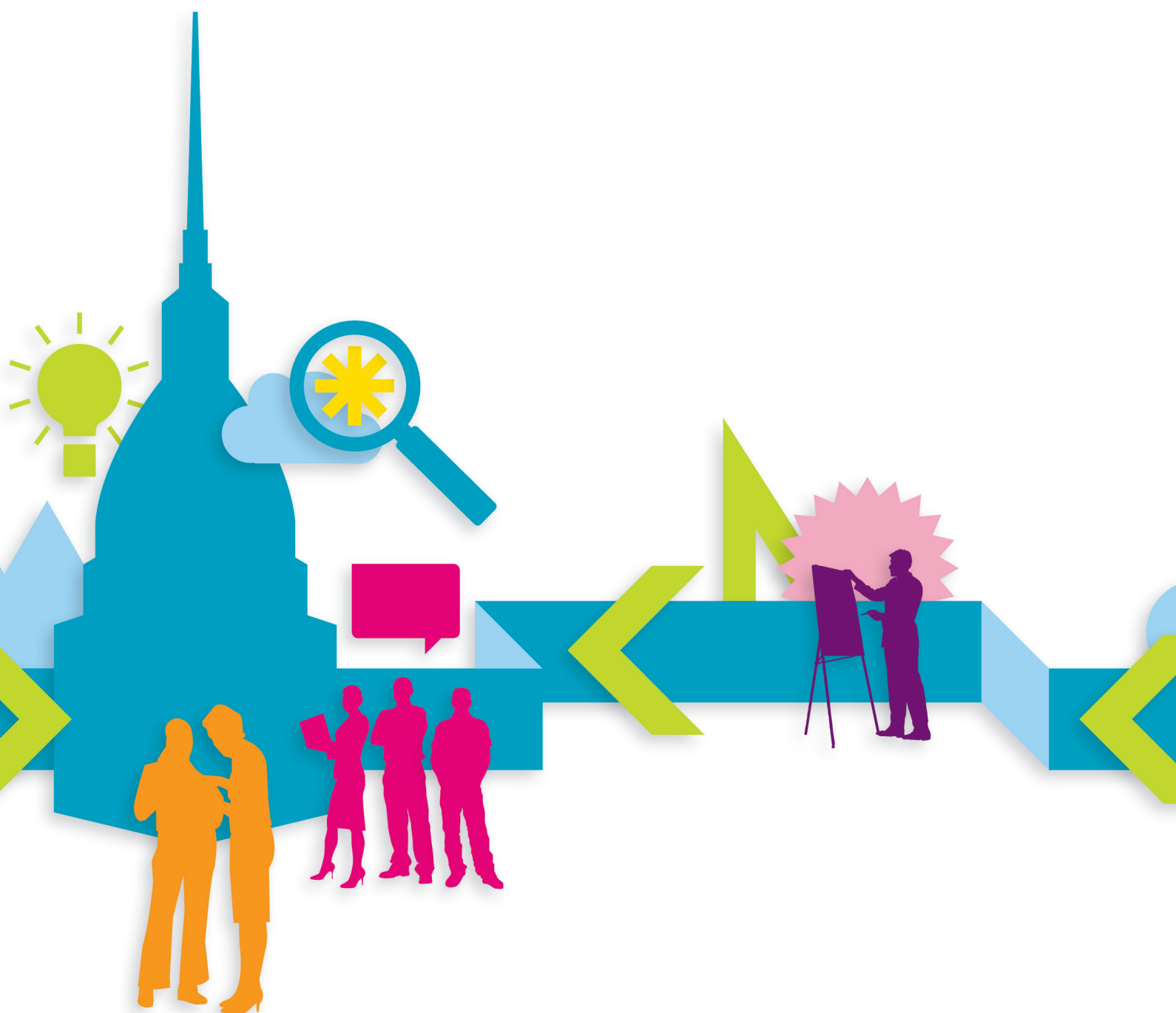


THE TORINO PROCESS



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THE TORINO PROCESS

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1. INTRODUCTION

In 2010 the European Training Foundation (ETF) launched the first round of the Torino Process, in which 22 of its 29 partner countries participated. In May 2011 the ETF organised a conference entitled 'The Torino Process – Learning from Evidence', which brought together over 250 stakeholders from all ETF partner countries, EU institutions, EU member states and the international community. In the final Declaration (see Annex 2), conference participants welcomed the Torino Process approach, endorsed the findings from the first exercise, including a number of common priority areas and short-term actions, and encouraged the ETF to work further to build capacity in evidence-based policy making. In addition, partner countries confirmed their interest in taking part in the next round of the Torino Process.

1.1 WHAT IS THE TORINO PROCESS?

The Torino Process is a participatory process leading to an evidence-based analysis of vocational education and training (VET) policies in a given country.

The Torino Process is carried out in order to build consensus on the possible ways forward in VET policy and system development. This includes the determination of the state of the art and vision for VET in each country or, after a given period, an assessment of the progress that countries are making in achieving the desired results.

The added value of the Torino Process lies in the fact that it embeds VET within the socioeconomic context, and ensures that the analysis is informed by relevant evidence and takes place through structured dialogue. In this respect, the ETF helps countries to gather information from different sources of evidence and fosters policy dialogue.

More specifically, the Torino Process is a vehicle for:

- developing a common understanding of a medium-term vision, priorities and strategy for VET development, exploring possible options for implementing this vision and/or making further progress;
- designing and evaluating home-grown and affordable VET policies, based on evidence or knowledge and collaboration;
- updating the analyses and achievements at regular intervals;
- providing opportunities for capacity development and policy learning within and among partner countries and with the EU;
- empowering countries to better coordinate the contributions of donors to achieving agreed national priorities.

In addition, the Torino Process informs the ETF's recommendations to the EU's external assistance instruments and serves as a basis for the design of the ETF's support strategy to partner countries.

The Torino Process has been inspired by policy assessment processes at EU level, notably the Copenhagen Process in VET and the 2010 Bruges Communiqué. Indeed, the Torino Process in partner countries complements the review of progress towards the common EU VET policies, objectives and tools under the Bruges Communiqué. This complementarity facilitates mutual learning between the EU and partner countries.

The Torino Process is founded on four principles.

- **Ownership** of both the process and the results (final report) by the partner country's policy leaders and stakeholders. This includes seeking complementarity between the Torino Process and the national policy agenda and/or other relevant processes.
- **Broad participation** in the process by relevant stakeholder groups, including parliamentary committees, policy leaders, social partner representatives, school managers, teachers, local authorities, company representatives, researchers and civil society representatives. This provides the basis for reflections and consensus building by local actors, thus making the connection between policy analysis and agreements about policy choices and implementation.
- A **holistic approach**, using a broad concept of VET for both young people and adults and adhering to a system approach, taking into account not only the system elements and how they communicate, but also how the VET system responds to the economic and social environment in which it operates. The Analytical Framework comprises the policy vision for VET, an analysis of the external and internal efficiency of the system, and governance and financing issues.
- An **evidence or knowledge-based assessment**, which is seen as essential for countries to make informed decisions about policy developments and to measure progress.

Evidence can take many forms, such as experience and evaluation of practice, the results of scientific analyses, quantitative and qualitative research, basic and applied research, and the development of statistics and indicators. Education and training are part of the diverse cultural traditions and identities of countries and they interact with a web of other policies. In these circumstances, there can be no simple prescriptions about what makes good policy or practice. This makes it all the more important to know as much as possible about what works, for whom, under what circumstances and with what outcomes (European Commission, 2007).

1.2 INTRODUCTION TO THE ANALYTICAL FRAMEWORK

The Analytical Framework is intended to guide the review, to the extent that it fits the context of the country in question. In particular, it seeks to answer the following key questions.

