



report **POCH**

PROGRAMA OPERACIONAL CAPITAL HUMANO

POCH-04-5267-FSE-000821

course "learning based on co-creation processes"



topic design projet my demola team

cities of the future will be powered by big data and AI

17oct/16 dec 2022



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about me



since 2000, he has been conciliate his professional activity with teaching in higher education. he is eternally curious about design and advertising and passionate about the art of teaching. received a degree in communication design from the college of fine arts at the univ. of the port, in the year 2000. in 2007, at the same college, he completed a master's degree in multimedia art with the project "non-places in the city of porto". in 2012, he began his doctoral adventure in art and design.

at caetsu, as a creative, in 2001 he participated for the first time in the ccp (creative club of portugal), with the poster-campaign: "add attachment", winning an honorable mention (advertiser: sagres).

the next year, with a new participation, it won first prize, with the poster-campaign: "it's never too late to be yorn" (advertiser: yorn).

the next year, with a new participation, it won first award, with the poster campaign "it's never too late to be yorn" (advertiser: yorn).

professional context he worked on several brands, namely toyota, bmw, lexus, mini, metro do porto, sic tv, ge money, salvador caetano group, apcor, edge douro cafes, essence of wine, timberland , portuguese aeg, apn, popular radio, continental tires, molaflex, etc.

for several years he worked as a designer and creative at caetsu.

he was art director for several years at qa publicidade (porto).

he was a professor for several years at est and esd at ipca (barcelos).

on december 21, 2022, he obtain the title of specialist in audio-visuals and media production, the final classification was unanimous: approved with distinction.

currently he's the creative director at ITI (VN Giaia) and teacher at ipvc and ipmaia (portugal).

**In this demola project, I assumed the role as a facilitator, it was crucial the process to monitoring, guiding and motivating students.
good ideas don't fall from the sky.**

portfolio - 305design.pt

linkedin - linkedin.com/in/305vitortavares

ciência vitae - cienciavitae.pt/portal/0610-278b-c14c



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design research

topic design project



DEMOLA projet
completed

main initials questions

The key to cities of the future will be powered by big data and AI?

How will AI transform smart cities?

We need (re)think all things about the future of cities and we should aspire to a better quality of life in our cities, like a dream with a perfect city.

Artificial intelligence (AI), robots and data software will be the answer to creating a new approach to planning the cities of the future?

topic submitted: 28.09.2022

demola team project

SELECTED TEAM MEMBERS

get list

+ add student

PEDRO RIBEIRO

pedroamaral@ipvc.pt
+351965473482
Team participation: **Confirmed!**


DIOGO AMARAL

diogo.amaral@ipvc.pt
+351934444237
Team participation: **Confirmed!**

ISIS PINTO

isismadalena1973@gmail.com
+351914780130
Team participation: **Confirmed!**

my team students

CURRENT ACCESS TO RESULTS 

PEDRO RIBEIRO


Can see results in Demola Portal
[certificate public link](#)

DIOGO AMARAL

Can see results in Demola Portal
[certificate public link](#)

