



585687-EPP-1-2017-1-PT-EPPKA2-CBHE-JP

OA2.2.1 - Teams' Work Planning

Developed by TAMK, IFTM, IFAM, and IPP
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1. INTRODUCTION

LAPASSION (Latin-America Practices and Soft Skills for an Innovation Oriented Network) is a project from the program Erasmus+ within the line KA2 – Cooperation for innovation and the exchange of good practices – Capacity Building in the field of Higher Education (reference 585687-EPP-1-2017-1-PT-EPPKA2-CBHE-JP). It involves partners from Portugal, Finland, Spain, Brazil, Uruguay and Chile. LAPASSION consortium has as motivation to create a unique solution to address different problems affecting youth in HEI, helping students to obtain a better training in terms of innovation, soft skills, and internationalization. This solution is obtained by LAPASSION MP/I (Multidisciplinary Projects/Internships) for students' teams to help them to co-create, and co-develop projects proposed by enterprises and other organizations, or to accelerate innovative ideas in an international context involving students from several countries.

The aim of LAPASSION is to increase the innovation culture of HEI and the connection with Enterprises/Organizations (E/O) with impact in Employability, and Internationalization. This aim is pursued by implementing multidisciplinary projects/internships(MP/I) for co-creation, co-development and acceleration of innovative ideas, integrated in the educative project of the involved institutions. MP/I will be implemented by means of students' teams involving students with different backgrounds, different graduation levels, and from different countries, and solving challenges posed by E/O.

1.1 Consortium of LAPASSION

LAPASSION is a consortium with 15 partners, including 13 Higher Education Institutions (4 from Europe and 9 from Latin America), 1 Association of Enterprises from Portugal, and 1 Council of the Federal Institutes from Brazil. The list of the partners is the following:

- Polytechnic of Porto (IPP, Portugal)
- Tampere University of Applied Sciences (TAMK, Finland)
- University of Vigo (UVIGO, Spain)
- University of Salamanca (USAL, Spain)
- Federal Institute Riograndense (IFSUL, Brazil)
- Federal Institute of Triângulo Mineiro (IFTM, Brazil)
- Federal Institute of Goiás (IFG, Brazil)
- Federal Institute of Maranhão (IFMA, Brazil)
- Federal Institute of Amazonas (IFAM, Brazil)

University of the Republic of Uruguay (UDELAR, Uruguay)

Technological University of Uruguay (UTEC, Uruguay)

Foundation of Professional Institute (DUOC, Chile)

Catholic University of Chile (PUC, Chile)

Association of Enterprises of Portugal, Commerce and Industry Chamber (AEP, Portugal)

Council of Federal Institutes of Brazil (CONIF, Brazil)

IPP is the coordinator institution of the project.

