'THE DIGITAL REVOLUTION AND CHANGES TO INDIVIDUAL AND COLLECTIVE MOBILITY

Summary of the opinion of the Economic, Social and Environmental council

presented by

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Introduction

The digital revolution is disrupting both the rules and functioning of all economic, social and environmental spheres, as highlighted by the many ESEC studies performed on the matter. Indeed, its initial effects have already significantly changed the ways in which we communicate and work, not to mention the fields of leisure and education and our access to culture and information, and are accelerating the globalisation of our society. France does have certain assets when it comes to digital innovation, but no sizeable European player has yet emerged in the face of the hegemonic world domination of major trading platforms.

With regard to mobility, the upsurge of digital technologies is radically changing our individual habits, particularly where transport is concerned, and the proportion of individuals concerned, along with the scale of the changes we are observing, are only going to increase. This digital mobility has revealed various opportunities through the creation of new services, better use of investment, and an easier and more comfortable way of life, not to mention the potential benefits for the environment and the regions. It also offers a more personalised form of access to public transport and includes the sharing of private transport as a response to collective needs. Furthermore, it is based on a series of new joint responsibilities that must be promoted since they serve to re-establish the social connection.

This revolution is already under way, and we are witnessing an abundance of mobility-related initiatives and new applications, but these are being implemented outside of any appropriate legislative and regulatory framework, despite the fact that this is affecting the foundations of our economic and social balances. In the absence of any joint reflection, or the outlining of a national and European strategy, the current situation will result in major consequences in terms of individual freedoms (commodification), public and private services (destabilisation), and the industrial and social spheres (transfer of added value outside of France, significant changes in the employment sphere, etc.).
It is important, therefore, that we seize opportunities whilst at the same time protecting against the risks. This will require us to reflect upon this new series of digital mobility-related services, based on

demand and the needs expressed on an individual basis, and to regulate the operation thereof whilst at the same time incorporating it into a collective vision.

The individual is indeed at the heart of this 'mobility ecosystem' since they are the one using the transport services, consuming the goods and now supplying the offering. The user is observing an expansion in the public transport offering, a pre-determined offering to which they previously had to adapt, to incorporate new services (car-sharing, carpooling, guidance, information, etc.) in which they can participate. Such services are well organised and can also present new solutions for poorly served territories.

In more general terms, new applications appear to offer significant potential with regard to managing motor vehicle traffic, facilitating the use of public transport, and access to comprehensive information regarding all transport options, as well as tourism, culture, shopping, etc.
The ESEC has outlined a series of coherent and convergent measures designed to identify a digital mobility 'ecosystem' that will benefit individuals, territories and authorities, thus putting France at an advantage both in industrial terms and with regard to mobility services.

This opinion puts forward a series of recommendations covering a number of complementary avenues with the aim of boosting the momentum of the 'right to mobility' and the sustainable development both of our country and of Europe.

Observation

The digital revolution is having a huge impact on our mobility and our behaviours. Drawing on the rise of information technologies and the Internet, it would **suggest making use** of the full potential offered by new technologies. It is also helping to create networks of individuals and vehicles, as well as to locate them, by taking advantage of the increase in the number of mobile handsets and connected devices in use.

With regard to public transport, **digital technologies are helping to make travel smoother**, from finding routes and checking timetables to choosing the mode of travel, ticketing and clarifying tariff distribution between operators (Navigo pass-type applications), etc. The digital sphere is also helping to make traffic flow more smoothly by providing real-time traffic and disruption information that consequently enables operators to adapt their transport offering accordingly, automate functions and improve maintenance and safety.

With regard to private transport, digital technologies are encouraging the rapid development of the **collaborative economy**, whereby usage is more important than ownership. There is no such thing as a 'standard' service these days, and the offering is in fact becoming more fragmented and taking a number of different forms thanks to service platforms that are easy to use and link a large number of offerings with the corresponding demand, including long-distance or home-to-workplace car-sharing, carpooling, car hire with a driver (VTC), organised hitch-hiking, bicycle rental (VLS), car leasing by individuals, by the hour or by the day, etc.

Digital technologies are **revolutionising** both the use and the design of cars. Indeed, the **'networked vehicle'** - a combination of automotive and digital technologies - has already been created. Nowadays, a well-equipped car has more onboard technology than the first Airbus aircraft. **Smart roads** will, in the future, perform safety functions (information and guidance) and will be able to give priority to public transport and vehicles with more passengers or guide drivers to alternative routes.

The race is on between car manufacturers and major digital technology companies **to produce the first mass-produced driverless car**, although automated driving (parking manoeuvres, etc.) is already possible, to some extent. The development of the driverless car could eventually help reduce the number of accidents on the roads, make traffic flow more smoothly and also make it more dense by making better use of existing infrastructures. However, the technology is very costly, not to mention way ahead of the legislation, and driverless driving raises a number of issues with regard to responsibility.