ISIS PINTO

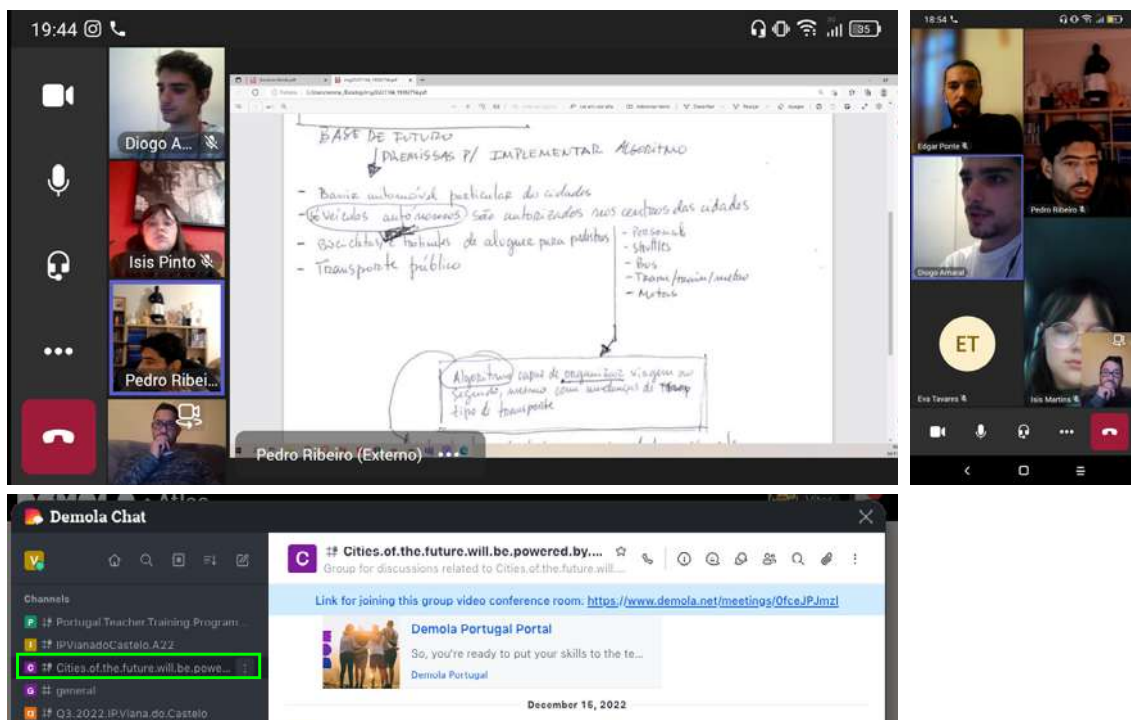
Can see results in Demola Portal
[certificate public link](#)

ALLOW ACCESS TO RESULTS 

All team members already have a certificate.



methodology work



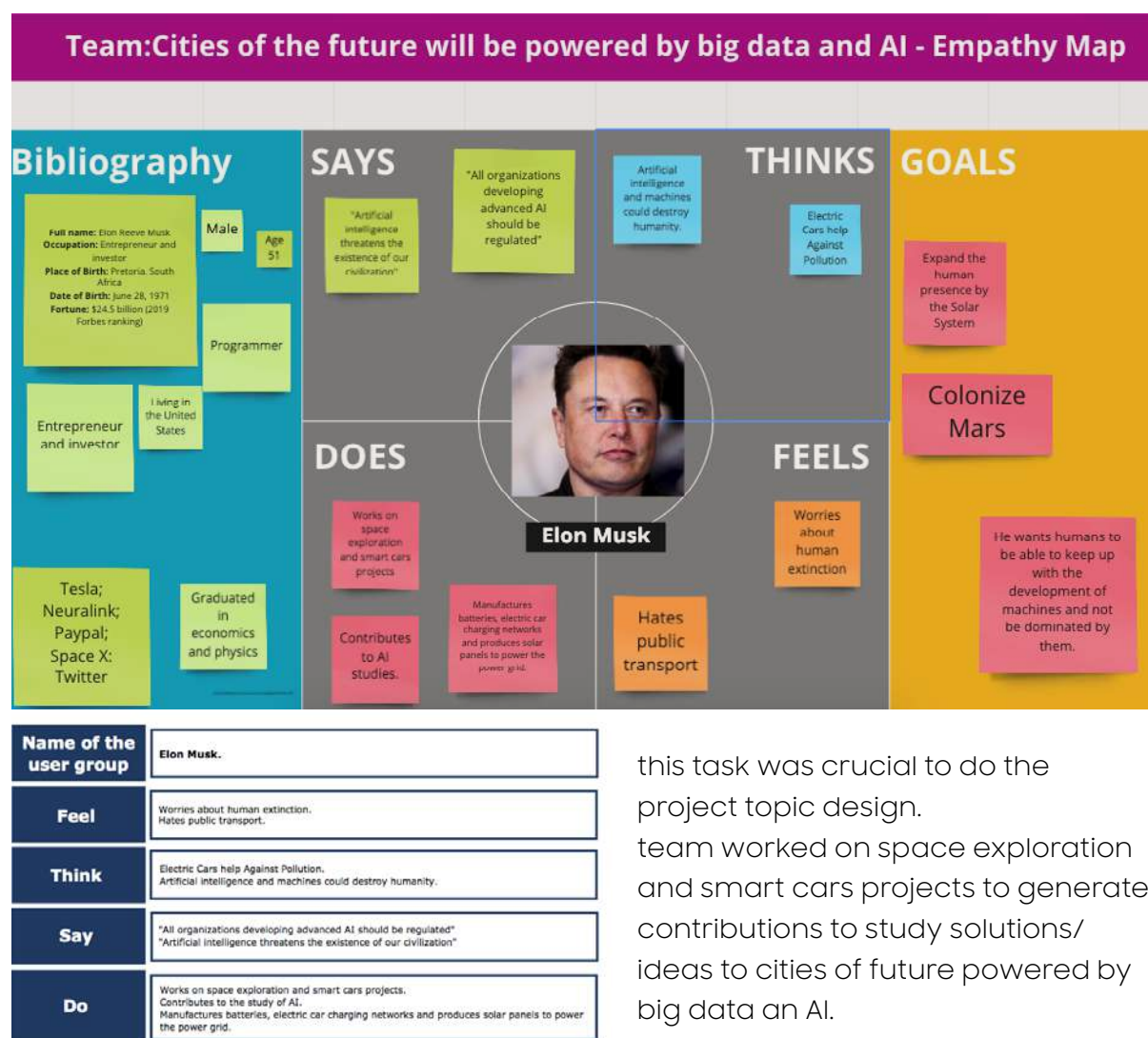
every weeks the team met on fridays online in demola chat (18:30-20:00 pm) to move forward with the project, discuss and share ideas/questions to work and respond proposed tasks week by week in demola.

