

# D3.3 International Post-Graduation Pilot Results



# November, 2021



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# **1.Summary**

The BIO-ALL project, in the framework of KA2: Cooperation for innovation and the exchange of good practices - Knowledge Alliances within the Erasmus+ program aims to promote new skills and competencies in the BIOHEALTH sector. Within the development of the BIO-ALL project, one of the main results was the concretization of an International Joint Post-Graduation course on "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector", composed by a modular programme, a project/business plan unit, visits to BIOHEALTH established business and project-based activities.

This Deliverable is an outcome of the BIO-ALL project and summarizes the main information of the International Joint Post-Graduation in Biohealth, Entrepreneurship, and Innovation that was carried out by Universidade da Beira Interior (Portugal), Universidad de Granada (Spain), and Università Politecnica delle Marche (Italy) during the academic year of 2020-2021. The Deliverable will also state what led to the development of the International Joint Post-Graduation program, how the course was held, and analyse the inputs the students gave after each one of the three trimesters.

In this sense, the present document is structured as follows: first, there is an overall introduction, then a small review of the state-of-the-art and how the Post-Graduation was created. Following, the Post-Graduation objectives, methodology, and structure on the three countries (Italy, Portugal, and Spain), finalizing with the students' evaluation and final considerations.

UBI (P1) was responsible for developing this deliverable with UGR (P2) and UNIVPM (P3).



# **2.Introduction**

Entrepreneurship is being held by the European Commission as one of the key skills for European citizens to develop personal and professional characteristics. In this sense, the European policy cooperation (ET2020 framework) introduced the promotion of entrepreneurship in education as one of the key competencies to encourage EU citizens to formulate innovative solutions regarding social aspects but also to boost the launching of new products and new solutions to develop Europe's socio-economic value.

The ET2020 framework was created regarding an approach of lifelong learning, based on four common EU objectives:

- Make lifelong learning and mobility a reality;
- Improve the quality and efficiency of education and training;
- Promote equity, social cohesion, and active citizenship;
- Enhance creativity and innovation, including entrepreneurship, at all levels of education and training.

The BIO-ALL project was developed with the ambition to accelerate knowledge and competencies, boosting innovation and entrepreneurship in a specific area of knowledge, the BIOHEALTH sector. The creation of the project tried to reach the specific condition brought by the ET2020 framework (promotion of entrepreneurship education) regarding an area of expertise that is usually linked to pure research and not so much to a linkage between research and entrepreneurial ventures. In this sense, the BIO-ALL project tried to reach the BIOHEALTH sector through fostering co-creation and collaborative dynamics between and within relevant stakeholders of the BIOHEALTH ecosystems, such as Higher Education Institutions' staff and students, Businesses, Incubators/Accelerators, Investors, and other kinds of different relevant stakeholders.

This integration of all kinds of stakeholders of the BIOHEALTH sector resulted in several outputs, such as the creation of a roadmap with evolution scenarios, related strategies and actions for the sector, and the creation of several events discussing the challenges and perspectives of the BIOHEALTH sector for all kinds of stakeholders. But the BIO-ALL project also aimed at creating an International Joint Acceleration Programme, helping seed companies to have access to technical and practical business support, for them to boost their innovation and growth capacities, or even the creation of a HUB, a virtual network for entrepreneurs and innovators in the BIOHEALTH sector so that open innovation can be fostered through co-creation processes.

One of the specific tasks of the BIO-ALL project was the creation of an International Joint Post-Graduation course on "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector", on which a modular programme, a project/business plan unit, and several visits to BIOHEALTH established businesses and project-based activities were scheduled to occur. For this Post-Graduation to happen, a Train-the-Trainer course ("Capacitation Programme on Advanced Studies for Innovation and Entrepreneurship in the BIOHEALTH Sector") was also designed, embracing staff mobility while the piloting of the Post-Graduation involved learners' mobility.



The Post-Graduation, as well as the Train-the-Trainer course, were affected by the COVID-19 pandemic since all the meetings and classes had to be transitioned to a full online mode, which shifted from the initial agreement.

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The Post-Graduation was designed to occur in the three countries already stated (Italy, Portugal, and Spain), and targeted higher education graduates and professionals willing to become entrepreneurs in the BIOHEALTH sector and motivated to open their businesses.

Despite the alterations brought upon the programme by the pandemic situation, both the Train-the-Trainers course and the Post-Graduation pilot were implemented online and praised by the participants and the professors involved.



## **3. State of the art and Post-Graduation Creation**

As previously stated, enhancing entrepreneurship is held by the European Commission as one of the main lines for the future of Europe. Also, education for entrepreneurship has been promoted as one of the pillars to enhance companies' creation and growth, as referred by the European Commission (2015) in its "Entrepreneurship Action Plan 2020". In this sense, education for entrepreneurship is the main steppingstone for European economic growth and an increased lift of employment throughout Europe. Relating to that, Universities must thrive to disseminate entrepreneurial courses which can spur innovation and entrepreneurship across all types of stakeholders, so that they can boost entrepreneurial intentions for people that don't know they have it.

It is also important to point out that for Higher Education Institutions (HEI's) there is a need to be a direct connection between research and business, in one way by fostering research that is already being made, and in another way by translating it into innovation and new products. As such, it is vital for HEI's to include in their programmes several courses related to entrepreneurial or innovative activities. And this was the first step for the creation of this International Joint Post-Graduation.

As for the second step, there was a need to understand what study courses on innovation and entrepreneurship were already being held by the HEI's in the three mentioned countries (Italy, Portugal and Spain). From such mapping, we compiled the good practices on advanced studies on innovation and/or entrepreneurship in the BIOHEALTH sector, and then a set of conclusions were summarized. In this sense, and regarding the HEI's in the three countries about the educational offer for promoting entrepreneurial competencies and processes, in all the faculties there was at least one course with the curricular unit of entrepreneurship. Not only full courses but also other types of courses, such as workshops on entrepreneurial capabilities and other longer programs were also listed by the HEIs. If we take into consideration the BIOHEALTH sector, in almost all the courses related to the sector there is a curricular unit of entrepreneurship, also in master courses. Despite that and regarding the existence of advanced studies on innovation and/or fact, entrepreneurship, research, and innovation were stated to be carried out to produce new knowledge. To signal, there were no specific offers related to the BIOHEALTH sector. In this sense, the BIO-ALL consortium realized that such an offer would be a plus.

This took us to the third step for creating the International Joint Post-Graduation on "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector", a different offer from what is already being given by the HEIs, and also trying to build it through cocreating the guidelines within the 3 academic partners (not only the guidelines for the Joint Post-Graduation per se but also the guidelines for the capacitation programme – the Train-the-Trainers Course). And in this sense, this third step was the execution of the Train-the-Trainers Course. So, this training programme was developed to implement the International Joint Post-Graduation Programme (as stated before), but also to improve the competencies and the knowledge in BIOHEALTH issues of all the staff. Within this capacitation programme was also built to receive feedback from all professors of the modules so that there were no collisions, redundancies, or gaps within the modules. Originally scheduled for one face-to-face 3-day course, due to the COVID-19 restrictions it was determined to be rescheduled to three online 1-day courses, each one before the following trimester: September 22nd, 2020 (1st



Trimester, Modules M1-M4); November 24th 2020 (2nd Trimester, Modules M5-M8); February 24th 2021 (3rd Trimester, Modules M9-M12). This was beneficial in another (not planned sense), as the professors considered the opinions, feedback, and insights from one semester to the next Train the Trainers.

The fourth and final step was the assembly of the International Joint Post-Graduation, selecting the candidates and framing a goal for the number of candidates per country. In this sense, the Post-Graduation course assembled initial criteria, taking into consideration all candidates holding a minimum of 180 ECTS degree (preferably in Health Sciences, Life Sciences, Engineering, and Management areas), that were citizens of the EU, and that had a minimum of B2 English level. This led to a total of 27 students selected (5 from Italy, 10 from Spain and 12 from Portugal) which kicked off the International Joint Post-Graduation course on "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector", online, on October 15th, 2020. This international course was offered in the University of Beira Interior (Portugal) as a Postgraduation/Executive MBA course in Biohealth Entrepreneurship and Innovation, aimed at promoting the knowledge and skills needed to boost and consolidate the creation of companies in the BIOHEALTH sector. At the University of Beira Interior, students and entrepreneurs who managed to complete the 12 Modules, comprehending 60 ECTS, would be able to obtain their certificate of the Postgraduation course/MBA in BioHealth Entrepreneurship and Innovation. At the University of Granada (Spain), the international course was offered as a Master's degree in BioHealth Entrepreneurship and Innovation, aimed at promoting the knowledge and skills needed to boost and consolidate the creation of companies in the BIOHEALTH sector. At the University of Granada, students who managed to complete the course would be able to obtain their own master's degree in BioHealth Entrepreneurship and Innovation. Finally, in Università Politecnica delle Marche (Italy), the course was offered as an Advanced Course in BioHealth Entrepreneurship and Innovation, aimed at promoting the knowledge and skills needed to boost and consolidate the creation of companies in the BIOHEALTH sector. At the Università Politecnica delle Marche, students who managed to complete the 12 Modules would be able to obtain the certificate in BioHealth Entrepreneurship and Innovation.



# **4. Post-Graduation Objectives**

The International Joint Post-Graduation was developed under an umbrella of co-creation among the partner academic institutions, but also shaping the implementation of shared knowledge and experiences, not only from the students, but also through the staff, the cross-mobility weeks, and teamwork. In this sense, the pilot that was set for a future implementation of the International Joint Post-Graduation aimed for the following:

- Foster the knowledge of all students regarding entrepreneurship and innovation in the BIOHEALTH sector;
- Promote effective training regarding the gaps that were discovered in the educational offer related to the BIOHEALTH sector;
- Achieve a bigger and better comprehension of what the students search for when enrolling in this type of educational courses.

To determine if these first three implementation goals were achieved, we managed to get the feedback of the students, regarding their expectations on the Course, their evaluation of the Modules, and their final evaluation of the Post-Graduation.

Also, there were some specific goals/objectives that were set before the beginning of the International Joint Post-Graduation, that were intended to spur the interest and cross-working along the Course:

- At least 10 participants per country (a total of 30 participants);
- 1 week of mobility in the other two countries (making the course to have 3 mobility weeks, 1 in Portugal, 1 in Spain and 1 in Italy), involving all students;
- Seminars linked with the cross-learning mobility;
- Visits to consolidated BIOHEALTH businesses (also linked with the cross-learning mobility).

Regarding these specific goals, most of them were cut short due to the COVID-19 pandemic, since all face-to-face activities were transformed online. Also taking into consideration the fact that the International Joint Post-Graduation reached 27 students (even though it wasn't on a 10/10/10 per country ratio), since it was a pilot Post-Graduation, running under pandemic crisis, it was considered a fair result.



# 5. Post-Graduation Methodology

The International Joint Post-Graduation Course was offered in the three countries (Italy, Portugal, and Spain) by Università Politecnica delle Marche (Italy), Universidade da Beira Interior (Portugal) and Universidad de Granada (Spain) during the 2020-2021 academic year. Both in UGR and UNIVPM, the Post-Graduation Course was offered a Master's degree in BioHealth Entrepreneurship and Innovation for the students that completed, and in UBI it was offered as a Post-Graduation/Executive MBA course in BioHealth Entrepreneurship and Innovation.

The Post-Graduation was planned to have a duration of 500 hours, including 240h of contact hours, 120h of tutorial sessions, and 140h of associated activities and events designed to be part of the post-graduation plan, based on collaborative work. This international joint post-graduation was to have consisted of 60 ECTS, and the curricular plan included a modular programme consisting of 12 modules, seminars, Project/Business Plan, visits to BIOHEALTH established/reference Business, and Project-Based Activities (such as Hackathons/Boot Camp/Pitching Day). The 12 modules were designed to be specifically integrated into the BIOHEALTH sector so that the students could relate to them. In this sense, the teaching staff were mainly from the Academia partners. Despite this teaching staff, specific teaching staff were invited from Business and Incubators/Accelerators. The Seminars/Conferences that were delivered had the purpose to bring to the course a range of several interlocutors who brought to the table their specific knowledge. Also, the Project/Business Plan activity was scheduled to bring up all the knowledge the students gathered throughout the course, being supported by predefined tutors/mentors. Finally, the visits were to be held on specific BIOHEALTH businesses within the three countries, so that the students could see, relate, and learn with what is already being made.

Despite this intention to have a more interactive Post-Graduation Course, the COVID-19 pandemic restrictions led to all the face-to-face activities that were scheduled to be transferred into online activities.

Regarding the 12 Modules of the International Joint Post-Graduation, they were divided by the three trimesters (4 Modules for each one of the three Trimesters). The 12 Modules delivered were the following:

#### 1st Trimester:

- M1: BUSINESS MODULES IN BIOHEALTH SECTOR
- M2: ENTREPRENEURSHIP AND INNOVATION
- M3: PRODUCT DESIGN IN BIOHEALTH SECTOR
- M4: LEGAL AND IP MANAGEMENT ASPECTS

#### 2nd Trimester:

- M5: BUSINESS STRATEGY
- M6: MARKETING AND SALES
- M7: ENTREPRENEURIAL FINANCES AND INVESTMENT
- M8: HUMAN RESOURCES AND TEAM MANAGEMENT

## 3rd Trimester:

M9: ETHICS AND REGULATION IN BIOHEALTH

- M10: CORPORATE SUSTAINABILITY
- M11: INTERNATIONAL BUSINESS
- M12: FINAL PROJECT

The following figure (Figure 1) has the initial structure of the International Joint Post-Graduation Course.

Ň	online	Semini- Conference	Visits mies	Tutors	Evalues	homework	Totan	Hours	
Trimesters									
Start	Start Date: 15 October 2020   End date: 23 December 2020								
	M1	24	4	8	12	2	100	150	
1st	M2	24	4	8	12	2	100	150	
151	мз	16	8	8	8	2	58	100	
	M4	16	8	4	8	2	62	100	
St	art Dat	<u>e</u> : 13 Ja	anuary	2021	End da	<u>te</u> : 25 N	1arch 2	021	
	M5	20	4	8	10	2	81	125	
and	M6	20	4	8	10	2	81	125	
<u>2nd</u>	M7	20	8	8	10	2	77	125	
	M8	20	4	8	10	2	81	125	
	<u>Start</u>	Date: 7	April 2	021   <u>E</u>	End dat	<u>e</u> : 8 Jul	y 2021		
	M9	24	4	8	12	2	100	150	
0	M10	16	4	4	8	2	66	100	
<u>3rd</u>	M11	16	8	4	8	2	62	100	
	M12	24	4	-	12	2	108	150	

Figure 1 Modules per Trimester



# **6. Post-Graduation Structure**

## 6.1. Italy

#### Framework Description

A total of 5 students participated in the Post-Graduation. Università Politecnica delle Marche and the other Italian Partners decided to undertake the BIO-ALL and the Post-Graduation challenge to scale up good practice small scale/pilots to implementation on a broad scale, to overcome the insufficient involvement of stakeholders, to overcome the lack of data for alumni/start-ups and lack of interest in general.

The Post-Graduation is coherent with the needs and challenges identified by the project. the aims of knowledge alliances actions. It developed new, innovative, and multidisciplinary approaches to teach and learn entrepreneurial skills and competencies, stimulate entrepreneurship and entrepreneurial skills of higher education teaching staff and business staff (professionals), ease the exchange, flow and co-creation of educational assets and knowledge.

Through the Post-Graduation, European descents accelerated the learning of knowledge and competencies to boost efficient innovation and entrepreneurial processes, specifically targeted at the BIOHEALTH sector. The contamination within the Post-Graduation also stimulated the co-creation, open innovation and collaborative dynamics between and within descents and satellite stakeholders.

A new set of entrepreneurial and innovation skills and competencies was developed, underpinning ground-breaking educative assets, methodologies, and schemes. UNIVPM responsiveness stepped up to the current and future needs concerning the promotion of innovation and qualified entrepreneurship in the BIO-ALL sector. The option for this sector was intentional as it is a current need and challenge to produce targeted and customized approaches to the BIOHEALTH sector as this is a field for which entrepreneurs and educators must be adapted to different instruments, supporting systems, times-to-market among others.

The Post-Graduation met the European policies in the fields of Education and Training, by enhancing innovation and ensuring the design and delivery of high quality and efficient training paths. In particular, Post-Graduation supported the New Skills Agenda 2016 since it contributed to improving the quality and relevance of training and other ways of acquiring skills, making skills more visible and comparable and improving information, and understanding of trends and patterns in demands for skills and jobs (skills intelligence) enabling people to make better career choices, find quality jobs and improve their life chances.

Moreover, in compliance with the 'Entrepreneurship Education: A Guide for Educators' (2014), the support for entrepreneurship provided by the Post-Graduation gained increasing attention from policy, education institutions and companies. The reinforcement of entrepreneurial education in UNIVPM will affect positively the economic dynamics of Europe and worldwide. To spur economic growth in Europe it is, in fact, crucial to invest in entrepreneurial education and training answering the need of Europe to have creative and



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innovative entrepreneurs, as well as a flexible and resilient workforce having the right skills and key competencies.

#### Characterization

In this part of the report, we will characterize both the students enrolled in the Post-Graduation in BioHealth Entrepreneurship and Innovation offered by UNIVPM, as well as the Professors' backgrounds. We will also analyse the students' perception of the Modules that were given by the Italian Professors, Modules 5, 8, 10, 12.

The Italian Students at the Post-Graduation Course in BioHealth Entrepreneurship and Innovation offered by UNIVPM were characterized as being mostly attended by men, with an MSc and coming from the Business area. Regarding the Professors, the majority are Men with MSc's, most are professionals. In the following tables and images is a description and analysis of their backgrounds.

#### Students' Background

The following table and images characterize the students which enrolled in the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Students from Italy. This background is important to describe the gender, age, education and background differences which the students encountered among their peers, but also to be used as a means of analysis all along the Post-Graduation. Names and ages of the students have been omitted due to the GDPR.

#### Students' Background

			2				
NAME	GENDER	AGE	EDUCATION	BACKGROUND			
IT Student	Male	IT Age 1	Masters'	Professional			
1			Degree				
CV							
I'm an entre	preneur wit	h a strong p	assion for Tech	nology, Artificial			
Intelligence,	Sport and F	ashion.					
My main skil	ls are:						
-Sales Manag	gement						
-Business De	evelopment						
-Business Pla	anning						
-Business St	rategy						
-Focus Mana	-Focus Management						
-Problem Sol	lving						

#### Table 1 Italian Students' Background



I've acquired in the past years very good experience in sales management, sales force management, business development and customer relationships working for Italian and multinational companies. I managed up to 14 sales professionals and incremented up to 3 times the YTD turnover in my competence area. I have a cross vision of digital and traditional businesses.

In 2009 I founded a consultancy company focusing on Sales & Business Development for companies who are entering new markets. I'm one of the founders of the Addi.fit project.

NA	ME	GENDER	AGE	EDUCATION	BACKGROUND
IT 2	Student	Female	IT Age 2	Masters' Degree	Academic
CV					

I am a reliable, determined, and curious person. I am willing to embrace challenges since this allows me to pursue my life goals, which are: acquire new knowledge and skills, seize new stimulating opportunities with a view to constant personal and professional improvement. This constitutes one of the fundamental principles of my whole life.

- PhD Student at Università Politecnica delle Marche
- Master's degree in management engineering at Università Politecnica delle Marche
- Bachelor's Degree in management engineering at Università Politecnica delle Marche

NAME	GENDER	AGE	EDUCATION	BACKGROUND		
IT Student 3	Male	IT Age 3	Bachelor's degree	Professional		
CV						
Computer	r Programme	er at e-Lios				
Computer Programmer at Marche Region						
<ul> <li>Bacholor's</li> </ul>	s Dogroo in	computor or	ainooring at Univo	rcità Politocnica		

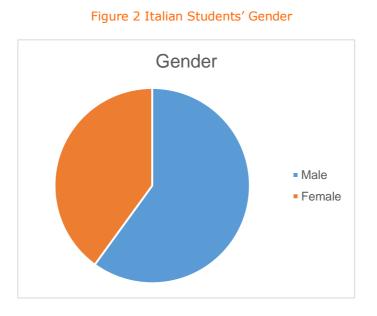
NAME GENDER	AGE	EDUCATION	BACKGROUND
-------------	-----	-----------	------------



IT	Student	Male	IT Age 4	Masters'	Academic			
4				Degree				
CV								
Master's degree in management engineering at Università Politecnica delle Marche								
	<ul> <li>Bachelor's Degree in management engineering at Università Politecnica delle Marche</li> </ul>							

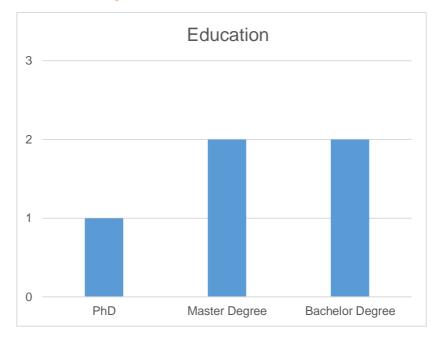
NAM	1E	GENDER	AGE	EDUCATION	BACKGROUND			
IT 5	Student	Female	IT Age 5	Masters' Degree	Academic			
CV	CV							
•	<ul> <li>PhD Student in Scienze Chimiche at Università di Roma Tor Vergata</li> </ul>							
•	<ul> <li>Master's degree in biotechnology at Università di Roma Tor Vergata</li> </ul>							
•	<ul> <li>Bachelor's Degree in biotechnology at Università di Roma Tor Vergata</li> </ul>							

In figure 2 below, the dispersion of the gender of Italian students can be seen, as the great majority of students in this post-graduation were male.



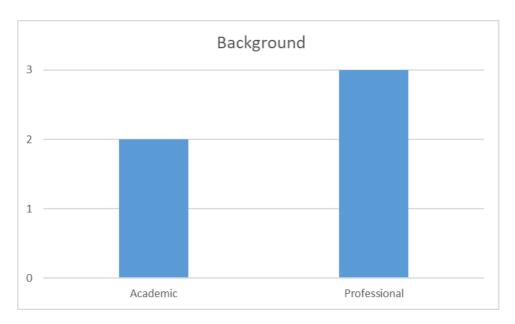
In figure 3 below, the level of education of the Italian students can be seen, as 1 student has a PhD, 2 students have a master's degree and 2 have a bachelor's degree.





In figure 4 below, it is possible to see that most students (3) have a professional background, and the rest (2) have an academic background.





BIOHEALTH GEAR BOX ALLIANCE

# Bio-All

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#### Table 2 Italian Professors' Background

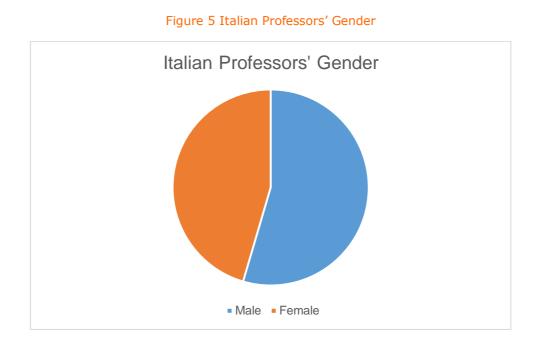
NAME	GENDER	EDUCATION	POSITION	BACKGROUND		
Filippo Emanuele Ciarapica	Male	PhD	Full Professor	Academic		
Associate Professor at Università Politecnica delle Marche, graduated with distinction in 1999 in mechanical engineering at the University of Ancona. In 2003 he has got Ph. D. in Energy Management at the University of Ancona. He is the author of several papers (more than 60) that have been published on national and international proceedings and journals (Safety Science, International journal of loss prevention in the process industry, Quality & Reliability Engineering International).						
Leonardo Postacchini	Male	PhD	Research Fellow	Academic		
He obtained his bachelor's degree in Logistics and Production Engineering (cum laude) and then his master's degree in management engineering (cum laude) at the Polytechnic University of Marche (Ancona, Italy). He worked as project manager for photovoltaic plants and as a process engineer for a wastewater treatment plant. In 2016, he started collaborating with the Università Politecnica delle Marche as a research fellow, developing research on life cycle sustainability (Life Cycle Costing, Environmental Life Cycle Assessment and Social Life Cycle Assessment) of industrial/manufacturing processes and wastewater treatment technologies.						
Giulio Marcucci	Male	PhD	Research Fellow	Academic		
Giulio Marcucci, a research fellow at Università Politecnica delle Marche, holds a master's degree in Management Engineering and a PhD in Industrial Engineering. His research activity mainly deals with Supply Chain Management, Supply Chain Resilience and Ripple Effect. Previously, he worked as Project Coordinator and CRM at Interporto Marche (Ancona, Italy) one of the most connected logistic points on the Adriatic Sea, for 2 years. During this time, he successfully coordinated 3 transnational projects in the field of logistics and resilience.						
Marche, hol PhD in Indu Supply Chai Previously, Marche (And the Adriatic coordinated	ds a maste strial Engine n Managem he worked a cona, Italy) : Sea, for	r's degree in M eering. His rese ent, Supply Cha as Project Coor one of the mos 2 years. Durir	anagement Eng arch activity m in Resilience ar dinator and CR st connected lo ng this time,	gineering and a ainly deals with nd Ripple Effect. M at Interporto gistic points on he successfully		
Marche, hol PhD in Indu Supply Chai Previously, Marche (And the Adriatic coordinated	ds a maste strial Engine n Managem he worked a cona, Italy) : Sea, for	r's degree in M eering. His rese ent, Supply Cha as Project Coor one of the mos 2 years. Durir	anagement Eng arch activity m in Resilience ar dinator and CR st connected lo ng this time,	gineering and a ainly deals with nd Ripple Effect. M at Interporto gistic points on he successfully		





Renato Del Grosso	Male	MSc	Co-Founder and CSO	Business		
Renato Del Grosso is the Co-Founder and Executive Global Market Access Officer at Cube-Labs, an Italian life-sciences platform that creates, incubates, and accelerates academic spin-offs						
Filippo Surace	Male	MSc	Co-Founder and CEO	Business		
Filippo Surace is an MD, EMMAS (SDA Bocconi), EMPHA (Luiss Carlo Guidi Business School), currently being the founder and CEO at Cube- Labs						
Roberta Gilardi	Female	MSc	CEO	Business		
lecturer, an	Roberta Gilardi is an innovation and strategic marketing expert, lecturer, and business coach, with over 25 years of experience in Industry and Services consulting. Roberta is also the founder and CEO of G2.					
Daria Brambilla	Female	MSc	Scientific Manager	Business		
Daria Braml Labs	oilla is curre	ently the Execut	ive Scientific M	anager at Cube		
Elena Piccinato	Female	MSc	Project Manager	Business		
Funding Adv	Elena Piccinato is a Project & Innovation & Servitization Manager, a Funding Advisor, a Business developer, and a Startup Coach at Friuli Innovazione					
Claudia Baracchini	Female	MSc	Project Manager	Business		
Claudia Baracchini is an experienced Project Designer with a demonstrated history of working in the research industry. Strong arts and design professional skilled in Business Planning, Entrepreneurship, Training, social media, and Research. Active in the Alpe Adria Startup and SMEs Network, within Austria and Slovenia innovation hubs						
Giancarlo Lauto	Male	PhD	Assistant Professor	Academic		
Giancarlo Lauto is an Assistant professor of Organization Studies, Department of Economics and Statistics at the University of Udine						

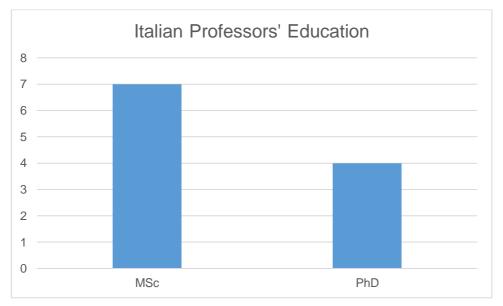




In figure 5 below, it is possible to see that the majority of Italian Professors are male.

In figure 6 below, the level of education of the Italian Professors can be observed. Most of the professors (7) have a master's degree, while four professors have a PhD.





Bio-All

In figure 7 below, we can see the professional position of the Italian Professors.

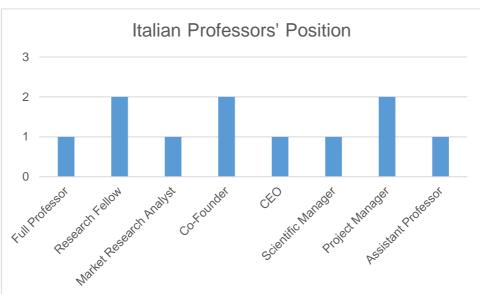


Figure 7 Italian Professors' Position

In figure 8 below, we can see the background of the Italian Professors, as four of them have an academic background, and the remaining 7 have a business background.

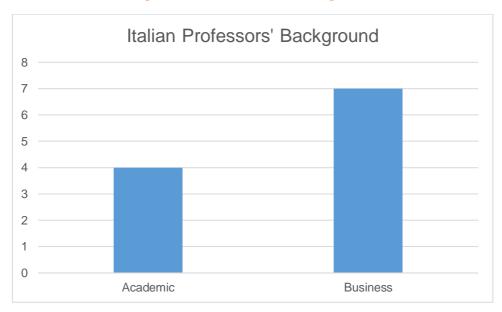


Figure 8 Italian Professors' Background



# 6.2. Spain

## **Framework Description**

The University of Granada offered the Post-graduation as three separate diplomas:

- **Diploma de Posgrado en Creación de Empresas BioSalud** (Postgraduate Diploma in BioHealth Business Start-up), composed of Modules 1, 2, 3 and 4;
- **Diploma de Posgrado en Gestión de Empresas BioSalud** (Postgraduate Diploma in Biohealth Business Management), composed of Modules 5, 6, 7 and 8;
- **Diploma de Posgrado en Desarrollo de Empresas BioSalud** (Postgraduate Diploma in Biohealth Business Development), composed of Modules 9, 10, 11 and 12.

These three diplomas have been approved by the Escuela Internacional de Posgrado (Postgraduate International School) of the University of Granada (EIP-UGR), being evaluated by a set of experts of the University of Granada, who pointed out the high convenience of such studies and the completeness of the study programme.

The UGR plan is to create a master's degree in Entrepreneurship and Innovation in BioHealth Sector that might be applied by the students that obtained the three Diplomas.

## **Official approval process**

It was necessary to collect specific documents for all modules and professors, as the whole programme had to be supervised not only for the syllabus but also for the teaching staff.

Several months in advance to the starting day of the postgraduation we collected:

- Commitment of participation for each professor;
- CV for each professor;
- Detailed syllabus for each module, including evaluation process, bibliography, and detailed contents.

Any change in the teaching staff had to be notified to the EIP-UGR, as well as any seminar or additional activity.

### **Teaching method**

Given the pandemic situation, which made quite uncertain the way the classes were going to be taught, partners decided in April 2020 to run it completely online as synchronous lessons, in English.



## Technical and human support infrastructure

In September 2020, UBI requested UGR to manage the infrastructure of the online platform to support the post-graduation for all three countries, so all the assets and infrastructure for the live sessions were managed by UGR.

The postgraduation has been run by using the e-campus platform of UGR (Moodle) and Zoom Meetings account.

#### **Dissemination at UGR**

The University of Granada, more precisely its Entrepreneurship unit, developed a WordPress website for dissemination of the postgraduation, located at URL https://ugremprendedora.ugr.es/masterbioall/



#### Figure 9 Image UGR website

On this website, the UGR staff published all the official information related to the postgraduation courses, as well as news and announcements of activities that might interest not only the post-graduation students but also the rest of the community.



UNIVERSIDAD DE GRANADA	INICIO EL POSGRADO - DESTINATARIOS CO	ΝΤΑCΤΟ
Dioodida	Diodalad	Diobalda
Octubre-Diciembre 2020	Enero-Marzo 2021	Abril-Junio 2021
Saber más →	Saber más →	Saber más →



## Internacionalización de Startups: «¿Por qué? ¿Cuándo? ¿Cómo?»



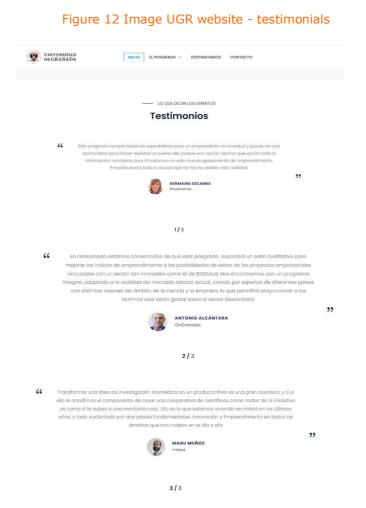
#### Figure 11 Image UGR website





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Moreover, the website included some testimonials from very important stakeholders of the Spanish BioHealth community, as entrepreneurs or technological clusters.

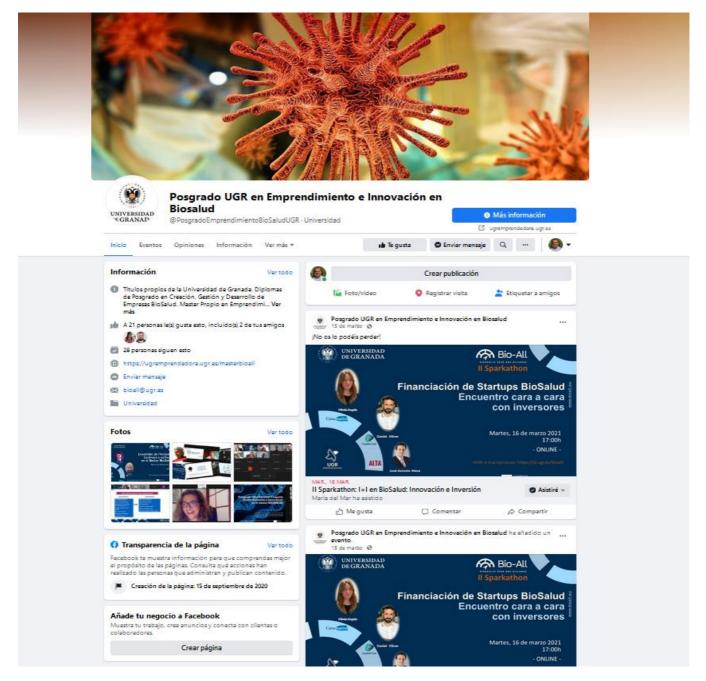


Also, it was created some social networks profiles to increase the outreach of the news and announcements:

https://www.facebook.com/PosgradoEmprendimientoBioSaludUGR



#### Figure 13 Image UGR Facebook



Facebook was mainly used for displaying ads in September 2020 to announce the new three diplomas described above and reach in just 7 days a large of a very segmented audience.

The campaign was very successful and 15 people requested to enrol for the first Diploma, being selected only 10 as defined in the BIO-ALL project proposal.

https://twitter.com/bioall\_ugr



#### Figure 14 Image UGR Twitter

<u>23</u>



The Twitter account got very good interaction with the local stakeholders, who retweeted and commented on the main publications such as course announcements, seminars, and activities, among others.



#### Figure 15 Image UGR Twitter



#### Characterization

In this part of the report, we will characterize both the students enrolled in the Post-Graduation in BioHealth Entrepreneurship and Innovation offered by UGR, as well as the Professors' backgrounds. We will also analyse the students' perception of the Modules that were given by the Italian Professors, Modules 1, 7, 9, 11.

The Spanish Students at the Post-Graduation Course in BioHealth Entrepreneurship and Innovation offered by UGR were characterized as being mostly women, mostly between ages 20-25, with PhD's and coming from the Business area. Regarding the Professors, the majority are men with MSc's, mostly are Professors. In the following tables and images is a description and analysis of their backgrounds.

#### Students' Background

The following table and images characterize the students which enrolled in the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Students from Spain. This background is important to describe the gender, age, education, and background differences which the students encountered among their peers, but also to be used as a means of analysis all along the Post-Graduation. Names and ages of the students have been omitted due to the GDPR.

#### Table 3 Spanish Students' Background

NAME	GENDER	AGE	EDUCATION	BACKGROUND	CV
SP Student 1	Male	SP Age 1	Master	Chemistry	R+D Director at DOMCA SAU

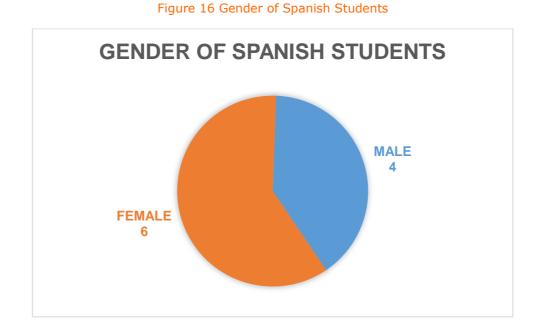


<u>24</u>

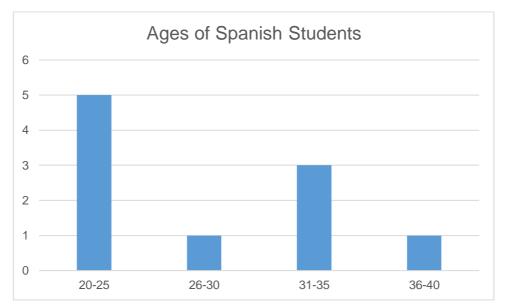
SP 2	Student	Female	SP Age 2	Master	Bioinformatics and Biomedicine	Data Scientist. AI Researcher
SP 3	Student	Female	SP Age 3	PhD	Biomedicine. Pharmacy. Neurosciences.	Researcher in Orion Pharma
SP 4	Student	Female	SP Age 4	Master	Biotechnology	Biotechnologist in Food Institute
SP 5	Student	Female	SP Age 5	Master	Biology. Biotechnology.	English teacher
SP 6	Student	Male	SP Age 6	Bs Degree	Chemistry	Student
SP 7	Student	Female	SP Age 7	Master	Molecular Biology. Nutrition	Consultant
SP 8	Student	Male	SP Age 8	Degree	Biotechnology	Research staff at FIBAO
SP 9	Student	Male	SP Age 9	Degree	Pharmacy.	Researcher at rare diseases company. Pharmacist. Business developer
SP 10	Student	Female	SP Age 10	Master	Biology. Neurosciences	Internships in Nutrition Labs



In the figure below, the gender dispersion of the Spanish students can be observed. Of the total of 10 students, the majority (6) are female.



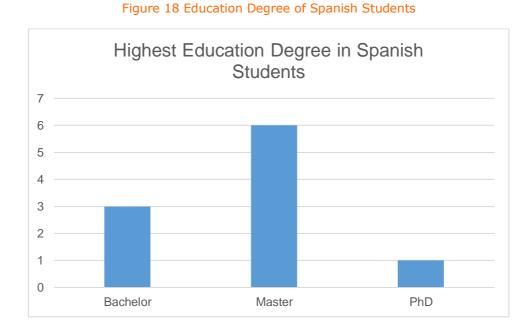
In the figure below, the age dispersion of the Spanish students can be observed. Of the total of 10 students, five are between 20 and 25 years old.



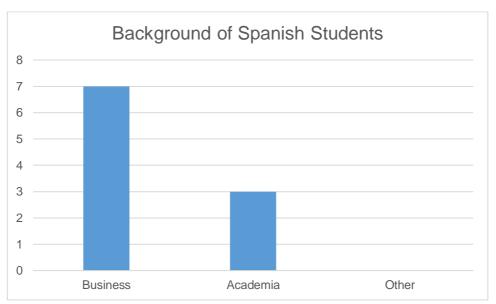
#### Figure 17 Age of Spanish Students

In figure 18, the level of education of the Spanish students can be observed. Of the total of 10 students, the majority (6) have a master degree.





In figure 19 below, the background of the Spanish students can be observed. Of the total of 10 students, 7 have a background in business.



#### Figure 19 Background of Spanish Students



## **Professors' Background**

NAME	GENDER	EDUCATION	POSITION	BACKGROUND	CV
Maria Saiz	Female	PhD	Lecturer	Business and Economics	Lecturer at UPV. MBA Director. Specialist in Entrepreneurship and innovation. GEM Euskadi director
Iván Bedia	Male	Master	CFO	Business and Economics	Engineer. CFO and founder of Business, In Fact, a specialist in startups finances
Salvador Romero	Male	Master	Consultant	Engineering	Consultant. Mentor of Minerva Acceleration Programme. Lean Startup specialist
Pablo Caballero	Male	Master	Manager		Entrepreneur. President of PlaneTIC. Founder and CEO of Hygea Salud y Nutrición
Vanesa Barrales	Female	PhD	Professor	Business and Economics	Lecturer at Univ. Granada. Deputy Director of Entrepreneurial Culture at UGR. Researcher in innovation
Antonio Manzanera	Male	PhD	CFO	Business and Economics	MBA and PhD. Former consultant at McKinsey and Bank of Spain. Director of Savior VC.
José Luis Zafra	Male	PhD	Professor	Business and Economics	Full professor of Finances and Accounting at University of Granada
Antonio Sánchez	Male	Master	CFO	Business and Economics	CFO at several companies, e.g., Neuron Bio
Antonio Zamora	Male	Master	CFO	Business and Economics	CFO at COVIRAN. Founder of Serena Strategy
Javier Valls	Male	PhD	Professor	Law	Lecturer of Civil Laws at the University of Granada. Specialist in Law & Al
José Manuel Baeyens	Male	PhD	Professor	Pharma	Full professor of Pharmacology at the University of Granada. Member of Ethics committee of UGR
Esther Molina	Female	PhD	Lecturer	Nutrition	Lecturer at Nutrition Dept. of UGR. Former manager of Gabinete Tecnico Alimentario SL
Antonio Hernández	Male	PhD	Professor	Toxicology	Full professor of Toxicology at UGR. Chairman of "European Food Safety Authority, EFSA"
Aurora Bueno	Female	PhD	Professor	Medicine	Full professor of Public Health at UGR. Member of Ethics committee of UGR
Belén García- Villanova	Female	PhD	Professor	Nutrition	Full professor of Nutrition at UGR
Maria Victoria López	Female	PhD	Professor	Business and Economics	Lecturer of Finances and Accounting at UGR. Specialist in Business Ethics

#### Table 4 Spanish Professors' Background



José Juan Jiménez	Male	PhD	Professor	Medicine	Full professor of Public Health at UGR. Member of Bioethics committees of Andalucía and UGR
Rodrigo Martín	Male	PhD	Professor	Business and Economics	Lecturer of Business Management at UGR
Paul Hamilton	Male	PhD	Consultant	Business and Economics	Consultant. Former accounts auditor at KMPG. Former CFO of Melrose Resources and Akros (NGO)
Francisco Rico	Male	Master	Lawyer	Law	Specialist in st mentoring. Founder of Mercure Abogados
Maksim Belitski	Male	PhD	Professor	Business and Economics	Associate Professor in Entrepreneurship and Innovation, Henley Business School, University of Reading, Whiteknights, Reading, UK
Aurora Valenzuela	Female	PhD	Professor	Medicine	Full professor of Legal Medicine and Forensics at UGR. Chair of Ethics committee of UGR. Dean of Medicine Faculty
Blanca Delgado	Female	PhD	Professor	Business and Economics	Lecturer of Business Management at UGR
Maria José González	Female	PhD	Professor	Business and Economics	Lecturer of Finances and Accounting at UGR. Former CFO of Ofiwet SA
Maria del Mar Fuentes	Female	PhD	Professor	Business and Economics	Full professor of Business Management at UGR. Director of Entrepreneurship at UGR

In the figure below, the gender dispersion of the Spanish Professors can be observed. Of the total of 25 professors, the majority (15) are men.

