unite! | University Network for Innovation, Technology and Engineering

U!TRAIN
MANIFESTO
BARCELONA TO GRENOBLE '24

CONTENT

1. Driving Sustainable Mobility in Europe

Universities, as fundamental pillars of knowledge and innovation, play a crucial role in the transition towards sustainable mobility. Their very nature generates a constant need for travel, from international student and staff exchanges to participation in conferences and research trips. Despite the advancements in digital connectivity, in many cases, physical presence remains indispensable to foster effective collaboration and the exchange of best practices. In this context, the Unite! Alliance stands out as a key player in European mobility.

In the framework of European Mobility Week, the Unite! alliance reaffirms its commitment to sustainable transport and societal well-being. Taking advantage of this week, Unite! issues this manifesto as a firm statement advocating for real change in the transport sector. **The nine universities of the alliance not only emphasize their responsibility as agents of knowledge and innovation but also highlight their determination to actively contribute to building a greener and more accessible future for all.**

As frequent consumers of mobility, universities can significantly contribute to the revitalization of rail transport in Europe both by encouraging rail use for academic mobility and by conducting research on transport solutions. Given their influence on young adults and their capacity to foster innovation, universities are well-positioned to improve the attractivity and efficiency of the rail network.

However, for them to truly become agents of change towards greener mobility, it is essential to guarantee improvements in the European railway infrastructure. The Erasmus+ programme, for example, could benefit significantly from increased rail travel, but the current lack of efficiency and connectivity within the network hinders this goal.

Europe stands at a critical moment for transitioning towards a more sustainable future. Railways, once the dominant mode of transport before the rise of aviation, have immense potential to become a cornerstone of this change. Trains can efficiently cover many short and medium-distance trips, drastically reducing emissions and offering greater energy efficiency compared to aviation or road transport.

As part of the U!Train programme, 28 students from the Unite! university alliance, travelled by train from their 9 universities across Europe to Barcelona and then Grenoble. During this trip, they conducted a "mapathon" - a collaborative mapping exercise - to identify and document critical issues in the European rail network that they experienced firsthand. They collected more than two hundred points across nine routes highlighting an urgent need for improvement to facilitate an effective modal shift towards a greener and more energy-efficient Europe based on rail. Their findings are gathered at the end of this document and were analysed and discussed to publish this manifesto. The student highlighted several key demands from their experience and analysis.

2. Key Demands for Sustainable Rail Mobility

- **Accessibility for All:** European rail transport must be inclusive and accessible to all individuals. This requires more dedicated spaces for people with reduced mobility, ramps on all trains, visual and written information for deaf passengers, and specific adaptations for those facing physical challenges, such as larger seats or assistance with heavy luggage.

- **Increased Passenger Comfort:** Train travel should be a comfortable experience. Students call for improvements in train infrastructure, such as more legroom and luggage space, better sanitary facilities, adequate ventilation, high-speed Wi-Fi connectivity, and power outlets on all trains. These improvements will not only enhance comfort but also boost passenger productivity.

- **Improved Customer Service:** Cross-border mobility demands better coordination between railway companies from different countries. A unified system for booking tickets, coordinating delays, and accessing real-time information on connections, reservations, delays and multilingual assistance across nations is urgently needed.

- **More Travel Options and Efficiency:** There must be more direct trains between major European cities and increased night train services. Trains should become a faster option than cars and cheaper than planes, supporting the modal shift toward rail. Achieving this requires modern and efficient infrastructure, as well as competitive pricing to allow all social groups to be able to afford train travel.

- **Sustainability as a Priority:** We urge policy-makers and rail operators to align their actions with the Sustainable Development Goals (SDGs) and European policies such as the Green Deal. Railway infrastructure should be improved not only for efficiency but also as a commitment to a greener future.

3. Call to Action

With the emergence of new (or restored) night train services and the implementation of the Trans-European Transport Network policy (TEN-T), we are on the brink of a new golden age for trains. However, to make this renaissance a reality, all stakeholders (policy-makers, operators, national and European governments) must align with sustainability goals such as the European Green Deal and the Fit for 55 plan, taking decisive and coherent action.

