

REPORT

EXECUTIVE SUMMARY

STRENGTHEN THE ROLE
OF NATIONAL SOCIAL PARTNERS
AND VET PROVIDERS TO BUILD
SKILLS INTELLIGENCE IN THE
ELECTRICITY SECTOR



2021



PROJECT CONSULTANT

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Spin360 supports companies, industrial associations, social partners and institutions in taking advantage of the opportunities for a development model based on prompt and ongoing anticipation of changes. The pillars on which the growth models we propose are based are: Sustainability, Progress, Innovation and Network, with a broad 360-degree approach.

with the support of the European Union



1. BACKGROUND AND PROJECT OBJECTIVES

The electricity sector in Europe is in the midst of a deep transformation: meeting the European 2030 climate target of 55 percent greenhouse gas emission reductions means focusing on decarbonisation, developments in technology, evolution of business models and attention to consumers' behaviours.

To achieve these targets, it is essential that the electricity sector workforce remains equipped with the solid set of skills and competences that can quickly respond to such changes that are paving the way. Here, the role of social partners and education and training providers becomes even more key, as their concerted effort can effectively address such evolutions on skills and job roles, in order to work out joint strategies for competence monitoring and planning.

The present report highlights the main outcomes of the EU project **“Strengthen the Role of National Social Partners and VET Providers to Build Skills Intelligence in the Electricity Sector”** (Project ref. VP/2018/001), coordinated by the European social partners for the electricity sector – *the European Public Service Union (EPSU), industriAll European Trade Union and Eurelectric*, in cooperation with national trade unions and industrial associations, and the consultancy company Spin360 as technical partner.

The project aims to implement three policy recommendations in five representative countries¹ (France, Italy, Spain, Hungary and Sweden) and to support stakeholders at different levels (European social partners, industry, national social partners, education and training providers and relevant public authorities) in managing change in their roadmap of activities on education and skills in the electricity sector. These recommendations are:



RECOMMENDATION 1

strengthen the role of social partners in the interaction with VET providers.



RECOMMENDATION 2

maintain and update sectoral intelligence on skills needs, in order to revise strategies and actions periodically.



RECOMMENDATION 3

summarise best practices identified during this project and define practical approaches and capacity-building projects in order to spread them across Europe.

Results of the previous joint project² (Project ref. VS/2017/0005) demonstrated that two crucial issues affect the electricity sector, namely:



SKILL MISMATCHES

in education and training offer towards the needs of a rapidly changing sector.



WEAK RELATIONS BETWEEN VET PROVIDERS AND NATIONAL SOCIAL PARTNERS

on skill intelligence and anticipation.

it is therefore essential that sectoral stakeholders are aware of strategies for anticipating change and for ensuring that the electricity sector is always equipped with the right workforce in terms of skills and qualifications. But above all, the changes in new technologies, new business models, energy efficiency and the skills needed for energy transition must be compared and matched with the training offered by VET providers.

It is for this reason that the core of the project focuses on promoting capacity building through workshops at national level in the five representative countries, in order to stimulate exchange and mutual knowledge among national sectoral stakeholders. This has also helped them in raising awareness on training and skills evolution, stimulating the adoption of new training pathways and new curricula.

¹ Originally, Romania was also included in the project activities. Due to constraints at a more national policy level, the capacity-building workshops could not take place in the country.

² First project report (VS/2017/0005) is available at: <https://www.epsu.org/sites/default/files/article/files/REPORT%20VET%20ELECTRICITY.pdf>