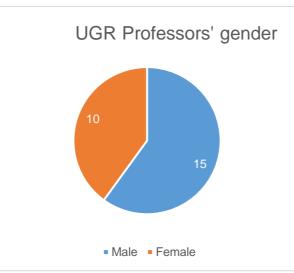


Figure 20 Gender of Spanish Professors



In figure 21, below, the education of the Spanish Professors can be observed. Of the total of 25 professors, the majority (19) have a PhD.

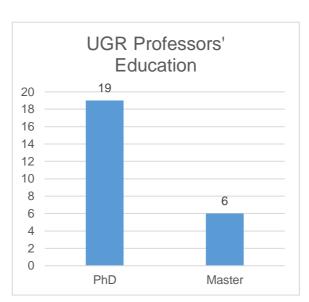


Figure 21 Education of Spanish Professors

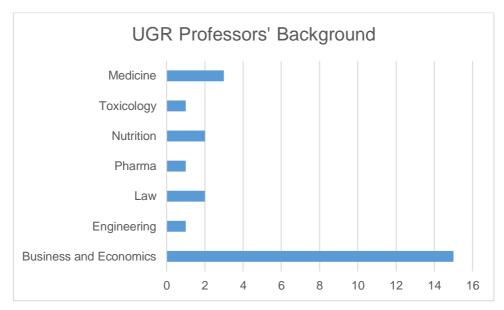
In figure 22, below, the position of the Spanish Professors can be observed. Of the total of 25 professors, 10 are professors, 7 are lecturers, 4 are CFOs, 3 are consultants and 1 is a manager.



In figure 23, the background of the Spanish Professors can be observed. Of the total of 25 professors, the majority (15) has a background in Business and Economics.



BIOHEALT<u>H GEAR BOX ALLIANCE</u>



#### Figure 23 Background of Spanish Professors



# 6.3. Portugal

## **Framework Description**

In Portugal, the course was offered by the University of Beira Interior (UBI) as a Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation, aiming to promote the knowledge and skills needed to boost and consolidate the creation of companies in the BIOHEALTH sector.

At the University of Beira Interior, to be able to obtain their certificate of the Post-Graduation Course/MBA in BioHealth Entrepreneurship and Innovation, the students must complete the 12 Course Modules, comprehending 60 ECTS's.

To select the candidates, the Post-Graduation Course/MBA offered in Portugal targeted candidates with higher education graduation, but also professionals willing to become entrepreneurs in the BioHealth sector and/or motivated to start their own business. In this sense, the candidates should hold a minimum 180 ECTS degree (preferably in the Health Sciences, Life Sciences, Engineering and Management areas), be a citizen of the EU and have a B2 English level. The candidate should also be able to attend the online classes and activities but should also be willing to dedicate and invest time in the learning process since the classes were to be held every Wednesday and Thursday from 16:00 to 20:00 (Portuguese time).

As of that, the Portuguese organization of the Post-Graduation/Executive MBA at the University of Beira Interior received 22 applications to attend the Course. Of those candidates, 12 were selected to attend through a curricula analysis. In the project proposal and budget, it was intended for each institution to have 10 students. As the demand for this course was so high in the Portuguese case, UBI decided to support two more students through its funds.



## Characterization

In this part of the report, we will characterize both the students enrolled in the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation offered by UBI, as well as the Professors' backgrounds. We will also analyse the students' perception of the Modules that were given by the Portuguese Professors, Modules 2, 3, 4 and 6.

The Portuguese Students at the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation offered by UBI was characterized as being mostly women, mostly between ages 18 and 29, with an MSc and coming from the Business area. Regarding the Professors, the majority are women with PhD's, mostly are professors in the areas related to Management. In the following tables and images is a description and analysis of their backgrounds.

### Students' Background

The following table and images characterize the students which enrolled in the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Students from Portugal. This background is important to describe the gender, age, education and background differences which the students encountered among their peers, but also to be a means of analysis all along the Post-Graduation. Names and ages of the students have been omitted due to the GDPR.

In table 5 the identification and information of the students are represented to characterize the participants.

NAME	GENDE R	AGE	EDUCATION	1	BACKGROUN D	CV
PT Student 1	F	PT Age 1	PhD Biology	in	Professor, Researcher and CEO @ Neurosov	Researcher and Professor @ UBI, CEO of Neurosov, a biotech company focused on the discovery and development of cutting-edge therapies targeted at slowing down neurological disorders.
PT Student 2	F	PT Age 2	BSc Nursing	in	Nurse and CEO @ IHCare	Besides being a nurse, is also the Founder and CEO of IHCare, a technology-based start-up that focuses

#### Table 5 Identification of the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Students from Portugal



					on the development and sale of innovative solutions in the healthcare area.
PT Student 3	F	PT Age 3	Student of Medicine	Medicine student	Student of medicine and also has participated in several Hackathons.
PT Student 4	M	PT Age 4	MSc in Computer Science and Engineering	CEO of Nuada and CTO of CriamTech	Founder and CEO of Nuada (Medtech Startup)., and Co- Founder and CTO of CriamTech (Medtech Startup).
PT Student 5	M	PT Age 5	Degree in Bioengineerin g	CEO @ BEDEV	Founder and CEO of BEDEV, a biomedical device company.
PT Student 6	F	PT Age 6	MSc in Administratio n	10+ years as a business manager	Experienced manager and auditor in several issues related to hospital and health management.
PT Student 7	F	PT Age 7	MSc in Chemical Engineering	3+ years in multinational companies (e.g., AirLiquide, Navigator)	With a master's in chemical engineering, also has experience in Sales but also Lean Management.
PT Student 8	M	PT Age 8	Degree in Biotechnology	Research Fellow	Experience gathered in his 3+ years of experience as a research fellow in laboratory activities related to biotechnology.
PT Student 9	М	PT Age 9	Doctor of Medicine	Senior Medical Dir. @ Roche	Doctor of Medicine, with work experience as a pharmaceutical medicine specialist.
PT Student 10	M	PT Age 10	MSc in Biotechnology	Food Production Supervisor	With a master's in biotechnology, is currently working as



					a food production supervisor.
PT Student 11	М	PT Age 11	Degree in Management Informatics	Co-founder of several companies & 10+ years in multinational companies (e.g., Microsoft, Accenture, )	With several years of experience in multinational companies, he is an entrepreneur linked with the development of several businesses.
PT Student 12	Μ	PT Age 12	Degree in Nursing	Professor and Co-Founder of HealthWay	Has a degree in Nursing but is also a Professor and Entrepreneur, being the co-founder of a company related to the development of health-related competencies for health professionals.

Figure 24 shows the gender division (male or female) of the Portuguese students enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.

#### Figure 24 Gender of Portuguese Students

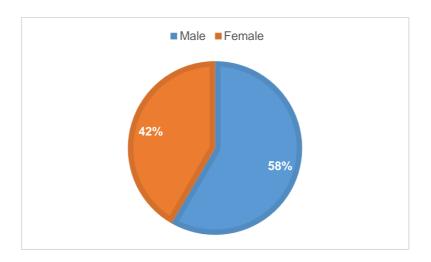


Figure 25 shows the age division of the Portuguese students enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.



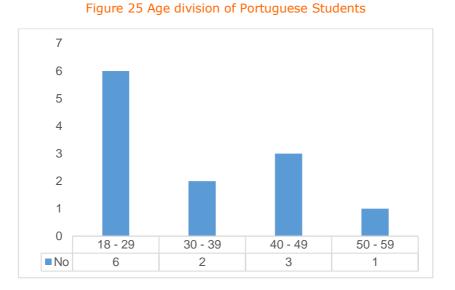
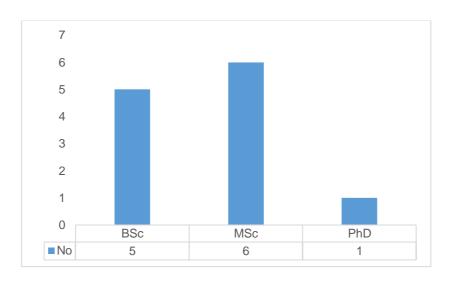


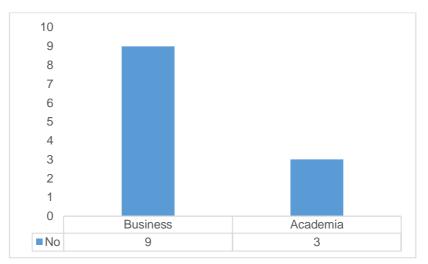
Figure 26 shows the division by type of educative degree of the Portuguese students enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.

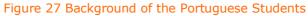


#### Figure 26 Educative Degree of Portuguese Students

Figure 27 shows the division by the background of the Portuguese students enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.









## Professors' Background

In this part of the report, we can see tables and images characterizing the Professors who enrolled in the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Students from Portugal. From analysing this information, we can extract relevant information from their background, as well as their subjects of study.

NAME	GENDER	EDUCATION	POSITION	BACKGROUND	CV
Prof. João Leitão	Μ	PhD in Economics	Associate Professor of Economics @ UBI	Academia	PhD in Economics, with specialization in Industrial Economics. Director of UBIExecutive, Business School of the University of Beira Interior. Professor of the Department of Economics and Business Management at the University of Beira Interior.
Prof. Rita Palmeira	F	PhD in Pharmaceutical Sciences	Invited Professor of Pharmaceutical @ UBI and Co- founder and Scientific Director of Labfit	Academia/Business	PhD in Pharmacy, and professor at the Department of Medical Sciences of the University of Beira Interior. Co- administrator of Labfit.
Prof. Ana Palmeira	F	PhD in Pharmaceutical Sciences	Invited Professor of Pharmaceutical @ UBI and Co- founder and General Manager of Labfit	Academia/Business	Professor at the Department of Medical Sciences of the University of Beira Interior. Researcher at CICS- Health Sciences Research Centre. Co- Founder and CEO of Labfit.
Prof. José Martinez de Oliveira	Μ	PhD in Medicine	Emeritus Professor @ UBI	Academia	Doctor of Medicine, Emeritus Professor of the Faculty of Health Sciences of the

 Table 6 Identification of the Post-Graduation/Executive MBA Course in BioHealth Entrepreneurship and Innovation Professors from Portugal



	1	ſ			
					University of Beira Interior. President of the ethical committee @ UBI. Researcher @ CICS-UBI.
Prof. Ana Cristina Ramalhinho	F	PhD in Biomedicine	Invited Professor @ UBI.	Academia	PhD in Embryology and professor at the Faculty of Health Sciences of the University of Beira Interior. Responsible for the IVF/Andrology laboratories of the Cova da Beira University Hospital Centre.
Prof. Dina Pereira	F	PhD in Industrial Management and Engineering	Manager @ UBImedical	Incubator/Business	PhD in Industrial Engineering and Management, master's in business administration and Management. Manager of the accelerator UBIMedical at the University of Beira Interior.
Prof. Sofia Vairinho	F	MSc in Corporate Legal Advice	Invited Professor @ UAlg	Academia/Incubator	Professor at the School of Economics of the University of Algarve, Gambelas Campus and CLDP International Advisor in the areas of entrepreneurship, technology transfer and intellectual property of the Commercial Law Development Program - CLDP of the U.S. Department of Commerce GOV.
Prof. Arminda do Paço	F	PhD in Management	Associated Professor o Management @ UBI	Academia f	Associated Professor of Management @ UBI teaching Marketing related subjects. President of the Management and



					Economics department @ UBI. Researcher @
۱ ۱	<u> </u>				NECE.
Prof. Helena Alves	F	PhD in Management	Associated Professor of Management @ UBI	Academia	Associated Professor of Management @ UBI teaching Marketing related subjects. Vice- rector for Education, Academic Affairs and Employability @ UBI. Researcher @ NECE.
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Figure 28 shows the gender division (male or female) of the Portuguese Professors enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.

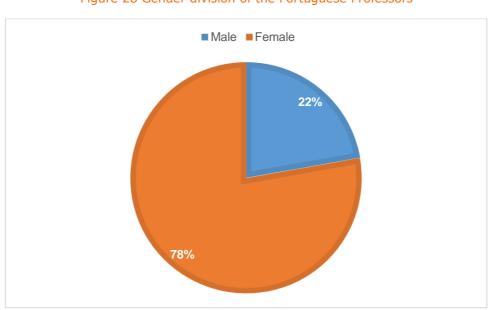


Figure 28 Gender division of the Portuguese Professors

Figure 29 shows the current position of the Portuguese Professors enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.



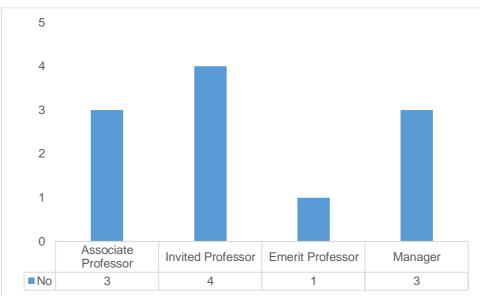


Figure 29 Current position of the Portuguese Professors

Figure 30 shows the division by type of educative degree of the Portuguese Professors enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.

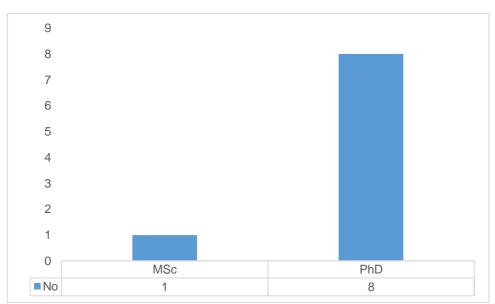




Figure 31 shows the division by the background of the Portuguese Professors enrolled in the Graduate/Executive MBA in Entrepreneurship and Innovation in BioHealth offered by UBI.



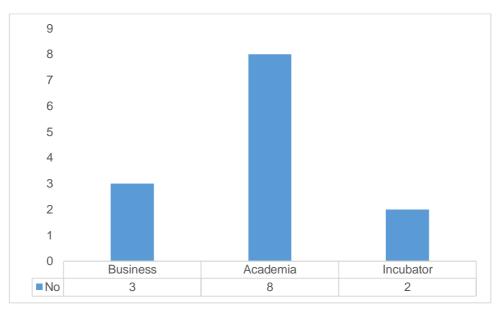


Figure 31 Background of the Portuguese Professors



## 7. Post-Graduation Modules

In this part of the report, we will characterize all the modules of the International Joint Post-Graduation, bringing information regarding the modules and the sessions, as well as the aims and learning outcomes, and how the evaluation was to proceed during each module. For each module, we will also bring some images to illustrate the online classes. After the characterization of the modules, there is an evaluation of the modules that were made by the students. That evaluation was made taking into consideration a survey the students had to take regarding each session of each module.

## **MODULE 1 - BIOHEALTH BUSINESS MODELS**

ECTS: 6

ACADEMIC COORDINATOR: María del Mar Fuentes (UGR)

### AIMS AND LEARNING OUTCOMES:

- The student will know the variety of business models existing in the BIOHEALTH Sector;
- The student will be able to analyse existing business models and detect opportunities in a novel or poorly explored contexts;
- The student will be able to develop a business model in the BIOHEALTH sector using different tools;
- The students will be able to verbally explain their models to a specialized audience (investors, administration, etc.);
- The student will understand the specific features of a BIOHEALTH business concerning other economic areas;
- The student will know how to design presentations on case-studies solutions.

SYLLABUS AND CONTENTS:

- 1. Introduction to the business models in the BIOHEALTH Sector. Prof. María Saiz
- 2. Learning from the clients: The Value Proposition Canvas. Prof. Iván Bedia
- 3. The business model canvas. Prof. Iván Bedia
- 4. Lean Startup: introduction to business development. Prof. Salvador Romero
- 5. Communicating the business: The pitch. *Prof. Pablo Caballero*
- 6. Learning from others: analysis of existing business models. *Prof. Vanesa Barrales*

## EVALUATION:

Students must attend 80% of contact hours to be evaluated.

### <u>Grades</u>

- Business Model: 50%. The student will have to design a complete business model on the product/service he/she desires.



- <u>44</u>
- Oral Pitch: 20%. The student will have to give a pitch about its business model.
- Exercises: 30%. After each session, the students will have to do practical/theoretical exercises about the contents.

SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 32 Presentation of Module 1 Module 1: BIOHEALTH BUSINESS MODELS Units Lecturers 1. Introduction to the business in the Bio-Health Sector María Saiz Exploring the clients: the Value Proposition Canvas Iván Bedia 3. The Business Model Canvas Iván Bedia 4. Lean Startup: introduction to the business development Salvador Romero 5. Communicating the business: the pitch Pablo Caballero 6. Learning from others: analysis of existing business models Vanesa Barrales Molina Academic Coordinator Maria del Mar Fuentes Fuentes Bio-Att

Figure 33 Prof. Maria Saiz in session 1.1



## 4. BIOTECH NTBFs:

•High-Tech SMEs,

+

- •New Technology-Based Firms (NTBFs),
- Innovative SMEs,
- •Knowledge-based firms,
- •Spin offs,
- •Young Technology enterprises









BIOHEALTH BIOMEDICINE BIOPHARMA

**RED BIOTECH** 





Figure 34 Prof. Ivan Bedia in session 2

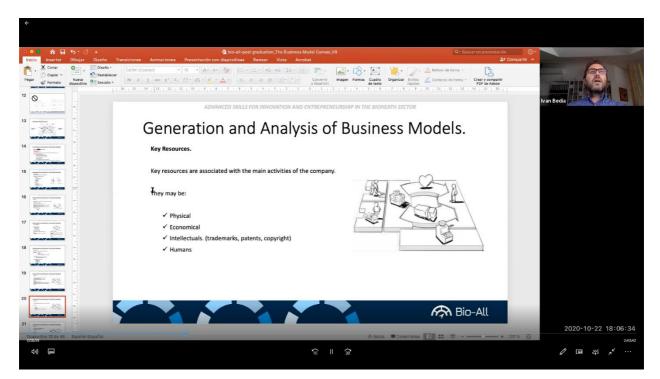


Figure 35 Prof. Salvador Romero in session 4





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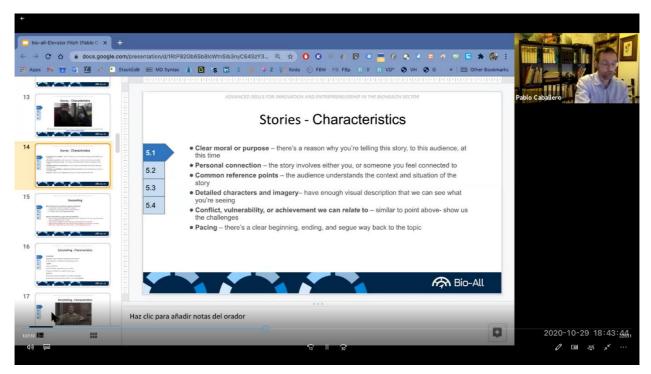
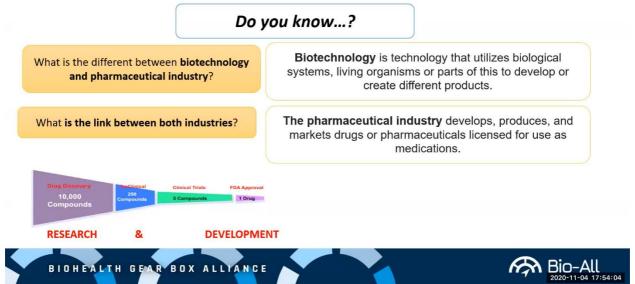


Figure 36 Prof. Pablo Caballero in session 5

Figure 37 Prof. Vanessa Barrales in session 6

Advanced skills for innovation and entrepreneurship in the Biohealth sector Key descriptive variables in Biohealth indus





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## Module 2 - ENTREPRENEURSHIP AND INNOVATION

ECTS: 6

ACADEMIC COORDINATOR: João Leitão (UBI)

AIMS AND LEARNING OUTCOMES:

- The student will be able to locate, handle and synthesize information contained in databases, other IT tools and the Internet;
- The student will be able to solve problems;
- The student will be able to be critical and self-critical;
- The student will possess an ethical commitment;
- The student will be able to state and defend the objectives and results of the work;
- The student will be able to generate new ideas (creativity);
- The student will be able to design and validate value propositions and business models;
- The student will be able to apply financial analysis tools to assess financing needs and forecast business profitability;
- The student will be able to understand the process of detection and analysis of business opportunities;
- The student will be able to define criteria to evaluate the market potential of a business idea and the necessary resources for market introduction.

SYLLABUS AND CONTENTS:

- 1. CREATIVE IDEAS AND COMPETITIVE DIMENSIONS. Prof. João Leitão
  - Technological ideas and business opportunities.
  - Market, competition, and competitive advantage.
- 2. BUSINESS OPPORTUNITY ANALYSIS METHODOLOGIES. Prof. João Leitão
- 3. STRUCTURING THE BUSINESS MODEL. Prof. João Leitão
- 4. NEW BUSINESS FINANCIAL PLANNING. Prof. João Leitão
- 5. INTRODUCTION TO THE BUSINESS PLAN. Prof. João Leitão

EVALUATION:

## Work 1 – Elaboration of the Business Opportunity Plan (BOP): Weight 30%

Tools/elements: Canvas model; Tangram Model; Value Proposition and Customer Segments; and BOP form duly completed. Work teams: 3 students

Presentation and discussion of the BOP: Weight 20%

Work 2 - Preparation of a Business Plan (BP): Weight 50%

Element: Business Plan (IAPMEI Form)

Talk about open innovation/market analysis/competitors' analysis.



## SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 38 Module 2 outline



## Course's outline

- 1. Creative Ideas and Competitive Dimensions.
  - 1.1\_Technological Ideas and Business Opportunities (João Leitão) 4h

 1.2\_A\_&\_1.2\_B\_Market, Competition and Competitive Advantage
 (João Leitão) 4h

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

2. Business Opportunity Analysis

- 2.1\_Methodologies (João Leitão) 4h
- 2.2\_Structuring the Business Model (João Leitão) 4h
- 3. New Business Financial Planning (João Leitão) 4h
- 3.1\_Introduction to the business (João Leitão) 4h

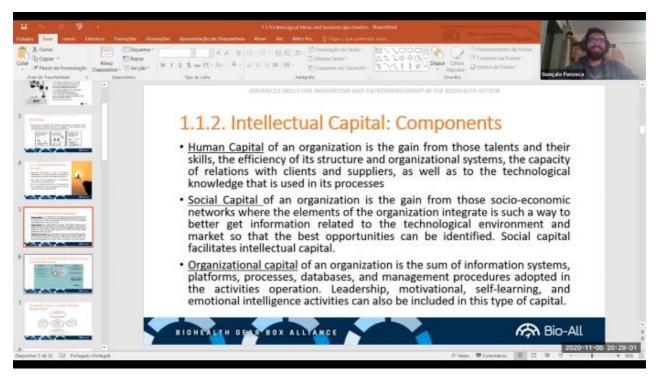
UNIT 1: CREATIVE IDEAS AND COMPETITIVE DIMENSIONS. TECHNOLOGICAL IDEAS AND BUSINESS OPPORTUNITIES

#### Figure 39 Prof. João Leitão during Module 2 Session 1





#### Figure 40 Interaction with students during Module 2 Session 1



# UNIT 2 - CREATIVE IDEAS AND COMPETITIVE DIMENSIONS. MARKET, COMPETITION AND COMPETITIVE ADVANTAGE



#### Figure 41 Module 2 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

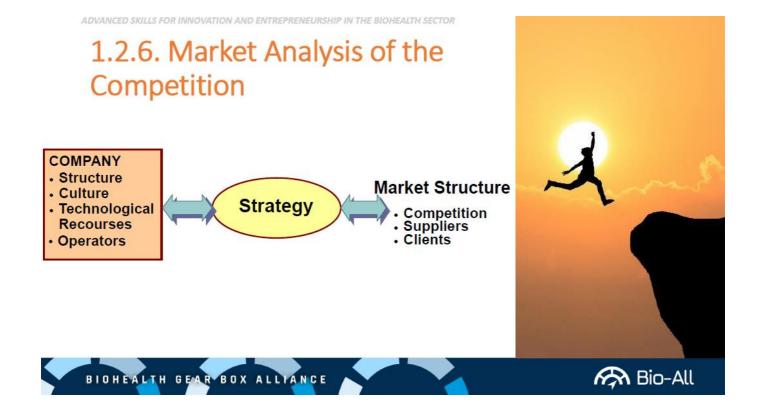
## Outline

- 1.2. Market, Competition, and Competitive Advantage
- 1.2.1. Opportunity and Market
- 1.2.2. Why is the Market Relevant?
- 1.2.3. Clients' Evolution
- 1.2.4. Opportunity Evaluation
- 1.2.5. Sources of Competitive Advantage
- 1.2.6. Market Analysis of the Competition





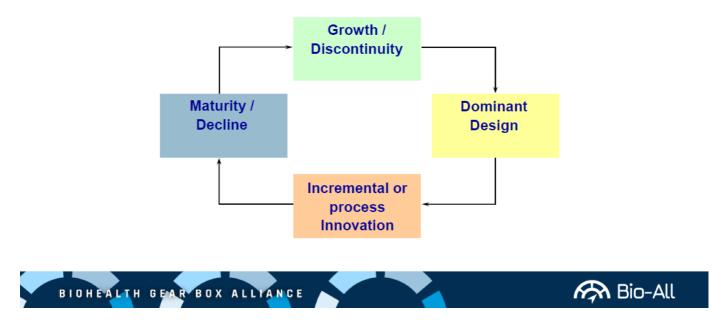
#### Figure 42 Module 2 Session 2



#### Figure 43 Module 2 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

# Life Cycle of Industry





<u>50</u>

### UNIT 3 - BUSINESS OPPORTUNITY ANALYSIS METHODOLOGIES

#### Figure 44 Module 2 Session 3

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

## New Product Pricing Strategies

 When Robosapien was introduced to the market, it had little direct competition in its product category. True, there were some "toy" robots available, but they were not nearly as sophisticated. Sony offered a pet dog robot called Aibo, but its price tag of \$1,800 was really high. Even higher up the price-point scale was the \$3,600 iRobi robot made by the Korean company Yujin Robotics to entertain kids and even teach them foreign languages. Parents could also monitor kids' interactions with the robot through its video-camera eyes; in fact, they could even use the robot to relay video messages telling kids to shut it off and go to sleep.





#### Figure 45 Module 2 Session 3

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

## Product Life Cycle Approach

Stages	Introduction	Growth	Maturity	Decline
Price Levels	Depends on choice of introductory strategy	Converges as competitors enter market	Initially high but tend to decline as growth disappears	Initially declines but may rise as competitors exit
Number of Competitors	Few	Rapidly Rising	Begins to decline through consolidation	Few or one
Industry Profits	Negative	Rising	Highest	Declining
Customers	Few – Innovators Only	Rising – Early Adopters	High/Stable, begins to drop late in cycle	Declining
Objectives	Awareness and Adoption	Gain Market Share	Defend Share and Maximize Profits	Milk Remaining Value, Minimize Investment

As a product/service moves through its life cycle, the company that markets it will shift its marketing-mix strategies.





#### Figure 46 Module 2 Session 3

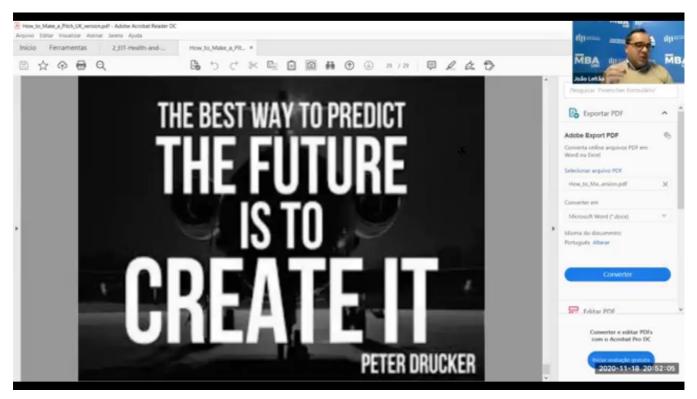
DVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

## Types of Exit Strategies: Advantages vs Disadvantages

	Types of Exit Strategies	Description	Advantages	Disadvantages	
Ani	nger with other mpany	Company joins with an existing company.	Owner may receive cash and/or stock, resources of both companies are combined, and some of the management may remain constant.	New owners or managers may have different philosophies or ways of doing business, existing staff may have less control, and blending the two cultures may be difficult.	-
	quisition by other Company	Company is bought out by another existing entity.	Owner receives cash or stock for the sale and management contract is negotiable for the owner to stay on during transition.	Fit is not always appropriate for the business or employees, and the corporate identity or brand may diminish.	
	le of the mpany	Company is sold to individual(s).	Owner may receive cash immediately or over time.	May be difficult to find the right buyer at the right price and changes in ownership may be difficult for employees.	-
	anchise of e Company	The business concept is replicated and the company expands locally, regionally, nationally, or internationally.	Owner receives cash for each franchise, current corporate management is maintained, and the enterprise sees an opportunity for large- scale growth.	Process may be difficult and time-consuming, and the business concept may not be appropriate for franchising.	
Ow	iployee Stock- vnership Plan SOP)	Employees receive shares or stock of the company over time.	Key employees are rewarded for their contributions, receive incentives for staying with the company for a number of years, and share in the profits of the company they have helped to grow.	Owner can borrow funds from the plan as a loan to the company, employees may lose their shares if they leave the company, and if the value of the company or company stock goes down, the employees share in the burden.	-
	tial Public fering (IPO)	Shares of the company are sold to the public on a stock exchange.	Shares convert to cash for investors, major shareholders control the company, and investors see potentially high returns.	Company needs high growth to generate earnings and investors' interest, process is costly, and the outcome is uncertain.	- © 2206 Exilg Marba Kauffron Foundation, All Rights

## UNIT 4 - STRUCTURING THE BUSINESS MODEL

#### Figure 47 Prof. João Leitão during Module 2 Session 4

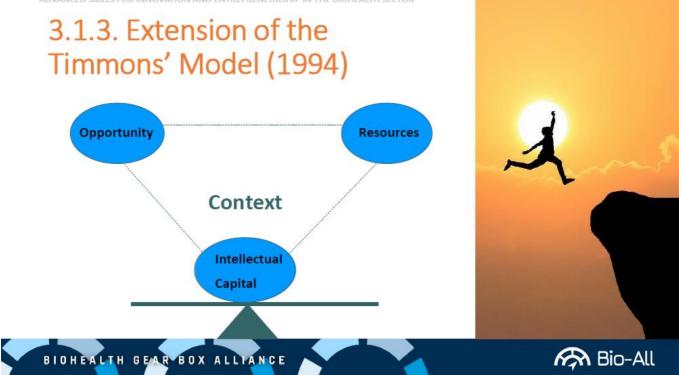




## UNIT 5 - NEW BUSINESS FINANCIAL PLANNING

Figure 48 Module 2 Session 5

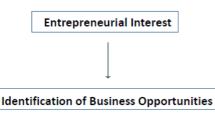
ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR



#### Figure 49 Module 2 Session 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

## 3.1.4. Phase I of the process



What do I want to do it with my own knowledge?

My interests? My talents? My vocation/mission? Determination?

Active search for new ideas? Unique knowledge and assets? Previous experience? Goals? Evaluated needs and resources?





#### Figure 50 Module 2 Session 5

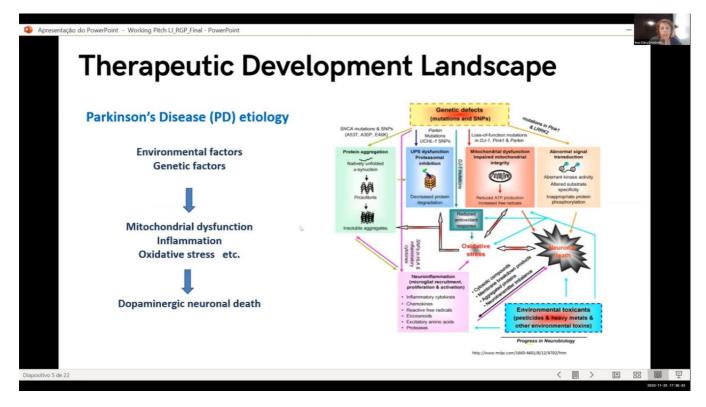
ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

# 3.1.7. Phase IV of the process



## UNIT 6 - INTRODUCTION TO THE BUSINESS

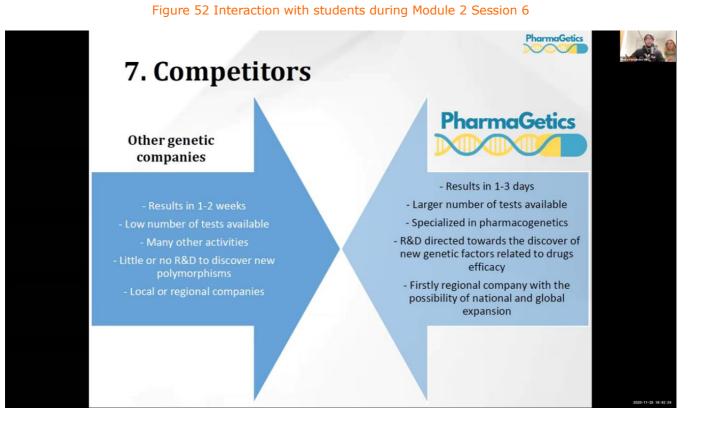
Figure 51 Interaction with students during Module 2 Session 6





BIOHEALTH GEAR BOX ALLIANCE

<u>54</u>



**55** 

#### Module 3: PRODUCT DESIGN IN BIOHEALTH SECTOR



## ECTS: 4

### ACADEMIC COORDINATOR: Ana Palmeira (UBI)

### AIMS AND LEARNING OUTCOMES:

- The student will be able to acquire and understand the knowledge of clinical research and good clinical practice;
- The learner will be able to identify practices in drug development, medical device development and trial planning;
- The student will be able to acquire knowledge of safety needs and requirements.
- The student will be able to analyse the effects of quality assurance, monitoring, audits, and inspections;
- The student will be able to recognize key national and European directives/regulations/guidelines and legal requirements for clinical trials;
- The student will be able to understand the legal profiles of each trial participant, as well as fraud and misconduct in clinical research;
- The student will be able to understand the various steps, dossiers, and timelines of a controlled trial design;
- The student will be able to recognize the importance and key elements of quality management in clinical trials;
- The student will be able to understand the difference between monitoring, audits and inspections;
- The student will be able to identify the effects of audits and inspections.

### SYLLABUS AND CONTENTS:

- 1. Basic concepts of ethics of clinical research and goodclinical practice. *Prof. José Martinez de Oliveira*
- 2. The process of drug development. Prof. Rita Palmeira
- 3. Basics of the clinical research methodology. Prof. Ana Ramalhinho
- 4. Regulatory framework and guidance for clinical research -drugs and medical devices. *Prof Ana Ramalhinho*
- 5. Planning and preparation of a trial. Prof. Ana Ramalhinho
- 6. Basic concepts in safety. Prof. Ana Ramalhinho
- 7. Quality assurance, monitoring, audits, and inspections. Prof. Ana Palmeira

### EVALUATION METHODOLOGY:

Oral presentations and a case study for preparation at home accompanies the module.

### MINIMUM REQUIREMENTS

Students must attend 80% of contact hours to be evaluated.

## EVALUATION AND LEARNING CONTROL

- Case study: 30%.
- Oral Presentations:40%
- Active participation in class: 30%



<u>57</u>

In case of non-ordinary evaluations, it will be done as follows:

- Case study: 30%
- Written exam: 70%

## SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 53 Prof. Rita Palmeira de Oliveira during Module 3



ession (date/hour)	Content	Rita Palmeira de Oliv
6/11/2020 (4 hours)	The process of product development (overall perspective)	Rita Palmeira de Oliveira (16h-19h; 17-20h)
	Uphill: Software development in the Biohealth Sector	Eduardo Freire Rodrigues (19h/20h; 20h/21h)
/12/2020 (4 hours)	Basic concepts of ethics throughout product development	José Martinez de Oliveira
	Quality assurance, monitoring, audits, and inspections (2h)	Ana Palmeira de Oliveira
12/2020	Clinical research (4h)	Cristina Ramalhinho (16h- 20h; 17-21h)
/12/2020 (1 hour)	Evaluation activity (online quizz)	
/12/2020 (3 hours)	Sparkathon: start-ups experiences and examples with development of innovative products in different fields	2020-11-26

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BI

Figure 54 Prof. José Martinez de Oliveira during Module 3





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## UNIT 1 - THE PROCESS OF PRODUCT DEVELOPMENT

#### Figure 55 Module 3 Session 1

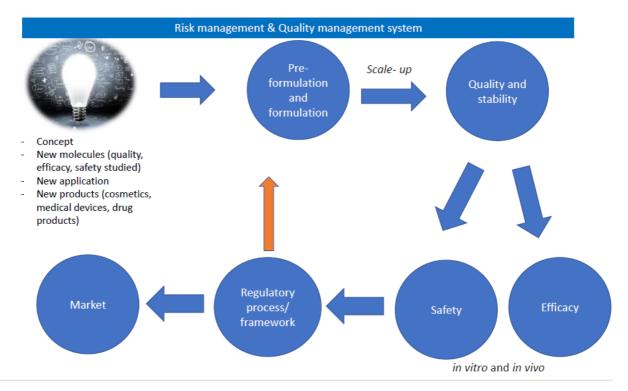


Figure 56 Module 3 Session 1



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# **Regulatory framework**

## Biocide

any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, <u>with the intention of</u> <u>destroying, deterring, rendering</u> <u>harmless, preventing the action of,</u> <u>or otherwise exerting a controlling</u> <u>effect on, any harmful organism by</u> <u>any means other than mere physical</u> <u>or mechanical action</u>. A treated article that has a primary biocidal function shall be considered a biocidal product.

Regulation (UE) nº 528/2012 (BPR)

## Food supplement

"foodstuffs the purpose of which is to supplement the normal diet and which are concentrated sources of nutrients or other substances with a nutritional or physiological effect, alone or in combination, marketed in dose form, namely forms such as capsules, pastilles, tablets, pills and other similar forms, sachets of powder, ampoules of liquids, drop dispensing bottles, and other similar forms of liquids and powders designed to be taken in measured small unit quantities"

> Directive 2002/46/EC & Regulation 1170/2009



## 🚓 Bio-All

#### Figure 57 Module 3 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

## Innovation and research apply to all categories



UNIT 2 - UPHILL: SOFTWARE DEVELOPMENT IN THE BIOHEALTH SECTOR



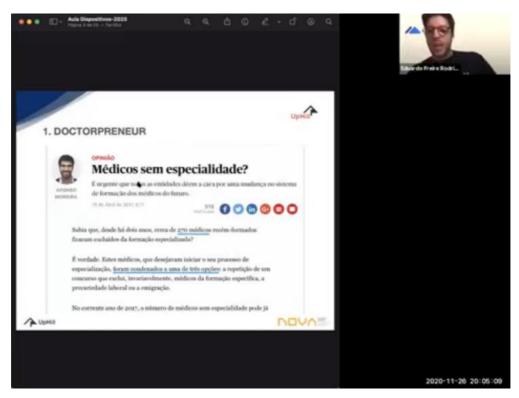
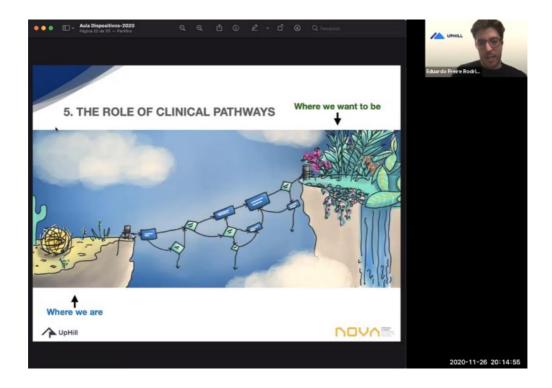


Figure 58 Eduardo Rodrigues from UpHill during Module 3 Session 2

Figure 59 Eduardo Rodrigues from UpHill during Module 3 Session 2



## UNIT 3 – BASIC CONCEPTS OF ETHICS THROUGHOUT PRODUCT DEVELOPMENT







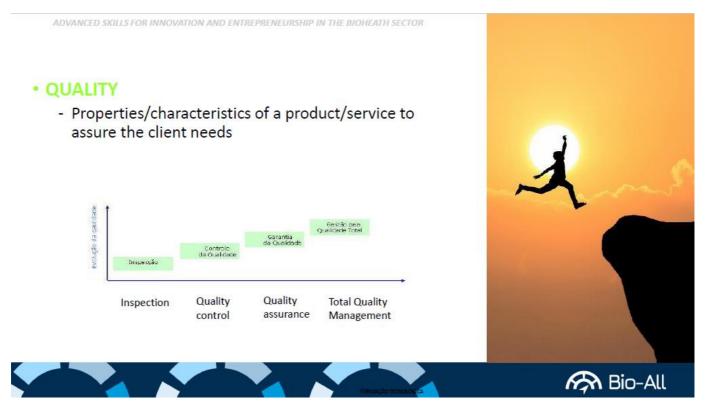
#### Figure 61 Module 3 Session 3



UNIT 4 - QUALITY ASSURANCE MONITORING AUDITS AND INSPECTIONS



#### Figure 62 Module 3 Session 4



#### Figure 63 Module 3 Session 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Quality

### TQMS: 8 Principles of the quality managment

- Focus on the client
- Lidership
- People engagment
- Approach by process organization
- Manage the company as one-system
- Continuous improvment
- Facts approach
- Suppliers are considered partners



Figure 64 Module 3 Session 4



# Quality

#### <u>Audit</u>

- careful and systematic examination of the activities carried out in a given company or sector,
- to ascertain whether they are in accordance with the planned and / or previously established provisions, whether they have been implemented effectively and whether they are adequate (in accordance) with the defined objectives;
- ISO19011 defines the audit process
- The audit must be planned including the proccess and the áreas that will be submitted to the audit, as well as the previous audits made: <u>corrective and preventive</u> <u>actions</u>.



