

COLLANA DEL DIPARTIMENTO DI GIURISPRUDENZA  
DELL'UNIVERSITÀ DI PISA

NUOVA SERIE - *Atti di Convegno*

# ENHANCING SUSTAINABLE TRANSPORT

## Interdisciplinary Issues

*edited by*

**Andrea Bartalena, Luca Della Tommasina,  
Gabriella Iermano, Luca Spataro**



**G. Giappichelli Editore**



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10



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ELENA ORRÙ

## SUSTAINABILITY IN THE TRANSPORT SECTOR. AN OVERVIEW

TABLE OF CONTENTS: 1. Seventeen (and more) shades of sustainability. – 2. Focus on some challenges for reaching a comprehensive sustainability in the transport sector: the evolution of the international and EU institutions' approach towards environmental sustainability in the transport sector. – 2.1. Socio-labour conditions. – 2.2. Women and transports. – 3. Conclusions. Current perspectives and proposed instruments.

### 1. *Seventeen (and more) shades of sustainability*

Sustainability is at the core of current policies and public financing at every level: international, EU and domestic. It results evident by considering, as an example, the UN 2030 Agenda for Sustainable Development, adopted with the General Assembly's Resolution on 25 September 2015<sup>1</sup>. The Agenda comprises seventeen goals structured in one hundred sixty-nine targets and came into force on 1 January 2016. The resolution describes sustainable development as “eradicating poverty in all its forms and dimensions, combating inequality within and among countries, preserving the planet, creating sustained, inclusive and sustainable economic growth and fostering social inclusion”<sup>2</sup>. These targets are expressly considered by the above-mentioned Resolution as “linked to each other and (...) interdependent”<sup>3</sup>. Moreover, the achievement of sustainable development must involve its three dimensions, i.e. economic, social and environmental<sup>4</sup>.

Despite the fact that none of the SDGs directly focuses on transportation, this is indeed a paradigmatic sector, since it entails different shades of

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<sup>1</sup> Its text and related useful information can be retrieved at <https://sdgs.un.org/2030agenda>, accessed on 30 April 2022.

<sup>2</sup> Para. 13.

<sup>3</sup> *Ibid.*

<sup>4</sup> Para. 2.

sustainability. The most renowned of them is improving its environmental impact, for example by accelerating the transition to zero emission vehicles. Furthermore, the transport sector – much more than others – still experiences a lack of gender equality, at least for some activities therein performed. Moreover, due to the particular technicalities and dangerousness of some of the facilities and activities involved in the sector, it is necessary to grant, with specifically designed rules, safety and security of workers. Finally, it is not possible to deal with sustainability in this sector without considering also the limited resources and capacities of its environments and infrastructures<sup>5</sup>.

The year before the adoption of the 2030 Agenda for Sustainable Development, an independent High-Level Advisory Group on Sustainable Transport was appointed, for a period of three years, by the UN Secretary-General Ban Ki-moon with the main aim to submit policy recommendations for promoting accelerated implementation of sustainable transport, connected in particular to the goals of inclusive and equitable growth. The High-Level Advisory Group should also address social development and protection of the global environment and ecosystems, including climate change.

In its Position Paper on Financing Sustainable Transport adopted on 13 July 2015<sup>6</sup>, it is recognized transport's "essential role in countries' economic growth, competitiveness, balanced and livable spatial development, access to water and energy, and food security" and "for social inclusion and improved quality of life".

As for other bodies, the UN Inland Transport Committee (ITC) has identified three main SDGs for its contribution in implementing transport-related targets of the 2030 Agenda: the third, "Ensure healthy lives and promote well-being for all at all ages", the ninth, "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation", and the eleventh, "Make cities and human settlements inclusive, safe, resilient and sustainable"<sup>7</sup>.

However, considering it as a whole, the transport sector can be deemed important, either directly or indirectly (i.e. as a means), for the fulfilment of most of the SDGs and the related targets. It has relevance not only, for example, for the environmental dimension of sustainability and, in particu-

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<sup>5</sup> On this topic, *Gustavo Romanelli/Michele M. Comenale Pinto*, "Trasporto, turismo e sostenibilità ambientale", *Diritto dei trasporti* 2000, 659, 660.

<sup>6</sup> <https://sustainabledevelopment.un.org/content/documents/7618AdvisoryGroupTransport.pdf>, accessed on 30 April 2022.

<sup>7</sup> Note by the ITC Secretariat *Sustainable Transport in the 2030 Agenda and the Sustainable Development Goals* of 12 December 2016.

lar, under the goals 9 and 11<sup>8</sup>: its contribution can be considered relevant for all the UN SDGs. In particular, it is necessary to emphasize its role with regard to the social and cultural dimensions of sustainability.

