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B.5 - Social Aspects, Passenger Rights & Equal Opportunities

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SME PANEL CONSULTATION ON AUTOMATION AND DIGITALISATION IN TRANSPORT, FOCUSING ON THE LABOUR FORCE

Report on the main findings and their future use

1. BACKGROUND

The social dimension of the transition to automation and digitalisation[1] in transport will involve changes in the transport sector's labour force. The European Commission is considering policy measures and recommendations to accompany the transition to automation and digitalisation for the labour force in the transport sector.

Although the exact pace and scope of automation and digitalisation in transport is unclear (and estimates of how many jobs or tasks will become redundant in the future vary significantly) companies need to plan and be prepared to face the challenges ahead and to ensure a smooth transition.

Since many transport companies are SMEs, this specific survey aimed at exploring their need for guidance and policy measures to support them in their transition to automation and digitalisation. Given the difficult context of the coronavirus crisis, the survey was open from to 23 March to 15 June 2020 (12 weeks).

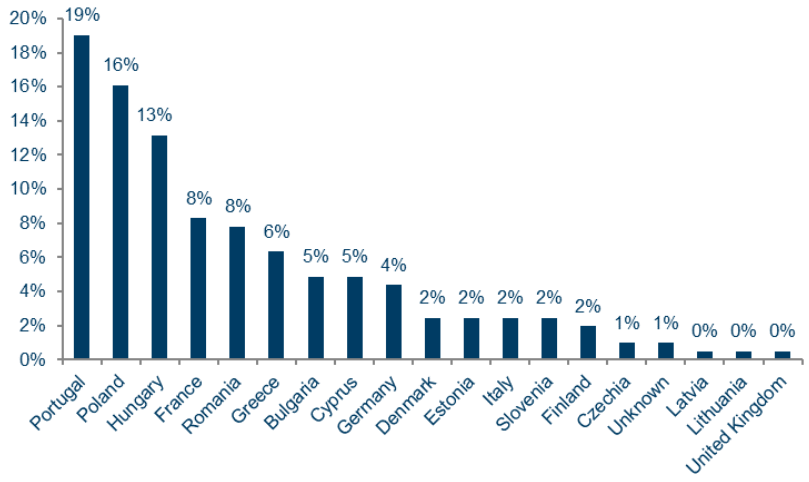
2. SHORT SUMMARY OF THE SURVEY (PROVIDED BY ECORYS NEDERLAND B.V.)

2.1. Respondents

A total of 205 companies filled in the survey. The largest shares of respondents come from Portugal (19%), Poland (16%) and Hungary (13%) (Figure 2.1).

[1] Automation refers to the substitution of human input by (digitally enabled) machines (https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/automation). Digitalisation refers to the use of digital technologies.

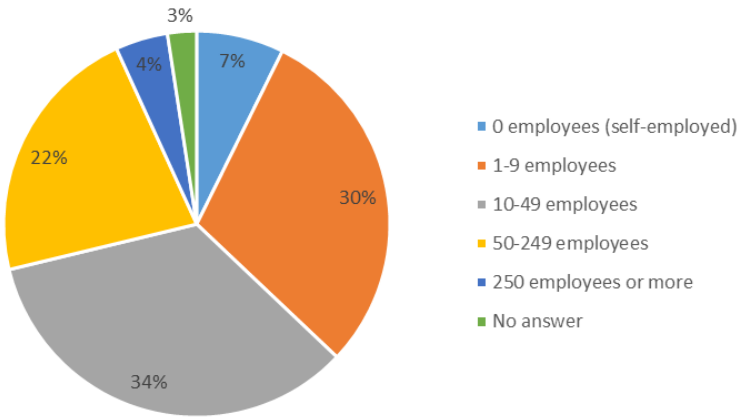
Figure 2.1 Companies' distribution across countries



N=205

The majority (71%) of the responding companies employ between 0 (self-employed) and 49 employees, while one in four (26%) employs 50 people or more (Figure 2.2).