## UNIT 5 - CLINICAL RESEARCH

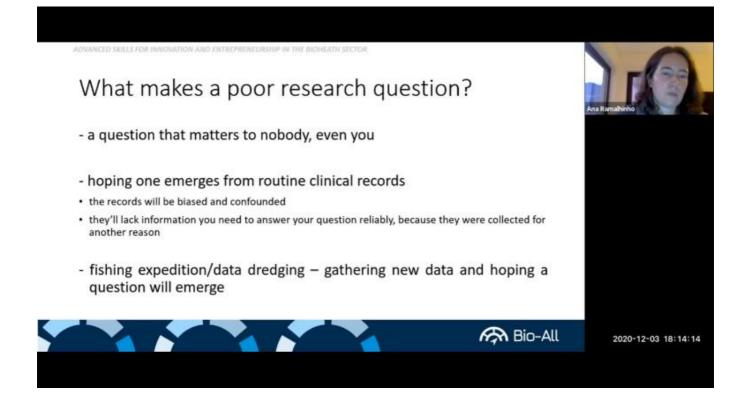
#### Figure 65 Prof. Ana Ramalhinho during Module 3 Session 5



Figure 66 Prof. Ana Ramalhinho during Module 3 Session 5



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<u>64</u>

# UNIT 6 – STARTUP EXPERIENCES AND EXAMPLES WITH DEVELOPMENT OF INNOVATIVE PRODUCTS IN DIFFERENT FIELDS



Figure 68 Module 3 Session 6



#### SPARKATHON\_PRODUCT DESIGN\_SHORT BIO OF PRESENTERS



Hugo Alexandre Ferreira, has a degree in Medicine and in Technological Engineering Physics and a PhD in Physics in the field of Nanotechnologies applied to Biomedicine. Currently, he coordinates the Integrated Master in Biomedical Engineering and Biophysics at the Faculty of Sciences of the University of Lisbon, where he is an Associate Professor. At the Institute of Biophysics and Biomedical Engineering, he leads research in Neurosciences, Oncology, Cardiovascular Diseases, Digital Health and Physiological Computing. He was also founder and chief executive/ medical officer of NeuroPsvAi, a company in the field of *in vivo* diagnosis of neuropsychiatric diseases that uses medical images and artificial intelligence. He is the founder of EmotAi, a hardware / IoT and wearables development company that uses physiological signals and neurotechnology to improve human performance, particularly in sports. He is also the founder of Neurops, which develops serious games based on neurofeedback and also the founder of Nevaro, which develops digital therapeutics solutions in mental health.



José Duarte has a background in Biochemistry (University of Coimbra, Portugal) and is responsible for <u>Mitotag's</u> marketing, communication infrastructure and social media presence. He has extensive experience of multimedia and creative design, including training in Web Design and <u>Javascript</u> (University of Aveiro, Portugal).



André Faustino, father, biologist, entrepreneur. After his BsC in Biology, André went to Baylor College of Medicine for a PhD in RNA splicing. Returned to Portugal and created a start-up focused on identifying a drug to treat Obesity. The drug failed a Phase IIa clinical trial. Now he is in a new company that is focused on changing the way a drug is administered. The company is now raising 1M€ to make a second clinical trial and get the drug approved.

André is always looking for ways to improve what is being done. Sometimes that makes him sound very critical, but he's always very positive and looking forward to help others.

#### Module 4: LEGAL AND IP MANAGEMENT



Bio-All

## ECTS: 4

## ACADEMIC COORDINATOR: Dina Pereira (UBI)

### AIMS AND LEARNING OUTCOMES:

- The student will be able to acquire and understand the knowledge that provides a sufficient basis to develop and/or apply original ideas in an innovative context;
- The student will be able to apply the acquired knowledge and solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study;
- The student will possess the learning skills that will allow him/her to continue studying in a way that will be largely self-directed or autonomous;
- The student will know the variety of business models that exist in the BIOHEALTH Sector;
- The student will be able to analyse existing business models and detect opportunities in new or little-explored contexts;
- The student will be able to develop a business model in the BIOHEALTH sector using different tools;
- The student will be able to verbally explain his/her models to a specialized audience (for example, investors, administration, etc.);
- The student will understand the specific characteristics of a BIOHEALTH business concerning other economic fields;
- The student will know how to create presentations on case study solutions.

## SYLLABUS AND CONTENTS:

## 1. STRATEGY. Prof. Sofia Vairinho

- Concept of strategy
- Tools for strategy development
- Industry analysis
- Firm resources and core competencies
- IP in the concept of strategy
- IP strategy development
- IP and competition analysis Legal
- Patent law
- Trademark law
- Copyright law
- Design law
- Unfair competition law

## 2. DECISIONS. Prof. Dina Pereira

- Decision theory
- Game theory
- Accounting standards
- Intangible assets in accounting
- Intangible assets in controlling
- Patent valuation
- Brand valuation



- IP due diligence
- Economic analysis of IP Legal
- IP and international private law
- Legal aspects of patent valuation

#### 3. IMPLEMENTATION. Prof. Sofia Vairinho

- Innovation Management
- Dynamics of technological innovation
- Patent information in the innovation process
- IP management in R&D collaborations
- Filing strategies
- Geographical indications
- Trade secrets and technology transfer
- Specifics of the BioHealth sector
- 4. ORGANIZATION. Prof. Dina Pereira
  - Business organization
  - IP management organization
  - IP outsourcing
  - Transfer pricing
  - Property rights theory
  - Transaction cost theory
  - Agency theory
  - Law of contract
  - Licensing agreements
  - International IP law
  - IP taxation
  - International trade and commercial law
- 5. BUSINESS DEVELOPMENT. Prof. Dina Pereira
  - Business models and Entrepreneurship applied to biotech start-ups
  - Open innovation and co-creation and IP constraints
  - Change management and surveillance
  - IP business models applied to biotech start-ups
  - IP management and biotech industry specifics
  - IP finance

#### EVALUATION METHODOLOGY:

Oral presentations and a case study for preparation at home accompanies the module.

#### MINIMUM REQUIREMENTS

Students must attend 80% of contact hours to be evaluated.

#### **EVALUATION AND LEARNING CONTROL**



- Case study: 30%.
- Oral Presentations:40%
- Active participation in class: 30%

In case of non-ordinary evaluations, it will be done as follows:

- Case study: 30%
- Written exam: 70%

## SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 69 Prof. Sofia Vairinho during Module 4

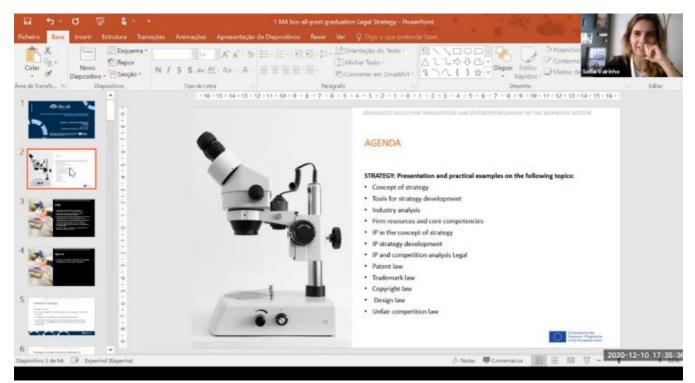
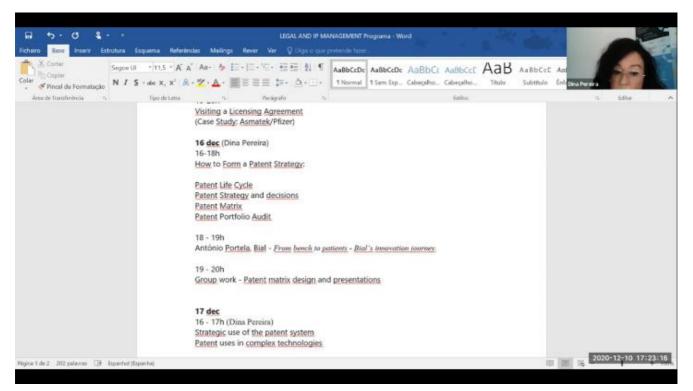




Figure 70 Prof. Dina Pereira during Module 4



UNIT 1: STRATEGY

#### Figure 71 Module 4 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### Strategy concept (Classical definitions)

• "Definition of the long-term goals and objectives of a company, adoption of shares and allocation of the necessary resources to achieve these goals "(Chandler, 1962).

• The strategy is the model of objectives, purposes or goals and the main policies and plans for achieve them, posed in such a way that they define what business the company is or will be in and the kind of company that is or will be (Andrews, 1965).

• "Corporate strategy is about being different. It means deliberately choosing a set of different activities to achieve a mix of unique value "(Porter, 1982).





#### Figure 72 Module 4 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### NDA / CA Confidentiality Agreement

 A Confidential Disclosure Agreement [(CDA); also referred to as non-disclosure agreement (NDA) or secrecy agreement] is a

a) legal agreement between a minimum of two parties

b) which outlines information the parties wish to share with one another for certain evaluation purposes,

c) but wish to restrict from wider use and dissemination.



#### 🚓 Bio-All

#### Figure 73 Module 4 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### The License Agreement Structure of a License

Preamble:

- Who are the parties to the Agreement?
- What are the initial conditions (Whereas...)?
- What is the purpose of the Agreement (Therefore...)?

## (Party 1 has technology, Party 2 would like access to it...Therefore we agree...)



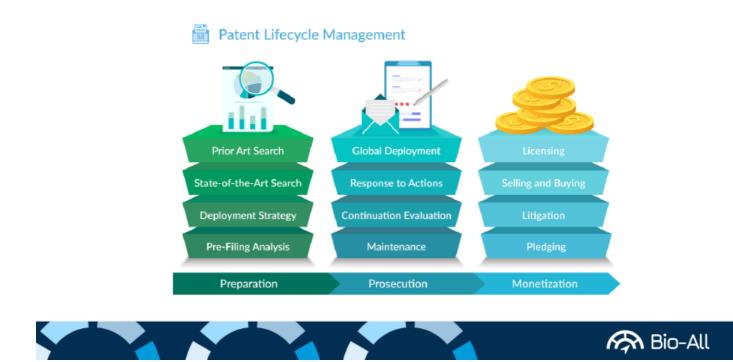
#### UNIT 2: HOW TO FORM A PATENT STRATEGY



BIOHEALT<u>H GEAR BOX ALLIANCE</u>

#### Figure 74 Module 4 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



#### Figure 75 Module 4 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### IP due diligence - example

• One of the most extreme **examples of IP due diligence-gonewrong** happened in 1998, when German carmaker Volkswagen purchased the assets of Rolls Royce and Bentley automobiles for about \$900 million. Volkswagen did not realize until after the deal was closed that the IP assets did not include the right to use the Rolls Royce trademark... The trademark was owned by another carmaker, BMW, pursuant to a prior agreement. Volkswagen had therefore acquired all the rights necessary to manufacture the car, but did not have the right to brand it as a Rolls Royce!

Figure 76 Module 4 Session 2



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ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

#### Valuation Methods - Patents comprise Real Options Application Process Decisions involving Valuation Costs to be Justified What Cost Buys Inventor & Patent Ages scuss invention an it's Patentability Application Call Option on Foreign Appl'ns Call Option on continue the Call option is bought \* Decision to File Patent Application Cost of opplication if the trader expects 1st FILING Initial Cost of Foreign Applications Cost of Decision to continue and make the price of the 淋 Continuation oreign Applicati otion on fu underlying to rise FOREIGN FILINGS n'n pa and Search SEARCH within a certain time Decision to continue Application in the light Continuation Call option on furth Continued Cost of Application(s) \* frame of the Search Re Publication Continued Cost of Application(s) Substantine Continuation tion on furth \* applications and seek EXAMINATION Examin Fee \* Decision to continue Application in light Continued Cost of Application(s) + Call option opoly benefi GRANT This year's mo Grant Fee(s) ANNUALLY Decision to maintain Patent by paying renewal Fees This year's monopoly benefits + Call option on next year's ⋇ Renewal Fee(s) Consideration as a put option to abandon is also possible Sale or Licensii of Patent bought if the trader expects the price of the underlying EXPIRY o fall within a certain time frame Bio-All

### UNIT 3: STRATEGIC USE OF THE PATENT STRATEGY SYSTEM. PATENT USAGE IN COMPLEX TECHNOLOGIES

#### Figure 77 Prof. Dina Pereira during Module 4 Session 3

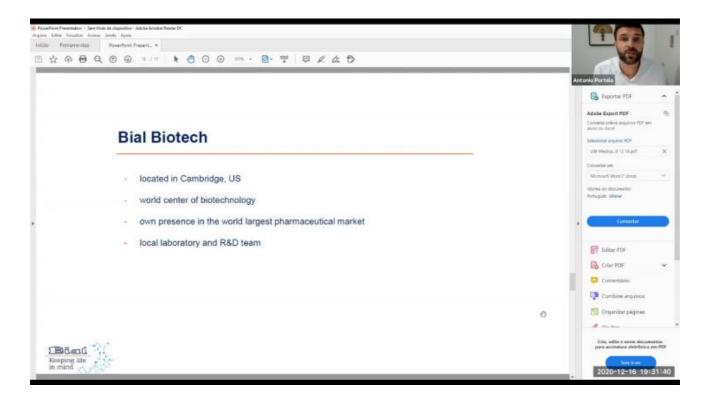


Figure 78 Dr. António Portela (BIAL) presenting during Module 4



BIOHEALTH GEAR BOX ALLIANCE

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UNIT 4: IP MANAGEMENT. BUSINESS MODELS AND ENTREPRENEURSHIP APPLIED TO BIOTECH STARTUPS

Figure 79 Dr. Raúl Saraiva (Portugal Ventures) presenting during Module 4

# Portugal GROWING GLOBAL

#### Seed, Series A, Series B...

the successive funding rounds in the startup's life cycle, starting with seed in the early stages and followed by increasing capital and valuations for Series A, B, C, D, E, etc.

- Nowadays, it's not uncommon for companies to engage in pre-seed funding (e.g. accelerators)
- The dimension of each round can vary widely by sector and, obviously, the specific needs of each company.



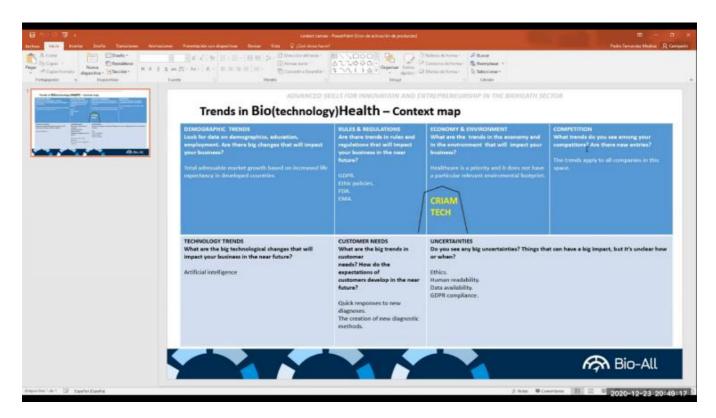
Seed, Series A, Series B...

Figure 80 Presentation during Module 4



2020-12-23 17:26:43

Portuga



#### Module 5 – BUSINESS STRATEGY



<u>74</u>

#### ECTS: 5

#### ACADEMIC COORDINATOR: Arianna Pallante (CUBE-LABS)

AIMS AND LEARNING OUTCOMES:

- The student will learn how innovation can drive growth. Business model innovation is a strategy for business growth that allows you to engage new customer segments by changing the way a company does business, also from the point of view of sustainable development. - The student will understand the strategic management process and its relevance to the organization's success;
- The student will identify perspectives and roles of the different stakeholders that interact with the organization;
- The student will apply tools for analysis, implementation and strategic control;
- The student will learn to evaluate the best business strategies useful to envy the strengths but above all the critical points of his business idea, therefore strengths, weaknesses, opportunities and threats, to develop a strategy of differentiation from the competition and to compete successfully in the target market, as well as planning a change process and facilitating the subsequent task of choosing and implementing suitable strategic plans and programs capable of bringing the company closer to its purpose.
- The student will analyse the environmental, political, and social landscape in which Startups operate, including the role of government, investors, and customers.
- This module aims to provide participants with the main strategic concepts and tools and an integrated perspective of corporate and competitive strategy. Case studies and examples will be discussed throughout the course, to foster a mutual learning environment and promote the application of strategic thinking.

#### SYLLABUS AND CONTENTS:

- 1. Strategy Context. Prof. Renato Del Grosso
- 2. Understand and analyse the business models that drive change. Prof. Filippo Surace
- 3. Global overview on BIOHEALTH/Pharma/Biotech sector. Prof. Yulia Shmeleva

4. Examine the broader environmental, political, and social landscape in which you. *Prof. Roberta Gilardi* 

5. Business strategy for sustainable development. Prof. Daria Brambilla

Group tutorial. Prof. Daria Brambilla and Prof. Yulia Shmeleva

EVAULUATION:

Attendance – 10%

Participation – 20%

Elaboration, presentation, and discussion of practical tasks (case studies) – 70%



75



#### SCREENSHOTS OF SESSIONS AND SLIDES

#### UNIT 1: STRATEGY CONTENT

Figure 81 Content from Module 5 - Unit 1

#### Syllabus of Strategy Context:

- a) The third and fourth industrial revolution and the effects on companies and society
- b) Introductory concepts of Business Strategies
- c) Strategic Management: Why it is important?
- d) Functional business strategies for a successful SWOT analysis
- e) Strategic analysis models at business level: competitive forces, value chain and competitive differentials
- f) Internationalization strategies

Figure 82 Content from Module 5 - Unit 1

#### c. Strategic Management: Why it is important?

#### **Definition of Strategic Management:**

The term 'strategic management' is used to denote a branch of management that is concerned with the development of strategic vision, setting out objectives, formulating and implementing strategies and introducing corrective measures for the deviations (if any) to reach the organization's strategic intent.

It has two-fold objectives:

- To gain competitive advantage, with an aim of outperforming the competitors, to achieve dominance over the market.
- To act as a guide to the organization to help in surviving the changes in the business environment.
- Here, changes refer to changes in the internal environment, ie within the organization, introduced by the managers such as the change in business policies, procedures etc. and changes in the external environment as in changes in the government rules that can affect business, competitors move, change in customer's tastes and preferences and so forth.
  - A) Different approach to BM innovation
  - B) The three pitfalls
  - D) Business model outcomes



#### UNIT 2: UNDERSTAND AND ANALYSE THE BUSINESS MODEL THAT DRIVES CHANGE

#### Figure 83 Content from Module 5 - Unit 2

#### **Business model definition**

#### A business model is concerned with how you design your business to:

- · meet customers' needs (offer something that they want to buy).
- · generate a profitable revenue stream from sales.
- build a business that has a sustainable competitive advantage in other words, it can't easily be replicated.
- · provide opportunities for growth.

Essentially, using a business model helps you make better decisions about your business. For established businesses, it improves how teams make decisions about the future of the business.

For startups, it helps entrepreneurs formulate the best solution to meet customers needs and at the same time be profitable.

#### Figure 84 Content from Module 5 - Unit 2

#### **Business model definition**

#### A business model is concerned with how you design your business to:

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Essentially, using a business model helps you make better decisions about your business. For established businesses, it improves how teams make decisions about the future of the business.

For startups, it helps entrepreneurs formulate the best solution to meet customers needs and at the same time be profitable.

UNIT 3: GLOBAL OVERVIEW ON BIOHEALTH, PHARMA, BIOTECH SECTOR



#### Figure 85 Content from Module 5 - Unit 3



Overview of topic:

1. Global overview. Biotechnology sector 2020.

2. The European Medical Technology Industry 2020.

3. The Italian Biotechnology Industry 2020.

4. Nutraceutical sector. Global & Italian markets.

5. Pfizer Inc. Business-case study:

Successful strategies for the technology creation.



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### **SKILLS TO SUCCESS**

The course provides students with more detailed outlook of Life-sciences industry situation in 2020 at the global, European and local Italian level.

It portrays a unique international image for the whole sector, given by its richness and information completeness, setting the basis for the evaluation of its strengths and weaknesses, opportunities and threats, especially in light of the dramatic events which represent an alarm bell for the healthcare system but also for the economic and environmental sustainability of the current production and consumers models, for the survival of the planet.

It is for this reason that we need to take a closer look at the Life-sciences field and the related R&D activities.

#### We supply the tools to drive scientific innovation to the success on the market



UNIT 4: EXAMINE THE BROADER ENVIRONMENTAL, POLITICAL, AND SOCIAL LANDSCAPE IN WHICH YOU OPERATE, INCLUDING THE ROLE OF GOVERNMENT, INVESTORS, AND CUSTOMERS

#### Figure 87 Content from Module 5 - Unit 4

#### Agenda

- 1. Introduction: Innovation as the main Driver for Economic Growth and Innovation Models
- 2. 2030 Agenda and Health Innovation Goals
- 3. Environmental Drivers
- 4. Environmental Driver Example: Aging Society, a Social Bomb? An Opportunity?
- 5. Innovation Ecosystems
- 6. Startup Ecosystems
- 7. Role of Investors in Innovation and Enterpreneurial Ecosystems
- 8. 2020 Black Swan
- 9. Health Innovation Startup Landscape Q2 2020



#### Figure 88 Content from Module 5 – Unit 4

#### Innovation

Innovation is the application of better solutions that meet new requirements, in-articulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society.

Road map for implementation :



Innovations require only three things:

- a. A recognized need,
- b. Competent people with relevant technology, and
- c. Financial support.

This may cause to believe that innovation is confined to large institutions , government organizations, and huge R n D facilities. But innovation fosters in areas where need to surpasses everything else.

#### UNIT 5: BUSINESS STRATEGY FOR SUSTAINABLE DEVELOPMENT

Figure 89 Content from Module 5 - Unit 5

### Syllabus:

#### TOPIC: Business strategy for sustainable development.

A) Sustainable business strategies.

B) The origins of sustainable strategy: context and driving factors.

#### ECTS: 4

**MAIN AIM**: . To discover how businesses can thrive and grow while simultaneously tackling some of the world's biggest challenges and how you, as an individual, can make a difference.



Figure 90 Content from Module 5 – Unit 5



## Business strategy for sustainable development.

- Sustainable business strategies.
- The origins of sustainable strategy: context and driving factors.

Activites: The Nestle'case study



#### Module 6 - MARKETING AND SALES

ECTS: 5

ACADEMIC COORDINATOR: Helena Alves (UBI)

AIMS AND LEARNING OUTCOMES:

- The student will be able to locate, manage and synthesize information contained in databases, other computer tools and the Internet;
- The student will be able to solve problems;
- The student will be able to develop critical and self-critical skills;
- The student will be able to present and defend the objectives and results of the work;
- The student will be able to generate new ideas (creativity);
- The student will know how to define the term marketing and explain its role and importance in an individual company and the economy in general;
- The student will understand the importance of strategic marketing and will know the basic outline of a marketing plan:

1. analyse the external environment to identify opportunities orchallenges for a company;

2. Identify and classify marketing segments and targets, demonstrating the use of market research techniques;

3. Create and use a mission statement, SWOT analysis, and SMART goals.

- The student will be able to describe the elements of the marketing mix (4Ps of marketing):
  - 1. Product: explain the use of product mix and life cycle in a marketing strategy;
  - 2. Distribution/marketing channels: identify different marketingchannels and develop distribution strategies;
  - 3. Promotion/Advertising: Describe the role of advertising and publicrelations in marketing a product or service;
  - 4. Pricing: List and explain a variety of pricing objectives.
- The student will be able to create and present the components of a working marketing plan.

#### SYLLABUS AND CONTENTS:

1. Analysing the Marketing Environment and Managing Marketing Information. *Prof. Arminda do Paço* 

- 2. Consumer Markets & Business. Prof. Arminda do Paço
- 3. Customer-driven Marketing. Prof. Arminda do Paço
- 4. Creating a Customer-driven Marketing Mix I. Prof. Arminda do Paço
- 5. Creating a Customer-driven Marketing Mix II. Prof. Helena Alves



- <u>84</u>
- 6. Creating a Customer-driven Marketing Mix III. Prof. Helena Alves
- 7. Creating a Customer-driven Marketing Mix IV. Prof. Helena Alves
- 8. The Marketing Plan. Prof. Helena Alves

#### EVALUATION:

Attendance, In-class Assignments & Participation (5%) Final Project: 45% Final Project Assignments: 30% Final Project Oral Presentation: 15% At Home Quizzes (Individual): 50%

#### SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 91 Prof. Helena Alves presenting during Module 6

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 1. The marketing plan

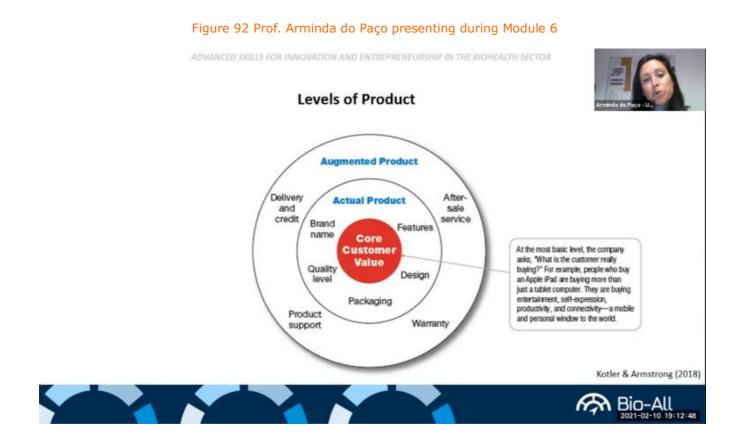
- Executive summary
- Marketing situation
- Threats and opportunities
- · Objectives and issues
- Marketing strategy
- Action programs
- Budgets
- Controls

Use a good Marketing Plan to guide the strategic and tactical direction of your business

- A Marketing Plan is at the core of directing and coordinating all marketing efforts within a firm.
- It usually operates at two levels, strategic and tactical: strategic to identify the overall market play and tactical to execute on the marketing plan.







### UNIT 1: ANALYZING THE MARKETING ENVIRONMENT AND MANAGING MARKETING INFORMATION

#### Figure 93 Module 6 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 1. The marketing plan

- Executive summary
- Marketing situation
- Threats and opportunities
- · Objectives and issues
- Marketing strategy
- Action programs
- Budgets
- Controls

Use a good Marketing Plan to guide the strategic and tactical direction of your business

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#### Figure 94 Module 6 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### Budgets

- · Here are some potential categories that you might need to consider:
- Paid Advertising (Search, social media advertising, lead generation, display, TV, radio, print, direct mail
- Branding & Creative (Software, hardware, IT, equipment, stock photo/video, freelancers, fonts, printing, off-site shoot travel, supplies)
- Website (Website design/development (or re-design/development), updates, maintenance, integrations, improvements, registrar/hosting, stock photo/video, fonts
- Content Marketing (content creation, design, video production, publishing tools, analytics, file management, stock photo/video/audio, freelancers, marketing automation, monitoring services, webinars, social media tools
- Public Relations (PR services, research/contact services, reputation marketing, events, award fees, dinners, swag, outside agency retainer fees)
- Product Marketing (Competitive analysis, focus groups, user testing, launch events, advertising/PR, product-specific content marketing, demo videos)
- Events (Food & beverage, entertainment, giveaways, event advertising, décor, printing, venue rental, name badges, swag, performer/speaker fees & travel)





#### Figure 95 Module 6 Session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### Controls

#### Examples:

- · Market share analysis.
- · Sales analysis.
- · Quality controls.
- · Feedback from customers satisfaction surveys.
- Sales per thousand customers, per factory, by segment.
- Distributor support.
- · Performance of any promotional activities.
- Market reaction/acceptance to pricing polices.
- · Service levels.
- etc







#### Figure 96 Module 6 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 3. Consumer markets & business markets

#### Factors Influencing Consumer Behavior

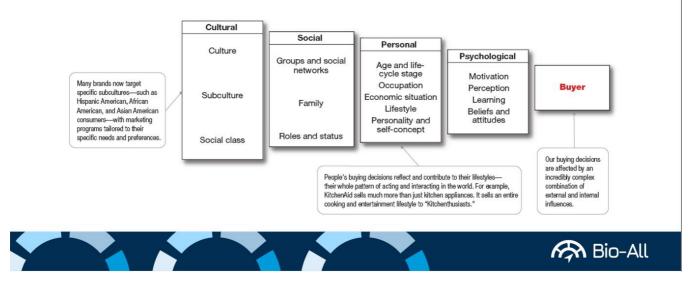
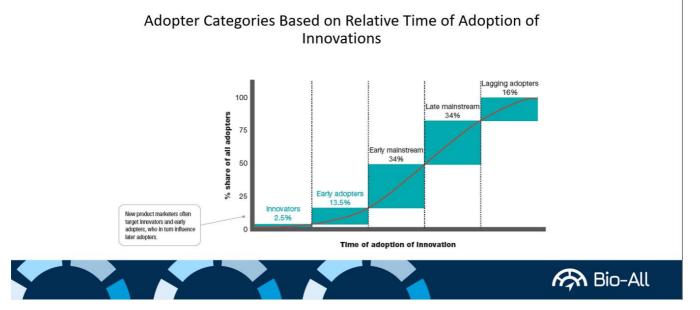


Figure 97 Module 6 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 3. Consumer markets & business markets





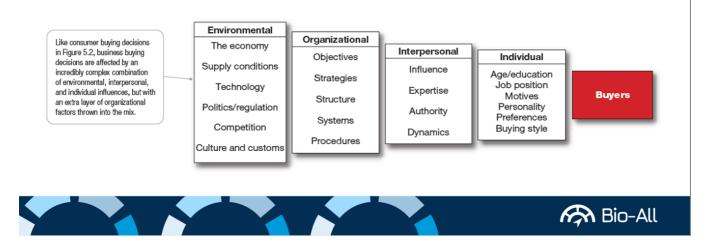
<u>87</u>

#### Figure 98 Module 6 Session 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 3. Consumer markets & business markets

#### A Model of Business Buyer Behavior



#### UNIT 3: CUSTOMER-DRIVEN MARKETING

#### Figure 99 Prof. Helena Alves during Module 6 Session 3

ADVANCED SKILLS FOR INNOVATION AND ENTRÉPRENEURSHIP IN THE BIOHEALTH SECTOR

### 4. Customer-driven marketing strategy





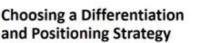
BIOHEALTH GEAR BOX ALLIANCE

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#### Figure 100 Prof. Helena Alves during Module 6 Session 3

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 4. Customer-driven marketing strategy



Identifying a set of possible competitive advantages to differentiate along the lines of:

- Product
- Services
- Channels
- People
- Image

#### UNIT 4: CREATING A CUSTOMER-DRIVEN MARKETING MIX I

**Choosing a Differentiation and Positioning** 

Identifying a set of possible competitive

Selecting an overall positioning strategy

Choosing the right competitive advantages

Communicating and delivering the chosen

advantages to build a position

Figure 101 Prof. Arminda do Paço during Module 6 Session 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

Creating a customer-driven Marketing
 Product

#### WHAT IS A PRODUCT? WHAT IS A BIO-HEALTH PRODUCT?

**Product** is anything that can be offered in a market for attention, acquisition, use, or consumption that might satisfy a need or want.

**Service** is a product that consists of activities, benefits, or satisfactions and that is essentially intangible and does not result in the ownership.





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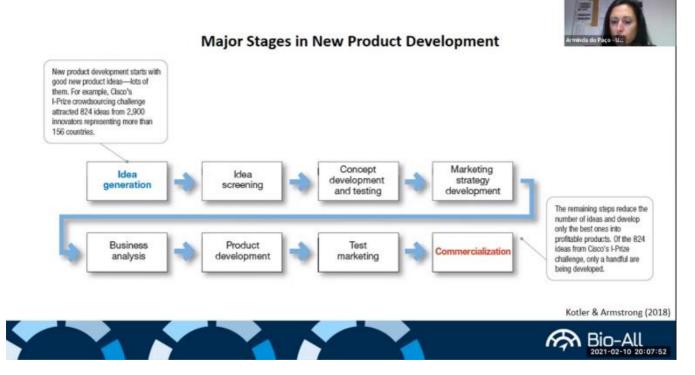


position to the market

Strategy



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR



#### UNIT 5: CREATING A CUSTOMER-DRIVEN MARKETING MIX II

Figure 103 Module 6 Session 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

# Creating a customer-driven Marketing Mix I Product

#### WHAT IS A PRODUCT? WHAT IS A BIO-HEALTH PRODUCT?

**Product** is anything that can be offered in a market for attention, acquisition, use, or consumption that might satisfy a need or want.

**Service** is a product that consists of activities, benefits, or satisfactions and that is essentially intangible and does not result in the ownership.







ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### New Product Development

Successful new product development should be:

- Customer centered focuses on finding new ways to solve customer problems and creating more customer-satisfying experiences.
- Team based involves various company departments working closely together, to save time and increase effectiveness.
- Systematic innovation management system
  - Creates an innovation-oriented company culture
  - Yields a large number of new product ideas



#### Figure 105 Module 6 Session 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### Activity

- · Describe the PRODUCT, according to the previous slides
- · Insert the information if the Marketing Plan





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#### UNIT 6: CREATING A CUSTOMER-DRIVEN MARKETING MIX III

#### Figure 106 Module 6 Session 6

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### 5. Creating a customer-driven Marketing Mix III - Distribution

- Supply chain "make and sell" view includes the firm's raw materials, productive inputs, and factory capacity.
- Value delivery network is composed of the company, suppliers, distributors, and customers who partner with each other to improve the performance of the entire system.
- Marketing channel (distribution channel) is a set of interdependent organizations that help make a product available for use or consumption
  - => How Channel Members Add Value?
  - Transform the assortment of products into assortments wanted by consumers. Bridge the major time, place, and possession gaps that separate goods and
- services from users.



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### Marketing channel

- Channel level is a layer of intermediaries that performs some work in bringing the product and its ownership closer to the final buyer.
- Direct marketing channel is a marketing channel that has no intermediary levels.
- Indirect marketing channel is a marketing channel containing one or more intermediary levels.





#### Figure 108 Module 6 Session 6

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

### Marketing design decisions

- 1. Analyzing consumer needs
- · Find out what target consumers want from the channel
- Identify market segments
- Determine the best channels to use
- Minimize the cost of meeting customer service requirements
- 2. Setting channel objectives
- Determine targeted levels of customer service
- Balance consumer needs against costs and customer price preferences



#### UNIT 7: CREATING A CUSTOMER-DRIVEN MARKETING MIX IV

Figure 109 Module 6 Session 7

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

# 8. Creating a customer-driven Marketing Mix IV - Communication

#### Integrated marketing communications (IMC)

Involves integrating and coordinating the company's many communications channels to deliver a clear, consistent, and compelling message about the organization and its products.



Figure 110 Module 6 Session 7



### Promotion mix

#### Choosing Communication Channels and Media

Personal communication involves two or more people communicating directly with each other.

- Face to face
- Phone
- Mail or e-mail
- Texting or Internet chat

Opinion leaders are people whose opinions are sought by others.

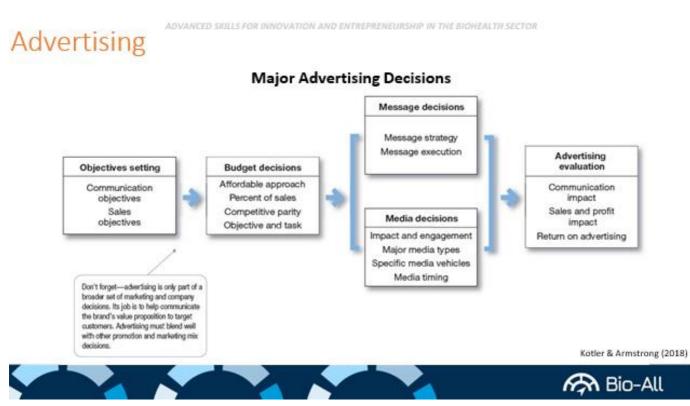
Buzz marketing involves cultivating opinion leaders and getting them to spread

information about a product or service to others in their communities.

Non personal communication channels are media that carry messages without personal contact or feedback, including major media, atmospheres, and events



#### Figure 111 Module 6 Session 7

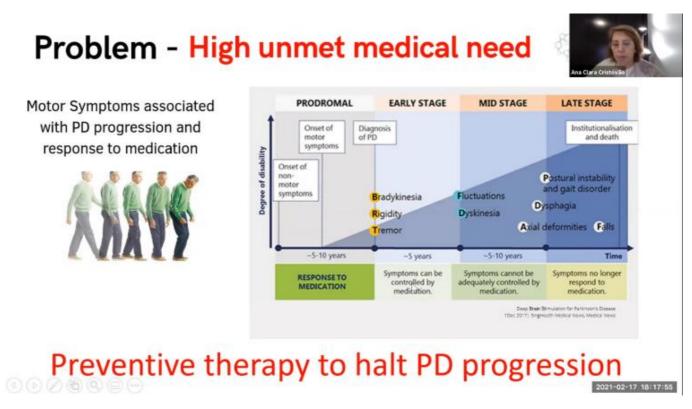


UNIT 8: THE MARKETING PLAN



Figure 112 Presentation of the Marketing Plan by one of the Portuguese students

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Module 7 - Entrepreneurial Finances and Investment



#### ECTS: 5

ACADEMIC COORDINATOR: María José González López (UGR)

AIMS AND LEARNING OUTCOMES:

- The student will understand the finances and accounting as a fundamental tool to know the status of the company;
- The student will be able to detect the short and long term financial needings of the company;
- The student will know what is and how to handle the financial management;
- The student will understand financial statements;
- The student will identify the determinants of earnings, cash flows and shareholder value;
- The student will learn how to analyse and optimize the sources and drivers of firm value;
- The student will understand the fundamental principles of financial investments: how investors make investment decisions and what determines asset valuations and returns;
- The student will acquire a basic understanding of different stages of venture development and the funding sources available for entrepreneurs;
- The student will be able to detect funding opportunities from the private sector and prepare the company to be invested.

#### SYLLABUS AND CONTENTS

- 1. Fundamentals of Corporate and Entrepreneurial Finances. Prof. Antonio Manzanera
- 2. Financial and managerial accounting principles. Prof. José Luiz Zafra
- 3. Managing the finances in a BIOHEALTH company. Financial statements. *Prof. Antonio Sánchez*
- 4. Introduction to financial planning. Prof. Antonio Zamora
- 5. Funding sources in the BIOHEALTH sector. New ventures valuation. Prof. Iván Bedia

#### EVALUATION:

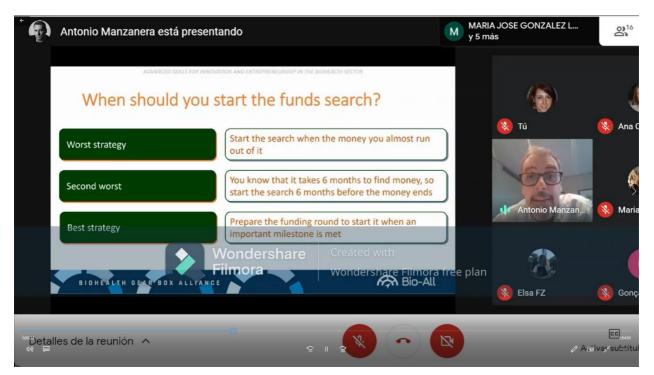
Students must attend 80% of contact hours to be evaluated.

#### <u>Grades</u>

- Exercises/reports: 50%.
- Active participation: 20%
- Final exam: 30%

SCREENSHOTS OF SESSIONS AND SLIDES



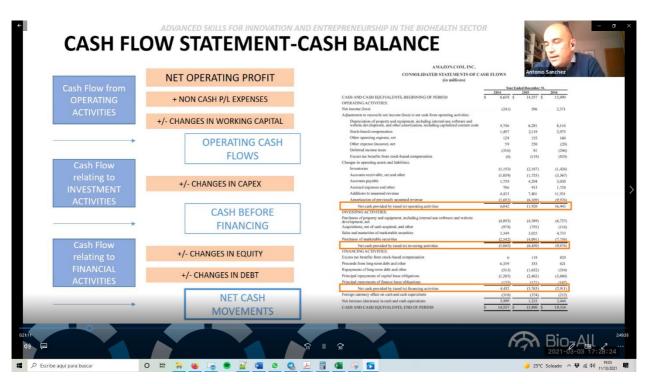


#### Figure 113 Prof. Antonio Manzanera in session 1

Figure 114 Prof. Jose Luis Zafra in session 2



#### Figure 115 Prof. Antonio Sanchez in session 3



#### Figure 116 Prof. Antonio Zamora in session 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR

	1.	1.2. The second pitch!			Antonio Zamora Product Devolopm
Ml	Yr I	Month	1 Milestone	€ Comments	
24	2018	2	We get the money form Acttivate	46.000 €	Estimated on 11k €
25	2018	3	Event/Fair in Elche. Talking with the Distributor (see point 18) we decide moving from Saa	s to sell the device	Agreement with a third*:
26	2018	3	Event/Fair in Elche. Knowing about our competitors in the Physiotherapy Market and learn	ning that we are different	righten en and a
27	2018	3	Event/Fair in Elche. Testing the price. Which is the price for our product		<ul> <li>1st payment: 1.500 € (</li> </ul>
28	2018	4	Contacting Spanish Football Clubs (Betis, At Madrid). Privete Physiotherapy Clynics		<ul> <li>2nd payment: 2.000 4</li> </ul>
29	2018	5	Isokinetic Event (Barcelona). Physiotheapy Event for Football Clubs .Stands cost 15k€. The founder goes as a visitor and the devide in his pocket.	1.000€	<ul> <li>3rd payment: 2.500 €</li> <li>4rd payment: 2.000 €</li> </ul>
30	2018	5	Potential customers requiring our visit all over Spain. The threat of spending money and 0	sales	<ul> <li>It payment: 3.000 €</li> </ul>
31	2018	5	We create training Sesion as a tool for selling the device. See Table Sales 2018		*if milestones





THE START-UP

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6 8 \* Vista previa 2 P IN THE BI 3 The valley of death for startups 4 Crowdfunding (Rewards - Equity - Lending) 8 Venture Capital 7 🗄 🔳 8 Accelerators Public support/grants X Idea/concept > Team > Prototype > Launch/beta > Users > Revenue > Growth > Profits 10 11 cashflow Team/bootstrapping 12 Vegativ <sup>13</sup> O 4 \*\*\* BIOHEALTH GEAR BOX ALLIANCE R Bio-All -----2021-03-10 18:20:48





Figure 117 Prof. Ivan Bedia in session 5

<u>99</u>

#### <u>100</u>

#### Module 8 – HUMAN RESOURCES AND TEAM MANAGEMENT

ECTS: 5

ACADEMIC COORDINATOR: Filippo Emanuele Ciarapica (UNIVPM)

AIMS AND LEARNING OUTCOMES:

- The student will understand managerial roles in human resource affairs.
- The student will know contemporary issues and practical techniques associated with the effective practice of HRM.
- The student will understand the process of team building, conflict management and negotiation.
- The student will be able to define criteria for deploying Effective Leadership.

