deram acerca do curso foi positivo.

4.7   Sessão de Break [11]

Já depois de terminada a última sessão do curso no IST, os alunos do curso foram convidados a ficar a conhecer como funcionam as sessões de *Break* [11]. Naquele dia a sessão decorreu no *Hotel Florida* onde constatámos a importância daquele tipo de eventos, para que os empreendedores angariem contactos profissionais e consigam encontrar colaboradores com os conhecimentos pretendidos para a formação das suas equipas.

Trata-se acima de tudo de um momento em que os empreendedores interrompem o seu trabalho e comunicam entre si.

5   CONCLUSÃO

A atividade permitiu-me melhorar o conhecimento individual sobre o tema.

O empenho em grupo resultou na entrega de todos os relatórios dentro do prazo e consequentemente numa classificação final elevada. A nossa ideia foi bem aceite na sessão final e foi-nos sugerido que nos candidatássemos a um programa de aceleração.

Por estas razões posso afirmar que a atividade foi concluída com sucesso.

[Nota manuscrita: Neste Tipo de documento (Técnico) a Conclusão deve começar com um Resumo do assunto abordado e depois deve realçar os resultados]

REFERÊNCIAS

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COMPROVATIVO FORNECIDO PELO PROFESSOR MIGUEL MIRA DA SILVA

COMPROVATIVO

Venho por este meio comprovar que os seguintes alunos participaram na actividade "Curso de Empreendorismo" durante os meses Março a Junho de 2014.

70467	Pedro Ferreira		68479	Daniel Ribeiro
70556	Miguel Pedroso		68924	Rodolfo Morgado
70619	Fabio Ribeiro		70754	Luis Melo
62604	André Vale		69316	Guilherme Ferreira
64814	Mário Cardoso		76627	Helder Titosse
64878	Viteche Ashvin		79554	Ricardo Martins
68592	Alexandre Freitas		38202	Nuno Pinto
73987	Filipe Cunha		79466	João Eduardo
62490	Diogo Anjos		64075	Marta Baptista
64804	José Cavalheiro		64824	Nuno Duarte

Prof. Miguel Mira da Silva

Instituto Superior Técnico

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COMPROVATIVO FORNECIDO PELA UDEMY

Certificate of Completion

This is to certify that José successfully completed the Entrepreneurship -- From Idea to Launch online course on July 9, 2014

Dr. Jeff Cornwall
Dr. Jeff Cornwall, Instructor

&

udemy

NEVER STOP LEARNING

Certificate no: UC-SVAF1JS6
Certificate url: ude.my/UC-SVAF1JS6

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RELATÓRIO 1 - PÁGINA 1

PCE 2014 - Exercise 1   **Group GD**

62490 – Diogo Anjos
64804 – José Cavalheiro

Experienced entrepreneurs serve as important mentors and advisers for new entrepreneurs. Reach out to an entrepreneur (or even better several entrepreneurs) and take time to learn their stories. Use their story telling to help illustrate for you:

1. **What was the process this entrepreneur went through when going from idea to launch? What steps were taken and what may have been skipped? What challenges did the entrepreneur face when moving to launch?**

These answers result from the conversations we had with the entrepreneur Bruno Santos about his experience at "*Survs*" (http://www.survs.com/) as a collaborator. "*Survs*" is a SaaS platform which allows creating and analyzing online surveys. According to Bruno, the process that leaded to the startup creation, and service implementation, was conducted in a way which is not so structured and well defined as the one presented by the online lecture "From the Idea to Launch", being the Business Modelling and Planning tasks far from being exhaustively explored. The business idea came from the need felt by the founders to find an online service able to easily build surveys and richly analyze their results. To assess the idea's feasibility, they looked through the market trying to find similar services. They also studied the eventual market share trying to understand how profitable the new service could be, and which were the most adequate revenue models. After that, they concluded the demand for this kind of services was not completely satisfied by the existing solutions, having in the market a set of needs to be fulfilled. The Business Model was strongly based on existing ones (e.g. revenue model and pricing options). In the beginning, the Business Plan was barely developed. The major challenge to launch the service was the lack of time to invest in the project. It started with a team of two, who only could work on the project on their free time (both had a full time job). Due to the lack of time and (maybe) a proper business plan, it took them two years until they could have the first version of their service online.