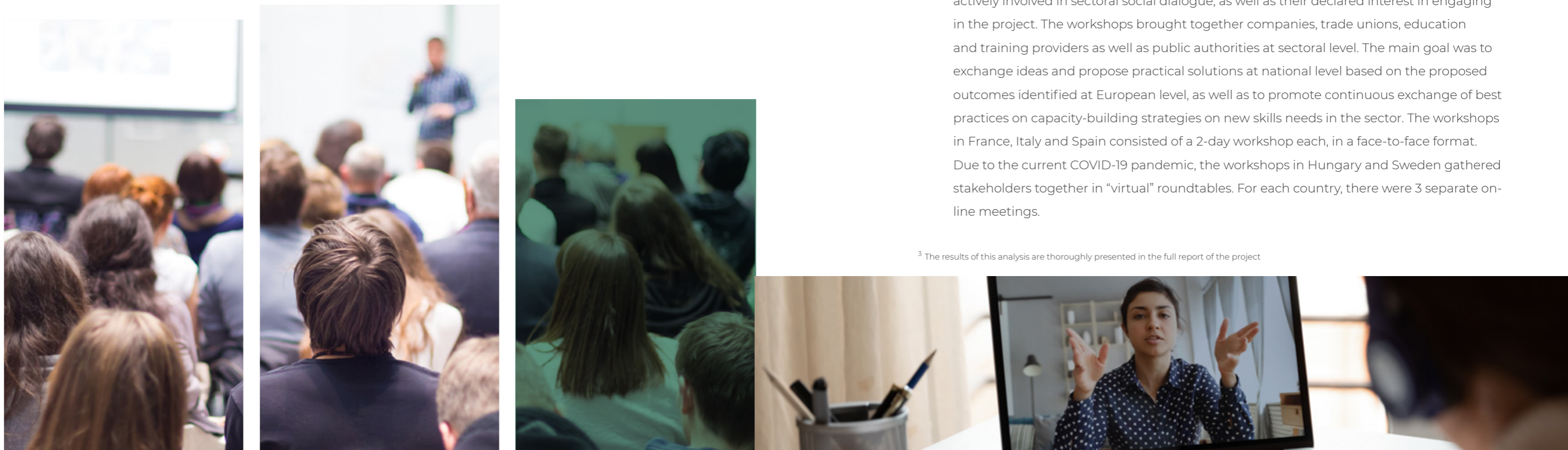
2. METHODOLOGY



The project relies on a mixed-method approach composed of:

- **Structural analysis** of the electricity sector at EU level, identification of VET systems focusing on the five representative countries as well as an analysis of best practices at EU level regarding capacity-building strategies and skills intelligence anticipation and harmonisation³;
- **Off-site survey** on employment, drivers of evolution of the sector, future job opportunities and evolution of skills. This survey aimed at validating and eventually confirming the results of the previous survey was carried out during the first joint project (Project ref. VS/2017/0005).
- **High-level workshop** in September 2019 to validate the results of the in-depth analysis and identify the best possible means to transfer the results at national level. This workshop worked out four main principles representing the starting point for the capacity-building workshops at national level in the five countries.
- **Capacity-building national workshops** in France, Hungary, Italy, Spain and Sweden during 2019-2021. The selection of the countries was based on the top 10 that were more actively involved in sectoral social dialogue, as well as their declared interest in engaging in the project. The workshops brought together companies, trade unions, education and training providers as well as public authorities at sectoral level. The main goal was to exchange ideas and propose practical solutions at national level based on the proposed outcomes identified at European level, as well as to promote continuous exchange of best practices on capacity-building strategies on new skills needs in the sector. The workshops in France, Italy and Spain consisted of a 2-day workshop each, in a face-to-face format. Due to the current COVID-19 pandemic, the workshops in Hungary and Sweden gathered stakeholders together in “virtual” roundtables. For each country, there were 3 separate on-line meetings.

³ The results of this analysis are thoroughly presented in the full report of the project