SYLLABUS AND CONTENTS:

- 1. Introduction to Human Resources Management. Prof. Filippo Emanuele Ciarapica
- 2. The individual behaviour inside the company. Prof. Giulio Marcucci
- 3. Teams: conflict management, compensation, and incentives. *Prof. Giulio Marcucci*
- 4. Organizational aspects of human resources and negotiation. *Prof. Leonardo Postacchini*
- 5. Effective Leadership. Prof. Leonardo Postacchini

EVALUATION:

MINIMUM REQUIREMENTS

Students must attend 80% of contact hours to be evaluated.

EVALUATION AND LEARNING CONTROL

Exercises/reports: 50%. During/after each session, the students will have to do practical/theoretical exercises about the contents.

Active participation: 20%

Final homework: 30%

In case of non-ordinary evaluations, it will be done as follows:

Exercises/reports: 20%.

Final homework: 30%

Written exam: 50%



#### SCREENSHOTS OF SESSIONS AND SLIDES

#### UNIT 1: INTRODUCTION TO HUMAN RESOURCES MANAGEMENT

Figure 118 Content from Module 8 – Unit 1



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### Unit 1:Introduction to Human Resources Management

Topics (1/3)

- Managing Human Resources
- Responsibilities of Human Resource Departments
- Skills of HRM Professionals
- HR Responsibilities of Supervisors
- Employee Rights
- Standards for Ethical Behavior





#### Figure 119 Content from Module 8 – Unit 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



### Unit 1:Introduction to Human Resources Management Topics (2/3)

- Work Flow in Organizations
- Job Analysis
- Job Design









#### Figure 120 Content from Module 8 – Unit 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

### Unit 1:Introduction to Human Resources Management Topics (3/3)

- Planning for and Recruiting Human Resources
- The Process of Human Resource Planning
- Goal Setting and Strategic Planning
- Implementing and Evaluating the HR Plan
- Recruiting Human Resources
- Personnel Policies
- Recruitment Sources





#### UNIT 2: THE INDIVIDUAL BEHAVIOUR INSIDE THE COMPANY

#### Figure 121 Content from Module 8 – Unit 2



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 2:The individual behaviour inside the company

Part 1: MARS Model of Individual Behavior and Performance

- Employee Motivation
- Ability
- Role Perceptions
- Situational Factors





#### Figure 122 Content from Module 8 – Unit 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 2:The individual behaviour inside the company

#### Part 2: Types of Individual Behavior

- Task Performance
- Organizational Citizenship
- Counterproductive Work Behaviours
- Joining and Staying with the Organization
- Maintaining Work Attendance











#### Figure 123 Content from Module 8 – Unit 2

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 2:The individual behaviour inside the company

#### Part 3: Personality in Organization

- Personality Determinants
- Five-Factor Model of Personality
- Ethical Values and Behavior
- Values across Cultures
- Resilience



#### UNIT 3: TEAMS CONFLICT MANAGEMENT, COMPENSATION, AND INCENTIVES



#### Figure 124 Content from Module 8 – Unit 3

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 3:Teams: conflict managements, compensation and incentives

#### Part 1: Conflict Management

Conflict Nature



- Conflict Measurements
- Conflict Management Design
- Optimizing Conflict





#### Figure 124 Content from Module 8 – Unit 3

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



# Unit 3:Teams: conflict managements, compensation and incentives

#### Part 2: Compensation and incentives

- Introduction to Compensations and incentives concepts
- Employee motivation
- Compensation and incentives optimization

#### UNIT 4: ORGANIZATIONAL ASPECTS OF THE HUMAN RESOURCES AND NEGOTIATION

#### Figure 125 Content from Module 8 - Unit 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 4:Organizational aspects of the human resources and negotiation

Part 1: The definition of negotiation and the basic characteristics of negotiation situations.

- What is Negotiation?
- Bargaining vs Negotiation



- Characteristics of negotiation situations
- Conflict Negotiation is a strategy for productively managing conflict.







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#### Figure 126 Content from Module 8 - Unit 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

# Unit 4:Organizational aspects of the human resources and negotiation

# Part 2: Understand the interdependences and the relationships between people and groups that, most often, lead them to negotiate.

- Distributive Bargaining Situation (competitive, or win –lose, bargaining)
- The Role of Alternatives to a Negotiated Agreement
- Influencing the Other Party's Resistance Point



- Tactical Tasks for a negotiator in a distributive bargaining situation
- Typical Hardball Tactics in Negotiation (designed to pressure negotiators to do things they would not otherwise do) Co-funded by the Ensemble Program

#### Figure 127 Content from Module 8 - Unit 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



# Unit 4:Organizational aspects of the human resources and negotiation

## Part 3: The definition and exploration of the dynamics of conflict and conflict management processes.

- Integrative Negotiation Process
- Key Steps in the Integrative Negotiation Process
- · Assessing the Quality of the Agreement
- Factors That Facilitate Successful Integrative Negotiation
- Distributive Bargaining versus Integrative Negotiation







#### Figure 128 Content from Module 8 - Unit 4

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



# Unit 4:Organizational aspects of the human resources and negotiation

## Part 4: Strategy and planning for achieving negotiation objectives.

- · Strategy and Planning for achieving negotiation objectives
- The Dual Concerns Model for Describing Negotiation Strategies (concern for their own outcomes and concern for the other's outcomes)
- The Planning Process
- Cognitive Biases in Negotiation



- Mood, Emotion, and Negotiation
- The Effects of Positive and Negative Emotion in Negotiation



#### UNIT 5: EFFECTIVE LEADERSHIP

#### Figure 129 Content from Module 8 - Unit 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



## Unit 5:EffectiveLeadership

#### Part 1: The Importance of Leadership

- What is Leadership?
- Types of Leaders
- Factors that Influence the Leadership Process
- Leadership in the Work Setting (Difference between Management and Leadership)
- Nine Key Areas of Success for Leadership





#### Figure 130 Content from Module 8 – Unit 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



## Unit 5:EffectiveLeadership

#### Part 2: The Leadership Equation

- Trait Theory (Physical and Psychological Characteristics Account for Leadership Effectiveness)
- Leadership Equation Behaviour Theory
- Leadership Equation Contingency Theory
- Leadership Qualities
- Negative Leadership



ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



## Unit 5:EffectiveLeadership

## Part 3: Leadership Qualities, Characteristics of Followers, and Situational Factors

- Characteristics of Followers
- Situational Factors (that influence leadership)
- Leadership and Intelligence
- Styles of Leading
- Effective Leadership Today





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#### Figure 132 Content from Module 8 – Unit 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR

## Unit 5:EffectiveLeadership

## Part 4: The Importance of Vision and the Motive to Lead

- The Importance of Vision
- The Concept of Visioning ("images of potential" rather than to "problems")
- Leadership Authority
- Servant Leadership (a calling to serve)

#### Figure 133 Content from Module 8 – Unit 5

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEATH SECTOR



## Unit 5:EffectiveLeadership

#### Part 5: Leadership Principles

- Work Morale
- Employee Morale and the Role of Management
- Job Design and Work Satisfaction
- The Art of Listening
- The Evolving Context of Human Relations -Problems and Resolutions -





#### BIOHEALTH GEAR BOX ALLIANCE

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#### Module 9 - Ethics and Regulation in BioHealth

ECTS: 6

ACADEMIC COORDINATOR: Aurora Valenzuela Garach (UGR)

AIMS AND LEARNING OUTCOMES:

- The students will be able to integrate their knowledge about entrepreneurship and face the complex situations that may lead to making judgements from information that might be incomplete;
- The students will know the different consequences of the BioHealth product and services and their relationship with the environment and the society;
- The students will know the different regulations that apply to the BIOHEALTH sector, and how do they affect the product/services development.

#### SYLLABUS AND CONTENTS:

- 1. Introduction to Ethics in the BIOHEALTH Organizations. *Profs. Aurora Bueno, José Jiménez, Aurora Valenzuela.*
- 2. Business Ethics and Regulation. The Ecopreneurship. *Prof. Maria Victoria López*
- 3. Pharmaceutical Industry Ethics and Regulation. Prof. José Manuel Baeyens
- 4. Ethics and Regulation in Medicine products and services development. *Prof. Javier Valls*
- 5. Ethics and Regulatory Aspects in Food Industry. *Profs. Belén García-Villanova, Esther Molina*
- 6. Ethics and Regulation in Chemical Industry: Toxicological aspects. The case of pesticides. *Prof. Antonio Hernández*

#### EVALUATION:

Students must attend 80% of contact hours to be evaluated.

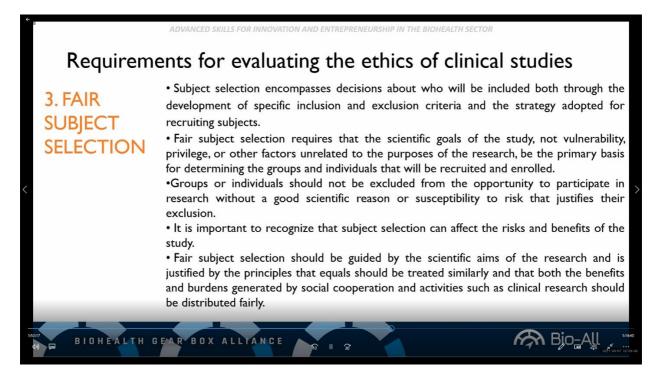
#### <u>Grades</u>

- Exercises/reports: 50%
- Active participation: 20%
- Final homework: 30%



#### SCREENSHOTS OF SESSIONS AND SLIDES

Figure 134 Prof. Aurora Valenzuela in session 1



#### Figure 135 Prof. Maria Victoria Lopez in session 2

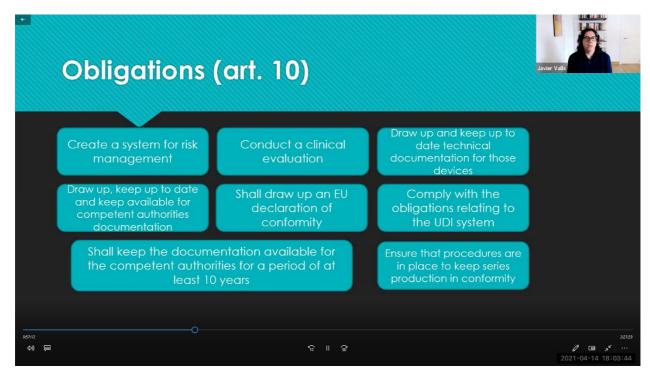




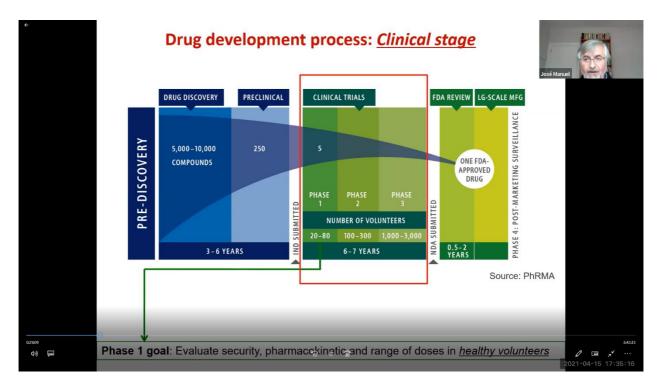
<u>111</u>

#### <u>112</u>

#### Figure 136 Prof. Javier Valls in session 3









BIOHEALTH GEAR BOX ALLIANCE

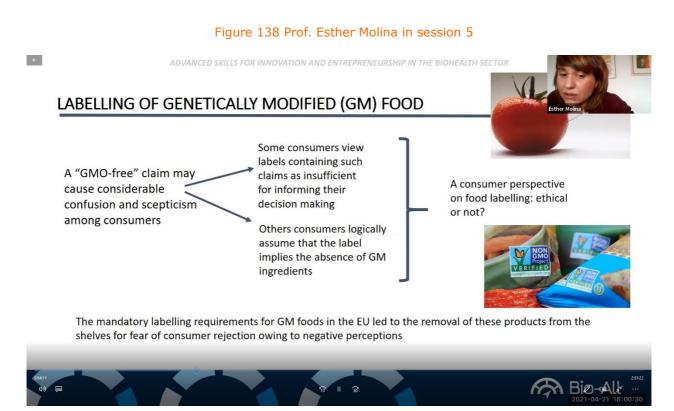
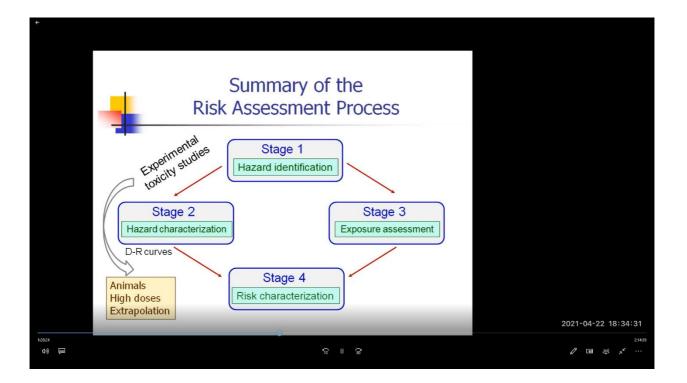


Figure 139 Prof. Antonio Hernández in session 6





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#### Module 10 – CORPORATE SUSTAINABILITY

ECTS: 4

ACADEMIC COORDINATOR: Arianna Pallante (CUBE-LABS) & Javier Delgado (UGR)

AIMS AND LEARNING OUTCOMES:

- The student will learn that economic activity must not irreparably degrade or destroy natural and human resources and the course will help develop the skills needed to meet this goal.

- The course focuses on the management tools available for CS, tailoring them for application to the BIOHEALTH sector. The student will learn to apply the provided tools to the innovative start-up dimension.

- The student will learn the facility given by the Italian Ministry of Economy to innovative start-ups with social impact. The latter being those that foster and have among their aims aspects of CS.

- The student will identify practices in environmental, social and economic sustainability while developing a successful idea and learn how producing new knowledge and commercializing following CS guidelines is the best starter for a successful business.

- The student will know the instruments available to guide sustainability in BIOHEALTH companies

- The student will learn the "Triple Bottom Line" approach

- The student will be able to analyse the impacts of environmental sustainability on the performance of corporate organizations and start-ups.

- The student will be able to relate corporate social responsibility to sustainability practices and learn how these two different terms are now merging into a common roadmap.

- Students will analyse best practice examples and tailor them to the start-up dimension.

- Students will analyse case studies and give examples of how the TBL has been applied.

- Students will exercise by doing their evaluation on why start-ups fail and compare reasons for failure and success considering CS guidelines.

- Students will learn how CS is achieved transnationally and globally.

- Students will analyse the advantages of considering the TBL for a start-up.

- Students will employ the TBL triple to research and analyse best-practice start-up mission and corporate responsibility goals.

#### SYLLABUS AND CONTENTS:

- 1. Sustainable Development. Prof. Yulia Shmeleva
- 2. Corporate Sustainability. Prof. Arianna Pallante
- 3. Corporate Sustainability Strategy. Prof. Roberta Gilardi
- 4. Corporate sustainability from the Italian scenario looking worldwide. *Prof. Daria* Brambilla

Bio-All

BIOHEALTH GEAR BOX ALLIANCE

#### EVALUATION:

#### Summative:

Activity 1 (25%) – A bio of each student with goals, aims, prototype/idea description, market it would approach and which unmet need it will address.

Activity 2 (25%) – Analysing a case study and defining if the TBL approach has been followed. A personal analysis on how the latter could be achieved. Depicting the advantages of applying TBL for a start-up.

Activity 3 (25%)- Development of a sustainability management system for a virtual company. The activity may be tailored to the start-up the student envisions creating.

Activity 4 (25%)- Analysing corporate sustainability and the impact of 2020 challenges.

Activity 5 – Formative ungraded classwork

Activity 6- Project: creating a start-up applying TBL and considering the four pillars of CS. Formative ungraded work.

#### SCREENSHOTS OF SESSIONS AND SLIDES

#### UNIT 1: SUSTAINABLE DEVELOPMENT

#### Figure 140 Content from Module 10 – Unit 1



• Background on TBL



## What Is Corporate Sustainability?

- What Is Corporate Sustainability?
- The term "corporate sustainability" describes a new corporate management model. It can also fall under the broader term "environmental social governance" (<u>ESG</u>).
- Corporate sustainability emphasizes growth and profitability through intentional business practices in three areas of society (Pillar of Sustainability)

#### UNIT 2: CORPORATE SUSTAINABILITY

Figure 142 Content from Module 10 - Unit 2









https://www.mckinsey.com/business-functions/sustainability/our-insights/the-business-ofsustainability-mckinsey-global-survey-results

In one of the most important survey on the matter, most companies are still struggling to factor sustainability into the "hard" areas of their business, such as supply chain and the budget, so there is still a lot of potential to drive further integration and increased value creation.

#### UNIT 3: CORPORATE SUSTAINABILITY STRATEGY

Figure 144 Content from Module 10 - Unit 3

## What is Employee Engagement?

Employee engagement can be defined as "the extent to which employees enjoy and believe in what they do, feel valued for it and are willing to spend their <u>discretionary effort</u> to make the organization successful." (HCI 2009)

Elements of employee engagement include:

- Individual value: doing interesting work, learning, and growing.
- Focused work: clear direction, efficient work processes, defined performance standards.
- Interpersonal support: high levels of trust, cooperation, and support.

Employee engagement levels are measured in various ways—from very informal "asking around" to formal employee surveys; no matter how it is measured, the results are quite compelling.



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Figure 145 Content from Module 10 - Unit 3



#### How to measure Employee Engagement

- Numerous surveys and tests measure employee engagement levels. Most high quality surveys are geared and priced for larger businesses.
- Listening to employee feedback, acting on your findings, and continually improving is more important than a fancy survey.
- One of the most simple yet impactful surveys for measuring engagement levels is the Gallup Q12 Index which includes 12 questions that have been used by thousands of workgroups internationally to understand and increase levels of engagement. You can contact Gallup to use the Q12 Index.
- The ideas on the following pages 13–14 demonstrate how a business owner keeps his employee engagement high without a formal survey. His supervisors informally collect data every quarter to provide the management team a sense of employee engagement levels.

*Important Note!* Do <u>not</u> ask for feedback or issue a survey if you are not committed to using the responses to make positive changes. It can do more harm than good and potentially disengage employees.

## UNIT 4: CORPORATE SUSTAINABILITY FROM THE ITALIAN SCENARIO LOOKING WORLDWIDE

Figure 146 Content from Module 10 – Unit 4

#### **Overview of topic:**

#### Sustainability as a driver of strategy, innovation and profit.

- Definition of sustainability.
- <u>Analysing</u> the facilitations given by the Italian Ministry of Economy to innovative start-ups with social impact. The latter being those that foster and have among their aims aspects of CS.
- The link between stakeholder theory and CS strategies.
- Definition of corporate social <u>responsability</u> (CSR) and corporate sustainability. How the two merge into a common pathway.
- Background on sustainable business practices and corporate social responsability.
- Background on TBL.



#### Figure 147 Content from Module 10 – Unit 4

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The course is aimed at those students who have interest in deepening a business idea or developing a business plan in the bio-health-related areas.

Corporate sutainability depicts how businesses can thrive and grow while in parallel addressing key sustainability drivers (UN Agenda 2030 for Sustainable Development).

Sustainable development embraces adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future...

A successful business idea and the development of a strategic business plan stems from understanding business's dependence on human and natural resources, in addition to physical and financial capital.

The course will emphasizes that economic activity must not irreparably degrade or destroy these natural and human resources will help develop the skills needed to meet this goal .

We supply the tools to drive scientific innovation to the success on the market







### Module 11 - International Business

ECTS: 4

ACADEMIC COORDINATOR: Blanca Delgado Márquez (UGR)

AIMS AND LEARNING OUTCOMES:

- The student will the different internationalization processes that can be performed by the companies, and the factors that facilitate or make it more difficult;
- The student will be able to recognize the opportunities and threats in the development of international markets activities;
- The student will be able to design plans and programmes to manage the cultural and legal diversity of the stakeholders in the BioHealth sector at the international scope.

### SYLLABUS AND CONTENTS:

1. Introduction to the international business: context and opportunities. *Profs. Blanca Delgado, Maksim Belitski* 

2. The internationalization plan. Profs. Blanca Delgado, Rodrigo Martín

3. Operational and administrative development of the internationalization plan. *Prof. Eva Carmona* 

- 4. Trade and Tax international regulations. Prof. Francisco Rico
- 5. Biohealth and NGOs: Inclusive innovation. Prof. Paul Hamilton

### EVALUATION

Students must attend 80% of contact hours to be evaluated.

<u>Grades</u>

- Project/reports evaluation: 50%.
- Exercises: 40%.
- Active participation in class: 10%



#### SCREENSHOTS OF SESSIONS AND SLIDES

#### Figure 148 Prof. Blanca Delgado in session 1

ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIOHEALTH SECTOR



May 6 (2021): Though Germany came out strongly against the idea, others in the European Union (EU), such as France, Italy and Poland initially signalled support.

Pharma industry: Against patent waiver. Instead: licensing

**WTO** is key in this instance as it is the ultimate authority on intellectual property rights and international trade — still, unanimous consent would be needed for the measure to pass.

Vaccine license	Vaccine patent waiver
Mostly voluntary (If required, governments can force developers to share their licenses)	Compulsory
Involves a vaccine developer sharing not just patents but the technology and complete know-how with a manufacturer	Forces a vaccine developer to share the recipe of its vaccine.

Figure 149 Prof. Maksim Belitski in session 1



Bio-All

RAN BIO

BIOHEALTH GEAR BOX ALLIANCE

#### Figure 150 Prof. Rodrigo Martín in session 2

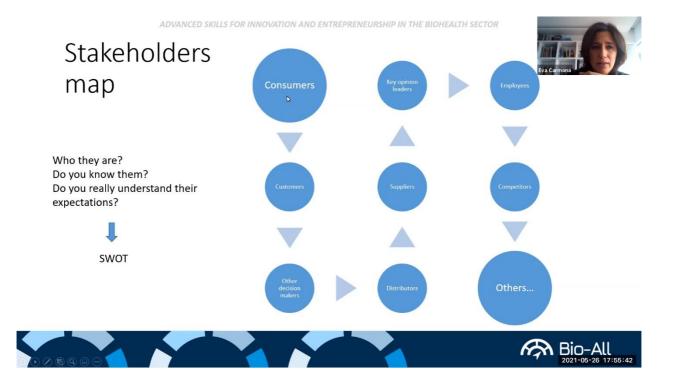
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ADVANCED SKILLS FOR INNOVATION AND ENTREPRENEURSHIP IN THE BIO

#### AGENDA

- Concept of an Internationalization Plan.
- 5 steps Methodology:
  - 1. Situation Analysis
  - 2. Core countries selection
  - 3. Entrance strategy
  - 4. International Marketing Policy
  - 5. Economic Plan
- Presentation of the Plan
- Specific Cases of International Plans
- References

#### Figure 151 Prof. Eva Carmona in session 3

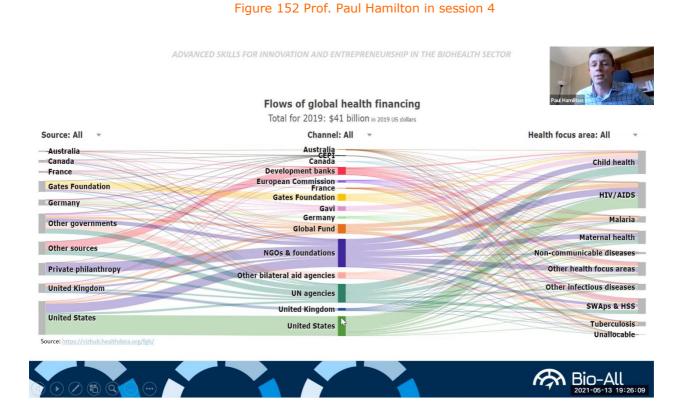




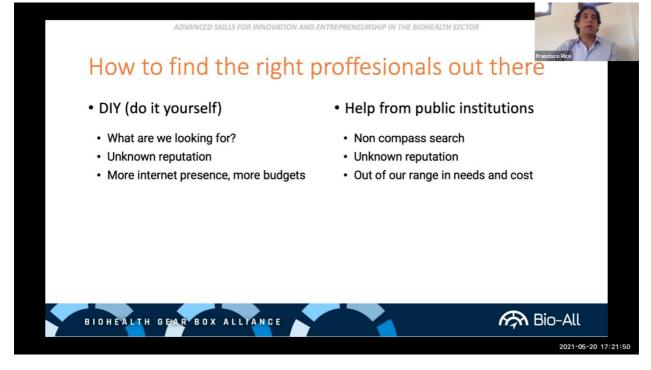
BIOHEALTH GEAR BOX ALLIANCE







#### Figure 153 Prof. Francisco Rio in session 4





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### Module 12 - FINAL PROJECT

ECTS: 6

ACADEMIC COORDINATOR: Elena Piccinato (FINN)

AIMS AND LEARNING OUTCOMES:

- The student will be able to develop a complete business plan, in compliance with the most recent legal frameworks, e.g., the Italian Innovative Startups law.
- The student will be able to integrate everything that he or she has learned in the course into a convincing business plan.
- The student will know how to formulate the strategy for the BIOHEALTH business and how to go to market.
- The student will be able to explain the business plan to a wide range of audience types.

SYLLABUS AND CONTENTS:

1. Researchers' vs entrepreneurs' approach to business. The support role of business incubators. Introduction to the business plan. *Prof. Elena Piccinato* 

2. Value proposition, business model and competitive strategy. *Prof. Giancarlo Lauto, Prof. Elena Piccinato* 

3. Market analysis, Competition, and Marketing Strategy. Prof. Giancarlo Lauto, Prof. Elena Piccinato

4. Operations, Organization and Human Resource Management. *Prof. Giancarlo Lauto, Prof. Elena Piccinato* 

- 5. Financial and corporate law issues. Prof. Giancarlo Lauto, Prof. Elena Piccinato
- 6. Preparing the perfect pitch deck. Prof. Claudia Baracchini

### EVALUATION:

MINIMUM REQUIREMENTS

Students must attend 80% of contact hours and the final party in Lisbon is to be evaluated.

EVALUATION AND LEARNING CONTROL

Active participation: 25%

Final Business Plan: 50%

Final Pitch Deck: 25%



SCREENSHOTS OF SESSIONS AND SLIDES:

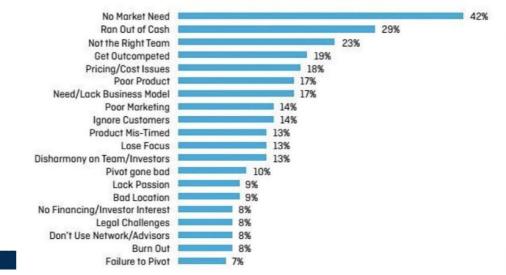
UNIT 1: RESEARCHERS' VS ENTREPRENEURS' APPROACH TO BUSINESS. THE SUPPORT ROLE OF BUSINESS INCUBATORS

Figure 154 Content from Module 12 – Unit 1

## Entrepreneurship Overview...Did you know?

### • Top 20 Reasons Startups Fail

Based on the analysis of 101 postmortems (by CBInsights - 2014)









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#### UNIT 2: VALUE PROPOSITION, BUSINESS MODEL AND COMPETITIVE STRATEGY

Figure 155 Content from Module 12 – Unit 2

## The structure of the business plan



#### 1. Executive summary

• One page summary of all the relevant information that an investor needs for an overview of the business idea. It should stimulate an investor to continue reading the document.

#### 2. Management team

• This section presents the background of the entrepreneurial team, board of directors and members of the Scientific Advisory Board. The three teams have different functions and should include different people.

#### 3. Business model

- This section describes the proposed solution, highlighting how it is able to satisfy a need of the users, outperforming alternative solutions, and generates economic value in the medium-to-long term.
- This section outlines the competitive advantage offered by the scientific discoveries or new technologies.

#### 4. Market overview

- This section provides a detailed overview of the market, including its size, key segments, historical and expected growth, and key drivers or trends that may impact the problem the startup tries to solve.
- This section discusses the role of all the actors involved in the process of purchase and consumption.



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#### Figure 156 Content from Module 12 - Unit 2

## The structure of the business plan



#### 5. Competition

• This section provides evidence that the industry segment in which the startup is entering is profitable and identify the trends that may affect its profitability in the medium-to-long term. It also analyzes the offering of current competitors and identify potential new entrants.

#### 6. Marketing strategy

• This section should discuss the strategy with regard to pricing, distribution channels, and communication.

#### 7. Organization and operations

• This section describes the main business processes carried out by the startup, highlighting the mutual dependence with external partners. It should present how the quality management system is deployed. It also illustrates the organization chart and human resource management strategy.

Figure 157 Content from Module 12 – Unit 2

## The structure of the business plan



#### 8. Timing

- This section should state the current stage of development of the project, the milestones to be reached, the potential risks bore by the project, and the expected pattern of growth of the business.
- If the startup adopts a "lean startup" approach, this section should highlight the consequences for the development of the business.

#### 9. Financials

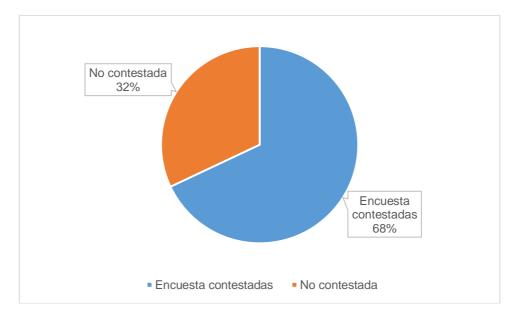
• This section provides evidence of the financial sustainability of the startup, indicating projected economic and financial statements and financial ratios. It shows the sources of funding, the amount asked to investors, the expected return on investment, and how investors could exit the startup.



#### **Modules' Evaluation**

#### MODULE 1: BIOHEALTH BUSINESS MODELS

#### SESSION 1: INTRODUCTION TO THE BUSINESS IN THE BIOHEALTH SECTOR



#### Figure 158 Module 1 Session 1 response %

What were your expectations for this session?

- Meet the group and try to understand what the main objectives for this postgraduate program would be.
- Refresh the knowledge and acquire new information.
- To understand where my interest in terms of business in the health sector.
- To have an introduction to the master.
- To have a brief overview of the whole year. Getting to know my professors and pupils.
- How is going to be lessons in general.
- To know more information about the post-graduation.
- For the first session, I was expecting a traditional first class, introducing everyone and what were we going to talk about along the classes, but it was more fun and exciting than that. As for the topics we talked about, we focussed more on talking about the transfer of knowledge and spinoffs and left out the information about startups as the beginning of a company, which in my case is preferable to learn.
- Have an introduction to the biohealth world.
- High expectations.
- To be the first session, was a very dynamic and active presentation and direct contact with teachers and classmates.
- No clear expectations on this first class.
- No expectations at all. First contact.
- Not too high because it was the introductory session.



 Was expecting an introduction session, with which we would be able to meet my partners and teachers, as well as the contents of the master and how will be taught and developed.

#### Summary

They expected a lighter session, more introductory to the postgraduation. They found much more content than expected.

#### Table 7 Level of satisfaction Module 1 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 1
Q02->Possibility of students to actively participate	9,17	9,20
Q02->Level of participation of the students	6,83	7,70
Q02->Workload	7,17	7,94
Q02->Methods / techniques used by trainer(s)	7,78	8,70
Q02->Expertise of the trainer(s)	8,94	9,23
Q02->Performance of the trainer(s)	8,39	8,82
Q02->Logistics and organizational aspects (online platform)	8,56	8,90
Q02->Support materials/resources distributed	8,17	8,74
Q02->Quality of the educational asset	8,39	8,85
Q02->Overall appreciation of the session	8,44	8,85
SESSION	7,90	8,48

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Understand the dynamics of the group.

#### Summary

Slightly below average of the Module ( $\sim$ -5%) but seems to be due to the fact that it was the first survey. Comments do not reflect that feeling of being below average of module 1. Low participation of students that penalizes the average of session.

- Everything was relevant for the program.
- This was the first session that I found very fuelled up.
- Good introduction to the course. We could meet each other.
- How universities and Companies agree to set up a start-up.
- I found so much interesting when we talk about the process of going to OTT and beginning in the enterprise creation process.
- As I said before we focussed more on talking about the transfer of knowledge and spinoffs and left out the information about the startups as the beginning of a tech company, which in my case is more preferable to learn since I have one and prefer to learn about a little more about that.
- It was a general introduction about the world in which we want to participate, I find the content of the talk gives accurate information. Maybe less time explaining the colours of the biotech world, and more time explaining the features and limits between the biotech world and the business models or features those investors want in a project.
- All the content was relevant.
- I found interesting the entrepreneurial behaviour and attitude of Portugal which, being a country with a low per capita income compared to Spain and Italy, is one of the EU countries with the highest number of consolidated companies.



- The speaker was very clear in everything she explained, intending to involve every one of us making it easier to follow.
- Nice way of introducing the master which increases the motivation.
- It was a nice picture of the actual ecosystem. Very informative and interesting.
- The colour of the biotechnology.
- This session was fruitful in the sense we could get to know each other better as well as, the professors. The overview we received of the master and the first contact with the list of topics we will follow furthermore.
- Relevant aspects: problems with financing, Biotech transfer processes.
- Aspect that could be better explored: entrepreneurial behaviours and attitudes of three countries involved in the MBA.
- Knowledge in the areas of Biohealth and all its potential for business and global entrepreneurship.
- The aspects more relevant were the importance of the technology transfer between companies and universities, and the less relevant... I have found nothing irrelevant. All the information is important.
- The description of the characteristics of each country in terms of the entrepreneurial sector was very interesting.

#### Summary

*Very positive session. Students positively considered the expertise of professor and the comments of each country features and entrepreneurial ecosystems.* 

How would you improve the session?

- Nothing to improve.
- It would be interesting to create more dynamics amongst the students.
- Being the first session it's difficult to pinpoint what to improve.
- I was satisfied with the first session.
- It was the first session. I think we will improve day by day. The way pupils are allowed to speak and participate.
- It also most of the session was the introduction of everyone so I think next session will be the real test.
- I don't have any suggestions.
- As a first session I still don't have enough information to improve the session. In the overhaul, I am satisfied with the session and with the class.
- Maybe the sessions should be shorter because I think me and my colleagues, even the teacher at the end we couldn't focus on the topic and due to (maybe) the level of English, the message wasn't properly explained, and people didn't pay attention (not everyone).
- Increasing the participation of the students and mainly sending in advance the info of the presentation to be ready for an active discussion and questions.
- In this first session, it would not improve anything since both the presentation and the participation of teachers and classmates of the course was very dynamic and active.
- Maybe 2 shorts breaks in the 4 hours instead of 1 bigger could be interesting
- I would include examples of Biotech of different colours.
- Giving more examples of companies.
- I think it was a correct session.
- The session was very well conducted by Professor Maria Saiz. As it is an introduction to the theme of BioHealth Business Models, the content was very appropriate.
- Use more active methodologies of participation, with case studies.
- Have a quicker pace.



- More students' questions, mandatory.
- I think it was a bit slow, but it is normal due to the online format and the fact that it was the first class. Also, I missed more clear definitions of the concepts: one or two lines in the slide to leave it clear apart from the infographics.

#### Summary

It is needed a more active participation of students. In the session, it is necessary to have more breaks and deal with more examples.

Other comments and suggestions

- Provide power points at the beginning or end of sessions.
- This is a general appreciation, given the online format of the course, having more than one break is important. At a certain point, I started to feel tired and lose concentration due to screen time exposure.
- There is a good English level.
- Perhaps getting links of news related to entrepreneurs we can have a look while we do the postgrad.
- Right now, I have none, with time and with more classes I will make more constructive suggestions about the topic.
- Everyone was very nice, and I liked having the chance to introduce myself to my colleagues.
- Sending in advance the info of the presentation to be ready for an active discussion and questions.
- For now, I have no suggestions for improvement. The first session was optimal.
- Everything is okay for me. Willing to continue the classes.
- Thank you for your efforts and the active participation of the students.
- I would like to reserve such comments at the end of the Module.
- No further comments.
- Now I think communication between everyone is the more important.
- The students should be more proactive. It felt like half of the class was not willing to participate in a dynamic session.

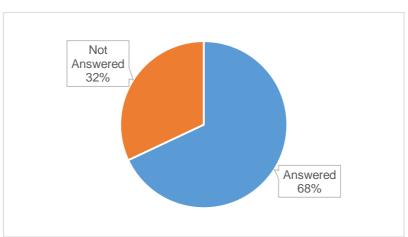
#### Summary

In general, very positive feelings. We should provide the slides in advance. Include news of BioHealth Entrepreneurs during the postgraduation and comment it on the classes.



#### SESSION 2. EXPLORING THE CLIENTS: THE VALUE PROPOSITION CANVAS

Figure 159 Module 1 Session 2 response %



What were your expectations for this session?

- I hoped to learn how to create a value proposition and understand how we can apply it to our business.
- After the first session I had great expectations for the second one, and the trainer has delivered it. It was a very active way to expose the subjects which made it easier to keep the focus on the course.
- To learn about the clients, how to identify their needs to offer the best product.
- Understand and widen my knowledge about an updated business model.
- Learning about business models.
- I expected to explore more about the business and develop part of how to do a canvas. Maybe we could have explored more on this topic and done a more practical class in doing the canvas for a better understanding of it.
- Learn about the steps required for the development of a business model to have a product and a company.
- I expected to get more knowledge about canvas and how to design a project and its business proposal.
- The expectations were quite good. Professor Ivan Bedia is undoubtedly an example of a leader, he has a very high professional level and in the humblest way he can share his knowledge and he is an excellent communicator. I learned a lot about the difference between a business idea and a business model and how to interpret a value proposition.
- Learn how to use value proposition canvas.

BIOHEALTH GEAR BOX ALLIANCE

- I was willing to have this class as I previously look at the professor profile, I found it interesting and that I could learn a lot from him.
- For me one of the most important lessons in the course.
- To learn more about the value proposition and the clients.
- Know the benefits of planning the Business Model Canvas from the customer's perspective.
- It exceeded my expectations in the knowledge of successful business models, and in all the organisation and tools utilized.
- To check if there were any new ways that companies would operate that I was unaware of.
- This was my first session in live, and I love it, I think with time, the 4h will be shown to such amount of discussion between participants.



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- To learn about value proposition and customer profiles.

#### Summary

Students were expectant from the professor, and probably the term "canvas" created some expectation that was not totally fulfilled. But at the end it was good as starting point of the BMC.

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#### Table 8 Level of satisfaction Module 1 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 1
Q02->Possibility of students to actively participate	9,44	9,20
Q02->Level of participation of the students	7,11	7,70
Q02->Workload	7,83	7,94
Q02->Methods / techniques used by trainer(s)	8,61	8,70
Q02->Expertise of the trainer(s)	9,61	9,23
Q02->Performance of the trainer(s)	9,11	8,82
Q02->Logistics and organizational aspects (online platform)	8,72	8,90
Q02->Support materials/resources distributed	8,78	8,74
Q02->Quality of the educational asset	9,11	8,85
Q02->Overall appreciation of the session	8,83	8,85
SESSION	8,31	8,48

#### Summary

Excellent qualification of the session, given the fact that numerical values were increasing as the module continued. Great valuation of trainer expertise and performance. Students participated more than in session 1, but it still penalties session's result.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Learn how to create the value proposition for customers, the gains, and the pains.
- What I found relevant is how to look at the value proposition of a company, based on the customer. At the end of the session, it was very important at a personal level, under that the loss of energy of the entrepreneur team of a start-up is the nonreturning point for its end.
- I would have liked to have more examples of the pharma business.
- I liked to first have an explanation and then study some examples of the theory.
- Very relevant is to be able to use the Canvas model in your business and with the professor's help.
- The kinds of business models.
- The more relevant would be the topics about how to develop a business canvas.
- I think the less relevant would be only to talk about a specific model canvas for a single company as an example of a particle exercise. It would be better to show more examples of existing canvas and develop one during the class with the teacher.
- The topics were appropriate to the main topic of this class. All the comments were relevant but maybe too much repetition or focus on the example given to analyse.
- All were relevant and interesting. Maybe, a more participative attitude should be promoted.





