Evaluation of ETF Skills Demand Analysis Project & Anticipatory Function

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Final Report

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Content

Executive Summary

Background

Technological change, the greening of economies, globalisation and demographic factors (including migration) profoundly influence labour markets and workplaces and require new skillsets for individuals to make best use of opportunities while mitigating emerging risks. Together with national, European and international experts the ETF supports partner regions (South Eastern Europe and Turkey, Southern and Eastern Mediterranean, Eastern Partnership, Central Asia) to monitor and analyse trends in changing skills demand (also including skill gaps and skills mismatch) at national, sectoral and territorial level through the generation of new evidence and policy advice for the development of modern Labour Market Information Systems.

This evaluation brings together the broad and specific, as it reviewed ETF's anticipatory function at the organisational level, as well as looking at the specific ETF activities in partner countries from 2018-2021 that focus on skill demand analysis. Data was collected through desk research, interviews and a survey between September and November 2022. The data collection phase was used for collecting all required relevant information from involved stakeholders (ETF internal and stakeholders within beneficiaries in target countries), further beneficiaries and international peers, either through desk research or through direct communication.

Review of the ETF's overall anticipatory function

Starting with the broad perspective, the evaluation reviewed the ETF's capacity to anticipate future trends and developments, across all its activity areas. Such an 'anticipatory function' is an important corporate feature that helps ETF determine its future positioning on issues, agenda-setting and knowledge development. Anticipation is analytically distinct from related terms of foresight or forecasting and is understood to refer to the ETF's *ability to prepare for future challenges and opportunities*. Part of this broad concept of anticipatory function is ETF's specific work on *skills demand analyses*, which will be looked at more specifically further below.

The evaluation showed the vast amounts of information and knowledge that are produced and collected by the ETF on a continuous basis, based on which ETF experts identify new and upcoming trends across its various fields of activity. Anticipation takes place either implicitly or explicitly across all strands of work across the organisation and therefore **no exhaustive list of anticipatory work can be provided**. Instead, the evaluation presented **examples and illustrations of the anticipatory function in practice**, both in each of the three core services, as well as in examples from several thematic projects, to gain a better understanding of what anticipation by ETF looked like in practice. These illustrations are used as input to define possible ways for further improvement.

From an external perspective, the ETF's anticipatory function is judged positively. Stakeholders from partner countries praised ETF's ability to transform insights and information into relevant and future-proof prioritisation of work. The internal view provided by ETF experts was also generally quite positive about the outcomes of the ETF's anticipatory function. All experts interviewed were able to mention relevant examples of successful anticipation by the organisation.

While the outcomes are judged positively, the evaluation also shows how much of ETF's anticipatory function continues to be shaped by unconscious behaviour, depending on individual experts' judgments and gut-feeling. The experience of ETF experts helps ensure that expert judgements and gut-feeling lead to good anticipatory outcomes, but the evaluation sees potential for improving the systematic structure that can complement these informal practices. The ETF2027 Strategy already offers the theoretical structure for this, by effectively aiming at the systematic linking of the outputs of the three core services. More attention can

be given to integrating such outputs in a systematic way, further allowing ETF experts across each of the services to build on each other's work.

Review of the ETF's work on skill development analysis

The second and more specific scope of the evaluation is set to review the ETF's work on skills demand analysis (SDA) between 2018-2021. Over the years, this work has been housed under different names and projects and currently it is conducted under the heading of "Skills Lab". For the years 2018-2021, the evaluation reviews the relevance, effectiveness, efficiency and sustainability of the series of methodological tools encompassing big data analytics, sector studies, territorial analyses, and analysis of labour market dynamics. The work on skills demand since 2018 can be structured according to the following three pillars:

- Generating intelligence on (changing) skills demand;
- Seeking to further build on existing techniques and expand their use in ETF partner countries;
- Developing of new methods and approaches to gather skills intelligence.

Work across these three pillars is designed to contribute to the EU policy objective that people thrive in the green and digital transitions, and to aid national recovery from the pandemic. In particular, the Skills Lab work sought to contribute to the European Skills Agenda (Action 2) of Strengthening Skills Intelligence by providing tools to generate online 'real-time' information on skills demand, at national, regional and sectoral level, using big data of analysis of job vacancies and ensuring accessibility of such information. By doing this, the ETF Skills Lab also contributed to the identification of the skills to support the green and digital transitions.

The evaluation found that concerning **coherence and efficiency** ETF succeeded in integrating stakeholders in the development of concepts that could be used in the different circumstances of all individual partner countries. The involved experts in the partner countries participated in relevant network activities which led to national follow-up activities. High level contacts were established (e.g. to statistical offices, education and labour market policy), and the quality of data generated was usually high. Also, experts from international partner organisations (e.g. Cedefop, ILO, OECD, UNIDO, Eurofound, EBRD) benefited from gaining a deeper knowledge about methods for skills demand analysis and used this in their own work.

The SDA activities covered a broad range of methods used, and although an adaptation of existing methods was often necessary, the methods used in SDA activities proved to be stable and solid. Specific success factors for **effectiveness, relevance and impact** were:

- the flexible approach to the specific need of the partner countries, which established a solid communication basis within the partner countries;
- the willingness of ETF staff to "go beyond" the existing cycles for impact;
- the nature of SDA created demand for impact activities, which needs a long-lasting breath; and
- the development of impact activities, which is a key element to ETF's credibility in the partner countries.

The evaluation shows how the work on skill demand analysis contributed to the development of academic and expert networks and provided important input for such communities. The survey findings underline the importance of these activities for ETF's credibility among partners: respondents of the online survey rated ETF as a highly valued partner who is able to bring different stakeholders around the table to discuss future trends and developments (e.g. platform work and economy, green skills and energy transition skills). The evaluation identified some level of follow-up to the products developed and the policy advice conducted, even in cases where longer-term impact could not yet be measured.

It is still early to be able to fully assess the **sustainability of outputs** of SDA activities in the 2018-2021 period. It takes time before the legal and political changes lead to tangible changes, and ETF's respective SDA activities are concluded only recently. Capacity building activities were conducted successfully with partner countries, but to sustainably build on such results, also other ETF projects could further build on such results. Such activities should also build on existing exchanges of knowledge, such as those that take place in regional, bi-lateral, multi-lateral and international networks. At the moment, new policies are discussed at least to some degree in partner countries, and the evaluation found concrete examples of reforms and policy change inspired by the ETF's work. In addition, other follow-up activities have started as well. For instance, knowledge shared on skills demand analysis was also used in webinars, online conferences and trainings which were focusing on capacity building and informational exchange. Sustainability of outputs is also based on the trust in ETF staff known as "critical friends", which was stated as important from the partner countries' perspectives in the survey and interviews.

One of the main areas of **added value** identified relates to the specific kind of innovation culture to which the ETF's work contributed, by achieving high participation of different stakeholders within the partner countries. Another is for instance that the SDA activities succeeded in bringing expertise from different angles together (informal and formal education, policymakers, and other stakeholders to design improved policies and agendas), and the high ability of ETF to anticipate future policy needs because they combine research methods with practical implementation. This is also a concrete example of what ETF's anticipatory function looks like in practice in the partner countries (see above). In addition, the ETF's work raised awareness and interest of other organisations for SDA in the partner countries. This led in many cases to a higher involvement of organisations in further new activities connected to SDA.

Recommendations

Based on the main evaluation findings, this section presents a number of specific suggestions for further improvement. As above, it starts with recommendations focusing on strengthening the institutional embedding of the ETF's anticipatory function in a broad sense, after which some specific recommendations are offered for the work on skills anticipation and skill demand analysis:

Anticipatory function of ETF

- The anticipation functions most effectively when **bringing together the experience, knowledge and insights from multiple projects and project areas**, combining insights from multiple projects, core services. To do this effectively, more cross links can be established by finding a way of more actively linking the outputs from monitoring and assessment in the new Torino Process also across other projects. Another suggestion is to consider reducing the number of projects active at the organisational level, as well as continuing other means of internal cooperation, such as through the communities of practice.
- The policy shift to focus on Human Capital Development in a broader sense (as apposed to only VET) allows the ETF to **better position itself to collect relevant insights with positive impacts on its anticipatory function**. This could be further accompanied by a continuation to recruit new ETF staff from various fields, beyond only the narrow area of VET, as well as reviewing internal learning and development policies to support the specialisation of staff in multiple areas.
- There is scope for **better linking the outputs produced by core services together**, from the perspective of the ETF's anticipatory function. This could be done by more explicitly connecting the work of the services to the programming cycle of the European

Commission in individual partner countries, also in connection to the recently launched rounds of consultations with partner countries.

- Further improving the anticipatory function may also require **reviewing experts' ability to make connections with others in the organisation**, which is facilitated through effective internal knowledge management. The development of tools and platforms, aligned with ongoing developments are necessary to put in place the infrastructure of information sharing. Secondly, more attention to creating a culture of documenting results will be needed, including good experiences and bad ones, to facilitate organisational learning. Thirdly, such tools and reporting should offer key information at the country level, allowing anyone to start work in a country to be aware of existing work, experience and products.
- Finally, the evaluation reaffirms that while attention can be given to prioritising the development of a more structured effective framework of ETF's anticipatory function, this does not take away the importance of supporting continued bottom-up initiatives by individual experts. This **continues to be a core ingredient of ETF's anticipatory function**, and deserves to be supported, both through programming decisions that are flexible enough to accommodate such initiatives, staff appraisal, possibilities for risk-taking and space for failure.

Skills demand analysis

These suggestions for internal actions of the ETF are added with specific suggestions to support SDA activities in the future, such as:

1. Continuation of ETF's good work in the field of skills demand analysis activities in the partner countries.
2. Continue the country-specific focus of activities from ETF as European support to the partner countries.
3. Use tailored and flexible approaches, methodologies, and tools, continue with sufficient use of online surveys and regional analyses.
4. Focus on follow-up activities and practical implementation. Therefore, facilitate networking (regional, national, international) in line with Skills Lab activities, which can also take up the different suggestions. This focus on follow-up activities also needs a long-lasting breath, so a medium-term strategy to define follow-up activities in the future may help.
5. Re-establish possibilities for physical presence of ETF staff in the partner countries after pandemic online communication and facilitate mutual learning through networking activities in the partner countries.
6. Design follow-up activities also within the ETF, e.g. by using results from SDA projects in skills supply projects (educational projects), and with international experts.
7. Define ETF's role within the environment of different international agencies working in similar fields and create possibilities for exchange and ask-sharing with these other agencies.

1 Introduction

This report presents the findings of the evaluation of the ETF's Anticipatory Function and ETF's work on Skills Demand Analysis, covering the period 2018-2021. The following objectives were defined for the evaluation:

- to perform an in-depth evaluation of the work that currently falls under ETF activity area Skills Demand Analysis, which is structured as project "Skills Lab";
- to assess the breadth of approaches and methods used in support of the ETF's anticipatory function across the entire institution.

The evaluation was designed to collect insights from 2018-2021, but primarily from a forward-looking perspective. While the evaluation should help the ETF review the extent to which its objectives were met, ultimately the evaluation should pinpoint what ETF can do better in the future based on lessons learned and an overview of what other key players in Human Capital Development (HCD) and anticipation in the field are doing.

The ETF's anticipatory function is understood as the ETF's capacity to anticipate future trends and developments, across all activity areas, and thereby not be read in relation to only *skills* anticipation. While skills anticipation can be a forceful source of knowledge for the ETF to inform future strands of work, it is not its only one and the evaluation will therefore not be limited to that. By anticipatory function, we understood ETF means its broader 'corporate function to anticipate', in terms of future positioning, agenda-setting and knowledge development.

This report summarises the findings based on the proposed evaluation methods (see point 3) and the discussion with ETF based on preliminary findings of the evaluation.

2 Background to the evaluation

2.1 Scope of reviewing the anticipatory function of the ETF

This evaluation first of all reviews the ETF's corporate function to anticipate, in terms of future positioning, agenda-setting and knowledge development. Evaluating this area requires first of all a clearer definition of the object of evaluation. The terms of reference for this assignment define the ETF's anticipatory function in ostensive terms, by pointing to examples of ETF work where this function can be found in practice. This evaluation follows this line of reasoning and does not aim to define and describe the anticipatory function of ETF in an exhaustive way. For the purpose of evaluation however, it is necessary to add some level of demarcation, if only to allow selecting a number of examples in a systematic way.

In the remainder of the evaluation, anticipation or an organisation's anticipatory function will be understood to refer to the *ability to prepare for future challenges and opportunities*. Though related, we distinguish 'anticipation' or 'anticipatory function' in this evaluation from predictive methodologies, such as forecast models or foresight studies. The anticipatory approach evaluated here consists of actions taken in the present, which may (or may not) be inspired by predictions for the future. In an everyday analogy, anticipatory behaviour is the decision (not) to bring an umbrella after listening to the weather forecast; only listening to the weather forecast is not anticipatory behaviour[1]. This means that anticipation can build on predicting methods, but this is not always necessary; what sets anticipation apart is having a present-day response to future challenges or opportunities. In a similar logic, Miller describes anticipation as the form that the future takes in the present; essentially, "while the future does not exist in the present, anticipation does"[2]. Anticipation understood this way offers a way of using concrete knowledge and experience to deal with an unknown future, by drawing attention to certain events, while downplaying or even ignoring others.

The work in the field of skills demand analysis, as described in the previous paragraph has a clear anticipatory element that can influence the content of the ETF's work in a broader sense. It is one specific example among the various other activities of the ETF where it acts in anticipation of future trends and developments. Whenever the ETF studies the implications of reforms to national qualification systems, broader policy developments in HCD, specific skills development approaches by enterprises or explores the potential of new and innovative ways of learning, it explicitly does so with a view to anticipate future trends. Such inputs serve to anticipate future work and prioritisation for the organisation, i.e. for its broader corporate-level anticipatory function. In addition to the specific review of the skills demand project (see previous section), the evaluation assessed the ETF's broader anticipatory function by looking more specifically into case study examples. These examples serve to provide a more practical insight into what ETF's anticipatory function can be understood to include, as well as how well it feeds into ETF's three core services of work contribute to its 2027 strategy.

In more practical terms, i.e. in the organisational context of the ETF, the anticipatory function can be seen in two different appearances, each of which provides a characterisation that structures the evaluation.