these meetings was fruitful and crucial for improvovement, conclusion and materialization of the idea prototype and conclusion of the final report of this.

the results grew naturally, because i felt as a facilitator that the team was highly motivated with the theme of the project.



empathy maps task



this task was crucial to do the project topic design.
team worked on space exploration and smart cars projects to generate contributions to study solutions/ ideas to cities of future powered by big data and AI.



speculative design

signals

the various signals found in the creative process with students to research design, were relevant to move forward to the next step of the demola project idea.

Name	Type	Context	Origin	Reactions	Comments	More
1 Contact with nature	change	behavioral change	personal perception or insight	0	0	
2 The future of climate technology	warning	technology	observation/interview	0	0	
3 Indoor Employment MORE	opportunity	behavioral change	news/publication/other	0	0	
4 CROSS-BORDER WORKER	change	business	news/publication/other	0	0	
5 inner appreciation program	solution/idea	behavioral change	news/publication/other	0	0	
6 Automated guided vehicles and robotic drones	solution/idea	technology	news/publication/other	0	0	
7 URBAN PLANNING SUSTAINABLE	problem	environment	data analysis	0	0	
8 Sponge Cities	solution/idea	environment	news/publication/other	0	0	
9 STEM education	change	environment	observation/interview	0	0	
10 Business Directories	change	environment	news/publication/other	0	0	

future questions

what if...?

- private cars will be banned from center of cities?
- autonomous types of transportation will be the only allowed in the center of cities?
- an algorithm controls all the traffic of autonomous types of transportation?

how might we...?

- introduction of congestion and parking charges to internalise the negative impacts of private transport



future stakeholders personas

name of the future persona:

- delivery goods is a crescent trend;
- each city has its own delivery services that are paid with fees charged to regional/ national/international delivery companies;
- each defined area of the city has its dedicated module to the deliveries that work as a pick-up point as well (fees of deliveries are adapted for which service citizen chooses);
- each model has parking spots in each area and the module (algorithm) chooses the midpoint adapted to the deliveries addresses.

changes in the future persona:

SKILLS:

- no need of delivery workers.
- better and suitable delivery by pick up or home delivery at best hour to customers with an enlarged schedule.
- more versatile service.

BEHAVIOR:

- no one needs to be at home at certain hour to a successful delivery;
- citizens will have a more comfortable way of delivery;
- it is expected that this can promote more walking time to citizens, charging more the door delivery compared to pick-up delivery;
- better and suitable delivery by pick up or home delivery at best hour to customers with an enlarged schedule.
- more versatile service.