- What I found most interesting was the value proposition of companies like Spotify and Uber and how to interpret and create a value proposition.
- In my opinion the apple iPhone example for the value proposition canvas was very interesting.
- I found a useful lesson, with plenty of information to analyse. Even though he gave us plenty of information, the class was reasonably easy to follow, with interesting examples that facilitate the understanding of the concepts.
- It was very interesting, and the teacher was wonderful.
- Ivan Bedia has been an amazing teacher, since that, the methods and examples given along this lesson were good enough to clarify the concepts and, in any case, they were a great aid for students to understand better the topic we were speaking about.
- The didactics of exposing the theme developed in class were very important. For example, although I had already had contact with the Canvas Business Model, I had not realized that the most important part for its development was centred on the Value Proposition, totally centred on possible customers.
- Sharing experiences of business reality and successful channels.
- As a startup founder I'm familiar with the concepts.
- More relevant the discussion value proposition. Less relevant nothing.
- The importance of creating more than one customer profile if necessary. The importance of thinking about the client from a neutral perspective and not from the specific perspective of the problems that our service or product addresses, because it allows us to identify more pains and jobs that we may want to target in the future.

#### Summary

Students request more examples and then a final exercise in common, and not to deal with a single example. It is necessary to have more examples from BioHealth sector. It is very relevant to put the focus on the customer and the value proposition.

How would you improve the session?

- Create more dynamism in the session.
- Including a case of a pharma company/start-up/spin-off.
- I was satisfied.
- More examples and shorter each one: Uber, Airbnb, amazon...
- Develop a model business canvas during class.
- I hope more colleagues participate in the next sessions so there is a moment of debate between us and the teacher.
- Giving some documents in advance to make it easier for students to be ready for the session.
- It would be interesting if, in addition to commenting on Business models Canvas of well-known companies, we could create our Business models Canvas for a BioHealth company.
- How to use value proposition canvas (other examples).
- The only problem I observed was not during the class but afterwards, as we were asked to do a task for the day after. As I am working in the morning, it is hard to do these tasks if there are asked to be completed for the next day.
- I would appreciate it if we could have some more time to complete them, even though they are not too long, as I only have 2 hours since I finish working and the beginning of the class.
- It was an enjoyable lesson, full of examples and good questions from the side of the students. Congratulations.



BIOHEALTH GEAR BOX ALLIANCE

- For the time available, I think the session was very well planned. Professor brought practical examples that enriched the exhibition.
- Nothing to add since I enjoyed the interaction between students and the professor.
- Ask for some opinion from everyone in the meeting.
- More participation of the students. More real examples.

#### Summary

*Include more examples, related to BioHealth sector. Try to involve all students. Provide docs in advance.* 

Other comments and suggestions

- I think that the objective of task 1.2 has not been well explained by the trainer.
- If the PowerPoint slide could be shared before the session it could help us to take notes.
- We stay too long in my opinion with the Neurobia research. In the last part of the session, we didn't share the screen with the case. It's very handy to follow the lesson with a summary or even the text otherwise you tend to disconnect.
- It was a very interesting class!
- I think Ivan is a wonderful professional and he helped me to use correctly and understand concepts and topics that I used before but that I didn't understand. I'm very happy to have had the opportunity to talk and learn with a professional like him about these important first steps involved in the development of a business.
- I would like all students attending the classes to participate and offer others new ideas and opinions on a specific topic. It is essential to develop students' creative capacity for the generation of innovative/creative business ideas, to provoke critical thinking in students and to foster a relaxed atmosphere, in which the student feels free to offer his/her opinion and ask questions at any time.
- Other examples for value proposition canvas in the Biohealth sector.
- Perfect.
- Thank you for your efforts.
- Realization, by the student, of a complete exercise involving the Value Proposition and the Canvas Business Model
- It could be good to ask the students to keep the cameras on so the instructor can see us, and we can see each other, in my opinion, this makes the session more "human" and favours interactions

#### Summary

Just one example is not enough, and students disconnect as there were no supporting slides.



#### SESSION 3: EXPLORING THE CLIENTS: THE VALUE PROPOSITION CANVAS

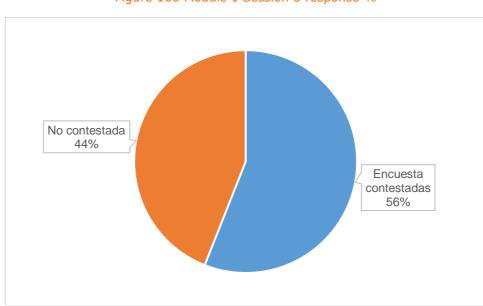


Figure 160 Module 1 Session 3 response %

What were your expectations for this session?

- Learning how to make a model CANVAS.
- To learn about the different types of business models.
- Get deeper into the canvas business model.
- To learn about business models.
- I thought the session was great, we focussed more on the startup theme, which is what I'm more interested in. We started from the basics by defining what is essential to the beginning of a startup and what factors can help a startup at the beginning, which is essential, to me at least.
- Same as for session 1.2.

BIOHEALTH GEAR BOX ALLIANCE

- I understood the importance of establishing different types of company-client relationships, depending on the type of client and their needs and I learned, through the study of real cases, what kind of relationship some already consolidated companies establish with their typical clients, and how they transmit it in their Business Model Canvas.
- Learn each part of the Business Model Canvas.
- Go deep with the concept we worked on in the previous class.
- I was looking forward to this session because it is one of the most interesting topics in the master. And it was even better, the teacher was great, and the explanation was wonderful.
- Know the benefits of planning the Business Model Canvas from the customer's perspective.
- It exceeded my expectations about the various models of successful organization and business.
- See if there were any BMC points that I didn't know.
- To learn how to do a good business model canvas.

#### Summary

Students expected the continuation of previous session. It was completely fulfilled.



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#### Table 9 Level of satisfaction Module 1 Session 3

	SESSION 3	AVG MODULE 1
Q02->Possibility of students to actively participate	9,43	9,20
Q02->Level of participation of the students	7,50	7,70
Q02->Workload	7,93	7,94
Q02->Methods / techniques used by trainer(s)	9,07	8,70
Q02->Expertise of the trainer(s)	9,43	9,23
Q02->Performance of the trainer(s)	9,29	8,82
Q02->Logistics and organizational aspects (online platform)	8,64	8,90
Q02->Support materials/resources distributed	8,57	8,74
Q02->Quality of the educational asset	8,93	8,85
Q02->Overall appreciation of the session	9,07	8,85
SESSION	8,48	8,48

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Even better results than session 2.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- How to build a model CANVAS s as positive aspect.
- As a negative aspect, the explanation of the task was not well defined.
- I found it very interesting to have a general vision of the different models that can be used to do a business.
- It's very relevant.
- The canvas models.
- As I said before, the aspects or topic that I found to be more interesting here, without
  a doubt, were the necessities of a startup in the beginning stages and the overhaul
  aspects of the start-up topic. For me the less relevant, in this topic, here non. The
  class has quite interesting and the subject, for my part was very interesting and
  motivational.
- To me all was relevant. Especially the discussion about the type of customers and how different types can get a benefit from the same project/product.
- It was very interesting to create a Business model Canvas, to understand the canvas and the synergies between the different boxes or blocks, as their locations are purely strategic. In addition, I highlight some basic monetization strategies currently used by some companies, including the Long Tail method (Amazon) and the Freemium model (Dropbox, Skype or Spotify).
- The detailed explanation of each part of the Business model Canvas.
- Ivan Bedia, as I mentioned in the previous survey, makes the 4 hours easy to follow.
   With catchy examples, he was able to teach us concepts most of us haven't heard of before.
- The teacher was wonderful, with a lot of experience and a lot of tools.
- The didactics of exposing the theme developed in class were very important. For example, although I had already had contact with the Canvas Business Model, I had not realized that the most important part for its development was centred on the Value Proposition, totally centred on possible customers.
- Knowledge of different models and strategies used for the development of different organizational tools, which can reach the target audience.
- Clear presentation.



- Good explanation of all the aspects in the business model canvas.

#### Summary

Excellent session. Probably a better explanation of the task should have been provided.

How would you improve the session?

- More examples in the health field.
- I think the methods used were good. Giving examples of each model is the best way to understand them.
- It was difficult to participate because many people are speaking.
- Maybe to see the person who is teaching the class do a canvas as he speaks with us, for better understanding and to better explain the concept to the class.
- Asking for specific questions and promoting active participation of students.
- It would have been interesting to learn how to identify, depending on the value proposition and type of customer, the most appropriate distribution channels for delivering that value proposition and to know, through the study of real cases, how other companies use some channels strategically distribution network to deliver your value proposition to the customer.
- Example of Business Model Canvas in Biohealth Sector.
- I think these two lessons with Ivan were an example of how to catch the attention of students, demonstrating his interest in the topic and making us implicated through examples we are all interested in.
- It was perfect.
- For the time available, I think the session was very well planned. Professor brought practical examples that enriched the exhibition.
- Faster pace.
- Making a short activity for the student: divide them into small groups and tell them to do a business model canvas by themselves.

#### Summary

Adding more examples of BioHealth sector and small tasks to work during the session.

Other comments and suggestions

- The idea of analysing examples of each theoretical lesson is a very useful way of learning.
- I insist on the same request that for other sessions: sending info to read in advance would be very helpful.
- Greater participation by students to debate and defend their ideas in public.
- Realization, by the student, of a complete exercise involving the Value Proposition and the Canvas Business Model.

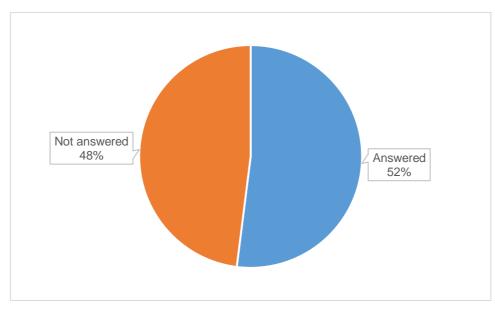
#### Summary

Students participated more actively than in previous sessions. Send material in advance.

Bio-All

#### LEAN STARTUP: INTRODUCTION TO THE BUSINESS DEVELOPMENT

Figure 161 Module 1 Session 4 response %



What were your expectations for this session?

- To understand how to create a simple business model.
- I had no idea about what a Lean Startup was, so my expectations were to know what that and its utility was.
- Widen canvas model with a slight difference.
- To learn a method to organise start-ups ideas.
- To learn what is a lean start-up, a concept I didn't know anything about or even heard of.
- Learning about the concept of Lean Startup.
- I expected a practical approach about lean and how it may help entrepreneurs to define their projects.
- The fundamentals of Lean Startup, putting Lean Startup into practice and the two experiments that were carried out.
- Learn about creating rapid prototypes designed to validate market assumptions.
- I enjoyed this session for the presented business models, as well as the added value that I can apply to mine.
- Know more about possible business models.
- Learn more about the concept " Lean Startup".
- To learn more about the lean startup framework.

#### Summary

Students were expectant of what "lean startup" was.

#### Table 10 Level of satisfaction Module 1 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 1
Q02->Possibility of students to actively participate	8,77	9,20
Q02->Level of participation of the students	8,08	7,70
Q02->Workload	8,08	7,94
Q02->Methods / techniques used by trainer(s)	8,77	8,70



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Q02->Expertise of the trainer(s)	8,85	9,23
Q02->Performance of the trainer(s)	8,08	8,82
Q02->Logistics and organizational aspects (online platform)	8,69	8,90
Q02->Support materials/resources distributed	8,77	8,74
Q02->Quality of the educational asset	8,69	8,85
Q02->Overall appreciation of the session	8,69	8,85
SESSION	8,40	8,48

#### Summary

Session slightly below average of the module. Weakest point is the performance of the trainer. Students participated more actively than in other sessions.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- At a certain point, I have confused the content of the previous session and this one. But then I was able to understand that in this session we were approaching a simpler method to do what we have learned in the previous one.
- I found it very interesting to use an online platform to answer some questions and see the statistics.
- It was great overall.
- The concept of MVP and the whole lean canvas model.
- Although it was a subject I didn't know about and wanted to learn to see what it was, I didn't find the subject that convincing or interesting. from my part. None the less it was a new subject that I have learned.
- All the topics were of my interest, maybe too much information for only a session of 4 hours. The teacher said how all this content was usually taught during 3 or 4 days.
- The examples provided were great. In my opinion, these examples are a useful tool to improve the understanding of the matter.
- The Minimum Viable Product, types of Minimum Viable Product, types of pivots and the three examples of Lean Start-Up.
- Relevant:
  - $\circ$  learn to value time and money at the beginning of a project.
  - $\circ\;$  understand various versions of a business model while talking to potential customers.
  - I enjoyed all topics and subjects. Very well balanced in terms of information.
- The experiment realized at the end of the lesson was great.
- The experimentation examples.

#### Summary

The experiment at the end was great. Very interesting for students, and great examples. Very satisfied students. They learned new things.

How would you improve the session?

- I would suggest the trainer to go slower over the subjects or speak slower since it was difficult to follow the full session.
- I was happy with it.



BIOHEALTH GEAR BOX ALLIANCE

- As the professor said too much information in 4 hours lessons. Very interesting topic and lesson but there was much information to analyse in one go.
- The good point is we can watch again the lesson on video.
- It was a very good lesson. I think the teacher could improve his English a bit, but it wasn't relevant for me.
- Maybe improving the communication skills of the trainer and the overhaul way off introducing the subject.
- Improve the English level of the teacher, we wouldn't understand the questions of some of the students.
- With more examples and, especially, with more time dedicated to the topics discussed, as I consider them to be very relevant.
- There should be more student participation.
- I enjoyed the content and format of the session!!
- The exercises provided as homework help a lot to check my learning; I would like to receive feedback from them.
- Carrying out fieldwork in which we set up our business model in phases.
- Speedier presentation.
- More interaction, in a speech way.
- For me, the session was not very fluent, it was a bit slow, maybe because of the language.

The communication skills of the trainer might be better, so that students could follow better the session and interact.

Other comments and suggestions

- Again, given that we are in a digital model, the 4-hour sessions in front of the computer are becoming extremely difficult to endure. I suggest doing more breaks since one break of 10 minutes is not enough to rest our eyes. Personally, after a full hour in from of a screen listening, my attention decreases significantly.
- Maybe spoken English was a bit confusing sometimes.
- Maybe too much information for only a class, in general, was a good session and I had the chance to learn about the concept of Lean Startup. As I mentioned before, it looks like there were too much information and no time enough for the teacher to explain everything he wanted.
- To have more than one session for this matter and, especially, lectures not so enduring. Four hours of listening in English in an online session is very demanding and at the end of the session (the last hour in my case), the attention decreases even despite my interest in this lecture.
- The time available for this session was enough.

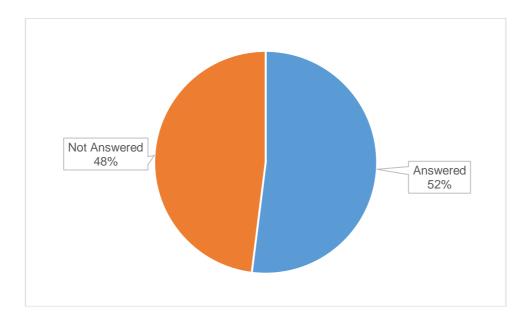
#### Summary

Split the session in 4 blocks of 55 minutes. Too much information in one session.



# COMMUNICATING THE BUSINESS: THE PITCH (PABLO CABALLERO)

Figure 162 Module 1 Session 5 response %



What were your expectations for this session?

- Learn to make a pitch.
- Learn key factors to improve my pitch.
- To learn the best way of sharing information.
- To learn more about different approaches and the most important topics when we approach a pitch.
- I knew nothing about the topic from this talk, so I expected to learn something new.
- I expected to gain some skills and practical views about how to communicate my project effectively.
- Very dynamic and clear lesson.
- I hope to learn a format with content on how to approach a customer by taking a few minutes to present a company, product, or service.
- I enjoyed this session for the knowledge and development of new communication processes around business and entrepreneurship.
- I enjoyed the knowledge of this session as well as the development of new communication processes in the fields of business and entrepreneurship.
- Improve knowledge about theoretical best pitch practices.
- To learn how to do a good elevator speech.

## Summary

They expected to learn how to do an elevator pitch.

Table 11 Level of satisfaction Module 1 Session 5

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 5	AVG MODULE 1
Q02->Possibility of students to actively participate	9,00	9,20
Q02->Level of participation of the students	8,15	7,70



	40
- 1	4 3
-	

Q02->Workload	7,77	7,94
Q02->Methods / techniques used by trainer(s)	8,54	8,70
Q02->Expertise of the trainer(s)	9,00	9,23
Q02->Performance of the trainer(s)	8,46	8,82
Q02->Logistics and organizational aspects (online platform)	9,15	8,90
Q02->Support materials/resources distributed	8,69	8,74
Q02->Quality of the educational asset	8,46	8,85
Q02->Overall appreciation of the session	8,69	8,85
SESSION	8,40	8,48

Slightly below the average the trainer and session.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- I found it very interesting to learn different communication tools.
- I found all sessions very interesting and insightful about the subject and the trainer was very knowledgeable about the subject.
- I found very interesting all the topics related to the connection between a business idea and the psychology behind selling the idea. I liked the order of the session from this week, they were related, and they are easy to combine.
- The examples provided were relevant.
- The most interesting thing is the concept of Elevator Pitch, the methodology to elaborate it and the mind hacking.
- It was relevant to understand the psychology involved in building the conducive environment for conversation, the clear purpose, the importance of personal connection.
- Not much actual content.
- The importance of engaging the public and to make them feel identified or to make them feel that the product is important to them.

# Summary

Interesting the psychological contents and the examples, pointing out the engagement with the public.

How would you improve the session?

- Maybe with examples.
- Presentation too simple. It didn't catch my attention.
- Maybe to make the students participate more in all experience so we can learn also from each other.
- English level of the teacher.
- In my opinion I would suggest a higher number of examples to cover projects of different characteristics.
- It would have been interesting for students to attend an Elevator Pitch seminar (jointly or individually) of companies related to the BIOHEALTH sector.
- The Professor emphasizes the importance of communicating the business idea, to the possible client, with the maximum content and in a short time using the main elements of a narrative.
- What I suggest is an individual exercise to be sent to the Professor for analysis and return (I refer an example to the Professor).
- Make presentations shorter.



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- Maybe we spent too much time on the YouTube videos.

Communication skills of the trainer should be improved, having more examples. Students request an exercise to be sent privately to trainer.

Other comments and suggestions

- More breaks.
- I cannot correctly evaluate this session, since I had an overlapped event, I couldn't assist to the full session.
- It was good to have 2 short breaks. It is difficult to concentrate for 4 hours if we have just 1 break.
- Like the use of external material like YouTube to transmit the idea of the talk.
- Maybe a more interactive session with more examples.
- Dynamic session, with clear examples.
- Option to try actual pitching.

# Summary

More examples requested and more breaks.



# SESSION 6: LEARNING FROM OTHERS: ANALYSIS OF EXISTING BUSINESS MODELS

28% Answered Non answered

Figure 163 Module 1 Session 6 response %

What were your expectations for this session?

- To get contact with examples of other startups business models.
- To learn from other business models.
- Learn and analyse the strategies of biotech companies.
- I expected to become more familiar with the business model and Lean canvas of some innovative companies, and how they manage to put innovation into the market.
- With a lot of desire to know first-hand experiences and close and real knowledge.
- I have not been disappointed.
- I expected to learn more by studying the business plan of other companies.
- Recognize the common characteristics of business models and understand the mechanisms for reducing the risks of failure.
- I enjoyed sharing other existing companies and their successful experiences and strategies.

#### Table 12 Level of satisfaction Module 1 Session 6

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 6	AVG MODULE 1
Q02->Possibility of students to actively participate	9.40	9,20
Q02->Level of participation of the students	8.70	7,70
Q02->Workload	9.00	7,94
Q02->Methods / techniques used by trainer(s)	9.40	8,70
Q02->Expertise of the trainer(s)	9.60	9,23
Q02->Performance of the trainer(s)	9.70	8,82
Q02->Logistics and organizational aspects (online platform)	9.60	8,90
Q02->Support materials/resources distributed	9.50	8,74
Q02->Quality of the educational asset	9.60	8,85
Q02->Overall appreciation of the session	9.50	8,85
SESSION	9.15	8,48



Please provide comments on the topics or aspects you have found more and less relevant or interesting

- It was one of my favourite sessions. It did embrace the knowledge of the previous sessions.
- It was very interesting the experience
- It's very interesting to learn about other business models to know which is the most appropriate for each entrepreneur.
- More relevant than the talking and overview of companies around or environment.
- The examples provided were significant and well selected.
- I cannot specify particular cases; all the entrepreneurs have contributed their knowledge and effort to a great level. It has been a very constructive seminar.
- One of my favourite lessons. The teacher knew a lot and it was wonderful.
- Understanding the product development stages allow you to understand the business risks.
- Recognition that patents are fundamental in biotechnology and the pharmaceutical industry due to information protection.
- Actual content was enough but took too long to be presented. Much of the content was replicated in several classes with no benefit.

#### How would you improve the session?

- The session was very well conducted by Professor and hit the goal of showing us, other business models.
- I feel like this whole module could have been presented 20% of the time, while also having more practical exercises during the class period. Having to make tasks after the class with so little content feels like a waste of time. I don't feel like the tasks that were requested add value to the participants. If it is for evaluation purposes, it makes more sense to have them made during the time allocated for the class.

Other comments and suggestions

- The platform that we are required to use feels outdated and is not intuitive.



# MODULE 2: ENTREPRENEURSHIP AND INNOVATION

# SESSION 1: TECHNOLOGICAL IDEAS AND COMPETITIVE DIMENSIONS

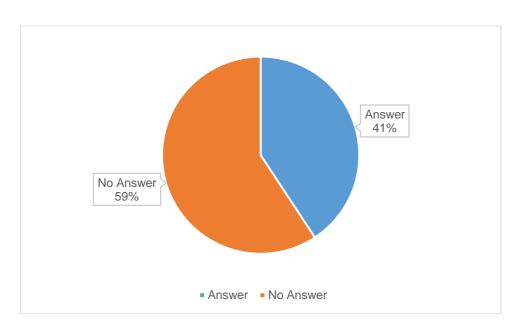


Figure 164 Module 2 Session 1 response %

What were your expectations for this session?

- Brainstorming of ideas for entrepreneurship.
- Understand how business opportunities are analysed.
- Honestly, I was not sure about the content of the session, so I did not have any expectations.
- An introduction to the module.
- The knowledge acquired has exceeded my expectations.
- To learn how to identify business opportunities.
- I enjoyed this session, as it allowed me to know new creative and innovative ideas, in their different dimensions, that allowed me to heighten my competitivity in my projects and businesses.
- Going to introduce in the module.
- To learn about innovation.

# Summary

They an introductory session to the module regarding entrepreneurship and innovation.

## Table 13 Level of satisfaction Module 2 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 2
Q02->Possibility of students to actively participate	9,55	9,47
Q02->Level of participation of the students	8,82	8,87
Q02->Workload	9,36	9,27



Q02->Methods / techniques used by trainer(s)	9	9,11
Q02->Expertise of the trainer(s)	9,45	9,49
Q02->Performance of the trainer(s)	9,27	9,68
Q02->Logistics and organizational aspects (online platform)	9	9,38
Q02->Support materials/resources distributed	9,09	9,44
Q02->Quality of the educational asset	9,18	9,53
Q02->Overall appreciation of the session	8,73	9,29
SESSION	9,05	9,35

Below average of the Module. Comments do not reflect that feeling of being below average of module 2. Low participation of students that penalizes the average of session.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Last part of the session was better.
- Assess the market potential and use financial analysis tools.
- The examples and performance of the professor were good.
- For me, we spent too much time with the brainstorming document. It would have been more productive if they would have sent us the information before the session so we could prepare some ideas in advance. In my case, I am still not very familiar with the entrepreneurial world, so I felt I did not have much to say so for me it became tedious at some point.
- I find the comparison between the three countries participating in this postgraduate program in the biohealth sector very interesting. I do not know the data provided and they have surprised me in some aspects such as the high level of patents in the biotechnology sector in Italy. Learn, from the hand of Professor Joao, the evaluation methods, and the weight of the evaluation elements for an optimal business plan.
- Very useful to distinguish between start-up, spin-off and spin out.
- Nothing to add.
- The survey at the beginning helped me go into the topic of this module.

# Summary

The students considered it an interesting session praising the methods.

How would you improve the session?

- We spent too much time at the beginning giving ideas to fill the table. In my point of view, we need to go a bit "faster" to make another table or other topics otherwise you disconnect.
- Nothing to comment on, except that the expectation of learning is very good.
- Speedier presentation.
- I am not sure about how to improve. It was quite good.
- Sending the materials for the brainstorming in advance.
- Nothing.
- It was fine.
- Nothing to add.
- The participation of the students.



- It's perfect.

## Summary

It was stated that a more active participation of students was needed. Also, a faster pace was also stated.

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Other comments and suggestions

- None.
- Nothing to comment.
- N.A.
- The timing of the course is very intensive and demanding. Maybe it should be slower to get time to students to internalize the content and concepts.
- No comments.
- It would reduce the training time.
- None.
- Nothing to add.
- No comments.

## Summary

In general, nothing relevant to add. Even though the duration of the classes and the demand of the course was also stated.





SESSION 2: MARKET, COMPETITION AND COMPETITIVE ADVANTAGE

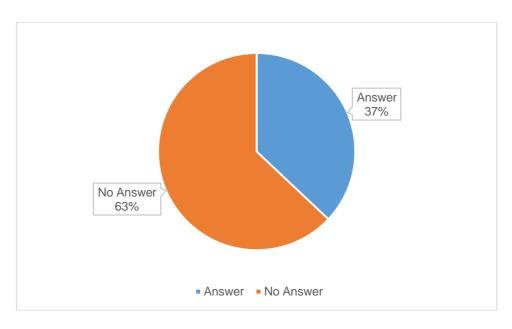


Figure 165 Module 2 Session 2 response %

What were your expectations for this session?

- Get new points of view of the analysis of competitors.
- Increasing my ideas for business.
- Notions about competence, how to study it and how to overperform them.
- Very interesting and has met my expectations created by the great knowledge demonstrated by the teacher.
- Didn't know what it was going to be about.
- I did not participate in this session, but the material provided allowed me to understand some ideas that allow me to be more competitive in the market.
- Understand topics related to the development of an idea and see the important things related to the ambient and relationship with the market.
- The theme was so broad I had no idea what to expect.
- Considering the topics of this session, I was anxious to assist to it, as the content explained was of my top interest and did not have experience on it.
- To get concepts about the market.

#### Summary

Despite not having a clear idea about the topic, the students were hoping to gather concepts about market and business.



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#### Table 14 Level of satisfaction Module 2 Session 2

	SESSION 2	AVG MODULE 2
Q02->Possibility of students to actively participate	9,3	9,47
Q02->Level of participation of the students	8,7	8,87
Q02->Workload	8,8	9,27
Q02->Methods / techniques used by trainer(s)	8,9	9,11
Q02->Expertise of the trainer(s)	9 <i>,</i> 5	9,49
Q02->Performance of the trainer(s)	9,7	9,68
Q02->Logistics and organizational aspects (online platform)	9,1	9,38
Q02->Support materials/resources distributed	9,3	9,44
Q02->Quality of the educational asset	9,4	9,53
Q02->Overall appreciation of the session	9,3	9,29
SESSION	9,2	9,35

Please rate your level of satisfaction with the following aspects of the session

## Summary

Slightly below average of the Module despite the expertise and the performance of the trainer being praised. Low participation of students that penalizes the average of session.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The group participate a lot in this class. No negative points.
- I liked more this session, João made us participate and motivated. started a bit more theoretical and finished more practical.
- The last part of the session with brainstorming.
- Know first-hand, through the interaction of classmates and teachers, the problems that exist in the biotechnology industry in Portugal.
- Good level of participation of the students.
- The ideas of business inside the biomarket are very interesting.
- Nothing to add.
- All the topics were interesting, and the professor has a top-level on them.
- Professor Joao knows a lot about this topic. It's very interesting.

#### Summary

The practical part of the session was praised. Also, the fact that the Professor has a lot of understanding regarding the theme was also an important part.

How would you improve the session?

- Nothing to say.
- Nothing.
- Making small breaks to study practical examples. It is too much 4 hours of slides with a lot of text. I would suggest using some video, more images or more examples.
- I found the session very formative as well as fluid in its presentation, so I would not add anything else.



<u>152</u>

- It was fine.
- Nothing to add.
- The participation of the students.
- Make the content more obvious and quickly go through it.
- Reducing the length of the session so the attention of the students can be optimized.
- No comments.

## Summary

The students stated that short breaks could of good use, or even cutting the duration of the session a little bit.

Other comments and suggestions

- With the advance of the lessons, the people got more comfortable talking and interacting.
- Nothing.
- No
- As I have commented on other occasions, perhaps it will reduce the training time.
- So thankful we can have 2 breaks.
- Nothing to add.
- To finish earlier would be very advisable, especially during restrictions due to covid.
- Very interesting session.

#### Summary

*In general, nothing relevant to add even though the students state that more breaks during the sessions would be important.* 



# SESSION 3: BUSINESS OPPORTUNITY ANALYSIS - METHODOLOGIES

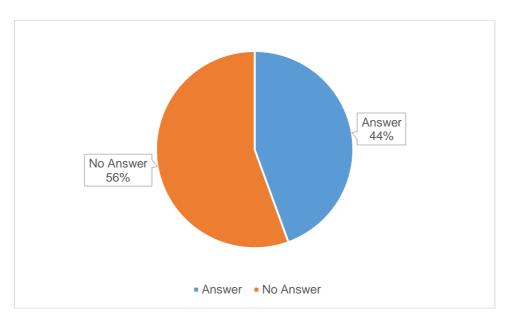


Figure 166 Module 2 Session 3 response %

What were your expectations for this session?

- Very interesting and constructive. The teacher is excellent.
- Widen my knowledge in business opportunities.
- To learn how to analyse business opportunities.
- Considering the previous classes with João Leitão, the best expectations. Didn't know what it was going to be about.
- I couldn't assist.
- Understand key business opportunity analysis.
- How to identify business opportunities in the biohealth sector.
- I enjoyed the content learned in this session in terms of knowledge of the most diverse methodologies that allow us to develop several future business opportunities.
- Didn't have any expectations.
- High, as all the sessions of this module, were interesting for me.
- To know what a business opportunity is.
- To better understand how the markets w.

#### Summary

The session was considered very interesting. The students praised the Professor and the knowledge they could gather from him.



<u>153</u>

## Table 15 Level of satisfaction Module 2 Session 3

	SESSION 3	AVG MODULE 2
Q02->Possibility of students to actively participate	9,58	9,47
Q02->Level of participation of the students	9	8,87
Q02->Workload	9,08	9,27
Q02->Methods / techniques used by trainer(s)	8,9	9,11
Q02->Expertise of the trainer(s)	9,25	9,49
Q02->Performance of the trainer(s)	9,83	9,68
Q02->Logistics and organizational aspects (online platform)	9,5	9,38
Q02->Support materials/resources distributed	9,58	9,44
Q02->Quality of the educational asset	9,58	9,53
Q02->Overall appreciation of the session	9,58	9,29
SESSION	9,45	9,35

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Session above the average of the module. Despite the workload and the methods utilized, all aspects were above the average of the module. Low participation of students that penalizes the average of session.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Very interesting, the new CANVAS 3XL model, I consider it very successful to include social aspects.
- It was interesting the 4p and basic information about the business.
- The triple layer canvas is very interesting and useful.
- The good discussion between everyone.
- I couldn't assist.
- Relevant aspects: review pricing strategies- product life cycle approach- understand why it is important to exit strategy.
- Pricing strategies and examples.
- Nothing to add.
- I can hardly point out a content little relevant for this session. All was interesting and useful.
- Very interesting the concept of business opportunity and how to use it.

#### Summary

The session regarding the CANVAS was considered very interesting. It was also praised the usefulness of the tool.

How would you improve the session?

- I think the sessions are too long.
- sometimes there is much theoretical information
- Maybe seeing the examples of the end, a bit slower, but it was fine, we understood everything.



- Perfect like that.
- I couldn't assist.
- The session was very well conducted and explained.
- It was very good
- Nothing to add.
- Content takes too long to be passed.
- No comments.
- Reducing the length of the session.

The length of the session was again referred as too long.

Other comments and suggestions

- The teacher has shown a very high level and excellent communication.
- None.
- It was good to chat with the teacher at the end of the lesson to clarify things.
- Nothing to add.
- Maybe, discussing more real examples could be useful. And also finishing earlier.

## Summary

In general, nothing relevant to add at this point. The students praised the communication with the professor during the session.



SESSION 4: BUSINESS OPPORTUNITY ANALYSIS - STRUCTURING THE BUSINESS MODEL

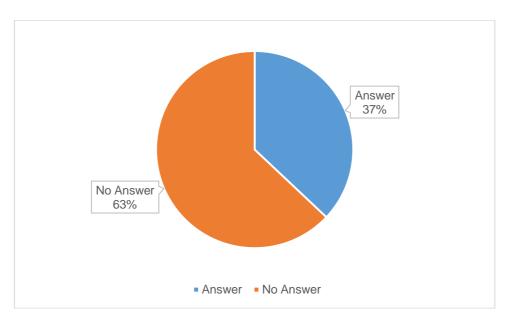


Figure 167 Module 2 Session 4 response %

What were your expectations for this session?

- Understand clear concepts of Business.
- Eager to continue expanding knowledge.
- I enjoyed the content of this session in terms of knowledge and the development of business structures.
- How to structure the business model, which parts we should build and clarify first.
- Know the different business models for entering the international market.
- Learn about the structure of development of financial planning.
- New ways to structure business model.
- I was looking forward to having the session because of its theme.
- Learn how to do a convincing business model.

#### Summary

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Knowing how to properly build a business model was the main expectation for the students.



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# <u>157</u>

#### Table 16 Level of satisfaction Module 2 Session 4

	SESSION 4	AVG MODULE 2
Q02->Possibility of students to actively participate	9,6	9,47
Q02->Level of participation of the students	9,1	8,87
Q02->Workload	9,5	9,27
Q02->Methods / techniques used by trainer(s)	9,3	9,11
Q02->Expertise of the trainer(s)	9,9	9,49
Q02->Performance of the trainer(s)	9,9	9,68
Q02->Logistics and organizational aspects (online platform)	9,6	9,38
Q02->Support materials/resources distributed	9,4	9,44
Q02->Quality of the educational asset	9,6	9,53
Q02->Overall appreciation of the session	9,5	9,29
SESSION	9,54	9,35

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Session with above average indicators in all aspects.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Some tips for our group presentation were useful.
- All the taught subject is new for me, I could not choose only one part. It is very formative.
- Nothing to add.
- The 3-layer canvas.
- Design innovation Triple Layer (3XL) Canvas Empathy Map.
- It's my view that all the information was clear and useful to the development of our idea.
- There is a thing that is well accepted in the area and people expect. Deviations from this, while helping to understand concepts may clash with real-world expectations and communication.
- All was extremely relevant and aligned with my interests in the course.

#### Summary

The session was considered interesting to the students. Mainly because of the information that was clear and the interest of the subjects.

How would you improve the session?

- Nothing.
- The data on the tables we were talking about economic information was not very easy to follow. It was too much information on a table, so it was easy to stop paying attention. A fewer data in bigger tables would help.
- Shorter sessions, to better assimilate all the knowledge that in most cases is new and difficult to assimilate.
- Nothing to add.



- All the sessions by Joao are very good, the only problem I always find is that they are a bit dense.
- The teaching is great.
- Speed could be improved.
- With some more practical examples.

The length of the session was again referred as too long, as well as the pace of the session that could be higher.

Other comments and suggestions

- Reducing the length of the session and finishing it earlier.
- None.
- Nothing to add.

#### Summary

*In general, nothing relevant to add at this point. The students only pointed the length of the session.* 



<u>158</u>

SESSION 5: BUSINESS OPPORTUNITY ANALYSIS - NEW BUSINESS FINANCIAL PLANNING

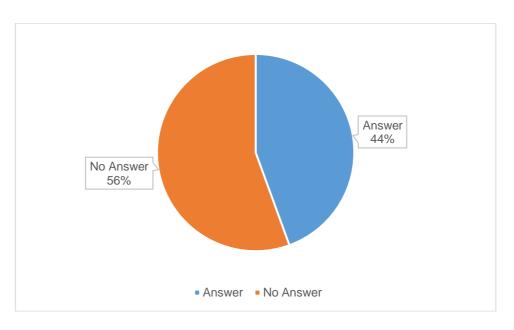


Figure 168 Module 2 Session 5 response %

What were your expectations for this session?

- Rethink my current beliefs in this area.
- Very interesting, and constructive.
- Learn more about the financial side, and how to build a solid excel file to control all variances.
- Learn how to create a financial plan.
- To learn how to do financial planning for an emerging company.
- Learn how to prepare a business plan from the construction of financial projections.
- to get to know about finance.
- I liked the content of the session, which allows me to project a good financial plan for new businesses from my startup.
- Learn about the structure and strategy to design a product.
- How to do a financial model.

## Summary

The approach on the financial side of the organizations and its implication in the planning was very much praised by the students and in this sense, they had higher expectations on this session.



<u>159</u>

## Table 17 Level of satisfaction Module 2 Session 5

	SESSION 5	AVG MODULE 2
Q02->Possibility of students to actively participate	9,58	9,47
Q02->Level of participation of the students	8,58	8,87
Q02->Workload	9,5	9,27
Q02->Methods / techniques used by trainer(s)	9,17	9,11
Q02->Expertise of the trainer(s)	8,83	9,49
Q02->Performance of the trainer(s)	9,58	9,68
Q02->Logistics and organizational aspects (online platform)	9,08	9,38
Q02->Support materials/resources distributed	9,25	9,44
Q02->Quality of the educational asset	9,41	9,53
Q02->Overall appreciation of the session	9,25	9,29
SESSION	9,23	9,35

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Slightly below average of the module. Some aspects are not directly related with the information that was stated by the students (specially the "expertise of the trainer")

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Everything was adequate for the program.
- Today's topic is completely new to me, the development of the spreadsheet has seemed surprising to me.
- Maybe is too much information for just one class.
- The information provided was very valuable and complete, I consider this session very important for an entrepreneur, specifically in this sector since we scientists are not commonly familiar with the topic of financial planning.
- I liked the financial model presented; the spreadsheet with integrated data is great!
- A lot of information, everything very useful, I learnt a lot of things.
- Straight forward content.
- It was very instructive and give me the chance to try to do the financial model of my project.

#### Summary

The session was focused on a topic that was not of knowledge for most of the students. So, it was considered important information but for some it was too much information for just one session.

How would you improve the session?

- More interaction with the students. I understand it's difficult because it's online.
- Nothing.
- Simulating a product/company created by the students.
- It was extremely dense, I do not know how to improve it, but it was very difficult to pay attention and follow the entire session. Anyway, I appreciate the contents, I just think it is necessary to re-watch it more carefully.
- Only suggestion: better explain how we should interpret the results obtained with the IAPMEI spreadsheet.



- The material used wasn't easy to read and understand. Table with less information and bigger size. It was too much information in one session.
- Nothing to add.
- This being an international MBA I was expecting to see international considerations and materials.

There was lack of interaction from the students. Also, the density of the thematic made difficult for some to keep track with the session.

Other comments and suggestions

- Magnificent professor and classmates.
- None.
- More Breaks.
- Nothing to add.
- Divide the class into two (4h+4h).

#### Summary

*In general, nothing relevant to add at this point. The students only pointed the length of the session, suggesting it should be split by two.* 



SESSION 6: BUSINESS OPPORTUNITY ANALYSIS - INTRODUCTION TO BUSINESS

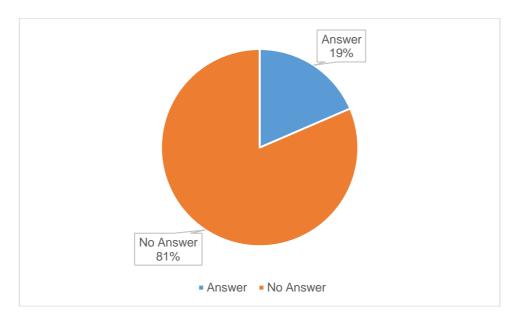


Figure 169 Module 2 Session 6 response %

What were your expectations for this session?

- Check the learning and receive feedback from the Professor about the opportunity highlighted in the business plan.
- I enjoyed the session and the new concepts for introducing new technologies and health businesses to the market.
- Excited about the project.
- To present a business plan and discuss it with the class.
- N.A.

## Summary

The session was also praised for the expectation of its content, since the previous sessions were interesting but demanding.



<u>162</u>

#### Table 18 Level of satisfaction Module 2 Session 6

	SESSION 6	AVG MODULE 2
Q02->Possibility of students to actively participate	9,2	9,47
Q02->Level of participation of the students	9	8,87
Q02->Workload	9,4	9,27
Q02->Methods / techniques used by trainer(s)	9,4	9,11
Q02->Expertise of the trainer(s)	10	9,49
Q02->Performance of the trainer(s)	9,8	9,68
Q02->Logistics and organizational aspects (online platform)	10	9,38
Q02->Support materials/resources distributed	10	9,44
Q02->Quality of the educational asset	10	9,53
Q02->Overall appreciation of the session	9,4	9,29
SESSION	9,62	9,35

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Above average of the module. Almost all aspects were considered above the average of the module.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- I suggest 15 minutes for the presentation of the works. The Professor's comments greatly help us to improve our work.
- Nothing to add.
- N.A.

## Summary

On this session, the help of the Professor comments was highly praised and relevant.

How would you improve the session?

- I suggest 15 minutes for the presentation of the works.
- Nothing to add.
- Very interesting and a very good level of teammates.
- More actual content and techniques. Speed of content delivery.

## Summary

The presentations should be put up to a 15-minute limit.

Other comments and suggestions

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- No comments.
- None.



- Nothing to add.

**Summary** *In general, nothing relevant to add at this point.* 



# MODULE 3: PRODUCT DESIGN IN BIOHEALTH SECTOR

# SESSION 3: BASIC CONCEPTS OF ETHICS THROUGHOUT PRODUCT DEVELOPMENT

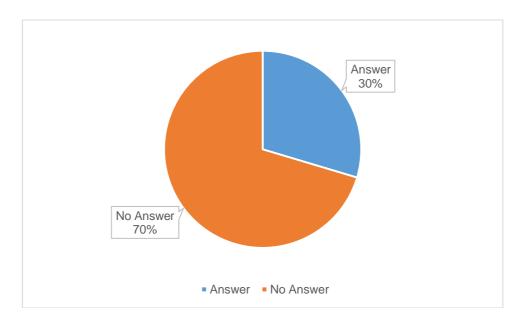


Figure 170 Module 3 Session 3 response %

What were your expectations for this session?