- It can be seen for instance from the specific perspective of **anticipating labour market trends**. This perspective – though specific in nature – is central to the ETF's broader work, because it is through anticipating labour market trends that the ETF can ensure the relevance of its work on human capital development. In this understanding of the anticipatory approach, the work ETF conducts in the project "Skills Lab" is a central,

[1] Based on R. Poli (2017), Introduction to Anticipation Studies, Dordrecht: Springer.
[2] R. Miller (ed.) (2018), Transforming the future: anticipation in the 21st century. UNESCO / Routledge.

though not necessarily the only source of labour market anticipation. The evaluation therefore looked for different ways in which anticipation of labour market trends are conducted, as well as their relevance for the ETF's core services of knowledge hub, monitoring and assessment and policy advice. Subsequently, the evaluation assesses the extent to which anticipation is visible elsewhere in the organisation (beyond the Skills lab project), either as steps taken for knowledge development, collected insights for monitoring or concretely as input for policy advice.

- A second perspective would amount to a **broader understanding of anticipation** in the organisation. Anticipatory work understood in this way may include developments in labour markets (as above) but is explicitly broader, as it may include other trends, including shifts in education policy, demographics, as well as political changes. This inspires a broader review of ETF's ability more generally to choose working on priorities and projects that are most likely to remain relevant for its stakeholders in the future. This understanding has a more strategic component than the specific one highlighted above and touches on the ETF's ability to anticipate politically relevant themes and priorities, from the perspective of the local context in partner countries, as well as EU policy developments. It links to the more strategic decision-making in the ETF, with consequences for the strategic choice of political priorities, selection of themes and partners to work with. As such, reviewing this function requires also a better understanding of the extent to which the ETF successfully encourages risk-taking and experimenting innovative approaches among its expert staff. In relation to the evaluation questions posed this means reviewing the various ways in which the ETF anticipates such broader trends (i.e. privileged knowledge from – informal – channels, signalling through ETF networks, or bottom-up led initiatives by ETF staff).

While these two perspectives are intuitively different, there is no clear-cut demarcation line. The two perspectives are deliberately not defined to be mutually exclusive; essentially the first (anticipation of labour market trends) is the more specific version of the second (anticipation of future trends). The two perspectives are used as a rough guide in preparation and structuring of case studies, which provided insights for both perspectives in an integrated way in the remainder of this paper.

2.2 Scope of the ETF's work on skills demand analysis

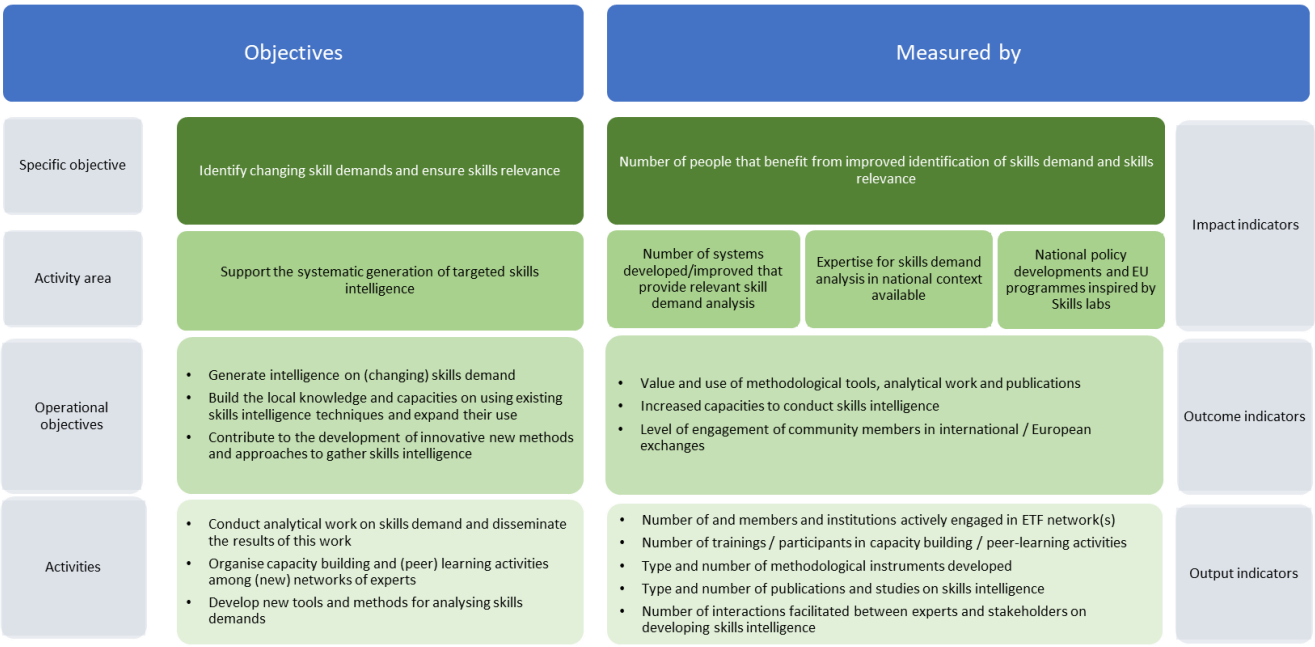
Secondly, the evaluation takes a more specific look at the ETF's work on skills demand analysis for the period 2018-2021. Demarcating this is not straightforward for this period, because it is only since 2020 that this work is bundled into a single area. As a starting point, the evaluation demarcates the evaluation to focus on the activities (and their predecessors) that are currently defined to be included **the field of skills demand analysis in the ETF's Single Programming Document (SPD) 2021-2023,** where it is defined as a separate activity area. While the SPD has not been in place for the entire period of evaluation (2018-2021), it is understood that the definition, intervention logic and activities offer a relevant structure also to look back.

As overarching problem statement that the ETF's work should address, the SPD defines how more focused information is needed to understand the dynamics of change in skills demand in countries with diverse economic structures, variable levels of technological development and degrees of sophistication of production processes. In response, the ETF **Skills Lab** was set up as specific project to "**facilitate and support of the systematic generation of targeted skills intelligence and labour market information for the benefit of companies, the economy and individuals in transition and developing countries**"[3]. In this objective, it is important to highlight that the ETF does not necessarily aim at doing this generation of skill intelligence itself; it specifically works to support experts in partner countries to do so. This is done through bringing

[3] ETF (2020), Single programming document 2021-2023: Work Programme 2021.

the right stakeholders together, involving practitioners, policymakers and researchers and supporting their capacity to contribute to meaningful skills demand analysis in their countries. Its approach, and how progress towards its objectives can be measured are presented in the figure below.

FIGURE 1 INTERVENTION LOGIC FOR ETF'S SKILLS DEMAND ANALYSIS ACTIVITIES



Source: authors

Inspired by this overarching intervention logic, the ETF undertook a large variety of activities in the context of the skills demand analysis project over the period 2018-2021, as described in the annual work programmes. It seeks to do so through the hosting of an expert network, organisation of peer-learning activities among these experts, developing tools and methods for analysing trends in skills demand, and conducting analytical work on new skills demand. While the establishment of the skills lab highlights the independent and self-standing nature of the work on skills demand since 2020, much of the activities since 2018 in the field of employment are also directly or indirectly related to skills demand. When reviewing the annual work programmes and making further assessments in more detail a large variety of activities undertaken in the context of the skills demand analysis project over the period 2018-2021 can be observed. If we take a slightly broader look the work on skills demand since 2018 can be structured according to the following three broad pillars.

- **Generating intelligence on (changing) skills demand.** This includes specifically the work that identifies specific skills needs in certain sectors in partner countries or map the changing skills demand in new forms of work. This pillar consists mainly of applied studies, in which existing and well-tested methodologies are applied for the purpose of producing concrete policy insights that can be applied in partner countries.
- A second pillar of activities consists of work that is more methodological in nature, seeking to further **build on existing techniques and expand their use in partner countries** in order to improve the ability of partner countries to conduct skills intelligence on future skills demand themselves. As such, this component is as much about capacity building and methodological knowledge dissemination as it is about sharing actual insights on skills intelligence.
- A third category of the work on skills demand analysis is also more methodological in nature and in particularly prospective, in the sense that it aims at **the development of**

new methods and approaches to gather skills intelligence. It shares a focus on capacity building and methodological knowledge dissemination with the previous pillar but does by specifically exploring and expanding the use of new and future oriented methods.

Each of these pillars are further explored and linked to concrete activities identified in the section below.

2.2.1 Generating intelligence on (changing) skills demand

This category refers to the work that produces empirical insights in skills demand and by doing so deliver the concrete inputs that can support partner countries in preparing and improving their human capital development systems for future transitions.

The 2018 international conference "Skills for the Future: Managing Transition" is a logical starting point for this evaluation, as it served as a central landmark event that contributed to the ETF's policy agenda in this area. The conference was one of the first gatherings at which global debate on the future of skills took place in the context of EU partner countries, which inspired discussions on a wide variety of economic, social and political structures and skills development systems.

In preparation of the conference, a survey was conducted to map views on the future of work in al partner countries, which was published as discussion document during the conference[4]. The outcomes of insights and conclusions from the Conference were bundled and presented as main guidance of the ETF's broader work on skill development, both in the field of skills intelligence, and partner countries' capacity to collect such intelligence, as well as the ETF's work agenda more broadly, in the field of adapting education and training provision and supporting reforms and effective governance of human capital development in partner countries[5].

The **Future of work and skills** is a theme that has been further explored in subsequent work. In 2019, an ETF issues paper was published that seeks to collect and analyse existing information and data on the skills demands of the future in ETF partner countries[6]. A team of international and national experts contributed to the paper by (i) collecting and analysing information, data and new ideas on the skills demands of the future in ETF partner countries; and (ii) exploring responses for the better management of the transition towards an inclusive future for the benefit of individuals and societies.

In addition, the work on the *Future of work and skills* presents a further series of studies focusing on specific economic sectors that offer niches of innovation and potential for further development. In this framework for instance, the ETF published studies on the agri-tech sector in Israel (2020)[7], agro-food industry in Morocco (2021)[8], and automotive industry in Turkey (2021)[9]. More recently, the work on the Energy sector in Tunisia (2022)[10] and Albania (2022)[11]. Each of these case studies combine traditional data collection tools and Big Data analytics, providing the input to compare future trends to the current state of the sector, as input for adapting education and training accordingly[12].

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[4] See for instance the ETF (2018), Skills for the future discussion paper.
[5] ETF (2019), Skills for the Future conclusions
[6] ETF (2019), The future of work and skills in ETF partner countries, ETF issues paper.
[7] ETF (2020), The future of skills: A case study of the agri-tech sector in Israel.
[8] ETF (2021), The future of skills: A case study of the agri-food sector in Morocco.
[9] ETF (2021), The future of skills: A case study of the automotive sector in Turkey.
[10] ETF (2022), The future of skills: A case study of the energy sector in Tunisia.
[11] ETF (2022), The future of skills: Future skill needs in the Albanian energy sector
[12] ETF (2020), Case studies on the future of skills, Methodological note for conducting case studies.

In a regional perspective for the Eastern Partnership countries, the ETF also explored changing patterns of work triggered by digitalisation, in a recent study that seeks to fill the knowledge gaps on emerging **platform work** in the region[13].

The overall work on skills for the future also drew specific attention to the **future of skills in the crafts and design sector**. The ETF aims to gather insights into the main drivers of change and innovation in the crafts and design sector of selected ETF partner countries to be able to determine how skills demand in crafts is subsequently affected[14]. Under this heading, the ETF developed sectoral portraits of these sectors in Albania[15], Armenia[16], Azerbaijan[17], Georgia[18], Kyrgyzstan[19], Turkey[20], Ukraine[21] and Uzbekistan[22]. ETFs work in 2022 in this area established a network of experts and conducted in-depth studies in Armenia, Azerbaijan, Georgia, and Uzbekistan.

As new drivers of change in all societies and economies new technologies, digitalisation, climate change, migration and globalisation must be mentioned. Especially digitalisation and the horizontal topics in the EU Green Deal Agenda do influence ETF's work in skills demand analysis, as the labour markets in partner countries are also heavily influenced by them. In its strategy for the future, ETF announces a holistic, but more targeted thematic scope in its work, influencing also the expertise cluster of skills relevance and anticipation.[23]

Finally, the insights from more methodological work on skills mismatch further expands the empirical base on skills demand in ETF partner countries. Its series on skills mismatch measurement produced detailed case study reports, that beyond a primary focus on methods, measurement, and identification of indicator also produced concrete insights into the incidence and origin of skills mismatch in Egypt[24], Georgia[25], Moldova[26], Montenegro[27], Morocco[28], North Macedonia[29] and Serbia[30]. A second wave of skills mismatch measurements was launched in 2021 in other countries. Comparative results on skills mismatch are pulished for the following countries: Albania, Armenia, Belarus, Bosnia and Herzegovina, Egypt, Georgia, Jordan, Kosovo, Kyrgyzstan, Moldova, Montenegro, Notz Macedonia, Palestine, Serbia, Tunisia, Turkey, and Ukraine.[31]

[13] ETF (2021), The future of work – New forms of employment in the Eastern Partnership countries: Platform work.
[14] As defined on Open Space contribution by F. Folisi, dated August 9, 2021 (consulted on July 26, 2022)
[15] ETF, (2021), Craftsmanship and skills for the future: Sectoral Portrait for Albania, (draft).
[16] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Armenia, (draft).
[17] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Azerbaijan, (draft).
[18] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Georgia, (draft).
[19] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Kyrgyzstan, (draft).
[20] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Turkey, (draft).
[21] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Ukraine, (draft).
[22] ETF, (2021), Craftsmanship and skills for the future: Sectoral portrait for Uzbekistan, (draft).
[23] ETF (2019), The European Training Foundation Strategy 2027.
[24] ETF (2019), Skill mismatch measurement in Egypt
[25] ETF (2019), Skill mismatch measurement in Georgia
[26] ETF (2019), Skill mismatch measurement in Moldova
[27] ETF (2019), Skill mismatch measurement in Montenegro
[28] ETF (2019), Skill mismatch measurement in Morocco
[29] ETF (2019), Skill mismatch measurement in North Macedonia
[30] ETF (2019), Skill mismatch measurement in Serbia
[31] ETF (2022): Skills Mismatch in ETF partner countries. Cross country report.