A growing proportion of travellers want to be able to obtain the information they need in just a few clicks and in real time, taking into account their needs and their location. With regard to digital mobility, private methods of transport (cars, bicycles, etc.) are used to benefit the public, public transport is becoming increasingly individualised in some ways and there is evidence of increasing synergies between different modes of transport.

Digital technologies are becoming vital tools where mobility is concerned, with a great many uses that are quickly becoming widespread and progress on the part of all of the players concerned, from service users and local authorities to businesses and public transport services. If it is used to encourage a fairer and more effective organisation of our society and preserve the environment, digital mobility will lead to new prospective public and private service offerings based on the needs of individuals, the need to develop new skills and the need to reduce inequalities. Considerable growth and employment opportunities are emerging for Europe and for France in particular, which possesses major public transport and vehicle manufacturing companies, reputable schools and competitiveness clusters and an abundance of innovative start-ups that have yet to achieve global scope.

These positive prospects bring with them a number of risks that it is important to guard against, including the risks of disparities in the level of service provided between regions and social exclusion linked to the price of the equipment required, as well as the need to have a good command of this new tool, a reduction in the number of jobs in the 'traditional' economy and a lack of training to meet new needs, the risk of powerlessness when faced with the global giants of the digital sphere, who could capture a significant part of the added value afforded by mobility, weakening our economy and reducing our tax revenue, the possibility of unfair competition from new players, the consequences of malfunctions linked to insufficient reliability, and finally the risks to individual freedoms, notably linked to the uncontrolled commodification of digital data.

In order to take full advantage of these opportunities whilst also guarding against the associated risks, the ESEC has formulated a series of proposals based on the following six axes:

1. MAKING DIGITAL TECHNOLOGY A VECTOR FOR MORE FLUID AND SUSTAINABLE CAR TRANSPORT:

- To ask public transport authorities (AOM - Autorités organisatrices de la mobilité -, formerly AOTU) to include **a component on the development of shared vehicle usage (carpooling, car-sharing, bicycle rental) in urban transport planning (PDU - plans de déplacement urbain), promote business travel plans (PDE - plans de déplacement d'entreprise)** and equivalent systems for different areas of activity prioritising shared usage, **encourage local authorities and public transport authorities to implement pooled vehicles**, and push for increased vehicle occupancy and improved road sharing through the use of digital solutions;
- **To integrate networked vehicles and smart roads into existing industrial plans for the future** (PIA - Plans industriels d'avenir), broaden the role of the competitiveness clusters "Moveo" and "Véhicules du Futur", complete the Scoop@F project and set up a multi-year programme for investment in smart road infrastructure whilst raising awareness of the issue among regional authority associations (ARF, ADF, AMF, etc.);

- **To resolutely include France in the EU "Smart Cities and Communities" programme**, push the European Union to set in place calls for European projects in such fields and consider a revision of international regulations (and the Vienna Convention in particular) in conjunction with all players concerned;
- To promote better organisation of travel by developing travel analysis models in partnership and a network for sharing experiences of new forms of working, such as remote working, etc.

2. MAKING DIGITAL TECHNOLOGY CENTRAL TO A NEW TRANSPORT SERVICES PARADIGM

- **To call upon transport organising authorities to set ambitious objectives for public transport services with regard to the development of new digital mobility offerings** whilst incorporating real-time multi-modal information in DSPs (public service delegations) and the organisation of door-to-door travel and mobility passes with guaranteed quality standards, avoid the fragmentation of solutions, and entrust a body combining transport organising authorities and transport groups with the task of setting the standards to be adhered to in DSP specifications, as well as for national connections;
- **To encourage local authorities to implement mobility hubs in dispersed regions (peri-urban and rural)** (with an online information and booking platform, accessible using a mobile handset, together with a telephone support line) that are structured so as to provide their own resources or to coordinate individual offerings;
- **To enrich the public transport digital platform offering by providing information on the commercial, cultural and public service environment** (such as virtual shopping centres, for example) by using the traveller's location in a non-intrusive manner, involving transport organising services, and encouraging major transport groups to invest in innovative digital offerings (by means of State-public enterprise target agreements).