VALUES:

- city earns fees/taxes to service maintenance and it is expected to have an extra to governance/infrastructures (working like a free tourism).



bootcamps and online meetings



the bootcamps meetings at beja (ipb) and viseu (essv) were really relevant, and all weekly online meetings with the trainer Demola were fruitful and productive.

sharing of ideas, new questions, new themes, new knowledge's in different areas with other colleagues (facilitators), **some points of view:**

- first of all to allow teachers to know each other;
- identify the main ideas for potential work;
- connect and make network between teachers from different polytechniques;
- share knowledges and new experiences.



project idea (prototype)

concept idea



Concept Matrioska



autonomous public transport that initially would be a single module, and as it was filling up and reaching maximum capacity would increase another module, being able to repeat this process several times up to a maximum number of modules.

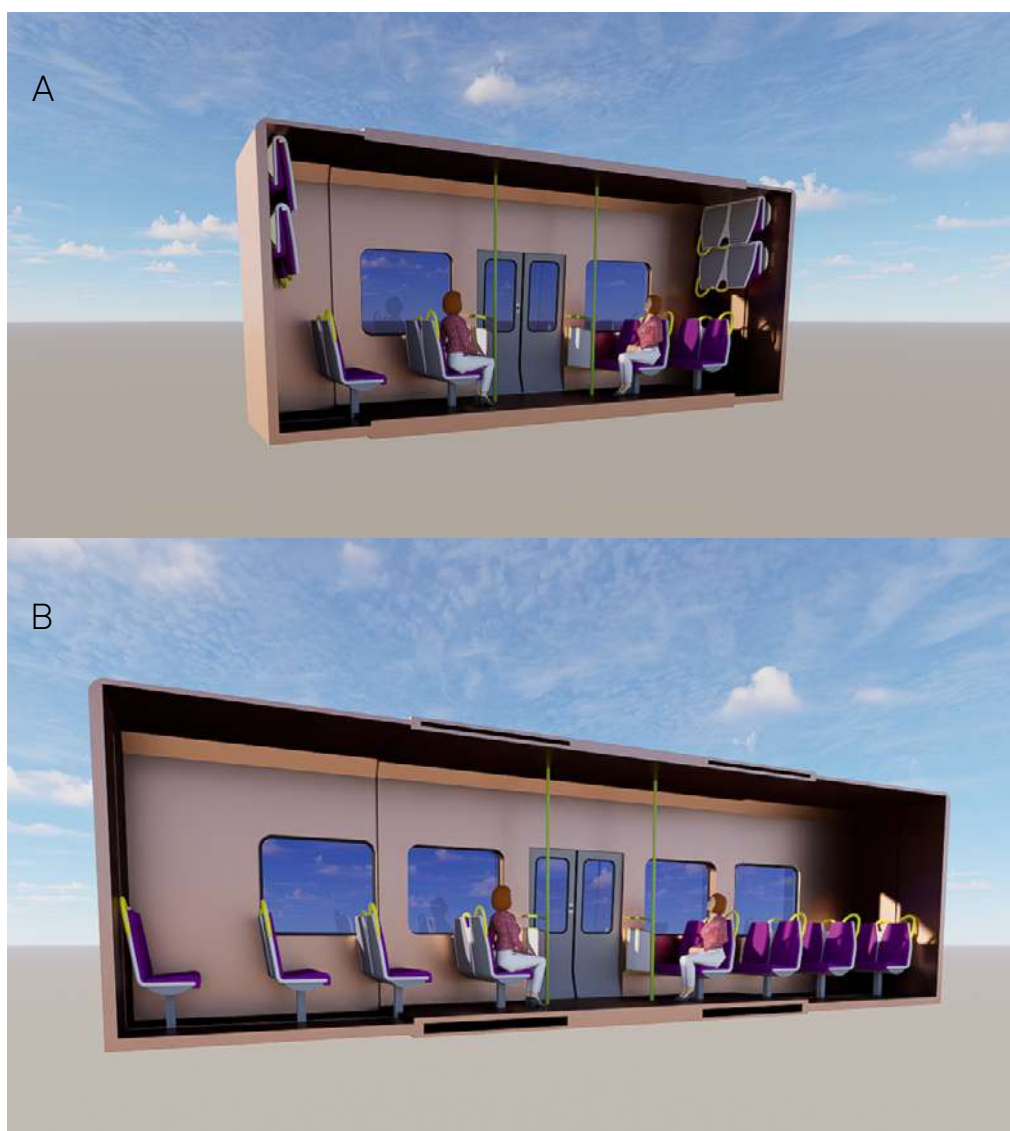
at the end of their journey as people left the transport, it would collect the modules, returning to being one.