2.2.2 Building on existing skills intelligence techniques and expand their use in partner countries

The second pillar of work under the broad heading of skills demand has a more methodological focus and seeks to contribute to the building of capacities of partner countries to conduct skills intelligence and analyse future skills demand, mainly by working together and co-creation. These efforts further build on the conclusion of extensive methodological guides, published by the ETF in cooperation with CEDEFOP and ILO in 2015-2017 on skills anticipation[32]. While this particular series falls before the scope of the evaluation, it is mentioned here because any potential follow-up to the development of these guides, through workshops, capacity building or peer-learning activities, for instance through expert networks are within the scope of the evaluation. One of the most visible examples of this has been the **publication in 2019 of an e-learning tool** that gives practical help in skills anticipation and matching and builds directly on these guides[33].

Building on the insights from methodological development, work also continued with a particular focus on **measuring skills mismatch**, a project that started in 2017 in a selection of partner countries and resulted in a series of publications in 2019. The series of country studies and particularly the synthesis regional report had a strong methodological focus. It sought to identify data sources in the participating countries that could be used for a more regular measurement of skills mismatches, as well as to develop and test a series of indicators fit to capture various angles and implications of skills mismatches, which could directly inform relevant policies. Country-specific analyses were developed to contextualise skills mismatch measurements for each country (which by themselves contribute to insights in skills demand as well, see 1.2.1), and a cross-country report complements country findings and further delves into methodological aspects and potential to replicate such initiatives in other ETF partner countries. The overall ambition of the project has been to work towards an easy-to-update template for skills mismatch measurement to support continuation or replication of such practice on a regular basis. In 2021, collaboration was announced with 15 partner countries to expand the geographical scope of the work on measuring skills mismatch.

The ETF is also developing a specific methodology to support partner countries in **assessing the skills implications of a 'smart specialisation approach'** and the economic prioritisation that comes with, to which it refers to as S4S3 (Skills for Smart Specialisation Strategies). Starting from the national smart specialisation process, the ETF seeks to explore its implications for VET and skills more generally, and the ability of the national education and training to adjust to meeting new skill demands flowing from such strategies. It does so by analysing current trends and future developments in skills demand and skill supply. In 2020, the ETF published the results of a pilot-study of this methodology in Montenegro[34], followed by another publication on Moldova in the subsequent year[35].

The ETF also worked on methodological development through more **country-specific work**. In Lebanon for instance, the ETF is supporting the government in designing and implementing an employers' survey. More specifically, the ETF contributed to a pilot of the employers' survey,

[32] Series of guides to anticipating and matching skills and jobs, published between 2015-2017, with specific volumes dedicated to specific methods, such as using labour market information (2015), skill foresight methods (2016), sectoral studies (2016), involving PES (2016), conducting skills surveys (2016), and carrying out tracer studies (2017).
33 ETF (2019), Skills Anticipation and Matching e-Toolkit.
[34] ETF (2020), Skills for smart specialisation in Montenegro: Understanding and managing skills as a key resource for growth and competitiveness.
[35] ETF (2020), Skills for smart specialisation in Moldova: Understanding and managing skills as a key resource for growth and competitiveness

also by conducting a series of preparatory consultations and capacity building activities in 2018 and running subsequent iteration in 2020/2021[36].

2.2.3 Development of new methods and approaches to gather skills intelligence

Under the third pillar of work in the field of skills demands analysis we group all the methodological work that is more innovative and exploratory in nature. Rather than capacity building and supporting the implementation of *existing* methodologies and measurements, this work focuses on encouraging innovation and trying and piloting new approaches. One of the central lines of work under this heading since 2018 has been the ETF's work in the field of using big data for labour market analysis. While big data is also employed in other activities as contributor to skills intelligence (for instance feeding the future of skills reports), we group here the efforts to use big data for the analysis of online job vacancies.

In 2019, an introductory guide was published targeting statisticians, researchers, policy analysts and decision makers, addressing key conceptual, methodological and organisational aspects in **using Big Data for labour market intelligence**[37]. The guide explores a number of practical reference cases from around the world as inspiration, followed by more specific recommendations for ETF partner countries. Its direct application focuses on using big data analysis techniques on online job vacancies. This is inspired by the approach taken by Cedefop, which together with a consortium led by the University of Milano Bicocca has developed a methodology to analyse online job vacancies in the EU since 2017[38].

An initial preparatory study assessed and ranked **online job vacancy (OJV) portals** to review the feasibility of deploying big data analysis techniques in Tunisia and Morocco[39]. Based on these findings, the ETF further pursued studying the potential for using big data analysis techniques on online job vacancy portals in Belarus[40], Tunisia[41] and Ukraine[42]. For the latter two, interactive data dashboards were developed and published[43]. The results of the work were presented in an online workshop hosted in 2020 for the Make-it-Match network and extended partners. The 2020 workshop offered the opportunity for network members to discuss approaches and draw lessons from experiences in data collection, processing, classification, analysis and visualisation in these two pilot countries[44]. In 2021, the ETF initiated work to also specifically analyse developments in online job vacancies related to green skills through the so-called "Green Dashboard".

The **Make-it-Match network** was involved in innovative data collection and analysis for the purpose of labour market intelligence already in earlier years. This network was established in 2014 and brought together government representatives from the Eastern Partnership countries with academic experts and specialists from public agencies to share and discuss knowledge

[36] ETF (2021), Employers' survey in Lebanon: Pilot surveys 2020/2021.
[37] ETF (2019), Big Data for labour market intelligence: An introductory guide.
[38] See for instance https://www.cedefop.europa.eu/pt/projects/skills-online-job-advertisements
[39] F. Mercorio and M. Mezzanzanica (2019), Phase 2: Feasibility study for Tunisia and Morocco to identify, validate and rank web job vacancy sources – practical guidance.
[40] A. Vankevich (2020), Landscaping of the web labour market in Belarus and ranking of online job vacancy sources: done for ETF
[41] V. Sarioglo & O. Cymbal (2020), Big data for labour market intelligence: Labour market Landscaping Ukraine: done for ETF.
[42] M. Boughzala (2020), Big data for labour market intelligence: Web labour market of Tunisia, landscaping and brief overview. Done for ETF.
[43] The respective country labour market intelligence dashboards for Tunisia and Ukraine are published online.
[44] ETF (2020), online webinar of the Make it Match network. Agenda.

on skills anticipation and matching and explore and share innovations in measurement. In the period 2018-2020 three two-day workshops were planned, of which two took place before COVID-19. The ETF's own summary reviews that the main purpose of these network meetings were to share policies and practices, discuss national challenges and define common responses[45]. In 2018, for instance, a workshop on improving 'skills anticipation in the age of digital data and industry 4.0' was hosted for network members in Dublin. The second workshop took place in Milan in 2019 with more specific attention for the role of big data and its use for producing labour market information. During this 2019 workshop, the introductory guide on big data was presented to the network. In that sense, the presentation of early results of the work on online job vacancies in the 2020 online workshop as presented above to Make-it-match members and extended partners seems a logical continuation of the work.

In 2021, the ETF established the **Skills Lab Network**, which brings together experts and researchers from different institutions and countries, with the purpose to co-create, exchange, and disseminate labour market research to foster the culture of skills anticipation and matching[46]. The establishment of the network follows extensive preparations throughout 2020, when the ETF probed potential interest and mapped potential network members. It is open to researchers from all ETF partner countries, and, unlike the Make-it-Match network (which also includes government representatives), it is solely focused on experts and researchers. These experts may represent a variety of public, private or non-profit research institutions and universities, as well as international organisations and other expert networks. For the ETF, the ambition is that the network allows a more permanent relation with a wider range of experts from the partner countries.

In addition to the network of experts, the Skills Lab makes mention of a **high-level advisory group**. This network complements the network of experts by bringing together policymakers from the ETF partner countries with representatives from EU institutions, Member States, and international organisations. Its main function is to support the dissemination of findings, as well as suggesting new angles for analysis, more specifically from the policy perspective[47].

[45] ETF (internal), The Make it Match Network Model, Overview of main outputs, not published.
[46] ETF (2021), The Skills Lab Network of Experts.
[47] ETF(2021), Description of Skills demand analysis.

3 Methodological Overview

The **methodology** proposed for this assignment consisted of the following research phases:

- **Design of evaluation framework**: The inception phase consisted of desk research, three scoping interviews with ETF staff, refining evaluation questions and sub-questions, defining judgement criteria and respective qualitative and quantitative indicators, and finalisation of the intervention logic, preparation of questionnaires for interviews and online survey. This work was summarised in the updated evaluation framework, presented in the inception report.
- **Mapping of anticipatory function, selecting and conducting case studies.** The work in the inception phase has shown the importance of exploring in more detail a selection of successful and less successful examples of work contributing to ETF's anticipatory function.
  - A total of **eight exploratory interviews** had been carried out with a selected number of ETF management staff. We specifically engaged across all three ETF core services to identify a variety of possible examples.
  - For the case studies used to evaluate ETF's anticipatory function, a total of **six additional interviews** were conducted with ETF staff, working on a variety of specific themes.
  - External partners reached through the work of skills demand analysis work (see next point) were also asked about the ETF's ability to anticipate future trends and priorities.
- **Data collection phase for Skills demand analysis work**: The data collection phase was used for collecting all required relevant information from involved stakeholders (ETF internal and stakeholder within beneficiaries in target countries), further beneficiaries and international peers, either through desk research or through direct communication.
  - **Desk research** focussing on evaluation questions
  - **Interviews with ETF staff** responsible for the project activities, as well as other ETF activities (semi-structured, via Teams or telephone, in total eight interview partners within ETF)
  - **Interviews** with peers (semi-structured, via Teams or telephone, a total number of seven including the international high level advisory group from Skills Lab)
  - **Survey and in-depth interviews** with beneficiaries across ETF partner countries. The online survey targeted a variety of ETF beneficiaries, such as ministries, education and training institutions, employment institutions, agencies, social partners). 32 respondents had been identified by ETF (consisting of respondents from partner countries and international organisations), answers from a respondent number of 18 (56% respondent rate) could be used for the result generation.
  - Additionally, **eight in-depth** Teams or telephone **interviews with beneficiaries** in selected countries were carried out (countries were selected from those that participated in the ETF project on skills mismatch measurements, sectoral case studies on the future of skills, the MiM network, and those that participated in capacity building activities)
- **Analytical phase (reflection and reporting):** This phase consisted of the analysis of findings, development of conclusions and recommendations. It also sought to include experts' judgements from relevant peers outside the specific projects, for which an online focus group was held in December 2022 to reflect on findings / lessons learnt and recommendations. Feedback and additional input from this online discussion was also used to conduct the final report.

4 Findings of the Evaluation of ETF's Anticipatory Function

4.1 Introduction

The conceptualisation offered in section 2.1 already highlights the broad scope of possible anticipatory actions, particularly for an organisation that prides itself to serve as global asset for the EU providing expertise on human capital development. This section presents the overall framework that identifies where the ETF's anticipatory function can be identified, and what this looks like in practice. Section 4.2 takes an organisational perspective, with the ETF 2027 strategy as starting point, complemented with section 4.3, which reviews examples of the anticipatory function in a more thematic context, based on the insights collected from case studies. Doing so provides a more tangible idea of the ETF's anticipatory function, which is subsequently evaluated in section 4.4.

4.2 The anticipatory function in the context of the ETF 2027 strategy

In its work on skills and education and training system development in lifelong learning perspective, the ETF defined the following three clusters of thematic areas[48]:

- "**Skills relevance and anticipation**": Identify changing skills demands and ensure skills relevance
- "**Skills development and validation**": Innovate skills development models and processes
- "**Performance and quality of education and training policies**": Increase lifelong learning systems' quality and performance

While anticipation is most explicitly mentioned as an element of the first strategic objective, it plays an equally important role in the other two strategic objectives. It lies at the heart of all of ETF's work, not only when working with future skills demand, but equally when working on qualifications, skills for enterprise development or for instance on innovations in teaching and learning.

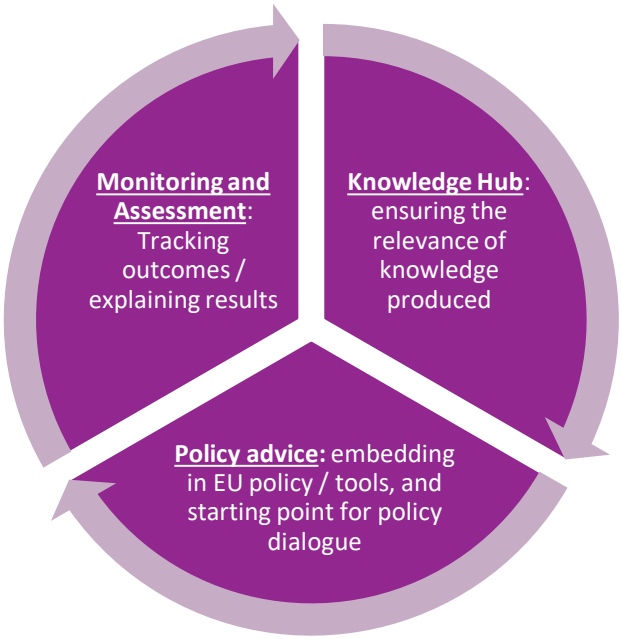
The 2027 ETF Strategy operationalises the work on these three objectives through three so-called 'core services', which distinguishes a **knowledge hub**, work around **monitoring and assessment** and **policy advice**. These core services are visible across all of ETF's substantive work in human capital development, and for instance also define the organisational human resource structure. Though defined as specific and distinguishable services, they are in fact meant to deliver the ETF's work in an integrated way and serve to increase the impact of ETF's work and generate value for stakeholders[49].

The 2023 Single Programming Document further specifies that the findings from monitoring and assessment services and knowledge developed through the knowledge hub shapes ETF's diagnostic and anticipation capabilities[50]. Through these services, it is understood that ETF can build an in-depth understanding of policy contexts and to contribute to innovation in its partner countries. These provide the input for policy advice, to partner countries directly and to other clients, such as the European Commission's work, which are defined as the pathways for ETF's impact. Through the policy advice service, further feedback is collected from partner countries and EC services, either in the form of demands or requests, which is then to be used as input for further monitoring and subsequent knowledge development, thus closing the cycle of ETF

[48] ETF (2019), The European Training Foundation Strategy 2027.
[49] ETF (2023), Single Programming Document 2023-2025, Work programme 2023. December 2022, page 31.
[50] Based on ETF (2023), Single Programming Document 2023-2025, Work programme 2023. December 2022.

services. Visually, the relation between the core services can be presented according to the figure below.