2. **What stage is this business in its life cycle? What issues and challenges did this entrepreneur faced at each stage in the development of their business?**

Currently, "*Survs*" is in Startup stage of the business life cycle. The adoption and use of the service is in a growth phase, being a large part of the target market yet to be reached, meaning "*Survs*" stills has a great growth potential. The actual major challenge faced by the team is their lack of marketing skills. The current team of 4 working full time in the project is composed uniquely by developers without a strong background in marketing related topics. That aspect gives the team a hard time to fully understand how important it may be, the implications of neglecting it, and how it may be corrected.

3. **How does this entrepreneur view the risk taken when launching the business?**

At first the project was seen as a "garage project", developed only on founder's free time and costs with technology were insignificant. Since there was no need to sacrifice the stable full time job of the team members, we can say entrepreneurs always assumed a low risk for this project. The team only start to work full time on the project when the generated revenues began to be sufficient to pay a full time wage job.

Tamanho máximo: UMA PÁGINA   1

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RELATÓRIO 2 - PÁGINA 1

Section 2 Exercises   **Group GD**

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1.

First Idea: This service comes from the concept of "API Economy" and relies on the implementation of a RESTful API. It receives data streams related with buildings energy consumption, process them, and produces real-time information, used to monitor and adjust building energy consumption. Results would be presented in a web-based dashboard, from which required Key Performance Indicators can be measured, supporting a real-time decision making process. The API data stream sources would be a network of energy related sensors, such as energy meters, equipment and environmental sensors. The disruptive forces behind this idea are the following:

- New technological paradigms that have recently emerged such as cloud computing environments (SaaS, PaaS, IaaS), the interconnectivity of the Internet of Things, and the Big Data algorithms and tools.
- The Economic/Political programs (e.g. Europe 2020) that demands a more efficient use of the energy.
- The 54% of energy Europe has to import while their greatest resource remains fully exploited: the technical expertise for intelligent energy management. On the social dimension is important to note that the European lifestyle is strongly dependent on high rates of energy consumption, and since there is a direct relationship between economy growth and energy consumption, an efficient use of energy is imperative to maintain the current level of social development.

Second Idea: Building an intelligent network of fire sensors, where the nodes communicate with each other and send data (e.g. temperature, CO2, air humidity), through radio frequency waves, to a central station. The central station would gather and display results in a web-based dashboard, allowing sensor network to be monitored remotely. This idea is supported by:

- The technological disruption introduced by Open Electronics movement that came up with cheaper and more powerful microcontrollers of general purpose, such as Arduino and Raspberry Pi.
- On the Economic dimension there's a general shortage of wireless fire sensors, aking their wire based deployment expensive and limiting the area that can be mnitored.

2.

It is important to validate our ideas with people working on the corresponding areas of knowledge. We have talked with Prof. Paulo Carreira from the research group of SMART CAMPUS Project (www.greensmartcampus.eu/smart-campus-project/) at IST, and Eng. Pedro Costa from PREVINAVE (www.previnave.com).

When it refers to the first idea, we concluded users of the service would be the building managers: the ones who have the responsibility of monitoring energy consumption. Due to energy efficiency legislation and considering 40% of all energy consumption is related with buildings, small improvements on their consumption rapidly turns into huge savings. As such we assume there is a real interest on our proposed service.