the idea is to create a public transportation system that automatically adjusts its size and capacity based on the number of passengers it needs to pick up and the route and the route it is going to go. this would allow for more efficient use of road space and reduce the amount of empty or overcrowded vehicles on the road.

for example, if the system detects that is approaching a busy stop with a high number of passengers waiting, it could automatically expand to accommodate more passengers. similarly, if the system detects a less crowded stop, it could automatically retract to save space and reduce the number of empty seats. this type of system would be managed by an algorithm that constantly monitors the number of passengers and adjusts the size of the vehicle accordingly. the algorithm also considers factors such as the height and width of the street, the presence of other vehicles and pedestrians, and any potential obstacles or hazards. by constantly monitoring and adjusting its size to optimize the route and make adjustments to improve efficiency. this type of autonomous public transportation system could improve the reliability and efficiency of public transportation in cities.



project idea (prototype)

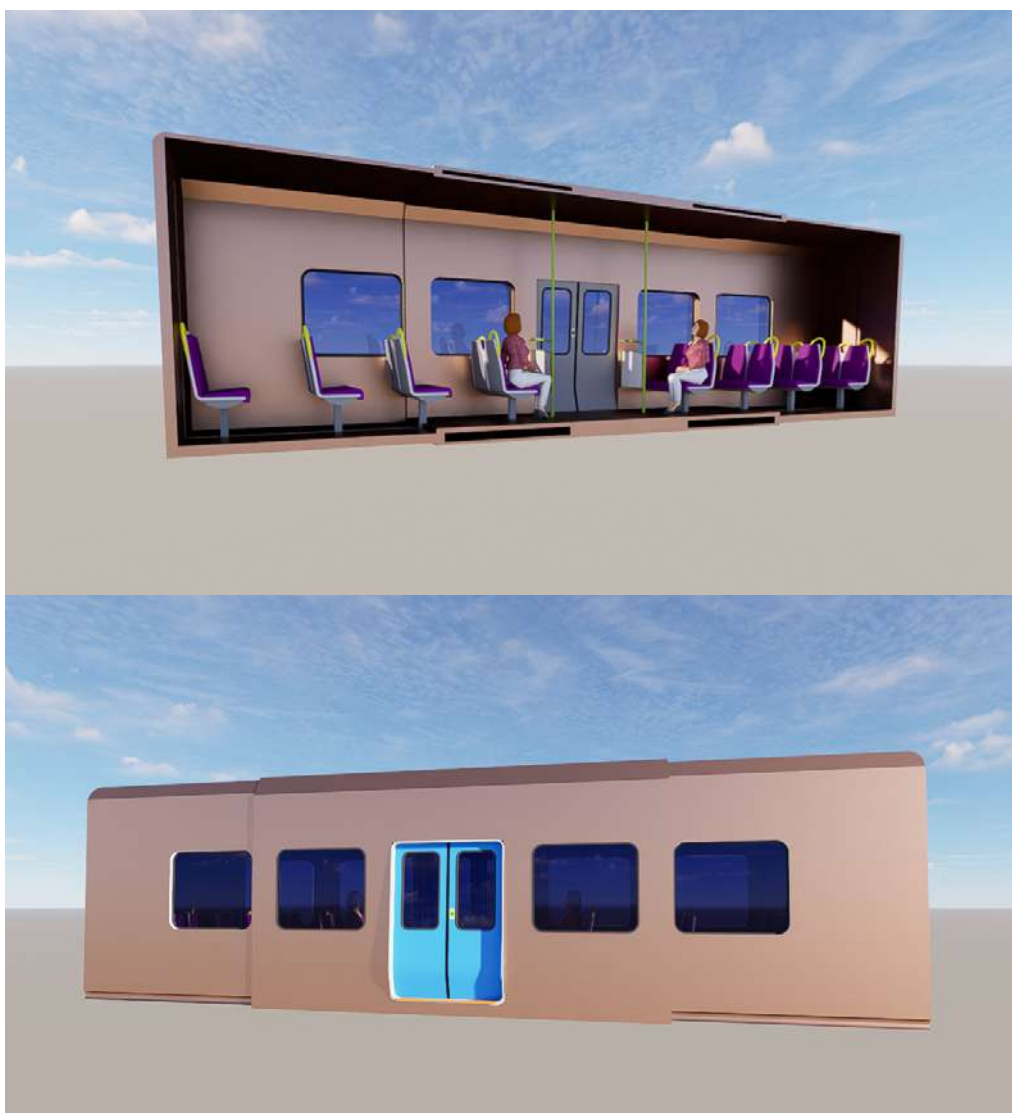


with this project we concluded that there is many issues to be solved for a more efficient and fluid mobility in the future cities. the private car stills as the main way of mobility and that needs to be stopped. the adaptation of the present cities for smart cities are a process that needs will and courage in some way. the technology also needs to be improved for autonomous mobility being totally safe and being safe the application of our thoughts and ideas. big data and ai are improving every day but stills a needed path to assume the big role in this theme.

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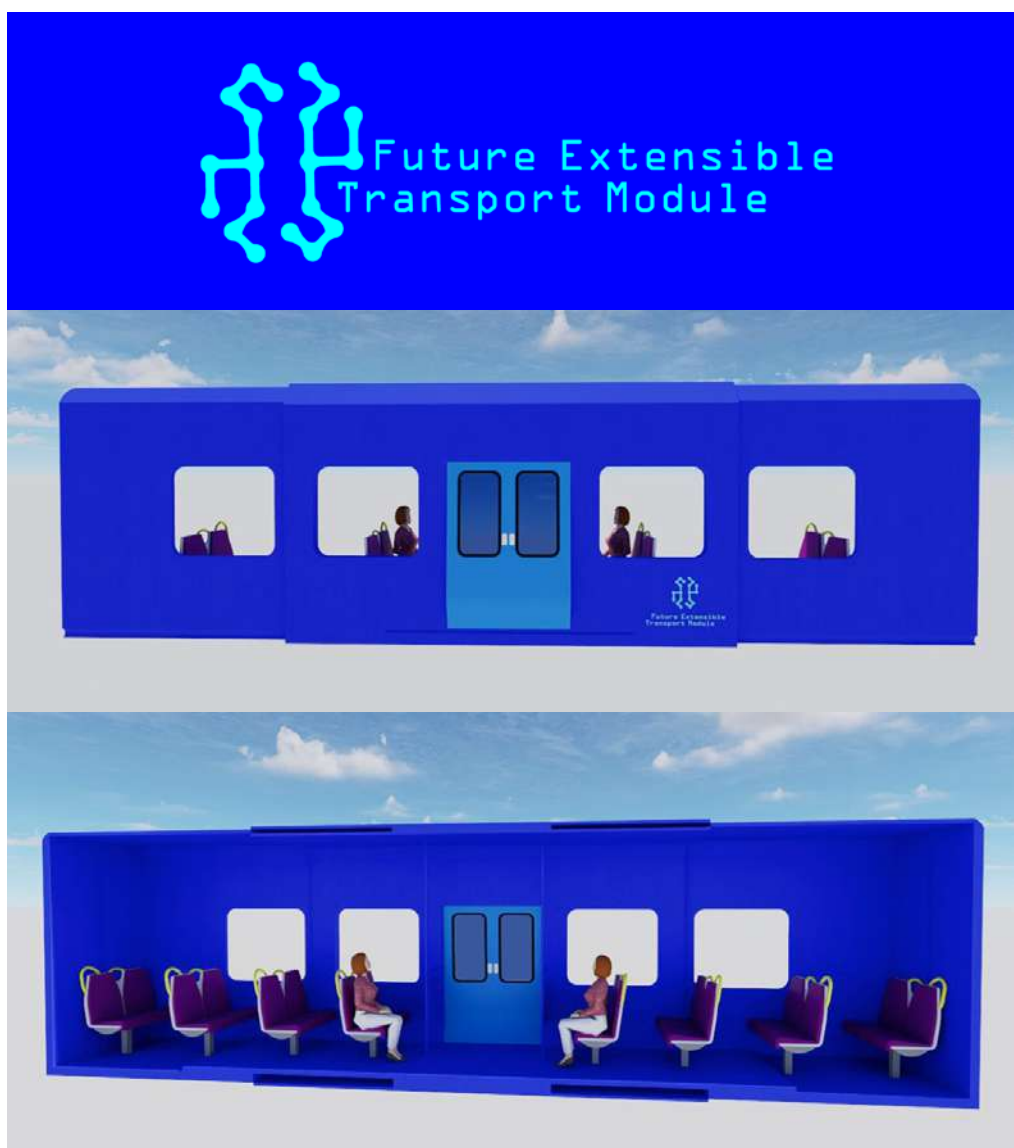
prototype idea