- **Section A – Policy vision**
What is the vision for VET development and does that comply with broader national socioeconomic development objectives?
- **Section B – VET in relation to economic competitiveness**
Do the skills offered by the VET system match those required by the labour market and economic development in general?
- **Section C – VET in relation to social demand and social inclusion**
Do institutions, and the programmes and skills offered by the VET system, match the aspirations of individual learners, fulfil the needs of vulnerable groups, and address territorial disparities?
- **Section D – Internal quality and efficiency**
What further reforms are necessary to modernise the various elements or 'building blocks' of the VET system?
- **Section E – Governance and financing**
Are institutional arrangements, capacities and budgets adequate for bringing about the desired changes in the VET system?

Each section of the Analytical Framework proposes the use of a range of quantitative and qualitative 'evidence' – such as statistical data and indicators, good practice, qualitative assessments, and existing national and international studies and reports – drawn from different sources. These are intended as suggestions for the review, as experience shows that the specific policy challenges, available statistics and other sources of evidence vary in each country.

Countries that have already been involved in previous rounds of the Torino Process exercise are encouraged to revise and update their previous report, in line with the principles of the Torino Process. This implies:

- including reference to policy progress or developments that have occurred since, in particular in areas identified as priorities in the previous report;
- updating the analysis with the most recent data and references;
- improving, where possible, the quality of the analysis across the report.

Countries that did not take part directly in earlier exercises are invited to carry out a first assessment under the Torino Process.

1.3 STATISTICAL DATA

The statistical indicators listed in the Analytical Framework are intended to suggest possible ways of using evidence and providing inputs to the analysis in line with the questions mentioned. They should not be seen as exhaustive. The ETF Guidelines on Quantitative Indicators, which provide definitions and typical sources, should also be consulted.

To support the review process in partner countries, the proposed indicators have been divided into two categories:

- a list of indicators that will be gathered centrally by the ETF Statistics Team, and that can be used to gain a general overview of the topics to be covered (see Section 2, p. 17);
- a series of more detailed information (basically all the other indicators suggested) that is necessary for a more in-depth analysis (see Section 3).

We are aware that international data sources contain very little information on VET, while national data is often closely linked to the national context, making it difficult to compare data easily across countries. This means that most of the data provided by the ETF Statistics Team concerns rather general trends of the complete education system, as well as of the socioeconomic context within which the VET system operates.

A thorough analysis of any VET system must use additional specific data derived from national sources. Reinforcing the quality of data and its deployment in the policy analysis will be a specific focus for the Torino Process 2012. The ETF is willing to engage in a dialogue with national representatives in order to determine what is the best available evidence in each country.

In addition, a practical manual on the creation and use of quantitative data will be made available in the Torino Process section of the ETF website (www.etf.europa.eu).

1.4 FINAL REPORT AND TIME SCHEDULE

Partner countries are encouraged to document key findings from their analyses and consensus-building processes in a final comprehensive report, including a statistical data annex. We suggest compliance with the Analytical Framework as far as possible, with a view to ensuring coherence and allowing for a certain degree of comparability across countries within a particular region.

The Torino Process should lead to a draft country report during the third quarter and a finalised and endorsed country report by the last quarter of the year.

Please note that the ETF plans to check the quality and publish the summary country reports, including the latest statistics, up to a maximum length of 15 to 20 pages – in English and French, Russian or Arabic.

On the basis of the country reports, the ETF will prepare regional and cross-country analyses, and a specific report on key indicators. The ETF also plans to provide a further opportunity for knowledge sharing and policy learning at an international conference in Spring 2013.

1.5 NEXT STEPS

Partner countries are encouraged to:

- nominate a contact institution for liaison with the ETF;
- agree on the most appropriate implementation modality for the country, in particular by assessing whether there is a preference for self-assessment or an ETF-led assessment:
 - for self-assessment, the partner country itself will collect relevant research, including data, organising the consultation process, and drafting and validating the final report, with the ETF providing some support to ensure the quality of the final report;
 - for an ETF-led assessment, the ETF could render more comprehensive support in collecting data and information, designing and implementing the consultation process, and drafting and validating the final report together with country stakeholders;
- identify institutions and individuals to collect data and information;
- engage or assist in the operational implementation of the consultation, drafting and validation processes through the organisation of workshops, focus groups, public hearings or other types of meeting.

ADDITIONAL RESOURCES

- Cedefop glossary
- Manual on the creation and use of quantitative data
- Report template in English, French, Russian and Arabic

See ETF website: www.etf.europa.eu, Torino Process section

2. ANALYTICAL FRAMEWORK FOR VOCATIONAL EDUCATION AND TRAINING SYSTEM REVIEWS

Vocational education and training (VET) is understood in a broad sense to cover education and training that aims to equip both young people and adults with knowledge, know-how, skills and competences required in particular occupations or, more broadly, on the labour market (Cedefop, 2008).

VET is provided at different levels, including secondary, post-secondary and tertiary. It can take place in formal, non-formal or informal settings, in institutions, companies or other places, and at different stages of individual's lives.

EXECUTIVE SUMMARY (TWO TO THREE PAGES)

- What are the key findings from each of the following sections? Which key policy priorities for VET in the country concerned can be derived from these? What actions are planned to address these priorities?

A. VISION FOR VET SYSTEM DEVELOPMENT (ONE PAGE)

Key questions

1. What is/are the vision(s) of the government, enterprises and civil society for VET development in the medium to long term, in response to the country's economic, social and environmental strategies and challenges and within the framework of the resources available? What are the commonalities/differences in vision between the stakeholder groups?
2. To what extent do these visions address sustainable development, and in particular the necessity to switch to a low-carbon economy and to green growth?
3. What are the priorities, and how have the different stakeholders translated – or how do they intend to translate – this vision into specific policy measures and actions?

Sources of quantitative and qualitative evidence

- national policy papers and strategies concerning education/VET;
- national policy papers and strategies concerning economic, social and environmental development, including local and/or regional development priorities;
- policy/position papers from enterprises, social partners, experts/academics and civil society;
- reports from interviews, meetings, focus groups and the media.

B. EXTERNAL EFFICIENCY: ADDRESSING DEMOGRAPHIC, ECONOMIC AND LABOUR MARKET NEEDS (THREE TO FOUR PAGES)

External efficiency in the context of this Analytical Framework denotes how well the VET system correlates with the external environment within which it operates and how well it responds to related signals or challenges. We have defined this in terms of three outcomes:

- the economic and employment perspective – here the focus is on labour market outcomes, which is the primary rationale behind VET provision (Section B);
- the social inclusion perspective, or how well the VET system reaches out to the weakest segments of the population and ensures the provision of (targeted) training (Section C);
- the individual learner perspective – here ‘social demand for education’ means providing attractive learning pathways for all groups through VET provision (Section C).

Key questions

1. What are the main sociodemographic factors and trends (population, migration, ethnic composition, etc.) in society, and how do they shape, or how are they going to shape, the demand for skills in the country at national/regional level?
2. Which are the key economic sectors (in terms of contribution to both gross domestic product (GDP) and employment) and what kind of skills do these sectors require? Are there significant regional variations in terms of economic sector development? How do other economic factors influence the demand for skills (taking into account economic growth prospects, sectors with trade agreements with the EU, competitiveness, the size of companies, privatisation/restructuring trends, etc.)? Which other factors shape the demand for skills (e.g. ecological requirements)?
3. What specific efforts are being made by governments (training and small and medium-sized enterprise (SME) policy departments, particularly at national/regional level), including public and private training providers, to ensure that the skills interests and concerns of the multinational, national and small business community are being met?
4. What are the main labour market trends and employment challenges in the country, and how do they influence the demand for skills (taking into account labour market participation; employment and unemployment rates by gender, age and education level; public vs. private employment, types of employment, significant regional variations, etc.)?
5. What is the size of the informal economy and informal employment, and how does this shape the demand for skills?
6. Are the skills and competences offered by the initial and continuing VET system broadly in line with those required by employers and the labour market at national/regional level? What are the principal mechanisms in place to identify skill and training needs in the labour market, and how is this information used to inform VET planning (including occupational competences/qualifications; curricula and continuing vocational training courses; and the network of vocational schools and adult training providers)?
7. How does the VET system promote entrepreneurial attitudes and skills?
8. Based on the above, what are the main priorities for improving external economic efficiency in the VET system? What (further) policy initiatives or actions have already been planned to ensure that the VET system can better respond to sociodemographic, economic and labour market issues, and how will these policies and actions be implemented at national/regional level? Are there major priorities that are not being adequately addressed by current policies or actions?

