



wetransform

THEMATIC AREAS

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1. OBJECTIVE OF THE THEMATIC AREAS

Digitalization and automation will produce profound changes in the transport sector. These changes will impact the transport workforce. WE-TRANSFORM must develop an agenda of actions to be taken by policymakers to smooth the transition of the transport workforce.

The project's Living Hub and Stakeholder Forum will provide content for the development of this agenda, through research, exchange, and discussion among stakeholders.

To provide structure and focus for this process of the Living Hub, a set of Thematic Areas has been defined, allowing an exploratory study, to call attention to the relevance, and to encourage reflection and more work on this thematic area (i.e., it does not seek to provide an exhaustive study of the topic).

Below the eight thematic areas defined so far are described in details. Each of these Thematic Areas will be formed by a group of partners of WE-TRANSFORM who will co-create knowledge inside the group and will expand such knowledge consulting stakeholders, with whom, again, co-creating a Knowledge or Policy Brief or some Policy recommendations, to feed development of WE-TRANSFORM policy agenda.

2. DESCRIPTION AND SCOPE OF THEMATIC AREAS

Eight thematic areas have been defined to cover the emergent issues automation and digitalisation pose on the workforce. The thematic areas are:

1. Governance of transition;
2. Common skills to develop between same-level workers in different sectors of the transport industry;
3. Minimisation of exclusion processes in the reskilling of the workforce;
4. Platforms for gig workers: implications on jobs production;
5. The role of local and regional authorities;
6. Role of workers in Automated Public Transport Settings;
7. Regulation of transition in the view of collective bargaining
8. Automation and sustainability.

2.1 Governance of transition

The shift in work due to automation is a challenge not only for workers, but first and foremost for management and companies' governance. Automation and digitalisation will have an enormous impact on job availability, tasks, and duties, and will require a partial reskill of the already available workforce. These processes are impossible to avoid.

Public and private companies will observe this change and will have to adapt every part of their workforce, that will be impacted directly or indirectly by this change.

From this shift, some governance issues will arise: new objectives, KPIs and needs will question the nature of some workers, with implications currently unanswered by the current governance. For this, the transition of different categories of workers towards a more automated transport sector, from the management perspective, is essential. Moreover, every industry has a different reasoning behind automation, and a different approach to follow embracing it. This will require managers to follow different approaches per every industry.

Hence, on the company governance profile, the focus of the thematic area is:

- What will be the new responsibilities that will emerge from this shift?
- What changes will be observed in the responsibilities of current managers?
- Which actions will be necessary to address these new challenges?
- What forces will shape the future relationships between managers and reskilled workers?
- Which models will be followed to ensure the best possible outcome for the governance of a company affected by this transformation?
- What procedures will ensure the smooth transition inside a public or private company with the increase of automation?
- How can a new leadership drive towards a better automated future?

2.2 Common skills to develop between same-level workers in different sectors of the transport industry

Assuming as inevitable the increase in automation in the transport sector, and the sub-consequent necessary reskilling of workers, new learning and support programs will be necessary. The increase of automation will be adapted per each sector in the transport industry. However, given its wide nature, it is expected that some generic skills will be associated and common for the whole industry.

The demand for generic skills is rising across the worlds and across specific fields. These skills are usually high-order and easily transferrable, common to a wide range of contexts across specific fields; among these, communication, problem solving, the ability to understand the logics of information technology. In contrast, the demand for manual dexterity, strength and other tasks are already declining all over the world. The shift in occupational structure towards these common generic skills in the transport sector is expected to rise even more with the increase of automation, thanks to their relationship with cognitive ability. The lack of these common skills has severe consequences on individuals, firms, and governments.

The involvement of workers in the creation and production of internal material is an important topic currently rising in public and private companies. This should not be surprising since workers are an important actor with a responsibility in the design and implementation of policies and programs, especially when these programs are meant for themselves.

Co-creation and co-production are defined as a joint effort of workers and Human Resources managers in the initiation, planning, design and implementation of learning materials and skillsets.

Moreover, co-creation can enhance and grow the leadership ability of the workers, developing soft-skills useful in a co-creation environment. These frameworks have emerged with great success, fuelled by the open innovation drive in companies. This can also support workers retaining in the changing environment.

The focus of the thematic area is:

- What are already the common skills within the whole transport sector?
- It is possible to leverage those skills?
- What will be the common skills that are going to be necessarily developed within the whole transport sector?
- In which specific formation programmes the co-creation can be more profitable for companies and workers?
- Can workers perceive their empowerment through this co-creation?
- Can workers across different transport modes create common frameworks for skill acquirement?
- What KPIs could underline the efficacy of the co-creation program?

2.3 Minimisation of exclusion processes in the reskilling of the workforce

The transition to a more automated future is not a transition that will happen without hiccups. An important point, that will affect every company, private or public, regards equal treatment of workers, particularly considering the reskilling phase.