3. KEY FINDINGS



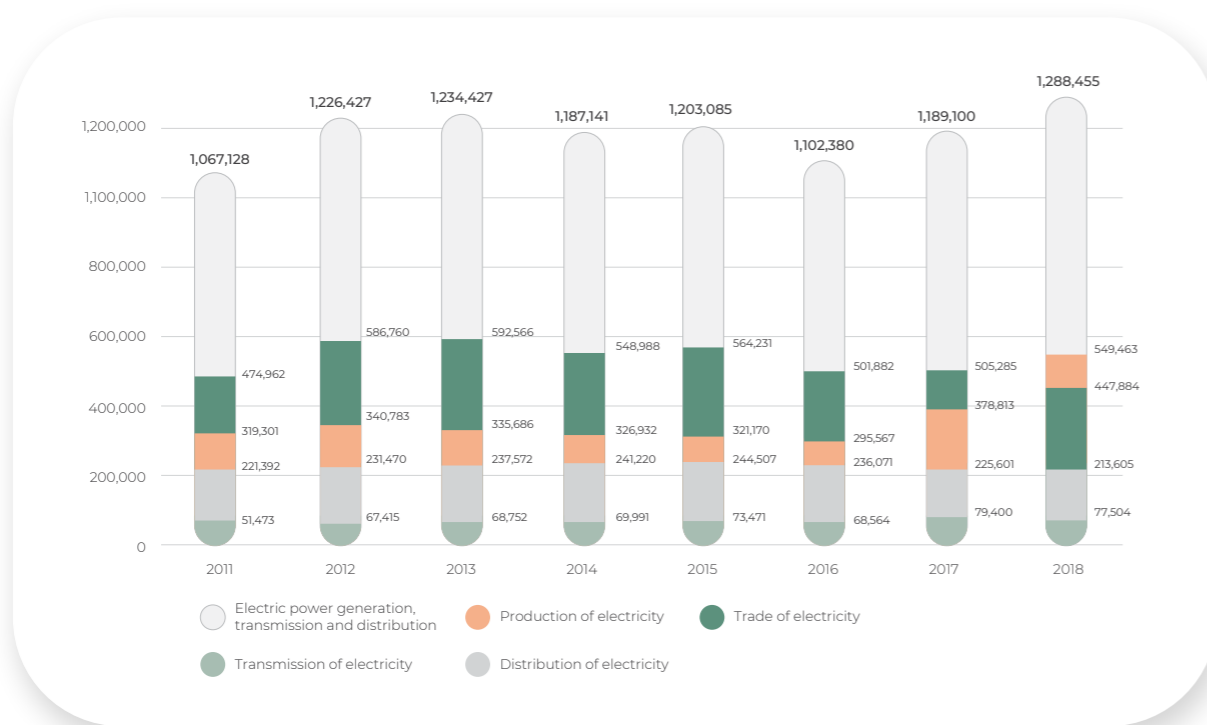
3.1 UPDATED ANALYSIS OF THE EU ELECTRICITY SECTOR AND OFF-SITE SURVEY

The electricity industry in the Eurostat Database is labelled as “electric power generation, transmission and distribution” (NACE D351) and it is composed of the following subsectors:

- “Production of electricity” (NACE D351.1)
- “Transmission of electricity” (NACE D351.2)
- “Distribution of electricity” (NACE D351.3)
- “Trade of electricity” (NACE D351.4)

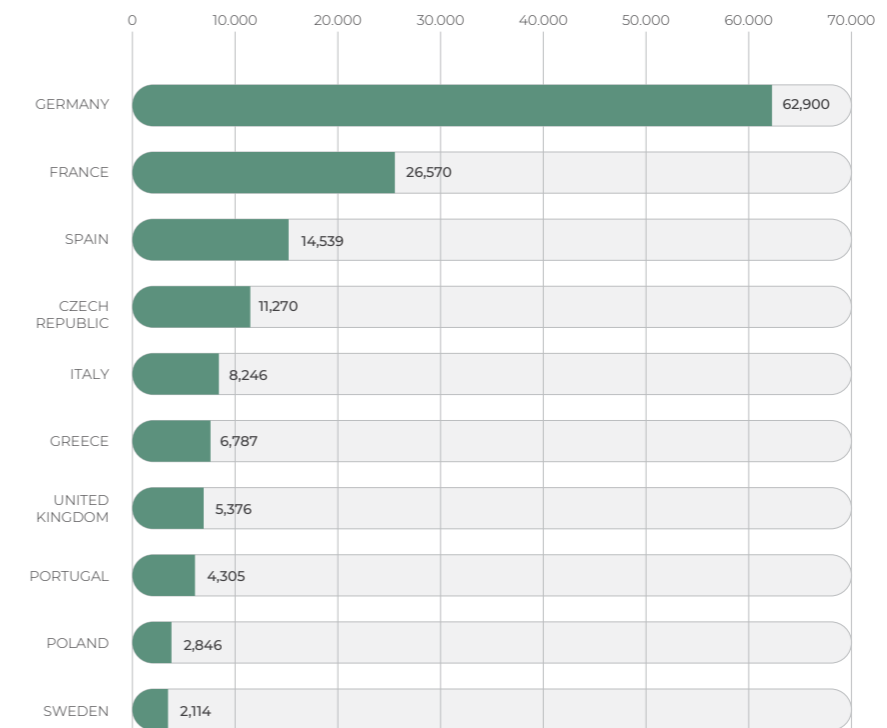
In 2018 the “electric power generation, transmission and distribution” generated a turnover of EUR 1.289 billion throughout the EU-28.