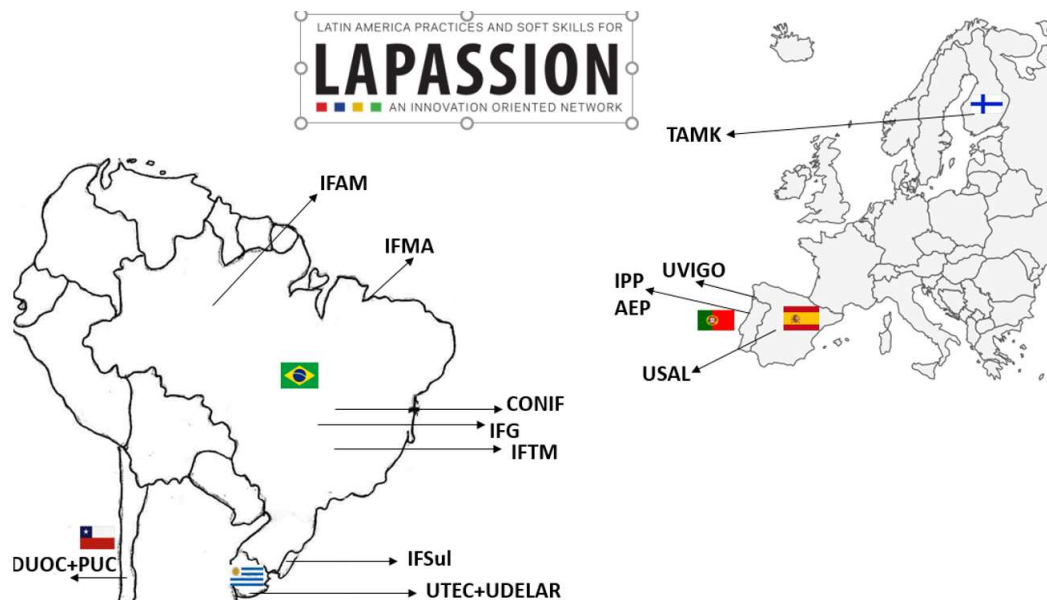


Figure 1 - LAPASSION partners in Latin America and Europe

1.2 Workpackages of LAPASSION

LAPASSION involves the following Workpackages:

WP1 – Preparation and Training for Multidisciplinary Projects/Internships (MP/I)

WP2 – Development of MP/I

WP3 –Quality Planning & Control (QP&C)

WP4 –Communication Plan, Dissemination and Exploitation Strategy

WP5 – Management

The Development of Multidisciplinary Projects/Internships (MP/I) is a very important aspect for the project, and a specific Work package (WP2) has been included for this purpose. One of the important issues is the Teams' Work Planning for distance development projects. The report OA2.1.1 - Teams' Work Planning has centred attention on presential projects. However, and namely considering the sustainability of LAPASSION, the proposal of the project considered the possibility of Distance

development projects in which some students could be in their home institutions. However, the pandemic coronavirus situation transformed the world, and LAPASSION as well. From a possibility for justifying part of the sustainability of the project, distance development and use of online and remote tools and technology were really adopted from one day to another. When coronavirus impacted the lifestyle of the occidental world, beginning of March, two sets of multidisciplinary projects have started: LAPASSION@Manaus in March 2, 2020; and LAPASSION@Goiania in March 9, 2020. Completely imagined to be a presential activity LAPASSION@Manaus were converted to a remote/online mode in the third of the ten weeks, and LAPASSION@Goiania has to be converted in the second of the ten weeks. It was like changing the wheels tyres with the car moving! LAPASSION@Santiago2, and LAPASSION@Pelotas, expected to start at the end of March 2020, were both cancelled. LAPASSION@Pelotas has just started almost 1 year and half after, in September 2021, and completely in online and distance-development mode.

Even for distance-developed projects for a period of 10 weeks, students need to concentrate in the development of their projects/internships. Their MP/I will be something completely different (work with students from different countries, different backgrounds, challenges posed by E/O, etc). Thus the Working Planning is essential for the good development of distance-development MP/I.

2. THE LAPASSION DEVELOPMENT PROJECTS INVOLVING DISTANCE DEVELOPMENT

LAPASSION involved 3 editions (sets) of projects plus one additional edition in Brazil, with distance developed students' projects.

The challenges selected by the 3 original editions of LAPASSION that were made involving distance development were the following:

- Manaus/Brazil (March-May 2020): Socio-Environmental Technologies for the Sustainability of the Amazon
- Goiania/Brazil (March-May 2019): How to contribute to an Inclusive and Sustainable Society?
- Pelotas/Brazil (September-November 2021): Accessibility and Assistive Technologies

These sets of projects were developed during 10 weeks and each one involved sub-challenges. Each sub-challenge was assigned to one multidisciplinary students' team. The number of teams in each edition varied from 5 to 7. The number of students varied from 5 to 8. The origin of these students (different origin institutions) and the different background (areas of their BSc or MSc programmes)

varied from 3 to 4. Different languages (English, Finish, Portuguese, and Spanish, in the last two cases with different accents). With this diversity and heterogeneous nature, the work organization in each team was essential for the success of the students' projects. The good activities' schedule was identified as the main aspect allowing a good evolution in all 10-weeks process for the students.