3. PREPARING FOR THE SOCIAL AND FISCAL CONSEQUENCES OF DIGITAL MOBILITY AND THE COLLABORATIVE ECONOMY

- To include the **employment and skills development prospects** associated with the digital revolution in an annual "**grand debate on future trends**" to be held at the ESEC;
- **To initiate negotiations at both branch and regional levels** regarding human resource planning in light of the transformations brought about by digital technologies;
- **To incorporate digital technologies and the corresponding application into initial and continuous training programmes** aimed at professionals in the fields of regional development and urban planning, mobility and tourism (BTS, professional baccalauréat, BEP, etc.);
- **To seek the opinion of the ESEC on the issue of integrating the collaborative economy into the economy and its consequences in terms of the authority's funding** (issues associated with development, taxation, the coverage of social security spending, etc.);
- **To legally oblige platforms that are specifically mobility-orientated to set in place a plan to bring their operations into compliance** from a tax and social contributions, labour law and insurance law standpoint.

4. ENCOURAGING INNOVATION, INDUSTRIAL DEVELOPMENTS AND THE CREATION OF E-MOBILITY PLATFORMS

- To foster backing in France for **digital mobility start-ups through the more widespread use of specialist "mobility" incubators in proximity to existing groups and universities**, create a "digital mobility" competitiveness cluster, ask that the BPI create specialist venture capital companies,

make Open Data more commonplace in order to assist start-ups, whilst avoiding creating an inroad for the GAFA companies;

- **To create a European champion that reflects the scale of the issue - "the Airbus of e-mobility" - based on projects developed by major French companies operating in the sector** by creating a multi-disciplinary service platform offering door-to-door solutions and opportunities to purchase services (tickets, tolls, universal mobility passes, etc.), and put in place funding for innovative projects designed to achieve this objective;
- **To secure France's firm commitment to modifying European merger control law** by allowing major mobility groups to develop joint development projects and by introducing a 'coopetition' approach involving the pooling of operator and transport organising service data regarding services whilst also maintaining competition between operators with regard to the services offered.

5. SAFEGUARDING INDIVIDUAL FREEDOMS AND THE ABILITY OF EACH INDIVIDUAL TO USE THE NEW MOBILITY TOOLS

- **To carry out a study on the differentiation in the usage of digital technologies between individuals**, develop education relating to digital technologies with regard to uses, potential applications and risks (Ministry of National Education, local associations, etc.), and maintain alternative offerings such as access to fixed line Internet with personalised assistance and information hotlines;
- With regard to applications, to introduce an obligation to provide regular information regarding their reliability in terms of availability and response time, with an audit performed by an independent third party;
- To ensure that the law (active opt-in - the only way that is authorised for sending electronic messages to individuals) is complied with by penalising breaches;
- To increase the CNIL's disciplinary powers and the profile of its rulings, develop the accreditation of applications by the CNIL, and organise campaigns to inform consumers of the risks associated with poor personal data protection.

6. SETTING SOCIETY AND THE PUBLIC AUTHORITIES IN MOTION

- **Within the ESEC, to start an annual "grand debate on future trends" (as referred to in axe 3) to foster a shared vision** (public authorities, businesses, union organisations, etc.), as does the German "IT-Gipfel", **concerning innovations and their economic impact, ways of supporting them and their consequences in terms of negotiations between social partners and the protection of individual freedoms**, and cultivate this debate with the French Digital Council (CNNum) at its centre through periodic meetings on digital mobility issues with the involvement of the ESEC in particular;
- To make major international events held in France a showcase for the excellence of the French digital mobility industry and services.
- **To undertake work at the inter-ministerial level, involving all stakeholders, in order to define the legislative and regulatory reference framework for mobility services (in France and Europe)** on the following:
    - encouraging innovation in French start-ups and the identification of industrial projects that see major French players and start-ups join forces to work together;
    - the responses digital mobility offers with regard to regional development;
    - the introduction of digital application training programmes (both initial and continuous);

- strengthening the social framework in order to avoid any departures that digital technologies might encourage (such as UberPop, for example);
- taxation and the collection of social contributions for collaborative mobility initiatives that exceed the boundaries of informal aid;
- new guarantees for individual freedoms (limiting of intrusive marketing, the consequences of the Internet of Connected Things, etc.); and
- the monitoring of economic balances within the sector (with the ARAFER (the French Regulatory Authority for Rail and Road Activities) being made responsible for monitoring and proposing appropriate action) and long-term budgetary trade-offs.

Conclusion

The world is embracing the concept of digital mobility, and those countries that have developed a mobility ecosystem that reflects the recommendations made by the ESEC will benefit from major opportunities for growth. France is entering this changing economy with a number of considerable assets on its side. A land of innovation and start-ups, it boasts a number of major national mobility operators and major vehicle manufacturers, as well as infrastructures and facilities that are - and must remain - first-class. All that is lacking is the clear public will to incorporate them and to create a sustainable development tool that will serve the economic, social and environmental spheres. The work of the ESEC is now raising alarm bells with regard to this need for public action, the vital regulation that is required in order to protect against the associated risks, and the need to support initiative both within our businesses and within our territories.