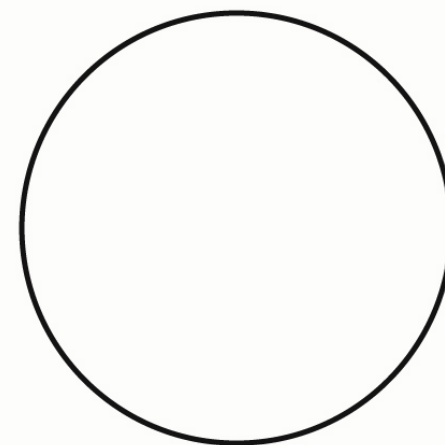


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LGP [CHALLENGE]

LABORATÓRIO DE GESTÃO DE PROJETOS

2022/2023



THIS COURSE UNIT IS A LIVING LAB, PROVIDING REAL-WORLD, HANDS-ON LEARNING EXPERIENCE ON WHAT IS LIKE TO ACTUALLY DEVELOP A TECHNOLOGY-BASED PRODUCT OR COMPANY.

THE EXPECTED END RESULT IS NOT A POWER-POINT PRESENTATION OR A REPORT BUT A PRODUCT AND THE CORRESPONDING BUSINESS MODEL. STUDENTS WILL HAVE TO TALK TO CUSTOMERS, PARTNERS, AND COMPETITORS, AND WILL ENCOUNTER THE COMPLEXITY AND UNCERTAINTY OF HOW A STARTUP REALLY WORKS. STUDENTS WILL WORK IN TEAMS AND LEARN HOW TO TURN GOOD IDEAS INTO GREAT PRODUCTS OR GREAT COMPANIES. STUDENTS WILL LEARN HOW TO USE A BUSINESS MODEL AND HOW TO VALIDATE IT; LEARN HOW TO MANAGE INNOVATION AND BRING INNOVATION INTO THEIR PRODUCTS OR COMPANIES; LEARN HOW TO PLAN AND MANAGE PROJECTS AND DEVELOP PRODUCTS.

COURSE UNIT PRESENTATION

LGP 2022-2023

OBJECTIVES, LEARNING OUTCOMES AND COMPETENCES

- Develop students' **project management** skills, **team work**, **innovation** and **entrepreneurship** skills in [software] projects.
- Students will be capable of solving a vast diversity of problems, which may happen in the development of a technology based product or launch of a technology based company.

TEACHING METHODS AND LEARNING ACTIVITIES

- Theoretical component based on **lectures and industry invited talks**, covering the program topics.
- Project-based classes with students organised in medium-sized **multidisciplinary teams**.

PROGRAMME

1. PROJECT MANAGEMENT

- Project phases: launch, planning, monitoring and control, closure.
- Body of knowledge: project integration management, scope management, time management, cost management, quality management, human resources management, communication management, risk management, procurement management.

2. TEAM WORK

- Team work, management styles and team organisation, team building, leadership and coaching, personal communication, meetings management, negotiation and conflict management.

3. INNOVATION & ENTREPRENEURSHIP

- Lean start-up and lean experimentation. Development and validation of business models (canvas). Customer development and the minimum viable product (MVP).

4. METHODOLOGIES AND TOOLS

- Project management methodologies and organisation of software teams. Agile Methods. Project management tools and teamwork.

5. EXPERIMENTATION

- Application in real projects developed by medium-sized teams; application of methodologies and techniques.