In the foreword to the report *Mobilizing Sustainable Transport for Development*, issued by the above-mentioned High-Level Advisory Group on Sustainable Transport in October 2016, the United Nations Secretary-General Ban Ki-moon recognized that “sustainable transport supports inclusive growth, job creation, poverty reduction, access to markets, the empowerment of women, and the well-being of persons with disabilities and other vulnerable groups. It is also essential to our efforts to fight climate change, reduce air pollution and improve road safety”. The report provides also a definition of sustainable transport as “the provision of services and infrastructure for the mobility of people and goods—advancing economic and social development to benefit today’s and future generations—in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts”<sup>9</sup>.

The SLoCaT Partnership on Sustainable, Low Carbon Transport, for example, considers the role of transports for the fulfilment of thirteen targets in at least eight SDGs<sup>10</sup>: the indirect target “agricultural productivity” under the second SDG; the direct target “road safety” and the indirect one “air pollution” within SDG 3; the indirect target “access to safe drinking water” in the fourth SDG; the direct target “energy efficiency” and the indirect one “renewable energy” under the SDG 7; the direct target “sustainable infrastructure” within SDG 9; the direct target “urban access” and the indirect one “sustainable cities” in the eleventh SDG; the direct target “fuel subsidies” and the indirect one “food loss and waste” under SDG 12 and, finally, the indirect targets “climate change adaptation” and mitigation within the thirteen SDG. The 2019 SLoCaT report describes also that, in their Voluntary National Reviews (VNRs), some countries connected transport infrastructure and services also to other SDGs, some of which were not considered by the partnership itself, such as the first, the fourth, the fifth and the eighth<sup>11</sup>.

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<sup>8</sup> Target 11.2 expressly establishes, “by 2030, [to] provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons”.

<sup>9</sup> P. 10. This definition is based on the 2011 Bogota Declaration on Sustainable Transport Objectives.

<sup>10</sup> SLoCaT (2019), *Sustainable Transport: A Critical Driver to Achieve the Sustainable Development Goals*, Available at: [www.slocat.net/vnr](http://www.slocat.net/vnr), accessed on 30 April 2022.

<sup>11</sup> P. 15.

Moreover, the Sustainable Transport Division of UNECE stresses the importance of transportation for fulfilling thirteen SDGs<sup>12</sup>. The first goal, pertaining to “No poverty”, is deemed relevant under its targets 1.4 and 1.5, in other words granting access to basic services and reducing humans’ exposure and vulnerability to climate-related extreme events. Under the second goal, “Zero hunger”, transportation plays a role according to its targets 2.1, because it is a means for enabling “access to food all year round”, and 2.a for increasing investment in rural infrastructure. Then, the commission considers also the third goal, related to good health and well-being: transportation plays a role with regard to the number of global deaths and injuries from road traffic accidents. According to the UN Commission, transportation is relevant as a means for achieving also the fourth goal for ensuring access to quality education to all women and men (target 4.3). UNECE identifies transport also as a means for achieving equitable and universal access to safe and affordable drinking water for all under the target 6.1. The next three SDGs are also considered insofar as transportation is useful for achieving some of the related targets, i.e. improving energy efficiency (7.3), protecting labour rights and promoting safe and secure working environments (8.8) and developing “quality, reliable and sustainable [transport] infrastructures” (9.1). Falls within the eleventh goal providing access to “safe, affordable, accessible and sustainable transport systems for all” (11.2). The next goal is considered relevant in order to “reduce food losses along production and supply chains” (12.3), to “rationalize inefficient fossil-fuel subsidies” (12.c) and to “achieve the environmentally sound management of chemicals” (12.4). The transport sector can also contribute to the thirteen SDG for strengthening “resilient and adaptive capacity to climate-related hazards” (13.1) and climate change mitigation (13.3 and 13.a). As for the next goal, concerning life beyond water, the regime and organization of transport services and infrastructures can contribute to prevent and reduce marine pollution (14.1). According to UNECE, under the last SDG, the transport sector is relevant for investment promotion regimes (17.5), for fostering exports from developing countries (17.11) and public-private partnerships (17.17).

From the analysis above it is possible to infer that UNECE has therefore not deemed transportation relevant for the accomplishment of SDGs 5, 10,

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<sup>12</sup> Francesco Dionori – UNECE, presentation “*How to Achieve Transport – and Trade – related Sustainable Development Goals*” at the conference “*UNECE and the transport specific SDGs Podgorica*”, Montenegro 11-12 October 2017 on <https://unece.org/transport-and-sustainable-development-goals>, accessed on 30 April 2022. United Nations, *Transport for Sustainable Development The case of Inland Transport*, 2015. United Nations, *Sustainable transport, sustainable development. Interagency report for second Global Sustainable Transport Conference*, 2021.

15 and 16, respectively addressing gender equality, reduced inequalities, life on land and peace, justice and strong institutions. Actually, through an in-depth analysis of the above-mentioned sustainability goals and the related targets, the transport sector could be considered as playing an important role in their accomplishment, too.