Figure 2.2 Number of employees per company



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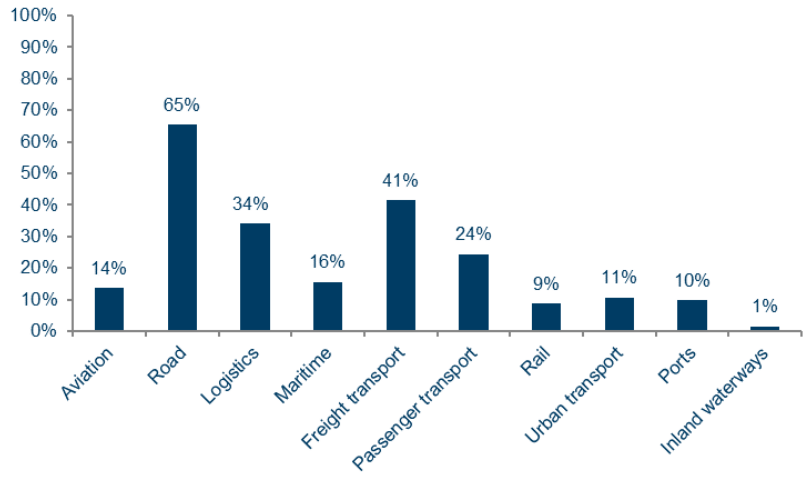
Responding companies are active in different modes and types of transport. Most notably, almost two in three (65%) is active within road transport. Furthermore, 16% is active in the maritime sector, 14% in aviation, 10% in ports, 9% in rail and 1% in the inland waterways sector.

In terms of transport types, the largest share of responding companies is active in freight transport (41%). One in three is active in logistics (34%), one in four (24%) in passenger transport and one in ten (11%) is active in urban transport.

Figure 2.3 Modes and domains of transport represented



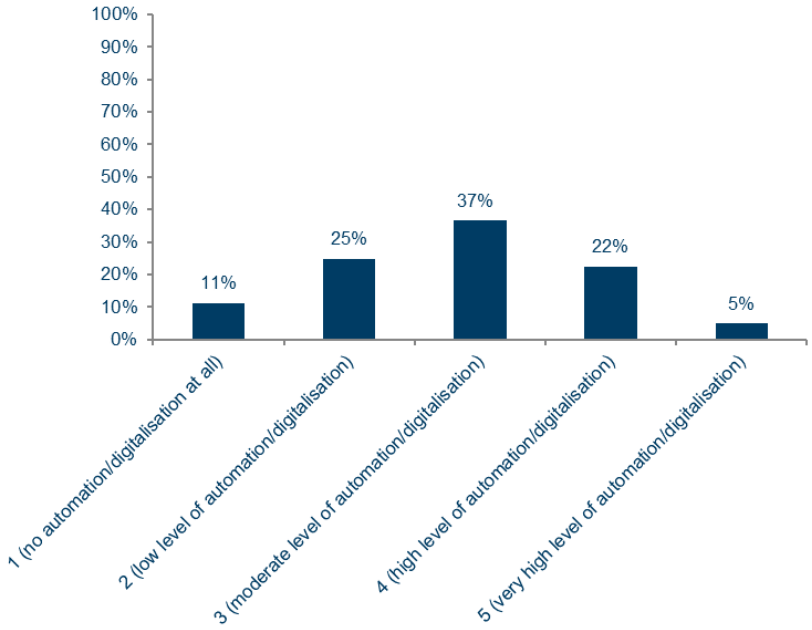
N=205
Note: multiple answers are possible

2.2. Level of automation and digitalisation

Responding companies were asked whether they could rate the current level of automation and digitalisation in their company on a scale from 1 (no automation/digitalisation at all) to 5 (very high level of automation/digitalisation).

The largest share of responding companies (37%) rates their level of automation/digitalisation a 3, i.e. moderately. Over one in four companies rated their current level of automation/digitalisation to be either 4 or 5, i.e. high to very high (Figure 2.4.)

Figure 2.4 Responding companies' current level of automation/digitalisation



N=205

Most responding companies (60%) indicated they have plans to further increase the level of automation/digitalisation within their company. Almost one in four (23%) has no plans to further increase its level of automation/digitalisation, while the remainder (17%) does not know.