FIG. 01: TURNOVER OF THE “ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION” INDUSTRY EUROSTAT DATABASE



According to Figure 1, “trade of electricity” was the sub-sector that had the most relevant weight in the total sector turnover until 2017 (accounting in 2017 for nearly 42% of the total), while “production of electricity” gained speed in 2018, overcoming others and becoming the most relevant sub-sector (accounting for nearly 43% of the total). From 2011 to 2018, the trend for “electric power generation, transmission and distribution” sector turnover was +17%. There was an almost stable trend during 2011 - 2018 for the “distribution of electricity” subsector and a +34% increase for the “transmission of electricity”

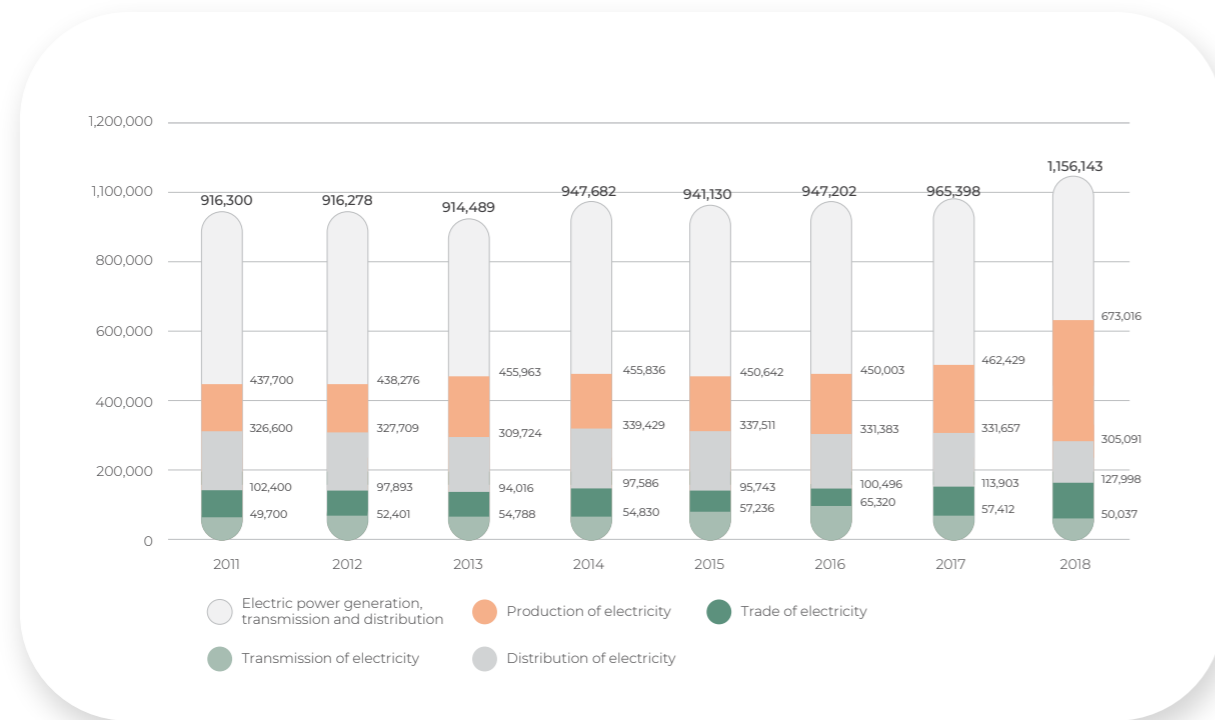
FIG. 02: NUMBER OF ENTERPRISES IN THE “ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION” INDUSTRY (2018, N°) EUROSTAT DATABASE



In Figure 2, the 2018 distribution of number of enterprises in the sector shows that Germany is confirmed as the first, with almost three times the number of the second country (France). Approximately 78% of the “electric power generation, transmission and distribution” enterprises are concentrated in five main countries (Germany, France, Spain, the Czech Republic and Italy). The top 10 countries represent 92% of the total. Hungary, which was practically involved in the project is not included into the Top 10 countries, with 716 enterprises.



FIG. 03: NUMBER OF PERSONS EMPLOYED IN THE "ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION" SECTOR (2011-2018, N°)
EUROSTAT DATABASE



The number of persons employed in the sector (Figure 3) saw a positive trend of +26% in the period 2011 – 2018. This was due to the significant upward trend in the “production of energy” subsector (+54%), and in the “trade of electricity” subsector (+25%). The trends for both “transmission of electricity” and “distribution of electricity” subsectors were almost stable.

