Reimagining Europe’s transport system
Europe's transport sector is undergoing a period of profound change, with the climate crisis forcing a rethink of how Europeans get from A to B, both within cities and across borders.

In this event report, EURACTIV listens in to discussions among researchers, policymakers, and industry on how to create a mobility system fit for the future.
Electric vehicle shift alone will not solve urban transport woes, says Portuguese minister

Transport Research Arena 2022: A conference and exhibition on European research and innovation to drive efficient and green mobility
Electric vehicle shift alone will not solve urban transport woes, says Portuguese minister

By Sean Goulding Carroll | euractiv.com

A shift to collective transport is needed to reverse the dominance of cars in cities and reach our decarbonisation targets, Portugal’s infrastructure minister said on Monday (14 November), refuting the notion that electric vehicles will end Europe’s urban transport woes.

Minister Pedro Nuno Santos dismissed the argument that the rapid uptake of electric vehicles is a panacea for urban transport, asserting that EVs will not solve the fundamental problems of cars.

“If we simply replace all combustion cars with electric cars, we will end up with the same kind of congestion, the same huge amount of lost time in traffic, the same unsustainable levels of road accidents, and the same struggle for public space,” he said.

“The car overwhelmed city life and it is something that must change,” he added.

The minister’s remarks came
at the Transport Research Arena conference in Lisbon, an EU-backed event gathering researchers, policymakers, and industry to discuss innovation and sustainability in the transport sector.

Nuno Santos also criticised the term “zero emission cars”, suggesting that electric cars are not as green as presented when measured on a lifecycle basis rather than solely by tailpipe emissions. Santos pointed to research indicating that electric cars may take up to 9 years to offset the CO2 emitted during production.

Indeed, prolonging the life of current-generation combustion engine vehicles may be greener than a rapid uptake of EVs, he said.

Referencing a report by Swedish car manufacturer Volvo on total emissions generated by the production of EVs, the minister mused whether it is “worthwhile to promote a quick replacement of existing vehicles with electric ones”.

“It is entirely possible that extending the life of existing vehicles for a few years has a bigger and quicker positive impact than accelerating the replacement with electric vehicles,” he said.

Asked by EURACTIV for clarification, Nuno Santos explained that while the switch to electric vehicles is essential, the uptake should be staggered to prevent an unsustainable rise in production emissions.

“Instead of in a short period to change all the cars to electric cars, because we will need a huge amount of production of new electric cars, maybe the best option would be to take more time to make a more progressive transition,” he told EURACTIV.

“I know it's paradoxical, but we gain more by doing it more progressively than by doing it in too short a period,” he added.

The minister stressed that shifting people to active modes of transport, such as walking and cycling, and public transport, is “the most effective instrument for the decarbonisation of transport”.

EU lawmakers recently agreed to ban the sale of polluting cars and vans from 2035 across the bloc, essentially spelling the end for the internal combustion engine and heralding a mass shift to electric and hydrogen cars.

Impact on industry

Asked about the impact that such a shift away from private vehicles would have on Europe’s car industry, one of the largest and most lucrative industrial sectors in the bloc, the minister compared the situation to that of his hometown of São João da Madeira, which was historically known for the production of hats.

Once hats fell out of fashion and sales declined, the town shifted its expertise to producing footwear.

“The car industry is very important. It will never end. We will need electric cars for sure. But I think we need fewer cars on our roads and we need more trains,” he said.

“If we produce less vehicles, we will have more resources to apply to other industries,” he added, giving the example of a potential increase in investment and employment in the rail sector.

“The green transition can be an economic opportunity for development. Decarbonisation of the economy doesn't mean that we have to be poorer than we were before,” he added.
Transport Research Arena 2022: A conference and exhibition on European research and innovation to drive efficient and green mobility

By Patrick Mercier-Handisyde | DG Research & Innovation

Digitalisation, automation and decarbonisation are major trends that will drastically change the way we live, work and use mobility and transport in the future.

The year 2022 has brought multiple challenges to the economy...
and industry, notably due to continued supply chain disruptions and uncertainty on energy provisions. Nonetheless, the green and digital transformations are picking up speed.

Under the heading of ‘Moving together – reimagining mobility worldwide’, the Transport Research Arena 2022 (TRA 2022) will explore, discuss and demonstrate these major paradigm shifts specifically directed at areas of our life such as transport, mobility, logistics and industrial production. TRA gives visibility to both national and international transport research. TRA provides a global platform for Europe's achievements in transport research and technology.

TRA 2022 will take place in Portugal from the 14th to 17th November 2022 at the Lisbon Congress Centre CCL. TRA is the largest Transport Research and Innovation Conference in Europe and around 2,500 participants are expected, based on the high attendance at the previous conference in Vienna in 2018.