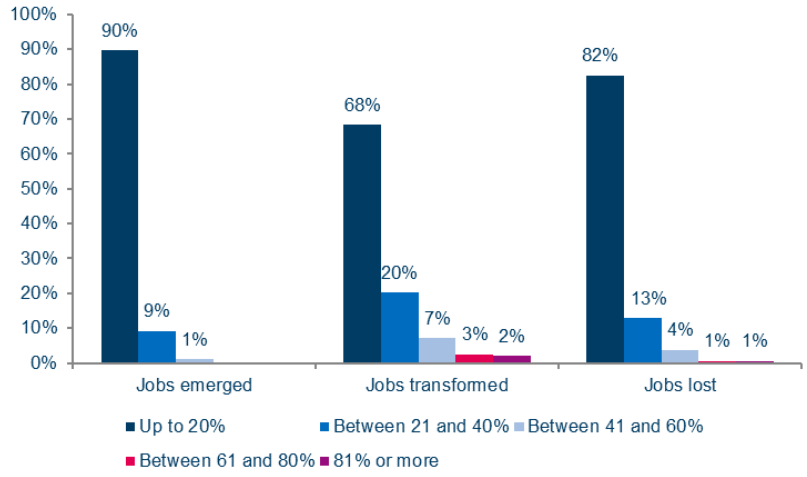
2.3. Impacts of automation and digitalisation on the labour force

Respondents were asked how many new jobs in their company will potentially emerge thanks to automation and digitalisation, how many jobs will be transformed (e.g. through upskilling and training) and how many jobs will potentially become redundant.

For all three questions, the majority of responding companies indicates that zero to 20% of jobs will be affected (Figure 2.5). In other words:

- Zero to 20% new jobs will emerge due to automation/digitalisation
- Zero to 20% of current jobs will be transformed (e.g. through upskilling and training)
- Zero to 20% of current jobs will potentially become redundant

Figure 2.5 Impact of automation/digitalisation on jobs



N=195

Responding companies were subsequently asked whether they could provide examples of these jobs that emerge, transform and become redundant.

In particular IT- and software related professions are mentioned by responding companies as those jobs that will emerge due to automation/digitalisation, as these are the employees that are ought to work with the new technologies that will be introduced.

Administrative jobs are often mentioned as jobs that either will transform (e.g. due to electronic invoicing and/or digitisation of shipping documents) or

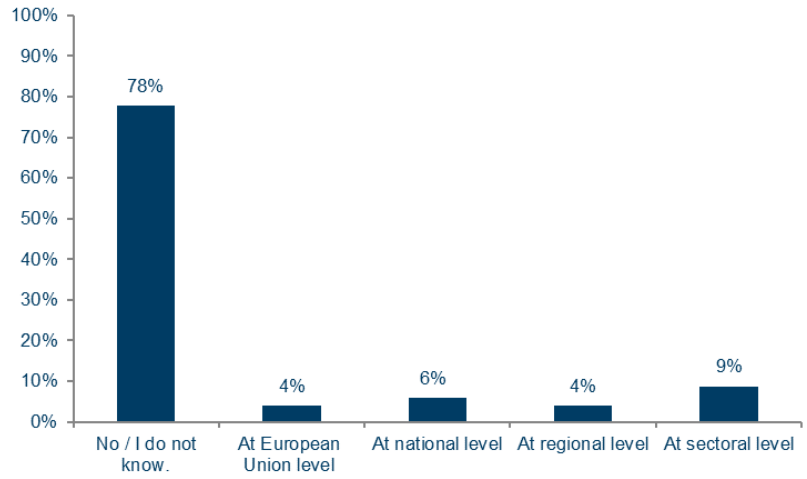
become redundant. In addition, some more specific examples were mentioned by responding companies of jobs that will or have become redundant due to automation/digitalisation, for instance:

- Security guards in warehouses that have been replaced by sensors and cameras
- Container and cargo handling crews in ports becoming redundant due to autonomous container terminal operations
- Dispatchers in e.g. passenger transport

2.4. Awareness of measures or strategies to smoothen the transition for the labour force

In general, responding companies are not aware of measures or strategies to smoothen the transition for the labour force: almost four out of five does not know any measures on European, national, regional or sectoral level (Figure 2.6).

Figure 2.6 Awareness of measures or strategies to smoothen the transition for the labour force



N=203

Those respondents who are aware of measures or strategies often did not mention measures or strategies specifically targeting the labour force – those who did could only provide general types of measures such as training/financing of training. Instead, respondents most often provided measures or initiatives aimed at automation/digitalisation in general, such as:

- Shift2Rail
- Single platform for automation and billing of international transport
- SMV Digital – a national regional support programme in Denmark to support SMEs with digitalisation, automation and e-commerce