The off-site survey (second methodological step) targeted six countries in six different countries (France, Hungary, Italy, Romania, Spain, Sweden) exploring the following topics:

- Drivers of Change
- Skills needs
- Occupations
- Attractiveness of the sector

The survey got a response rate of 44%. Most of the respondents were 22 trade unions (66%), followed by 7 companies (21%) and 3 national employers' associations (10%). Education and training organisations represent 3% (1).



“Structural and technological changes” is confirmed as the most relevant Driver of Change⁴, followed by “development of new business models” and “decarbonisation”.

⁴Drivers of Change had been previously identified during the first project (VS/2017/0005), available at: <https://www.epsu.org/sites/default/files/article/files/REPORT%20VET%20ELECTRICITY.pdf>

When analysing the perceived impact of each Driver of Change to the occupations emerging from the first survey⁵, respondents expect most relevant impacts of Drivers of Change on blue-collar occupations (O&M - Operation & Maintenance), followed by grey-collar (engineers, project managers) and white-collar occupations (commerce). ICT specialists, back office and asset engineers/managers are expected to have the lowest impacts.

With reference to skills needs, the “technology/digital” area is the one receiving the highest number of replies (56%, compared to 40% of the previous survey) in terms of perceived needs. The “specialised technical” area is in the 2nd position (15% present survey, 16% previous survey), followed by “marketing” – 12% present survey and 13% previous survey).

It should be mentioned that the low answer rate of the survey does not make it fully representative, but it is important to understand and give some orientations to reflect on. More legitimate results will be found in the capacity-building workshops, which represent the “qualitative” aspects of the project (see chapter 4).

⁴ Similarly, the first survey was conducted during the first project.





3.2 BEST PRACTICES IN EUROPE

The collection of best practices aimed at analysing the existing knowledge about best practices in capacity-building strategies and skills intelligence anticipation and harmonisation in Europe. The detailed results of the best practices exercise are available in the full project report.

When analysing the best practices, some common facts and topics have been identified, demonstrating that many EU countries are making strong efforts in order to:

- **Involve a heterogeneous set of stakeholders** (companies, social partners, VET providers, national authorities), thus bringing to the table different points of view.
- **Mobilise resources.** A general lack of financial resources and time restrictions are indeed main obstacles to:
 - Collect / anticipate skills needs
 - Work out training (up-skilling and re-skilling) / new curricula
 - Create a durable/regular exchange process

- **Have structured information and sectoral data** both on education and training provision as well as on occupations/professions and skills that are needed from the industry.

The collected best practices were introduced to the stakeholders during the national capacity-building workshops to facilitate the work of analysing the situation in the specific national context in the five target countries, as well as the development of a first roadmap that identifies the actions to be carried out.