- Understand the difference between the certification process and the accreditation of products and services
- I was expecting more for the first part of the lesson.
- Getting to know tools to manage quality and ethical requirements.
- I enjoyed the ethical issues that are essential for the development of new products, as well as the indispensable audit and inspection of them so that we can have all the requirements for quality assurance in commercial terms.
- Expectant for the good level of the previous session.
- Didn't know what the lesson was about until it started.
- To better understand clinical research, including how to do a clinical trial.
- Notions about ethics and specific aspects of quality management and frameworks.

# Summary

The session was seen by the students to better understand the certification part, as well as the ethic requirements for a clinical trial.



#### Table 19 Level of satisfaction Module 3 Session 3

	SESSION 3	AVG MODULE 3
Q02->Possibility of students to actively participate	9	9,58
Q02->Level of participation of the students	8,38	8,86
Q02->Workload	9,13	9,19
Q02->Methods / techniques used by trainer(s)	8,63	9,06
Q02->Expertise of the trainer(s)	9	9,60
Q02->Performance of the trainer(s)	9,13	9,38
Q02->Logistics and organizational aspects (online platform)	8,88	9,26
Q02->Support materials/resources distributed	9,25	9,47
Q02->Quality of the educational asset	9	9,17
Q02->Overall appreciation of the session	8,5	9,00
SESSION	8,89	9,26

Please rate your level of satisfaction with the following aspects of the session

## Summary

Below the average of the module. The lack of answers could harm the results and they are not connected to what was stated by the students.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Principles of quality management; Audit process; Continuous control of processes.
- First part: the ethical topic was not very interesting. I know it is necessary for many matters.
- The whole ethics presentation could be summarised as: If you need something, hire a company.
- Ethics and its application in health and industry is a very topical issue and the presentation has seemed very successful.
- Nothing to add.
- I'm very interested in science ethics.
- Less relevant: ethics concepts were very general and not very interesting for me, but I think it is because of the thematic that I already know and not because of the professor more relevant: all the different quality management frameworks and certifications you can have and how they apply them in Labfit.

## Summary

On this session, the students found the whole ethics presentation as very fulfilling, as well as the certification parts. On the other hand, they stated that there were concepts that should have been more profound.

How would you improve the session?

- No comments.
- First part of the lesson.
- The content did not apply to anything associated with actual work that needs to be done. A list of tools, sites and processes should have been provided.
- I would reduce the contents or divide the presentations into two days.
- Nothing to add.
- It was too theoretical.



- In the ethics part, maybe a small exercise or some questions during the session would make it more interactive.

## Summary

Students affirmed that the session was too long. Despite that, they also stated that a practical part would have improved the connection with the students.

Other comments and suggestions

- The importance of preparing all documentation and controlling the information of the processes carried out by the company (quality manual, definition of the quality policy and annual objectives) as well as the implementation of corrective and preventive actions arising from the process reviews and certification audits/accreditation. The main ISO Norms (9001, 13.485), good manufacturing practices (GMP) for control according to quality standards, are evidenced.
- Ethics presentation was a compilation of some aspects that are in a document. Actual help in developing the document was not provided. The quality presentation was more insightful as it showcased an actual application. However, I still have no idea how to implement an ethics document, GDPR compliance mechanisms, or quality protocols in my company.
- The first part, on ethics in industry and medicine, has been very interesting. The graphic example of Maradona's goal, due to this current situation, has been very successful. In the second presentation, perhaps too much data in such a short time. The slides of the team that makes Labfit, have seemed very successful, congratulations on the achievements.
- In the first part, J. Martinez de Oliveira was talking about ethics, and in the second part, Ana Palmeira explained to us how to measure the quality of a company and the ISOs.
- The first part was about ethical principles in the biohealth sector, focusing on pharma and clinical trials. The second part was about the importance of quality management and how to implement it in our company. The professor exemplified everything with their company and was very illustrative, she convinced me about the importance of quality, how to measure it and the benefits for the company, the employees and the clients.

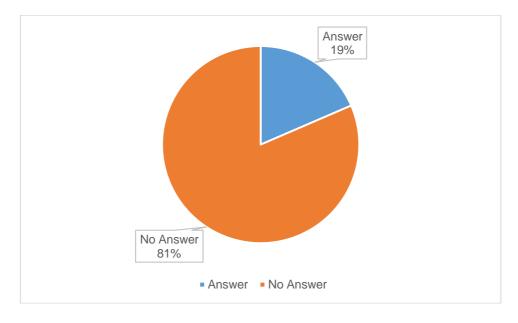
# Summary

In general, the students stated that there was a lot of information for too little time.



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# SESSION 5: CLINICAL RESEARCH



#### Figure 171 Module 3 Session 5 response %

What were your expectations for this session?

- I liked the video and the whole debate around it.
- In line with the previous ones, very interested.
- Understand the differences between prospective and retrospective studies, as well as know the phases of clinical trials.
- Widen my knowledge in clinical trial and expertise in quality.
- Specific aspects of product development in clinical research.

#### Summary

The expectations for the session were high. Students stated that the development of specific aspects on product development were raising the expectations.

Table 20 Level of satisfaction Module 3 Session 5

Please rate your level of satisfaction with the following aspects of the session

	SESSION 5	AVG MODULE 3
Q02->Possibility of students to actively participate	10	9,58
Q02->Level of participation of the students	9,2	8,86
Q02->Workload	9,2	9,19
Q02->Methods / techniques used by trainer(s)	8,8	9,06
Q02->Expertise of the trainer(s)	9,8	9,60
Q02->Performance of the trainer(s)	9	9,38
Q02->Logistics and organizational aspects (online platform)	9,4	9,26
Q02->Support materials/resources distributed	9,4	9,47
Q02->Quality of the educational asset	9	9,17
Q02->Overall appreciation of the session	9	9,00
SESSION	9,28	9,26



Slightly above average of the Module. The appreciation the students gave this session was reflected in the participation aspects, as well as the expertise of the trainers.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Regulatory procedures for drugs, so current is nowadays.
- Relevant topics: randomization, types of study design and clinical trial stage.
- The topic was interesting and relevant.
- More relevant: everything was relevant, but for me, the more interesting part was the different stages of the clinical trials. I also think that the final quiz was a very nice thing to do to review the concepts less relevant: the last part about the regulatory bodies was relevant but for me, not interesting.

#### Summary

The topics were relevant and interesting. The final quiz also was considered as being a good way to review he concepts

How would you improve the session?

- Nothing to add.
- Nothing to contribute.
- I suggest more practical examples using the basic concepts.
- Perhaps more examples of well-known companies apart from their own experience.
- It was a very good session; I do not know how to improve it.

#### Summary

*In order to improve the session, the students asked for more examples apart from the own experience that was indicated during the session.* 

Other comments and suggestions

- Nothing to add.
- The most interesting has been the development and explanation in the first part of the presentation of the drug regulatory phases. Very well developed and illuminating the current problem with the COVID19 vaccine I was surprised by the final questionnaire, perhaps if it is only to rate the level of explanation, it should not have been so extensive.
- Very interesting topic, presenting the basic concepts of ethics in all product development, presentation of the advantages of non-interventional and interventional studies, types of clinical studies (treatment tests, diagnostic tests, screening tests, quality of life tests) and phases of drug development.
- Phases of a clinical trial, ways to measure and regulatory affairs.
- The session started with the type of studies (observational vs interventional, prospective vs retrospective), then it was centred on clinical trials, stages, and types,

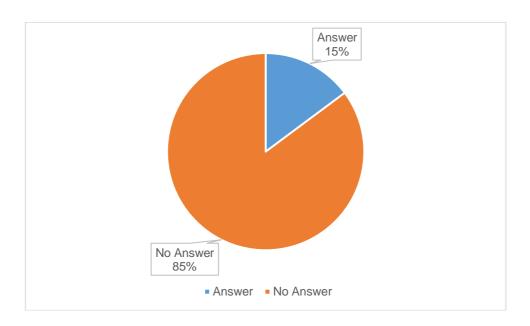


and finished with a few words about guides and regulatory bodies for clinical trials. Also, we did a small quiz at the end.

## Summary

In general, the session was highly praised, connecting the information shared with nowadays situations (such as COVID-19)

# SESSION 6: SPARKATHON STARTUP EXPERIENCES AND EXAMPLES



## Figure 172 Module 3 Session 6 response %

What were your expectations for this session?

- Hearing about the experiences of other professionals on PRODUCT DESIGN.
- Expect to see how it would develop.
- I enjoyed sharing the different start up's experiences. Very practical and quite interesting.
- Hear from real start-up experiences.

# Summary

The session was expected to be interesting due to the several experiences that would be shared.

# Table 21 Level of satisfaction Module 3 Session 6

Please rate your level of satisfaction with the following aspects of the session

	SESSION 6	AVG MODULE 2
Q02->Possibility of students to actively participate	9,75	9,58
Q02->Level of participation of the students	9	8,86
Q02->Workload	9,25	9,19
Q02->Methods / techniques used by trainer(s)	9,75	9,06
Q02->Expertise of the trainer(s)	10	9,60
Q02->Performance of the trainer(s)	10	9,38
Q02->Logistics and organizational aspects (online platform)	9,5	9,26



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-		

Q02->Support materials/resources distributed	9,75	9,47
Q02->Quality of the educational asset	9,5	9,17
Q02->Overall appreciation of the session	9,5	9,00
SESSION	9,6	9,26

At this time the session held an average of satisfaction above the average of the module, mostly directed to the expertise of the trainers and the performance of the trainers.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- I enjoyed hearing and seeing how EmotAi products have developed in neurotechnology.
- It has been one of the most interesting SPARKATHON.
- N.A.

## Summary

Since this session was in the form of a sparkathon, the different experiences were highly praised by the students.

How would you improve the session?

- The session was very good! Nothing to add.
- Nothing.
- Nothing to add.

# Summary Students praised the session, having nothing to add.

Other comments and suggestions

- Presentations made by Hugo Ferreira (founder of EmotAi, a hardware development company), Jose Duarte (responsible for marketing, communication infrastructure and presence on Mitotag's social networks) and Andre Faustino (created a start-up focused on identifying a medicine to treat obesity).
- Of the three collaborators, both Jose Duarte and Andre Faustino, have been excellent. For the first time, it has been possible to analyse and know in depth the reality of the creation of BIO companies. Andre has given a wonderful lesson when he says that you must chase small achievements to reach the big ones. And Faustino has been excellent, he has put in front of us the true reality of the entrepreneur "hit or miss" "Excellent all three.
- Nothing to add.
- NC.

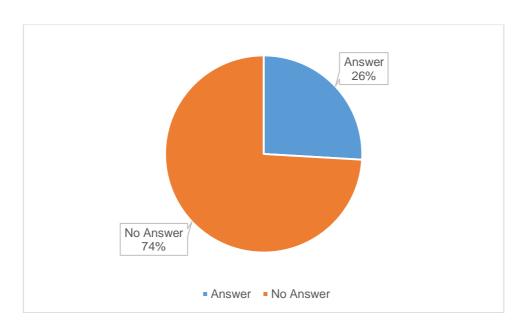
# Summary

In general, the students liked the different presenters. They praised these kinds of sessions since they bring up market experiences in different kinds of businesses and companies.



# MODULE 4: LEGAL AND IP MANAGEMENT ASPECTS

# SESSION 1: STRATEGY



#### Figure 173 Module 4 Session 1 response %

What were your expectations for this session?

- Understand the strategy aspects in the context of negotiation and licensing agreements.
- To understand how to prepare the registration of intellectual property.
- I am unaware of the issue of licenses and patents.
- Strategies regarding IP management (patents, licensing, etc.).
- I enjoyed this session and the content covered.
- Learn about the strategy related to the patenting process of our product.

## Summary

For this session the students were expecting to understand and learn about IP management and the patent process.

## Table 22 Level of satisfaction Module 4 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 4
Q02->Possibility of students to actively participate	9,57	9,44
Q02->Level of participation of the students	8,29	8,96
Q02->Workload	8,86	8,91
Q02->Methods / techniques used by trainer(s)	9	8,88
Q02->Expertise of the trainer(s)	9,57	9,34
Q02->Performance of the trainer(s)	9	9,11
Q02->Logistics and organizational aspects (online platform)	9,14	9,25
Q02->Support materials/resources distributed	9,14	9,29



Q02->Quality of the educational asset	9,14	9,28
Q02->Overall appreciation of the session	9,14	9,33
SESSION	9,09	9,18

Session with lower results than the average of the Module. The results could be influenced by the lower participation of the students.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Strategy concept Negotiation Confidentiality agreement License Agreement.
- The different ways to protect our work. For instance, industrial property.
- They are very important aspects in the creation of a company, very complex for someone outside of legal issues.
- More relevant: The information about the importance of consulting the patents experts in our institution before publishing our scientific work and how it can be protected in different countries. Also, the example of MTA and the importance of negotiating and understanding the terms were very interesting Less relevant: everything was relevant.
- Nothing to add.
- The teacher was wonderful, I recommend her again.
- Nothing to comment.

## Summary

The students considered it an interesting session with all topics being considered relevant. The Professor was also praised as being someone that could deliver the information.

How would you improve the session?

- No comments.
- Slower development, too complex for such a short time.
- Speedier presentation.
- I enjoyed a lot of all the examples, but I think in the end we spent too much time on them, and we could not go forward with other topics.
- Sending the materials for the brainstorming in advance.
- Nothing.
- Nothing to add.
- No comments.

## Summary

The students reflected on the short time the session took for the amount and complexity of the information.



Other comments and suggestions

- Different strategies for obtaining intellectual property, patents, trademarks were presented, and it was argued how the legislation can assist us when it comes to agreements and contracts.
- The session has approached different ways to protect the knowledge/writing/prototypes, processes... what is an MTO/NDA/Collaboration accord...How legally all this work.
- The presentation of Sofia Vairinho clarifies from his experience in the US market many aspects of IP problems if they are not done properly. Very clarifying and perhaps the most interesting practical example of the Spanish innovator with his facial recognition technology. The final documentation provided with examples of documents, perhaps too little clarifying, due to the speed in their presentation.
- The professor explained topics related to intellectual property, the different types of intellectual properties and how to protect them. Also, the different types of agreements between companies to exchange information or even materials (NDA, MTA) and examples of licensing strategies I especially remember one that went wrong (an exclusive licensing agreement in which they had royalties but the company that bought the license only wanted it to keep o from the competitors and they didn't use it, so they did not pay almost any royalties).
- Nothing to add.
- Sofia Vairinho spoke about legal Strategy and IP Strategy related to the patenting process of our product and the importance of reading and understanding the small letter from the papers.
- Legal Strategy and IP Strategy and the importance of getting to know the agreements.

#### Summary

In general, there was a statement regarding the importance of the subject. The students also pointed out that the legislation part as well as the strategies were of the utmost importance.



BIOHEALTH GEAR BOX ALLIANCE

# SESSION 2: HOW TO FORM A PATENT STRATEGY

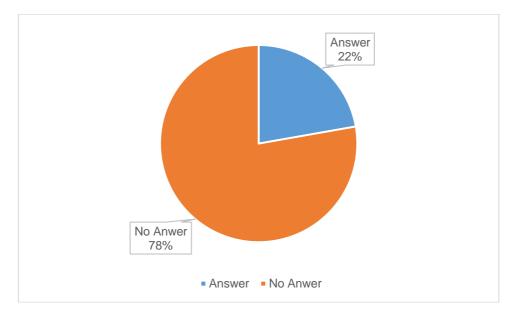


Figure 174 Module 4 Session 2 response %

What were your expectations for this session?

- I enjoyed the session and the contents, namely the presentation by António of Bial.
- I Know the position of Bial concerning other health companies, concerning the number of patents, the products developed and their partners.
- To learn what is a pharma company.
- Much appreciated.
- Learn about the legal this related to the patenting and companies.
- Understand how Bial works.

#### Summary

For this session the students were expecting to learn about BIAL company, since its CEO was presenting the company. The fact that there was a possibility to ask questions directly to him was a big plus.

## Table 23 Level of satisfaction Module 4 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 4
Q02->Possibility of students to actively participate	9,67	9,44
Q02->Level of participation of the students	9,33	8,96
Q02->Workload	9,67	8,91
Q02->Methods / techniques used by trainer(s)	9,67	8,88
Q02->Expertise of the trainer(s)	9,83	9,34
Q02->Performance of the trainer(s)	9,67	9,11
Q02->Logistics and organizational aspects (online platform)	9,67	9,25
Q02->Support materials/resources distributed	9,83	9,29
Q02->Quality of the educational asset	9,83	9,28
Q02->Overall appreciation of the session	9,83	9,33
SESSION	9,7	9,18



Higher evaluation that the average of the module. In this sense, the expertise of the trainer, as well as the overall appreciation of the session and the quality of the educational asset are rising the results.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Watch how Bial handles competition.
- I found this presentation of extreme importance, given that we were able to listen and discuss directly with the CEO of a pharma company. WE could understand better how we should act to be future partners of this type of company.
- Very interesting.
- Nothing to add.
- No comments.

## Summary

This session was considered very important. The fact that the students could debate with the CEO of a pharma company was very important.

How would you improve the session?

- No comments.
- Nothing to add.
- No comments.
- Nothing to add.
- No comments.

## Summary

No comments were made by the students.

Other comments and suggestions

- Nothing to add.
- Bial performance (15,000 new molecules, 7 new drugs), stages of the research and development process, companies with more expenditure in R&D and new medicines introduced to the market by European pharmaceutical companies.
- Antonio Portela has presented us an overview of Bial, and its strategy in drug development.
- The presentation of Bial has made me aware of the great work that can be done from a family business. Since they are clear about the achievable objectives and the means they have, they have managed to expand, research, and create products with such a future. Interesting as the Parkinson's investigation Antonio, from the real point of view, concludes with a truth that is difficult to assimilate when it has been invested both economically and emotionally in product development: if the research is not profitable at the end of the process, better to leave it than to develop something without future.



- We talked with a company that helped us to understand how to find economical help. Later we worked in groups.

# Summary

*In general, there was joy because the CEO of a big pharma company in Portugal took time to speak to the students and answer their questions.* 

SESSION 3: STRATEGIC USE OF THE PATENT STRATEGY SYSTEM. PATENT USAGE IN COMPLEX TECHNOLOGIES

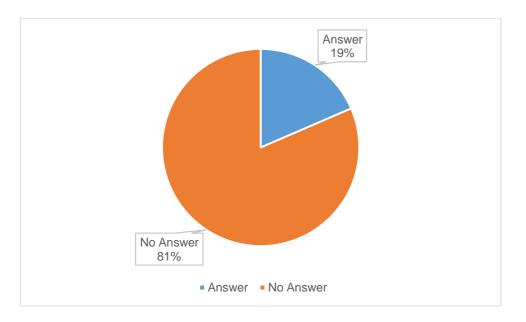


Figure 175 Module 4 Session 3 response %

What were your expectations for this session?

- I enjoyed the session, especially Glintt's presentation.
- Learn about the use of licenses and patents.
- I was expecting to understand how to define a strategy for patent development.
- In line with all the work we are developing.
- Learn a lot about patents.

#### Summary

The students expected that the session would bring them information about Glintt's usage of IP and license development.

#### Table 24 Level of satisfaction Module 4 Session 3

Please rate your level of satisfaction with the following aspects of the session

	SESSION 3	AVG MODULE 4
Q02->Possibility of students to actively participate	9,2	9,44
Q02->Level of participation of the students	9,2	8,96
Q02->Workload	8,6	8,91
Q02->Methods / techniques used by trainer(s)	8	8,88



Q02->Expertise of the trainer(s)	8,8	9,34
Q02->Performance of the trainer(s)	8,6	9,11
Q02->Logistics and organizational aspects (online platform)	9,2	9,25
Q02->Support materials/resources distributed	9	9,29
Q02->Quality of the educational asset	8,8	9,28
Q02->Overall appreciation of the session	9	9,33
SESSION	8,84	9,18

This time the session was graded below the average of the module, mostly because of the performance of the trainers, as well as the workload.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Understand strategy portfolio maximization, portfolio optimization and protection of specific IP.
- I liked the interaction with Glintt.
- How to start the patent procedure, the advantages, and dangers that they can cause if they are not done correctly. It is also highlighted by Antonio.
- No comments.

#### Summary

This session was considered very important, and the interaction with all the information that Glintt brought to the table was considered very interesting.

How would you improve the session?

- No comments.
- Nothing to add.
- Adding some white papers for patent matrix development.
- Very interesting the presentation of Antonio Portela, for what he represents in the pharmaceutical industry.
- No comments.

**Summary** *No relevant comments were made by the students.* 

Other comments and suggestions

 Description of the institutional international and national settings in some of the World's most important patent systems: Paris Convention for the Protection of Intellectual Property, Patent Cooperation Treaty (PCT). PCT filings are advantageous for applicants. Timeline for PCT filings presented. Explains the format of the European patent system, the U.S. patent system (3 types of patents (utility, design,



and plant) and the majority issued are utility patents, with the application must be filed within 1 year of the inventions public use or publication) and the Japanese patent system (designed to encourage the harmonization of the Japanese patent system with U.S. and European patent standards). License agreement: granting rights to a third party that will do the commercialization process and will give you an exchange something that's the licensing process. Hugo Maia (Glintt) To observe the road from innovation to entrepreneurship, types of innovation, process, degrees of innovation. Presented the current trends, before Covid-19, such as the massification of digital health, digital therapeutics, tech-enabled care delivery, robotics and prosthetics, cellular therapy, and regenerative medicine, among others.

- We did an exercise for patent matrix creation; we listen to a presentation about Glintt innovation strategy, and we went through different aspects of patents and Licensing contracts.
- The first part of Dina, patents, life cycle, future monetary benefits if the whole procedure is done correctly. Risks of malpractice in the first ID steps can be solved with the use of tools as explicit as the patent matrix. The second part Bial with Antonio, his advances on the treatment of Parkinson's, presentation has been very constructive, such as planning the real strategy in a pharmaceutical company and the most important conclusion from my point of view: if the research is not profitable at the end of the process, better to leave it than to develop something without future.
- No Comments.

# Summary

*In general, the subject was praised and the interaction with companies that perform in the pharma world was of great interest by the students.* 



# SESSION 4: IP MANAGEMENT: BUSINESS MODELS AND ENTREPRENEURSHIP APPLIED TO BIOTECH STARTUPS

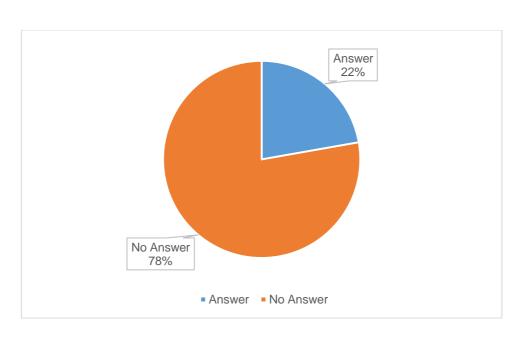


Figure 176 Module 4 Session 4 response %

What were your expectations for this session?

- I enjoyed the content that was covered in the session.
- For being the last class of the module, waiting to participate.
- Understand the basis of investment strategies, venture capital.
- Discuss an important case of patent ending protection.
- Learn IP management in the biohealth sector.

#### Summary

For this session the students were expecting to learn more about investment strategies and venture capital.

#### Table 25 Level of satisfaction Module 4 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 4
Q02->Possibility of students to actively participate	9,33	9,44
Q02->Level of participation of the students	9	8,96
Q02->Workload	8,5	8,91
Q02->Methods / techniques used by trainer(s)	8,83	8,88
Q02->Expertise of the trainer(s)	9,17	9,34
Q02->Performance of the trainer(s)	9,17	9,11
Q02->Logistics and organizational aspects (online platform)	9	9,25
Q02->Support materials/resources distributed	9,17	9,29
Q02->Quality of the educational asset	9,33	9,28
Q02->Overall appreciation of the session	9,33	9,33
SESSION	9,08	9,18



This session was again graded lower than the average, again with the workload influencing the results.

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Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Very interesting the presentation of Portugal Ventures by Raul.
- Basic IP Strategies- IP management.
- Very interesting.
- Nothing to add.
- No comments.

#### Summary

This session had the presentation of Portugal Ventures, which was considered very interesting by the students.

How would you improve the session?

- Very tight of time the presentations of the students.
- Nothing to add.
- No comments.
- Nothing to add.
- No comments.

#### Summary

At this time, students stated that there was little time for them to make their presentations.

Other comments and suggestions

- Nothing to add.
- In the first part for about 1.45 hours the presentation of Raul and Portugal Ventures is very complete. The AVC glossary and its excellent development. The information on how biotechnology companies are increasing their support and investment in the face of technology is encouraging. The second part of Dina continues with the development of IP, specifically with Valuation Patent, IP management, international patents, and Context map. Finally, the development of each group and the presentation of groups, with the different appreciations of Dina and Sofia.
- Patent valuation- Why value patents within a company, market-based method, income-based method, and cost-based method. - IP management and what does the company expect from IP management- Basic IP strategies: path to minimize risks, path to cost reduction, path to value and path to strategic value.
- No comments.





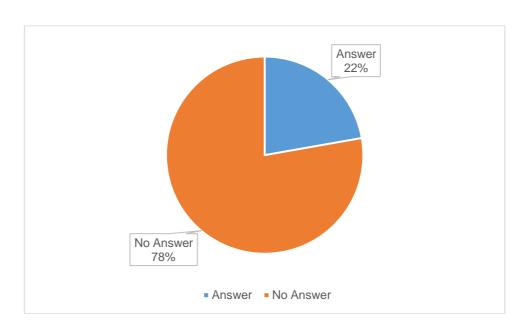
In general, the session was praised since it had two different parts. The first part where the presentation of Portugal Ventures gave an insight of the investment on biotech companies, and the second part where the Professors continued to develop the IP and patent management.

Bio-All



# MODULE 5: BUSINESS STRATEGY

# SESSION 1: STRATEGY CONTEXT



#### Figure 177 Module 5 Session 1 response %

What were your expectations for this session?

- Eager to start training.
- I enjoyed the session and all the topics covered, which prepare us to better define a business strategy for the future.
- Marketing knowledge.
- Actively learn how to establish a good business strategy.
- Strategy is one of the most important subjects in Business and new ventures. In this session, I would have expected to be challenged and learn different frameworks for scenario planning and strategic thinking. Although I know that during the Pandemic, it is more challenging to connect with students online, I would have expected a more practical approach to class.
- I enjoyed the session and the contents taught.

# Summary

Strategy thematic was considered interesting and so the students denoted high expectations for this session.



#### Table 26 Level of satisfaction Module 5 Session 1

	SESSION 1	AVG MODULE 5
Q02->Possibility of students to actively participate	7,67	8,28
Q02->Level of participation of the students	7,33	7,82
Q02->Workload	6,67	7,53
Q02->Methods / techniques used by trainer(s)	6,17	7,58
Q02->Expertise of the trainer(s)	8,5	8,30
Q02->Performance of the trainer(s)	6,5	7,85
Q02->Logistics and organizational aspects (online platform)	8,33	8,62
Q02->Support materials/resources distributed	7	8,30
Q02->Quality of the educational asset	7,33	7,92
Q02->Overall appreciation of the session	6,83	7,92
SESSION	7,23	8,01

Please rate your level of satisfaction with the following aspects of the session

#### Summary

Below average of the Module. The methods of the session as well as the workload and the performance of the trainers affected the overall appreciation of the session.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- I am left with Renato's final reflection. try, experiment, and continue despite the mistakes that may be made.
- Nothing to add.
- The professor material was not useful. The first part of the lesson was irrelevant and in the second part, you can find it on google (SWOT analysis).
- The session was very linear and theoretical only.
- Nothing to add.

#### Summary

The students considered that the session needed a more practical approach to be added to the theoretical part.

How would you improve the session?

- The subject has perhaps been too monotonous due to the theoretical nature of the subject.
- Nothing to add.
- The idea is to make practical examples about swot analysis and other topics. Ex: company swot analysis exercise during the lessons or homework would have helped.
- Use of real case experiences to better communicate the trainer knowledge.
- Use practical frameworks and real case examples to fuel strategic thinking.
- Nothing to add.

#### Summary

It was stated that a more active real cases would be interesting to understand the theoretical part.

Bio-All

Other comments and suggestions

- The beginning with the explanation of the different industrial stages could perhaps be ignored. The second part has been more interesting with new marketing concepts such as business strategies and concepts like BBG matrix.
- Nothing to comment.
- Short and useless.
- Nothing to add.
- No comments.
- No comments.

# Summary

In general, nothing relevant to add to what was already stated before.



# SESSION 2: UNDERSTAND AND ANALYSE THE BUSINESS MODELS THAT DRIVE CHANGE

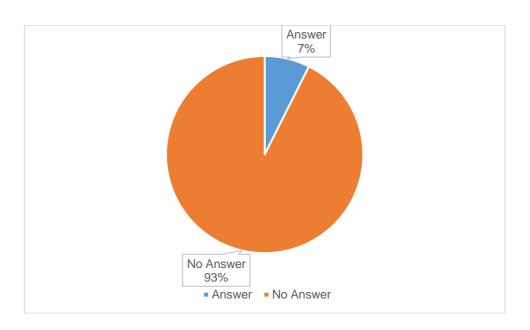


Figure 178 Module 5 Session 2 response %

What were your expectations for this session?

- I was unable to access this session, so I cannot evaluate it
- The contents of the session were adequate to my expectations.

#### Summary

No relevant answers were given at this time.

#### Table 27 Level of satisfaction Module 5 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 5
Q02->Possibility of students to actively participate	7	8,28
Q02->Level of participation of the students	7	7,82
Q02->Workload	7	7,53
Q02->Methods / techniques used by trainer(s)	7,5	7,58
Q02->Expertise of the trainer(s)	7,5	8,30
Q02->Performance of the trainer(s)	7,5	7,85
Q02->Logistics and organizational aspects (online platform)	7,5	8,62
Q02->Support materials/resources distributed	7	8,30
Q02->Quality of the educational asset	7,5	7,92
Q02->Overall appreciation of the session	7,5	7,92
SESSION	7,3	8,01

# Summary

Below average of the Module. The results could be affected by the lack of answers from the students to the survey.



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Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Nothing to add.

# Summary

No relevant comments currently.

How would you improve the session?

- Nothing to say.
- Nothing.

**Summary** *No relevant comments.* 

Other comments and suggestions

- Nothing.
- No.

**Summary** In general, nothing relevant to add.



SESSION 3: GLOBAL OVERVIEW ON BIOHEALTH/PHARMA/BIOTECH SECTOR

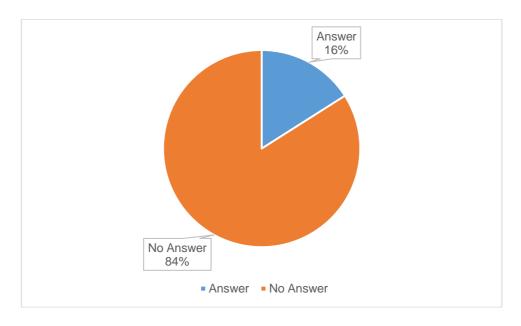


Figure 179 Module 5 Session 3 response %

What were your expectations for this session?

- Very interesting topic.
- I enjoyed the video sessions and the themes that were covered.
- To learn how to analyse business opportunities.
- Learn about how a biohealth company is supposed to work to be ethical and socially sustainable.

#### Summary

The session was expected to be very interesting. The knowledge regarding the biohealth companies was boosting those expectations.

#### Table 28 Level of satisfaction Module 5 Session 3

Please rate your level of satisfaction with the following aspects of the session

	SESSION 3	AVG MODULE 5
Q02->Possibility of students to actively participate	8	8,28
Q02->Level of participation of the students	8	7,82
Q02->Workload	7,75	7,53
Q02->Methods / techniques used by trainer(s)	7,25	7,58
Q02->Expertise of the trainer(s)	8	8,30
Q02->Performance of the trainer(s)	7,75	7,85
Q02->Logistics and organizational aspects (online platform)	9	8,62
Q02->Support materials/resources distributed	9,25	8,30
Q02->Quality of the educational asset	7,5	7,92
Q02->Overall appreciation of the session	7,5	7,92
SESSION	8	8,01



<u>188</u>

Session slightly below the average of the module. Despite that, the support materials were highly praised by the students.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Interesting biotechnology sector figures.
- Nothing to add.
- I think it's ok to talk about the social obligation of the company to society, but I didn't like to watch a video during class.
- No comments.

# Summary

The session was regarded to have interesting figures about the biotech sector.

How would you improve the session?

- Not watching a video in class.
- No comments.
- No comments.
- Nothing to add.

#### Summary

The video showed in the class was not considered interesting to watch.

Other comments and suggestions

- During the entire session there were connection problems, and it was difficult to follow. The second part will be reviewed later.
- None.
- How a company should behave to be committed to society.
- Nothing to add.

#### Summary

*In general, there were connection problems which made difficult to follow the session in due time.* 



SESSION 4: EXAMINE THE BROADER ENVIRONMENTAL, POLITICAL, AND SOCIAL LANDSCAPE IN WHICH YOU OPERATE, INCLUDING THE ROLE OF GOVERNMENT, INVESTORS, AND CUSTOMERS

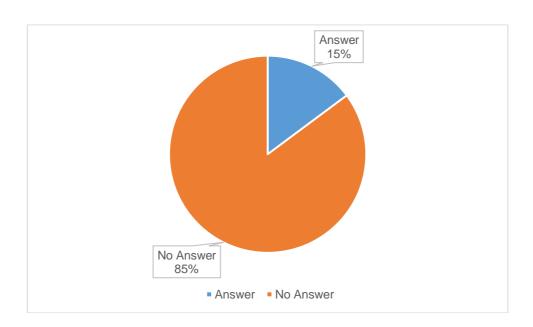


Figure 180 Module 5 Session 4 response %

What were your expectations for this session?

- Expectant.
- I enjoyed the video session and the contents that were taught.
- Learn the connection between companies, government, and trending.
- Innovation as the main Driver for Economic Growth and Innovation Models.

#### Summary

Students were expecting to embrace the role of innovation models and the connection of companies and government.

#### Table 29 Level of satisfaction Module 5 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 5
Q02->Possibility of students to actively participate	9,25	8,28
Q02->Level of participation of the students	8	7,82
Q02->Workload	8,25	7,53
Q02->Methods / techniques used by trainer(s)	9,25	7,58
Q02->Expertise of the trainer(s)	9,25	8,30
Q02->Performance of the trainer(s)	9,25	7 <i>,</i> 85
Q02->Logistics and organizational aspects (online platform)	9	8,62
Q02->Support materials/resources distributed	9	8,30
Q02->Quality of the educational asset	8,75	7,92
Q02->Overall appreciation of the session	9	7,92
SESSION	8,9	8,01



Session with above average indicators in all aspects. Highly praised session of this module.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Large amount of statistical projection data, both economic and health.
- Nothing to add.
- Nothing to add.
- Everything was connected with the topic.

# Summary

The session had information that was considered of much importance to the students.

How would you improve the session?

- Very dense in content.
- Nothing to add.
- Everything related to the topic.
- Nothing to add.

# Summary

The session was considered to be meeting the expectations and in this sense, there was nothing to improve, despite the content which was considered to be much dense.

Other comments and suggestions

- Concepts about entrepreneurship that were seen in previous modules have overlapped. Perhaps the most novel and important is the importance that some states like Israel give to investment in science and technology. 4% well above the European average.
- None.
- Relationship between trending, the behaviour of companies and regulations from governments.
- No.

# Summary

In general, nothing relevant to add at this point. The only fact was that there were some concepts that were overlapped from the previous modules.



SESSION 5: BUSINESS OPPORTUNITY ANALYSIS - NEW BUSINESS FINANCIAL PLANNING

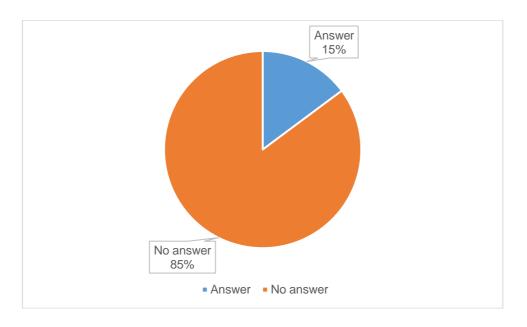


Figure 181 Module 5 Session 5 response %

What were your expectations for this session?

- In line with the others.
- I enjoyed the session and the content.
- Sustainable business strategy.
- Learn about Business strategy for sustainable development.

# Summary

*Expectations were in line to learn more about business strategy and sustainable development.* 

#### Table 30 Level of satisfaction Module 5 Session 5

Please rate your level of satisfaction with the following aspects of the session

	SESSION 5	AVG MODULE 5
Q02->Possibility of students to actively participate	9,5	8,28
Q02->Level of participation of the students	8,75	7,82
Q02->Workload	8	7,53
Q02->Methods / techniques used by trainer(s)	7,75	7,58
Q02->Expertise of the trainer(s)	8,25	8,30
Q02->Performance of the trainer(s)	8,25	7,85
Q02->Logistics and organizational aspects (online platform)	9,25	8,62
Q02->Support materials/resources distributed	9,25	8,30
Q02->Quality of the educational asset	8,5	7,92
Q02->Overall appreciation of the session	8,75	7,92
SESSION	8,63	8,01



*Like the previous session, this session was highly praised by the students, especially because of the participation of the students during the session.* 

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- I had quite a few connection problems.
- Nothing to add.
- No Comments.

# Summary

The session had a few connection problems.

How would you improve the session?

- Very current topic, the need to be more ecological in our production.
- Nothing to add.
- Not watching extra videos at home.
- No Comments.

#### Summary

No improve remarks were made, despite the thematic was considered very interesting.

Other comments and suggestions

- The structure of the teacher's class is interesting. Being able to watch the video after a general talk is a good idea.
- None.
- Overview of the company's strategies related to their sustainable performance.
- Nothing to add

#### Summary

In general, nothing relevant to add at this point. Despite that, the structure of the session was praised.



# MODULE 6: MARKETING AND SALES

SESSION 1: ANALYZING THE MARKETING ENVIRONMENT AND MANAGING MARKETING INFORMATION

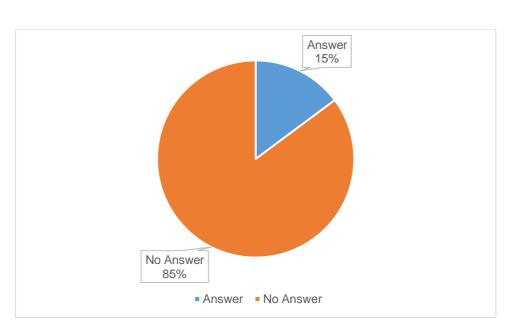


Figure 182 Module 6 Session 1 response %

What were your expectations for this session?

- Very interested in the concept and learning of marketing.
- I enjoyed the session and the contents.
- Marketing environment.
- A How to set a good marketing plan.

# Summary

Students were expecting to learn more about the marketing environment, and how to put to a good use a marketing plan.

#### Table 31 Level of satisfaction Module 6 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 6
Q02->Possibility of students to actively participate	8,5	8,85
Q02->Level of participation of the students	8	8,22
Q02->Workload	8,75	9
Q02->Methods / techniques used by trainer(s)	9,25	9,22
Q02->Expertise of the trainer(s)	9	9,58
Q02->Performance of the trainer(s)	8,75	9,42
Q02->Logistics and organizational aspects (online platform)	9	9,42
Q02->Support materials/resources distributed	8,5	9,42
Q02->Quality of the educational asset	9,25	9,27



Q02->Overall appreciation of the session	9	9,15
SESSION	8,8	9,15

This session was above the average, mainly influenced by the participation of students, as well as performance of the trainers and support materials.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Very interesting new concepts.
- Nothing to add.
- Everything.
- No comments.

#### **Summary**

The students really enjoyed the new concepts that the Professors brought to the session.

How would you improve the session?

- Instructive.
- Nothing to add.
- No comments.
- No comments.

#### Summary

No relevant comments at this point.

Other comments and suggestions

- Marketing, ideas and how to develop a marketing plan to clarify how my company will be or is, whether there are expectations of future benefits.
- No comments.
- No comments.

#### Summary

*In general, nothing relevant to add. Even though the marketing plan and how to make it was considered as very interesting.* 



# SESSION 2: ANALYZING THE MARKETING ENVIRONMENT AND MANAGING MARKETING INFORMATION

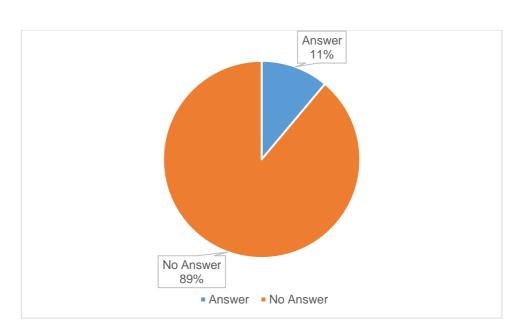


Figure 183 Module 6 Session 2 response %

What were your expectations for this session?

- I enjoyed the session and the contents.
- As in the previous ones, with interest in learning about new concepts.
- Consumer markets.

# **Summary** Students didn't bring different expectations to this session, at this point.

#### Table 32 Level of satisfaction Module 6 Session 2

SESSION 2 AVG MODULE 6 Q02->Possibility of students to actively participate 8,67 8,85 Q02->Level of participation of the students 7,67 8,22 Q02->Workload 9,33 9 Q02->Methods / techniques used by trainer(s) 9 9,22 Q02->Expertise of the trainer(s) 9,67 9,58 Q02->Performance of the trainer(s) 9,33 9,42 Q02->Logistics and organizational aspects (online platform) 9,42 9,67 Q02->Support materials/resources distributed 9,67 9,42 Q02->Quality of the educational asset 9,33 9,27 Q02->Overall appreciation of the session 8,67 9,15 SESSION 9,1 9,15

Please rate your level of satisfaction with the following aspects of the session



BIOHEALTH GEAR BOX ALLIANCE

It was slightly below the average, mainly influenced by the overall appreciation of the session, as well as the level of participation of the students.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Everything related to marketing is new, and the concepts are very general.
- No comments.

#### Summary

The students were pleased with this session since marketing related subjects and concepts are new to some of them.

How would you improve the session?

- Nothing to add.
- They are new concepts and theories and should be given more space in time. Many concepts in a short time.
- No comments.