3. FROM PRESENTIAL TO ONLINE FROM ONE DAY TO ANOTHER

As explained before the coronavirus pandemic obliged LAPASSION@Manaus and LAPASSION@Goiania to go from a complete presential experience to a online, remote and distance-oriented experience. It is important to remember the context of the pandemic. At the end of 2019 and beginning of 2020 the occidental world was surprised by the evolution of the pandemic in China. At the beginning of March 2020 the evolution of the pandemic started to be dramatic in Europe, namely in Italy, and after in Spain. Most of the European Universities have decided to stop the presential classes and adopt e-learning. The suspension of the classes in Brazil was decided at the middle of March, as well. The same happened in Chile and Uruguay. However, they were not really prepared for online training of students, namely sue to the social conditions of many students. It took several months to adopt to e-learning in Brazil, Chile, and Uruguay.

When the decisions to stop the classes were taken in the Federal Institute of Amazonas (IFAM) LAPASSION@Manaus was in the third week. When the decisions to stop the classes were taken in the Federal Institute of Goias (IFG) LAPASSION@Goiania was in the second week. At the week following these suspension LAPASSION started in online/distance mode, and important to say that LAPASSION was the only academic activity happening in IFAM and IFG on these weeks after the suspension of the classes.

On the 2nd of March 2020, LAPASSION@Manaus started, with 32 students engaged in the challenge of Socio-Environmental Technologies for the Sustainability of the Amazon. At the weekend of the first week, they visited Tumbira community, a Brazilian indigenous community reserve (figure 2).



Figure 2 – LAPASSION@Manaus students during the Tumbira reserve immersion

On the 9th of March 2020, LAPASSION@Goiania started, with 26 students engaged in the challenge of “How to contribute to an Inclusive and Sustainable Society?” (figure 3).



Figure 3 – LAPASSION@Goiania opening ceremony

Fears about the coronavirus were in the thinking of everybody during these first weeks. At this moment the projects for Pelotas, and Santiago (the second edition) were postponed. The fear of some student ill with a virus killing so many people, flights being cancelled, supermarkets with limited access, canteens and restaurants closing, this was the situation. But students of LAPASSION@Manaus and LAPASSION@Goiania were there, in the middle of the coronavirus storm, away from their homes and countries, and without protection of home health systems. LAPASSION partners decided that the most safe was try to return students to their home countries as soon as possible. It was an huge and stressing operation, but fortunately it was successful. But students assumed all a compromise, they decided to go till the end of the projects and adopt technology for that purpose (figure 4).



Figure 4 – LAPASSION@Goiania last presential moment and compromise to continue

Motivation of students for the new mode of actuation (online/remote) was important. One of the used techniques was motivation students to students (figure 5).



Figure 5 – LAPASSION@Manaus students produced short videos to motivate each other

4. THE SCHEDULE FOR THE 10 WEEKS

By the beginning 10 weeks seems to be a long time for the development of a multidisciplinary project by a team involving from 5 to 8 members. However, the heterogeneous nature of the team, with students from different countries, with different command of languages, different cultures, from different areas, and different learning approaches creates some expected difficulties. Working practices and organization are very different for a Business&Administration student from Finland, and an Arts student from Brazil, just to give an example. A well-defined schedule, make for the 10 weeks is a good step to put the team on the good direction.

Figure 6 illustrates the Students' Teams Work Planning for the 10 week of LAPASSION@Goiania. Notice that this is a replanning due to the suspension of the presential activities at the end of the second week due to the pandemic crisis in March 2020. The division of the work is the following:

Week 1: Opening, Integration of students, Challenge and sub-challenge presentation, meetings with tutors and counterparts, Learning Contract, Design Thinking

Week 2: Team studies, Audio-Visual Training, meetings with tutors and counterparts, Design Thinking, suspension of the presential activities (covid-19 pandemic)

Week 3: Activities' continuation in online mode, meeting with tutors, Design Thinking

Week 4: Work Plan and field work presentation

Week 5: Ideation, Focused field search, Opportunities' identification, Solutions exploration

Week 6: LAPASSION Questionnaires, meetings with counterparts and solutions presentation to counterparts

Week 7: Prototyping

Week 8: Prototype Testing

Week 9: Final Deliverable

Week 10: Questionnaires, Reports, Demo Day with pitches, and Virtual Confraternization