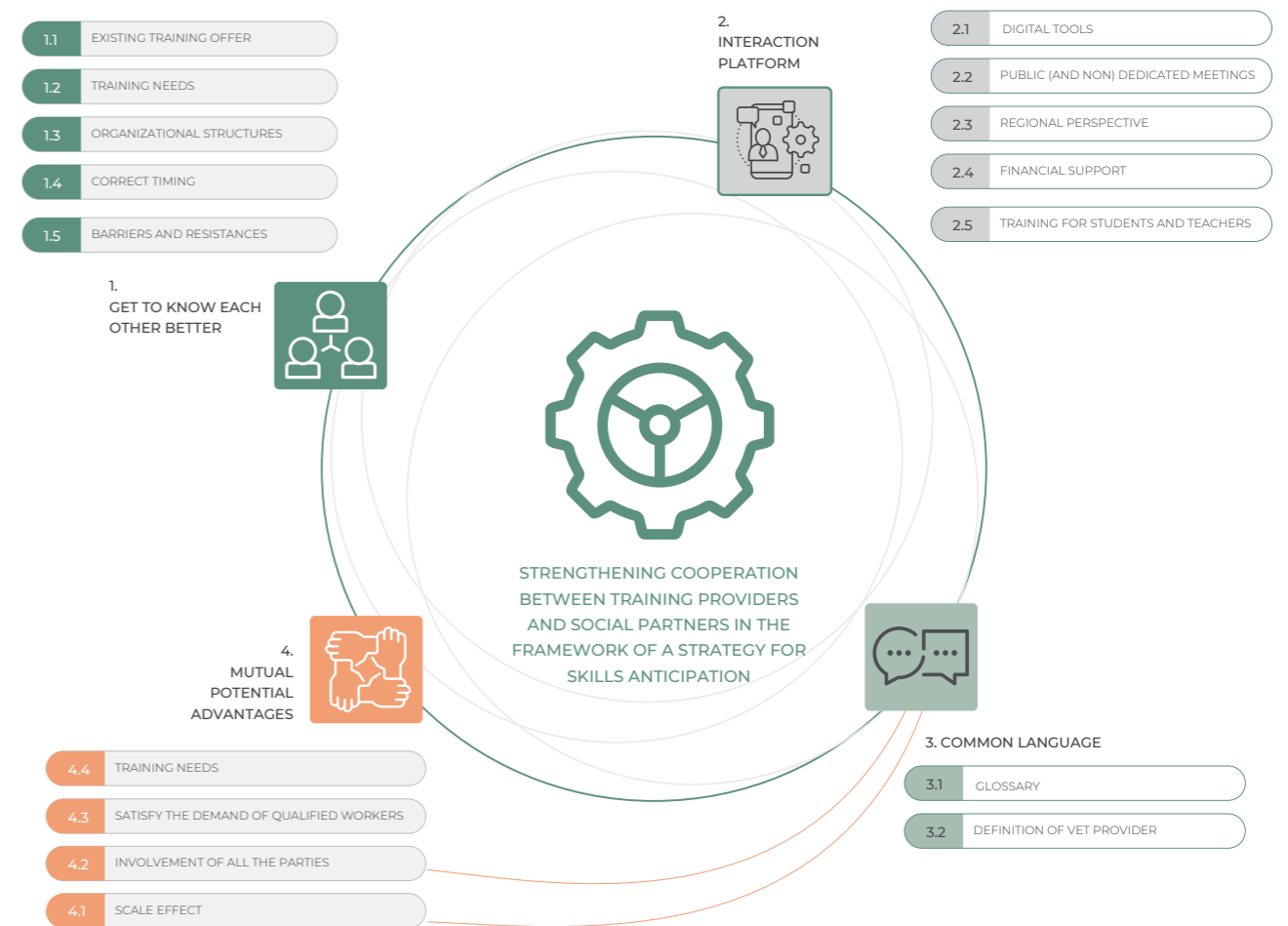
3.3 MAIN PRINCIPLES

The results of previous activities led to the definition of and prioritisation of four main principles on the theme of strengthening cooperation between training providers and social partners in the framework of a strategy for skills anticipation, which are:

- 1. Get to know each other better:** knowing each other better in order to understand each other's needs, concerns and interests
- 2. Interaction platform:** tools (digital or non-digital) that facilitate the dialogue, mutual knowledge and skills transfer
- 3. Common language:** establish a common glossary to understand each other
- 4. Mutual potential advantages:** understand needs and requirements to find good solutions for everyone (so called "win-win" solutions)

The four main principles have been further detailed into 16 key issues, shown in Figure 04.

FIG. 04: THE FOUR MAIN PRINCIPLES AND 16 KEY ISSUES)



4. CAPACITY-BUILDING WORKSHOPS: KEY THEMES IN THE ELECTRICITY SECTOR FOR FRANCE, HUNGARY, ITALY, SPAIN AND SWEDEN

The outcomes identified at European level were presented during the national capacity-building workshops providing the baseline for the national discussion and analysis. Each country was invited to reflect on the four previously identified “main principles” and 16 “key issues” by providing information about a) their relevance for each national context and b) possible practices to be adopted. For each “key issue”, an example of an associated best practice already identified across Europe was also mentioned to help participants get into the core of the discussion.

Once the outputs from the five countries were collected, a comparative analysis was carried out by using a bottom-up approach: contributions, suggestions and issues were analysed and finally grouped around common themes to better understand what the “situation” was for each country regarding skills intelligence in the electricity sector.



THEME 1 ADDRESSING A FRAGMENTED EDUCATION AND TRAINING OFFER



All countries reported that the education and training offer is often varied and complicated. This heterogeneity makes the supply of education and training very difficult to understand and map for a wide range of stakeholders, including young people, job seekers and companies at different levels. More specifically, the perception from all countries is that such offer should be better adapted to the current and future needs of the industry.



MAIN ISSUES

- **Italy** and **France** stress the fragmentation of the sectoral training and education offer, which often tends to reflect the more regional level and is not aligned with the broader national system. In France in particular, there is the perception that training provision is more directed towards the need of the single company, and not towards the benefits of professions in general.
- In **Hungary**, training and education providers are consolidated but not connected with each other.
- In **Sweden**, there is an urgent need for greater geographical spread of training providers, as well as for longer-term planning and coordination: training is arranged according to short-term needs.