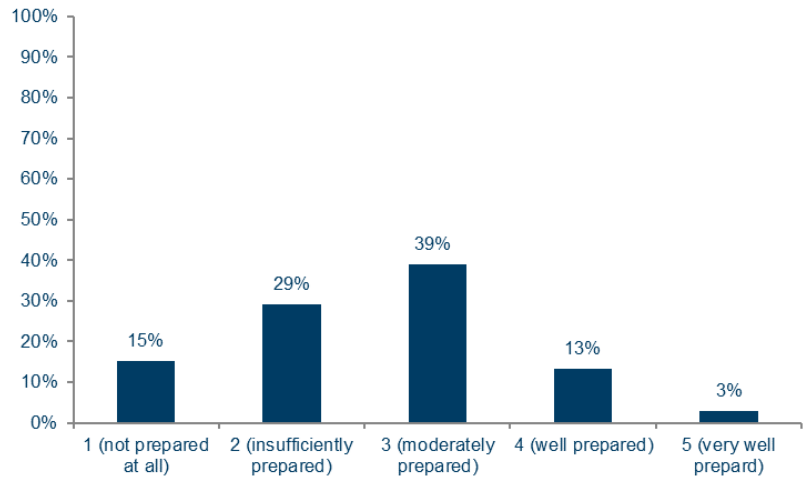
Overall, these results show that most responding companies are not aware of measures or strategies, and that those who indicate they do often do not provide specific measures or strategies aiming to accompany the transition for the labour force.

Likewise, responding companies were asked whether they had measures put in place to anticipate or manage change coming with automation and digitalisation, of which one in three (33%) indicated to have done so. Nevertheless, most examples provided by responding companies are related to the introduction of new technologies on the workplace (i.e. electronic invoicing, investments in software and hardware) and to a lesser extent to preparing the workforce to new technologies through training. In almost all cases, it was the company who paid for this. In 19% of the cases, the measures were the result of social dialogue or collective labour agreements.

2.5. Preparedness of companies to manage the transition

Responding companies on average do not think their labour force is well prepared for the transition to automation and digitalisation, almost half (44%) thinks it is even insufficiently or not prepared at all. The largest share, however, thinks their labour force is moderately prepared (39%).

Figure 2.7 Preparedness of the labour force



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2.6. Companies' need for guidance and additional accompanying measures

Over one in three (37%) responding companies indicate that it has a need for **guidance** on how to anticipate or manage the transition towards automation and digitalisation. Another 33% of responding companies indicate it does not know whether additional guidance is needed, which might be an indication of insufficient insights in how automation and digitalisation might affect the future of work and the workforce.

When asked for fields in which these responding companies would need additional guidance, the largest share indicates it would need guidance with regards to the implementation of new technologies or business-related issues, such as accounting or administration. Of the 59 open answers received, only 10 responding companies mention a need for guidance concerning training of personnel in order to cope with new technologies.

The largest share of responding companies (39%) do not know whether they have a need for additional **accompanying measures** to smoothen the transition towards automation and digitalisation for its labour force, which could be the result of a lack of awareness on the social dimension of automation and digitalisation in general. Another 31% indicate a need for these additional accompanying measures, and 30% does not think this is necessary.

Of those responding companies that do indicate a need for additional accompanying measures, 23 out of 46 that provided an open answer mentioned measures related to training the workforce – however it is often not specified what type of training companies would need. Other measures mentioned often encompass financial and/or technical support.

Adding these findings to the finding that responding companies are often not aware of measures or strategies aimed at smoothening the transition for the labour force (and when they do, often these are measures not aimed at the labour force), it is observed that the social dimension of automation is not on top of mind. Rather, responding companies are often more concerned with the business aspect of automation and digitalisation.

2.7. Most significant challenges regarding the labour force and the transition to automation and digitalisation

Last, responding companies where asked about the most significant challenges regarding the labour force and the transition to automation and digitalisation. A broad variety of challenges are mentioned, most notably:

- Training/upskilling or attracting staff for the new technologies
- Reluctance or resistance among (often older) staff to adapt new technologies
- Already existing shortages in personnel
- The costs of investment (e.g. in training staff or purchasing new technologies)

3. NEXT STEPS

The findings from this survey will feed into the DG MOVE study on the social dimension of the transition to automation and digitalisation in transport, focusing on the labour force. This study is carried out by a team of consultants from ECORYS Nederland B.V. and the Hellenic Institute of Transport (HIT) from the Centre for Research and Technology Hellas (CERTH) and will be available at the end of 2020.

