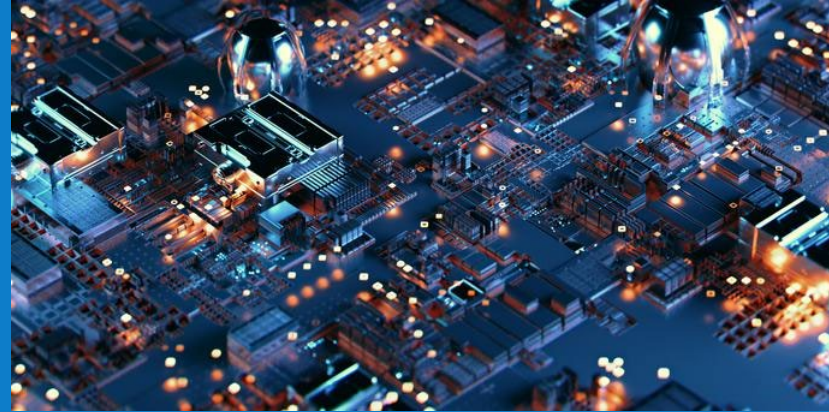




UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Fomentar l'emprenedoria en una assignatura tecnològica



9 de febrer de 2023. Jornada Docència ETSEIB
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- El contexte
- Què fem?
- Com ho fem?
- Els resultats



Alguns exemples de la tradició emprenedora a l'ETSEIB:

- IDIADA, spin-off (Carles Grasas)
- Tiendeo (germanes Martín)
- Holaluz (Carlota Pi)
- Wallbox (Enric Asunción)

Podem contribuir a
crear un retorn per a
la societat?



- L'emprenedoria neix o es pot ensenyar?
- Creem una assignatura dedicada a l'emprenedoria?
- Aprofitem les assignatures de projecte?
- Es pot introduir en una assignatura tecnològica? => la oportunitat del GTIAE



- Titulació: GTIAE
- Assignatura: Electrònica, obligatòria Q8, 6 ECTS
- Activitat desenvolupada en 2 sessions de laboratori de 2 h cadascuna
- Número d'estudiants al laboratori: màxim 14
- Dedicació del professor: 4 hores
- Dedicació de l'estudiantat: 13 hores
- Grups de 3-4 estudiants (creats amb la eina d'Atenea)



Contingut de la sessió 1:

- Introducció i motivació (5 min)
- Descripció del mètode basat en IDEO i desenvolupat a l'Iberdrola Energy Challenge (15 min)
 - Ideation => descripció de la idea en 1 pàgina
 - Creation => desenvolupament de la idea en 4 pàgines
 - Pitch => video pitch de 3 minuts per a convèncer a hipotètics inversors
- Co-creació de la idea entre el professor i l'estudiantat (1 h 40 min)

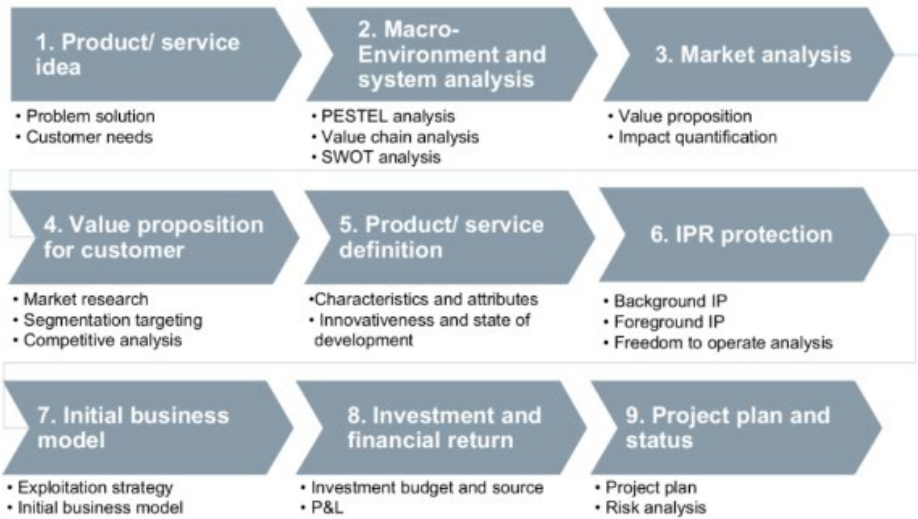
Creation: anàlisi de factibilitat + Business Model Canvas