The fifth SDG is meant to obtain gender equality and empower all women and girls. The targets that could be, in particular, considered relevant for the transport sector are, first of all, eliminating any forms of discrimination and violence against women and girls, including trafficking and sexual and other types of exploitation (5.1 and 5.2), in order to introduce policies and organize transport services for protecting women and girls' safety and security and avoiding any discrimination onboard transport means or within the related infrastructures<sup>13</sup> and introducing effective controls meant to prevent human trafficking<sup>14</sup>. Other cross-cutting targets are: granting the effectiveness of women's full participation and their equal opportunities for leadership at all levels of decision-making in political, economic and public life (5.5) and the adoption and full implementation of thorough policies and laws for enhancing gender equality and the empowerment of all women and girls at all levels (5.c).

The tenth SDG is meant to "reduce inequalities within and among countries". The provision of and accessibility to adequate public transport services is crucial for achieving this purpose within a single country and hence among different States<sup>15</sup>. Since its foundation, territorial, social and economic cohesion is pivotal under the European Economic Community, then European Community and finally European Union. Art. 3.3 of the Treaty on European Union (TEU) requests the Union to further it among the Member States. Under Art. 4.2, let. c) of the Treaty on the Functioning of European Union (TFEU), the economic, social and territorial cohesion is a shared competence between the Union and the Member States, which can satisfy the related needs through services of general economic interest (among which, public transport services) according to Art.s 14 and 106.2 of the same Treaty. It is therefore possible to infer that transport services are essential to enable people to improve their living conditions, for exam-

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<sup>13</sup> On this matter, see for example, ITF (2018), *Women's Safety and Security: A Public Transport Priority*, OECD Publishing, Paris.

<sup>14</sup> In 2018, for example, ICAO issued the Circular 352, providing for *Guidelines for Training Cabin Crew on Identifying and Responding to Trafficking in Persons*. Ruwantissa Abeyratne, *Legal Priorities in Air Transport*, Springer, 2019, p. 55 et seq.

<sup>15</sup> ITF, *The Economic Benefits of Improved Accessibility to Transport Systems Roundtable*, <https://www.itf-oecd.org/economic-benefits-improved-accessibility-transport-systems-roundtable-0>, accessed on 31 August 2022.

ple by seeking job opportunities in different cities or States: consequently, transportation can contribute to the fulfilment of targets 10.1 and 10.2, but also of target 10.7, meant to “facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies”.

SDG 15 addresses life on land, by “protect[ing], restor[ing] and promot[ing] sustainable use of terrestrial ecosystems, sustainably manag[ing] forests, combat[ing] desertification, and halt[ing] and revers[ing] land degradation and halt[ing] biodiversity loss”. For this purpose, it is necessary to re-consider the planning and organization of transport and logistics infrastructures and services, and foster the development and deployment of sustainable fuels<sup>16</sup>. It is also necessary, for example, to improve the controls in the transport sector in order to fight against illegal wildlife trade.

SDG No 16 is meant to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”. Transportation can be deemed relevant under targets 16.1, 16.5, 16.6 and 16.b, because transparent and efficient public services, accessible to all the prospective users without any discriminations can contribute to reduce the feeling of unsafety while walking alone after dark and of discrimination and the cases of corruption and bribery, that are addressed by them. It can also better the government’s expenditure and the population’s satisfaction with experience of public services.

Following the considerations above, it emerges transport’s role as an enabler to achieve the SDGs from different points of view. Actually, fostering sustainability in the transport sector is not a new challenge, but what has changed over the years is the increasing awareness of its effects for most aspects of our life and the new tools that are being implemented, such as specific contract clauses meant to share between the parties to the contract the commitment to a more sustainable transportation, new corporations, green bonds.

The following paragraphs are therefore devoted to briefly examining some of the main issues for achieving sustainability in this sector.

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<sup>16</sup> See, for example, ICAO Assembly’s working paper for the 40<sup>th</sup> Session Executive Committee Agenda Item 21 “*United Nations 2030 Agenda- Sustainable Development Goals (SDGs). ICAO’s activities in support of United Nations 2030 Agenda – Sustainable Development Goals (SDGs)*”.



2. *Focus on some challenges for reaching a comprehensive sustainability in the transport sector: the evolution of the international and EU institutions' approach towards environmental sustainability in the transport sector*

Considering environmental sustainability, since the second part of the XX century, several international conventions have been issued for preventing pollution from transport activities or reducing its harmful consequences. However, they concern only specific modalities and activities or polluting substances and often – and particularly in the maritime sector – are the response to severe accidents<sup>17</sup>. Pollution in transports can, for example, affect water (e.g., spills or throwing of polluting substances and garbage, wrecks, coatings), or consist in air or noise pollution, endangering the habitats and survival of many animals.