For the Second idea we concluded service users will be the ones monitoring building fire sensors locally. The ones paying for the product will be administrative responsibilities for the building where fire sensors where deployed. Taking into

Tamanho máximo: DUAS PÁGINAS (depois de remover as perguntas)   1

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RELATÓRIO 2 - PÁGINA 2

Section 2 Exercises   **Group GD**

account major solutions of fire sensors only allow local monitoring (in the building),
we foresee a great interest on a network of fire sensors which can be monitored
remotely.

3.
Considering we should be able to sell the product/service with a competitive price and a
margin of at least 50% (covering implementation costs, which are typically twice the
amount planned) we have conclude the following:
About the first idea: Nowadays it is possible to build an entire web-application hosted
in a cloud environment and still pay low prices for it. There's also a huge amount of
technology options, such as open source frameworks and libraries, which can be used
for free or with affordable prices. In both cases, costs with technology and infrastructure
are minimal. Considering our service will be online and worldwide available, covering a
small fraction of market will be enough to cover implementation costs. So we conclude
that for the first idea we may achieve at least a margin of 50%.
For the second idea: Although microcontroller prices are becoming cheaper, there is a
huge set of national and international requirements (see http://www.apsei.org.pt/) that
critical systems must comply with. Even if we can sell the product for a reasonable
margin, it would take a lot of time to put the first version of the product in the market.
Also, we would like to export our service to another markets (other EU countries for
instance), requiring we cope with their legislation. The time to introduce this product in
the market would undermine future margins. In conclusion this product doesn't pass the
margin assessment.

4.
Taking into account the set of technologies required to implement the *First Idea* are
strongly related with our academic background and set of professional skills, and that
we consider this kind of software business (SaaS) interesting, we have the required
profile to run such a business. Despite of being aware implementing this kind of
business requires more than software engineering skills, other important factors such as
marketing or having a team made of people with different knowledge expertise, are
factors which can't be underestimated.

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RELATÓRIO 3 - PÁGINA 1

Section 3 Exercises   **Group GD**

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1.
Customers Segments
- Industrial Buildings (e.g. Factories and Warehouses)
- Public Buildings (e.g. Shoppings, Hotels, Universities, Hospitals, Offices)
- Domestic Buildings (e.g. apartments, small offices)

Value Prepositions
- Efficient monitoring and control of energy consumption
- Discover misuse situations of energy consumption
- Receive timely feedback about the actions taken to improve energy efficiency
- Predict future consumptions based on historical data and trend analysis
- Benchmark the current energy consumption between similar buildings

Channels
- Service delivered to the client as a software as a service through a web application.
- Monthly/Annual subscription fee based on the number of monitored datapoints and the amount of quantity processed (transactions) per day.
- Free Trial (2 months).
- Advertise the Service through the web (e.g. Google AdWords).

Customer Relationships
- Costume Solution regarding the customer profile and requirements.
- Standard solutions oriented to the costumers most common profiles.
- Presencial meetings with the customer to evaluate their needs.
- Online tutorials to learn how to use the service.

Revenue Streams
- Monthly/Annual payed service subscriptions

Key Resources
- Team of developers with strong background on: web-development, stream and complex event processing, data visualization, back-end and front-end development.
- Marketing experts.
- Cloud platform provider.
- Personal Computers.
- Office.

Key Activities
- Develop/Maintain the application and incorporate new functionalities.
- Discover Clients (Market Segmentation).
- Client requirements elicitation.
- Sales Management

Key Partners
- Advertising partners
- Cloud platform providers partners
- Electricity operators

Cost Structure
- Cloud Hosting Services
- Product Development (Developers, marketing and sales satff)
- Advertise Costs

[1] - http://greensmartcampus.eu/

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RELATÓRIO 3 - PÁGINA 2

Section 3 Exercises   **Group GD**

2.

To validate our business plan, we test the null hypothesis, meaning that we search the market for information that disproves what we are saying in the business plan, instead of search for information that validate them. We follow this approach because, according Dr. Jeff Cornwall, in the most cases is always possible to find information that validate an Hipothesis formulated from any business plan. So we should to proceed in the other way around.