The rebirth of trains as a dominant mode of transport is possible, but only if governments and operators invest in strategic improvements that align with the EU's sustainability policies. T**his manifesto, driven by the voices of students from across Europe and backed-up by the leaders of their universities, is a call to action for policy-makers, transport ministers, and other key actors to prioritize the expansion and enhancement of rail transport.** Only through coordinated action and appropriate investment can we ensure a sustainable future for all.

Unite! commits to being a strong driving force for technology and innovation that woill train the experts that drive the digital and green transition. Nevertheless, to ensure this transition does not compromise the efficiency of academic work, strategic investments and real commitment from policymakers and railway operators are imperative.

4. What is the U!Train ?

The **U!Train Blended Intensive Programme, f**rom September 1-7, 2024, was a new Unite! educational initiative focused on **sustainable mobility and multiculturalism.** Organised by Grenoble INP-UGA, UPC Barcelona Tech and ULisboa, with the help of the other Unite! universities, the programme brought together **28 students from 15 nationalities, representing all nine Unite! partner universities.** Participants traveled by train from their home institutions to Barcelona, using **Interrail** passes that facilitated their journey and set the stage for the focus of the programme on sustainable travel.

During their journey, and later en route to Grenoble, students engaged in a **Living Lab activity**, mapping the European railway network using a citizen science tool known as the **Mapathon**. This tool allows for the identification of accessibility issues within specific areas by geolocating precise points of concern. Over the course of two weeks, students identified more than **200 instances of accessibility barriers, comfort issues, and connection challenges related to their travel.** The findings were then analyzed in a workshop with academics as well as the collaboration of RENFE's Director of Sustainability and Energy Efficiency, further highlighting the importance of collective efforts in addressing these challenges.

After engaging in academic and cultural activities in Barcelona, students embarked on a collective train journey to Grenoble. There, from September 2-7, they participated in an intensive programme aimed at **improving multicultural awareness** and **fostering a European spirit** through exploring global competence and the social importance of sustainable mobility and railways.

The curriculum featured lectures and workshops led by faculty from UPC, KTH, Wroclaw Tech, Grenoble INP-UGA, and Université Grenoble Alpes. Courses covered **urban mobility, environmental responsibility, and transport innovations,** with students analyzing challenges and proposing solutions through collaborative problem-solving. Throughout, participants maintained Cultural Reflection Diaries, supported by a comprehensive module on "**The Challenge of Diversity.**"

Students contributed to the programme's design through collaborative sessions and feedback. The U!Train initiative emphasized the importance of **green travel by train**, optimizing travel time while demonstrating a commitment to sustainability and cultural exchange.

Open to students at all academic levels and disciplines, this inaugural U!Train programme combined **theoretical learning with practical application,** giving students tools and motivation to address real-world challenges of sustainable mobility in the multicultural European context.
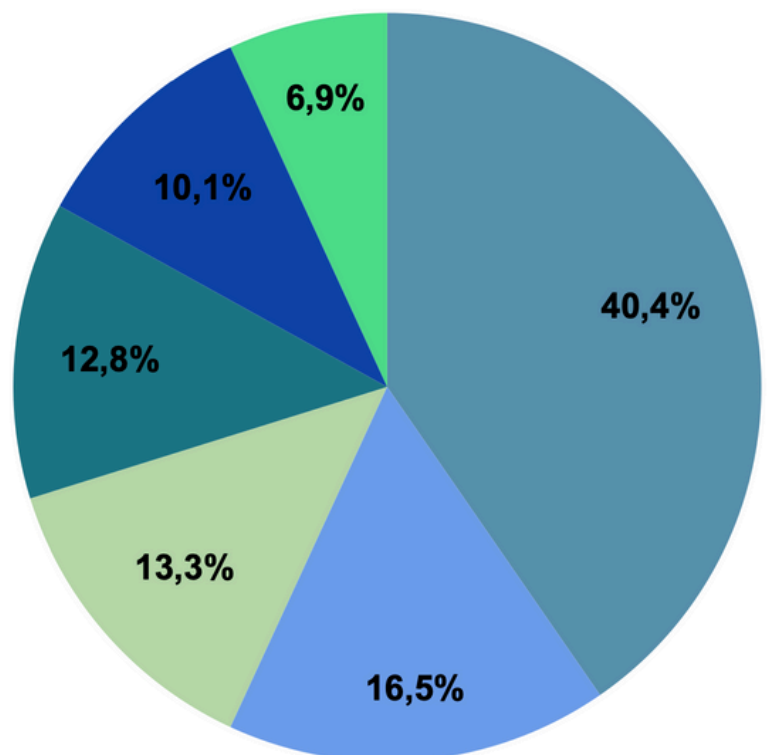
5. Results - Mapathon data and statistics

