

**CEDEFOP**European Centre for the Development
of Vocational Training

Area Resources

Finance and Procurement, Procurement Service

RES/PRO/DELE/RB(2013)02880
Thessaloniki, 17/12/2013

OPEN INVITATION TO TENDER

AO/RPA/KPOUL-AZU/Prioritising_Skill_Mismatches/015/13**“Measuring Performance of EU Member States Skills Systems and Prioritising Skill Mismatches”**REFERENCE: **Contract notice – 2013/S – 243-422079 of 14/12/13**

Dear Sir/Madam,

We thank you for the interest you have shown in this tender.

The purpose of this tender and additional information necessary to present a tender can be found in the attached Tender Specifications. You should note however the following important points concerning the submission of a tender and its implications.

1. Tenders (and documents included in them) should be submitted preferably in English, but in any case in one (or in any) of the official languages of the European Union.
2. Tenders may be submitted exclusively in one of the following ways:
 - a) **by post** to be dispatched **not later than the date and time specified in the timetable in point 8 below**, in which case the evidence shall be constituted by the date of dispatch on the postmark or the date of the deposit slip, to the following post address of Cedefop:

**European Centre for the Development of Vocational Training (Cedefop),
Procurement Service, Attention of Mr G. Paraskevaidis
PO Box 22 427
GR – 55102 Thessaloniki, Greece**

Important:

If using a postal service, tenderers must use a registered, reliable one. If no postmark has been stamped or if the postmark is not legible, Cedefop will accept deposit slip issued by the postal service, provided that this clearly indicates the date as filled in by the post office and not by the tenderer.

Tenderers shall inform Cedefop by e-mail (c4t-services@cedefop.europa.eu) or fax (+30 2310 490028)

- ✓ *that they have submitted an offer in time, and*
- ✓ *that they request Cedefop to confirm receipt of the e-mail or fax.*

Tenderers should not attach their offer to any of the above informative e-mail or fax.

or

- b) **by courier service** to be dispatched not later than **the date and time specified in the timetable in point 8 below**, in which case the evidence shall be constituted by the date of dispatch to the address below or the date of the deposit slip,

or

- c) **delivered by hand** not later than **the date and time specified in the timetable in point 8 below**, in which case a receipt must be obtained as proof of submission, signed and dated by the official in the above mentioned Service who took delivery,

to the following address (for points **(b1)** and **(b2)** above):

**European Centre for the Development of Vocational Training (Cedefop),
Procurement Service, Attention of Mr G. Paraskevaidis
123, Europe Str,
GR-57001 Thessaloniki-Pylea, Greece
Tel: +30 2310 490111 / 490 064**

Please note that Cedefop is open from 09h00 to 17h00, Monday to Friday. It is closed on Saturday, Sunday and Cedefop holidays.

3. Tenders must be submitted strictly adhering to the following.
Tenders must be submitted in a sealed envelope itself enclosed within a second sealed envelope. If self-adhesive envelopes are used, they must be sealed with adhesive tape and the sender must sign across this tape.
The **outer envelope**, addressed simply to Cedefop (address depending on the means of submission, see point 2 above), should only bear additionally **the name and address** of the sender.
The **inner envelope**, addressed to the Procurement Service must bear a self-adhesive label with the indication **“Open Invitation to tender – Not to be opened by the internal mail service”** and all the necessary information, as shown below:

OPEN INVITATION TO TENDER

CEDEFOP No: AO/RPA/KPOUL-AZU/Prioritising_Skill_Mismatches/015/13

“Measuring Performance of EU Member States Skills Systems and Prioritising Skill Mismatches”

Name of tenderer:

NOT TO BE OPENED BY THE INTERNAL MAIL SERVICE

The inner envelope must also contain three sealed envelopes, namely, Envelope A – “Supporting Documents”, Envelope B – “Technical Proposal” and Envelope C – “Financial Proposal”. The content of each of these three envelopes is described in Section 6 of the attached Tender Specifications.

4. Tenderers must ensure that their tenders are signed by an authorised representative and that tenders are legible. It is mandatory to include in the offer a **Cover Letter, signed by the person/s that is/are authorised to sign the contract in case of contract award, stating that the tenderer accepts in full and without restriction the requirements of these Tender Specifications, and the Special and General conditions governing this contract as the sole basis of this tendering procedure** (see also point 1 of the Tender Specifications).