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prototype (naming/logo & 3D)





conclusions/reflections

first of all, as a facilitator what i did learn about demola project?

- team work
- news experiences
- learn to listen / open to listen
- learn new methodology in design research and design speculative
- news points of views
- team confidence
- improvement knowledge about big data and AI

what i like to do?

solve problems for mobility in cities of the future with big data and ai, for that it was necessary create empathy maps group and think relevant prototype ideas.
this project is about creating something new .

main goals achieved:

make the team create feel authonomy and confidence work.
imerge your creative liberty and **make idea happen.**

vik team



(vítor tavares teixeira)

viana do castelo, ipvc.

26 jan 2023

final pitch - ipvc

my team was in 2nd place final pitch at ipvc
viana do castelo (4th edition), 20.01.2023.

 		
Instituto Politécnico de Viana do Castelo Sessão PITCH FINAL da 4ª edição do projeto Link Me Up 1000 ideias - dia 20 jan 2023 Resultados finais		
	Médias por parâmetros	Média Final
Digital and data new age		
Clareza da comunicação	3,4	
Criatividade na apresentação	3,2	
Apresentação robusta dos resultados	3,4	
Argumentação	3,3	
Grau da inovação dos resultados/diagnóstico apresentados	3,6	
		3,38
Sustainability, Communication and semantic data		
Clareza da comunicação	3,4	
Criatividade na apresentação	3	
Apresentação robusta dos resultados	3,4	
Argumentação	3,9	
Grau da inovação dos resultados/diagnóstico apresentados	3,5	
		3,44
New Branding for Eurocities		
Clareza da comunicação	3,5	
Criatividade na apresentação	3,2	
Apresentação robusta dos resultados	3,7	
Argumentação	3,74	
Grau da inovação dos resultados/diagnóstico apresentados	3	
		3,428
Coloring Cities		
Clareza da comunicação	3,7	
Criatividade na apresentação	4,4	
Apresentação robusta dos resultados	3,9	
Argumentação	4,1	
Grau da inovação dos resultados/diagnóstico apresentados	3,7	
		3,96
Future cities will be powered by BD and AI		
Clareza da comunicação	3,4	
Criatividade na apresentação	2,9	
Apresentação robusta dos resultados	3,66	
Argumentação	3,7	
Grau da inovação dos resultados/diagnóstico apresentados	4,1	
		3,552
Science and Art for sustainable rural areas		
Clareza da comunicação	3,4	
Criatividade na apresentação	3,2	
Apresentação robusta dos resultados	2,9	
Argumentação	3,2	
Grau da inovação dos resultados/diagnóstico apresentados	2,8	
		3,1
Viana do Castelo, 20 de janeiro de 2023		
Teresa Gonçalves		



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kamk university certificate

CERTIFICATE OF ACHIEVEMENT

PROUDLY PRESENTED TO

Vítor Teixeira

for completing 8 credit course
Professional Development Training Program on Demola Co-Creation Facilitation.