POSSIBLE SOLUTIONS

For all the five countries, the provision of a unified interface/platform/database where all sectoral courses are mapped out and listed is perceived as highly beneficial. Examples towards this direction are those of:

- **Hungary:** national database by the Central Statistical Office, KSH⁶ (although no single interface for the electricity industry exists where all training courses appear separately).



POSSIBLE SOLUTIONS

- **France:** online platform “DATA DOCK” where training providers are mapped.
- **Italy:** “Atlas of Professions” developed by INAPP (the National Institute for Public Policy Analysis)⁶. In this regard, the national agency “ANPAL”⁹ can play an important role in activating it and harmonising the information.
- **Spain:** the training offer can be more easily found thanks to a unified platform, especially for courses at higher education level. The feasibility reports on qualifications produced by INCUAL (National Qualifications Institute)¹⁰ is a good example towards this direction.

With a view of having a consistent overview of the sector, not only do these platforms collect the training

⁶ <https://www.ksh.hu/?lang=en>

⁷ <https://www.data-dock.fr/>

⁸ https://atlantelavoro.inapp.org/atlante_professionii.php

⁹ <https://www.anpal.gov.it/>

¹⁰ <https://incual.educacion.gob.es/>

THEME 2

HAVING A COORDINATED UNDERSTANDING OF SKILLS NEEDS FROM COMPANIES



A unified, clear and detailed mapping of sectoral training provision cannot be 100% efficient and effective without proper coordination and matching with the demand from the industry in terms of skills and competences. The fragmentation of the training offer often leads to a vicious cycle, since education and training often has no insights on what is needed in terms of skills and competences, thus it is difficult for them to build tailored courses. Indeed, their resistance may depend to a great extent on whether they know clearly what to do and if there is enough time for the implementation: teachers and professors need to be made aware of the goals and the challenges they work for.



MAIN ISSUES

- In **Sweden**, trade unions and employers alike stressed the gap between the training models and what is currently practised in the sector. Often, the offer in Sweden is determined to a greater extent by the interests of the students, and not the needs of the companies.
- In **Hungary**, skills anticipation is mostly done at company level but exchange among stakeholders is not always allowed (there are closed intranet surfaces).
- In **Italy** and **Spain**, companies tend to not share their work and best practices to strengthen the process of skills anticipation for the entire sector.
- Companies in **Spain** are not very confident in setting out their strategies.



POSSIBLE SOLUTIONS

Efforts from both sides are needed, with the key support of social partners, national authorities as well as employment agencies. This inevitably requires the necessity of setting up or strengthening already existing coordinating authorities at strategic/sectoral level. Many examples have been raised by the five countries

- **Italy**, the role of ANPAL as coordinating entity.
- **France**, the role of “Observatoires” as coordinating entities.
- **Spain**, the role of FUNDAE¹¹ as coordinating entity.
- **Hungary**, the establishment of Sector Skills Councils with the support from the government.

¹¹ <https://www.fundae.es/>

THEME 3 TACKLING THE FINANCIAL BURDEN



As already mentioned at European level, financial constraints are usually a bottleneck for all parties at different levels of implementation.

MAIN ISSUES

- In **France** and **Spain**, there is a general lack of information and overview regarding existing funds as well as knowledge on how to access European and national grants. On the other hand, it is not clear how to share or maximise the available funds and how to support this process.
- In **Sweden**, funding for education is available for students through government loans, even if training is indeed expensive.
- In **Hungary**, dual training has just been set up but it is not possible at sectoral level, only at corporate level. In addition, there is a lack of funding for research and development even if there is currently a form of collaborative PhD training: this is a new element where the government offers scholarships for the achievement of academic levels and provides aid both for the university and the PhD students.



POSSIBLE SOLUTIONS



All countries reported that the role of the government is crucial in setting up a plan for skills development and financing for the sector. Also, the sharing of costs between employers and governments for training within the sector can be improved. To secure the future supply of skills, the costs of training should be distributed fairly and the government is asked to contribute in the financing.

THEME 4 ATTRACTING YOUTH AND LEARNING FROM OTHER SECTORS



Attracting a new young workforce and learning from other industries' experiences were recurrent themes raised by the five countries.