As it is well known, younger workers are usually more prone towards new technologies and work habits; however, automatization will be applied in each seniority level of every sector. This means that, to avoid a wide knowledge spread between older and younger workers, the reskilling and processes of upgrade should be arranged to reduce the distinction between categories of workers. Automation, moreover, should support the knowledge differentiation. It is not expected for all workers to gain the same set of skills, but to learn relevant skills leveraged to improve workers condition and perception.

Moreover, it is necessary to intervene to prevent any possibility of workers' exclusion due to the increase in automation (e.g., a worker affected by a form of intellectual disability, currently employed at a port in a intensively physical environment; a worker with social function impairment that currently works at an airport isolated checkpoint). This is essential to maintain a good work environment.

The focus of thematic area is:

- How different skillsets are necessary for different workers to learn?
- How can all workers be treated equally and protected in the case of the increasing automation?
- Which essential skills are necessary for the less-digital age category?

- How can a company assess the digital knowledge of its workers to improve its reskilling programs?
- What are the workers' protections strategies that should be adopted to avoid treatment differentiation in this reskilling?

2.4 Platforms for gig workers: implications on jobs production

Quality and safety of working conditions is a responsibility for all actors in the transport sector, both public and private. It is an ethical, legal and operational duty, that must address the quality of life and safety of the public in general, of those who are served, and of the workers providing the service.

Digitalization and Automation may end up in improving work quality conditions and safety, but recent experience shows that new problems can be generated, in creating new typologies of workers, even more exposed to a very low work quality and safety conditions. Exploring those problems in a specific, booming, type of service already enabled by automation and digitalization is relevant, but it can also be a way of exploring what issues may emerge in other services.

The growth of urban micro-deliveries (pizzas, groceries, books, and more) accelerated during the COVID-19 lockdowns. Most of these deliveries are operated by digital platforms (like Uber Eats, Deliveroo, Amazon, etc.) who rely on 'gig-workers'. These services pertain to the transport sector (logistics) and are enabled by digitalization (the whole service, except for the actual delivery, takes place in a digital setting) and automation (within this digital setting, algorithms automatically perform several tasks previously done by people, e.g., matching of requests with couriers, supervision, and evaluation of courier performance, etc.).

Paradoxically, the technology has created a new class of workers who are very low profiles and do not need any digital skill in performing the job created by digitalisation. All over Europe, many thousands of these workers are shuttling around, day and night, rain or shine, in city streets and suburban roads. They are treated as independent contractors (or freelancers), which limits the responsibility of the platforms are willing to hold, as well as the effectiveness of occupation health and safety policies (it has been reported that some operators avoid adopting fleet management procedures for safety to avoid the classification of workers as employees). On the other side, the needs of companies have to be explored to try to find solutions matching both companies' needs and workers' protection.

Recent research points out several risk factors:

- the 'efficient service' expected by customers and engineered by platform algorithms encourages risky behaviours, which affect safety for service providers and others;
- how to match company needs with workers' protection;
- many tend to work long hours (which further encourages risky behaviour);
- most use bikes, e-bikes, and scooters, and are, thus, vulnerable road users, but with a higher degree of vulnerability, due to higher exposure, i.e., many more kilometres travelled in urban environments that, for their most part, remain car-centric;

All what mentioned above has serious implications for those workers as well as for vulnerable road users in our cities, and, furthermore, is a useful – albeit very specific – example of some of the consequences of automation and digitalization in transport labour. Finding solutions to match company and workers needs is key for a proper development of the sector.

The focus of the thematic area is:

- look at key factors behind this trend;
- discuss the implications for workers' quality of work and safety in our cities and regions;
- define new practices, organizational approaches, etc.;
- define proposal for regulatory schemes, new rules, regulations, legislations, etc.

2.5 The role of local and regional authorities

Sooner or later, large shifts in the labour market challenge local and regional governments to act – either reactively, when a factory closes and large numbers of unemployed workers demand action from their closest elected officials, or proactively, because skills are needed to match local ambitions for economic development. Automation and digitalization in the transport sector bring several additional challenges to local and regional authorities: these processes are advancing fast, they have complex and profound implications, and their relation to the scope and capacity of these authorities is not clear and direct.

Several emerging issues will question both the public and the private sector, and major implications may come from processes that are not focused on the labour domain. Consider, for example, that the local deployment of new automated mobility services always requires, in some measure, the regulatory intervention of local and regional authorities. These regulatory decisions will have an impact in the local transport market, and necessarily in its local jobs as well. In return, this expected impact, and its acceptance by local decision-makers (will jobs be threatened? What kind of jobs, and labour rights, will be created instead?) will have a growing importance in how these new mobility services are dealt with – and consequently, in their entry, growth and consolidation.

