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Letter from the AET Chair

Dear fellow AET Members,

It is my pleasure to announce that the European Transport Conference (ETC2021), will be held in an online format from 13th to 15th September 2021. We are working hard to ensure that ETC2021 will be a successful event again, taking on board the lessons learnt from last year’s conference that was so well received by the participants. The Conference programme is full of up-to-date papers on topics relevant for the European debate on decarbonization, automation and digitalization of transport, green and economic recovery, climate change and resilience policy.

I am indebted to the ETC Programme Committees and to the Conference Management Team for having organized 10 streams of sessions that promise to be so interesting, selecting contributions from over 400 abstracts received this year. Any additional information can be found on the AET website. The registrations are open and I really hope to welcome you again at Europe’s largest multidisciplinary conference for transport professionals, policymakers and academic researchers.

This editorial concludes my mandate as Chair of the AET Board. After the General Assembly on September 12th, Hermann Maier will take over the chairmanship. Therefore, I would like to take this occasion to thank those who have supported me in the work carried out over the course of the last five years. I think that AET has grown and consolidated its leading role of Transport Association in Europe.

The management organization in working groups (WG) has delivered well and has promoted a good cooperation between the Board and the Council. The WG structure is now consolidated in 3 main WGs (i.e., ETC, Marketing, and website) with sub-groups dealing with specific task such as international relations, peer review and publication, and coordination with the AET Ambassadors’ network.

Links with the European Commission has been improved, with contacts at DG MOVE, DG Research, and DG Environment, and these need to be built on. The relationship with WCTR Society as one of the most influential international transport organizations has been continuing. There has also been a strong focus on improving relations to other International Organizations, such as the International Transport Forum (ITF).

This engagement is paying off and ought to be continued. Also, cooperation with pan-European organizations such as POLIS, ECTRI has successfully been built up and needs to be strengthened and possibly enlarged to other major networks like TRA and ITS. The peer review and publication in journals of ETC papers has proved to be a successful initiative, attractive not only for academics but also for professionals. AET has partnered with Elsevier for publication of selected papers in Transportation Research Procedia.

Indexed journals such as Transportation Research Part A, European Transport Research Review and the International Journal of Transport Economics regularly host topical collections of ETC papers. An AET book on “Autonomous Vehicles and Future Mobility” has been published in 2019.

I am very happy and proud that the AET Ambassadors’ network has been re-established and is now well-connected to the Young Researchers’ and Practitioners’ Forum. The new initiative “Coffee Break Sessions” for debating among young researchers and professionals is definitely a sign of vitality which needs to be kept on.

During these 5 years there have been moments of difficulties due to external events (I recall the general strike and the riots in Barcelona for the independence of Catalunya during the conference in 2017). But certainly, the COVID-19 pandemic was the most challenging moment. Members of the Association have been affected, and at first, the possibility of organizing the conference was questioned. However, the Association has taken various actions to respond and seize an opportunity from the difficulty. The conference was held online keeping its multi-seminar format and its quality standards.

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I am confident that blending our traditional approach with new ingredients will contribute to make AET a forum in which transport professionals from different European countries can meet to share ideas and information, and will make ETC unique among transport European conferences, a premier event of its type providing great opportunities for knowledge exchanging and forming professional relationships.

I am looking forward to your enthusiastic participation and support for AET and for ETC in its continued online format and I wish to express my hope that we can meet in real life next year in Milan to celebrate the 50th anniversary of the oldest and most established transport conference in Europe.

Pierluigi Coppola
Chair of AET Board
The online version of ETC 2020 was received well and the Association managed to offer a full programme of content, with some 280 presentations over three days.

The technical aspects worked well but we did, of course, miss the social interaction with hosts, exhibitors and delegates.

ETC this year will be held from 13 to 15 September. It will be online again.

Although life is beginning to return to normal in many countries, it is clear that it will be some time before full confidence in international travel and large gatherings is established.

The Programme Committees have met to discuss the abstracts submitted for the conference. From more than 360 submitted, 260 have been selected and will be offered in 76 sessions. There will be a minimum of 8 parallel sessions per day.

The three main themes selected for the conference this year are:

- The Climate Emergency
- Inclusion and Diversity in Transport
- Covid-19 and its Consequences

All three will be featured during the conference and will be examined from different perspectives. The “Covid-19 and its Consequences” theme proved very popular with potential authors and the programme will highlight policy and practice to understand what will be needed when workplaces and venues reopen.

Younger members of the profession, in particular, will be able to benefit from the accessibility offered by this online presence.

It is the intention of the Association to hold ETC 2022 in Milan and to celebrate in fine style the 50th ETC. I look forward to meeting you online later this year and in person in 2022.
How to navigate the choice of the charging system for e-buses in case of a long-distance route?

E-buses for the urban environment can now be considered a consolidated technology, nevertheless for the suburban area they present new challenges, given the length of the service and the low density of the stops. The criteria assessment regarding the planning for a suburban electrical infrastructure is summarized in 3 macro-topics:

- **Accessibility:**
  In terms of the capacity offered by the vehicle, which is correlated to the volume occupied by the different types of batteries;

- **Flexibility:**
  In relation to temporary obstacles, due to construction sites or events in general, that may require significant de-routing and also, in relation to infrastructural restrictions along the route that may make it difficult to insert recharging points;

- **Cost:**
  If we compare the cost of an electrical infrastructure in urban area against the one for a suburban area, the cost differences are bluntly visible. It is very difficult to assess objectively the impact of design choices on the overall cost of the infrastructure, because it all depends on the particular characteristics of each project.