5. **Submission of a tender implies acceptance of all the terms and conditions set out in this Invitation to Tender, in the specifications and in the draft contract** and, where appropriate, waiver of the tenderer's own general or specific terms and conditions. It is binding on the tenderer to whom the contract is awarded for the duration of the contract.
6. The opening of tenders will take place at Cedefop on the date and time specified in the timetable in point 8 below. Each tenderer may be represented at the opening of tenders by one person. The name of the person attending the opening must be notified in writing by fax (Fax No +30 2310 490 028) or by e-mail (C4T-services@cedefop.europa.eu) at least two working days prior to the opening session.
7. Contacts between the contracting authority (Cedefop) and tenderers are prohibited throughout the procedure save in exceptional circumstances and under the following conditions only:

7.1 Contacts before the final date for submission of tenders:

- At the request of the tenderer, the Cedefop Procurement Service may provide additional information solely for the purpose of clarifying the tender documents. Any request for additional information must be made in writing by e-mail (C4T-services@cedefop.europa.eu) or by fax (fax No +30 2310 490 028).

Requests for additional information/clarification (if any) from potential tenderers should preferably be written in English and should be received by the date and time as specified in the timetable in point 8 below. No such requests will be processed after that date.

- Cedefop may, on its own initiative, inform interested parties of any error, inaccuracy, omission or any other clerical error in the text of the call for tenders.

The Answers/Clarifications of Cedefop to the requests for additional information/clarification of the tenderers, including that referred to above, will be published on Cedefop's website under the same link where this Open Tender Procedure is announced (<http://www.cedefop.europa.eu/EN/working-with-us/public-procurements/calls-for-tenders.aspx>).

Tenderers must ensure that they visit regularly the site for updates up to the closing date for receipt of tenders.

7.2 Contacts after the final date for submission of tenders and before opening:

- Tenderers should not contact the Contracting Authority (i.e. Cedefop) on their own initiative.
- Tenderers are not allowed to amend their offers, e.g. by completing the documents they sent, replacing them with amended ones or sending new documents initially not included in the tender, as this may lead to rejection of the tender at a later stage. Any such need for additional information/document identified by the Evaluation Committee during the evaluation process will be notified to the tenderer concerned at Cedefop's initiative, providing for a reasonable deadline for response (see also the provisions under the heading below).

7.3 Contacts after the opening of tenders:

- Tenderers should not contact Cedefop on their own initiative at that stage.
- If clarification on the compliance with the Eligibility and/or Selection Criteria is required or if obvious clerical errors in the tender need to be corrected Cedefop may contact tenderer/s in writing to obtain further clarification or documents on specific points of the tender or to correct obvious clerical errors.

- If the necessary information and/or supporting documents for the assessment of an award criterion are missing, these may not be requested as clarification if this might alter the proposal. Any requests for clarification in that regard should not lead to amendment of the terms of the tender. Tenderers must not modify their tender or add any new elements to it. The reply must therefore make clear reference to the relevant information already present in the file. This will serve solely the purpose to provide the Evaluation Committee with a clarification regarding the technical proposal, provided the terms of the tender are not modified as a result.
- In regards to possible clarifications on obvious clerical errors in the financial offer, tenderers must not add any new prices, but only explain the quotation on the basis of elements and prices already present in the offer. In case a tenderer alters his financial offer during a clarification (beyond the correction of any obvious clerical/calculation errors), this offer will be automatically rejected.
- Tenderers should be prepared to reply to such requests for clarification within a short reasonable deadline as it will be stated in the request for clarification.

8. Timetable:

	DATE	TIME
Deadline to request any clarification from the Contracting Authority (Cedefop)	12/02/2014	n/a
Last date on which clarifications are issued by Cedefop	as soon as possible	n/a
Deadline for submission of tenders (hand delivered)	20/02/2014	17h00
Deadline for submission of tenders by post / courier	20/02/2014	n/a
Validity of the tenders	20/08/2014	n/a
Tender opening session	06/03/2014	11h00

Please note that **Cedefop will be closed between 23/12 and 1/1/2014 for Christmas and New Year Holidays**. Any request for clarification received during the closure will be processed beginning of January 2014.

9. Tenderers must maintain the validity of their tender for at least 6 months following the deadline of submission of tenders.

In exceptional cases, before the period of validity expires, Cedefop may ask the tenderers to extend the period for a specific number of days, which may not exceed 40.

The selected tenderer must maintain his tender for a further period of 60 days from the date of notification that his tender has been recommended for the award of the contract. The further period of 60 days is added to the initial period of 6 months irrespective of the date of notification.

10. All costs incurred in preparing and submitting tenders should be borne by the tenderers.
11. Up to the point of signature, the contracting authority may either abandon the procurement or cancel the award procedure, without the candidates or tenderers being entitled to claim any compensation. If such decision is taken, the tenderers will be notified accordingly.
12. This invitation to tender is in no way binding on Cedefop. Cedefop's contractual obligation commences only upon the signature of the Contract with the successful tenderer.