#### Summary

As stated in other sessions, there were too much information to absorb in such little time. In this sense, students stated that this session could be split.

Other comments and suggestions

- Nothing to add.
- The knowledge of the steps to carry out a marketing plan, already advanced in other classes. But it would necessarily have to develop more slowly.
- No comments.

#### Summary

As referred before, the short time to embrace all information was indicated by the students as the big handicap of this session.



# SESSION 4: CREATING A CUSTOMER-DRIVEN MARKETING MIX I

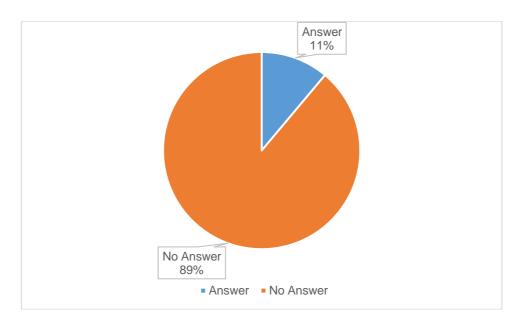


Figure 184 Module 6 Session 4 response %

What were your expectations for this session?

- I enjoyed the session and the contents.
- Continued with new ideas and marketing concepts.
- Learn about the different marketing strategies to promote a product.

# Summary

The expectations for this session were regarding the marketing strategies and product promotion.

#### Table 33 Level of satisfaction Module 6 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 6
Q02->Possibility of students to actively participate	8,33	8,85
Q02->Level of participation of the students	7,67	8,22
Q02->Workload	8,67	9
Q02->Methods / techniques used by trainer(s)	9,33	9,22
Q02->Expertise of the trainer(s)	10	9,58
Q02->Performance of the trainer(s)	10	9,42
Q02->Logistics and organizational aspects (online platform)	9,67	9,42
Q02->Support materials/resources distributed	9,67	9,42
Q02->Quality of the educational asset	9	9,27
Q02->Overall appreciation of the session	9,33	9,15
SESSION	9,17	9,15

#### Summary

Slightly above the average, with two grades of "10" (expertise and performance of the trainers) being influential at this point.





Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Arminda has managed to energize the class.
- Nothing to add.
- Everything, the different strategies to sell a product in the market.

#### Summary

The students really enjoyed the Professors, as well as the strategies that were brought during the sessions.

How would you improve the session?

- Nothing to add.
- No comments.
- No comments.

# Summary

No relevant comments at this point.

Other comments and suggestions

- Nothing to add.
- New concepts of Marketing Mix, product and brand image development, wellstructured and very good participation of the teacher in the rooms.
- Strategies and analysis of different players in the market and ways to promote the product.

#### Summary

*In general, the new concepts were praised since most of the students were not related to this concept.* 



SESSION 6: CREATING A CUSTOMER-DRIVEN MARKETING MIX I

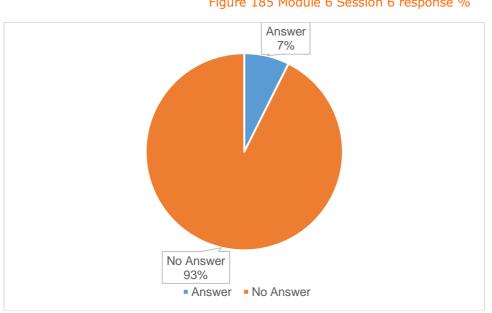


Figure 185 Module 6 Session 6 response %

What were your expectations for this session?

- I enjoyed the practical and dynamic way this session was introduced.
- With interest to expand knowledge.

#### Summary

The expectations for this session were on the way to expand the knowledge related to the marketing practices, in connection to what was brought in the past sessions.

#### Table 34 Level of satisfaction Module 6 Session 6

Please rate your level of satisfaction with the following aspects of the session

	SESSION 6	AVG MODULE 6
Q02->Possibility of students to actively participate	10	8,85
Q02->Level of participation of the students	9,5	8,22
Q02->Workload	9,5	9
Q02->Methods / techniques used by trainer(s)	9,5	9,22
Q02->Expertise of the trainer(s)	9,5	9,58
Q02->Performance of the trainer(s)	9,5	9,42
Q02->Logistics and organizational aspects (online platform)	9,5	9,42
Q02->Support materials/resources distributed	9,5	9,42
Q02->Quality of the educational asset	9,5	9,27
Q02->Overall appreciation of the session	9,5	9,15
SESSION	9,55	9,15

#### Summary

This session was above the average of the module, with just one aspect being under the average.



200

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.
- Expansion of the different stages of a marketing plan.

#### Summary

The marketing plan and its stages were considered the more relevant part of this session.

How would you improve the session?

- Nothing to add.
- No comments.

#### Summary

No relevant comments at this point.

Other comments and suggestions

- Nothing to add.
- Information on the marketing mix, on the image of the product and how to improve its introduction and perception. The opportunities that the teacher has offered for each group to express their doubts and she solves each case to expand the marketing plan to be presented.

#### Summary

In general, the concept of marketing mix was very important. It is also important to point out that the Professors support and clearance when answering to questions and doubts from the students was highly praised.



# SESSION 8: THE MARKETING PLAN EVALUATION



Figure 186 Module 6 Session 8 response %

What were your expectations for this session?

- In line with module 6. -
- Wanting to see the work of colleagues.
- I was not present in the session but had later access to the materials and enjoyed them.
- Learn about the marketing plan the parts missing. -

#### Summary

The expectations for this session were to continue to develop the marketing plan and how to improve it.

#### Table 35 Level of satisfaction Module 6 Session 8

Please rate your level of satisfaction with the following aspects of the session

	SESSION 8	AVG MODULE 6
Q02->Possibility of students to actively participate	8,75	8 <i>,</i> 85
Q02->Level of participation of the students	8,25	8,22
Q02->Workload	8,75	9
Q02->Methods / techniques used by trainer(s)	9	9,22
Q02->Expertise of the trainer(s)	9,75	9,58
Q02->Performance of the trainer(s)	9,5	9,42
Q02->Logistics and organizational aspects (online platform)	9,25	9,42
Q02->Support materials/resources distributed	9,75	9,42
Q02->Quality of the educational asset	9,25	9,27
Q02->Overall appreciation of the session	9,25	9,15
SESSION	9,15	9,15



# <u>202</u>

This session was considered on the average. The aspects never shifted much from one another.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Arminda's support and participation.
- Very interesting, and enriching.
- Nothing to add.
- Everything ok and related to the topic.

#### Summary

The session was in plan with the previous ones. The Professors were praised for their support and participation, making this session interesting and enriching for the students.

How would you improve the session?

- More time to perform exercises.
- A great effort from the teachers and colleagues.
- Nothing to add.
- It was very good, and the performance of the teacher was great.

#### Summary

More time to execute the exercises was pointed by the students. Despite that fact, no relevant comments at this point.

Other comments and suggestions

- A good participation from the teacher, the time she has allowed in the rooms has been enough and her explanations and ideas are very good.
- All the presentations have been excellent, from my point of view.
- Nothing to add.
- The product, sales, branding and marketing channels of your products.

#### Summary

This session was interesting because it pointed out situations that most of the students don't work in their companies. In this sense the session brought them tools for the enhancement of their products.



# MODULE 7: ENTREPRENEURIAL FINANCES AND INVESTMENT

# SESSION 7.1: FUNDAMENTALS OF CORPORATE AND ENTREPRENEURIAL FINANCES

 Answered
 • Not Answered

Figure 187 Module 7 Session 1 response %

- / ///

What were your expectations for this session?

- How to sell your idea to be funded, explain the milestone and organise the project to work. Create a history.
- I did not know Antonio, and finances are not my fav topic, so I had no idea about the scope of the session nor had too many expectations.
- New concepts, I look forward to.
- I was not during the session, but I enjoyed the content covered to which I had access later on.

#### Table 36 Level of satisfaction Module 7 Session 1

	SESSION 7.1	AVG MODULE 7
Q02->Possibility of students to actively participate	8,50	7,64
Q02->Level of participation of the students	8,00	7,22
Q02->Workload	9,00	7,82
Q02->Methods / techniques used by trainer(s)	8,80	8,00
Q02->Expertise of the trainer(s)	9,50	8,36
Q02->Performance of the trainer(s)	9,50	8,04
Q02->Logistics and organizational aspects (online platform)	9,50	8,34
Q02->Support materials/resources distributed	9,50	8,20
Q02->Quality of the educational asset	9,00	7,78
Q02->Overall appreciation of the session	9,02	7,78
SESSION	8,63	7,62

Please rate your level of satisfaction with the following aspects of the session:

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The tutor talked about topics we show in some modules before, it reminded me of the first module. Maybe there was some clarification with the process of milestone but all about the story, sell the feeling, not the product. But the idea of transmitting the way of payment that you prefer was ok, I learnt that new.



- All the content and the way Antonio performed was interesting. Especially his comments about storytelling and the need for a good business plan to find investors. But honestly, all content was relevant for me.
- The knowledge that the teacher has about entrepreneurs.

How would you improve the session?

- In general was ok, and the tutor had a good level of English.
- I think it would be hard to improve it.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- How to sell an idea, how to design the way of payment depending on your product or service.
- The session consisted of a decalogue of advice for entrepreneurs and development of startups, considering the most common mistakes, and putting on the top the importance of a real plan to find investors, the relevance of cash flow and the need for controlling cash inflows and outflows. Also, his opinions about hiring staff, patents, stocks and why and how exit are relevant (and his opinions are the same as mine, in addition). It was like a summary of a lot of topics discussed in the course.
- The knowledge about the process of financing methods for the entrepreneur, as well as the biotechnological market and the financial realities that can be found.
- Antonio's idea is very realistic, if a company doesn't work, it is better to leave it, let it sink.

# Figure 188 Module 7 Session 2 response %

# SESSION 7.2: FINANCIAL AND MANAGERIAL ACCOUNTING PRINCIPLES

What were your expectations for this session?

- Resume of a financial statement with example and definition of terminology.
- Continuing with the training.
- I enjoyed the session and its content.

Table 37 Level of satisfaction Module 7 Session 2



BIOHEALTH GEAR BOX ALLIANCE

	SESSION 7.2	AVG MODULE 7
Q02->Possibility of students to actively participate	6,30	7,64
Q02->Level of participation of the students	6,30	7,22
Q02->Workload	8,00	7,82
Q02->Methods / techniques used by trainer(s)	7,70	8,00
Q02->Expertise of the trainer(s)	8,30	8,36
Q02->Performance of the trainer(s)	7,00	8,04
Q02->Logistics and organizational aspects (online platform)	8,70	8,34
Q02->Support materials/resources distributed	8,70	8,20
Q02->Quality of the educational asset	7,00	7,78
Q02->Overall appreciation of the session	7,00	7,78
SESSION	6,90	7,62

Please rate your level of satisfaction with the following aspects of the session:

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Very difficult topics to understand in one day, related to financial and better to understand with examples instead of with definitions.
- A too complex agenda, for so little time.

How would you improve the session?

- Very heavy information, only useful once the company is set up. The exercise is very difficult if you just have an idea, and it doesn't help to understand well the strategy. I don't know If I would do this by myself when this can be done for an external source expert in the topic. I agree to know the definitions but not with the exercise in which if you have nothing you just must make up numbers, useless.
- Too complex and specialized.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- A lot of economic definitions (tutor didn't speak good English so it was difficult to follow).
- Difficult to capture the sound, and complex accounting issues, very fast presentation. Really the only most useful thing, personal financial experience, and accounting application.

Other comments and suggestions

- Very difficult topic, unrelated to people of bio.

SESSION 7.3: MANAGING THE FINANCES IN A BIOHEALTH COMPANY. FINANCIAL STATEMENTS



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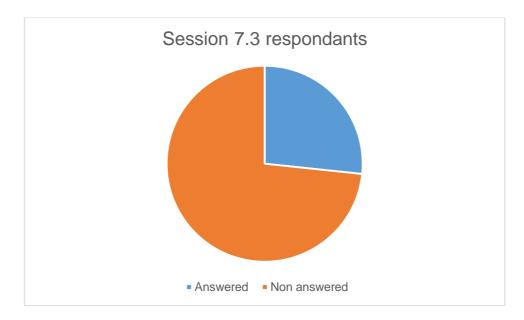


Figure 189 Module 7 Session 3 response %

<u>207</u>

What were your expectations for this session?

- Learn about how to manage the finances inside a BIOHEALTH company.
- Interested in acquiring new knowledge.

#### Table 38 Level of satisfaction Module 7 Session 3

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 7.3	AVG MODULE 7
Q02->Possibility of students to actively participate	7,00	7,64
Q02->Level of participation of the students	6,50	7,22
Q02->Workload	6,50	7,82
Q02->Methods / techniques used by trainer(s)	7,00	8,00
Q02->Expertise of the trainer(s)	7,00	8,36
Q02->Performance of the trainer(s)	7,00	8,04
Q02->Logistics and organizational aspects (online platform)	7,50	8,34
Q02->Support materials/resources distributed	7,00	8,20
Q02->Quality of the educational asset	6,50	7,78
Q02->Overall appreciation of the session	6,50	7,78
SESSION	6,63	7,62

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- We discussed the financial aspect to manage a biohealth company.
- Balance sheet management, profit and loss concepts are too complex for such a short time.

How would you improve the session?

- For this second module, due to its complexity, it would have to be implemented with more hours.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

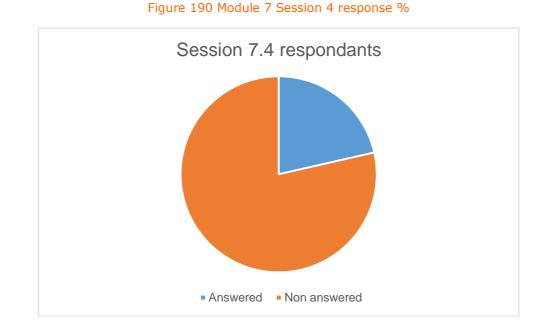


BIOHEALTH GEAR BOX ALLIANCE

- I miss the first test, as soon as class begins, with few concepts learned and too much urgency to evaluate.

Other comments and suggestions

- The syllabus is very specialized, for so few hours of class.



# SESSION 7.4: INTRODUCTION TO FINANCIAL PLANNING

What were your expectations for this session?

- How to organize financial planning.
- I did not know the precise content of the session, nor its differences related to former lectures of the module. Therefore, I did not have any previous expectations.
- Interested.
- I enjoyed the session and the educational content provided.

# Table 39 Level of satisfaction Module 7 Session 4

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 7.4	AVG MODULE 7
Q02->Possibility of students to actively participate	8,20	7,64
Q02->Level of participation of the students	7,80	7,22
Q02->Workload	7,80	7,82
Q02->Methods / techniques used by trainer(s)	8,50	8,00
Q02->Expertise of the trainer(s)	8,50	8,36
Q02->Performance of the trainer(s)	8,50	8,04
Q02->Logistics and organizational aspects (online platform)	7,80	8,34
Q02->Support materials/resources distributed	7,80	8,20
Q02->Quality of the educational asset	8,20	7,78
Q02->Overall appreciation of the session	8,20	7,78
SESSION	8,00	7,62



Please provide comments on the topics or aspects you have found more and less relevant or interesting

- In my opinion, all content was relevant, as the session was planned as a practical approach/summary of financial considerations to consider in our projects.
- The final practical part is very interesting.

How would you improve the session?

- Maybe it would be a good idea to the extent of het session to have a practical approach to our specific projects.
- Very good.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- We talked about the aspect of planning a financial plan in a biohealth company.
- During the lesson, Antonio made some comments very useful for me about how to plan a project from a financial perspective, and which topics should be prioritized. Using as an example the case of a start-up from Granada, he taught us how to plan the development and launching of a new product.
- The exercise carried out based on the entrepreneur, very interesting. But the platform has failed to send the data.

Other comments and suggestions

- The exercises to be carried out during the class should be included in the platform beforehand.



🔊 Bio-All

SESSION 7.5: FUNDING SOURCES IN THE BIOHEALTH SECTOR. NEW VENTURES VALUATION

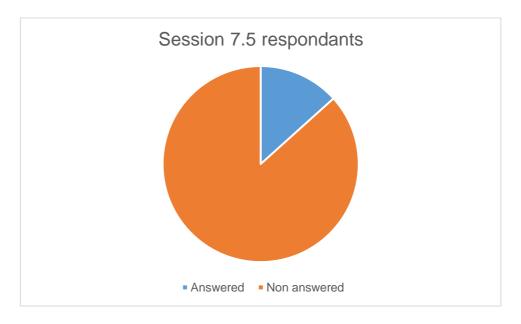


Figure 191 Module 7 Session 5 response %

What were your expectations for this session?

- Discuss different funding sources.
- Former session was super for me, so I had high expectations also for this class.
- New concepts, wanting to expand.
- I enjoyed the session and the educational content, as well as the interactive way it was delivered.

#### Table 40 Level of satisfaction Module 7 Session 5

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 7.5	AVG MODULE 7
Q02->Possibility of students to actively participate	8,20	7,64
Q02->Level of participation of the students	7,50	7,22
Q02->Workload	7,80	7,82
Q02->Methods / techniques used by trainer(s)	8,00	8,00
Q02->Expertise of the trainer(s)	8,50	8,36
Q02->Performance of the trainer(s)	8,20	8,04
Q02->Logistics and organizational aspects (online platform)	8,20	8,34
Q02->Support materials/resources distributed	8,00	8,20
Q02->Quality of the educational asset	8,20	7,78
Q02->Overall appreciation of the session	8,20	7,78
SESSION	7,93	7,62

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- In my opinion, most of Ivan's comments are relevant, as he always provides a realistic but positive view about investments and the lifecycle of startups.
- The idea of the valley of death already developed previously, and the problems to start in entrepreneurship.



How would you improve the session?

- Maybe with more discussion and participation from students, using their cases as an example.
- Very good.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- Ivan discussed a lot of topics about financing projects in the biohealth sector, including a description of how investments from venture capital work and what they look and do not look for. He also talked about the feasibility of a new project and how it is critical for investors. The most interesting topic was the very detailed description of the funding sources for startups, how the investment process works and its main steps. He explained the valley of death of startups (as in the case of the 7.4 sessions) and how to move from the present value to the terminal value of a company.
- The special problem that biohealth companies have in their creation and beginnings, the risks in a classical economy. And the real valuation systems of my project to obtain good initial financing.

Other comments and suggestions

- My only suggestion is to try to find a way to increase the level of participation of students.
- Nothing else, very nice the teacher of this module.

MODULE 8: HUMAN RESOURCES AND TEAM MANAGEMENT



# SESSION 1: BASIC CONCEPTS OF ETHICS THROUGHOUT PRODUCT DEVELOPMENT

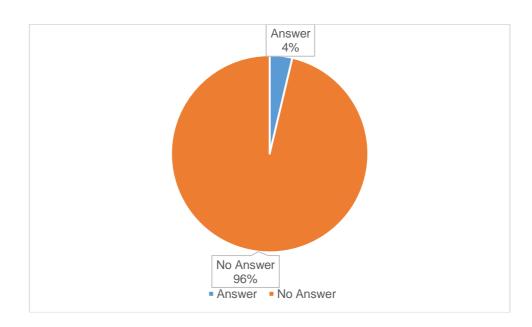


Figure 192 Module 8 Session 1 response %

What were your expectations for this session?

- I enjoyed the session and the contents

#### Summary

The session was seen by the students with high expectation.

# Table 41 Level of satisfaction Module 8 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 8
Q02->Possibility of students to actively participate	10	9,5
Q02->Level of participation of the students	10	9,6
Q02->Workload	10	9,7
Q02->Methods / techniques used by trainer(s)	10	9,5
Q02->Expertise of the trainer(s)	10	9,4
Q02->Performance of the trainer(s)	10	9,1
Q02->Logistics and organizational aspects (online platform)	10	9,6
Q02->Support materials/resources distributed	10	9,4
Q02->Quality of the educational asset	10	9,6
Q02->Overall appreciation of the session	10	9,6
SESSION	10	9,5



### Summary

Higher that the average of the module. The lack of answers harmed the results.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

Very interesting.

### Summary

No greater remarks, despite the session being considered very interesting.

How would you improve the session?

- No comments.

**Summary** *No greater remarks.* 

Other comments and suggestions

- Nothing to add.

### Summary

*In general, the students liked the kind of experience and knowledge of the Professors.* 



### SESSION 2: THE INDIVIDUAL BEHAVIOUR INSIDE THE COMPANY

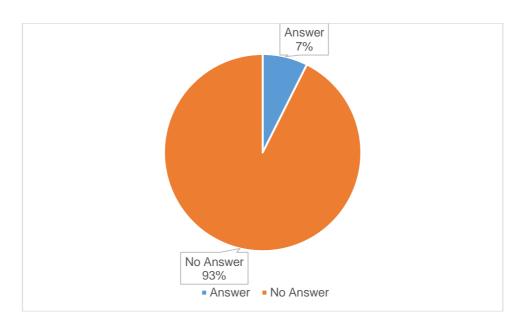


Figure 193 Module 8 Session 2 response %

What were your expectations for this session?

- A new agenda, wanting to see its development.
- I enjoyed the session, the contents, and the dynamic way they were taught.

### Summary

The expectations for the session were high, regarding the new agenda and its development.

### Table 42 Level of satisfaction Module 8 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 8
Q02->Possibility of students to actively participate	9,5	9,5
Q02->Level of participation of the students	9,5	9,6
Q02->Workload	9	9,7
Q02->Methods / techniques used by trainer(s)	9	9,5
Q02->Expertise of the trainer(s)	9,5	9,4
Q02->Performance of the trainer(s)	9	9,1
Q02->Logistics and organizational aspects (online platform)	9,5	9,6
Q02->Support materials/resources distributed	8,5	9,4
Q02->Quality of the educational asset	9	9,6
Q02->Overall appreciation of the session	9	9,6
SESSION	9,15	9,5



### Summary

Below the average of the Module. The appreciation the students in this session as well as in this module was affected by the lack of answers.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Business organizations and their relationship with their workers.
- Nothing to add.

### Summary

The topics were relevant and interesting, especially regarding business organizations and their relationship with their workers.

How would you improve the session?

- Nothing to add.
- Good.

**Summary** *No further remarks.* 

Other comments and suggestions

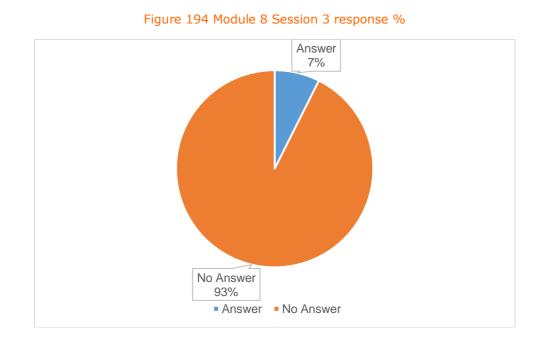
- Organizational management, and relations between workers and management. Different psychological profiles and very interesting the final debate between colleagues.
- Nothing to add.

### Summary

In general, the session was highly praised, and the final debate between colleagues was regarded as very interesting.



SESSION 3: TEAMS CONFLICT MANAGEMENT, COMPENSATION, AND INCENTIVES



What were your expectations for this session?

- In line with others.
- I was not present, but I saw the contents taught later and I found it very interesting.

### Summary

The session was expected to be in line with the previous ones.

### Table 43 Level of satisfaction Module 8 Session 3

Please rate your level of satisfaction with the following aspects of the session

	SESSION 3	AVG MODULE 8
Q02->Possibility of students to actively participate	9	9,5
Q02->Level of participation of the students	9,5	9,6
Q02->Workload	9,5	9,7
Q02->Methods / techniques used by trainer(s)	8,5	9,5
Q02->Expertise of the trainer(s)	8,5	9,4
Q02->Performance of the trainer(s)	8,5	9,1
Q02->Logistics and organizational aspects (online platform)	9,5	9,6
Q02->Support materials/resources distributed	9,5	9,4
Q02->Quality of the educational asset	9	9,6
Q02->Overall appreciation of the session	9	9,6
SESSION	9,05	9,5

### Summary

At this time the session held an average of satisfaction below the average of the module. As stated in the other sessions, the lack of answers harmed the evaluation.



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Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Not only business management concepts but also psychology.
- Nothing to add.

### Summary

The session was praised because it related not only with management but with psychology.

How would you improve the session?

- Nothing to add.
- Nothing to add.

**Summary** *Students praised the session, having nothing to add.* 

Other comments and suggestions

- A great approach to concepts of individual psychology, the behaviour of individuals in the company and ways of knowing how to act in the work environment.
- Nothing to add.

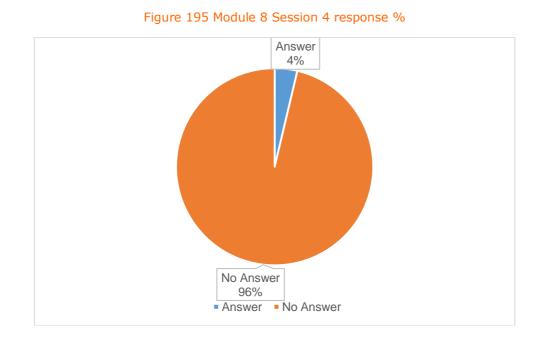
### Summary

In general, the students liked the session and the new concepts related with psychology which were brought to the session.



BIOHEALTH GEAR BOX ALLIANCE

### SESSION 4: ORGANIZATIONAL ASPECTS OF THE HUMAN RESOURCES AND NEGOTIATION



What were your expectations for this session?

- I was not present in the sessions, but watched the contents later, and found them to be very interesting.

### Summary

The session had no answers regarding the expectations.

### Table 44 Level of satisfaction Module 8 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 8
Q02->Possibility of students to actively participate	9	9,5
Q02->Level of participation of the students	9	9,6
Q02->Workload	10	9,7
Q02->Methods / techniques used by trainer(s)	10	9,5
Q02->Expertise of the trainer(s)	10	9,4
Q02->Performance of the trainer(s)	9	9,1
Q02->Logistics and organizational aspects (online platform)	9	9,6
Q02->Support materials/resources distributed	9	9,4
Q02->Quality of the educational asset	10	9,6
Q02->Overall appreciation of the session	10	9,6
SESSION	9,5	9,5

### Summary

The average of the module and the average of the session were equals.



### <u>218</u>

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Not only business management concepts but also psychology.
- Nothing to add.

### Summary

The session was praised because it related not only with management but with psychology.

How would you improve the session?

- Nothing to add.

Summary

Students praised the session, having nothing to add.

Other comments and suggestions

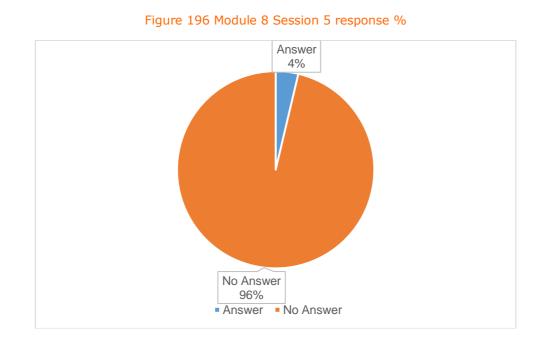
- Nothing to add.

### Summary

In general, the students liked the session having nothing to add in this point.



### SESSION 5: EFFECTIVE LEADERSHIP



What were your expectations for this session?

I was not present in the sessions, but watched the contents later, and found them to be very interesting.

### Summary

The session had no answers regarding the expectations.

### Table 45 Level of satisfaction Module 8 Session 5

Please rate your level of satisfaction with the following aspects of the session

	SESSION 5	AVG MODULE 8
Q02->Possibility of students to actively participate	10	9,5
Q02->Level of participation of the students	10	9,6
Q02->Workload	10	9,7
Q02->Methods / techniques used by trainer(s)	10	9,5
Q02->Expertise of the trainer(s)	9	9,4
Q02->Performance of the trainer(s)	9	9,1
Q02->Logistics and organizational aspects (online platform)	10	9,6
Q02->Support materials/resources distributed	10	9,4
Q02->Quality of the educational asset	10	9,6
Q02->Overall appreciation of the session	10	9,6
SESSION	9,8	9,5

### Summary

The session held an average of satisfaction above the average of the module.

Please provide comments on the topics or aspects you have found more and less relevant or interesting



- Nothing to add.

### Summary

No answers were given.

How would you improve the session?

- Nothing to add.

### Summary

Students praised the session, having nothing to add.

Other comments and suggestions

- Nothing to add.

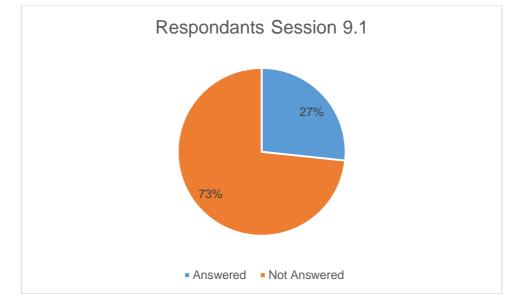
### Summary

In general, the students liked the session having nothing to add in this point.

MODULE 9: Ethics and regulation in the biohealth sector



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### SESSION 9.1: INTRODUCTION TO ETHICS IN THE BIOHEALTH ORGANIZATIONS

Figure 197 Module 9 Session 1 response %

What were your expectations for this session?

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- I am not familiar with the topic, so I had a curiosity about the content of the session.
- Interested.
- I was not present in this session, but later saw the video and the presentation, and I enjoyed the contents.
- I was not present in the session but saw the contents taught about ethics and regulamentation and found them very interesting.

### Table 46 Level of satisfaction Module 9 Session 1

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 9.1	AVG MODULE 9
Q02->Possibility of students to actively participate	9,00	9,08
Q02->Level of participation of the students	8,80	9,17
Q02->Workload	8,80	9,12
Q02->Methods / techniques used by trainer(s)	9,20	9,37
Q02->Expertise of the trainer(s)	9,00	9,38
Q02->Performance of the trainer(s)	9,20	9,17
Q02->Logistics and organizational aspects (online platform)	8,80	9,30
Q02->Support materials/resources distributed	8,80	9,17
Q02->Quality of the educational asset	9,00	9,53
Q02->Overall appreciation of the session	9,20	9,32
SESSION	8,95	9,17

Please provide comments on the topics or aspects you have found more and less relevant or interesting



 All the content was relevant for me. The most interesting topic was the discussion of the limits of global ethical considerations and the final comparison between European and American health care systems.

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- All ethical aspects in medicine.

How would you improve the session?

- Maybe with more challenging examples of ethical implications and the use of examples not related to COVID (maybe about other practices in biohealth markets not carried out at hospitals).
- Interesting.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- Aurora made a general overview of the module and the basic principles of ethics in the biohealth market and clinical practices. Several examples and considerations were made about the limits and general assumptions, with a practical exercise focused on the criteria to prioritize the acceptance of some people before others in ICUs. At the end of the session, Laia Vazquez made a short presentation about the ethical considerations in the relationship between physicians and patients and the differences among health care systems in the EU and the US.
- The ethical management in medicine, the problems that arise in the information that should or should not be given to the patient. And the management of the new pandemic and its global problems.

Other comments and suggestions

- Lessons should be shorter and include lectures/bibliography (to do at home) to discuss the following day.



#### <u>224</u>

### SESSION 9.2: BUSINESS ETHICS AND REGULATION. THE ECOPRENEURSHIP

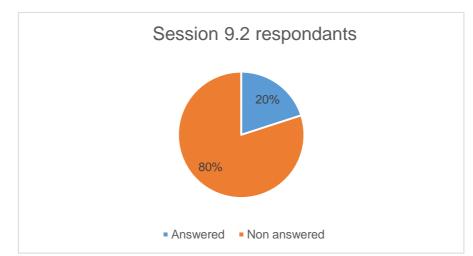


Figure 198 Module 9 Session 2 response %

What were your expectations for this session?

- As in previous days.
- I was not present, but I saw the contents taught later and I found it very interesting.
- I was not present, but I saw the contents taught later and I found it very interesting.

### Table 47 Level of satisfaction Module 9 Session 2

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 9.2	AVG MODULE 9
Q02->Possibility of students to actively participate	8,70	9,08
Q02->Level of participation of the students	8,70	9,17
Q02->Workload	9,00	9,12
Q02->Methods / techniques used by trainer(s)	9,00	9,37
Q02->Expertise of the trainer(s)	9,30	9,38
Q02->Performance of the trainer(s)	9,30	9,17
Q02->Logistics and organizational aspects (online platform)	9,30	9,30
Q02->Support materials/resources distributed	9,30	9,17
Q02->Quality of the educational asset	9,70	9,53
Q02->Overall appreciation of the session	9,00	9,32
SESSION	8,85	9,17

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Ethical Aspects and Their Framing in Business.

How would you improve the session?

- The taught material is too dense.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

 Ethics and its management in business, human rights, data protection and example of cases such as LOCKHEED.



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# SESSION 9.3: ETHICS AND REGULATION IN MEDICINE PRODUCTS AND SERVICES DEVELOPMENT

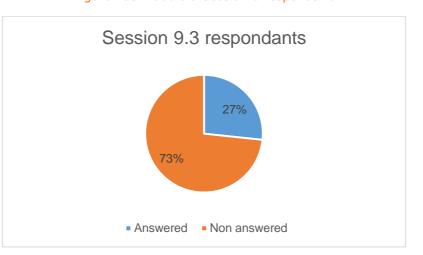


Figure 199 Module 9 Session 3 response %

What were your expectations for this session?

- Very interested.

### Table 48 Level of satisfaction Module 9 Session 3

	SESSION 9.3	AVG MODULE 9
Q02->Possibility of students to actively participate	9,00	9,08
Q02->Level of participation of the students	9,30	9,17
Q02->Workload	8,70	9,12
Q02->Methods / techniques used by trainer(s)	9,30	9,37
Q02->Expertise of the trainer(s)	9,70	9,38
Q02->Performance of the trainer(s)	8,70	9,17
Q02->Logistics and organizational aspects (online platform)	9,00	9,30
Q02->Support materials/resources distributed	8,70	9,17
Q02->Quality of the educational asset	9,00	9,53
Q02->Overall appreciation of the session	9,00	9,32
SESSION	9,00	9,17

Please rate your level of satisfaction with the following aspects of the session:

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Ethics in industry.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

 Ethics, idealism, personal position before problems and business position Criminal responsibility and ethical principles in business behaviour.

### SESSION 9.4: PHARMACEUTICAL INDUSTRY ETHICS AND REGULATION

What were your expectations for this session?

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## Interested.

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### Table 49 Level of satisfaction Module 9 Session 4

	SESSION 9.4	AVG MODULE 9
Q02->Possibility of students to actively participate	9,30	9,08
Q02->Level of participation of the students	9,70	9,17
Q02->Workload	9,70	9,12
Q02->Methods / techniques used by trainer(s)	9,70	9,37
Q02->Expertise of the trainer(s)	9,30	9,38
Q02->Performance of the trainer(s)	9,30	9,17
Q02->Logistics and organizational aspects (online platform)	9,70	9,30
Q02->Support materials/resources distributed	9,70	9,17
Q02->Quality of the educational asset	10,00	9,53
Q02->Overall appreciation of the session	9,70	9,32
SESSION	9,60	9,17

Please rate your level of satisfaction with the following aspects of the session:

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- A very interesting and enjoyable lesson.

How would you improve the session?

- The option to develop the current issue of COVID has been very successful.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- The pharmaceutical industry, its legal and regulatory procedures, as well as everything related to the management of current vaccines, their control, and procedures.

Other comments and suggestions

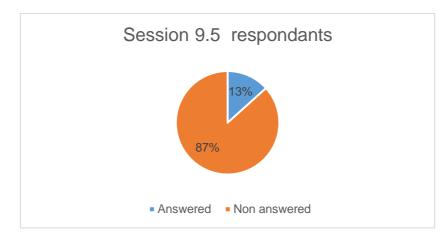
- A great level by the teacher, very pleasant and constructive.



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### SESSION 9.5: ETHICS AND REGULATORY ASPECTS IN FOOD INDUSTRY

Figure 200 Module 9 Session 5 response %



What were your expectations for this session?

### - To learn more about industrial food regulation.

#### Table 50 Level of satisfaction Module 9 Session 5

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 9.5	AVG MODULE 9
Q02->Possibility of students to actively participate	9,50	9,08
Q02->Level of participation of the students	9,50	9,17
Q02->Workload	9,50	9,12
Q02->Methods / techniques used by trainer(s)	9,50	9,37
Q02->Expertise of the trainer(s)	9,50	9,38
Q02->Performance of the trainer(s)	9,50	9,17
Q02->Logistics and organizational aspects (online platform)	9,50	9,30
Q02->Support materials/resources distributed	9,50	9,17
Q02->Quality of the educational asset	10,00	9,53
Q02->Overall appreciation of the session	10,00	9,32
SESSION	9,63	9,17

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The teacher was very easy to understand, she explained well, she let us participate in a very active way and she was very open to debate. The lesson was very interesting to me, and it offered to me all the things that I was expecting from it. I enjoyed it.

How would you improve the session?

I don't have any comments, I liked it.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

 The teacher introduces the topic, she was explaining how industry create reclaims about health or special properties on food, how regulation allows this kind of pr and she guided us through the path of learning how to differentiate ethical from unethical behaviour and technics used by the food industry.

Other comments and suggestions

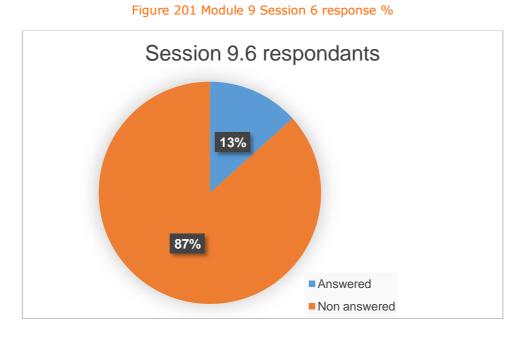


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- Thank you for the lesson.

SESSION 9.6: ETHICS AND REGULATION IN CHEMICAL INDUSTRY: TOXICOLOGICAL ASPECTS. THE CASE OF PESTICIDES

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What were your expectations for this session?

- No comments.

### Table 51 Level of satisfaction Module 9 Session 6

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 9.6	AVG MODULE 9
Q02->Possibility of students to actively participate	9,00	9,08
Q02->Level of participation of the students	9,00	9,17
Q02->Workload	9,00	9,12
Q02->Methods / techniques used by trainer(s)	9,50	9,37
Q02->Expertise of the trainer(s)	9,50	9,38
Q02->Performance of the trainer(s)	9,00	9,17
Q02->Logistics and organizational aspects (online platform)	9,50	9,30
Q02->Support materials/resources distributed	9,00	9,17
Q02->Quality of the educational asset	9,50	9,53
Q02->Overall appreciation of the session	9,00	9,32
SESSION	9,00	9,17

Please provide comments on the topics or aspects you have found more and less relevant or interesting

No comments.

How would you improve the session?

No comments.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- No comments.





Other comments and suggestions

- No comments.

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### MODULE 10: CORPORATE SUSTAINABILITY

### SESSION 1: SUSTAINABLE DEVELOPMENT

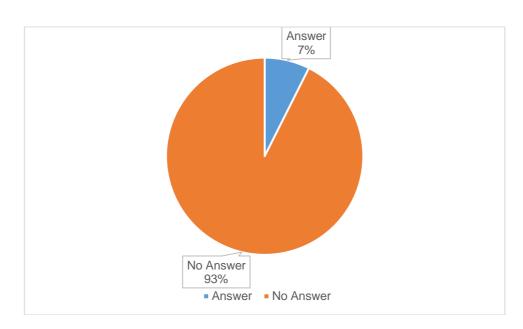


Figure 202 Module 10 Session 1 response %

What were your expectations for this session?

- In line with the rest of the course.
- I was not present, but I saw the contents taught later on sustainability and I found it very interesting.

### Summary

For this session the students were expecting to have a session in line with the previous sessions.

### Table 52 Level of satisfaction Module 10 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 10
Q02->Possibility of students to actively participate	7	8,9
Q02->Level of participation of the students	8	8,9
Q02->Workload	8	9,1
Q02->Methods / techniques used by trainer(s)	8,5	9,1
Q02->Expertise of the trainer(s)	9	9,3
Q02->Performance of the trainer(s)	8,5	9,3
Q02->Logistics and organizational aspects (online platform)	9	9,3
Q02->Support materials/resources distributed	9	9,5
Q02->Quality of the educational asset	8,5	8,9
Q02->Overall appreciation of the session	8	8,9
SESSION	8,35	9,1



### Summary

Session with lower results than the average of the Module. The results could be influenced by the lower participation of the students.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The general concepts of sustainability.
- Nothing to comment.

### Summary

The students considered that the general concepts of sustainability were relevant.

How would you improve the session?

- Business opportunities in new sustainable markets. Sustainability and commitment of companies to improve their social impact.
- No comments.

### Summary

The students reflected on the introduction of more information on sustainability regarding new sustainable markets.

Other comments and suggestions

- Too long, too much theory.
- Nothing to add.

**Summary** In general, the students stated that this session was too much theoretical.



### SESSION 2: CORPORATE SUSTAINABILITY

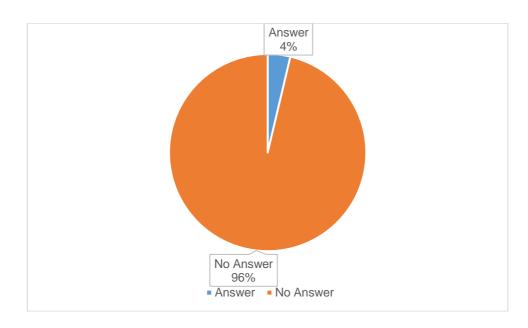


Figure 203 Module 10 Session 2 response %

What were your expectations for this session?

I was not present in the sessions, but watched the contents later, and found them to be very interesting.

### Summary

For this session nothing relevant to add regarding the students' expectations.

### Table 53 Level of satisfaction Module 10 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 10
Q02->Possibility of students to actively participate	9	8,9
Q02->Level of participation of the students	9	8,9
Q02->Workload	10	9,1
Q02->Methods / techniques used by trainer(s)	10	9,1
Q02->Expertise of the trainer(s)	10	9,3
Q02->Performance of the trainer(s)	10	9,3
Q02->Logistics and organizational aspects (online platform)	10	9,3
Q02->Support materials/resources distributed	10	9,5
Q02->Quality of the educational asset	9	8,9
Q02->Overall appreciation of the session	9	8,9
SESSION	9,6	9,1



### Summary

*Higher evaluation that the average of the module. All aspects were considered above the average as well.* 

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.