Kajaani 02.03.2023

MATTI SARÉN, RECTOR
Kajaani University of Applied Sciences

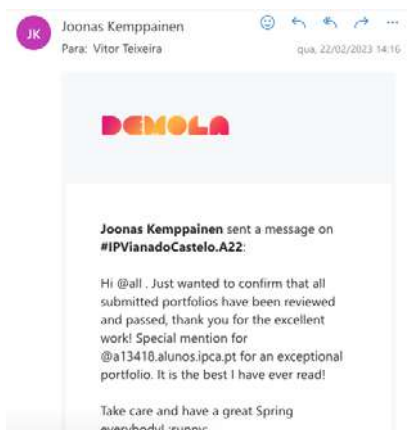
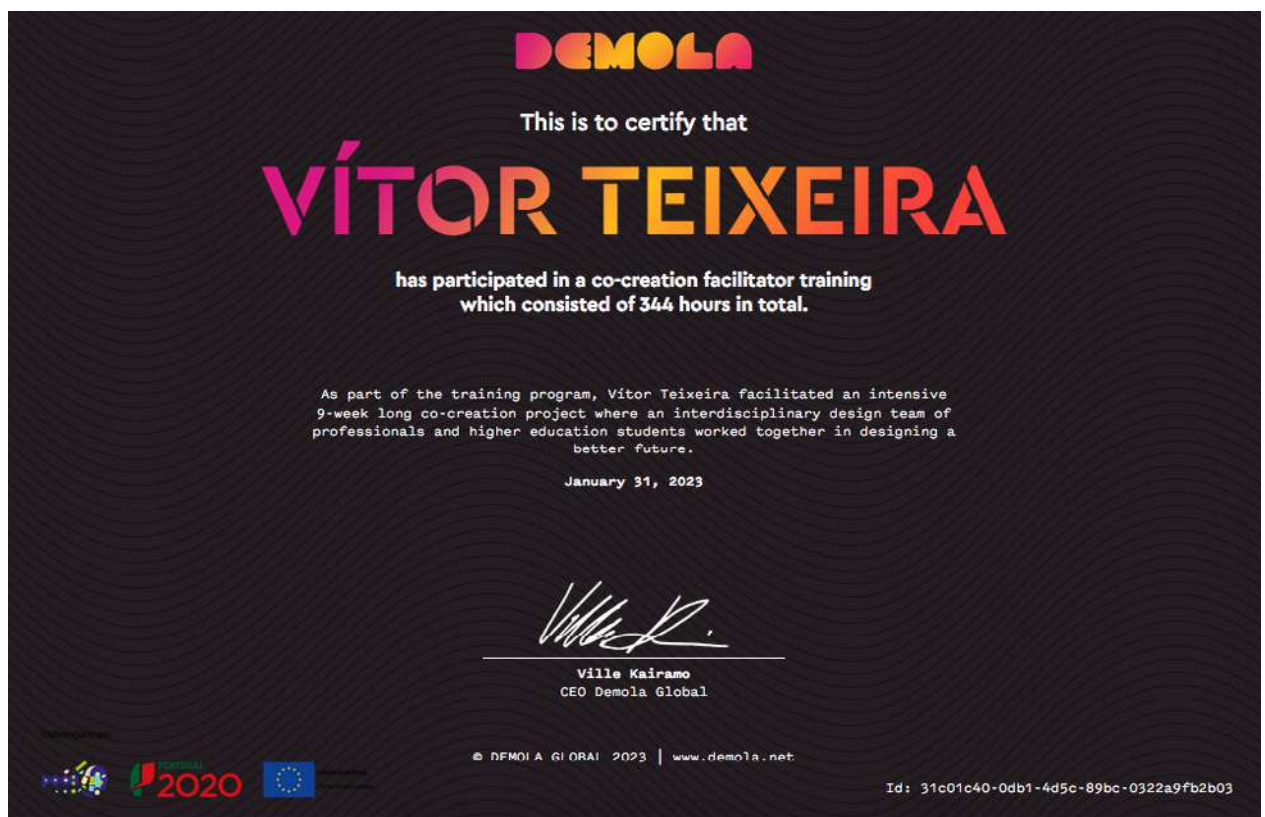


The studies are measured in credits (cr) according to the European Credit Transfer and Accumulation System (ECTS).
A student's average study effort of 27 hours corresponds to 1 credit.

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demola certificate



feedback demola
by joonas kemppainen
22/02/2023



vitor t
(vitor tavares teixeira)

viana do castelo, ipvc.
26 jan 2023