The **218 observations** were categorized into six groups, based on the type of problem. **Comfort issues were the most abundant** with 88 points identified, followed by missing user information (36), weaknesses in travel options (29), accessibility issues (28) and poor customer services (15). Twenty-two other observations were identified outside those six groups as other problems. For each category, participants could assign a subgroup for further detail. Thanks to that, comfort issues were mainly found inside the train instead of at the station, and lack of user information was more noticeable on the platforms rather than in the train.

Regarding the geographical distribution, **many hotspots were detected in Barcelona – the final destination – Paris and Mannheim, two major transfer hubs.** Many concerns were recorded in the city of Barcelona, where students experienced difficulties at the train stations and metro regarding ticket purchasing, access to platforms and lack of information. In Paris and Manheim, the issues about lack of coordination between operators and delays arose. **Finally, the most outstanding concerns were experienced by those departing from Portugal and southern Italy**, where no doable connection to Barcelona exists. Fairly symbolic was the trip from Lisbon, which took 36 hours door-to-door to complete.
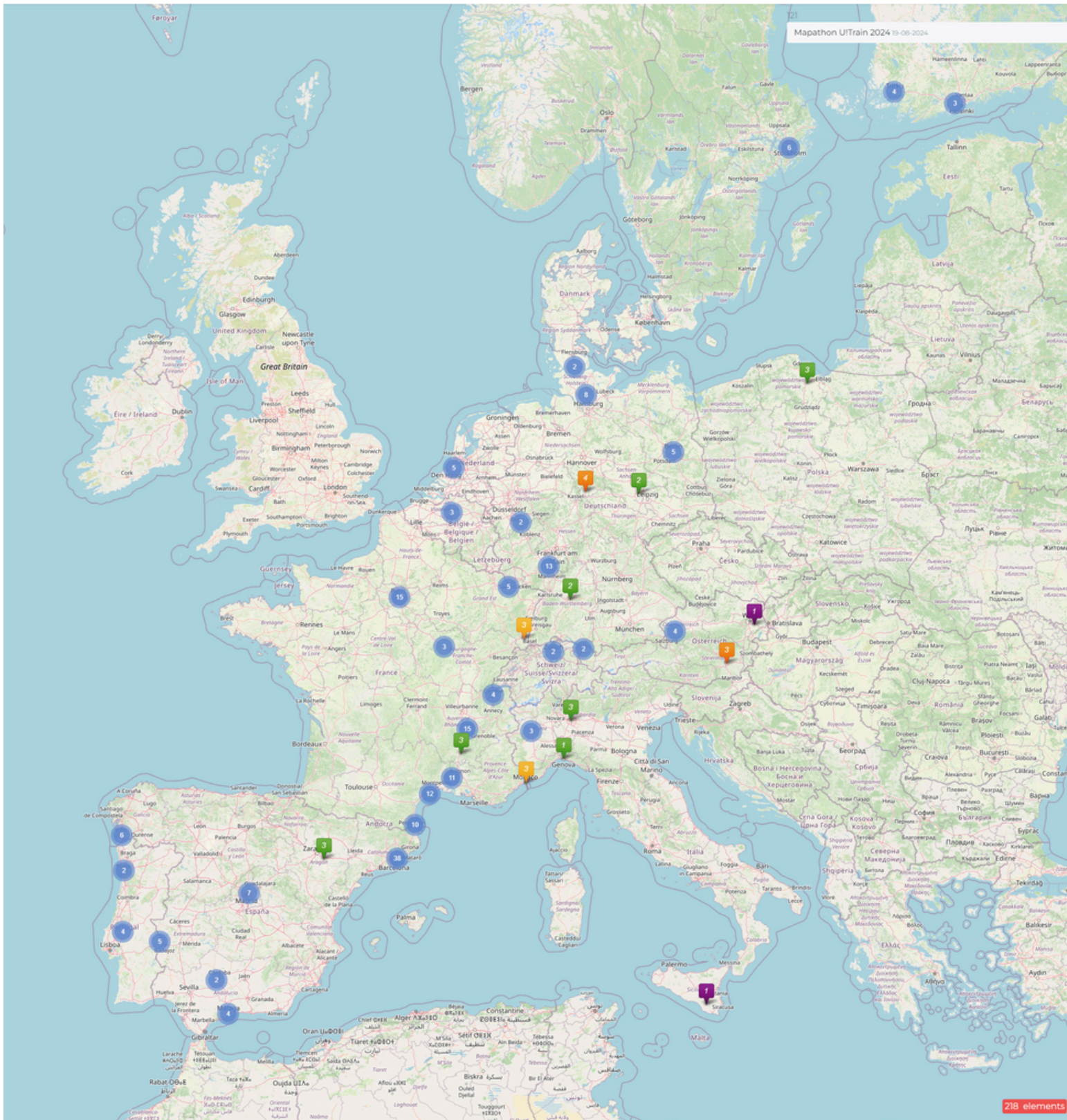
Points by category