FIGURE 2 VISUALISATION OF LINKS BETWEEN ETF CORE SERVICES



Source: authors, based on visualisation by ETF in SPD2023-2025[51].

When reviewing the anticipatory function in practice on the basis of this model of core services, it is important to realise that the visualisation above is an ideal-typical description of how the ETF's core services are expected to interact. In practice, as also shown below these interactions are not always in place, and do not follow the same logic as presented in the figure. The extent to which the anticipatory function is effective is further discussed in section 5.4. Below, this section continues by describing an operationalisation of the specific anticipatory functions for each of these core services. As already noted in chapter 1, these findings are largely based on impressions by ETF staff members and are not meant to limit the possible range of types of anticipation, nor to be an exhaustive list of types of anticipation. They are presented here as examples to gain a better understanding of what anticipation looks like in each of the services.

4.2.1 Knowledge hub

The ETF's work as knowledge hub offers a first insight in how the anticipatory function can be understood in the context of ETF's work. Within the work of the knowledge hub, ETF produces the knowledge that helps shape ETF's diagnostic and anticipation capabilities, providing the inputs for sound policy advice and ultimately impacts in partner countries. When asked to provide examples where the ETF's anticipatory function is concretely visible within the ETF's knowledge hub, ETF staff mentioned a variety of initiatives that formed the basis of **thematic choices** in prioritising knowledge production. Consider for instance decisions to work on studies in the field of green or digital skills[52], elements in the twin transition that has increasingly gained policy priority in the European Commission. Or one could consider studies focusing on energy transition in certain regions, which was already a relevant and anticipated future-oriented theme as way to combat the climate crisis, which gained further relevance in response to the Russian aggression in Ukraine. Such issues were selected on the basis of an expectation that

[51] ETF (2023), Single Programming Document 2023-2025, Work programme 2023. December 2022: page 31.
[52] See for instance on green skills, or the ongoing work on digital skills.

their relevance for partner countries would only increase further and is well aligned with overall European priorities to focus on the twin transitions.

Other choices relate for instance to mapping the emergence of platform work in a number of regions, such as the Western Balkans[53], Eastern Partnership countries[54], and is starting or ongoing in other regions. The review of the work in skill demand analysis further discusses this line of work specifically (see section 5.5.2), but it is relevant here as well in particular because of its anticipatory nature. A methodology focused on positioning and understanding new forms of work was applied to review how current policy discussions in the EU may offer insights for future work in ETF partner countries as well. Such insights provide ETF with the policy pointers to position its work in partner countries, for instance on digital skills, key competences in education, as well as building a future research agenda, to name a few.

These examples show how anticipation for knowledge production does not necessarily respond directly to country needs formulated on an annual basis. Instead, its time horizon is considerably longer and depends on choosing priorities that will become relevant to partner countries and other stakeholders in the future. The decisions to timely engage in these studies are anticipatory and are informed by a – sometimes implicit – mapping of future technological trends and policy developments, as well as processing signals from stakeholders, both from academic international networks, as well as insights from stakeholders in partner countries.

4.2.2 Policy advice

In relation to the work on policy advice, the 2027 ETF strategy underlines the importance of a partnership approach to partner countries and formulates the desire to diversify ETF's presence and services. In practice this entails an ambition to reprioritise ETF's work at international (regional and multi-country) level clustering countries with similar thematic needs. This differentiation ambition in its essence is an anticipatory approach; it requires selecting those areas to work on that connect to current and future needs in relevant (groups of) partner countries.

In 2021, new procedures were put in place that organise annual consultations with partner countries in two separate rounds, which serve as input for further prioritising the further ETF activities. Partner countries are asked annually in the spring to provide policy priorities, inputs, suggestions for work to the ETF, which are subsequently analysed and brought together. The results of this planning exercise lead to suggestions for concrete activities, which are cross-checked with the EC delegations and subsequently presented in the autumn to the partner countries. Designated country liaisons in the organisation form the crucial linking pin between partner countries and the ETF, both providing updates on new insights and knowledge on relevant areas, supporting partner countries in collecting relevant insights for monitoring, as well as serving as a bridge for policy advice. In practice however, ETF experts highlight that while there is an effective link from country liaisons to ETF experts working in policy advice, the links from such country-level insights do not find similar reception across the knowledge hub and monitoring and assessment services. As explanation, one ETF expert pointed to fact that these other two services have different anticipatory needs than the practical and immediate policy needs offered by country liaisons.

4.2.3 Monitoring and assessment

Anticipation is also a key pillar for the work conducted by the service of monitoring and assessment. While monitoring can be considered primarily an activity where one looks back

[53] ETF (2022), Summary notes on "Embracing the digital age"; the future of work in the Western Balkans.
[54] ETF (2021), The future of work – New forms of employment in the Eastern Partnership countries: Platform work.

(on the implementation of certain policies, or country developments after certain reforms), the choices made in the scope of what is being monitored are anticipatory in nature, as these feed next steps in the programming cycle. ETF experts for instance highlight how monitoring work within this service focuses on monitoring developments in innovation and using such insights as input for either further knowledge development or policy work.

The revised Torino process approach, now continuing under the heading of the new monitoring framework for lifelong learning is another element where the collection of monitoring information of certain (policy) trends serves as input for future work, and as such has an anticipatory nature. The new approach is set up to respond to lessons learned from earlier rounds of the Torino Process, such as the dependence on partner countries' willingness to engage in critical self-reflection, unclear objectives.[55] Similarly, the broad collection of indicators and policies in the 2018-2020 further inspired "New Torino Process" to focus more specifically on a more limited approach, allowing for more in-depth review only in the case where this is considered a true added value and interest by partner countries[56]. The latest round proposes the collection of data for indicators that allow tracking developments in lifelong learning systems that can inspire attention for modifying the structure, policy framework, incentives, and practices in education in ways that lead to fundamental and positive changes in the professional context, attitudes, values, and conduct of education participants and stakeholders[57]. With this revised approach, the ETF aims to be better informed about developments in partner countries, through a less heavy data collection process that can take place more frequently. At the same time, the more in-depth review among 'interested' partner countries is a more effective and efficient anticipation tool to identify possible next steps and inform future work agendas in those countries, without necessarily having to include this in all partner countries. The extent to which the New Torino Process actually delivered to these promises cannot be evaluated because it remains in the early stages of implementation.

4.3 The anticipatory function in a thematic perspective

Below, an overview is provided an illustrative list of some examples of the ETF's anticipatory work in practice, based on the case studies collected[58].

- The ETF's work on **big data analysis** since 2018 is a relevant example of anticipatory work. It is an innovative method of data collection, where web scraping techniques monitor the development, type and content of vacancies as well as developments in patents and other technological developments. These inputs are used as input for country dashboards and other targeted instruments that help partner countries to assess current developments and future demand for certain skills. The collection of such data is by itself the clearest example of *skills anticipation*, but also offers an effective means of broader anticipation.
    - The anticipatory element in this work can be identified in the way it prepares the ground for future work, aligned to the priorities identified. The findings offer a concrete and valued contribution to policymakers in partner countries, and by sharing its insights, the ETF has been able to open doors and establish contacts with institutional partners that it would otherwise not have. The insights collected and shared help shape future work agendas with partner

[55] PPMI (2017), ETF Torino Process Evaluation: Final Report.
[56] ETF (2022), Torino process 2022-2024: Towards Lifelong learning. Guidelines to a new framework for system monitoring and policy reviews. Draft for stakeholder discussion.
[57] ETF (2022), Torino process 2022-2024: Towards Lifelong learning. Guidelines to a new framework for system monitoring and policy reviews. Draft for stakeholder discussion.
[58] Insights from the work on big data and artificial intelligence for analysis skills demand will be integrated in the draft final report.

countries. The outputs its work in the countries where it has been applied also consistently contributed to new demands for further work.

- Anticipation also takes place in the more technical work that ETF is involved in, such as on qualifications. The work on **qualification systems**, and in supporting partners to develop qualifications and occupational standards is by definition a slow trajectory, which makes anticipation vital. To make (vocational) qualifications sufficiently future-proof, countries need to make sure that these do not only reflect existing practice in education and industry, but also expected future needs. ETF supports partner countries in setting up or further developing the structures needed for this. While this includes *skill anticipation* (as discussed in chapter 4), this work also enables broader strategic positioning of the ETF on priorities.
    - The work on qualifications is thereby anticipatory in the sense that the in-depth work of supporting ongoing developments in qualification systems also helps define the scope of its follow-up activities. Developments in the EU are taken as guiding principle, which means that once support to facilitate the shift to learning outcomes is provided to partner countries, the next step to work on modularisation of qualifications and credentials can be further initiated, inspired by experiences elsewhere. Existing networks with partner countries and knowledge partners for previous work on qualification systems and approaches further provide the means to position new themes, such as most recently micro credentials, in existing work on the qualification system.
- A similar anticipatory function through ongoing work was mentioned for the work on **Centres of Vocational Excellence** (COVE). The work done in COVEs followed sequentially on the other, positioning ETF and other stakeholders for the next line of work, without explicitly planning for it in advance. This is inherently an anticipatory way of working that ensures the proper positioning of future work.
    - Anticipation in this line of work is conducted almost naturally, by reviewing the needs and designing the next step of project intervention based on those identified needs. A needs assessment was conducted among the centres in partner countries, within which isolation came up as an inhibiting factor for development. In response, the ENE network was set up. Within the network, partners formulated the desire to learn and position oneself on a scale of excellence, which led to the development of self-assessment tools. Subsequently, the aggregated results of this self-assessment provided the input for further work between ETF and ENE network partners.
- The initiative **skills for enterprise development** brings the enterprise perspective centre-stage. The choice to actively involve enterprises also followed logically from earlier work including companies, such as in entrepreneurial communities, and deliberately takes a broader approach beyond the more traditional actors in human capital development, i.e. VET providers and competent authorities.
    - Successful anticipation also depends on the involvement of multiple perspectives in a continuous way. The involvement of enterprises, as well as developing entrepreneurial communities are an example of this, complementing the ETF's overall work with a new 'fresh' perspective on the various issues in its line of work. This contributed to expanding ETF's vision on human capital development, making new activities more future-proof, regardless of what broader trends can be observed or not. The experience in this specific case study shows that local economic realities that are impacted by more than the vocational education and training systems and underlined the importance of gaining more insights in enterprise skills needs. Skill gaps on local labour market can prove devastating for small enterprises to get

qualified staff, which then can have further consequences for regional development.

- The SPD 2021-2023 formalised attention for **innovative teaching and learning** within the organisation in a systematic way. Before, multiple projects, activity areas and internal ETF communities of practice developed their own ideas and work conducted on innovations in teaching and learning, either on developing structures that encouraging innovation or exchanging of concrete practices[59]. Bringing this work together in a dedicated stream of work was done help create new cross-links and as such enable the structured identification of trends and defining a systematic approach to such trends.
    - In the project's inception year in 2020, five studies were conducted concentrating on different forms of possible innovation (learning environments, digital learning, educators' qualifications, personalised learning and key competences), which were subsequently validated and formed the input for the actual work conducted in following years. The project teams work with educators in the Community of Innovative educators, which offers relevant perspectives from the ground. In combination with the academic work conducted within this project, concrete and novel inputs are produced through which (new) areas of work are identified and further explored.

If we take the approaches identified in the case studies that can be identified as anticipation together, a number of other ways in which anticipation takes place within regular ETF work can be identified. These are not so much linked to specific lines of work, because these are present throughout. The collection of empirical evidence, as well as stakeholder views on such evidence is for instance a clearly identifiable way in which input is collected for ETF's anticipatory function. This may take the form of elaborate policy planning workshops, with partner countries, or by internal ETF staff. However, an anticipatory function is also deployed when individual staff members go about their work, in interactions with policymakers, practitioners and their colleagues in a more informal way. As such, anticipation does not always take place in a structured or organised way but is also present more subconsciously in the work done by ETF experts. Informal interactions can contribute to ideas that can be translated into concrete action. From that perspective, anticipation can take place through an individual's 'gut-feeling', which in combination with an individual's experience can offer a powerful direction for exploring new areas of work that may (or may not) lead to promising new work agenda. Such more informal anticipation is important for an organisation like ETF but cannot easily be made visible in an evaluation. It is not documented, is not measured in terms of number of staff, working hours, and no reliable indicators for success can be defined.

4.4 Assessment of the ETF's anticipatory function

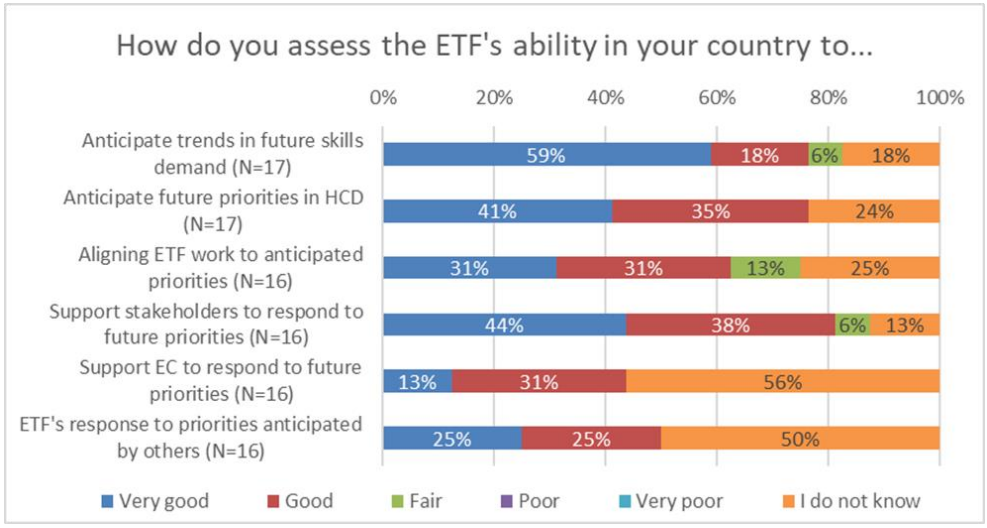
The evaluation conducted interviews with stakeholders to gain some exploratory insights into how the performance of the ETF's anticipatory function is seen by the partners countries. The figure below summarises the main findings and clearly shows how stakeholders in partner countries are positive. Three quarters of respondents interviewed rate the ETF's ability to anticipate trends in future skills demands and of future priorities as (very) good.