Recommended quantitative indicators¹

Key question 1

- **total population, population growth rate and dependency rates;**
- **number and/or proportion of 15–24-year-olds in the total population;**
- migration trends (inward and outward);
- ethnic composition of the population (major ethnic groups);
- **educational attainment of population by age and gender;**
- educational attainment of population by urban/rural;
- **illiteracy rates/literacy rates.**

Key question 2

- **GDP growth rate and GDP per capita;**
- changes in employment by detailed economic sector;
- changes in employment by occupational field;
- **employment by sector compared to GDP by sector;**
- enterprise start-up rates;
- **Competitiveness Index;**
- proportion of micro and small companies among active businesses.

Key question 4

- **activity rates by gender** and educational level;
- **employment rates by gender** and educational level;
- **unemployment rates by gender** and educational level;
- **youth unemployment rates by gender** and educational level;
- size of the informal economy/employment;
- **changes in employment by status and gender;**
- public employment as a percentage of total employment.

Key question 7

- **Small Business Act Entrepreneurial Learning Index** (source: ETF Entrepreneurial Learning Team).

Recommended sources of quantitative and qualitative evidence

- demographic projections, migration studies, studies on the ethnic composition of the population;
- census data;
- household budget or household consumption surveys;
- training strategies of public and private training providers;
- national, regional and sectoral economic development strategies;
- EU small enterprise monitoring framework – Small Business Act Dimension 8 (enterprise skills) for pre-accession and Eastern Neighbourhood, and Euro-Mediterranean Enterprise Charter Dimension 4 (improved skills) for Southern Neighbourhood;
- regular labour force surveys or other specific labour market surveys;
- studies of informal economies;
- enterprise skills satisfaction surveys;
- national, sectoral and regional skill needs surveys;
- entrepreneurial learning strategies;
- World Economic Forum data; OECD Economic Outlook data, etc.;
- reports from interviews, meetings, focus groups and the media.

¹ Indicators in bold will be gathered by the ETF Statistics Team (see list of key indicators, p. 17).

C. EXTERNAL EFFICIENCY: ADDRESSING SOCIAL DEMANDS FOR VET AND PROMOTING SOCIAL INCLUSION (THREE TO FOUR PAGES)

Key questions

1. How well does VET match the aspirations of individual learners, and what actions have been suggested to improve its attractiveness (e.g. facilitating the transition of VET graduates to higher levels of education or the labour market; ensuring career guidance is available; developing further adult training offers; developing qualification and assessment systems and promoting the recognition of skills acquired through non-formal or informal learning, etc.)?
2. How successful has the VET system at national/regional level been in providing learning opportunities for adults to enhance their labour market prospects or upgrade their skills?
3. How does the VET system develop active citizenship skills to allow individuals to contribute to sustainable societies, for example by promoting critical reflection, cross-disciplinary and creative thinking, and learner-centred, participatory learning processes?
4. Give an overview of the main social inclusion issues in the country, including poverty, inequality, regional/rural disparities and ethnic/religious divisions. Identify key vulnerable groups (whose needs the VET system must respond), including the poorest segments of the population, inactive people (particularly females), unemployed/long-term unemployed individuals, ethnic groups, Roma people, immigrants, refugees or internally displaced persons, illiterate or low-skilled people, the working poor who are in precarious jobs, early school leavers, people residing in specific regions of the country, females, young people not in employment, education or training (NEETs), individuals with a disability and first job-seekers.
5. How successful has the VET system been in addressing the needs of the vulnerable groups identified in terms of providing access to education and support for retaining individuals in education, completing their learning and integrating into the labour market, and for their active citizenship and personal development at national/local level?
6. Based on the above, what are the main priorities for improving external efficiency in the VET system? What (further) policy initiatives or actions are foreseen for addressing the needs of individual learners (including those from vulnerable groups), and how will these policies and actions be implemented at national/regional level? Are there major priorities that are not being adequately addressed by current policies or actions?

Recommended quantitative indicators

Key questions 1 and 2

- participation in adult learning;
- expenditure on active labour market policies (ALMPs) as a percentage of GDP;
- percentage of registered unemployed covered by ALMPs;
- percentage of VET students who continue to higher levels of education.

Key questions 3 and 4

- use information, from the previous section and other sources, to identify key vulnerable groups:
 - illiteracy rates;
 - educational attainment of the population by age and gender;
 - educational attainment of the population by urban/rural;
 - rate of early school leavers;
 - number of individuals with a disability, and information on Roma people, immigrants, those from ethnic minorities, etc.
- proportion (or number) of young people not in employment, education or training;
- poverty and inequality rates (or proportions);
- number of first job-seekers and long-term unemployed as a proportion of the total unemployed (age 15+);

- **number of VET students as a proportion of the total number of pupils and students by level and gender;**
- participation in VET in percent by field of study;
- drop-out rates in upper secondary, general and VET by gender.

Recommended sources of quantitative and qualitative evidence

- social inclusion and poverty reduction/inequity assessment strategies;
- analytical reports on the extent of apprenticeship schemes;
- mapping of VET programmes offered;
- VET graduate tracer studies;
- surveys on transition from education to work, e.g. by the International Labour Organisation (ILO) and the ETF;
- employment strategies and action plans;
- analytical reports about career guidance and counselling;
- reports from interviews, meetings, focus groups and the media.

D. INTERNAL QUALITY AND EFFICIENCY OF INITIAL AND CONTINUING VET DELIVERY (THREE TO FOUR PAGES)

This section focuses mainly on the provision of VET by schools, colleges, faculties, company training sites, etc.

Quality is the degree to which a set of inherent characteristics fulfils certain requirements. (Cedefop, 2011, quoted from ISO, 2000)

In this context it is important to understand that there needs to be internal consistency: any changes in one element of the system (e.g. curricula) necessarily trigger changes in other elements of the system (e.g. teachers' skills, materials and equipment, inspection system, etc.).

Efficiency generally describes the extent to which funds, time or effort are well used for a specific outcome.

Key questions

1. How is quality defined in the country at provider level in initial and continuing VET?
2. Provide a diagram illustrating the provision of VET in the country, including links with basic and general, higher, and continuing vocational education and training². Are there any constraints which restrict access for VET graduates to higher levels of education or training? What policies have been developed/should be developed to address the dead ends?
3. What are the strengths and weaknesses in terms of quality and efficiency with regard to the following elements or 'building blocks' of VET delivery:
 - occupational standards/qualifications, including key competences;
 - curricula;
 - textbooks and other learning materials and equipment;
 - the network of public and private training providers;
 - teachers' skills and professional development;
 - school budgets, including unit costs for VET students, additional sources of income, etc.;
 - school management;

² Use where possible a national diagram. In the absence of a national diagram, please refer for inspiration to Cedefop Refernet national country reports for EU member states.

- modern learning processes;
 - practical learning sites, involvement of employers/apprenticeship systems;
 - assessment and certification of skills?
4. Based on the above, what are the main priorities for improving the quality and efficiency of VET delivery? What (further) policies or actions are already foreseen to address issues relating to the internal efficiency and quality of VET, and how will these policies or actions be implemented at national/regional level? Are there major priorities that are not being adequately addressed by current policies or actions?