To do so, we get some insight from people that works on "SMART CAMPUS" [1], an academic research project that aims to find out innovative ways to improve energy efficiency in the buildings sector. We also reach some domestic users to validate the ideas of our business plan.

After that we found the following pivots, evidences that impose a change in our business plan:

- It seems that the domestic sector is not feasible, being householders not interested in such service. Domestic users consider the service a "nice to have feature" but not a mandatory one to improve energy consumption. Then **we have to adjust our *Customer Segments***.
- Is not accurate to assume that our customers already have a pre-installed network of energy meters across the building , ready to be used as source of data to feed our application. Which means that **we have to adjust our *Value Proposition* to also provide the energy meters.**
- The adjustment on the *Value Proposition* will force us to delegate on a third party the supplying of the energy meters. Its not feasible, at least in such early stage, to made this component in house, an outsourcing strategy appears to be the most adequate one. This impose an adjustment on the ***Key Partners.***

Then the pivot points made the following changes on the initial Business Model:

Customers Segments
- Industrial Buildings (e.g. Factories and Warehouses)
- Public Buildings (e.g. Shoppings, Hotels, Universities, Hospitals, Offices)
- ~~Domestic Buildings (e.g. apartments, small offices)~~

Value Prepositions
- Efficient monitoring and control of energy consumption
- Discover misuse situations of energy consumption
- Receive timely feedback about the actions taken to improve energy efficiency
- Predict future consumptions based on historical data and trend analysis
- Benchmark the current energy consumption between similar buildings
- **Provide a reliable energy meters network**

Key Partners
- Advertising partners
- Cloud platform providers partners
- Electricity operators
- **Energy meters network providers**

[1] - http://greensmartcampus.eu/

APÊNDICE
RELATÓRIO 4 - PÁGINA 1

Section 4 Exercises   **Group GD**

62490 – Diogo Anjos
64804 – José Cavalheiro

1.
What is the concept?
The idea is to provide a web-based service capable of continuously receive data related to the energy consumption of a given building. After evaluating data, it will provide real-time information about building's energy performance. That same information, made available through a dashboard, will be used to support building manager's decision making process towards energy efficiency.
Why is it an opportunity?
The service value lies on it's ability to fulfill markets desire on improving energy efficiency. Continuous monitoring of energy consumption is essential to early detect misuse situations and enables early actuation on the problem reducing associated costs.
Taking into account the increase on energy costs and political demands, such as Europe 2020 strategy to reduce energy consumption, there's an unfulfilled need in energy consumers market.
What makes you able to pull it off?
The kind of service proposed requires a team of developers with strong background on computer science, web development, data analytics and visualization. They also must be able to stick with new technological trends such as cloud computing environments and complex events processing. Beyond technological expertise, our team must also have elements with a strong marketing background.
Who are your costumers and how will you connect to them?
Our market lies on Industrial (e.g. Factories and Warehouses) and Public Buildings (e.g. Shoppings, Hotels, Universities, Hospitals, Offices). We intend to connect with clients through online advertisement services, such as Google AdWords, and also product free trials of two months. As a future market, we may also consider Domestic Buildings (e.g. apartments, small office).
How will you run the business?
Our service will be delivered as a software as a service through a web-application, with a monthly/annual subscription revenue model based on the amount processed (transactions) per day. The service gathers data from a network of energy meters deployed at the building and if the building has no such network of sensors, we could also provide one.
How much money do you need and what do you need it for?
It will be a team of seven: five developers and two elements for marketing. We'll need to invest 7000€ in equipment: 1000€ per workstation (desktops, monitor…) for each team member. Each one will need a gross salary of 900€. We also expect to spent 600€/month with office rent. We will take 8 months to take our first prototype in production.
So: 7000€ equipment + (900€*7 brute salary +600€ facilities)*12months = 89800€. For the first prototype (built in 8 months) we need 89800€, of which 13900€ have to be invested in the first month.We will need 82800€/year for the next 2 years. To conclude, we'll need external investment during the first three years: 89800+2*89800=255400€.