We stand before a Governance issue, where local and regional governments and transport authorities have an important role to play – which requires, on their part, an awareness and understanding of:

- how the increasing role of automation would lead to an imbalance in the job market which will be typified by unskilled or low skilled workers needing to be replaced by qualified engineers;
- the effects that the previous point will have upon the concentration of wealth and opportunities within the workforce which links in nicely to the political cost of doing so and whether this will disincentive governments from adopting automation;
- the transformations being brought to the transport sector by automation and digitalization;
- the impacts and implications they will have for the local workforce;
- what, in this context, should local and regional governments strive for;
- what can they do to pursue that role.

It is fair to assume that several local and regional governments are not aware, or active, on this issue. We do know, however, that some authorities are working or planning to work on at least part of this issue. What can we learn from them? In this thematic area, we will explore, with some of those authorities, what made them doing it? What are they doing, and what are they thinking of doing next? How are they doing it? What have they learned so far, and what more do they feel they need to learn? What advice do they have for other local and regional authorities, and for overall policy efforts on this front? How can they have a more complete approach of the issue?

2.6 Role of workers in Automated Public Transport Settings

Most discussions about the impact of digitalization and automation in Public Transport look at the jobs that machines will make redundant – e.g., buses will not need human drivers, ticketing systems will not need salespeople nor ticket inspectors, etc.

However, as much as we may digitalize and automate Public Transport, its main role will remain the same: physically carrying passengers. Perhaps machines will make several human operators redundant, but they will still have to serve human users, with their intrinsic functional and psychological needs. For example:

- digital services can be made highly usable, but they will not eradicate digital illiteracy (i.e., lack of ability and skills to create, evaluate, learn, find, and use information on online media and digital platforms), and the need to support users who are “digitally-challenged”;
- while the presence of cameras and the digital identification of users may discourage some types of criminal behaviour (specifically those for which anonymity is a determinant factor), they offer no guarantees regarding other types of threats (e.g., several forms of sexual harassment, assault, etc.), and they can hardly prevent fear (which must be taken as a psychological fact affecting user satisfaction and service performance);
- automation and digitalization require a solid foundation of clear, structured and well-established protocols, which, by their own nature, leave no space for ambiguity (e.g., unclear or conflicting wants or needs) or the unexpected, two things which are a basic element of human life, and have particular relevance for safety.

In this thematic area we will explore the following questions, to understand which profiles of workers would be needed:

- what needs should we expect passengers to have in these automated settings?
- what are the needs that cannot be satisfied by an automated or digitalized service and that (would) require human service?
- how would the companies be receptive of these measures and would they be able to accept them?

2.7 Regulation of transition in the view of collective bargaining

The rule of the labour relations with reference to automation transition: models, goals, links to the legislative context.

Every major change - such as automation - requires an adaptation of the relevant rules. In this context, the role of collective bargaining becomes central because the role of social actors - entrepreneurs and workers - in identifying the needs and requirements, on the basis of which those rules can be built, is fundamental. Governments translate experiences into legal provisions that often have already been laid down in collective bargaining, which in many legal systems has the same value of law.

Therefore, it might be interesting to investigate, together with company representatives and trade unions, some aspects such as:

- main concerns regarding the application of automation processes respecting e.g.: existing regulations about worker rights, privacy, decent work; promoting decent work to meet individual, organisational, societal goals;
- whether, with respect to those processes, impact mitigation tools are already in place;
- what objectives are set to be achieved through automation processes, also in a positive way (e.g., not only with reference to the mitigation of the impact, but also to the possibility of becoming an opportunity, for example with reference to safety at work).

Concerning this point, see also the “White Paper On Artificial Intelligence - A European approach to excellence and trust” of the EU Commission, 19.02.2020, p. 6: “Beyond upskilling, workers and employers are directly affected by the design and use of AI systems in the workplace. The involvement of social partners will be a crucial factor in ensuring a human centred approach to AI at work”).

2.8 Automation and sustainability

Impact of automation on work force in the view of sustainability as a milestone of New possible models in governance: compliance with ESG principles social and Economics sustainability, rule of the management.

The connection between automation and sustainability goals is being studied and analysed and has become a crucial topic.

It could be interesting to investigate this aspect, starting from general principles, in order to identify in concrete terms the elements that connect the two, considering that:

- working conditions are crucial elements in building a sustainable business;
- automation is, or can be, a tool with a direct impact on the creation of adequate working conditions;
- especially in the transport sector, given its public relevance, good working conditions can be matched by good service conditions.

In this context, management is required to pay particular attention to these aspects, redesigning production processes in line with the new principles and directing its actions towards sustainability.

Concerning this point, see the “Agenda 2030 for Sustainable Development”, Goal 8.2. “Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors”, and 8.3. “Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services”.

WETRANSFORM CONSORTIUM

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