Recommended quantitative indicators

- **number of VET students compared with those in general education;**
- some indications on how to measure the quality in concrete terms (results achieved at the end), such as completion rates, placement rates, drop-out rates, repetition rates, scores in national tests or international tests (**Programme for International Student Assessment (PISA)**, Progress in International Reading Literacy Survey (PIRLS) and Trends in International Mathematics and Science Study (TIMSS), although the data for the latter two surveys are relatively old);
- student/teacher ratio by programme;
- funds invested in teacher training and/or regularity of teacher training for ensuring quality.

Recommended sources of quantitative and qualitative evidence

- education or VET strategies targets compared with the actual figures for the outcomes from the system;
- analytical VET reports and system assessments in terms of attractiveness, results and achievements;
- descriptions of, or reports on, higher education programmes for VET teachers;
- national and international tests;
- information on completion, drop-out and repetition rates;
- information and data on the length of time between leaving the education system and placement in first job (in months or years);
- information from employers on satisfaction with the skill levels of VET graduates from initial and continuing training;
- standards and qualifications developed, curricula revised, textbooks produced or rewritten, materials and equipment upgraded, etc., in schools or training centres within the past 10 years;
- teachers' recruitment, qualifications and continuing professional development systems;
- balance between theory and practice in VET curricula, practical learning facilities in schools or in companies that cooperate with vocational schools or training providers;
- reports from interviews, meetings, focus groups and the media.

E. GOVERNANCE AND FINANCING OF THE INITIAL AND CONTINUING VET SYSTEM AND INSTITUTIONAL CAPACITIES FOR CHANGE (THREE TO FOUR PAGES)

This section focuses on the overall system level.

Governance as a model for policy making in VET is based on involving stakeholders at all levels (sectoral, local/regional, national and international) in objective setting, implementation and monitoring. Governance aims to reinforce interaction between stakeholders and improve accountability, transparency, coherence, efficiency and effectiveness of policy (Cedefop, 2011). The section on governance focuses both on the roles of actors in managing the system and related efficiency (or inefficiency), and on the drivers of policy development and reform, including through new forms of governance.

Quality assurance covers activities involving planning, implementation, evaluation, reporting and quality improvement that are implemented to ensure that education and training (content of programmes, curricula, assessment and validation of learning outcomes, etc.) meet the quality requirements expected by stakeholders (Cedefop, 2011). Section D deals with quality and quality assurance issues primarily at the micro-level (level of organising teaching and learning processes), while Section E deals with quality assurance at the macro-level (VET system level) and meso-level (accreditation and quality assurance of training institutions).

Key questions

1. Please provide a chart of institutions or bodies involved in the design, implementation and monitoring/evaluation of the VET system (covering both initial and continuing VET)³. Is there a legal basis for stakeholder involvement? Analysing the chart, what needs to change as regards roles and responsibilities, technical competences, resources and accountability of the actors involved in the governance of initial and continuing VET?
2. What are current issues relating to (the decentralisation of) the management of the VET system? To what extent are VET providers able to tailor their service delivery to meet specific opportunities or needs in their local environment?
3. What quality assurance mechanisms⁴ are in place both at system level and at provider level, and what needs to be done to improve the system in this respect?
4. What are the current issues as regards social partner involvement in the areas of designing legislation and strategies, VET financing, planning, monitoring and evaluation, designing VET qualifications and assessing people's skills, accrediting training providers, etc.?
5. Please provide an overview of total investments over the past five years in the secondary/post-secondary VET system, as well as investments in adult training, whether public or private. What are the main criteria for funding VET, and are these criteria applied efficiently and effectively? What role do donors play in financing the VET system?
6. What changes are required as regards public and private investments and a more efficient management of funds?
7. How do you assess institutional capacities for reform/innovation and for incorporating change? To what extent is there a national VET research capacity, and how is it involved in VET development?
8. Based on the above, what are the main priorities for improving governance and financing in the VET system? What (further) policy initiatives or actions are foreseen for addressing the needs of governance and financing, and how will these policies and actions be implemented at national/regional level? Are there major priorities that are not being adequately addressed by current policies or actions?

³ To this end, you may use the matrix provided at the end of this section (see p. 15).

⁴ See, for example, the EU model of Quality Assurance in VET: www.eqavet.eu/qa/gns/home.aspx.

Recommended quantitative indicators

Question 5

- public expenditure on VET as a percentage of total national spending;
- **public expenditure on VET and on general education by level;**
- cost per pupil attending VET programmes compared to cost per pupil attending general programmes in upper secondary education;
- information on costs of continuing VET.

Recommended sources of quantitative and qualitative evidence

- national/sectoral/local policies on governance;
- studies on governance/decentralisation of the system, etc.;
- legal framework governing VET;
- national/sectoral/local policies on the financing of VET;
- studies on quality in VET;
- description of existing or planned quality assurance systems;
- studies on financing VET, and the legal framework for training funds;
- overview of donor investments in VET;
- reports from interviews, meetings, focus groups and the media.

GOVERNANCE MATRIX¹

ELEMENTS OR FUNCTIONS WITHIN A VET SYSTEM	AUTHORITY	COMPETENCES	RESOURCES	ACCOUNTABILITY
	Who are the actors legally in charge of this function? Have roles ² and responsibilities been adequately defined?	Do actors have the technical competences that are needed to fulfil this function?	Do actors have adequate financial and human resources to fulfil this function?	In what way are the actors in charge made accountable for the work done?
Policies and legislation				
Defining national VET and employment policies				
Monitoring national VET and employment policies				
Legislation for VET (both initial and continuing)				
Qualifications and curricula				
National, sectoral and regional skill and training needs analyses				
Designing a list of occupations				
Definition or revision of standards/qualifications				
Development or revision of curricula (all types)				
Teachers and trainers				
Pre-service training and induction of VET teachers				
Recruitment of teachers				
In-service training of VET teachers				
Teacher appraisal and career development				
VET providers				
Network of providers of - initial VET - continuing VET				
Planning VET programmes and student numbers				
Planning budgets for vocational schools				
Dealing with school expenses (managing school budgets)				

ELEMENTS OR FUNCTIONS WITHIN A VET SYSTEM	ACCOUNTABILITY			
	AUTHORITY	COMPETENCES	RESOURCES	ACCOUNTABILITY
	Who are the actors legally in charge of this function? Have roles ² and responsibilities been adequately defined?	Do actors have the technical competences that are needed to fulfil this function?	Do actors have adequate financial and human resources to fulfil this function?	In what way are the actors in charge made accountable for the work done?
Learning materials and equipment				
Learning materials				
Workshop equipment				
Practical learning sites				
Liaison with employers				
Practical training places within companies				
Apprenticeships				
Assessment and certification				
Assessment of students' skills				
Issuing certificates				
Monitoring and impact				
Monitoring the quality of VET provision				
School-to-work transition surveys or tracer studies for graduates				
Research and innovation				
Research and innovation, including the transfer of innovations from pilot to system level				
Donor coordination				
Efficient coordination of donors in VET				

Notes:

1. The matrix should be amended as appropriate and completed as far as possible. Please consider the various levels involved in the management of the system – from national, regional and local to school (provider) levels.
2. Actors could have decision-making, advisory or executive roles.