13. Evaluating your tender and your possible subsequent replies to questions in accordance with the specifications of the invitation to tender, will involve the recording and processing of personal data (such as your name, address and CV). Unless indicated otherwise, such personal data will be processed by Cedefop's Finance and Procurement Service solely for that purpose and pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of data by the Union institutions and bodies and on the free movement of such data. Details concerning the processing of your personal data are available on the privacy statement at: http://ec.europa.eu/dataprotectionofficer/privacystatement_publicprocurement_en.pdf.
- You have the right of recourse at any time to the European Data Protection Supervisor for matters relating to the processing of your personal data
14. Your personal data (name, given name if natural person, address, legal form, registration number and name and given name of the persons with powers of representation, decision-making or control, if legal person) may be registered in the Early Warning System (EWS) only or both in the EWS and Central Exclusion Database (CED) by the Accounting Officer of the Commission, should you be in one of the situations mentioned in:
- the Commission Decision 2008/969 of 16.12.2008 on the Early Warning System (for more information see the Privacy Statement on http://ec.europa.eu/budget/info_contract/legal_entities_en.htm), or
 - the Commission Regulation 2008/1302 of 17.12.2008 on the Central Exclusion Database (for more information see the Privacy Statement on http://ec.europa.eu/budget/library/sound_fin_mgt/privacy_statement_ced_en.pdf).
15. All tenderers will be informed in writing of the results of this tender procedure.

Yours sincerely,

signed G. Paraskevaïdis

Head of Finance and Procurement

OPEN INVITATION TO TENDER

AO/RPA/KPOUL-AZU/Prioritising_Skill_Mismatches/015/13

**MEASURING PERFORMANCE OF EU MEMBER STATES SKILLS
SYSTEMS AND PRIORITISING SKILL MISMATCHES**

TENDERING SPECIFICATIONS

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INTRODUCTION TO CEDEFOP - EUROPE'S AGENCY FOR TRAINING POLICY

Source: <http://www.cedefop.europa.eu/EN/about-cedefop.aspx>

To provide people with the skills they need, vocational education and training systems (VET) need to adapt quickly to changing demands. European VET policy's central aim is to promote excellence through VET. To make it both an attractive learning option for the brightest and best young people and adults and an effective way of helping those with low levels of qualification to develop their skills.

Cedefop, (the European Centre for the Development of Vocational Training) founded in 1975 and based in Greece since 1995, is a European Union (EU) agency. It provides the European Commission, Member States ⁽¹⁾ and social partners with insights into trends concerning VET and offers advice on how European VET policy should meet the challenges Europe and its citizens face.

The evidence Cedefop provides comes from its:

- Monitoring of VET policy developments and reforms in Member States;
- Comparative research and analyses, including anticipation of future skill supply and demand;
- Forums for debates among policy-makers, social partners, researchers and practitioners on the best ways to tackle the challenges Europe faces.

Cedefop's objective and priorities for 2012-14

Cedefop's activities are guided by its strategic objective and medium-term priorities for 2012-14. Cedefop's strategic objective is to contribute to designing and implementing policies for an attractive VET, that promotes excellence and social inclusion and to strengthening European cooperation in developing, implementing and analysing European VET policy. This objective is supported by three priorities:

- **Supporting modernisation of VET systems**

Modern VET systems must be relevant to individual and labour market needs. They should take into account learning acquired in different ways (for example through work experience) and at different times, and allow people to move between countries and sectors.

Member States decide national VET policies and Cedefop monitors and reports on the reforms and changes they make to their systems. Cedefop also works to improve international VET statistics.

European cooperation in VET, led by the European Commission working with Member States and social partners, has agreed shared objectives. As part of this cooperation, Cedefop has helped develop, and is now working to implement, common European tools and principles which aim to make it both easier to work and study abroad and move between different parts of a national education and training system (for example between general and vocational education).

¹ Cedefop also works with Iceland and Norway

- **Careers and transitions – Continuing VET, adult and work-based learning**

Today, people are likely to change jobs more often. Cedefop is looking at how continuing training and work-based learning for adults can help people to manage their careers better and improve their job prospects. Cedefop is also examining how work-based learning for adults can help enterprises to deal with technological change, generate innovation and increase competitiveness.

New demands are also being made of VET teachers and trainers and Cedefop is looking at their changing roles and their skill and learning needs.

- **Analysing skills needs to inform VET provision**

Europe's growth and competitiveness will be held back if people's skills do not meet job requirements. Unemployment currently coexists with skill shortages. Understanding and anticipating the skills required helps ensuring that training meets labour market needs. It helps to promote a better match between individuals' potential and jobs' requirements.

Cedefop's skill needs analysis provides insights into the trends that influence skill supply and demand and the imbalances that may arise both in the EU and individual Member States. Cedefop is also finding out more about sectorial and occupational developments, such as the demand for 'green' skills for sustainable growth and, as the population ages, the potential for jobs creation and impact of skill needs of the 'silver' economy.