Under this point of view, a recent study conducted by McKinsey highlights how the cost assessment for this type of technology is correlated to the type of service and its operating model in terms of density of stops and relative distances and location of the bus terminal and storage areas; but it is also correlated to the type of traffic in terms of levels and frequency of the congestion phenomena.

This study made an evaluation of the price for a short distance route and a medium distance. Their cost analysis showed that for short routes, depot charging is more economical, while for longer routes the balance flips toward opportunity charging.

Higher utilization of chargers can also bring costs down, so if several e-Buses are scheduled on one route, it lowers the cost per bus of charging points.

There are 4 types of charging systems for e-buses: flash, depot (or overnight), opportunity and wireless charging.

For the flash charging, you are offered a high-power charging through the pantograph, which also means that it consumes a lot of electricity and maintenance might be more challenging.

But the main advantage of this charging system is that it has a lower cost and can be easily integrated. Depot, or overnight charging, is probably the most well-known charging system.

It offers a slow recharge but a very effective one. It also helps lower the cost of electricity since it is overnight and less expensive. Opportunity charging also is high power and it is perfect to be combined with depot charging.

It is more cost-effective for this infrastructure to be used by multiple vehicles or bus lines. The wireless charging provides induction charging, via plates. This charging options is the least used here in Italy for now and the most expensive, especially if you consider future costs for maintenance.

Comparing different charging systems, it could be argued that the depot charging solution has high battery costs and lower infrastructure costs, while a ‘mixed’ charging solution has cheaper and less voluminous batteries, but a higher cost of building and maintaining charging stations.

**Challenges are to be expected**

The E-bus capacity is a main contributor to its performance, that is intertwined by the battery range and the service frequency.

There is a clear connection on how every choice influences another one. If the battery pack is compact then you have more available seats and less battery range but if the battery pack is a larger size, you have a better performance but less available seats.

The battery pack is intertwined with its route length since it is possible that its capacity might not be enough for a long-distance route.

The intervention you might consider is placing a charging station during the stops, but that creates time lost for passengers and might reduce your demand based on that effect.

These obstacles create the need to have a certain mindset even before the start of a project, to foresee the challenges transport planners might encounter.

**A considered assessment**

In order to respond adequately to the demand needs, it is certainly necessary to carefully consider the vehicle choice - assessing its technical characteristics, the number of seats and the battery pack.

Also, to plan the route carefully, taking any obstacles into account from the outset. A possible solution might be to align the service model with the battery’s (charging) needs and consistent with a stop that has a maximum boarding/discharging dwell time.

But above all, it is necessary to visualize in advance and to be able to interpret the challenges and opportunities that long-distance public transport planning with electrical vehicles now present to transport planners.

**GET INVOLVED WITH LPT**

If you are interested in joining the LPT programme committee, please email Niels van Oort: N.vanOort@tudelft.nl
**New Organisation Member**

The Regionalverband FrankfurtRheinMain is the Regional Authority for the Region Frankfurt-RheinMain whose headquarters is based in Frankfurt am Main, Germany. The Regional Authority is the operational body for the wider Metropolitan Region FrankfurtRheinMain with 5.7 million inhabitants.

Among its duties, it holds the regional platform for the strategic alignment of regional associations, is responsible for the controlling and the coordination of the regional development, and for land-use planning for its 80-member municipalities. Besides, economic perspectives, housing and good transport infrastructure, conservation of open space and natural resources are part of the planning strategy.

In terms of mobility, a regional mobility strategy (recognised by the EU as regional SUMP) was adopted by the regional parliament in December 2020. Every year, over 800 million passengers use the wide network of S-Bahn trains, metro and the important feeder lines, ensuring a fully using the wide network of S-Bahn trains, metro and the important feeder lines, ensuring a fully developed public transport system.

A European perspective is inherent to our institution which has a representation in Brussels. Our region is member in many European networks such as Metrex, Purple, the Airport Regions Conference and the Interregional Alliance for the Rhine-Alpine Corridor EGTC, a locally and regionally driven bottom-up body founded as a European Grouping for Territorial Cooperation (EGTC).

The Regionalverband co-sponsored together with the RMV the European Transport Conference 2013-2015 held in Frankfurt where delegates could experience many of the regional infrastructure sites such as the airport, the traffic control centre, local public transport and cycling infrastructures which for sure was explored in cycling.

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[www.region-frankfurt.de](http://www.region-frankfurt.de)

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**Hermann Maier will lead AET and bring ETC back to the physical conference**

I first came across the European Transport Conference (then called the PTRC Summer Conference) in 1988 when an enlightened local authority sponsored my attendance as a graduate transport planner.

Ever since I have kept in touch with the conference and attended when I could.

I have a strong interest in training and professional development and the conference and associated activities are a great way of engaging with a wide range of transport planning issues beyond my day-to-day project work which focusses on public transport, demand forecasting and scheme appraisal.

I joined the Local Public Transport Programme Committee in 2002, the Council in 2008 and the Board in 2014.

Engagement with AET has allowed me to develop many professional relationships and friendships and keeps my enthusiasm for the profession alive.

Over the coming years I want to help AET with the challenges of transitioning back to a physical conference and the need to attract a younger and more diverse membership.