KEY INDICATORS THAT WILL BE PROVIDED BY THE ETF STATISTICS TEAM

1. Population

- total population (last 5 years)
- population growth rates (last 5 years)
- population by age group (0–14; 15–24; 25–54; 55–64, 65+) (last 5 years)

Source: UNDP

2. Dependency rates

- total dependency rates (last 5 years)
- young dependency rates (last 5 years)
- old dependency rates (last 5 years)

Source: UNDP

3. Educational attainment of population by gender (last available year)

Source: Labour Force Survey (LFS), national data, where available

4. Illiteracy/literacy rates by gender (last 5 years)

Source: UNESCO

5. GDP growth rate (last 5 years)

Source: World Bank

6. GDP per capita (last 5 years)

Source: World Bank

7. Employment by sector compared to GDP by sector

- employment by main sector (last 5 years)

Source: LFS, national data, where available

- GDP by main sector (last 5 years)

Source: World Bank

8. Competitiveness Index (last 2 years)

Source: World Economic Forum

9. Activity rates by gender (last available year)

Source: LFS, national data, where available

10. Employment rates by gender (last available year)

Source: LFS, national data, where available

11. Unemployment rates by gender (last available year)

Source: LFS, national data, where available

12. Youth unemployment rates, by gender (age 15–24) (last available year)

Source: LFS, national data, where available

13. Changes in employment by status and gender (last 5 years)

Source: LFS, national data, where available

14. Total number of VET students compared to the total number of pupils and students by level and gender (last available year)

Source: UNESCO

15. Public expenditure on education by level (ISCED 2, 3 and 4) (last available year)

Source: UNESCO

16. PISA results (2009)

Source: OECD

3. GUIDELINES ON QUANTITATIVE INDICATORS

3.1 INTRODUCTION

These guidelines are intended to provide the main definitions that will be useful for understanding the indicators suggested in the Analytical Framework of the Torino Process.

If the indicators available in your own country differ in definition, please provide us with the definition used. In addition, please provide the classification used (e.g. educational levels, economic sectors) in case they are different from the ones proposed in Annex 1.

In order to allow detection of significant changes, data should cover a period of time of at least five years.

For further support, please contact the ETF Statistics Team through your ETF country manager.

3.2 LIST OF INDICATORS

B. External efficiency: addressing demographic, economic and labour market needs

TRP12.01	Total population
TRP12.02	Population growth rate
TRP12.03	Dependency ratios
TRP12.04	Proportion of 15–24-year-olds in the total population
TRP12.05	Migration trends (inward and outward)
TRP12.06	Ethnic composition of the population
TRP12.07	Educational attainment of population by age and gender
TRP12.08	Educational attainment of population by urban/rural
TRP12.09	Illiteracy rates/literacy rates
TRP12.10	GDP growth rate
TRP12.11	GDP per capita
TRP12.12	Changes in employment by detailed economic sector
TRP12.13	Changes in employment by occupational field
TRP12.14	Employment by sector compared to GDP by sector
TRP12.15	Enterprise start-up rates
TRP12.16	Competitiveness Index
TRP12.17	Proportion of micro and small companies among active businesses
TRP12.18	Activity rates by gender and educational level
TRP12.19	Employment rates by gender and educational level
TRP12.20	Unemployment rates by gender and educational level

- TRP12.21** Youth unemployment rates by gender and educational level
- TRP12.22** Size of the informal economy/employment
- TRP12.23** Changes in employment by status and gender
- TRP12.24** Public employment as a percentage of total employment
- TRP12.25** Small Business Act Entrepreneurial Learning (EL) Index

C. External efficiency: addressing social demands for VET and promoting social inclusion

- TRP12.26** Participation in adult learning
- TRP12.27** Expenditure on active labour market policies (ALMPs) as a percentage of GDP
- TRP12.28** Percentage of registered unemployed covered by ALMPs
- TRP12.29** Percentage of VET students who continue to higher levels of education
- TRP12.30** Rate of early school leavers
- TRP12.31** Number of people with a disability, Roma people, immigrants, those from ethnic minorities, etc.
- TRP12.32** Proportion of young people not in employment, education or training
- TRP12.33** Poverty and inequality rates (or proportions)
- TRP12.34** Number of first job-seekers and long-term unemployed as a proportion of the total unemployed (aged 15+)
- TRP12.35** Number of VET students as a proportion of the total number of pupils and students by level and gender
- TRP12.36** Participation in VET as a percentage by field of study
- TRP12.37** Drop-out rates in upper secondary, general and VET by gender

D. Internal quality and efficiency of initial and continuing VET delivery

- TRP12.38** PISA, PIRLS and TIMSS
- TRP12.39** Student/teacher ratio by programme
- TRP12.40** Funds invested in teacher training and/or regularity of teacher training for ensuring quality

E. Governance and financing of the initial and continuing VET system and institutional capacities for change

- TRP12.41** Public expenditure on VET as a percentage of total national spending
- TRP12.42** Public expenditure on VET and on general education by level
- TRP12.43** Cost per pupil attending VET programmes compared to cost per pupil attending general programmes in upper secondary education
- TRP12.44** Information on costs of continuing vocational training

3.3 DEFINITIONS⁵ OF INDICATORS FROM THE TORINO PROCESS ANALYTICAL FRAMEWORK

B. External efficiency: addressing demographic, economic and labour market needs

TRP12.01 Total population

Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship, except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. (World Bank)

TRP12.02 Population growth rate

Population growth rate, between two consecutive years (annual growth), is the percentage change from one year to another

TRP12.03 Dependency ratios

Age dependency ratio: The ratio of dependants (people younger than 15 or older than 64) to the working-age population (those aged 15–64). (World Bank)

Age dependency ratio, old: The ratio of older dependants (people older than 64) to the working-age population (those aged 15–64). (World Bank)

Age dependency ratio, young: The ratio of younger dependants (people younger than 15) to the working-age population (those aged 15–64). (World Bank)

TRP12.04 Proportion of 15–24-year-olds in the total population

Number of people aged 15–24 expressed as a percentage of the total population.

TRP12.05 Migration trends (inward and outward)

Migration: The movement of a person or a group of persons, either across an international border, or within a state. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes; it includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes, including family reunification. (International Organisation for Migration (IOM))

Total migration: The sum of the entries or arrivals of immigrants, and of exits or departures of emigrants, yields the total volume of migration, and is termed 'total migration', as distinct from 'net migration', or the migration balance, resulting from the difference between arrivals and departures. (IOM)

Net migration: The difference between the number of persons entering the territory of a state and the number of persons who leave the territory in the same period. Also called 'migratory balance'. This balance is called 'net immigration' when arrivals exceed departures, and 'net emigration' when departures exceed arrivals. (IOM)

Migrant flow: The number of migrants counted as moving or being authorised to move, to or from a given location in a defined period of time. (IOM)

Migrant stock: The number of migrants residing in a country at a particular point in time. (IOM)

TRP12.06 Ethnic composition of the population

The number of people belonging to a particular ethnic group expressed as a percentage of the total population.

The definition of each ethnic group should be according to national standards. Please specify the definition.

TRP12.07 Educational attainment of population by age and gender

Total population by level of education, age group and gender.

Age groups: Usually 0–14, 15–24, 25–54, 55–64 and 65+.

Educational attainment: The highest grade completed within the most advanced level attended in the education system of the country where the education was received.

Educational levels: For comparability reasons it is recommended that ISCED levels should be used (see Annex 1.1).

⁵ The sources of the definitions are given, where relevant.