GRADING AND EVALUATION

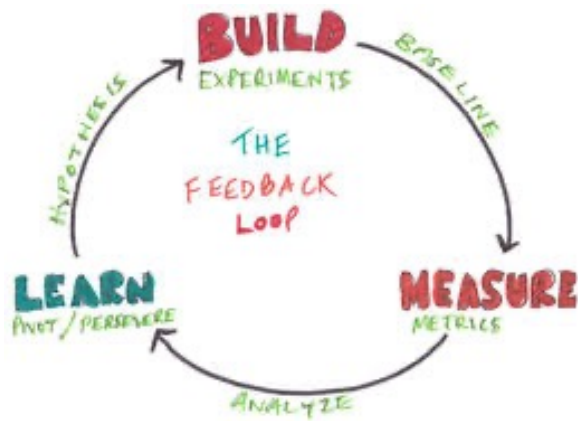
- Type of assessment: **Distributed evaluation without final exam**
- Final Mark based on the assessment of students' participation and discussion in theoretical classes and on the work developed in laboratory practice classes. Assessment will focus on the following aspects:
 - Project management (scope management, goals accomplishment, individual and team dynamic)
 - Product (value for the client, quality)
 - Communication and business development (presentations, client communication, promotion of ideas and products)
 - Attendance and participation in class and meetings (it will be kept a record and students' performance will be assessed)
- Assessment at the student and team/company levels.

LGP PROCESS & ORGANIZATION

LGP 2022-2023



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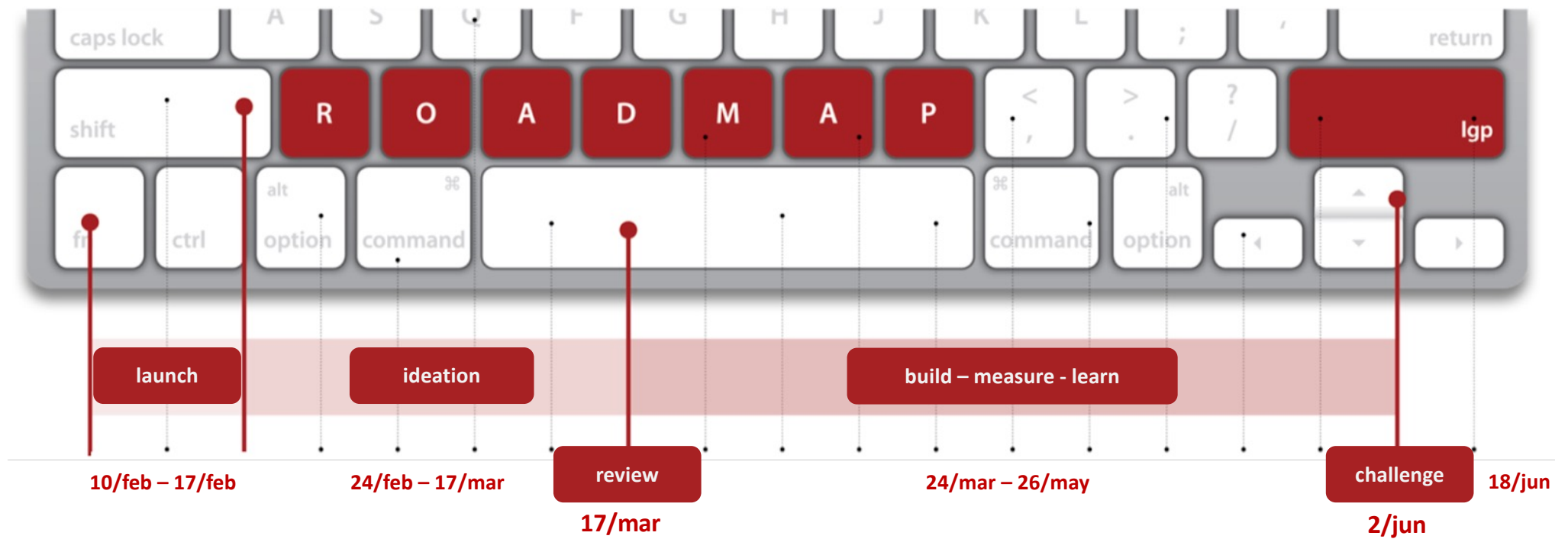
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LGP [CHALLENGE]