Moreover, as for single transport modalities and the issues pertaining to the exploitation of the environment and the limited resources and capacities, the United Nations Convention on the Law of the Sea, signed in Montego Bay on 10 December 1982, defines the area of the seabed and ocean floor and the subsoil thereof as “common heritage of mankind”<sup>18</sup>. Under the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the so-called Outer Space Treaty), opened for signature by the three depository Governments (the Russian Federation, the United Kingdom and the United States of America) on 27 January 1967 and entered into force on 10 October 1967, “the Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means”<sup>19</sup>.

The contribution of transport to negative impacts on the environment, on the one hand, and its importance for climate action and sustainability under the social and economic perspectives, on the other, was notably recognized by the Report “Our Common Future” adopted at the end of the 1987 World Commission on Environment and Development (WCED).

Further advances concerning also the transport sector occurred during the 1992 United Nations Conference on Environment and Development (UNCED – also known as the Earth Summit) held in Rio de Janeiro, in the United Nations Framework Convention on Climate Change (UNFCCC)

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<sup>17</sup> On this topic, *Romanelli/Comenale Pinto* (fn. 5), p. 659.

<sup>18</sup> Art. 136.

<sup>19</sup> Art. II.

and the plan of action resulting thereof, i.e. the Agenda 21<sup>20</sup>, where transportation is considered under different perspectives and for diversified purposes<sup>21</sup>. As for environment pollution, in particular, it was remarked that approximately a quarter of energy-related global greenhouse gas emissions comes from it. Moreover, in 1997 the UN General Assembly remarked the future huge increasing demand for energy and the role of transport as a driver for achieving sustainability.

Just to mention only few of the further sources in the evolution of the UN's action on climate and sustainability, in the United Nations Millennium Declaration, adopted on 8 September 2000<sup>22</sup>, the improvement of transit transport systems in landlocked developing countries through public resources and technical assistance by bilateral and multilateral donors was recognized as an instrument for overcoming the impediments of geography.

The 2002 World Summit on Sustainable Development and the resulting Johannesburg Plan of Implementation (JPOI) are worth to remember, too. According to the Plan, improving transportation (and especially public transport services) and the related infrastructures, along with goods delivery networks, also through partnerships, falls within the tools for fighting against poverty, for changing unsustainable patterns of consumption and production, for safeguarding and managing natural resources that are at the basis of economic and social development.

Ten years later, during the 2012 United Nations Conference on Sustainable Development (a.k.a. Rio +20) the centrality of transportation and mobility for sustainable development was confirmed. During that conference, the process that led to the seventeen SDGs was launched and guidelines on green economy policies were adopted. Further progresses have been achieved so far during the Conferences of the Parties to the UNFCCC (COPs) that followed it.

With regard to the EU level, transportation (including the Trans-European Transport Network, TEN-T) and the protection of the environment have always been core competences of the European Community, then Union<sup>23</sup>. Many EU Member States or, in certain cases, the EU itself

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<sup>20</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I, Resolutions Adopted by the Conference, resolution 1, annex II.

<sup>21</sup> The text can be retrieved at <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>, accessed on 30 April 2022.

<sup>22</sup> General Assembly resolution No 55/2.

<sup>23</sup> As for the environment, see the tenth para and Art.s 3.3, 21.2, let. d) and f), TEU. They are shared competences with Member States according to Art.s 4.2, let. e), g) and h),



are party to international conventions aimed at preventing pollution and regulating the related responsibilities and its organs and agencies contribute to drafting the technical implementing provisions within the relevant international bodies. Moreover, in certain cases the technical standards and requirements in force within the EU territory are stricter than those adopted at the international level.

The first environmental action plan adopted by the Commission dates back to 1973, but the EU policy concerning sustainability of the transport sector was particularly improved in the 1990s. The two action plans adopted in 1993<sup>24</sup> and in 1997<sup>25</sup> set longer term objectives and are distinguished by a more global approach. The two plans targeted five sectors, among which transports. These sectors cross-cut the programs' themes and the related targets. The seventh Environmental Action Programme (EAP)<sup>26</sup> was enacted in 2014: it provided for three thematic priorities and four enabling framework ones. Transport was no more an explicit target, but one of the sectors interested by the programme's implementation.

Concerning specifically the Common Transport Policy (CTP), the 1992 Commission's White Paper "The Future Development of the Common Transport Policy: A Global Approach to the Construction of a Community Framework for Sustainable Mobility"<sup>27</sup>, recognized as one of the new challenges for the CTP the "integration of environmental objectives".

The need of integrating the CTP with sustainable development was furthermore urged, at that time, also by the 1997 Treaty of Amsterdam, which came into force on 1 May 1999. The Cardiff European Council in June 1998 promoted environmental integration into the EU policies in the different sectors and asked the sector Councils "to establish their own strategies for giving effect to environmental integration and sustain-

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90 to 100, 170 to 172 and 191 to 193, TFEU. The legal basis for EU action is the Treaty on the Functioning of the European Union (TFEU).

<sup>24</sup> European Commission, Directorate-General for Environment, *Towards sustainability: a European Community programme of policy and action in relation to the environment and sustainable development*, in OJ No C 138, of 17 May 1993, p. 7.