- When asked about the ETF's ability to align its work to the anticipated priorities, stakeholders are also in majority positive, though slightly less so than in response to other questions. Its ability to support stakeholders to do the same however is considerably more positive, underlining the positive contribution that stakeholders see to the active networks and interactions by the ETF.

[59] This line of work defines innovation as "an application of one new element into the existing learning environment" in M. Stancic (2020), Report on the cross-analysis of five thematic review papers within the ETF's Creating new learning initiative.

- The figure also shows how respondents found it more difficult to assess the ETF's ability to support the EC in responding to future priorities, as well as the ETF's ability to respond to priorities identified by others. Arguably, these two elements are more abstract and connect less to the immediate policy context and interaction between ETF and the partner countries reached. Nevertheless, respondents that did provide an answer are exclusively positive.

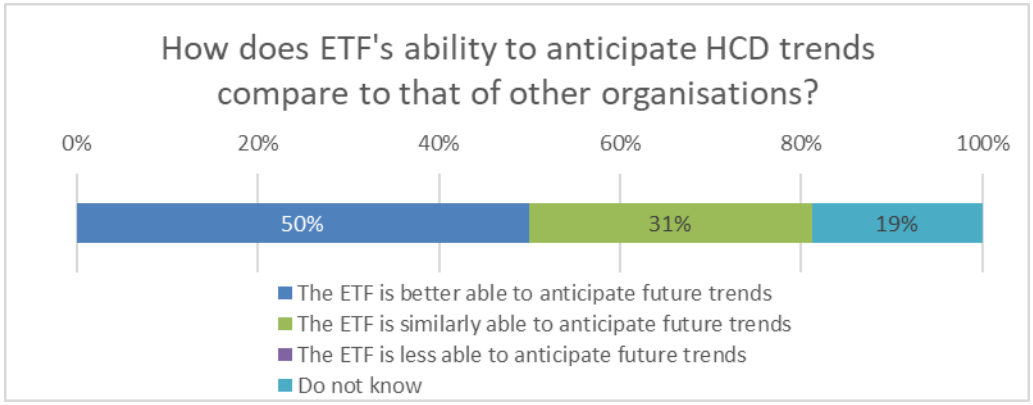
FIGURE 3 ASSESSMENT OF ETF ABILITIES IN ANTICIPATORY FUNCTION



Source: 3s survey among experts from partner countries and international organisations

The ETF is far from the only international organisation in the field of human capital development that is active in its partner countries. This offers a basis of comparison to stakeholders involved in this evaluation, when reviewing the ETF's ability to anticipate broader trends in human capital development in their countries. Again, the evaluation returns very positive feedback, with no respondent able to name organisations that are better able to anticipate such trends than the ETF. For half of respondents, the ETF outperforms others, while slightly less than one-third (31%) consider the ETF just as able as other organisations, such as national or local minsitries or private (research) institutions, as well as international organisations such as the ILO and World Bank.

FIGURE 4 COMPARISON OF ETF ANTICIPATORY FUNCTION



Source: 3s survey among experts from partner countries and international organisations, N=16

Despite the relatively limited sample, the findings above are an important confirmation that the ETF's anticipatory function has been successfully reflected in its current work, at least from the perspective of *external* stakeholders. However, it says less about the way that anticipation

is structured from an *internal* perspective. In a general sense, ETF experts interviewed in the framework of this evaluation can all mention examples where the ETF has been able to anticipate relevant trends in national policies, international priorities and stakeholders' needs. ETF experts that were asked to reflect on the performance of ETF's anticipatory function from the perspective of their specific areas of work were also generally positive about the ETF's ability to conduct its anticipatory function.

These positive reflections by stakeholders, both external and internal, are contrasted with the examples provided in section 5.2 and 5.3. These examples show how anticipatory approaches can indeed be found across the organisation, but also shows that there is not an agreed approach, nor a formal set of guidelines that can inspire ETF experts about applying possible anticipatory methods and steps in their work. The ETF's knowledge-intensive work, which builds on studies, extensive interactions with policymakers, academics and practitioners across the various policy networks, as well as elaborate approaches to monitoring and assessment all produce a continuous stream of information based on which decisions for future work are being made. Some of these decisions are taken in an organised fashion, through strategic decisions and formal programming decisions approved by management, as well as at a micro-scale where individual experts make choices for future work.

This section further reviews the performance of anticipation provided across the three services as explored in the examples offered in section 5.2. This is done specifically on the basis of interviews with ETF staff, with the purpose to identify possible suggestions for innovation and improvements of ETF's overall anticipatory capacity in the future.

The ability to innovate, explore new issues and conceptualise challenges outside existing frameworks is essential to all anticipation efforts but appears particularly relevant for anticipation taking place in the knowledge hub. The identification of issues, relevant themes and policy priorities to be included in **knowledge production** takes place well before an issue may be on the radar of policymakers, stakeholders or academia. It consists of mapping future technological and societal trends, as well as anticipating future academic debates and priorities. There are various examples where work in the knowledge hub service has benefited from initiatives from individual ETF experts, who were given the space to follow up on a combination of personal interest, intuition and knowledge collected through (informal) interactions with stakeholders. This is therefore understood as an important criterion for success, particularly in the work of ETF's knowledge hub. In addition, it requires bringing together the insights from multiple disciplines, which may include VET development, but should be positioned against the broader framework put in place by the ETF 2027 Strategy.

A particularly visible way in which anticipation takes place in the field of **policy advice** is precisely through successful previous work in policy advice. Interviews with ETF staff produced no examples where knowledge products or insights in monitoring and assessment in fact contributed to anticipating work in the field of policy advice. This does not necessarily mean it is totally absent, but it does show that the integration of outputs between the knowledge hub and monitoring as input for policy advice is still in its initial stages. Possibly, the longer pipeline of work in the knowledge hub (studies take normally at least a year before publication) also contributes to this situation; as the core services only started operating effectively in this manner in 2021, it remains a possibility that more concrete links between the services could be become more visible in the coming years, as aimed for by the single programming document 2021-2023. In any case, this merits continued attention in the coming years.

Examples from case studies show how successful work in one area contributes to demand for follow-up work, and as such by definition are of an anticipatory nature. This natural and intuitive way of anticipation is not the product of careful planning but can equally contribute to defining future work for ETF and may also help align the work against local priorities. Such

alignment can take place by coincidence but is not guaranteed for future interventions. Despite encouraging findings that the work was aligned to EC priorities – there remains considerable room for linking the work of policy advice to EC programming cycles, thereby further reducing the chance of receiving policy requests from delegations that are unexpected or not related to existing streams of work. Moreover, the limited cross-links to work in other services requires that more inputs are instead collected by country liaisons, slightly contrary to the objectives of the shift in thinking initiated by the ETF 2027 strategy.

The considerable revisions to the ongoing work of **monitoring and assessment** in the ETF are recent, which limits the scope of already finding a clear contribution. In theory, the newly devised approach in the New Torino Process to monitoring in ETF partner countries however offers an anticipatory approach and can provide an empirical basis for programming decisions made, for individual countries, regions or at the organisational level for the successor of the 2027 strategy. It can also play a vital role to detect (the first signals) of trends and developments in partner countries in the area of human capital development, but crucially also beyond. For this to work in practice as foreseen however, more attention is needed to ETF's approach to knowledge management. Findings from monitoring and assessment work will need to be more accessible to the organisation as a whole before they can have broader impacts in programming, for instance regarding policy advice or further knowledge creation. Despite various developments of the last years on the ETF's knowledge management function, the core issues identified in a 2014 evaluation still require attention[60]. There is no single place for ETF staff to find the latest monitoring findings or ongoing work in partner countries. Moreover, information about specific initiatives, monitoring findings or priorities is not shared systematically within the organisation and often remains within project teams, which complicates the foreseen ability to integrate the outputs in ETF's core services from the perspective of its anticipatory function.

This section reviewed the performance of the ETF's anticipatory function provided across the three services and already identified a number of areas of possible improvement. These are summarised and revisited in chapter 6. The next chapter presents in more detail an applied area of anticipation, by presenting the evaluation on ETF's work in the field of skills anticipation and skills demand analysis.

[60] B. Buiskool et al. (2014), Evaluation of Knowledge Management Innovation in ETF Operations.

5 Findings of the Evaluation of the work on Skills Demand Analysis

The overall evaluation contract consists of two main pillars, the evaluation of the skills demand analysis projects on the one hand side and the evaluation of a broader concept of ETF's anticipatory function on the other hand side. Both pillars of evaluation have produced results, which will be presented in chapter 4 (evaluation of skills demand analysis projects) and chapter 5 (evaluation of ETF's anticipatory function).

5.1 Coherence and Efficiency

Leading Questions: Did the products developed in the SDA projects contribute to other work across ETF? How have insights produced been shared with ETF projects? Did the products developed consider account related projects / studies / research / methods from other institutions? Which monitoring and evaluation arrangements are in place to assess the quality and usefulness of knowledge products and processes?

With the Skills Demand Analysis Projects ETF seeks to make people aware and better understand concepts of skills demand and skills mismatch in order to create more efficient education and labour market systems. Therefore, ETF needs to deal with many types of profiles, as education specialists, labour market specialists, legislators, and also researchers. This also means to define all research concepts in a way that all involved actors and stakeholders and the relevant system criteria (like data available) are taken on board and agree on the used concepts. The concepts used mainly have a common baseline on concepts from Cedefop, DG EMPL, DG EAC, OECD, and other international organisations' tools for the development of own services and projects, fitting into the specific country circumstances in all SDA projects in the time evaluated. Mainly the concepts had been used to define demand in economic sectors, to understand new forms of work, but also to create new forms of data collection. To understand skills mismatch is of main interest in many of the project in evaluation, but often with some special attention on the skills of individuals, and migrants, as especially the latter group is of interest in many of the partner countries.

The main follow-up initiative to streamline activities from the SDA projects in the present and the future is the Skills Lab and the ETF Strategy 2027. ETF is seeking to establish a global knowledge hub for Human Capital Development focussing on the demand of skills. The objective of this is to facilitate exchange of knowledge and good practices and to develop new methods. The Network of Experts (managed through the Skills Lab) is a positive example for sharing experiences and expertise in skills demand analysis. The process of development of achievements and challenges in the outcomes of the educational systems is also monitored. The network also tries to involve coordinators of SDA projects and experts outside ETF into evaluation and assessment as network activity.

But also ETF knowledge created in SDA projects and follow-up activities is used for specific further development in the partner countries: For example the EBRD is using ETF results for the definition of financing structures in some partner countries to support the development of skills in specific sectors. On a broader basis ETF tries to inform policy advice to the EU services for targeting support to the partner countries.

Still, even with specific measures to create coherence and efficiency through sharing expertise and experiences in networking, the danger of fragmentation was mentioned as challenge to ETFs SDA projects. Non-harmonised data and specific interests of single stakeholder groups have to be mentioned in these circumstances as challenge for ETFs work in the partner countries. Nevertheless, the framing of different experiences in the network will help for the further "consolidation" of SDA activities from ETF in the partner countries.

„We know the main skills since the 70s. But we are not able to create a learning environment, where these skills are developed for all!"

Most of ETF staff are involved in different projects and therefore also need to adapt to the versatile demands in each project. Some projects build on the findings of previous projects, and even though the names of several SDA projects seem to be comparable, we cannot name them standardised products. SDA as such is dependent on the involved stakeholders and the data available in the partner countries, and also the definition of basic concepts for structuring labour markets, occupations and skills needs to be shaped every time.

Sometimes the parallel development of different SDA projects in partner countries was observed, but it was not possible to collaborate between the different projects. But in most partner countries Skills Lab works smoothly and is involving other projects by intense collaboration.

Highly important was the involvement of local experts, local stakeholders, local policy makers and local research and data institutions. The example of involving statistical offices in the partner countries for skills mismatch analyses can be used as example for a pragmatic and solution-oriented approach. ETF offered different options for collaboration with the statistical offices: either to share the existing micro data, or to have a remote assistance from ETF for the calculation of skills mismatch, or to provide calculation scripts and offering guidance to do calculations for skills mismatch themselves. With this approach high level contacts to the statistical offices had been established and the quality of data generated at local level was raised step by step.

5.2 Effectiveness, Relevance and Impact

Leading Questions: How did the projects contribute / are the projects linked to the ETF core services? Which processes and methods were developed for monitoring and assessing drivers, trends and future skills needs, possible labour market developments and emerging job profiles? How did the projects respond to changing clients' and stakeholders' needs and demands? Did the (follow-up) products developed lead to reforms / adapted ALMP in the partner countries? How were the (knowledge) products developed used by the clients and stakeholders? How relevant were products developed in the partner countries? How was the content generated through products used by clients and stakeholders? Which unexpected impacts arouse from processes, products, and / or services provided? How did the projects adapt to unexpected crisis or geopolitical developments? How were knowledge products and processes disseminated and published?

ETF carried out and supported a long list of skills demand analysis projects in the different partner countries in the years between 2018 and 2021, which is the assessment period for this evaluation. The survey respondents from different partner countries were involved in all three pillars of the several projects, which had been mentioned including an indicative list of projects already in chapter 2.1 (scope of ETF's work on skills demand analysis). The following list names some of the projects carried out in the partner countries. Here should be mentioned that one of the respondents named specifically a follow-up project, as any demonstrable follow-up project can be seen as a specific practical result of the skills demand analysis projects:

- Generating intelligence on (changing) skills demand: sectoral studies, webinars, national expertise to support the identification of skills demand / supply, platform economy / work, skills in crafts, etc.
- Building on existing skills intelligence techniques and expand their use: measuring skills mismatch, skills anticipation, work on skills development in [country XY], European

Company Survey, European Skills and Job Survey, establishment of a national observatory, etc.
- Development of new methods and approaches to gather skills intelligence: using big data for labour market intelligence, Skills Lab Network
- Follow-up activities: READY Israel project

Concerning the methodological instruments and processes developed for monitoring and assessing the future sills needs a variety of methods had been developed and used within the skills demand analysis projects, namely a combination of:

- Qualitative in-depth interviews)
- Desk research,
- Electronic analytical systems,
- Usage of big data
- Group discussions,
- Web scraping,
- Online activities.