Tamanho máximo: DUAS PÁGINAS (depois de remover as perguntas)   1

APÊNDICE
RELATÓRIO 4 - PÁGINA 2

Section 4 Exercises   **Group GD**

<u>What is you financial forecast?</u>

Year	1	2	3
#Clients	3	8	15
Avg(Profit/Client)	1.000 €	1.300 €	1.400 €
Total Costs	89.800 €	82.800 €	82.800 €
Total Revenue	12.000 €	124.800 €	252.000 €
Annual Cash Flow	-77.800 €	42.000 €	169.200 €
Cumulative Cash Flow	-77.800 €	-35.800 €	133.400 €

We anticipate that we will take three years to generate enough revenue to totaly cover our costs. Under this time our costs have to be supported by a third financial party.

2.

"Hello, we are a team of seven with a strong potential and expertise on building software applications, and we want to build a web based application capable to reduce the energy consumption in buildings and their associated costs. The idea is about continuously gather and analyze data related with building's energy consumption, and identify misuse situations that must be fixed. Given the increasing costs of energy, our dependence on them, and the political and ambiental movements towards energy efficiency, this kind of applications will have a crucial role on the energy consumption sector. Also, the building industry is the biggest player on energy consumption market, meaning that any tiny improvements in the way they consume energy quickly translate on huge saving. Therefore, there is a enormous potential and lots of opportunities on the emergent industry of energy conservation, that are far from being fully exploited. Let me stress the fact that in this business an investor can easily quadruplicate their initial investment after 3 years."

3.

From the several financing options -- Bootstraping, Self/Friends/Family, Organic financing from cash flow, Equity financing, Crowdfunding, and Debt Financing -- we conclude the following. The best approach would be **Bootstraping**, whoever given that we need a considerable investment in the begining, and since we only expect to have a positive cash flow in the third year, bootstraping don't seems to be the most realistic option.
We also discard **Debt financing**, because due the conservadorism of this kind of investors they will not invest in our business with a negative cash flow in the first two years.
Since we don't have the enough money to invest ourselfs in our own business the **Self, Frinds, and Family** financing option is also discarded.
Threfore, our financial options lies on the **Crowdfunding and Accelerators** for the pre-lunch and startup phase. If this financial options is not enough, then we would try the **Equitity Financing** option. Whoever, the main objective, after the cash flow starts to be positive, is to adopt an **Organic financing cash flow**, so we can become less dependent of external parties to finance our business. To conclude, the best financial options that better fits our business in an early stage is the **Crowdfunding and Accelerators**, and if necessary the **Equitity Financing** option. And after the first two or three years the best solution is the **Organic financing cash flow** option.

APÊNDICE
DIAPOSITIVOS DA APRESENTAÇÃO FINAL

15/07/2014

Who We Are

- Team of 7
- 5 Developers with strong background on:
  - Computer Science,
  - Web Development,
  - Data Analytics and Visualization
- 2 Marketers
  - Identify clients and their needs

1

Our Concept

- Web-based App. (SaaS)
- Continuously receive data related with the building's energy consumption
- Evaluate this data to provide *Real-Time* information about building's energy performance.
  - Identify problems and opportunities to improve energy consumption.
- Made this information available through a web-based dashboard

2

Proof Of Concept

- Building Sector consumes 40% of all the energy available in the market.
- Price of energy will continue to grow.
- Europe 2020 Strategy demands the reduce of energy consumption by 20%.
- Continuos monitoring of energy consumption is essential to improve energy efficiency.

3

Our Potential Clients

- Industrial Buildings
  - Factories, Warehouses, Offices, Schools, Shopping, Hospitals, Hotels, ...

- Domestic Sector
  - maybe in the future....

4

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DIAPOSITIVOS DA APRESENTAÇÃO FINAL

15/07/2014