<sup>25</sup> European Commission, Directorate-General for Environment, *Towards sustainability: the European Commission's progress report and action plan on the fifth programme of policy and action in relation to the environment and sustainable development*, Publications Office, 1997. M. Laura Giagnorio Saviotti/Specchiarello Michela, "La posizione della Unione Europea sullo sviluppo sostenibile", Lavoro e previdenza oggi, 1998, 1054.

<sup>26</sup> European Commission, Directorate-General for Environment, *General Union environment action programme to 2020: living well, within the limits of our planet*, Publications Office, 2014.

<sup>27</sup> COM (92) 494 final.

able development within their respective policy areas”<sup>28</sup>.

The Transport Council adopted its Strategy for the years 1999-2001 on 6 October 1999. In November 1999, the Commission adopted the working paper “From Cardiff to Helsinki and beyond” that included the assessment of the strategies undertaken by different sectoral Councils for protecting the environment. As for the transport sector, the working paper recommended to define the meaning of sustainable transport and to set long-term environmental targets.

The 2001 White Paper “European Transport Policy for 2010: Time to decide”<sup>29</sup> is informed, among the others, by the principle that “a modern transport system must be sustainable from an economic and social as well as an environmental viewpoint”<sup>30</sup>. The means identified for pursuing environment sustainability in the sector are shifting between modes of transports in favour of more environmentally friendly ones, as evidenced also during the European Council’s meeting in Gothenburg in June 2001, and including external costs, such as those related to the environment, in transport charges<sup>31</sup>.

In 2011 the European Commission adopted the comprehensive strategy “Transport 2050”, aimed at boosting mobility while improving the competitiveness and sustainability of the transport sector: the White Paper “Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system” was enacted<sup>32</sup>. It recognized the importance of transport for improving economy and society, but also the need of its sustainability, to be achieved also through international cooperation. For this purpose, new technologies for vehicles and traffic management are envisaged as important tools – among others – for lowering transport emissions.

Moreover, in 2016 an EU “Strategy for low-emission mobility” was launched: it is based on three main priority areas for action, i.e. increasing the efficiency of the transport system, digital technologies and further-

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<sup>28</sup> Presidency Conclusions, para 34.

<sup>29</sup> European Transport Policy for 2010: Time to Decide – White Paper. COM (2001) 370 final, 12 September 2001. *Stefano Zunarelli*, “Il Libro Bianco sui trasporti: elementi di novità e di continuità della politica dell’Unione europea nel settore dei trasporti”, *Diritto dei trasporti*, 2002, 463.

<sup>30</sup> P. 6.

<sup>31</sup> See also European Commission, *Fair Payment for Infrastructure Use: A Phased Approach to a Common Transport Infrastructure Charging Framework in the EU*. White Paper. COM (98) 466 final, 22 July 1998. *Giovan Battista Di Miceli*, “Politica dei trasporti e politica ambientale”, *Aggiornamenti sociali* 3 (1996), 211.

<sup>32</sup> COM(2011) 144 final.

ing modal shifts; speeding up the deployment of low-emission alternative energy for transport; and moving towards zero-emission vehicles<sup>33</sup>. For this purpose, that same year the European Strategy on Cooperative Intelligent Transport Systems and Connected and Automated Mobility started, too<sup>34</sup>. In May 2017, the *Strategic Transport Research and Innovation Agenda* (STRIA)<sup>35</sup> was adopted within “Europe on the Move” package.

Over the years, the EU institutions have also launched financing programmes and supported national projects financed with public resources meant to encourage the modal shift in favour of more environmentally friendly modalities and the related infrastructures. Some examples are, for the first case, the TEN-T<sup>36</sup> and several national projects providing public financing for shifting relevant parts of haulage from road carriage to rail or waterborne transport<sup>37</sup>, for the second. Currently, the goals set by the

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<sup>33</sup> Communication COM(2016) 501 of 20 July 2016, *A European Strategy for Low-Emission Mobility*.

<sup>34</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM/2016/0766 final, *A European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility*; Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM/2018/283 final, *On the road to automated mobility: An EU strategy for mobility of the future*.

<sup>35</sup> European Commission Staff Working Document SWD (2017) 223, *Towards Clean, Competitive and Connected Mobility: The Contribution of Transport Research and Innovation to the Mobility Package*; European Commission Communication COM (2017) 0283 Final, *Europe on the Move. An Agenda for a Socially Fair Transition towards Clean, Competitive and Connected Mobility for All*.

<sup>36</sup> The TEN-T was launched with the Council Decision No 93/629/EEC of 29 October 1993 on the creation of a trans-European road network, following the 1992 Commission’s White Paper. Following the end of the 1993 decision’s validity on 30 June 1995, the Council Regulation (EC) No 2236/95 of 18 September 1995 laying down general rules for the granting of Community financial aid in the field of trans-European networks, and the Decision No 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network, that was replaced by the Decision No 661/2010/EU of the European Parliament and of the Council of 7 July 2010 on Union guidelines for the development of the trans-European transport network. Currently, the TEN-T is governed by the Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU, as subsequently modified, and the Regulation (EU) 2021/1153 of the European Parliament and of the Council of 7 July 2021 establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU) No 283/2014.