CEDEFOP'S INFORMATION

Cedefop shares its expertise through its publications, networks, conferences, seminars and web portal <http://www.cedefop.europa.eu>. The web portal provides news on Cedefop's major themes "Identifying skills needs", "Understanding qualifications", "Analysing policy" and "Developing lifelong learning". All Cedefop [publications](#) are available for download. Cedefop hosts and organises conferences and events throughout the year. Cedefop also coordinates the study visits programme for the European Commission. [Study visits](#) are short-term visits of three to five days for a small group of 10 to 15 specialists to examine a particular aspect of lifelong learning.

In addition to its web portal <http://www.cedefop.europa.eu>, Cedefop's work can be followed on Facebook at <http://www.facebook.com/cedefop> and Twitter at <http://www.twitter.com/cedefop>.

1 OVERVIEW OF THIS TENDER PROCEDURE

In submitting his tender in response to this tender procedure, the tenderer accepts in full and without restriction the requirements of these Tender Specifications, and the Special and General conditions governing this contract as the sole basis of this tendering procedure, whatever his own conditions of sale and terms of business may be, which he hereby waives. No account can be taken of any reservation or disclaimer expressed in the tender as regards the tender dossier's Tender Conditions and Specifications and the Contract's Special and General Conditions. If necessary, clarification may be requested by the potential tenderer concerned while the tender submission phase is open – see point 7 of the Invitation to tender. Any reservation or disclaimer may result in the rejection of the tender without further evaluation on the grounds that it does not comply with the conditions of the Tender Dossier.

Tenderers are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this tender dossier. Failure to submit a Technical and Financial Proposals containing all the required information and documentation may lead to the rejection of the tender.

1.1 Description and type of the contract

- a) Title of the contract: Measuring performance of EU Member States skill systems and prioritising skill mismatches
- b) Purpose of the contract: The purpose of this contract is twofold:
 - (1) to develop a methodology and a policy tool - a skills monitoring index - that can be used to evaluate the performance of EU Member States' skills systems (e.g. in terms of skill development, activation and utilisation);
 - (2) to use a 'risk-based approach' in order to identify and prioritise occupations that are susceptible to skill mismatch (i.e. skill shortages or surpluses) and are of high economic importance in each EU Member State. To achieve these goals at both country and occupational level, the proposed system should exploit (and combine in the form of suitable composite indices) a set of informative and transparent quantitative indicators of skills (e.g. skill demand, skill supply and skill utilisation) along with qualitative inputs. The aim of this project is to assess the performance of EU Member States' skills systems and to provide early warning signals of the presence of skill mismatches in occupations of priority economic relevance.
- c) Type of contract: Service contract (Study contract related to research)

1.2 Place of delivery or performance

The tasks must be completed externally.

1.3 Division into lots

This invitation to tender is **not** divided into lots.

1.4 Variants

Tenderers **may not** offer variant solutions to what is requested in the technical specifications.

1.5 Value or quantity of purchase

The estimated total budget for the required services described in this call for tenders is of the order of **400.000 EUR, excluding VAT**.

1.6 Duration of the contract

The contract shall enter into force on the date of signature of the last contracting party (i.e. Cedefop) and shall have duration of **twenty-four (24) months**.

1.7 Main terms of financing and payment

Payments will be made as follows:

- Pre-financing: 30% after contract signature and within 30 days of submission of invoices and at the conditions set out in the draft contract.
- 1st Interim payment: 20% after submission of interim report 2.2 and within 60 days of submission of invoices and at the conditions set out in the draft contract.
- 2nd Interim payment: 20% after submission of interim report 2.4 and within 60 days of submission of invoices and at the conditions set out in the draft contract.
- Payment of the balance: 30% after submission of final report and within 60 days of submission of invoices and at the conditions set out in the draft contract.

For further details please refer to the draft contract (annex B to the tender documents).

1.8 Publication rights and intellectual property

Following the provisions of the service contract to be signed and Cedefop's citation policy, Cedefop's name will appear on the title page of publications. Acknowledgment to the external service providers/contractors, experts and other contractors will appear on a specific acknowledgement page. Articles published by Cedefop in readers will bear the name of their authors and be cited as such.

Any results or rights, including copyright and other intellectual or industrial property rights, obtained in performance of the Contract, shall be owned solely by Cedefop, which may use, publish, assign or transfer them as it sees fit, without geographical or other limitation. Please note that Cedefop shall not be required to distribute or publish documents or information supplied in performance of the Contract.

Documents and/or analyses based in whole or in part upon the work undertaken in the context of the contract may be published given prior written approval by Cedefop.

2 TERMS OF REFERENCE

2.1 Background

Cedefop's skill demand and skill supply forecast ⁽²⁾ provides a core input to debates on future developments in education and training in European Member States ⁽³⁾. To complement its forecasts, Cedefop is also analysing skill mismatch. The work carried out in this context in recent years has aimed to address several research priorities, such as improving conceptual definitions and better understanding the impact of skill mismatch on vulnerable groups of the population ⁽⁴⁾. It has also examined the extent of skill shortages in EU labour markets and the importance of firm and country characteristics ⁽⁵⁾, while it has constructed indicators of potential imbalances between labour supply and labour demand in EU Member States ⁽⁶⁾. Cedefop investigates and synthesises available research findings but also engages in own primary data collection, including the first pan-European Skill Mismatch Survey in 2014 ⁽⁷⁾, to inform the policy debate on tackling skill mismatches across EU labour markets ⁽⁸⁾.