Legend:
- Comfort issues
- Missing user information
- Weaknesses in travel options
- Lack of accessibility
- Other problems
- Poor customer services

Pie chart values: 40,4% · 16,5% · 13,3% · 12,8% · 10,1% · 6,9%

Source: https://mapathon.upc.edu/public/mapa/121
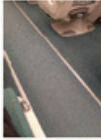
Overview of the mapped data

Examples of reported issues

#	Usuari	Descripció	Categoria	Element	Hashtag	Foto
50	Ambre BERTUCAT	#hashtag1722594617090 #accessibility3 On the platform, the train is indicated but we do not know on which part of the platform we must stand so that the train stops in front of us. In Swiss or German stations, we know between which letters of the platform the train will arrive, and where the 2nd and first class are. This allows you to avoid running after the train if it does not stop in front of you and therefore to find a seat more easily.	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
51	Oleksandra Napolska	#hashtag1722594617090 #accessibility3 The whole train is not accessible for wheelchairs. There are no places for them, the walkways between the seats are too narrow and no accesible bathrooms	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
52	Hanna Mustaniemi	#hashtag1722594617090 #accessibility3 Steps to train. Not accessible for PRM	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
53	Lauri	#hashtag1722594617090 #accessibility3 Its high steps to the train	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
54	Tiago Sousa	#hashtag1722594617090 #accessibility3 The distance between each row of seats is about 50cm, smaller than the average width of a weelchair 62.5cm, making this ALVIA train not very accessible for PRM in need to use a weelchair. Despite the seats being spacious, I can't find in this car seats adapted to PRM in need to use weelchairs.	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
55	Rúben Matos	#hashtag1722594617090 #accessibility3 All the doors are either broken or not working.	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
56	Tiago Sousa	#hashtag1722594617090 #accessibility3 This is the entrance of the Entroncamento-Badajoz train. It is really inacessible for PRM and children. I saw a small child having to climb the stairs and needed help from their parents to enter the train.	LACK OF ACCESSIBILITY	3 Train	#accessibility3	
57	Rúben Matos	#hashtag1722594617090 #accessibility3 The train is not properly adapted and adequate for accessibility.	LACK OF ACCESSIBILITY	3 Train	#accessibility3	

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