- TRP12.08 Educational attainment of population by urban/rural**
Follow national definitions for urban and rural areas. Please specify the definition.
- TRP12.09 Illiteracy rates/literacy rates**
Illiteracy rate: The percentage of the population in a given age range (usually 15 and over) who cannot both read and write with understanding a short simple statement on their everyday life. (UNESCO)
Literacy rate: The percentage of the population in a given age range (usually 15 and over) who can both read and write with understanding a short simple statement on their everyday life. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. (UNESCO)
- TRP12.10 GDP growth rate**
GDP growth (annual %): Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant US dollars (using 2000 as the baseyear). (World Bank)
GDP: The sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. (World Bank)
- TRP12.11 GDP per capita**
GDP per capita, PPP (current international dollar): GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the US dollar has in the United States. (World Bank)
GDP at purchaser's prices: The sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current international dollars. (World Bank)
Purchasing power parity (PPP): An exchange rate calculated by comparing the cost of a common basket of commodities in every country and expressing them in an artificial common currency (purchasing power standard (PPS)) that equalises the purchasing power of different national currencies. PPP is both a currency converter and a price deflator, as it eliminates the differences in price levels between countries.
- TRP12.12 Changes in employment by detailed economic sector**
This indicator analyses the annual change in employment by sector; it requires annual data on the total number of people employed, aged 15–64, by economic sector.
Economic sectors: For comparability reasons please refer to NACE classification (see Annex 1.2).
- TRP12.13 Changes in employment by occupational field**
This indicator analyses the annual change in employment by occupation; it requires annual data on the total number of people employed, aged 15–64, by occupation.
Occupational fields: For comparability reasons please refer to ISCO classification (see Annex 1.3).
- TRP12.14 Employment by sector compared to GDP by sector**
This indicator compares data on employment by sector (TRP12.12) and GDP by sector, broken down as follows.
Agriculture, value added (percentage of GDP): Agriculture corresponds to International Standard Industrial Classification (ISIC) divisions 1–5 and includes forestry, hunting and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by ISIC, revision 3. (World Bank)
Industry, value added (percentage of GDP): Industry corresponds to ISIC divisions 10–45 and includes manufacturing (ISIC divisions 15–37). It comprises value added in mining,

manufacturing (also reported as a separate subgroup), construction, electricity, water and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by ISIC, revision 3. (World Bank)

Services, etc., value added (percentage of GDP): Services correspond to ISIC divisions 50–99 and include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional and personal services such as education, health care and real estate services. Also included are imputed bank service charges, import duties and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The industrial origin of value added is determined by ISIC, revision 3. (World Bank)

TRP12.15 Enterprise start-up rate

New enterprises (created within the last year) expressed as a proportion of all enterprises.

TRP12.16 Competitiveness Index

This index captures the microeconomic and macroeconomic foundations of national competitiveness. Competitiveness is defined as the set of institutions, policies and factors that determine the level of productivity of a country.

The index provides a score from 1 to 7 – the higher, the better. (World Economic Forum)

TRP12.17 Proportion of micro and small companies among active businesses

The proportion of micro and small companies expressed as a percentage of the number of active businesses. The definitions of micro and small companies will vary from country to country according to existing national definitions, which should also be provided. The European Commission defines a ‘micro’ enterprise as an enterprise with less than 10 employees and a ‘small’ enterprise as one with less than 50 employees (Recommendation 2003/361/EC).

TRP12.18 Activity rates by gender and educational level

Activity rates (labour force participation rate) represent the labour force as a percentage of the population of working age (typically 15–64 years). The labour force comprises both employed and unemployed persons.

The age range for the working-age population must be clearly stated. It can be 15–64, 15–70 or 15+. It will be beneficial if activity, employment and unemployment rates are calculated on the basis of the same age ranges.

TRP12.19 Employment rates by gender and educational level

The total employment rate is calculated by dividing the number of persons aged 15–64 years (typically) in employment by the total population of the same age group. (Eurostat)

The age range for the working-age population must be clearly stated. It can be 15–64, 15–70 or 15+. It will be beneficial if activity, employment and unemployment rates are calculated on the basis of the same age ranges.

TRP12.20 Unemployment rates by gender and educational level

The total unemployment rate monitors the number of unemployed persons aged 15 and over as a percentage of the labour force. (Eurostat)

The age range for the working-age population must be clearly stated. It can be 15–64, 15–70 or 15+. It will be beneficial if activity, employment and unemployment rates are calculated on the basis of the same age ranges.

TRP12.21 Youth unemployment rates by gender and educational level

Unemployed persons aged 15–24 as a percentage of the labour force aged 15–24.

Unemployed persons aged 25–34 as a percentage of the labour force aged 25–34.

TRP12.22 Size of the informal economy/employment

There is no agreed international definition for the informal economy or employment. Please provide your national definition if you have data on this.

TRP12.23 Changes in employment by status and gender

Status in employment: The status of an economically active person with respect to his or her employment, that is to say, the type of explicit or implicit contract of employment with other persons or organisations that the person has in his/her job.

It is recommended that the economically active population should be classified by status in employment as follows:

- employees, among whom it may be possible to distinguish between employees with stable contracts (including regular employees) and other employees;
- employers;
- own-account workers;
- contributing family workers;
- members of producers' cooperatives;
- persons not classifiable by status.

(ICSE-93)

TRP12.24 Public employment as a percentage of total employment

Number of people employed in the public sector as a proportion of the total number of employed.

Total public sector employment: This covers all employment of the general government sector as defined in System of National Accounts 1993 plus employment in publicly owned enterprises and companies, resident and operating at central, state (or regional) and local levels of government. It covers all persons employed directly by those institutions, without regard for the particular type of employment contract. (ILO)

TRP12.25 Small Business Act Entrepreneurial Learning Index

The ETF's Entrepreneurial Learning Team can provide a comprehensive overview of the entrepreneurial learning indicators and a given country's assessment. This can be done for countries that have participated in an assessment of the national entrepreneurial learning environment. This information will be provided to the relevant country teams.

C. External efficiency: addressing social demands for VET and promoting social inclusion**TRP12.26 Participation in adult learning**

Percentage of 25–64-year-olds having participated in lifelong learning by gender.

Percentage of 25–34-year-olds having participated in lifelong learning by gender.

This is understood to mean having participated in any training or learning activity in the four-week reference period prior to the interview (it is assumed that data will come from labour force surveys or similar).

TRP12.27 Expenditure on active labour market policies (ALMPs) as a percentage of GDP

ALMPs: These include all social expenditure (other than education) that is aimed at improving the beneficiaries' prospect of finding gainful employment or otherwise increasing their earnings capacity. This category includes spending on public employment services and administration, labour market training, special programmes for young people when in transition from school to work, labour market programmes to provide or promote employment for unemployed and other persons (excluding young and disabled persons) and special programmes for those with a disability.

TRP12.28 Percentage of registered unemployed covered by ALMPs

Number of registered unemployed people covered by ALMPs, expressed as percentage of total registered unemployment.

Registered unemployment: This includes persons aged 15 and over who are registered with the official employment agency and are seeking temporary or permanent work. They must have the right to work, be available for work, be capable of working and be without gainful employment on the day of the unemployment count. (OECD)

- TRP12.29 Percentage of VET students who continue to higher levels of education**
 Number of VET students who continue to higher levels of education, expressed as a percentage of the total number of VET students.
VET: See ISCED 97 educational programmes in Annex 1.1.
- TRP12.30 Rate of early school leavers**
 Proportion of the population aged 18–24 with at most ISCED level 2 (i.e. those with an education below upper secondary qualification), and not in education or training. (Eurostat)
- TRP12.31 Number of people with a disability, Roma people, immigrants, those from ethnic minorities, etc.**
 Number of people with a disability, Roma people, immigrants and those from ethnic minorities (as defined nationally) as a proportion of the total population. Please provide the national definitions where relevant.
- TRP12.32 Proportion of young people not in employment, education or training**
 Number of people aged 15–24 who are not in employment, education or training, as a percentage of the total number of people aged 15–24. If national data do not allow for the use of this age range, please provide a clear indication of the age range that has been used.
- TRP12.33 Poverty and inequality rates (or proportions)**
Poverty headcount ratio at US dollars (USD) 1.25 or USD 2 a day, percentage of population: The percentage of the population living with less than USD 1.25 or USD 2 a day at 2005 international prices. (World Bank)
At-risk-of-poverty rate: The proportion of people who have an equivalised disposable income below the at-risk-of-poverty threshold (set at 60% of the national median equivalised disposable income). (Eurostat)
Equivalised income: The household's total income divided by its 'equivalised size'. Each household member is treated according to the 'modified OECD equivalence scale', which gives a weight of 1.0 to the first adult, 0.5 to any other household member aged 14 and over, and 0.3 to each child. It takes account of the **size** and **composition** of the household.
Gini coefficient: Measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A value of 0 indicates total equality and a value of 1 maximal inequality (sometimes it is multiplied by 100). (World Bank)
- TRP12.34 Number of first job-seekers and long-term unemployed as a proportion of the total unemployed (aged 15+)**
 Unemployed persons aged 15+ who are looking for a job for the first time as a percentage of the total unemployed aged 15+.
 Unemployed persons aged 15+ who are long-term unemployed as a percentage of the total unemployed aged 15+.
Long-term unemployed: Persons who have been unemployed for 12 months or more. (Eurostat)
- TRP12.35 Number of VET students as a proportion of the total number of pupils and students by level and gender**
 Number of students enrolled in VET as a percentage of the total number of students enrolled in the educational levels concerned. (The educational levels that include VET programmes vary between countries, but are usually ISCED 2, 3 or 4.)
 Number of students enrolled in the different educational levels by gender.
VET and educational levels: See ISCED 97 educational programmes and levels in Annex 1.1.
- TRP12.36 Participation in VET as a percentage by field of study**
 Percentage of students enrolled in VET programmes by field of study.
Fields of study: See ISCED 97 broad groups and fields of education in Annex 1.1.