<sup>37</sup> Some examples are the recent Italian projects so-called Marebonus and Ferrobonus. See *Luca Marfoli*, “Mobilità sostenibile e trasporto intermodale”, *Rivista di Diritto*

above-mentioned EU policies have been pursued also within the EU Sustainable and Smart Mobility Strategy<sup>38</sup>, the European Green Deal<sup>39</sup> and the NextGenerationEU (NGEU or NextGen)<sup>40</sup>. In particular, within the European Green Deal, the European Climate Law<sup>41</sup> sets the ambitious goal of climate neutrality by 2050, whereas the last package identifies six policy pillars for MSs' plans: green transition, digital transformation, inclusive growth and jobs, social and territorial cohesion, health and resilience, and policies for the next generation. Some of them (i.e. the first, second and third) are directly linked also to transportation and mobility, but, according to the previous analysis, projects involving also the transport sector could be considered appropriate also for the other pillars. As for the implementation of the NGEU by the single MSs, most national projects in the transport field provide for investments in modern and clean vehicles and recharging infrastructures, the improvement of public transport and the promotion of active mobility<sup>42</sup>.

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dell'Economia, dei Trasporti e dell'Ambiente, 2013, 19; Chiara Vagaggini, "Il "Marebonus": il nuovo incentivo del settore marittimo", *Rivista del Diritto della Navigazione*, 2017, 749.

<sup>38</sup> European Commission, Communication COM/2020/789, *Sustainable and Smart Mobility Strategy. Putting European Transport on Track for the Future*, 9 December 2020.

<sup>39</sup> European Commission, Communication COM/2019/640 Final, *The European Green Deal*.

<sup>40</sup> Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2020) 456 final, *Europe's moment: Repair and Prepare for the Next Generation*; Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions COM/2020/442 final, *The EU budget powering the recovery plan for Europe*; Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2020) 440 final, *Adjusted Commission Work Programme 2020*; Council Regulation (EU) 2020/2094 of 14 December 2020 establishing a European Union Recovery Instrument to support the recovery in the aftermath of the COVID-19 crisis; Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088; Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 establishing a Technical Support Instrument; Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility.

<sup>41</sup> Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999.

<sup>42</sup> EU Parliament's briefing *Transport trends in national recovery and resilience plans*, 21 February 2022, available in [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698765/EPRS\\_BRI\(2021\)698765\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698765/EPRS_BRI(2021)698765_EN.pdf), accessed on 30 September 2022.

## 2.1. *Socio-labour conditions*

At the international level, there are several International Labour Organization (ILO) Conventions covering some specific issues of working conditions in general. Many conventions specifically concern the transport sector. They were concluded thanks to the cooperation among the ILO, the international organizations established for each transport modality, such as the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO), and the Contracting States. The most notable aspects are that many of them concern seafarers and dockers: few of these conventions deal with the other transport modes<sup>43</sup>. Working conditions in the transport sector are also governed by international instruments approved within the single relevant organizations, mostly for safety and security issues, according to their respective competence.

As a consequence, the international framework could be considered fragmented.

In the EU, the regime and policies in the area of employment fall within the single MS's competence, whereas, social policy is a shared competence between the EU and the MSs<sup>44</sup>. However, the TFEU requires MSs to coordinate their employment policies and the EU to ensure it with guidelines<sup>45</sup>. The EU institutions can make provisions affecting the working conditions while acting in an area falling within their exclusive or shared competence, such as, for example, for ensuring an effective competition in liberalized markets, for implementing the freedom of movement of workers<sup>46</sup> and the creation of the internal market or safety and security. According to Art. 9 TFEU, "in defining and implementing its policies and activities, the Union shall take into account requirements linked to the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training and protection of human health".

Among the initiatives for coordinating the national social and employment policies in general, it is possible to recall the Community Charter of Fundamental Social Rights for Workers, adopted on 9 December 1989, in order to ensure uniform principles applicable to workforce. In 2017, at the Gothenburg Summit, the European Pillar of Social Rights was proclaimed.

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<sup>43</sup> Annex to ILO working paper No 298, Working Paper "Promoting the employment women in the transport sector – Obstacles and policy options", by Prof. Peter Turnbull.

<sup>44</sup> Art. 4.2, let. b), TFEU.

<sup>45</sup> Art.s 2.3, 5.2 and 5.3.

<sup>46</sup> Ch. I, Title IV, TFEU.

It establishes twenty principles to which national regimes should conform.

As for the transport sector, there are no general common provisions at the EU level, but sector specific sources meant to implement the international conventions within the EU or to ensure adequate social protection and safety and security in certain activities, which could be affected by uncontrolled unfair competition among transport undertakings.