LINKING
GREAT
PARTNERS

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Phases	Dates			what		when	whom
Launch	10-Feb	17-Feb	2 weeks	CTO	Company/team Organisation	17-Feb	supervisor
				KoM	Kick-off Meeting	17-Feb	supervisor
Ideation	24-Feb	17-Mar	4 weeks	PC	Project Charter	3-Mar	supervisor
				CNV	Company Name & Vision	3-Mar	supervisor
				SFR	Script for the Review	10-Mar	supervisor
				PVP	Product Vision & Prototype (with documentation)	17-Mar	client / supervisor
Review		17-Mar		SD	Slide Deck for external evaluators (clients&investors)	17-Mar	public
				CTSA	Company & Teams Self-Assessment (preliminary)	24-Mar	supervisor
				PST	Project Survival Test	24-Mar	supervisor
				PMIR	Project Management Intermediate Report	24-Mar	supervisor
Build - Measure - Learn	24-Mar	26-May	8 weeks	CMPK	Company Media Press Kit	12-May	public
				SFE	Script for the Final Event	12-May	supervisor
				MVP	Minimum Viable Product	26-May	client / supervisor
LGP Challenge		2-Jun		CPMM	Company & Products Marketing Material	2-Jun	public
				SD 2.0	Slide Deck for external evaluators (clients&investors)	2-Jun	public
Closure		18-Jun		PIMP	Product Installation and Maintenance Packages	18-Jun	client
				PMR	Project Management Report	18-Jun	supervisor
				CTSA 2.0	Company & Teams Self-Assessment (final)	18-Jun	supervisor
				PF	Project Folder (containing all artefacts)	18-Jun	supervisor

250 students
20 projects
24 LGP Startup Companies



M.EIC
148

MM
38

MESW
26

MESG
24

M.EEC
10

LDC
4

LGP COMPANIES & PROJECT TEAMS

- Students allocated to LGP Startup Companies (#24 LGP - SC)
- Projects assigned to LGP SC
- LGP Startup Companies "forming & storming"
 - Roles and responsibilities must be assigned

STARTUP ROLES AND PERSONALITIES^{*}

- The Dreamer (often the chief executive officer - CEO): their passion and vision can lead the project, either because they started it - or because they are absolutely the right person for it.
- The Visionary: business vision falls on the shoulders of the chief product officer (CPO); their role is to inspire team members based on the dream, making goals a reality.
- The Doer: a role often taken on by the chief technical officer (CTO); it's their job to understand and meet technical challenges.
- The Hustler: hustling is synonymous here with networking, selling, and generally driving the product forward through usage.
- The Growth Hacker: a strategic thinker who is both analytical and creative; understands marketing and how to create traction by understanding what users want and how to give it to them.

LGP STARTUP COMPANY FORMING & STORMING

- Responsibilities might be defined later.
- Each LGP SC will assign responsibilities (management roles) to all its members; these are independent of the technical tasks and are related to the project management knowledge areas.
- For each role/responsibility, two team members must be identified.

Project Management Roles
Planning manager – responsible for tracking the plan.
Quality manager – responsible for tracking the quality plan.
Process manager – responsible for ensuring process discipline and for process improvement.
Support manager – responsible for ensuring that support needs are met and for configuration management.
Technical Management Roles
Customer interface manager – responsible for the interface to the customer or customer representative.
Design manager – responsible for the design practices and quality.
Implementation manager – responsible for implementation practices and quality.
Test manager – responsible for test practices and quality.

Suggestions
To be adjusted depending on the profiles in the team

ROLE OF M.EIC/MESW STUDENTS – ARCHITECT , SOFTWARE ENGINEER , DEVELOPER

- Ensure a clear product vision and goals
- Research and document requirements and their priorities with the stakeholders
- Research and validate the ideal software stack for the project
- Develop and deliver value each sprint, according to priorities
- Deliver the final product package, with respective documentation, so that stakeholders can readily use the product for its purpose.