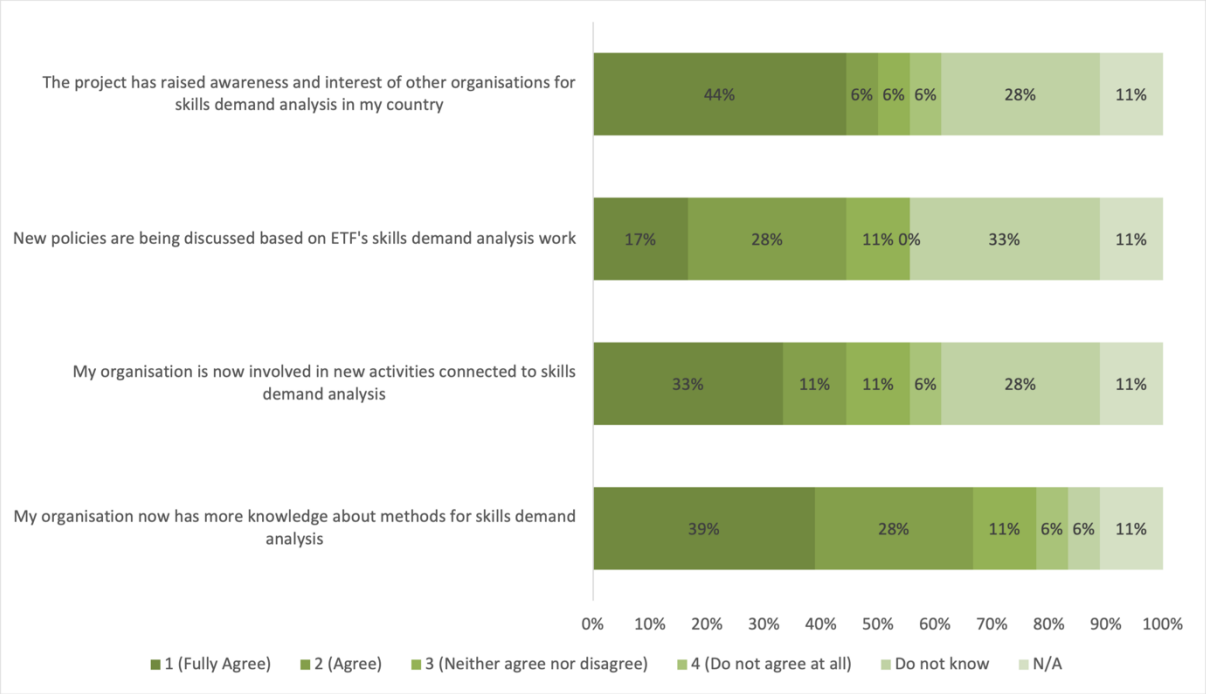
The evaluation has shown that methods and processes which were used to analyse the needs and demands could be adapted to the specific analytical questions of different clients in partner countries but the countries' sectoral specifities have gone hand in hand with methodological adjustments which was according to the respondents often a time-consuming process.

> *"UNIDO tried to implement the ETF methodology (measure skills development in the industrial sectors in country X) but we had to adjust it and this needed some time. Therefore, it would be important to see how tools can be easily adjusted. The methodology of ETF is generic enough to be presented as a tool but if it comes to sectoral specificities the methodology is not flexible enough."*

To provide a broad and also local understanding the complexity of SDA projects or in example the complexity of skills mismatch analyses, was one of the objectives for ETF. Skills mismatch as concept has many different expressions and applications. For instance, skills mismatch can exist on the same level of education and labour market integration, but it can also be a product of accepting jobs below the level of qualification (e.g. because there are not enough jobs for academics but a highly established university system in place). In other words, skills mismatch means that "the right skills for occupations in demand" are not in place, and this is a challenge not only to education providers, but also to the whole education and labour market system.

The survey among experts in the partner countries and international organisations showed that the projects carried out especially provided a deeper knowledge about methods for skills demand analysis in the organisations involved, but also raised awareness and interest of other organisations for SDA in the partner countries. This lead in many cases to a higher involvement of the experts' organisations in further and new activities connected to SDA and specific follow up activities in the partner countries, although the implementation of new policies is – in the light of the evaluation period – of less importance (up to now – see also "Follow-up activities").

FIGURE 5 RELEVANCE ANSWERS FROM THE SURVEY



Source: 3s survey among experts from partner countries and international organisations, n=18

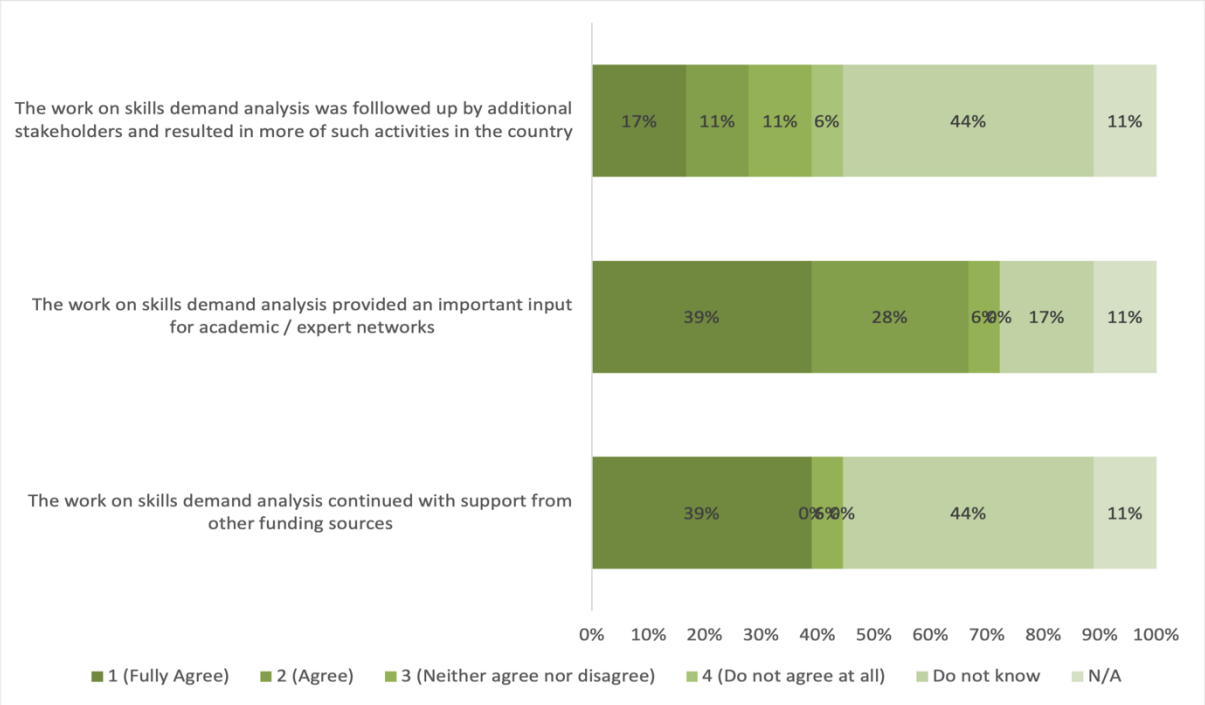
Some concrete examples of reforms and policy change inspired by the work:

- Draft law for educational and vocational training based on the concept for regional VET centers in North Macedonia
- Adaptations of ministerial orders on secondary education, assigning VET schools to become more regional
- READY Israel project

But much more activities have started as follow-up of the SDA projects: The (knowledge) products were also used in webinars, online conferences and trainings, which is evidence for a dense follow-up structure with the focus on capacity building and knowledge exchange in the partner countries. According to the survey, the respondents mentioned that e.g. administrations, ministries, entrepreneurs and other relevant institutions have been using the different products such as reports or data provided by ETF, shared the gained knowledge with social partners and other stakeholders in form of presentations or discussions. Therefore, it is possible that some of the recent activities might lead to logistic and structural changes in the long run as well.

The SDA projects from ETF in the partner countries between 2018 and 2021 provided not only effective results (e.g. awareness raising for skills demand in the partner countries, development of new policies), but also contributed to the development of academic and expert networks and provided important input, and also continued with support from other funding sources after ETF's mission ended in the project. In some cases the work on SDA was even followed up by additional stakeholders and resulted in more SDA activities in the countries such as further use of the same methodologies and tools for skills demand analysis in other regions and application of the methodology in other studies on skills demand.

FIGURE 6 IMPACT ANSWERS FROM THE SURVEY



Source: 3s survey among experts from partner countries and international organisations, n=18

Especially the flexible approach to the needs of the partner countries (who are in charge of defining what they want and need in terms of skills demand analysis) is one of the key elements of relevance; With this approach the skills demand analysis has a solid communication basis in the partner country, it is easier to involve additional stakeholders to contribute to the SDA, and in the end it will be easier to deploy capacity building and follow-up projects within the partner countries after finalisation of the SDA. Within the new Torino process this approach is still reflected in level 2, while in level 1 (monitoring) the structures of work are much less flexible, but better controllable.

The specific impact of ETFs SDA projects is seen in the willingness of ETF staff involved in the projects to "go beyond" the existing cycles for impact. With the Skills Lab Initiative ETF shows that it is going "the extra mile" to create expert networks and follow-up activities, which were also intended by the SDA projects in the partner countries. The nature of SDA projects is to create recommendations for a more efficient and up-to-date interplay between economy, labour market and educational systems within the partner countries, meaning that the development of impact activities after the SDA projects is demanded by the nature of the projects themselves. But as the implementation of findings in SDA projects needs a "long-lasting breath", the creation of a long-term perspective had to be necessary; no political reform based on findings will be done within only 12 or even 24 months after the finalisation of the project itself.

The development of these impact activities is a key element of ETFs credibility as was shown within the survey: We received very positive answers in interviews and the survey on the impact; ETF as institution involved is rated as a highly valued partner who is able to bring different stakeholders around the table to discuss about future developments. Many projects had been started as specific test balloons in some partner countries and could be established with relevant follow-up activities (e.g. in the field of platform economy) involving a broad variety of stakeholders. In the field of platform work it seemed that the countries often were not really aware of or interested in the topic itself, but through the projects ETF was able to generate

some interest and recognition by policy makers and regulators who intend to pay more attention to resolve some of the emerging issues related to platform work.

Many of the SDA projects covered by the evaluation had to be adapted to the political situation or changed due external effects, especially the COVID-19 pandemic, which influenced the way of collaboration severely. But the crisis also has led to new forms of collaboration with the chance of defining new fields of work. The first international brainstorming in the phase of the first COVID-19 lockdown in spring 2020 established a much more focussed approach on the following topics:

- Have a look at Active Labour Market Policies (ALMP) and try to compare ALMP measures taken in the lockdown to save labour markets in Europe. What works, what did not work so well?
- Skills needs in the private sectors: started with small initiatives and studies and is becoming a major project now.

"Everyone talks about impact, but as you very well know we work with countries with very fragile conditions with often government changes. We managed to establish good relationship trust with middle management experts, technical experts. When it comes to deal with the political level, reforms, legislation, it takes 3-4 years."

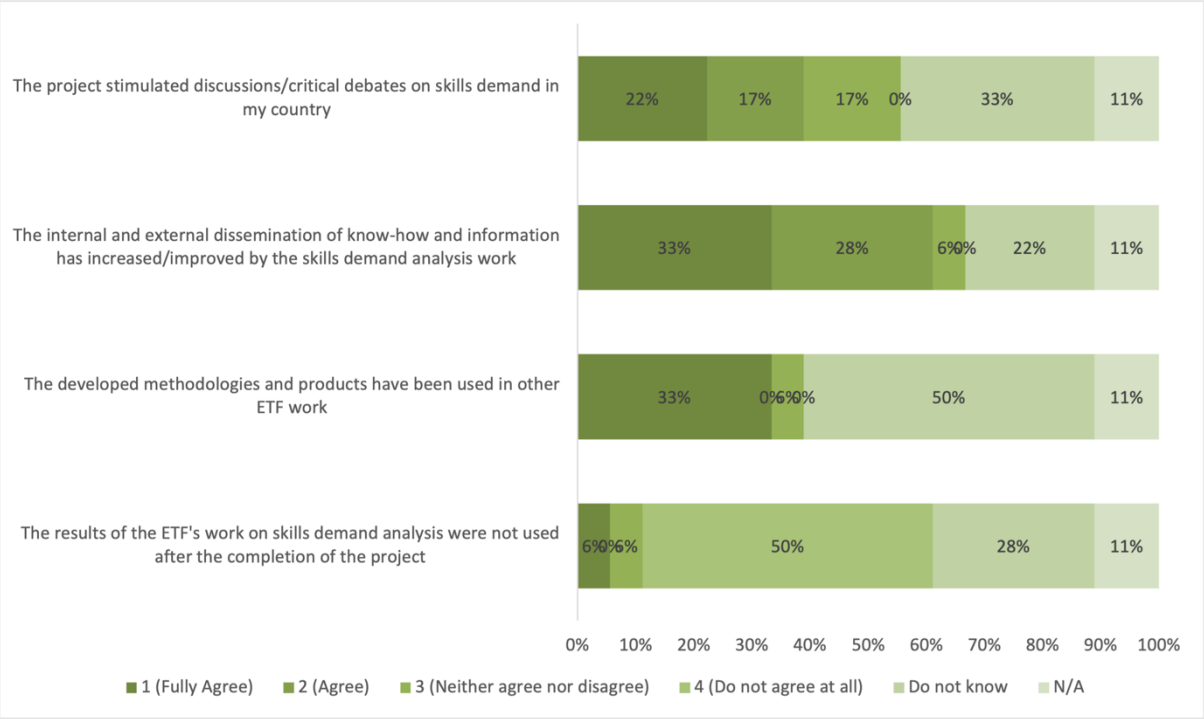
5.3 Sustainability of Outputs

Leading Questions: What is the contribution of the (knowledge) products towards the creation of the knowledge function of ETF? How does the work contribute to the objectives of the ETF 2027 strategy? Did the products developed / policy advice lead to reforms / adapted ALMP in the partner countries?