Process Overview



The questions of the “Feasibility Work Package” are referring to the following topics



Key Partners Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform? Text	Key Activities What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams? Text	Value Propositions What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying? Text	Customer Relationships What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they? Text	Customer Segments For whom are we creating value? Who are our most important customers? Text
Key Resources What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams? Text		Channels Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels Integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines? Text		
Cost Structure What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?			Revenue Streams For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?	Text

www.businessmodelgeneration.com

Com ho fem?

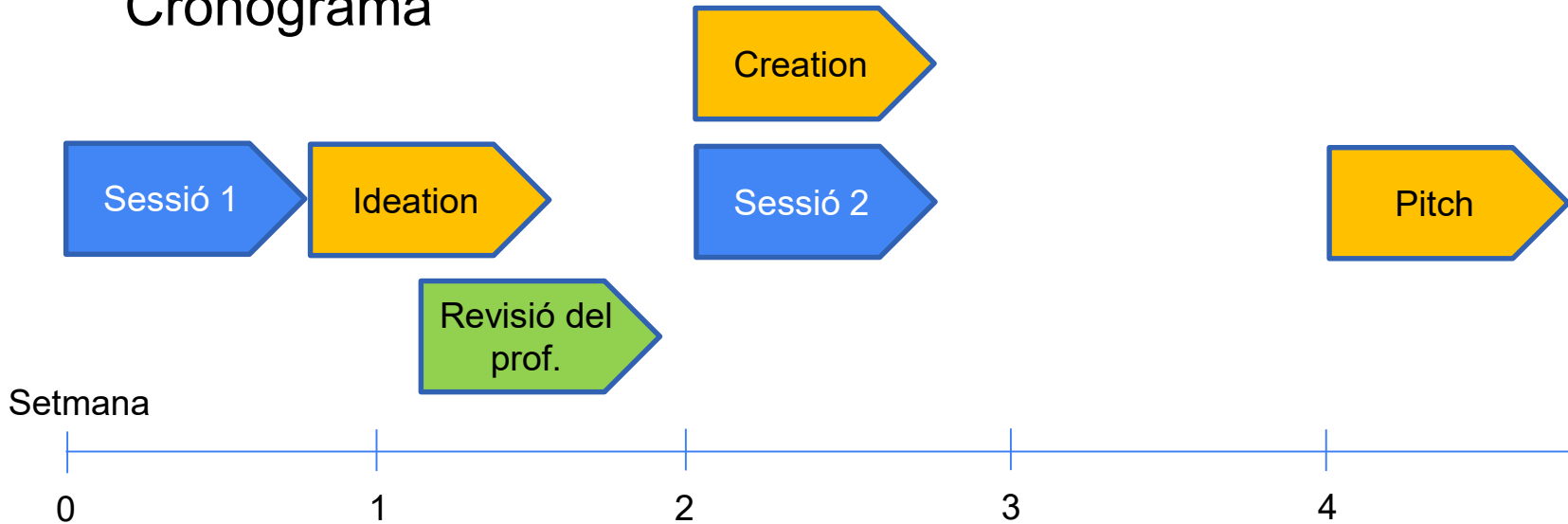
Pitch: 3 exemples ben diferents



Com ho fem?



Cronograma



Com ho fem?