Analyses on skill anticipation and skill mismatch by Cedefop inform policymaking, and respond to key aspects of one of the flagship initiatives of the Europe 2020 strategy, the '*Agenda for new skills and jobs*' ⁽⁹⁾. They also respond to the recent call made by the EU Commission for better targeted use of education and employment policies that encourage investment in skills training and the matching of job seekers with available jobs across Europe ⁽¹⁰⁾. Furthermore, Cedefop's analyses on skill demand and skill supply comprise a key pillar of the *EU Skills Panorama* ⁽¹¹⁾, a new initiative of the EU Commission that seeks to facilitate the exchange of information on skills and to strengthen skills intelligence in EU Member States.

The European Commission officially launched in December 2012 the *EU Skills Panorama (EUSP)*, a website presenting quantitative and qualitative information on short - and medium-term skills needs, skills supply and skill mismatches ⁽¹²⁾. By drawing on data and forecasts compiled at EU and Member State level the EUSP highlights the fastest growing occupations as well as the top "bottleneck" occupations, namely those occupations with significant recruitment difficulties. The web interface contains information on skill supply and demand at the level of the economic sector and occupation for all EU Member States. The EUSP provides information and intelligence that can help improve the capacity for skills assessment and anticipation and inform skills governance. The EUSP is expected to widen the audience for labour market information and skills research across

² <http://www.cedefop.europa.eu/EN/about-cedefop/projects/forecasting-skill-demand-and-supply/index.aspx>

³ See Cedefop (2012a). Europe's skill challenge: Lagging skill demand increases risks of skill mismatch. Cedefop Briefing note. March. Available online at: <http://www.cedefop.europa.eu/EN/publications/19651.aspx>

⁴ See Cedefop (2010). *The skill matching challenge: Analysing skill mismatch and policy implications*, available on-line: <http://www.cedefop.europa.eu/EN/publications/15275.aspx>; also Cedefop (2011), *Migrants, minorities, mismatch?* Available on-line: <http://www.cedefop.europa.eu/EN/publications/18670.aspx>

⁵ See Cedefop (2012), *Skill Mismatch: The Role of the Enterprise*, Cedefop Research Paper No. 21, available on-line: <http://www.cedefop.europa.eu/EN/publications/19658.aspx>

⁶ Cedefop (2013), *Identifying and analysing imbalances in the pan-European skill supply and demand forecast*, Available by Cedefop on demand.

⁷ Information on Cedefop's pan-European Skill Mismatch Survey is available at: <http://www.cedefop.europa.eu/EN/about-cedefop/projects/analysing-skill-mismatch/analysing-skill-mismatch.aspx>

⁸ Cedefop (2012), "The Skill Mismatch Challenge", in: EU Commission (2012), *Employment and Social Developments in Europe 2012*, Office for Official Publications: Luxembourg. Available on-line: <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7315>

⁹ The Commission Communication 'An Agenda for new skills and jobs: A European contribution towards full employment' (COM(2010) 682, 23.11.2010) is available on-line:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0682:EN:NOT>

¹⁰ As highlighted in its Communication to the Council '*Towards a job-rich recovery*'. Available on-line: <http://ec.europa.eu/social/main.jsp?catId=89&langId=en&newsId=1270&moreDocuments=yes&tableName=news>

¹¹ <http://euskills Panorama.ec.europa.eu/>

¹² Dec 7, 2012 Commission launches EU Skills Panorama to tackle skills mismatches http://ec.europa.eu/education/news/20121207b_en.htm

Europe. Nevertheless, at present the EUSP contains a number of fragmented skills indicators in EU Member States, which have not been combined in a form that allows for the provision of a coherent, systematic and synthesised assessment and comparative evaluation of the performance of EU Member States' skills systems (¹³).

The EUSP also does not contain extensive or regular information regarding occupations that are susceptible to skill shortages or surpluses within EU countries and the labour market trends underlying such mismatches. In its *European Vacancy and Recruitment Report* (EVRR), published in 2012, the European Commission identifies 'bottleneck occupations' in Europe on the basis of a synthesized analysis that combines national and international skill surveys and findings (¹⁴). Several professional and associate professional occupations in the sectors of Health, ICT, Engineering, Sales and Finance are identified as being prone to recruitment difficulties, for reasons that are sometimes related to skill deficits but also to geographical barriers, bad working conditions and other market failures. The analysis in the EVRR is based on an inventory of existing national and European sources and lacks a coherent methodology for classifying and understanding the nature of skill mismatch within occupations according to a set of harmonized criteria that are uniformly applied across all EU Member States. It also focuses on the demand side of the labour market and does not provide a clear assessment of the extent to which education and training policies should be concerned with occupations that are prone to skill mismatch (including both skill shortages and surpluses). In particular, it does not consider the degree to which the overall incidence of mismatch in occupations can be attributed to an excess demand or supply of skills, and the role of education and training systems of EU Member States in addressing such mismatches.