Concerning the sustainability of outputs the survey respondents stated that the internal and external dissemination of know-how and information has increased / improved by the SDA work. Within the interviews this statement was also proved, but often by overcoming the "usual resistance" of researchers against this kind of work. In many projects the work on dissemination and creating follow-up activities is not followed by the researchers themselves – they see their own mission as accomplished by creating results to work further with. Especially ETF experts in SDA projects are also known as doing this kind of "after-research-services", as this is intended by the research itself.

Only this kind of approach could lead to the statement that the developed methodologies and products have been used in other ETF work, but not only there. The projects also stimulated discussions and critical debates on skills demand in the different partner countries. The fourth question in this section (a control-question with negative connotation) could not provoke differentiations in the main results of the section concerning the sustainability of outputs.

FIGURE 7 SUSTAINABILITY ANSWERS FROM THE SURVEY



Source: 3s survey among experts from partner countries and international organisations, n=18

The products developed and policy advice led to certain follow-up activities, even when the impact on policy reforms or adapted ALMP in the partner countries could not be measured in the countries surveyed so far. To give a concrete example for follow-ups is when conducted surveys will be used to inform skills policies in the partner countries. In summary:

- The time factor should be taken into consideration
- Follow-up activities are already in place in several countries, but reforms / legal and policy changes do need more time
- Capacity building took place and is still ongoing (workshops, network of experts…)

Organisational changes within ETF lead sometimes to disruption in the continuity of work in SDA. Collaboration within Skills Lab needs to be reinstalled after times of COVID-19 restrictions, no travel regulations and only online communication for a long time. Successful follow-up activities in the partner countries are often connected to ETF staff available in the partner countries, who act as well-known experts and critical friends to national developments in the partner countries.

Within ETF the so-called "policy circles" only started in 2021, involving experts and ETF staff. These shared spaces of knowledge on SDA and other topics influence the reception of ETF as organisation of valuable expertise, being able to develop something in the partner countries. Before that within ETF the system of "internal position papers" was in place, summarising the progress in different projects.[61]

Besides the international sharing of knowledge and expertise development a kind of regional approach also could be observed. Follow-up requests for SDA projects came from neighbour countries, e.g. in central Asia, where the methodologies tested in the Western Balkan states could be used partially. On the other hand, some technological developments are quicker than methodological developments: web scraping of job-ads was established in many

[61] For instance L. Feiler (2012), ETF POSITION PAPER, Anticipating and matching demand and supply of skills in ETF partner countries.

countries as by-product to a fast digitalisation. It took specific methodological efforts to connect the findings of these new big-data analyses into skills intelligence products again.

How does anticipation translate into the programming of policy? The status of many countries has changed in the past months; there are now 9 candidate countries, and 2 transition countries and there is a need in the process of the application. Macedonia and Albania will act as peer learning partners for others, and the follow-up activities there are most coherent and established. In these circumstances it was easier to establish dissemination events bringing different stakeholders in the national context together (e.g. education, public employment services, ministry of labour, social partners, researchers, statistical offices, etc.). In countries with less established contact to the EU this kind of dissemination activity also started but faces higher resistance in many countries. Factors such as right timing and communication that would facilitate the political intake matter a lot in this case. Some of the interviewees of the ETF staff also mentioned to consider the genuine interest of the country itself. In other words, if there is no national interest in skills demand analysis from the very beginning, the political intake might be less likely.

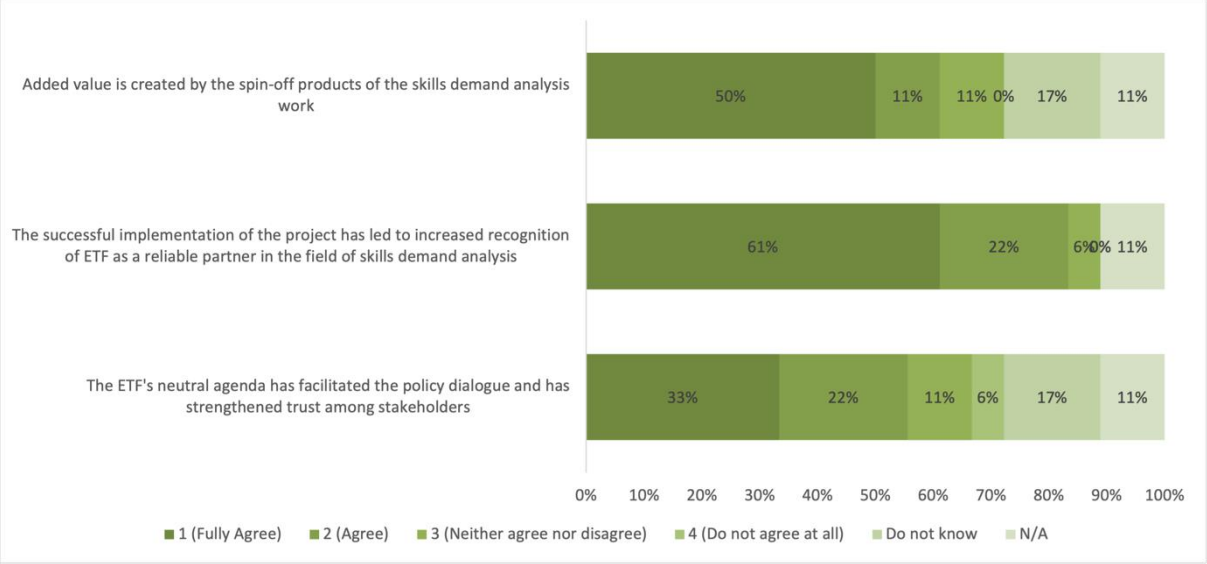
At the same time, some countries changed their former state-owned research institutions into so-called "think-tanks" with much less national funding but trying to get private funding. This again endangered the contact and data reliability for complex SDA projects, and should be considered when looking at some country specific developments.

5.4 Value Added

Leading Questions: What is the value added of what the ETF can deliver compared to other actors in Human Capital Development? How is added value generated?

The added value of the ETFs SDA projects influenced the ETF itself and to specific spin-off or follow-up products in the partner countries. ETFs approach to focus on the partner countries specific needs as "European support" within the partner countries has facilitated the policy dialogue and has strengthened trust among stakeholders significantly.

FIGURE 8 ADDED VALUE ANSWERS FROM THE SURVEY



Source: 3s survey among experts from partner countries and international organisations, n=18

Added value delivered by ETF compared to other actors:

- Expertise in bringing together informal and formal education, policymakers and other stakeholders to design improved policies and agendas

- Very high ability of ETF to anticipate future policy needs because they combine research methods with practical implementation

The SDA projects established some kind of culture of innovation within the partner countries through high participation of different stakeholders involved. In the period covered by the evaluation, most SDA projects had been established as bringing together the expertise from different stakeholders. The now established Skills Lab – as main follow-up strategy to the SDA projects – establishes a network of experts in the partner countries and internationally, which brings the methodology of SDA projects to a next level and also allows a much more focussed follow-up approach.

5.5 Case Examples

5.5.1 Case Example: Follow-up Activities

The follow-up activities are one central measurable evaluation possibility to assess the impact, sustainability and added value of activities undertaken under the umbrella of Skills Demand Analysis projects by ETF in the partner countries. As stated several times in interviews, the solely observation of follow-up activities as singular assessment option is depending on too many societal and policy contexts in the partner countries and therefore not a desirable measurement to assess skills demand analysis activities. But the variety of follow-up activities named in interviews and in the survey pointed out the overall quality of this specific topic for assessing skills demand analysis activities.

The follow-up activities named in the evaluation interviews and surveys covered specific work intended in the different partner countries, doing similar analytics using existing developed methods from ETF projects in the partner countries, using the existing networks based on ETF projects for questioning relevant future skills developments in other region or sectors or to jointly develop policy recommendations and even in some cases to develop and implement new policy measures based on direct or indirect use of ETF's project results. On international level specific projects had been used to carry out similar activities in other partner countries or regions and to develop a broad expert activity to better understand skills demand in different regions and sectors via the Skills Lab network, which is seen as a central activity from ETF following the skills demand analysis activities in the last years.

Several interview partners stressed the importance of follow-up activities to skills demand analysis as to activate labour market and educational policy to react to recent changes in the economic activities and the demographic and societal change within countries and regions in focus. For these interview partners the focus should be placed on the follow-up activities specifically, as the policy reforms would generate added value to the analytical work. It would mean that specific national institutions are able not only to reproduce the work from ETF (and with this internalise ETF's tested methods for skills demand analysis), but also are able to establish new analytical frameworks to observe skills mismatch in the countries and also are able to create relevant policy context recommendations, which lead to national and international discussion and policy reforms.

The "Ready Israel" project was mentioned in the latter case, but also the "Renewable Energy" project in Albania was mentioned, where the biggest Albanian electric supplier organised a training program and took results from the ETF survey for their own internal education programmes.

All figures provided based on the evaluation survey show the importance that skills demand analysis activities are not undertaken for their own sake – they show the relevance of using the produced outcomes in small and larger societal interventions and policy reforms. Awareness raising (fig. 1), influencing and developing expert networks (fig. 2), the increased ability to provide skills demand analysis (fig. 3) and the creation of spin-off products (fig. 4) do show the

importance of the skills demand analysis activities by ETF in the partner countries as fertile soil for further relevant measures to activate skills and educational institutions and to create new relevant active labour market policies.

5.5.2 Case Example: Platform Work

In a recent study the ETF explored for the six Eastern Partnership (EaP) countries changing patterns of work driven by digitalisation, and related skills needs. This study seeks to fill the knowledge gaps on emerging platform work and platform economy in the EaP region. Platform work in general is visibly growing and gaining in popularity in all EaP countries but the study indicates although that these new forms of work and employment remain underdeveloped and that most of the national authorities were previously not really aware of this emerging trend in their own countries.

Platform work related issues are seen by national and international experts as developing areas and that there will be increased attention to these in the future. Among the survey respondents the feedback related to the ETF's support identifying new patterns of platform work in the EaP regions was mainly positive.

In the case of Serbia, a member of the Public Policy Research Center in Belgrade, said that through the SDA projects ETF was able to generate strong interest in platform work, especially in the socio-economic status of platform workers which has been weak in Serbia. The topic has been also recognized as such by policy makers and regulators who intend to pay more attention to resolve some of the emerging issues related to platform work.

Although Armenia is not recognized as prominent platform worker country, ETF has revealed that a relatively high prevalence of platform work exists in the country. A national expert from the American University of Armenia stated in the survey that the qualitative in-depth interviews with platform workers were very informative and that they were able to engage the most important players in the field of platform work. The activities and their outcomes were also useful for the country itself because it was the first attempt to map the sector of platform work and therefore to understand the business processes, regulation and taxation related issues and the skills deployed in the emerging sector of platform work. These are highly relevant findings for policy development in Armenia.

In the case of international experts which were also interviewed for this evaluation the feedback was also largely positive. According to one respondent from Cedefop, lots of synergies between the organization and ETF were created as well as institutional knowledge exchange was provided. In addition, even if ETF had to customize the Cedefop inputs on platform work to the partner countries and their institutional realities useful results were achieved for Cedefop as well as for the partner countries. A second international expert from Eurofound stated that the EaP regional analysis on platform work provided by ETF was very useful and helpful to see how different governances, social partners and other institutions deal with platform work in general.

6 Suggestions for the Future

The collection of suggestions presented in this section is based on the evaluation findings in the previous chapter, informed by the interviews and the survey carried out. The suggestions follow the logic of the assignment, looking at the broad concept of ETF's anticipatory function as such and to a more specific part of this anticipatory function in the skills demand analysis activities in more detail. As the broader concept of ETF's anticipatory function is mostly internally oriented, the first set of recommendations are targeted strongly to the internal processes and activities from ETF. Suggestions for the more specific skills demand analysis activities target to internal processes, but also to specific activities following the skills demand analysis in the partner countries (sometimes implemented and nudged by ETF).

6.1 Suggestions from the Evaluation of ETF's Anticipatory Function

The evaluation showed the vast and varied amounts of information, knowledge and insights that are produced on a continuous basis, based on which the ETF experts identify new and upcoming trends across their various fields of activity. It also showed various examples of what the ETF's anticipatory function consists of in practice. Interviewed ETF experts and external stakeholders have shown to be positive about the ETF's ability to transform insights and information into relevant and future-proof prioritisation of work and planning of activities. At the same time, interviews in the case studies show how much of ETF's anticipatory function continues to be shaped by unconscious behaviour, depending on individual experts' judgments and gut-feeling.

These findings are best understood through the analogy of how an experienced car driver interacts with the road. An experienced driver will know much better than a novice driver when and where to look to avert sudden hazards. While neither will be in the position to predict sudden hazards, the experienced driver is better able to process the large amount of information, by effectively managing attention to possible risks and opportunities[62]. The same can be said about ETF experts, and as such about the organisation as a whole. While an experienced driver is indeed better able to prioritise than someone with less experience, this person still benefits from additional tools to do so better in the future (imagine fitting additional mirrors, sensors or alarm systems to the imaginary car). These additional tools are put in place by the ETF 2027 Strategy, with a structured framework for the anticipatory function, which consists of the three integrated core services (knowledge hub, monitoring and assessment as well as policy advice). The evaluation showed that considerable room for improvement exists for the integration of outputs between the three core services in order to reach its full potential as anticipatory function. These lessons are reviewed in more detail below, linked to operational recommendations that can be considered to further embed the anticipatory function in the organisation.

The case studies have shown how anticipation functions most effectively when **bringing together the experience, knowledge and insights from multiple projects and project areas**. Certain demand-driven processes, such as concrete policy advice or specifically requested work by EC delegation or partner countries can be organised in a way to inspire choices for future work by themselves, i.e. within individual projects. However, the identification and formulation of new areas of work, of new concepts and priorities can be even better achieved when staff from diverse backgrounds, working on different – and seemingly unrelated – human capital development themes collaborate and look for common ground.

- The ETF 2027 and SPD define ETF's priorities and concrete activities along separate 'projects', each of which has its own objectives, expected results, lines of reasoning and

[62] We draw on this example from G. Klein et al. (2007), "Anticipatory thinking". Eighth International NDM Conference (Eds. K. Mosier & U. Fischer), Pacific Grove, CA.

activities. While ETF experts may be exposed to different strands of work through their 'membership' of multiple projects, project activities tend to be most often confined to the project itself. There are certainly good examples of cross-project cooperation, which can serve as inspiration for further encouraging this. Particularly, **more explicit cross-links can be established by integrating monitoring and assessment findings from the new Torino Process also across other projects**.