Annex

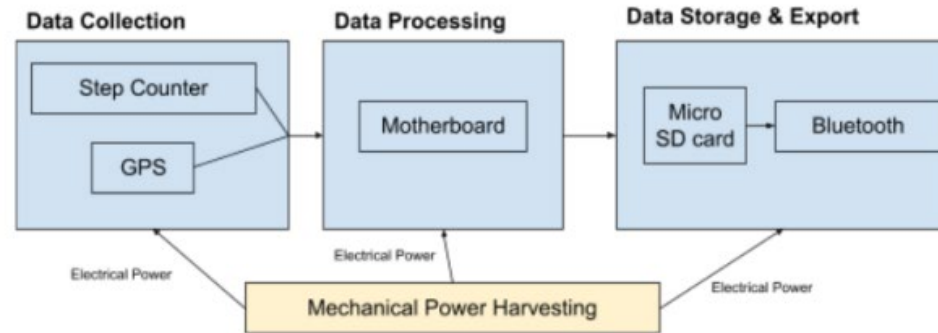


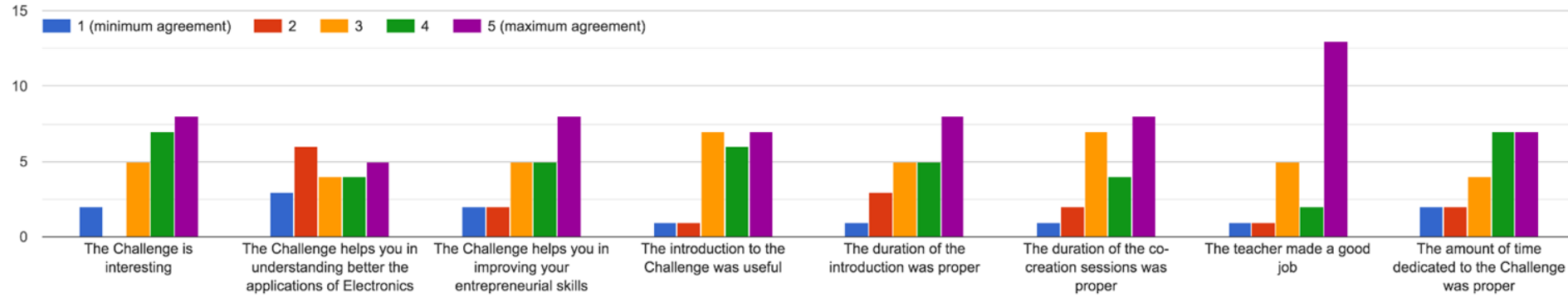
Figure 1. Electronic block diagram



Figure 2. Power harvesting device



Please, mark your choice for every statement about the Challenge we worked in two lab sessions of the course.



22 respostes de 44 possibles



A algunos alumnos les faltaba motivación y pese a ser proyectos interesantes, se les sacaba poco jugo...
Sería interesante tratar este trabajo como un concurso parecido a los Enterprise Challenges.

The project is one of the best initiatives that a teacher has been done in the bachelor along with the project from Industrial Design.

I believe it would be great to make the project a little bit longer to understand the process of idea generation and use of framework like the business model canvas or the buyer persona but I understand the time constraints.

What could be improved is to maybe give some metrics to follow to find interesting results in market share, potential user base, etc.

I would like to point out that this project may result interesting for a complete subject, since it offers a very wide and deep opportunity to understand and develop ideas on how an actual electronics start-up could be. However, it was too complex and extense for 3 labs sessions in a subject, if wanted to be done correctly. For me, the idea was good but not useful because of how it was applied. We did not have enough knowledge to do something interesting (very basic knowledge not useful for complex electronic devices in the real world) and it was a very small part of the subject so it was not worth spending all the time, considering the heavy work load we already had. I also consider that even if this way of working may result very interesting and much more helpful to learn, I don't believe it has space in an education system and a university which is completely outdated, completely exam-based and only rewarding the capacity of memorizing and executing.

I would have deepened more into the challenge, in terms of time and details of the work, and rather than making a video, i think i'd be better to spend more time with planning explanations, as we kind of improvised the structure. However, very funny and creative activity

Considero que de cara a aquest any podríeu convidar a experts en empenedoria (e.g., Xavier Verdaguer) perquè facin la introducció o alguna classe magistral sobre el procés de creació d'una idea (Lombardt method). Donat que el grau s'imparteix conjuntament amb la UPF podríeu demanar-los el contacte d'algú. Si no, en Xavier Verdaguer podria ser una persona que us podria resultar d'interés.

Present the challenge before so teams can do the brainstorm with more time

Maybe it will be more interesting if we have more time to do it and develop the idea



Moltes gràcies per la vostra atenció !!!