**Governance**

Since 2006 when the 1st edition of TRA took place, the European Commission (DG Research and Innovation and DG Mobility and Transport) is the co-organiser on the event.

This year, TRA 2022 is co-organised and hosted by the Portuguese Innovation Agency (ANI), together with the Institute for Mobility and Transport (IMT), Engineering Schools Consortium (CEE), National Laboratory for Civil Engineering (LNEC) and Magellan. The University of Lisbon, together with a consortium of other Portuguese universities are responsible for the scientific content of the event.

TRA gathers together stakeholders from all transport networks (road, rail, waterborne and aviation), bringing notably research and industry communities closer to each other and providing a forum where they can exchange views and ideas with the policy-makers on the challenges and opportunities the industry faces. That is why is also supported by many transport related stakeholder associations and European Technology Platforms showing the commitment of the sector to work together.

The event is open to researchers, academics, students and young researchers, engineers; transport infrastructure managers and owners; traffic operation managers, transport operators; SMEs and start-ups; industry, vehicle manufacturers and suppliers, ship builders; public authorities, governmental bodies; non-governmental organisations; other transport stakeholders and decision makers.

**Structure**

TRA 2022 will include a broad spectrum of research and innovation activities, which will range from basic research to application-oriented engineering, social, technical and economic aspects, as well as policies and standards. TRA 2022 covers all modes of transport: road, rail, waterborne, aviation, and cross-modal aspects.

The format of the event consists of a daily Plenary Session setting up the theme of the day, which will be then developed in three parallel Strategic Sessions. The main sessions are fully reflecting the multimodal and multidisciplinary nature of the transport sector and, for this reason, address all stakeholders simultaneously. More in-depth discussion and presentation of technical papers will occur in the Scientific & Technical Sessions.

The four main themes of the conference are directly supporting the EU policy for a green and digital Europe and in particular the Sustainable and Smart Mobility Strategy (released in December 2020) which reinforces the importance of sustainable mobility for achieving an irreversible shift to zero-emissions across all transport modes, while ensuring other relevant objectives for social well-being:

1. Smart Solutions and Society;
2. Green Mobility and Decarbonisation;
3. Innovative Infrastructure for Europe 2030;

For example, the main key areas for action identified in this strategy will be discussed with concrete measures like:

- Boosting the uptake of zero-emission vehicles, vessels and aeroplanes, renewable & low-carbon fuels and related infrastructure;
- Creating zero-emission airports and ports;
- Having 100 European climate neutral cities by 2030;
- Greening freight transport;
- Making connected and automated multimodal mobility a reality;
- Make mobility fair and just for all;
- Step up transport safety and security across all modes.

After the Plenary Sessions opening each day of the conference, 12 Strategic Sessions will follow to address major innovation fields and convey policy messages and industrial key issues linked to the theme of the day. High level European Commission representatives are planned to speak in most of the sessions. In addition, 48 Scientific & Technical Sessions will be organised on the conference topics where the reviewed papers will be presented by their authors, either as oral or as poster presentations in parallel to 44 Invited Sessions. Many presentations will be on EU projects funded under Horizon 2020 and this will be a unique opportunity to learn about and disseminate the projects results.

**The Exhibition**

There will be an important exhibition area with both static and live demonstrations on the latest technology developments (e.g. electric vehicles, batteries, hydrogen, automated vehicles, drones, etc.). The European Commission will have its own stand presenting the results of EU funded research and development projects. There will be every day on the EC stand, information sessions alternatively on Horizon Europe and CEF. In addition, several partnerships such as 2Zero/CCAM, Europe’s Rail, Waterborne and Clean Hydrogen will have a stand.

**TRA VISIONS Awards**

Supported by the European Commission, TRA VISIONS 2022 has invited young and senior researchers from all over Europe to submit innovative transport concepts with the prizes being awarded at TRA Lisbon 2022. Two competitions are organized:

- Young researcher competition: A competition that awards prize money to BSc, MSc and PhD students from all over Europe with the main aim of stimulating their interest in the field of transport. The 15 short-listed students are invited to participate to TRA 2022 in Lisbon.
- Senior Researcher Competition: A competition aimed at senior researchers involved in EU-funded projects, which will identify and acknowledge leaders that generate impactful research in transport across the European Union. In total, 6 Awards will be given.

The Young researcher awards are planned to be given on the first day of the conference by Commissioner Mariya Gabriel and the Senior Researcher Awards by the Clean Planet Director, Rosalinde van der Vlies during the Gala dinner.