In recent years many EU Member States and regions have invested in building their own quantitative forecasting exercises that aim at modelling skills demand and supply taking either a medium- or long-run perspective. Most of these aggregate models focus on empirical projections of employment by industry and occupation and the likely qualification structure of future employment. However, identifying mismatches on the basis of such approaches is sometimes insufficient due to the reliance on the historical evolution of 'stocks' of labour/skill demand and supply, incomparability of aggregate data on labour demand and supply, lack of detailed information on skills and on labour supply inflows and because of data constraints that inhibit the breakdown of projections to more detailed occupational groups.

To overcome such obstacles, several countries have recently attempted to adopt a less 'mechanistic' approach to the identification of occupational mismatches by paying greater attention to current signals of disequilibrium in labour markets (e.g. Australia, UK) and/or by focusing on short-term sources of information on the labour market matching process that are sometimes combined with qualitative inputs (e.g. Germany's Arbeitsmarkmonitor; Austria's AMS system). Such approaches share a common acknowledgment that policymakers should adopt a nuanced approach to skills intelligence, which entails the identification of early warning signals on skill mismatches for occupations and economic sectors that are deemed to be critical for an economy's growth and performance.

¹³ For example, the latest Human Capital Report of the World Economic Forum (WEF) combines a number of wider indicators of human capital across countries, such as educational attainment, access to and quality of the educational process, labour force participation, unemployment, talent and training provision to construct a composite index that ranks economies according to their degree of human capital performance. The WEF report is available at: <http://reports.weforum.org/human-capital-index-2013/#> Other efforts to construct a composite skills index include the Hay's skills index, which combines indicators of labour force participation, talent mismatch, education and labour market flexibility and wage pressures, available at: <http://www.hays-index.com/2013/>

¹⁴ See EU Commission (2012), *European Vacancy and Recruitment Report 2012* available on-line: <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7267&type=2&furtherPubs=no>

In particular, several risk assessment approaches have been developed that take a “pro-active” approach, namely they indicate possible risks in order to allow for ‘foresighted’ policy changes that can prevent such risks from materializing ⁽¹⁵⁾. Instead of using complex macroeconomic models, they rely on a variety of suitable metrics and indicators that may summarise the performance of the labour market at the cross-roads of the recruitment and skills inflow-outflow process. The so-called “AWPA-NILS Skills Index”, for instance, devised by the National Institute of Labour Studies (NILS) for the Australian Workforce and Productivity Agency (AWPA), attempts to identify instances of disequilibrium in the labour market that arise because of an under- or oversupply of skills. The Australian approach is based on the basic tenet of economic analysis that observing disaggregated changes at the margin provides a stronger signal of underlying forces than observing changes in the whole stock of qualifications and skills in the labour market. It hence uses a mixed methodological approach including the use of a large variety of both quantitative and qualitative inputs.

In the case of the UK, the “National Strategic Skills Audit” is an exercise for skills monitoring that draws on a wide range of sources from a number of organisations to provide an assessment of immediate and emerging priority skill needs in both existing and emerging industries in the UK. Having performed the above quantitative assessment, and depending on the combination of several factors, each skills deficit is then given an importance rating or “traffic light” colour, indicating how much of a priority it is for policy action. The priority of identified skill mismatches is determined according to their opportunity costs for the economy and the need for immediate policy action, depicted in the form of a “priority action matrix”.

Moreover, in the UK the so-called Migration Advisory Committee (MAC), the body in charge of making policy recommendations to the UK government regarding the desirability of inward migration to counteract specific occupational shortages, proposed in the year 2008 a set of 12 indicators of labour shortages. On the basis of the proposed indicators, the MAC subsequently constructed recommended ‘shortage occupation lists’ for the UK. The lists of shortage occupations and the associated methodology have been regularly updated and refined in recent years ⁽¹⁶⁾. Several other EU countries (e.g. Bulgaria, Belgium, Spain, and Lithuania) have also compiled in recent years catalogues or lists of shortage occupations, though the approach taken to construct such lists varies across the different countries.