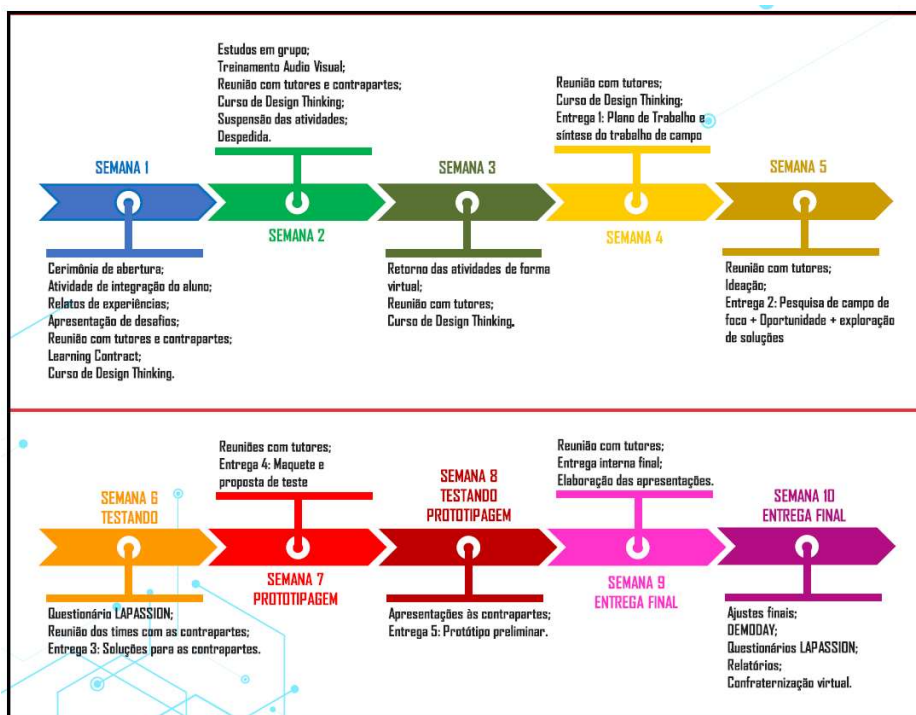


Figure 6 – LAPASSION@Goiania Schedule for students' teams

Figure 7 shows the activities for one week, the first week, of LAPASSION@Manaus (the first week of March 2020). In the first day it happens the opening of LAPASSION@Manaus and the main challenge was presented and discussed (Socio-Environmental Technologies for the Sustainability of the Amazon), and subchallenges presented. The second, third and fourth days were dedicated to a workshop on Design Thinking, and activities for the integration of students. The fifth and sixth days involved a travel and immersion in Amazonia Forest Tumbiara's reserve, this activity was very important for the understanding of the problems of Amazonia and the native people, and for the integration and teams cohesion. Fortunately it was organized in the first week, since that in the third week LAPASSION@Manaus the project was converted to completely online due to the pandemic situation of covid-19.



	01 WEEK - IMERSION (march)						
	2	3	4	5	6	7	8
08:00	Reception and Institutes presentation		Design Thinking workshop		Immersion in the Amazon Forest - Tumbira's reserve	Immersion in the Amazon Forest - Tumbira's reserve	free day
09:00							
10:00							
11:00							
12:00							
13:00							
14:00	Schedule, tutors and challenges presentation.	get-to-know-each-other dynamic	Team time.	Lecture on Manaus, its geography, history and environmental policies.	Immersion in the Amazon Forest - Tumbira's reserve	free time	free day
15:00	Teams division						
16:00	Lecture: overall perspective on the challenges.						
17:00							
18:00							

Figure 7 – LAPASSION@Manaus Schedule for students' teams for the first week

Another example of week planning is illustrated in figure 8, from LAPASSION@Pelotas. During the weeks 2 and 3 it is planned a set of activities (figure 8), from Talks about topics so diverse like Industry 4.0, Artificial Intelligence, Urban Mobility, Accessibility, and Assistive Technologies. Workshops about other topics, like Soft Skills, or Design and Innovation are also scheduled. There is space for students' projects development and meetings.