## 2.2. *Women and transports*

The transport sector has traditionally been mainly a male-dominated industry, especially for the most sector-specific and technical jobs. These issues have often found it difficult to emerge within the political discussions at the different levels. At the international one, there is no uniform instrument and these problems have not been discussed within the EU for many years.

Moreover, the present subject entails two different perspective: the role and working conditions of women as professionals or workers in this sector, on the one hand, and women as passengers and users of public transport services, on the other.

As for the first aspect, according to some studies, in 2020 women were on average the 16 % of total workforce in the different transport sectors and modes<sup>47</sup>. This percentage could probably decrease if sector-specific and technical jobs and top management levels are considered. Most of women employed in the transport sector, work in land transport, but they represent only the 14.6% of the employees. On the contrary, in water transport they represent the 20% of the workforce. This share increases in the air transport, where women account for the 42% of the workforce<sup>48</sup>.

Gender as a transport policy issue, in order to facilitate women's access to transport jobs, was introduced, for the first time in the EU, in the 2009 European Commission's communication "A sustainable future for transport: towards an integrated, technology-led and user friendly system"<sup>49</sup>.

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<sup>47</sup> European Parliament at a glance webpage, 'Women working in transport', [https://www.europarl.europa.eu/RegData/etudes/ATAG/2022/729293/EPRS\\_ATA\(2022\)729293\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2022/729293/EPRS_ATA(2022)729293_EN.pdf), accessed on 8 September 2022.

<sup>48</sup> Number and share of women employed in transport,

<sup>49</sup> COM/2009/0279 final, whereas 53. On this topic, see also Silvia Sansonetti/Eamonn Davern, "Women and transport", study commissioned by the European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs, December 2021, available at [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/701004/IPOL\\_STU\(2021\)701004\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/701004/IPOL_STU(2021)701004_EN.pdf), accessed on 7 September 2022.



In 2014 the Commission published the report “She Moves – Women’s issues in transportation”<sup>50</sup>, which addresses both the aspects considered in this paragraph.

Following the above-mentioned 2011 White Paper, on 9 September 2015 the European Parliament issued the “Resolution on the implementation of the 2011 White Paper on Transport: taking stock and the way forward towards sustainable mobility”, where it was remarked the need of measures to enhance “women’s participation in the transport labour market, remove possible existing barriers, and ensure equal treatment of men and women by addressing existing remuneration and advancement gaps”.

Women’s working conditions in the transport sector are affected both by general sources, such as the Directive (EU) 2019/1158 of the European Parliament and of the Council of 20 June 2019 on work-life balance for parents and carers and repealing Council Directive 2010/18/EU, and by sector-specific provisions, which however often do not include gender considerations.

It is worth to mention also the platform “Women in Transport – EU Platform for change”, launched by the Commission in 2017 and meant to promote women’s employment and equal opportunities in the sector.

With regard to the second of the aspects mentioned at the beginning of this paragraph, when planning transport services, it is necessary to consider also women’s different needs, often linked to their care-giver roles. Women, in fact, tend to use public transport services more and at different times during each day than men and need also safer and more efficient transport services. These problems could be solved by including women in decision-making processes<sup>51</sup>.

In its Resolution of 11 September 2012 on the role of women in the green economy<sup>52</sup>, the EU Parliament stated that “social sustainability involves a social order permeated by gender and social equality regardless of gender, ethnicity, colour, religion, sexual orientation, disability or political opinion”, recalled that, whereas women in general do not affect the environment as much as men, they are much more affected by climate change and environmental policies, and urged the EU Commission and the MSs to better the quality and quantity of public transport services.

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<sup>50</sup> European Commission, Directorate-General for Mobility and Transport, She moves: women’s issues in transportation, Publications Office, 2014, <https://data.europa.eu/doi/10.2832/62974>.

<sup>51</sup> Robin Law, “Beyond ‘women and transport’: towards new geographies of gender and daily mobility”, *Progress in Human Geography*, 23 (1999), 567; Francesca Sperotti, “Donne e trasporti: un binomio da potenziare”, *Diritto delle relazioni industriali*, 2011, 907.

<sup>52</sup> 2012/2035(INI).

### 3. *Conclusions. Current perspectives and proposed instruments*

At the end of this bird's eye view analysis on sustainability issues and opportunities in the transport sector, it is possible to conclude that it is indeed relevant for almost all of the current goals. However, one of the main flaws affecting it is the scarce awareness among people and the institutions, in particular the domestic ones, and the lack of co-ordination and uniformity in their approaches towards the main issues. This is evidenced by the fact that the transport sector was able to attract less than 13% of all environmental funding<sup>53</sup>.

The relevant law addressing the sector at the different levels appear to be fragmented, with the predominance of only some modalities or some aspects within the single one. Furthermore, some aspects are still not fully considered by policy and law makers at the international level.