The general objective of the study is to put forward policy-oriented recommendations and measures to accompany the transition to automation and digitalisation for the labour force in the transport sector, looking at the situation from a European perspective and considering all modes of transport. The study will indicate to whom these recommendations are addressed (policy-makers, social partners, education or training institutions, etc.), at what level they should be implemented (European Union, national, regional, sectoral, company, or a combination of different levels), which challenge they address, what it will take to achieve their objectives and which are the potential barriers for not achieving them. Possible actions at EU level will be assessed and prioritised in terms of added value/cost benefits.

The results of the study will support informed decision-making and action from the Commission.

Ellen Durst

Annex: Questionnaire 'SME Panel consultation on Automation and digitalisation in transport, focusing on the labour force'

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Background questions on your company

Question 1

Where is your company located?

Question 2

What is the size of your company?

○	0 employees (self-employed)
○	1-9 employees
○	10-49 employees
○	50-249 employees
○	250 employees or more

Question 3

What is the main transport domain in which your company operates? *(more than one option possible)*

☐	Air
☐	Road
☐	Rail
☐	Maritime
☐	Ports
☐	Inland waterways
☐	Logistics
☐	Urban transport
☐	Passenger transport
☐	Freight transport

Level of automation and digitalisation in your company

This section is about the current and planned level of automation and digitalisation in your company.
Question 4

How would you rate the current level of automation and digitalisation in your company?
(1 no automation/digitalisation at all; 5 very high level of automation/digitalisation)

○	1
○	2
○	3

	4
	5

Question 5

Are there any plans to increase the level of automation and digitalisation in your company?

	Yes
	No
	I do not know.

Impacts of automation and digitalisation on the labour force in your company

This section is about the percentage of workers potentially affected by automation and digitalisation.
Question 6

How many new jobs in your company will potentially emerge thanks to automation and digitalisation?

	Up to 20%
	Between 21 and 40%
	Between 41 and 60%
	Between 61 and 80%
	81% or more

Question 7

How many jobs in your company will potentially be transformed (e.g. through upskilling and training) in the next 10 years because of automation and digitalisation?

	Up to 20%
	Between 21 and 40%
	Between 41 and 60%
	Between 61 and 80%
	81% or more

Question 8

How many jobs in your company will potentially become redundant in the next 10 years because of automation and digitalisation?

	Up to 20%
	Between 21 and 40%
	Between 41 and 60%
	Between 61 and 80%

	81% or more

Question 9

Please give examples on these new, transformed and/or redundant jobs in your company

Awareness of measures or strategies to smoothen the transition for the labour force

This section is about your company's awareness of measures or broader strategies available to accompany the transition towards automation and digitalisation in transport, focusing on the labour force.

Question 10

Are you of aware of support measures or strategies that can make the transition towards automation and digitalisation easier for your company's labour force?

☐	Yes, at sectoral level *(if yes, which ones)*
☐	Yes, at regional level *(if yes, which ones)*
☐	Yes, at national level *(if yes, which ones)*
☐	Yes, at European Union level *(if yes, which ones)*
☐	No
☐	I do not know.

Preparedness of your company to manage the transition, focusing on the labour force

This section is about your company's preparedness in relation to the transition towards automation and digitalisation in transport, focusing on the labour force.

Question 11

Has your company put in place any measures to anticipate or manage change coming with automation and digitalisation?

○	Yes *(if yes, which ones)*
○	No
○	I do not know.

Question 14

How prepared is the labour force in your company for the transition towards automation and digitalisation? *(1 not prepared at all, 5 very well prepared)*

○	1
○	2
○	3
○	4
○	5

Your company's need for guidance and additional accompanying measures to make the transition easier, focusing on the labour force

This section is about your company's need for guidance and additional accompanying measures to smoothen the transition towards automation and digitalisation in transport, focusing on the labour force.

Question 15

Would your company need guidance on how to anticipate or manage the transition towards automation and digitalisation?

○	Yes *(if yes, in which areas)*
○	No
○	I do not know.

Question 16

Would your company need additional accompanying measures to smoothen the transition towards automation and digitalisation for its labour force?

○	Yes *(if yes, in which areas and/or what type of support would be needed?)*
○	No
○	I do not know.

Your company's most significant challenges regarding the labour force and the transition to automation and digitalisation

This section is about your company's most significant challenges regarding the labour force and the transition to automation and digitalisation and the way these challenges should be addressed.

Question 17

What are the most significant challenges for your company regarding the labour force and the transition to automation and digitalisation?

Question 18

Should these challenges be addressed specifically for the transport sector (or even per mode of transport) or are they relevant for the whole economy?