TRP12.37 Drop-out rates in upper secondary, general and VET by gender

Proportion of pupils/students from a cohort enrolled in a given level, in a particular programme, in a given school year who are no longer enrolled in the following school year.

Upper secondary education: See ISCED 97 educational levels in Annex 1.1.

General and VET: See ISCED 97 educational programmes in Annex 1.1.

D. Internal quality and efficiency of initial and continuing VET delivery**TRP12.38 PISA, PIRLS and TIMSS**

Programme for International Student Assessment (PISA): Assesses how far students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in society. In all cycles, the domains of reading, mathematical and scientific literacy are covered, not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult life. (OECD)

Progress in International Reading Literacy Study (PIRLS): Focuses on the achievement of children in their fourth year of schooling and the experiences they have at home and at school in learning to read. For PIRLS, reading literacy is defined as the ability to understand and use those written language forms required by society and/or valued by the individual. (International Association for the Evaluation of the Educational Achievement (IEA))

Trends in International Mathematics and Science Study (TIMSS): Carried out every four years at the fourth and eighth grades, and provides data about trends in mathematics and science achievement over time. (IEA)

TRP12.39 Student/teacher ratio by programme

Average number of pupils (students) per teacher at a specific level of education in a given school year.

Educational programmes: See ISCED 97 educational programmes in Annex 1.1.

TRP12.40 Funds invested in teacher training and/or regularity of teacher training for ensuring quality

Training of trainers: Theoretical or practical training for teachers and trainers:

- is for teaching/training personnel who are practising either: (i) as professional teachers or trainers; or (ii) as professionals in a given field who accompany trainees in their work environment (occasional teachers or trainers);
- covers a wide range of skills: knowledge specific to the field in question (general, technical or scientific); educational, psychological and sociological skills; management skills; familiarity with the world of work; and knowledge of training schemes and target audience;
- covers training relating to course design, and to the organisation, implementation and content of training activities, i.e. imparting knowledge, know-how and skills.

(Cedefop)

E. Governance and financing of the initial and continuing VET system and institutional capacities for change**TRP12.41 Public expenditure on VET as a percentage of total national spending**

Public expenditure on VET as a proportion of national gross domestic product (GDP).

Public expenditure on VET as a proportion of total government expenditure.

Public expenditure on VET as a proportion of total public education expenditure.

VET: See ISCED 97 educational programmes in Annex 1.1.

TRP12.42 Public expenditure on VET and on general education by level

Public expenditure on education by educational programme and level, for the national educational levels that include VET programmes.

Educational level: See ISCED 97 educational levels in Annex 1.1.

Educational programme: See ISCED 97 educational programmes in Annex 1.1.

TRP12.43 Cost per pupil attending VET programmes compared to cost per pupil attending general programmes in upper secondary education

Expenditure on VET divided by the number of pupils enrolled in VET, and expenditure on general programmes divided by the number of pupils enrolled in general programmes.

Educational programmes: See ISCED 97 educational programmes in Annex 1.1.

Upper secondary education: See ISCED 97 educational levels in Annex 1.1.

TRP12.44 Information on costs of continuing vocational training

Continuing vocational training and adult learning: Continuing vocational training takes place after initial education or entry into working life and aims to help people to improve or update their knowledge and skills or to acquire new ones. (Cedefop)

ANNEXES

ANNEX 1. ISCED 97, NACE AND ISCO CLASSIFICATIONS

Annex 1.1 ISCED 97 – International Standard Classification of Education (UNESCO)

GENERAL SCHEME

LEVEL	NAME	PROGRAMMES
ISCED 0	Pre-primary education	
ISCED 1	Primary education or first stage of basic education	
ISCED 2	Lower secondary or second stage of basic education	2A – general education 2B – general education 2C – vocational education and training
ISCED 3	Upper secondary education	3A – general education 3B – general education 3C – vocational education and training
ISCED 4	Post-secondary non-tertiary education	4A – general education 4B – vocational education and training
ISCED 5	First stage of tertiary education	5A – general education 5B – vocational education and training
ISCED 6	Second stage of tertiary education	

EDUCATIONAL LEVELS

Pre-primary education (ISCED 0)

Programmes at the initial stage of organised instruction, primarily designed to introduce very young children, usually from the age of three, to a school-type environment, and provide a bridge between home and school. Upon completion of these programmes, children continue their education at ISCED 1 (primary education).

Primary education (ISCED 1)

Programmes normally designed on a unit or project basis to give pupils a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music. Religious instruction may also be featured. Sometimes called 'elementary education'.

Lower secondary education (ISCED 2)

Programmes typically designed to complete the development of basic skills and knowledge that began at ISCED 1. In many countries the educational aim is to lay the foundation for lifelong learning and individual development. The programmes at this level are usually on a subject-oriented pattern, requiring specialist teachers for each subject area. The end of this level often coincides with the end of compulsory education.

Upper secondary education (ISCED 3)

This level of education typically begins at the end of full-time compulsory education, for those countries that have a system of compulsory education. More specialisation may be observed at this level than at ISCED 2, and often teachers need to be more qualified or specialised. The age of entry to this level is typically 15 or 16 years.

Post-secondary non-tertiary education (ISCED 4)

Programmes that lie between the upper secondary and tertiary levels of education from an international point of view, even though they may be clearly considered as upper secondary or tertiary programmes in a national context. They are often not significantly more advanced than programmes at ISCED 3 (upper secondary), but they serve to broaden the knowledge of participants who have already completed a programme at level 3. The students are usually older than those at level 3. ISCED 4 programmes typically last between six months and two years.

Tertiary or higher education (ISCED 5 and 6)

Programmes with an educational content more advanced than that offered at ISCED 3 and 4. The first stage of tertiary education, ISCED 5, covers level 5A, which consists of mainly theory-based programmes intended to provide sufficient qualifications for gaining entry to advanced research programmes and professions with high skill requirements; and level 5B, where programmes are generally more practical, technical and/or occupationally specific. The second stage of tertiary education, ISCED 6, comprises programmes devoted to advanced study and original research, leading to the award of an advanced research qualification.

EDUCATIONAL PROGRAMMES

General education

Education that is mainly designed to lead participants to a deeper understanding of a subject or group of subjects, especially – though not necessarily – with a view to preparing participants for further (additional) education at the same or a higher level. Successful completion of these programmes may or may not provide the participants with a labour-market-relevant qualification at this level. These programmes are typically school based. Programmes with a general orientation and not focusing on a particular specialisation should be classified in this category.