ROLE OF MM – UX/UI DESIGN, ANIMATION, AUDIO, VIDEO AND GRAPHIC IMAGE PRODUCTION

- Survey and scope multimedia production requirements according to client goals and needs – negotiation might be needed
- Address tasks to team members
- Define priorities, anticipate risks, and create contingency plans
- Manage multimedia workflows and schedules, aiding other colleagues if needed
- Manage digital assets effort, including stock music and image libraries
- Integrate multimedia elements into a seamless solution
- Understand the strengths and limitations of hardware and software
- Meet with the team to follow up. Ensure people's skills suit the addressed tasks and update a *TO DO* list accordingly.
- Meet with the client to assure content development is in line with expectations - make sure to convey information in a simple (non-technical) way
- Manage the final phase of production, namely uploads, quality images, captions, cover images,...

ROLE OF MESG STUDENTS – CUSTOMER INTERFACE MANAGER

- Helping to define the product vision and goals
 - Understands market context and benchmarks solutions
 - Develops the business model
 - Helps strategic decision making to ensure product meets customer needs and expectations
- Understanding and connecting with the customer and stakeholders
 - Continuously gathers and analyses customer needs and feedback to inform product decisions
 - Identifies key stakeholders and balances their needs with those of the customer
 - Builds and manages key relationships
- Supporting the team to deliver value
 - Acts as the voice of the customer in product development decisions
 - Helps to prioritize features and requirements based on customer feedback and market trends
 - Applies a customer-centric mindset along with design thinking tools to help the team deliver solutions that are desirable, viable, feasible, and sustainable.

LGP ECOSYSTEM

- 16 start-ups with projects for clients
 - Clients: MC Sonae, InfoPortugal, Deloitte, INOVA+, MOG TECHNOLOGIES, Associação do Porto de Paralisia Cerebral, Jumpseller, Centro Hospitalar Universitario de Santo Antonio, Critical Manufacturing, Centro Hospitalar Universitário do Porto, DEUS, zerozero, Memória Visual, DreamMedia, 4iTEC Lusitânia, Divisão Municipal de Turismo do Porto
- 5 start-ups with entrepreneurial projects
- 2 start-ups with HW+SW projects