Many such recent initiatives engaging in skills intelligence and anticipation have tended to be demand-driven, emphasizing the implications of occupational and sectorial employment projections for the provision of education and vocational training policies. Very few such initiatives have sought to systematically collect detailed education or training information on the supply side of the job market, such as investigating labour supply inflows of new graduates by field of study or study programme, duration and time lags of graduation, professional regulations affecting the education to labour market transition process or other suitable indicators of skill supply. When such modelling of the supply side has taken place, more emphasis tends to be given to the implications of

¹⁵ Indicative literature on the subject includes:

- Skills Australia (2008), ‘What does the future hold? Meeting Australia’s skill needs’, Background Paper One, *Workforce Futures: A paper to promote discussion towards an Australian Workforce Development Strategy*; Available on-line: <http://www.tda.edu.au/resources/Workforce-Futures-Background-paper-one.pdf>
- UK Commission for Employment and Skills, (2010), *Skills for Jobs: Today and Tomorrow, The National Strategic Skills Audit for England 2010*. Volume 1: Key Findings
- Mavromaras et al. (2013), *A System for Monitoring Shortages and Surpluses in the Market for Skills*, Final Report to the Australian Workforce and Productivity Agency (AWPA) by the National Institute of Labour Studies (NILS), Available on-line: <http://www.awpa.gov.au/our-work/labour-market-information/Pages/Identifying-skills-shortages.aspx>

¹⁶ Relevant MAC reports and publications are available at:

<http://www.bia.homeoffice.gov.uk/aboutus/workingwithus/indbodies/mac/reports-publications/>

demographic developments and/or of participation decisions of labour market agents, rather than to specific factors determining the supply of skills and occupational choices of individuals. A notable exception is the Canadian Occupational Projection System (COPS), which brings into the model supply-side information on school graduates, immigrants and labour force re-entrants, disaggregated by occupational classes.¹⁷

2.2 General purpose

The purpose of this contract is to (1) to develop a methodology and a policy tool - a skills monitoring index - that can be used to evaluate the performance of EU Member States' skills systems (e.g. in terms of skill development, activation and utilisation) and (2) use a 'risk-based approach' in order to identify priority occupations that are susceptible to skill mismatch (i.e. skill shortages or surpluses)¹⁸ and are of high economic importance in each EU Member State. To accomplish these two objectives, the Contractor should develop a synthetic methodology and policy tool at the country and occupation level, based on a set of transparent skill and labour market quantitative indicators combined with qualitative inputs.

The underlying motivation for the project is to address two issues of critical importance for the improvement of publicly provided skills policies, namely (1) *how are the skills systems of EU Member States performing in relation to the degree to which they are developing, activating and utilising skills reserves within their economies;* (2) *which occupations require priority policy attention, if European Member States are to ensure that they meet strategic skill needs and do not experience a mismatch of essential skills in critical jobs for their economies?*

Objective (1): Develop a skills monitoring index of EU Member States

In order to tackle the first goal the Contractor should develop a skill monitoring index or synthetic diagnostic tool that enables the assessment of the skill systems of all 28 EU Member States, using well-established European and/or international sources. The tool should be based on an appropriate composite index of a set of well-defined, timely, regularly updated and *harmonised* quantitative indicators that summarise the state of skill development, skill activation and skill utilisation within the respective national economies. The ultimate aim of the tool should be to enable the comparison of EU Member States according to the performance of their respective skills systems (see section 2.3.1 below).

¹⁷ The basis for forecasting labour supply by occupations is a demographic model providing numbers of future school attendees. The break-down according to occupations is derived from the sum of school-graduates, immigrants and labour force re-entrants destined for the corresponding occupation. A school occupation transition matrix is applied for assigning graduates to jobs. This matrix is developed considering surveys on occupations of past cohorts of school graduates, and by conducting separate estimates for different types of graduates. The COPS also considers the skills and education of immigrants when forecasting labour supply. Concerning re-entrants, the model is based on the assumptions that this part of the workforce returns to its previous occupation. Further information on the COPS is available here: <http://www23.hrsdc.gc.ca/w.2lc.4me@-eng.jsp>

¹⁸ The term *skill mismatch* tends to be employed loosely in the literature, with some authors using it to describe overall imbalances between labour demand and labour supply, difficulties in filling vacancies by employers or other market imperfections (e.g. geographic constraints, bad working conditions) that inhibit the efficient matching of job seekers with firms' demands in the job market. In the context of this tender procedure, Cedefop considers a skill mismatch to be a situation whereby difficulties in the labour market matching process arise because of a shortage, surplus or underutilisation of **skills** in a market. Such disequilibria are related to the nature of the relationship between the education and training systems of EU Member States and of their labour markets.

Objective (2): *Utilise a risk-based approach to identify and prioritise occupations susceptible to skill mismatch*

To address the second objective, the Contractor should construct a mixed methodology that utilises appropriate skill supply and skill demand indicators and exploits qualitative judgements of experts, with the aim of identifying key occupations where strategic skill needs are unlikely to be effectively met due to market failures mainly of the education and training system. The proposed methodology should draw on existing risk-based approaches for developing national workforce development strategies, in order to identify strategic occupations in each EU Member State for which government skills planning and intervention is most warranted.