Pre-vocational or pre-technical education

Education that is mainly designed to introduce participants to the world of work and to prepare them for entry into vocational or technical education programmes. Successful completion of such programmes does not yet lead to a labour-market-relevant vocational or technical qualification. For a programme to be considered as pre-vocational or pre-technical education, at least 25% of its content must be vocational or technical. This minimum is necessary to ensure that the vocational or technical subject is not merely one among many others.

Vocational or technical education

Education that is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade, or class of occupations or trades. Successful completion of such programmes leads to a labour-market-relevant vocational qualification recognised by the competent authorities in the country in which it is obtained (e.g. Ministry of Education, employers' association, etc.).

BROAD GROUPS AND FIELDS OF EDUCATION

0 General programmes	01 Basic programmes
	08 Literacy and numeracy
	09 Personal development
1 Education	14 Teacher training and education science
2 Humanities and arts	21 Arts
	22 Humanities
3 Social sciences, business and law	31 Social and behavioural science
	32 Journalism and information
	34 Business and administration
	38 Law
4 Science	42 Life sciences
	44 Physical sciences
	46 Mathematics and statistics
	48 Computing
5 Engineering, manufacturing and construction	52 Engineering and engineering trades
	54 Manufacturing and processing
	58 Architecture and building
6 Agriculture	62 Agriculture, forestry and fishery
	64 Veterinary
7 Health and welfare	72 Health
	76 Social services
8 Services	81 Personal services
	84 Transport services
	85 Environmental protection
	86 Security services
Not known or unspecified	

For further details: www.unesco.org/education/information/nfsunesco/doc/iscled_1997.htm

BROAD GROUPS AND MAIN CORRESPONDENCES

	NACE REV 1.1	NACE REV 2
Agriculture	Agriculture, hunting, forestry and fishing	Agriculture, forestry and fishing
Industry	Mining and quarrying	Mining and quarrying
	Manufacturing	Manufacturing
	Electricity, gas and water supply	Electricity, gas, steam and air conditioning supply
		Water supply; sewerage, waste management and remediation activities
	Construction	Construction
Services	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	Wholesale and retail trade; repair of motor vehicles and motorcycles
	Hotels and restaurants	Accommodation and food service activities
	Transport, storage and communication	Transportation and storage
		Information and communication
	Financial intermediation	Financial and insurance activities
	Real estate, renting and business activities	Real estate activities
		Professional, scientific and technical activities
		Administrative and support service activities
	Public administration and defence; compulsory social security	Public administration and defence; compulsory social security
	Education	Education
	Health and social work	Human health and social work activities
	Other community, social, personal service activities	Arts, entertainment and recreation
		Other service activities
	Activities of households	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
	Extra-territorial organisations and bodies	Activities of extra-territorial organisations and bodies

For further details:

<http://circa.europa.eu/irc/dsis/nacecpacon/info/data/en/NACE%20Rev%202%20structure%20+-%20explanatory%20notes%20-%20EN.pdf>

Annex 1.3 ISCO – International Standard Classification of Occupations (ILO)

MAIN GROUPS

ISCO 08 CODE	TITLE
1	Managers
2	Professionals
3	Technicians and associate professionals
4	Clerical support workers
5	Service and sales workers
6	Skilled agricultural, forestry and fishery workers
7	Craft and related trades workers
8	Plant and machine operators, and assemblers
9	Elementary occupations
0	Armed forces occupations

For further details: www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm

ANNEX 2. TORINO DECLARATION

11 May 2011

We, the participants at the high level international conference ‘Torino Process: Learning from Evidence’, organised by the European Training Foundation (ETF) in Turin on 9-11 May 2011, representing the ETF partner countries, European Union Member States and international organisations discussed the importance of evidence in the vocational education and training policy cycle.

Our discussions were inspired by European policies, tools and approaches, and in particular the Education and Training 2020 initiative, the EU Employment Strategy, the Copenhagen Process, and the external relations policies which place skills at the heart of sustainable development. Our work has also been framed by the increasing attention given to skills strategies for strong economic development and job creation in the international community, including the G20. Our debates have also been enriched by evidence of progress in reform in VET illustrated by cases from the ETF partner countries. These inspirations will help us to improve our VET policies and systems according to our contexts.

For the ETF’s partners, the Torino Process has provided a valuable opportunity to review the efficiency and effectiveness of VET policies. This includes their contribution to sustainable and inclusive growth and economic development. The Torino Process confirmed priorities for the further development of our VET policies and systems, as well as for policy dialogue with the EU and international community. In particular, the following policy priorities were confirmed during the conference:

- ensuring the relevance of skills provision and increased employability;
- providing an integrated, lifelong learning approach to education and training;
- supporting the changing role of the teachers, trainers and managers of VET institutions;
- improving opportunities for access to education and training for all;
- investing in quality and improving the attractiveness of VET;
- reinforcing anticipatory, inclusive and good multi-level governance, also through education and business cooperation and enhanced social dialogue;
- stimulating creativity and innovation also through entrepreneurial learning.

The Torino Process has underlined the value of structured evidence in guiding policy decisions from formulation, adoption and implementation to monitoring and evaluation in line with international developments. In addition, the assessment methodology adopted by the Torino Process, inspired by the Bruges Review, has encouraged national authorities to take a leading role in driving the assessment process. This helps to build a strong sense of ownership for the outcomes. The participatory approach has also reinforced the role of national networks of stakeholders representing economic and social interests in the policy cycle under the leadership of national institutions. The Torino Process has also provided a framework for peer-to-peer learning, policy dialogue and exchange with other partners facing similar policy challenges, including the European Union institutions and Member States.

The conference provided a structured opportunity for institutions and experts to share practice and experience on the contribution of evidence to policy making, as well as the importance of methods, tools and inter-institutional cooperation. As a result, we identified a number of short-term actions for consideration by each country according to its context:

- articulate a strong vision;
- focus on solutions with sustainable results in mind;
- strengthen national partnerships and peer learning opportunities;
- strengthen governance and accountability.

The conference was an important occasion for policy leaders to work together to share knowledge and build a network across the countries and with the EU institutions. It was a strategic and effective platform for tackling the critical socio-economic policy challenges facing our countries, with a view to boosting youth employment through improving the transition from education to work; and increasing the contribution of VET to competitiveness through creativity and innovation.

We appreciate the launch of the second 2012 round of the Torino Process at the conference to update the 2010 assessment. We acknowledge the principles reaffirmed for the second round, notably:

- the holistic approach linking education, training, employment, economic and social development;
- the importance of national ownership and leadership;
- the active participation of social and economic stakeholders in the process;
- the focus on evidence to guide decisions through the policy cycle.

We welcome the ETF's support and cooperation for the second round, and call upon the EU and the international community to cooperate in the review process and its outcomes.

We welcome the ETF Torinet initiative to build capacity in partner countries in this critical area.

We call for the EU, through the ETF, to continue providing opportunities for policy learning at the highest level.

Finally we thank the ETF for this rich opportunity and call upon the agency to arrange a further occasion for policy learning to celebrate the second round of the Torino Process.

ACRONYMS

ALMPs	Active labour market policies
Cedefop	European Centre for the Development of Vocational Training – EU agency (Centre européen pour le développement de la formation professionnelle)
ETF	European Training Foundation – EU agency
EU	European Union
GDP	Gross domestic product
ILO	International Labour Organisation
IOM	International Organisation for Migration
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification
LFS	Labour Force Survey
NACE	Classification of Economic Activities in the European Community (Nomenclature des activités économiques dans la Communauté européenne)
OECD	Organisation for Economic Cooperation and Development
PIRLS	Progress in International Reading Literacy Study (OECD)
PISA	Programme for International Student Assessment (OECD)
PPP	Purchasing power parity
TIMSS	Trends in International Mathematics and Science Study (OECD)
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USD	US dollar
VET	Vocational education and training

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