A better integration and consideration of the several dimensions of sustainability in the transport sector at all levels and in transport planning, policy and investment is crucial. For this purpose, it was suggested both a vertical integration, involving all the levels of government, and a horizontal one, dealing with the different modes, territories and sectors<sup>54</sup>.

For achieving the aim to raise awareness on the involvement of transports in sustainability, hard law and soft law instruments can be applied.

As for soft law instruments, they can have different degrees of strength. First of all, there are social and market concerns, such as the moral suasion and influence by the market and stakeholders.

Second, contract and corporate tools can be envisaged. Fall within the first category climate clauses incorporating commitments by the party or enabling to terminate the contract if the customer finds a greener offer of services by another supplier, that the current one cannot match<sup>55</sup>.

With regard to corporate tools, companies can subject themselves to Voluntary Sustainability Standards (VSS). They can be described as norms and standards drafted for ensuring that a product meets certain sustainability (environmental, social and economic) targets with regard to its qualities or attributes, production, processing methods and transport. VSS are

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<sup>53</sup> Nancy Vanduycke, "Envisioning the Transport We Need Goals of the UN High-Level Advisory Group on Sustainable Transport, in Connections", Transport & ICTs, September 2015.

<sup>54</sup> High-Level Advisory Group on Sustainable Transport's report "Mobilizing Sustainable Transport for Development", October 2016.

<sup>55</sup> An example is the 'Termination for Greener Supplier' clause or 'Agatha's Clause' drafted by the Chancery Lane Project and available at <https://chancerylaneproject.org/climate-clauses/termination-for-greener-supplier/>, accessed on 31 August 2022.



considered important tools for the fulfilment of the SDGs, however it is not possible to actually assess their efficacy<sup>56</sup>.

The corporate aspects include also the company's legal status or structure. One of the proposed means for the transport sector, in particular for community transport services, are social enterprises<sup>57</sup>.

As for hard law and the tools that can be employed by the lawmakers, it is possible to impose specific duties or establish incentives. The law provisions can also directly affect the contract's content, as exemplified by the Italian regime of road freight transport, where, in the absence of a written contract evidencing the contrary, also the client, the shipper, the consignor and the goods' owner are liable for infringements to traffic rules<sup>58</sup>.

In addition, the competent public authorities can impose specific sustainability provisions, technical specifications, conditions for performance of contracts, social clauses and VSSs in public procurements or concession awards.

On the contrary, requirements concerning the tenderers' legal status in public procurement procedures would be contrary to the principles of non-discrimination and neutrality as regards the system of property ownership in the Member States in the TFEU: in fact, set aside procurements are currently prohibited under the EU law.

Depending on the specific regime of public procurement, it could be possible to include sustainability criteria for assessing the tenders and awarding the contract or concession (social procurement)<sup>59</sup>. With regard to the transport sector, Art. 82.2 of the Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, specifies that the criterion of the most economically advantageous tender from the point of view of the contracting entity must be applied according to "the price or cost, using a cost-effectiveness approach (...) and may include the best price-quality ratio, which shall be assessed on the basis of criteria, including qualitative,

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<sup>56</sup> UNCTAD, Reflecting on Sustainability Standards: Trade and the Sustainability Crisis, 2022, in [https://unctad.org/system/files/official-document/ditctab2022d4\\_en.pdf](https://unctad.org/system/files/official-document/ditctab2022d4_en.pdf), accessed on 7 September 2022.

<sup>57</sup> Cristian Negruțiu/Cristinel Vasiliu/Calcedonia Enache, "Sustainable Entrepreneurship in the Transport and Retail Supply Chain Sector", *J. Risk Financial Manag.* 13 (2020), 267; Varsolo Sunio/Miguel Laperal/Iderlina Mateo-Babiano, "Social enterprise as catalyst of transformation in the micro-mobility sector", *Transportation Research Part A: Policy and Practice*, 138 (2020), 145.

<sup>58</sup> Art. 7 of Law No 286/2005.

<sup>59</sup> SIGMA, *Incorporating Social Considerations into Procurement*, January 2011.

environmental and/or social aspects, linked to the subject-matter of the contract in question”, as exemplified by the same provision.

Finally, public financing, at the international, EU and domestic level, is still relevant, especially in developing countries, though private-public partnerships should be encouraged<sup>60</sup>.

For this purpose, an integrated approach among the different government levels and public policies and investments with a long-term view could achieve the most effective results. In this manner, on the one hand, local authorities and municipalities, which can have a closer vision of their communities’ needs and their territories’ situation, could be empowered and their financial capacity could be increased<sup>61</sup>. On the other, however, it is necessary to coordinate the local instances with a holistic approach at the higher levels.

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<sup>60</sup> High-Level Advisory Group on Sustainable Transport’s report “*Mobilizing Sustainable Transport for Development*”, October 2016; Nancy Vandycke (fn. 52).

<sup>61</sup> *Ibid.*

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