	DATE	ACTIVITIES (from 10:00 to 12:00)
Week 2	06/09/2021	Industry 4.0 and Accessibility – Open discussion • Industry 4.0 – Pillars – Prof. Mauro André Barbosa Cunha • Urban mobility and technologies – Prof. Adriana Araújo Portella • Artificial Intelligence for accessibility – Prof. Carlos Fernando da Silva Ramos • Apps and assistive technologies – Lítiane Corêa Gomes Silveira Graphic Designer
	07/09/2021	Project development (discuss the pros and cons of each challenge; decide a priority order for the challenge choice; each team elects a representative)
	08/09/2021	Student representatives and Lapassion Team meeting - definition of the challenges.
	09/09/2021	Soft Skills and The Future Professional - Prof. Pedro Carlos H. Junior
	10/09/2021	Project development
Week 3	13/09/2021	Design and Innovation – Prof. Vinicius Krüger da Costa
	14/09/2021	Accessibility in educational and open resources – Prof. Raymundo Filho
	15/09/2021	Project Development
	16/09/2021	Accessibility – Prof. Rosane Bom
	17/09/2021	Project Development

UPDATED ON 21-09-2021

Figure 8 – LAPASSION@Pelotas Schedule for weeks 2 and 3

5. ONLINE/DISTANCE TECHNOLOGIES FOR COOPERATION AND MEETING

LAPASSION@Manaus and LAPASSION@Goiania were affected by the coronavirus pandemic, a bad thing that avoided students to have a complete 10-weeks presential experience. However, it was a tremendous moment for learning and sharing in the context of LAPASSION project. During the second half of March 2020, LAPASSION students, coaches, professors, counterparts started to use several online cooperation and meeting platforms. Zoom, Microsoft Teams, Google Meets, Discord, Skype, Whatsapp, Slack, and many other platforms were used in the development of Multidisciplinary Students' Projects.

These tools have been used for meeting of teams' students, and meetings with coaches and counterparts (figure 9).

Camila LIENLAF VERGARA está apresentando

Lucyanna Coelho e mais 29

35

Você

CRITERIAS \ IDEAS	1. DISASSEMBLY & SELL	2. "ARDUINO" FROM ELECTRONIC DEVICES	3. REVERSE DELIVERY SERVICE	4. EDUCATIONAL MATERIAL	5. REFURBISHING	6. ADVERTISING CAMPAIGNS FOR PROPER DISPOSAL
ECONOMICAL SOLUTION	✓	✓	×	✓	✓	✓
EASY MANUFACTURE	✓	✓	✓	✓	×	✓
SOCIAL IMPACT	✓	✓	✓	✓	×	✓
ENVIRONMENTAL IMPACT	✓	✓	✓	✓	✓	✓
ATTRACTIVENESS	×	✓	×	✓	✓	✓
RESISTANCE	×	✓	×	✓	×	×
INNOVATION	✓	✓	×	✓	×	×
DESIGN	×	✓	×	✓	×	✓
	4.5	7.5	3	8	3	6

○ ○ ○ ○ IDEATION

LAPASSION

Camila LIENLAF VERGARA

Sara Valavaara

Jucimar Brito de Souza

Figure 9 – LAPASSION@Manaus online meeting of a team

Even some practical experiences were made using these collaborative tools (figure 10).

Rodrigo moura de carvalho está apresentando

Andre Wilson Ar... e mais 24

30

10

Rodrigo moura de carvalho

Paulo Henrique Rocha Arde

Jose Pinheiro de Queiroz Neto

Alpha Project

26/25

Figure 10 – LAPASSION@Manaus online visualization of an experience

The collaborative tools for online meetings have been used also for the deliverables presentations (figure 11 and figure 12).