MAIN ISSUES

- Regarding the connection with other sectors, all countries stress the need to learn and coordinate with other industries to share experience but above all for planning the benefits of investing in training. There is indeed insufficient inter sectoral coordination and cooperation (for example with construction, TLC, mechanics, automotive, legal etc.).
- In **Hungary**, the importance of outlining career opportunities before students specialise was stressed. Also, the leveraging of available scholarships will be taken into consideration.
- In **Italy**, the involvement of families is key: more information will be disseminated to them in order to generate a widespread culture on the electricity sector. Moreover, career guidance stakeholders should be more extensively involved, and the figure of the mentor/tutor needs to be reinforced.
- **France** needs the introduction of both a qualitative and quantitative measuring of the effectiveness of such initiatives aimed at attracting youngsters. At the same time, the use of more interactive tools (such as virtual reality) is perceived as beneficial to make young people interested in the sector.





POSSIBLE SOLUTIONS

In **Sweden**, employers are active in trying to attract secondary school students to choose electricity courses in upper secondary school. Efforts are being done by Energiföretagen through the organisation of the so-called “EBR (Elbyggnadsrationalisering)” days.

In **Hungary**, many professional days and expos are organised by the Electro Technical Association, and there are several student competitions and science fairs.

Career days are also done by **Italy, France** and **Spain** (the latter through the “AULA Madrid”).

¹² <https://www.energiforetagen.se/>

¹³ <https://www.mee.hu/>

¹⁴ <https://www.ifema.es/en/aula>

PECULIARITIES: REGIONAL/NATIONAL DIMENSION

The sphere of action for the implementation of the above themes must consider each country's own geography, distribution of regions and level of autonomy attributed to them.

- In **Sweden**, the regional perspective is important in assessing training needs and understanding what training is offered there, but at the same time coordination among regions is crucial to understand the country position in the sectoral dimension.
- In **Hungary**, the smaller size of the country does not allow skills needs to be defined on a regional dimension, therefore a nationwide coverage is more encouraged.
- In **Italy**, a recurring problem is that of merging the regional and the national dimension, as it is the regions that usually define training priorities.
- In **France**, companies are sometimes not aware of all the training courses at regional level, and the level of it varies from region to region. Also, it happens that the regional and national offer of training often overlap: given the width of the country, the regional dimension is certainly relevant, but there is the need to develop in parallel both levels.
- In **Spain**, autonomous regions deliver vocational training. In this regard, there is often uncertainty as per the level of power transferred to autonomous regions due to constant legislative changes. There is also the need to establish nationwide regulations.



5. CONCLUSIONS AND NEXT STEPS



This report summarises the different project activities. Through a mixed-method approach, the main goal was to support stakeholders at different levels (European social partners, industry, national social partners, education and training providers and relevant public authorities) to implement strategies for anticipating change with the objective to overcome the demand-supply mismatch of skills and build joint strategies for continuous skills forecasting and supply adaptation.

The core of the project was represented by the national capacity-building workshops: they stimulated exchange and mutual knowledge among stakeholders in the context of VET in the electricity sector, **enabling the identification of relevant key themes that national stakeholders can follow as main recommendations at national level:**

- 1 Encourage a continuous and comprehensive dialogue by the various stakeholders to strengthen skills intelligence, anticipate labour market and skills needs trends and facilitate the planning of the corresponding VET supply.
- 2 Address a varied and fragmented training offer by setting up a unified interface/platform/database where all sectoral courses are mapped out and listed. This platform should also integrate the complementary information deriving from the industry itself (skills, competences, professions etc).
- 3 Have a coordinated understanding from companies on the type of skills and competences they are looking for. Here, the role of a coordinating authority at strategic/sectoral level is key.
- 4 Tackle the financial burden: important is a repository of available regional, national and European funds. Here, the role of the government is important in proposing a plan for skills development and financing for the sector.
- 5 Attract a new skilled workforce and learn from best practices coming from other sectors: there is the need to learn and coordinate with other industries as well as reflect on strategies to make the sector more attractive by improving tools, HR strategies and synergies between companies and training providers.
- 6 Consider the regional and/or national coverage of actions, as some countries have a more nation-wide strategy, whereas others leave more autonomy at regional level.

It is encouraged that this executive summary as well as the **full report** should be used as a roadmap containing practical messages and capacity-building guidelines to be used not only by the five target countries, but also across all of Europe. This will contribute to promoting and improving the role of education and training providers together with social partners to build an efficient and effective skills intelligence for the benefit of the electricity sector.





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