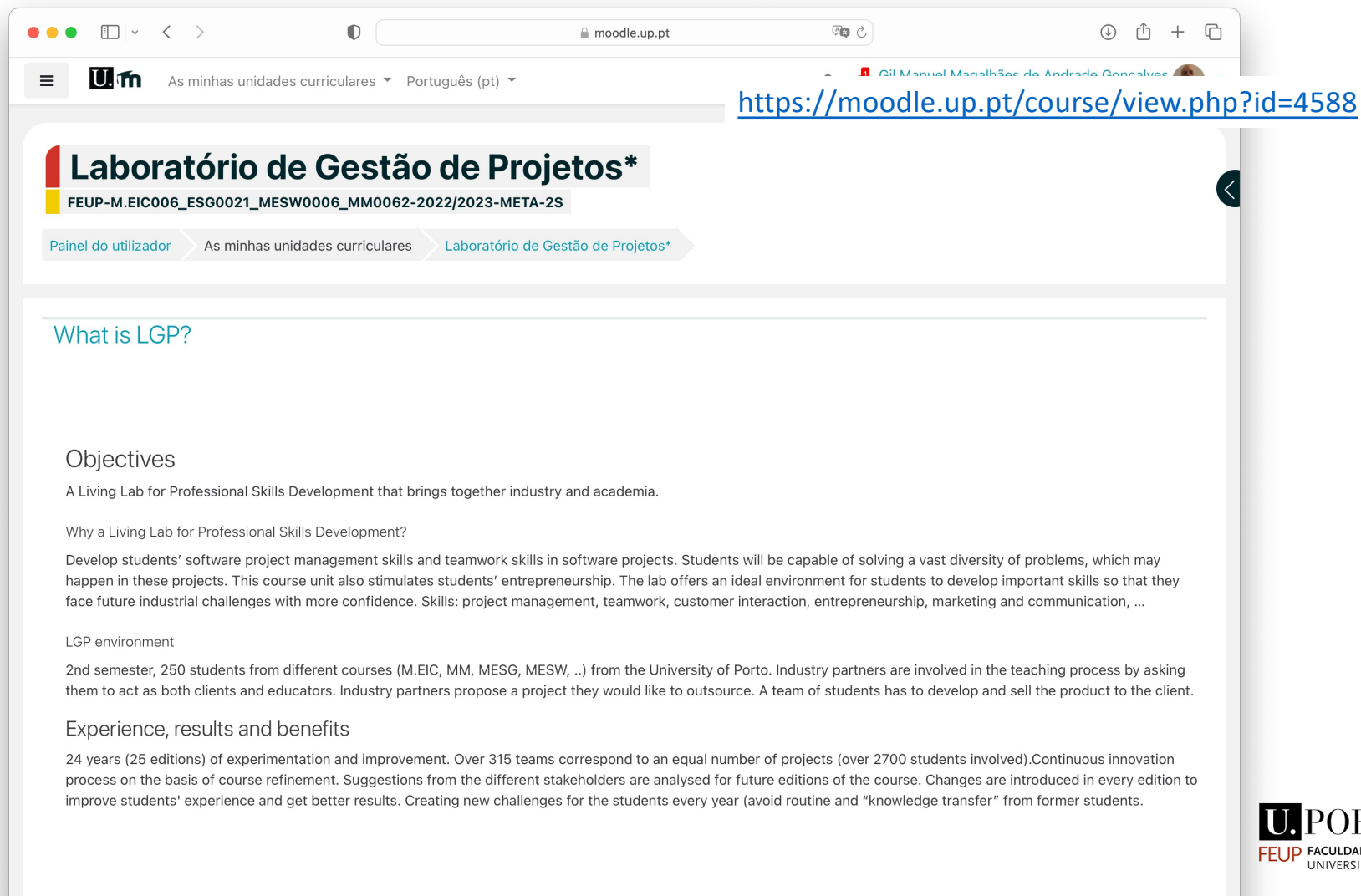
LGP COMPANIES, TEAMS AND PROJECTS

LGP 2022-2023

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LGP - SC	Project	Area	Supervisor	Number
LGP - SC1	Wan-of-a-Kind	market	GG	B332
LGP - SC2	State of the Ark	market	LFT	B331
LGP - SC3	toEaseShifts	market	TBS	B326
LGP - SC4	Not title defined yet	market	PLS	B214
LGP - SC5	GetCloser	market	GG	B332
LGP - SC6	Wharehouse of the Future (WoF)	Research	GG	B332
LGP - SC7	Internet of Robotic Things for Next Generation Quality Control	Research	GG	B332
LGP - SC8	Geração de descrições de produtos para eCommerce com IA	MC Sonae	RSN	B115
LGP - SC9	Mapa ilustrado interativo	InfoPortugal S.A.	LFT	B331
LGP - SC10	Insurance Service Provider Management	Deloitte SA	RSN	B115
LGP - SC11	OurLive	INOVA+	RSN	B115
LGP - SC12	MOG SPORTS – Smartwatch Triggered AI Enhanced Video Highlight Experience	MOG TECHNOLOGIES	LFT	B331
LGP - SC13	"Passaporte de Competências"	Associação do Porto de Paralisia Cerebral - Instituição Particular Solidiedade Social	RMA	B117
LGP - SC14	Email Marketing Tool	Jumpseller	TBS	B326
LGP - SC15	Comunicação em Saude Renal : apoio á decisao partilhada / Communication in Kidney Health: support for shared decision	Unidade I&D Multidisciplinar de Investigação Biomedica (UMIB) / ICBAS/ UP Unidade de Dialise , Centro Hospitalar Universitario de Santo Antonio	LC	B327
LGP - SC16	Critical Manufacturing Virtual Campus	Critical Manufacturing	BMCL	B336
LGP - SC17	Viver com DM1	Serviço de Endocrinologia do Centro Hospitalar Universitário do Porto	LC	B327
LGP - SC18	Robust AI	DEUS	TBS	B326
LGP - SC19	Zerozero GO	zerozero	RMA	B117
LGP - SC20	cromos.pt - zero faltas	Memória Visual	BMCL	B336
LGP - SC21	Software de Mobilidade para as equipas operacionais DreamMedia	DreamMedia S.A.	RMA	B117
LGP - SC22	Digital Yamazumi	4ITEC Lusitânia SA	BMCL	B336
LGP - SC23	App Informação Turística – Agentes Polícia Municipal	Departamento Municipal de Turismo e Internacionalização – Divisão Municipal de Turismo	JGB	B327
LGP - SC24	Startup MM	LGP	PLS	B214