Figure 11 – LAPASSION@Goiania deliverable in week 8

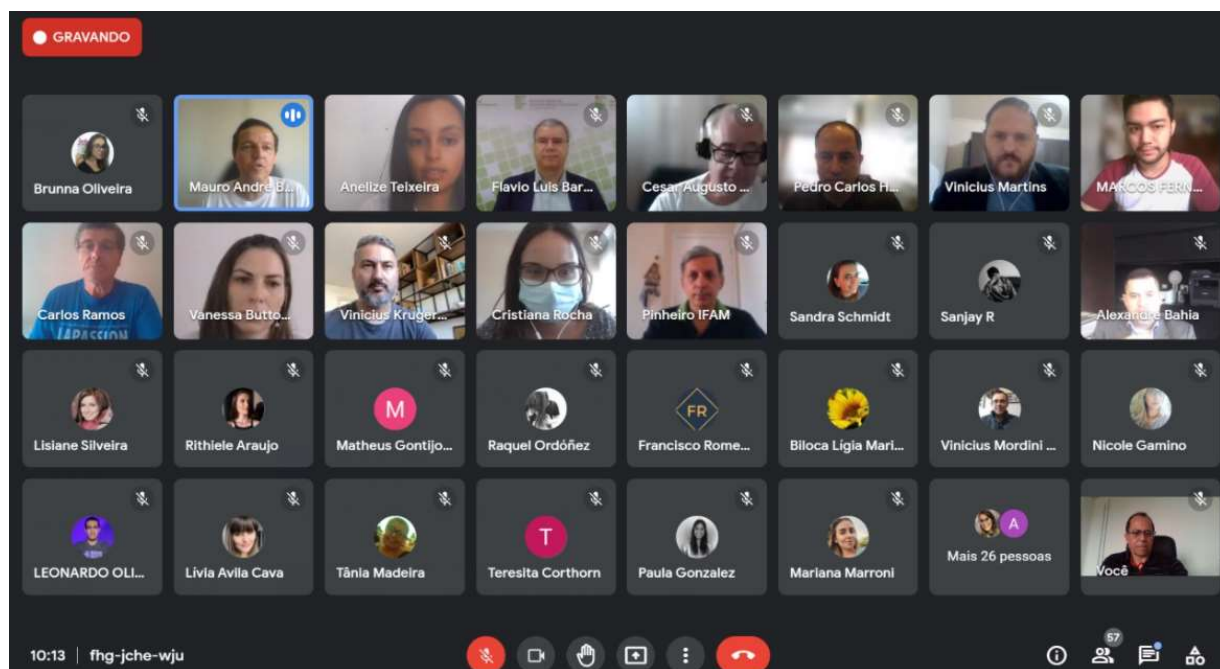


Figure 12 – LAPASSION@Pelotas deliverable

Even the Demo Day has been implemented by means of the collaborative tools, allowing the transmission to an open audience (figure 13 and figure 14).