- The distribution of ETF's ongoing work in the current number of 'projects' in the current SPD is mentioned by experts as a limiting factor for such cooperation. More attention can be given to encourage participation across related projects, for instance by **reducing the number of projects, and instead offering more specific specialised themes** within a project. This would not mean narrowing down the existing scope of the work, as set by the ETF2027 strategy, but instead change the organisational structure to implement it. It could allow more active exposure to the thematic work and approaches of more colleagues and as such foster creative development of new links and ideas.
- ETF experts highlight that there is certain value with management support for cooperation between ETF staff across and within projects. Putting interdisciplinary teams together to deliberate about possible future challenges can lead to interesting and unexpected results and is essentially what can be done from a management perspective. The ETF's internal communities of practice are a good example of this, where ETF staff sees added value in internal interactions, but at the same time experience that working on concrete demand and actual policy challenges works best to establish patterns of cooperation, which has the highest potential to lead to innovation and anticipatory products. As lesson for the future this shows **the benefits of a combination of both top-down and bottom-up approaches, for instance through the internal communities of practice, as well as more informal cooperation in response to concrete demands and projects**.

The explicit shift from focusing on the modernisation vocational education and training and employment systems to human capital development in a broader sense in ETF's 2027 strategy ensures a broader view for knowledge production, monitoring and policy advice in all ETF partner countries. By better capturing developments also beyond VET, the **organisation is able to better position itself to collect relevant insights that has positive consequences for its anticipatory function.** A number of improvements were identified that can further strengthen this:

- The policy shift in scope of the ETF since 2027 is not particularly large, given that the bulk of its work continues to focus on VET within the larger area of HCD. However, it is meaningful, and it can be imagined that this will also have increasingly consequences for the way that new experts are recruited in the organisation. A continuation of the policy to **recruit experts beyond the narrower field of VET enables the ETF to make better cross-links and connections** to other fields, policies and networks in the human capital development domain, which can further encourage its anticipatory function, both on VET and broader human capital development.
- These lessons do not only apply to newly recruited ETF staff, but are similarly relevant for the existing ETF workforce, which can be reached through institutional policies of learning and development. A 2020 evaluation of learning and development for ETF staff recommended ETF experts to **specialise across multiple themes, in an effort to open up the organisation to outside perspectives, encourage cross-project cooperation and stimulate innovation and organisational anticipation**[63]. This recommendation remains

[63] B. Buiskool et al. (2020), Analysis of learning and development for ETF staff: Towards Working Together Learning for Life?

particularly valid from the perspective of encouraging additional links between and across projects, as well as integrating the ETF's core services to more structurally embed the anticipatory approach in actual work.

As already highlighted in the review above, a successful and systematic approach to anticipation depends on the interaction and integration of the insights from the core services. Using forward looking tools and positioning the organisation in response to possible future priorities, trends and (policy) demands requires good contextual knowledge, but also the possibility to time ETF's activities in a way that these connect to that of other stakeholders. Improving the timing of work requires more attention to planning. **It is suggested to further operationalise and make explicit an overall framework of action, based on which ETF experts from across the three core services (including country liaisons and thematic experts) can link ETF work and deliverables through better insights in relevant timeframes and windows of opportunities**. Such insights offer a basic level of systematisation of ETF's anticipatory function, based on which the more informal and intangible work of anticipation can build, as also described elsewhere.

- The key element for timing of ETF's (anticipatory) work in the partner countries relates first of all to the programming cycle of the work by the European Commission. Given its role as provider of expertise and supporting EC priorities, it is sensible that ETF work with partner countries also aligns to that of the EC delegation in the country. These follow multi-annual programming cycles that in its various stages can benefit from different mixes of knowledge creation, monitoring and policy advice. Such programming cycles vary per country and puts additional weight to country liaisons, to not only identify possible policy priorities of the partner country, but also of such programming realities of the EC. Given that such processes are generally fixed and set well into the future, this is an area where these insights can be embedded more firmly in the anticipatory function. This could be done for instance by actively reviewing **with representatives from the involved DGs in European Commission when the multi-annual programmes in individual partner countries are due to be conceptualised, operationalised and formalised** in the coming years.
- Building on these inputs, the ETF and its country liaisons could use such a longer-term calendar as a way to systematise its anticipatory function. A structural institutional approach to knowing when consultations for EC programmes in partner countries are open, or when decisions need to be made would enable a more specific and tailored planning of ETF activities and deliverables. **Such planning could be further linked to the recently launched annual consultation with partner countries, and be more explicitly integrated with the programming of work in all three core services.**

The ability of the organisation to adequately perform its anticipatory function depends the ability to make connections within the organisation, and hence on internal knowledge management. **Practices and tools for knowledge management help facilitate the collection and organisation of the information that is gathered by the various services, teams and individual experts in the organisation**. It can encourage new patterns of cooperation, improve existing patterns or more generally facilitate the realisation of synergies and avoiding overlaps. Altogether, making existing information and knowledge more visible to others in the organisation is crucial for the organisation's ability to anticipate future trends and positioning.

- There have been ongoing efforts to develop a knowledge management infrastructure and various initiatives and activities have been put in place since the evaluation of the ETF's evaluation of knowledge management function[64]. At this moment however, the evaluation identifies that there is scope for practical next steps in the **development of**

[64] B. Buiskool et al. (2014), Evaluation of Knowledge Management Innovation in ETF Operations.

an internal platform or tool at the disposal of ETF experts that presents an overview of past, ongoing and future ETF work in a specific country or region. Such steps are recommended to be taken in collaboration with existing plans to digitalise knowledge products and review the collaboration tools.

- It is also recommended to encourage ETF staff to engage in the effective documentation of prior experiences, results and lessons learned, with specific attention to also discuss openly projects and project elements that did not work as expected. Doing so can help increase the potential to learn from such experiences and can form a crucial input for future anticipation work. Having a new user-friendly tool/platform as suggested above is important, but effective knowledge management requires more than that. It also depends for instance on reviewing the organisational culture in relation to documentation practices, and the embedding of supporting documenting experiences in the organisation, including for staff appraisals, feedback sessions and other forms of management-staff interaction. Improving the culture of knowledge sharing and documentation is an essential supporting element of the recommendation to continue fostering a culture of experimentation and risk-taking in the organisation, as mentioned below.
- The organisation of experiences, knowledge and lessons learned from past work, as well as ongoing and future activities thematically tends to be more structured, for instance on the ETF external website and OpenSpace. Also, the ETF's organisational structure of the work into 'projects' contributes to this, by organisationally encouraging the cooperation between experts working on similar (sub-)themes. However, if the organisation wants to improve its ability to better time future interventions and anticipate priorities such a thematic focus **can be more actively linked to providing systematic information about (the results of) country work.**

Examples collected in the evaluation, through case studies and interviews show how **initiatives from individual experts have remained the core ingredient of ETF's anticipatory function; a more structured framework to develop ETF's anticipatory function in the coming years is in early development**. At the moment, anticipation occurs through the interaction between ETF staff with policymakers and stakeholders in the field, as they maintain their networks, leading to a continuous stream of insights, expectations, as well as inspiration and concrete ideas for future work. While other recommendations above highlighted some suggestion to improve the structured framework for anticipation, there remains considerable scope to continue the ETF's successful support for individual initiative of ETF experts. Based on the suggestions received, the following elements were identified that could be further developed:

- One of the successful sources of 'informal anticipation' is through **the bottom-up development of projects**, or – within projects – project activities by involved ETF experts, which is recommended to continue to support. It is recommended to monitor the flexibility offered to ETF experts to adjust their work programmes to continue to allow responding to new priorities or to explore possible innovations.
- An example of how such bottom-up development has already been approached is the use of 'experimental budgets'. These are allocated to senior staff to engage in work outside existing projects and use their time for 'innovative projects'. This type of work recognises that its projects may fail and can lead to nothing, but these can also contribute to valuable new insights that can inform the work in and beyond existing ETF projects. It is therefore recommended to **continue the use of such innovative budgets to senior ETF staff**. Deliberately, no specific formula or percentage of staff time is recommended here; this depends on the scope for innovation in existing teams, as well as the perceived effectiveness in identifying relevant and promising future priorities of an individual expert. A base amount of time could be allocated to a larger group of senior experts, who can be invited to participate in a structured process of competitive

pitching, awarding additional time and budgets to work on innovative projects to the best proposals.

- The encouragement of innovation and 'risk-taking', for which experimental budgets can be an implementation mechanism, could similarly continue to feature in managerial approaches to senior staff. The evaluation already collected some good examples of how ETF experts were given individual initiative to explore new areas of work. However, once more formal cooperation between the core services and projects is encouraged, it also remains relevant to continue to value innovative work, or risk-taking by individual experts outside these structures, with continued attention to innovation and experimentation in staff appraisal processes.

6.2 Suggestions from the Evaluation of the Skills Demand Analysis Projects

Continuation of ETFs good work in the field of skills demand analysis activities in the partner countries. ETF is seen as highly trusted and reliable partner in the field of skills demand analysis activities in the partner countries. ETF experts do have the relevant expertise in education and labour market analysis, but also the communication and networking skills, which are needed to include different stakeholders at national level and provide long-lasting partnerships even in short-lasting governance circumstances. ETF is seen as a partner with a (budgetary) neutral agenda whose work primarily focuses on capacity-building within the partner countries to establish their own structures for analysis in the future. ETF is whether a donor agency nor is there a big interest project funding by national authorities and ministries. This asset should be emphasised because it facilitates the dialogue between ETF and the partner countries. Cooperations established between ETF experts and the partner countries demonstrate a high stability on eye-to-eye-level. The notion of ETF's work is highly valued and this situation should be prolonged.

Continue the country-specific focus of activities from ETF as European support to the partner countries: Often conflicting objectives are connected with skills demand analysis activities and ETF and the partner countries have to deal with them, as the following statement shows: "On the one side we are required by the Commission and many other to have the state-of-the-art intelligence and knowledge in often super-sensitive issues. It was not that the countries were very delighted to talk about this. And on the other side to keep working on relationships with countries' stakeholders is also crucial. And that is a bit of a clash sometimes." Therefore, establishing and continuing ETF as a reliable partner with the focus on support with high flexibility, good cooperation and excellent communication is still a necessity. ETF is seen as organizer and optimizer in skills demand analysis, even though the projects are not well-funded. ETF establishes fruitful connections between education and labour market and this should be the case also in the future. It is also necessary to distinguish between demand and request – in the optimum the request is reflecting the demand in the partner country. Innovation and anticipation come from the broader demand, not from political requests. But still, the political request is the basis for each contract.

Use tailored and flexible approaches, methodologies, and tools, continue with sufficient use of online surveys and regional analyses: In terms of realities on the ground (e.g. "one of the studies conducted relied methodologically a lot on input from professional organizations like unions and associations, which do not exist in my country") a better tailoring of and a more flexible approach for using methodologies is sometimes needed, even if the overall quality is endangered by the methodological changes. But using strict methodologies for non-existing data and stakeholders by trying to adapt the target groups, but not the methodology, is not very helpful. Especially the use of online surveys in partner countries with fast growing digital infrastructures is seen as crucial for future developments. This could also be supported by some

regional or provincial analysis because national analyses in some partner countries are sometimes too little focused on specific developments (e.g. in Turkiye).

Focus on follow-up activities and more practical implementation: *"The job is not done, when the report is published!"* This statement from an ETF expert shows the high need of creating follow-up activities, raise awareness among different stakeholders on national basis (using the results from SDA activities) and open up policy discussion for relevant development. Many interviews and the survey feedback stressed the fact that due to the skills demand analysis activities expectations are developed in the partner countries among different stakeholders for the further development of education and labour market systems. Therefore, the starting point is to raise awareness by disseminating and discussing results with relevant national stakeholders and to establish working groups to hand over the development ownership into the national circumstances without stepping back from supporting developments was mentioned as possible next step after each skills demand analysis result is created. Another point to highlight is that ETF was very helpful in supporting many skills demand analysis activities and projects, but in the future the focus should be set more on development and implementation of skills and not only on the analysis. Facilitation of networking in the partner countries and country-specific medium-term strategies for ETF-work would be helpful to underline the willingness to work jointly on SDA activities and follow-up projects together with the partner countries. Support could be organised via learning activities (e.g. about quantitative approaches related to SDA), or the involvement of larger communities of interested experts.

Re-establish possibilities for physical presence of ETF staff in the partner countries after pandemic online communication and facilitate mutual learning: It is also important that after the pandemic with a high focus on online communication the existing trust in ETF staff as "critical friends" in the partner countries can again be raised by physical presence there. Besides this physical presence several aspects for facilitation of results had been mentioned in the interviews and the survey, e.g. the creation of so-called best-practice examples, which countries could use for the development of their own skills demand analysis infrastructure. It is important not only to show what worked well in the best-practice examples, but also which challenge were faced and how they were overcome in the SDA activities carried out or supported by ETF. Sometimes also the "bad practices" would be helpful to learn from mistakes made, but this was meant more for the internal use at ETF. Network activities with national / regional stakeholders, and also the facilitation of national / regional networks to exchange knowledge from SDA activities in the partner countries would be highly welcome, as stated in many interviews.

Design follow-up activities also within ETF and with international experts: Results of SDA activities in the partner countries should be reflected not only within the partner countries, but also within ETF. ETF is involved in several activities supporting the development of skills supply (educational development), where the results of SDA projects could be used directly. Also, international exchange with other experts will support a better understanding of SDA results, but also the development of innovative methods and new designs for SDA. For the ladder the Skills Lab and the respective dynamic, which was created already herein, should be used.

Define ETFs role within the environment of different international agencies working in similar fields and create possibilities for exchange and task-sharing with these other agencies: For many partner countries it seems to be not so clear, what exactly is the role of ETF connected to the European Union and other EU institutions and what can be expected from ETF. This must be clearly communicated to all partner countries and with a future looking view. It should also be nailed down, what are possible task-sharing roles between e.g. ETF and Cedefop and how these task-shared issues could be reflected in the partner countries. This was also mentioned because of the high number of ad-hoc requests for analyses at the same time. Other

international organisations (e.g. UNIDO) were asking for better exchange to at least find fields for stronger collaboration.

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