BMCL	Bruno Lima
GG	Gil Gonçalves
JGB	Jorge Barbosa
LC	Leonor Cónego
JGT	Jorge Grenha Teixeira
LFT	Luís Teixeira
PLS	Pedro Correia da Silva
RMA	Rui Maranhão
RSN	Rui Neves
TBS	Tiago Sousa



The screenshot shows a web browser window displaying a Moodle course page. The browser's address bar shows the URL <https://moodle.up.pt/course/view.php?id=4588>. The page header includes the University of Porto logo and navigation links. The course title is 'Laboratório de Gestão de Projetos*' and the course ID is 'FEUP-M.EIC006_ESG0021_MESW0006_MM0062-2022/2023-META-2S'. The breadcrumb trail shows 'Painel do utilizador' > 'As minhas unidades curriculares' > 'Laboratório de Gestão de Projetos*'. The main content area has a section titled 'What is LGP?' followed by 'Objectives'. The objectives section describes the Living Lab for Professional Skills Development, its goals, and the LGP environment. The page also includes a section on 'Experience, results and benefits'.

Laboratório de Gestão de Projetos*
FEUP-M.EIC006_ESG0021_MESW0006_MM0062-2022/2023-META-2S

Painel do utilizador > As minhas unidades curriculares > Laboratório de Gestão de Projetos*

What is LGP?

Objectives

A Living Lab for Professional Skills Development that brings together industry and academia.

Why a Living Lab for Professional Skills Development?

Develop students' software project management skills and teamwork skills in software projects. Students will be capable of solving a vast diversity of problems, which may happen in these projects. This course unit also stimulates students' entrepreneurship. The lab offers an ideal environment for students to develop important skills so that they face future industrial challenges with more confidence. Skills: project management, teamwork, customer interaction, entrepreneurship, marketing and communication, ...

LGP environment

2nd semester, 250 students from different courses (M.EIC, MM, MESG, MESW, ..) from the University of Porto. Industry partners are involved in the teaching process by asking them to act as both clients and educators. Industry partners propose a project they would like to outsource. A team of students has to develop and sell the product to the client.

Experience, results and benefits

24 years (25 editions) of experimentation and improvement. Over 315 teams correspond to an equal number of projects (over 2700 students involved). Continuous innovation process on the basis of course refinement. Suggestions from the different stakeholders are analysed for future editions of the course. Changes are introduced in every edition to improve students' experience and get better results. Creating new challenges for the students every year (avoid routine and "knowledge transfer" from former students).

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FEUP FACULDADE DE ENGENHARIA
UNIVERSIDADE DO PORTO

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LGP []

COMING NEXT



16:00 LGP STARTUP COMPANIES MEETINGS*
(FORMING & KOM PREPARATION)

* CHECK MOODLE FOR THE ROOMS

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