### Summary

No remarks were made.

How would you improve the session?

- Nothing to add.

### Summary

No comments were made by the students.

Other comments and suggestions

- Nothing to add.

## Summary

No remarks were made.



### SESSION 3: CORPORATE SUSTAINABILITY STRATEGY

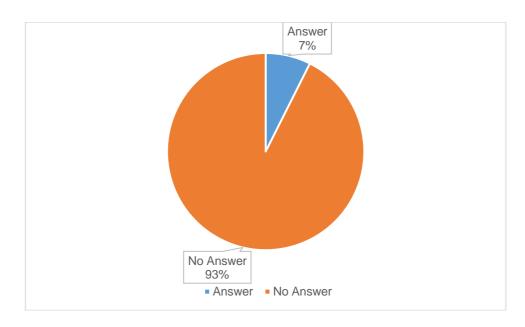


Figure 204 Module 10 Session 3 response %

<u>234</u>

What were your expectations for this session?

- Expectant.
- I was not present, but I saw the contents taught later on sustainability, and I found it very interesting.

### Summary

The students had a high expectation of this session.

#### Table 54 Level of satisfaction Module 10 Session 3

Please rate your level of satisfaction with the following aspects of the session

	SESSION 3	AVG MODULE 10
Q02->Possibility of students to actively participate	9,5	8,9
Q02->Level of participation of the students	9	8,9
Q02->Workload	9	9,1
Q02->Methods / techniques used by trainer(s)	9	9,1
Q02->Expertise of the trainer(s)	9	9,3
Q02->Performance of the trainer(s)	9,5	9,3
Q02->Logistics and organizational aspects (online platform)	9	9,3
Q02->Support materials/resources distributed	9,5	9,5
Q02->Quality of the educational asset	8,5	8,9
Q02->Overall appreciation of the session	9	8,9
SESSION	9,1	9,1

### Summary

This time the session was graded in consonance with the average of the module. The active participation of the students was highly praised.





Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing new to contribute, a very approachable teacher.
- Nothing to add.

### Summary

This session was considered interesting, and the Professor was very praised.

How would you improve the session?

- No comments.
- The knowledge provided has already been reviewed previously, the class is more of a reinforcement of what has already been learned.

Summary

No relevant comments were made by the students.

Other comments and suggestions

- Ecology, the business world, efforts to be more competitive but not to abandon the path of sustainability, create a working environment, committed to the challenges of the UN.
- No Comments.

### Summary

*In general, the subject was praised and the interaction with the Professor was praised. The subject was considered very interesting* 



# SESSION 4: CORPORATE SUSTAINABILITY FROM THE ITALIAN SCENARIO LOOKING WORLDWIDE

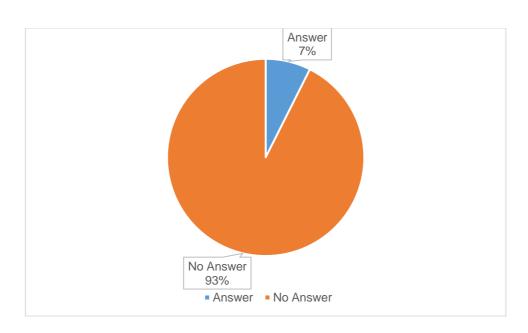


Figure 205 Module 10 Session 4 response %

What were your expectations for this session?

- I was not present in the sessions, but watched the contents later, and found them to be very interesting.

### Summary

For this session the students were expecting an interesting session in the sequence of the previous ones of this module.

### Table 55 Level of satisfaction Module 10 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 10
Q02->Possibility of students to actively participate	10	8,9
Q02->Level of participation of the students	9,5	8,9
Q02->Workload	9,5	9,1
Q02->Methods / techniques used by trainer(s)	9	9,1
Q02->Expertise of the trainer(s)	9	9,3
Q02->Performance of the trainer(s)	9	9,3
Q02->Logistics and organizational aspects (online platform)	9	9,3
Q02->Support materials/resources distributed	9,5	9,5
Q02->Quality of the educational asset	9,5	8,9
Q02->Overall appreciation of the session	9,5	8,9
SESSION	9,35	9,1



### Summary

This session was again graded higher than the average, again with the possibility of participation of the students influencing the results.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Very pleasant, friendly and cordial teacher.
- No comments.

### Summary

*This session was considered very interesting by the students and the Professor praised for his teaching skills.* 

How would you improve the session?

- Sustainability, the most important aspects of greener management in the company, and the challenges to become greener.
- No comments.

### Summary

At this time, students stated that the approach to sustainability was good, regarding the challenges to become greener.

Other comments and suggestions

- Nothing to add.
- No comments.

Summary

In general, the session was praised in sequence to the other sessions of this module.



### MODULE 11: INTERNATIONAL BUSINESS

### SESSION 11.1: INTERNATIONAL BUSINESSES: THE CONTEXT AND THE OPPORTUNITIES

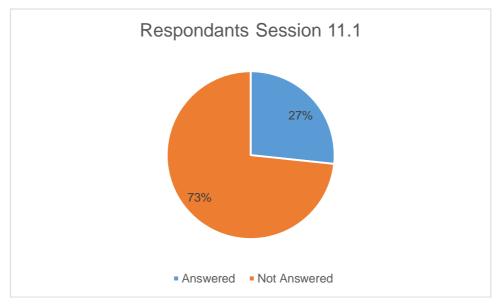


Figure 206 Module 11 Session 1 response %

What were your expectations for this session?

- Understand the difficulties associated with the international market.
- It is a very interesting topic.

### Table 56 Level of satisfaction Module 11 Session 1

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 11.1	AVG MODULE 11
Q02->Possibility of students to actively participate	10,00	9,33
Q02->Level of participation of the students	9,20	9,08
Q02->Workload	8,20	6,68
Q02->Methods / techniques used by trainer(s)	9,00	9,08
Q02->Expertise of the trainer(s)	9,50	9,35
Q02->Performance of the trainer(s)	9,50	9,33
Q02->Logistics and organizational aspects (online platform)	9,20	9,08
Q02->Support materials/resources distributed	9,00	8,93
Q02->Quality of the educational asset	9,20	9,18
Q02->Overall appreciation of the session	9,00	9,05
SESSION	9,10	8,53

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Understanding the different strategies to work with other organizations.
- Very current topic, vaccines, pharmaceuticals, patent rights. How would you improve the session?
- Nothing to add.



Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- The current situation in the world due to the pandemic, as well as the current biotechnological market with very recent data from the studies.

Other comments and suggestions

 Mentors should take into consideration the number of homework tasks, as we are not all exclusively attending the MBA and for many, this is not a master, but a postgraduation course.

### SESSION 11.2: THE INTERNATIONALIZATION PLAN: DESIGN AND KEY FACTORS

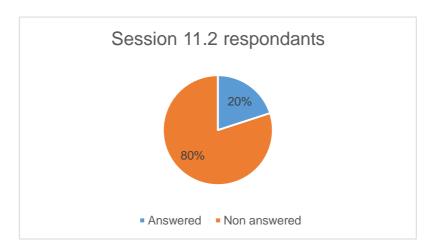


Figure 207 Module 11 Session 2 response %

What were your expectations for this session?

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- Prepared.
- I enjoyed the content covered and that we had access to.

### Table 57 Level of satisfaction Module 11 Session 2

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 11.2	AVG MODULE 11
Q02->Possibility of students to actively participate	9,00	9,33
Q02->Level of participation of the students	9,00	9,08
Q02->Workload	9,00	6,68
Q02->Methods / techniques used by trainer(s)	9,00	9,08
Q02->Expertise of the trainer(s)	9,00	9,35
Q02->Performance of the trainer(s)	9,00	9,33
Q02->Logistics and organizational aspects (online platform)	9,00	9,08
Q02->Support materials/resources distributed	8,70	8,93
Q02->Quality of the educational asset	9,30	9,18
Q02->Overall appreciation of the session	9,00	9,05
SESSION	9,00	8,53

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The second part was very interesting, the first part was too fast.



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How would you improve the session?

- Too much speed and intention to introduce new concepts.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- Internationalization company and second part trade aspects NGO's.

Other comments and suggestions

 Too little time of exposition, too many concepts for the task that they demand in jobs. It is very difficult in three weeks to complete all the workload that has been assigned in module 11.

## SESSION 11.3: ADMINISTRATIVE AND THE OPERATIONAL TASK OF THE INTERNATIONAL MARKET

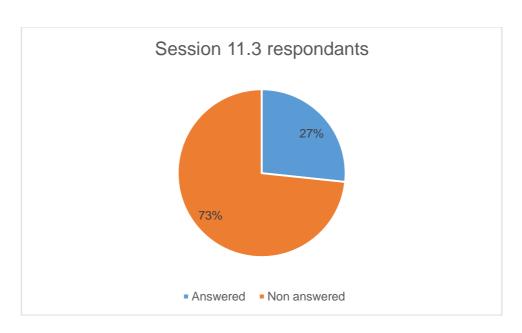


Figure 208 Module 11 Session 3 response %

What were your expectations for this session?

- I did not know the content of the session and therefore did not have any expectations.
- Interested.
- I enjoyed the contents presented in this session.

#### Table 58 Level of satisfaction Module 11 Session 3

Please rate your level of satisfaction with the following aspects of the session:

	SESSION 11.3	AVG MODULE 11
Q02->Possibility of students to actively participate	9,00	9,33
Q02->Level of participation of the students	8,80	9,08
Q02->Workload	0,80	6,68
Q02->Methods / techniques used by trainer(s)	9,00	9,08
Q02->Expertise of the trainer(s)	9,20	9,35



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	2	4	

Q02->Performance of the trainer(s)	8,80	9,33
Q02->Logistics and organizational aspects (online platform)	8,80	9,08
Q02->Support materials/resources distributed	9,00	8,93
Q02->Quality of the educational asset	9,20	9,18
Q02->Overall appreciation of the session	9,20	9,05
SESSION	6,95	8,53

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The discussion about the key skills and attitudes for people management nowadays.
- The internalization plan, the image of large corporations and their role in the different markets.

How would you improve the session?

- With some practical examples.
- Interesting, but the problem of backdating causes the concepts to be out of line.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.

- Eva showed several practical tools (swot, diagrams, etcetera) that provide support to manage people and projects once defined the mission, vision and main objectives of a company.
- Image of companies in their internalization policy, procedures for a correct implementation in international markets, choice of suitable personnel in the company, risks that can be committed if a quick introduction in other markets is intended.

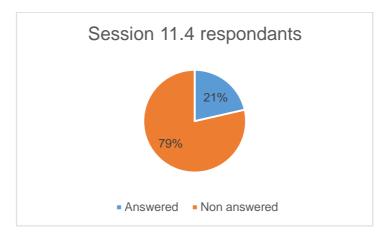
Other comments and suggestions

- It would be useful to have the presentation in advance so that can be previously known by students and participation was improved.



### SESSION 11.4: MANAGING THE INTERNATIONAL BIOHEALTH REGULATIONS

Figure 209 Module 11 Session 4 response %



What were your expectations for this session?

- Interested.
- I liked the content provided in the session.

### Table 59 Level of satisfaction Module 11 Session 4

	SESSION 11.4	AVG MODULE 11
Q02->Possibility of students to actively participate	9,30	9,33
Q02->Level of participation of the students	9,30	9,08
Q02->Workload	8,70	6,68
Q02->Methods / techniques used by trainer(s)	9,30	9,08
Q02->Expertise of the trainer(s)	9,70	9,35
Q02->Performance of the trainer(s)	10,00	9,33
Q02->Logistics and organizational aspects (online platform)	9,30	9,08
Q02->Support materials/resources distributed	9,00	8,93
Q02->Quality of the educational asset	9,00	9,18
Q02->Overall appreciation of the session	9,00	9,05
SESSION	9,08	8,53

Please rate your level of satisfaction with the following aspects of the session:

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- A very practical session.
- Nothing to add.

How would you improve the session?

- Interesting in the opportunity to offer real experiences.

Please write a paragraph summarizing the session. Be aware that this response will contribute to the evaluation of the module.



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- The teacher guided the class to the cases of each student, very successful. The second part of the course was very interesting.

Other comments and suggestions

- Nothing else.

MODULE 12: FINAL PROJECT



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SESSION 1: RESEARCHERS VS ENTREPRENEURS APPROACH TO BUSINESS THE SUPPORT ROLE OF BUSINESS INCUBATOR'S INTRODUCTION TO THE BUSINESS PLAN EVALUATION FORM



Figure 62 Module 12 Session 1 response %

What were your expectations for this session?

- To learn how to finish the master thesis.
- Interested.
- I liked the content covered.

### Summary

Students were expecting to learn more about the final project and how to design it.

### Table 60 Level of satisfaction Module 12 Session 1

Please rate your level of satisfaction with the following aspects of the session

	SESSION 1	AVG MODULE 12
Q02->Possibility of students to actively participate	7,67	9,25
Q02->Level of participation of the students	7,67	9,20
Q02->Workload	8	9,00
Q02->Methods / techniques used by trainer(s)	7,67	8,78
Q02->Expertise of the trainer(s)	7,67	8,95
Q02->Performance of the trainer(s)	7,67	8,89
Q02->Logistics and organizational aspects (online platform)	9	8,89
Q02->Support materials/resources distributed	8	8,86
Q02->Quality of the educational asset	7,33	9,08
Q02->Overall appreciation of the session	7,33	9,08
SESSION	7,8	9,00



This session was lower than the average, despite the logistics and organizational aspects being held higher than the average of the module.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- We just talked about the thesis conditions, the content that must appear and then we talked about the differences between researcher and entrepreneur.
- Interesting, and very entertaining talk by Giancarlo.
- Nothing to add.

### Summary

The students really enjoyed the sessions and the remarks from the Professors.

How would you improve the session?

- Instructive.
- Perhaps the second part, detailing the incubator options in Italia, should have been shorter, given the timing of the course. The teacher's procedure of online questions was very well done.
- No comments.
- Nothing to add.

### Summary

There was too much information for the time of the session, as stated by the students.

Other comments and suggestions

- The guest was very interesting I like when they propose material to expand our sources of information.
- Nothing to add.
- No comments.

Summary

In general, nothing relevant to add. Even though the session was very well praised.



SESSION 2: VALUE PROPOSITION, BUSINESS MODEL AND COMPETITIVE STRATEGY

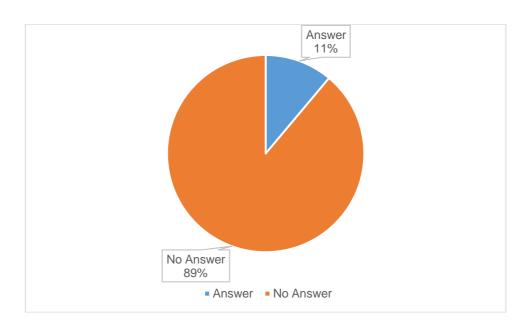


Figure 211 Module 12 Session 2 response %

What were your expectations for this session?

- Review the value proposition of a product.
- I liked the content covered.
- Nothing to add.

### Summary

Students were expecting to review the value proposition of a product during this session.

### Table 61 Level of satisfaction Module 12 Session 2

Please rate your level of satisfaction with the following aspects of the session

	SESSION 2	AVG MODULE 12
Q02->Possibility of students to actively participate	8,33	9,25
Q02->Level of participation of the students	8	9,20
Q02->Workload	8	9,00
Q02->Methods / techniques used by trainer(s)	8	8,78
Q02->Expertise of the trainer(s)	8	8,95
Q02->Performance of the trainer(s)	7,67	8,89
Q02->Logistics and organizational aspects (online platform)	7,33	8,89
Q02->Support materials/resources distributed	7,67	8,86
Q02->Quality of the educational asset	7,67	9,08
Q02->Overall appreciation of the session	7,67	9,08
SESSION	7,83	9,00



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### Summary

It was below the average of the module. The difference between the number of answers along the module's sessions could explain the difference.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The guest was very interesting and how he exposed his experience.
- The initial idea of supporting and mentoring the work I believe has not been properly implemented.
- Nothing to add.

### Summary

The students liked the guest of the session. On the other hand, they claimed that the mentorship has not been properly implemented.

How would you improve the session?

- I couldn't connect properly because of a technical issue, but we still don't know the origin of it.
- It should have been more practical, tutoring and supporting the work to be handed in at the end of the course
- Nothing to add.

### Summary

As stated in other sessions, there was lack of practical part, meaning the session was too much theoretical.

Other comments and suggestions

- The guest introduces his company related to new biotechnology innovation applied into the plant sector and later we discuss it (I couldn't follow the whole session).
- The first part of Transativa, very interesting, but perhaps out of place in this module. The second part could not be completed due to a lack of time. As mentioned in the class it would be necessary to dedicate time to tutorials
- No comments.

### Summary

The session was very interesting but was considered out of the initial premise of the module.



### SESSION 3: MARKET ANALYSIS COMPETITION AND MARKETING STRATEGY

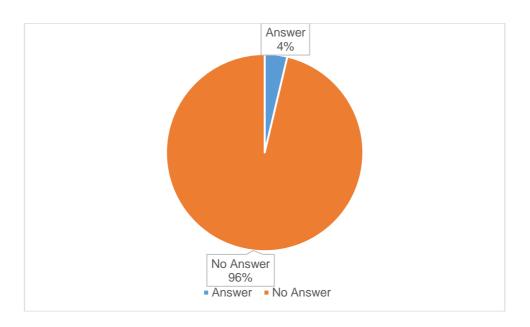


Figure 212 Module 12 Session 3 response %

What were your expectations for this session?

- I liked the content covered.

### Summary

The session held great expectations.

### Table 62 Level of satisfaction Module 12 Session 3

Please rate your level of satisfaction with the following aspects of the session

	SESSION 3	AVG MODULE 12
Q02->Possibility of students to actively participate	10	9,25
Q02->Level of participation of the students	10	9,20
Q02->Workload	9	9,00
Q02->Methods / techniques used by trainer(s)	9	8,78
Q02->Expertise of the trainer(s)	10	8,95
Q02->Performance of the trainer(s)	10	8,89
Q02->Logistics and organizational aspects (online platform)	9	8,89
Q02->Support materials/resources distributed	9	8,86
Q02->Quality of the educational asset	10	9,08
Q02->Overall appreciation of the session	10	9,08
SESSION	9,6	9,00

### Summary

Slightly above the average, mostly influenced by the shortage of answers.



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Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.

## **Summary** No remarks.

How would you improve the session?

- Nothing to add.

**Summary** *No relevant comments at this point.* 

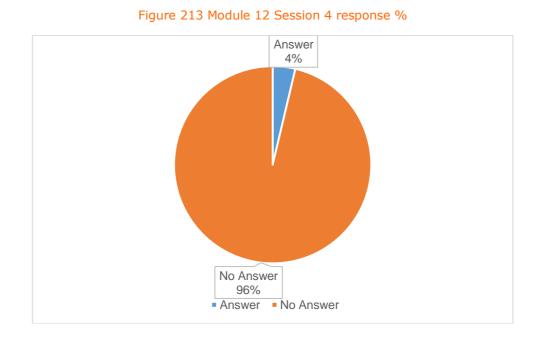
Other comments and suggestions

- Nothing to add.

**Summary** *No comments were made.* 



SESSION 4: OPERATIONS ORGANIZATION AND HUMAN RESOURCE MANAGEMENT



What were your expectations for this session?

- I liked the content covered.

#### Summary

No comments at this point.

#### Table 63 Level of satisfaction Module 12 Session 4

Please rate your level of satisfaction with the following aspects of the session

	SESSION 4	AVG MODULE 12
Q02->Possibility of students to actively participate	10	9,25
Q02->Level of participation of the students	10	9,20
Q02->Workload	10	9,00
Q02->Methods / techniques used by trainer(s)	9	8,78
Q02->Expertise of the trainer(s)	9	8,95
Q02->Performance of the trainer(s)	9	8,89
Q02->Logistics and organizational aspects (online platform)	10	8,89
Q02->Support materials/resources distributed	10	8,86
Q02->Quality of the educational asset	10	9,08
Q02->Overall appreciation of the session	10	9,08
SESSION	9,7	9,00

#### Summary

This session was above the average of the module. The reason is also related to the shortage of answers just like the last session.



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Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.

#### Summary

No remarks were made.

How would you improve the session?

- No comments.

### Summary

No relevant comments at this point.

Other comments and suggestions

- Nothing to add.

**Summary** *No remarks were made.* 



### SESSION 5: FINANCIAL AND CORPORATE LAW ISSUES

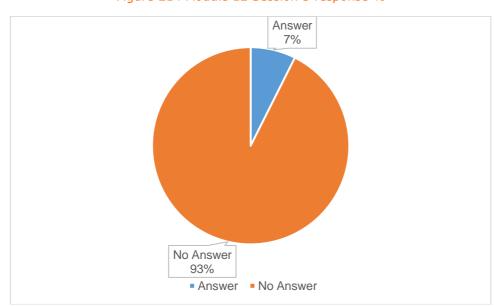


Figure 214 Module 12 Session 5 response %

What were your expectations for this session?

- Interested.
- I liked the content covered.

#### Summary

The expectations for this session were high since the content covered was considered to be interesting.

#### Table 64 Level of satisfaction Module 12 Session 5

Please rate your level of satisfaction with the following aspects of the session

	SESSION 5	AVG MODULE 12
Q02->Possibility of students to actively participate	9,5	9,25
Q02->Level of participation of the students	9,5	9,20
Q02->Workload	9	9,00
Q02->Methods / techniques used by trainer(s)	9	8,78
Q02->Expertise of the trainer(s)	9	8,95
Q02->Performance of the trainer(s)	9	8,89
Q02->Logistics and organizational aspects (online platform)	9	8,89
Q02->Support materials/resources distributed	9,5	8,86
Q02->Quality of the educational asset	9,5	9,08
Q02->Overall appreciation of the session	9,5	9,08
SESSION	9,25	9,00



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#### Summary

This session was considered higher than the average. All aspects were considered higher than average.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- The contributions of the students, on personnel management.
- Nothing to add.

#### Summary

The session had highlights regarding the contributions of the students which were considered very interesting.

How would you improve the session?

- More practical development for help in the next presentation.
- Nothing to add.

#### Summary

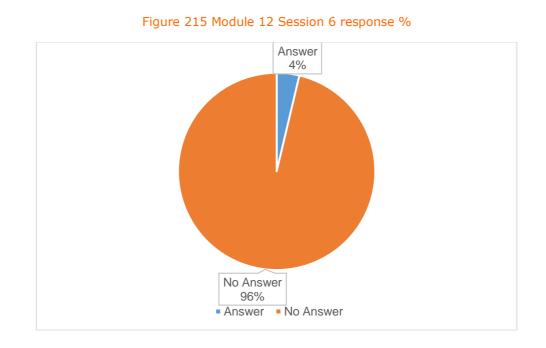
There was considered to be a lack of time in order to develop the presentation the students need to make in the next session.

Other comments and suggestions

- Nothing to add.

**Summary** *No further comments at this point.*  <u>253</u>





### SESSION 6: PREPARING THE PERFECT PITCH DECK

What were your expectations for this session?

- I liked the content covered.

#### Summary

The expectations for this session were high since the content covered was expected to be interesting.

#### Table 65 Level of satisfaction Module 12 Session 6

Please rate your level of satisfaction with the following aspects of the session

	SESSION 6	AVG MODULE 12
Q02->Possibility of students to actively participate	10	9,25
Q02->Level of participation of the students	10	9,20
Q02->Workload	10	9,00
Q02->Methods / techniques used by trainer(s)	10	8,78
Q02->Expertise of the trainer(s)	10	8,95
Q02->Performance of the trainer(s)	10	8,89
Q02->Logistics and organizational aspects (online platform)	9	8,89
Q02->Support materials/resources distributed	9	8,86
Q02->Quality of the educational asset	10	9,08
Q02->Overall appreciation of the session	10	9,08
SESSION	9,8	9,00



#### Summary

This session was considered higher than the average. The aspects of the session were all higher than average.

Please provide comments on the topics or aspects you have found more and less relevant or interesting

- Nothing to add.

## Summary

No remarks were made.

How would you improve the session?

- Nothing to add.

#### **Summary** *No comments.*

Other comments and suggestions

- Nothing to add.

#### Summary

No further comments at this point.



# 8. Bio-All Hackathon & Bootcamp

While the "International Joint Post-Graduation on Advanced Skills for Innovation and Entrepreneurship in the Biohealth Sector" was taking place, one of the activities that were scheduled to occur was the "BIO-ALL Hackathon". The "BIO-ALL Hackathon" consisted of an online event, where students from the "International Joint Post-Graduation on Advanced Skills for Innovation and Entrepreneurship in the Biohealth Sector", or from three academic partners of the BIO-ALL project (UBI, UGR and UNIVPM), or even from other Higher Education Institutions from Italy, Portugal, or Spain, could apply. They should form teams of 2-6 members, having a maximum of 15 teams that could participate.

The Hackathon intended to help spur the team's ideas regarding the COVID-19 pandemic (which was affecting everyone's lives at the time), as well as BIOHEALTH, the main topic of this International Joint Post-Graduation. The "BIO-ALL Hackathon" wanted the teams to develop solutions (which should approach at least two of UN's Sustainable Development Goals) to a set of proposed challenges related to BIOHEALTH and the Pandemics.

Regarding BIOHEALTH there were these set of possible topics:

- 1) Lifelong personalized/precision medicine/therapeutics;
- 2) Lifelong health and well-being for all;
- 3) IT & Digital Healthcare/E-Health;
- 4) Healthcare 5.0;
- 5) BioCircularity;
- 6) Climate change effects.

Regarding the Pandemics, there were these set of possible topics:

- 1) Healthcare systems;
- 2) ICT & Pandemics;
- 3) Food security/safety during the pandemics;
- 4) Smart prevention and controlling solutions;
- 5) Central nervous system and pandemics;
- 6) Mental illness and pandemics.

The BIO-ALL Hackathon was set to occur on the 27<sup>th</sup> and 28<sup>th</sup> of May 2021, with the teams having to register until May 25<sup>th</sup>, 2021. Since it was an online event, a platform on Devpost was created, as well as a Google Form for registration, having the event occur on Devpost just as on Zoom sessions. The Hackathon agenda included the presentation of the challenges, as well as team working sessions supported by qualified mentors for projects' development. The project's development would be supported on a 4-phase process, going from the 'Design', to 'Test', then to 'Experiments', and 'Mindset', where each phase was led by mentors applying Design Thinking methodology as well as business development tools, such as Business Model Canvas, Value Proposition, among others. Figures 216 and 217 are the agenda of the event, and also the mentors of the BIO-ALL Hackathon.

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#### Figure 216 BIO-ALL Hackathon Agenda



#### Figure 217 Bio-All Hackathon Mentors



During these days of hard work, several ideas were pitched and transformed into practical solutions that could become products or companies shortly, if the teams and participants have that desire. The interaction the teams made with the mentors was the



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first step towards future endeavours which could finish with the creation of new products or start-ups.

The first prize of the BIO-ALL Hackathon was given to a team of Portuguese students of the "International Joint Post-Graduation on Advanced Skills for Innovation and Entrepreneurship in the Biohealth Sector", Gonçalo Fonseca and Dolores Gama. The prize was awarded by UBImedical and consisted of a one week sponsored trip to the innovation ecosystems of the Bio-All's partners Parque Tecnologico de Salud in Granada (Spain) (the only technology park in Spain specialized in Health and Life Sciences, being an ecosystem of connection between business development, R&D, health and academia), and Friuli Innovazione (Italy) (Science & Technology Park, Certified Business Incubator and Business Support Organization). The travel was scheduled to occur during the November 8<sup>th</sup>, 2021, week. The agenda of the meetings gave the opportunity to the team to get in contact with different skills and useful contacts for their project's future development. Figure 218 illustrates one of the meetings/visits the winning team had during the sponsored trip.



Figure 218 Meeting/visit during of the BIO-ALL Hackathon winning team

The BIO-ALL Hackathon was also a challenge due to the COVID-19 pandemic restrictions. Even though there was already some knowledge of how to develop online events, since the International Joint Post-Graduation was already running, the logistics, as well as online difficulties, could occur. Despite that, the BIO-ALL Hackathon was a great experience for the teams, as well as for the mentors and developing team. It was remarkable the effort put into place to give the best mentorship to the teams that brought exciting proposals regarding the themes. In this sense, this first BIO-ALL Hackathon can be a carrier stone to further editions and was the cherry on the top of the cake for ending up the post-graduation course.

In addition to the Hackathon, within BIO-ALL Project and in particular in the piloting of the International Post-Graduation Programme "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector", a "Bootcamp week" was organized.



A 3-days international Bootcamp was organized by Italian partner Friuli Innovazione – with the support of the partners involved in the Postgraduation delivery and the promotional and logistic support of UGR.

BIO-ALL International Bootcamp was addressed to students from the Post-Graduation Programme and aimed at offering them a unique tailored opportunity to further explore topics related to Bio-Health sector and entrepreneurship.

During the international event – held from 7th to 9th June 2021 in an online format in place of students' mobilities, due to the Pandemic - BIO-ALL partners promoted several meetings with specialists, testimonials, and investors.

On Figures 219, 220 and 221 the agenda of the event for the three days is represented.



Figure 219 Bootcamp Day 1





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Figure 221 Bootcamp Day 3





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## 9. Post-Graduation Students' Evaluation

In this part of the evaluation report for the "International Joint Post-Graduation on Advanced Skills for Innovation and Entrepreneurship in the Biohealth Sector", we will analyse the evaluation the students gave during the modules. The students were asked to evaluate the International Joint Post-Graduation as a whole, as well as the modules individually, indicating if the modules and the post-graduation reached their initial expectations, and also by evaluating how it was all assembled, difficulties they faced along with the Post-Graduation, and handling information for shaping the International Joint Post-Graduation so that it can meet the demands of the Biohealth area stakeholders that could search for a post-graduation in this area in the future. In this sense, several reports were produced along the Post-Graduation, one for each of the three trimesters of the course, as well as a final Evaluation Report. These reports were distributed to all partners of the BIO-ALL consortium which meant that the evaluation of the students was taken into consideration along the Post-Graduation, helping to shape the way the modules were presented to the students. It was also important so that in future editions the Post-Graduation could be updated and transformed, meeting the needs of future students.

For this analysis, we will only take into consideration the final evaluation that the students gave of the Post-Graduation since the modules' evaluation was taken into consideration before. This survey covered issues related to the level of achievement of the initial expectations, usefulness and relevance of the Post-Graduation, the general satisfaction with the course and what can have been improved. We will also take into consideration the reflections and feedbacks of the students along the three trimesters, not module directed, but Post-Graduation directed as a whole.

The students were asked to share aspects that could bring reasons for concern about participation in the modules. In the first trimester, most of the comments were related to the difficulty to manage the work-life and the participation in the International Joint Post-Graduation, stating issues such as "the home tasks are very demanding in terms of time" or "probably, too much content in little time". For the second trimester, most of the comments were related to the teaching methodologies and pedagogical issues, mostly regarding the fact that there were pre-recorded sessions, as stated: "I disagree with the recorded lessons. It is not a good idea because it is already difficult for us to pay attention 4 consecutive hours, so to watch 4 hours of videos is even worse". Finally, regarding the third trimester, most concerns were related to the complexity of the subjects, "The syllabus taught is very complex, and not enough time has been given to assimilate it".

Concerning the organizational issues and communication, as well as pedagogical issues, the duration of the classes and the complexity of some lessons were issues during the first trimester, as stated "Lessons should be less long, each 40-45 min we should have 5 min rest, because if not is hard to follow the class" and "The information for inexperienced students in business is new and complex". During the second trimester, the main issues were the lack of communication for deadlines of the tasks, "The information was not clear, and the dates and tasks were also not properly marked, as were the classes placed on time for those who could not attend live". For the third trimester, no comments regarding organizational issues and communication were made.



Taking into consideration reasons for concern about the development in the modules, in the first trimester, most of the comments were regarding the conciliation of the professional activities of the students with the participation in the Post-Graduation. In this sense, it was stated that "*The overload of homework is my principal concern*". For the second trimester, most of the comments were related to the structure of the module, with students stating that there was "*A very dense syllabus for the short time available*", or even that "*The technical aspects, formulations of results, have been very complex and difficult to understand*". Regarding the third trimester, most of the comments were directed to the COVID-19 pandemic and the impact that it held both on students' interaction as well as the way of teaching. Sentences like "*At a distance, if the interaction levels are always reduced. If the PG was face to face, it would have been better*" or even "*Being at distance it is more difficult to have real students' interaction*" were stated due to this particular situation.

The students were also asked to indicate which were the topics or modules that were more and less relevant or interesting per trimester. For the first trimester, the modules regarding patents as well as the ones that had outside tutors were considered the most interesting. On the other hand, taking into consideration the less relevant or interesting topics or modules, the students stated that there was a need to connect more practical cases with the theoretical topics to further develop the subjects. Regarding the second trimester, the topics or modules that were considered more relevant were the ones directly related to finance, business, marketing, and sales, since for some students they were completely new. Also in the second trimester, the students found less interest or relevance to the topics or modules that were previously recorded since they led to zero interactions between students. Finally, for the third trimester, the final project and the internationalization were considered the more relevant. They considered as less important the repetition topics of some modules throughout the third trimester.

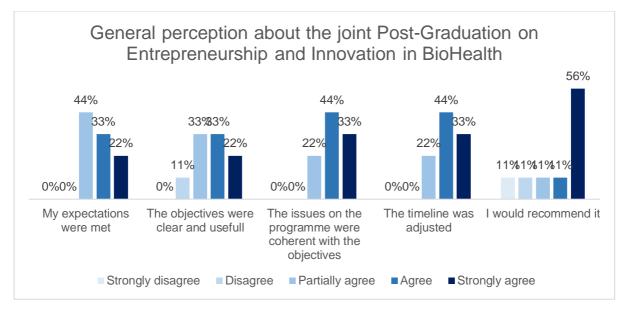
Finally, the students were also inquired about the expectations they had during the modules and that were not addressed. For the first trimester, some specific situations were stated, such as "more classes about the clinical trial but directed to technology in the health sector", or even "relationship with corporates and how to manage it". For the second trimester, some issues were stated, as the lack of management tools or methods to put into practice, as stated "more management and less creation of companies, as we already studied it", and "more tools and methods to put in practice. Too much time is lost on basic exercises and relevant information is shared very slowly". Taking into consideration the responses for the third trimester, the lack of dynamics and interaction (considering the COVID-19 pandemic) was referred to, as stated some students expected "a more dynamic approach and more interaction with the other participants".

Regarding the final evaluation of the students, most of the participants were satisfied with the international joint post-graduation course and have a positive general perception, as can be seen in figure 222. When asked if they would recommend this international course, 56% "Strongly Agree" and 22% "Agree" or "Partially Agree" that they would recommend the course to other professionals and students. This is a consequence of the fact that 55% of the respondents "Strongly Agree" and "Agree" that their expectations were met, while 44% "Partially Agree", meaning that none of the participants had a negative experience with their participation in the course.



In this context, it is important to refer that 78% of the respondents "Strongly Agree" and "Agree" that the issues on the programme were coherent with the objectives and that the timeline was adjusted (while 22% only "Partially Agree"). Finally, 55% of the respondents Strongly Agree" and "Agree" that the objectives were clear and useful, while a few respondents "Disagree" (11%) and 33% only "Partially Agree".





The respondents also had the opportunity to comment on possible reasons for concern about their general perceptions of the international course, and several comments and suggestions were provided. Some of the participants did not indicate having reasons for concern, while others stated that the "PG was a great opportunity to learn about topics that I was expecting".

The participants were also asked to recommend some measures of improvement, taking into consideration their expectations and what was delivered throughout the Post-Graduation course. In this sense, the recommendations for improvement were divided into four different types, if they were related to the coordination and organization of the activities, related to the contents of the modules, related to the scheduling of the classes, or related to the constraints of the COVID-19.

- Related to the coordination and organization of the activities:
- I noticed a certain lack of coordination initially with the teachers in charge of Italy, they did not correct the exercises sent and some sessions were limited to recording the classes;
- The deliverables for students should be established from the beginning, so the deadlines can be scheduled on time.



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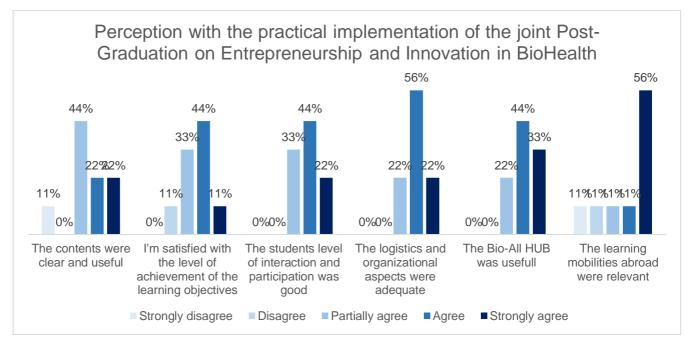
- Related to the contents of the modules:
- Some contents were repeated and, in some cases, (modules), more time was needed;
- It was important for me to attend the PG. I found out that many topics were repeated in different modules and the extension of each module was too long.
  - Related to scheduling the classes:
- Class hours for those who work and do not have the opportunity to attend all classes; I suggest classes Friday night and Saturday (morning and afternoon) in the future, maybe it could lead to a shorter period for graduates and a greater focus of participants;
- The classes on weekdays are difficult to follow for the ones that are working. probably having some classes at the weekend can help to balance better.
  - Related to the constraints of COVID-19:
- Removing the recorded lessons without interaction will be essential to keep students motivated;
- Would have preferred to have it with face-to-face sessions. at least some contact hours with other students and teachers for debate and ideas exchange;
- It was good, but the fact that was 100% online was not perfect, especially for students' interaction and discussion.

The participants also were questioned about their perception of the practical implementation of the joint Post-Graduation on Entrepreneurship and Innovation in the Biohealth Sector, and their responses can be seen in figure 223. In this sense, the students' perception was very positive, since around 75% considered adequate both the logistics and the organizational aspects of the BIO-ALL Hub as being "Very Good" or "Excellent", and 22% considered it as being "Good".

Also, the level of satisfaction with the extent of the learning objectives was very positive, as circa 55% responded as "Very Good" or "Excellent", and 33% as "Good". The respondents were also satisfied with the level of interaction and participation, also considering the usefulness of the contents of the modules.







The students were also asked to comment on possible reasons for concern with the implementation of the international course, and several comments and suggestions were provided. Since the COVID-19 pandemic was at this time a heavy subject that affected the way the Post-Graduation occurred, it conditioned the way the students commented, since the learning mobilities were not possible to be implemented.

The participants also stated that:

- More importance should be given to internships, and if tests and examinations are required, they should be corrected, and the results reported in time;
- The schedule and the amount of work for the ones who already work, it is difficult to handle it, principal for the ones who are doing this post-graduation, work and are starting new companies, which is one of the objectives of this post-graduation.

The respondents were also inquired to identify any topics or subjects that were not addressed during the International Joint Post-Graduation. They all mostly agreed that "*all topics were covered"*, "*all good"*. The before the stressed fact that there were some overlapping between some modules was not seen as a negative issue, since it was the 1<sup>st</sup> edition of the course, and in this sense it was reasonable.

The students were also questioned about the importance of learning mobilities abroad. Due to the COVID-19 pandemic, the original learning mobilities were not able to be delivered, and in this sense, the students' responses believed that these mobilities could have a favourable impact on the course.

The respondents also had the opportunity to give suggestions or contribute to improvements for new editions of this International Joint Post-Graduation. In this sense, several answers were also COVID-19 pandemic related, as the respondents believed in a more effective course, stating that "with face-to-face sessions, and also with more practical examples", "with face-to-face interactions; with more students collaboration



for the project module" or "having it partially in face to face". Related to the above, the respondents also pointed out that "some modules lacked the interaction between the mentors and the students (recorded classes)" (a direct consequence of a large number of classes being held online).

There were also suggestions for improvement regarding the calendarization of the classes (being online or not). These suggestions were mostly to allow a better conciliation of the course with the professional occupations of the participants. As stated, "having lessons on Friday night and Saturday (morning and afternoon) will reduce the months of this post-graduation and increase the focus". At the same time others indicated as an area of improvement the class duration at weekdays "the weekly classes were too long (4 hrs a day, 2 days a week). The modules were too long".

The students also gave insightful remarks concerning the opportunity to chat with different stakeholders or entrepreneurs along with the different modules of the Post-Graduation, stating that "one very positive point was the modules in which the teacher has bring to the class entrepreneurs or stakeholders outside the program to share the experience with the students and to mentor them even if only for 1 hour!"



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# **10. Final Considerations & Lessons Learned**

The International Joint Post-Graduation course on "Advanced Skills for Innovation and Entrepreneurship in the BIOHEALTH Sector" was a challenge for all partners of the BIO-ALL project. In times where the COVID-19 pandemic is shaping reality, the hurdles we had to climb during the preparation and execution of the course gave us tools for better execution. The fact that we could not deliver the presential parts of the course may have been a disadvantage for the students, especially regarding the initial expectations they may have had when applying to attend the Post-Graduation Course. However, everything went as smooth as it could have gone, with various suggestions and remarks from the students being incorporated throughout the modules, and above all, the constructive criticism was put to practice as far as possible throughout the course, so that it could have been delivered the best way that it could be. As so, despite all the adversities, the International Joint Post-Graduation Course was delivered successfully.

It is also important to point out the successful technical support that needed to be provided, and in this sense, the Hub, as well as the moodle platform served the students of the three countries, being a key feature for all this International Joint Post-Graduation to occur.

Lastly, it is also important to celebrate the effort of the whole consortium, since the execution of a joint Post-Graduation has various logistic difficulties, which combined with the before mentioned COVID-19 difficulties made it hard to achieve such good results. Despite that fact, we believe that the main goals of the International Joint Post-Graduation were achieved, bringing a closer collaboration among the three Academic Partners of the Consortium, as well as fostering knowledge in entrepreneurship and innovation in the BIOHEALTH sector, promoting specialized training in the areas of entrepreneurship and innovation, and achieving a better comprehension of what students want when enrolling in this kind of specialized educational courses.





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