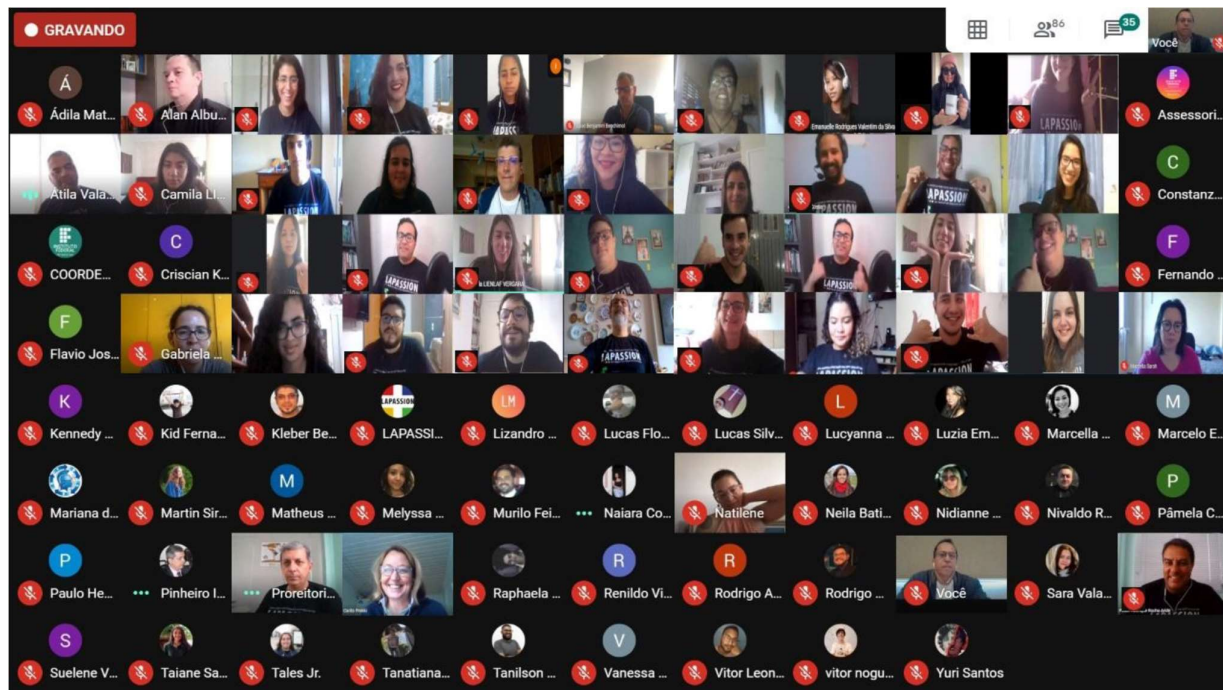


Figure 13 – LAPASSION@Manaus online Demo Day

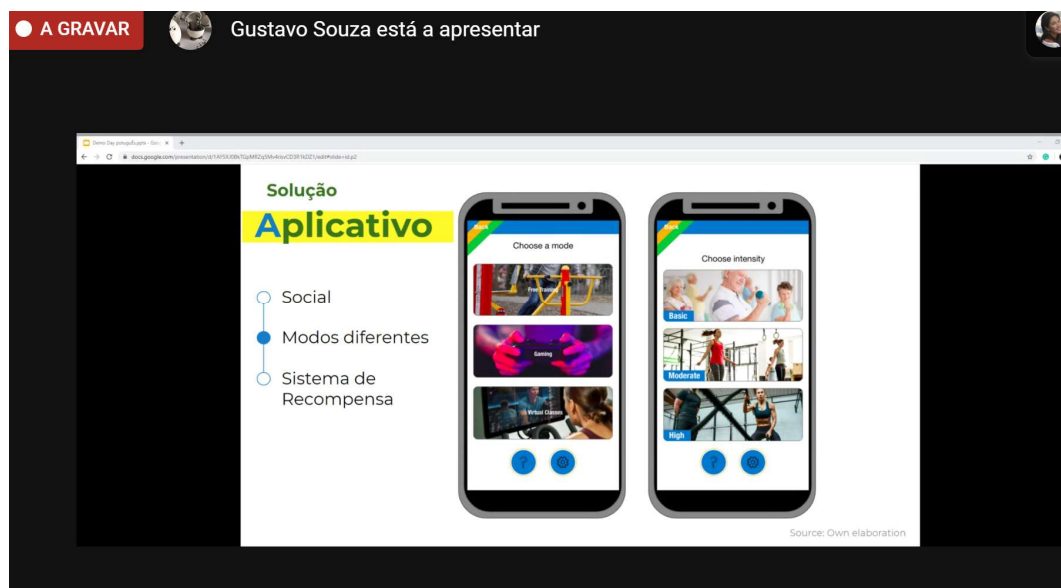


Figure 14 – Presentation of a team project of LAPASSION@Goiania in the online Demo Day

6. CONCLUSIONS

Multidisciplinary Students' Teams working for 10 weeks to propose a solution to a challenge-based problem and involving heterogeneous members (different countries, languages, cultures, institutions, programmes, etc) is amazing, but difficult to handle. Planning for the 10-weeks period involve activities for putting the students together, for going to groups of students to real teams. It involves time for preparation of the students (workshops, talks, visits), meetings with people (counterparts, possible final users, coaches), moments for work, for preparing deliverables, for demonstrations, and pitches. Just a very good planning of the Students' Teams will allow to achieve the expected results, and the success in proposing a solution for the sub-challenges. The preparation for online projects is very demanding since students will not be together in physical meetings. It is clear that it is not the same experience, and physical meetings with all the benefits from face-to-face interactions, but it is possible to do it online. We expect that for the Sustainability of LAPASSION project, and namely after all the difficulties of coronavirus pandemic, it will be possible to explore a mixed development of projects, combining some students together in the same space with other students participating remotely and online.