Timely, informative and regularly updated economic, education and labour market data and indicators should be used by the Contractor, based on information available in all international, European but mainly ***national data sources***. The Contractor should ensure that all relevant national data sources are exploited in the risk assessment of each individual country. The Contractor should suggest a list of relevant quantitative indicators of skill demand and skill supply (defined in section 2.3.2 below) and propose and construct relevant composite indices if necessary. *Particular emphasis should be given to the collection and systematisation of available information on education and vocational training student inflows-outflows at the national level, along with other appropriate indicators of skill supply related to occupational groups.* The indicators should attempt to capture instances of disequilibrium by identifying the presence of an over- or undersupply of skills at the margin in the different occupational labour markets.

A common and harmonised set of criteria should be subsequently applied to all EU Member States, to permit the categorisation, prioritisation and monitoring of occupations that are susceptible to skill shortages or surpluses over the medium-term. Combining the trends of the (composite) indices with a set of unique (qualitative) criteria of market failure and/or strategic significance of an occupation for the national economy (defined in section 2.3.3 below), the proposed system should ultimately enable the prioritisation of occupations that are susceptible to skill mismatch and are of high economic relevance. It should provide a suitable methodology for the potential identification and monitoring of occupation-specific skill mismatches over time by policymakers in each EU Member State. The methodology should be flexible enough to enable new information (through new or better data), or extensions to more disaggregated occupations, to be incorporated in the framework without the need for redesign, to allow for the regular updating of the system (including data sources, coding and methods) after the end of the contract ⁽¹⁹⁾.

2.3 Description of tasks

The project should follow a combined quantitative and qualitative approach. It should be based on secondary data analyses of international and European sources (e.g. EU Skills Panorama, Eurostat, OECD) for the construction of a skills monitoring index that enables the comparison of EU Member States' skills systems on the basis of their performance. Mainly national data sources should be used instead for proposing suitable indicators and risk assessment criteria that can highlight occupations susceptible to skill mismatch which constitute strategic priorities for the policy actions of EU governments. The project consists of five tasks, described in detail below.

¹⁹ The process of updating the system, once it has been set up and implemented using the most recently available data, does not constitute part of the current tender procedure.

2.3.1 *Task 1: Construction and implementation of a skills monitoring composite index, which enables the comparative assessment of the performance of EU Member States' skill systems*

To accomplish the first objective of the project, the Contractor should develop a synthetic diagnostic tool – a skills monitoring composite index - using established European and/or international data sources and a harmonised methodology that enables the assessment and comparison of the performance of the skills systems of EU Member States.

Indicatively, the tool should be based on an appropriate composite index of a set of well-defined, timely, regularly updated and harmonised quantitative indicators that summarise the following aspects of the skills systems of national economies:

- the state and quality of skill development (e.g. expenditures in education and training, educational attainment of different groups, share of early school leavers, share of adults participating in adult learning, proportion of enterprises offering training etc.)
- the extent of skill activation (participation of different groups in the labour market, capacity of a country to attract skilled workers etc.)
- the degree of skill utilisation (extent of skill mismatch, unemployment and underemployment of different groups, share of people not in employment, education or training (NEETs), investment in active labour market policies (ALMPs) etc.).

The Contractor should propose additional components that may be used for the purposes of designing a synthetic skills monitoring index and suggest appropriate indicators and data sources to be used in each pillar/module of the tool. He should clearly justify the selection of a particular methodology and summary index to be used in the project and employ relevant scientific tests to validate its reliability against alternative possibilities. The Contractor should ultimately implement the proposed index or tool using the most recent data available in order to engage in a comparative assessment of the performance of EU Member States' skills systems. He should ensure that the proposed tool can be easily replicated and updated in subsequent years and after the completion of the current contract. The Contractor may be requested to improve the original version(s) of the index throughout the duration of the contract and until completion of its final phase.

2.3.2 *Task 2: Proposal and collection of a set of informative, transparent and timely indicators of skill supply and skill demand that can monitor occupational skill mismatches*

As part of the second objective of the project, the Contractor should propose a set of timely and informative economic, education and labour market indicators of skill demand and skill supply at the level of occupation, which can be used to form an assessment of and to monitor whether specific occupations are affected by skill mismatch in EU Member States (28 countries). In the selection of such indicators of skill over- or undersupply, the Contractor may be guided by the international literature on indicator methodologies and existing practices that have been used to monitor skill mismatches in specific occupations.²⁰ The Contractor must explore the possibility and propose appropriate methodologies and techniques for combining the information available from such indicators in the form of concise, transparent and easily presentable composite indices. Moreover, the Contractor must ensure that the list of proposed indicators contains **systematic information on the skill supply of EU Member States** by occupational group, including school-

²⁰ Notable examples include the list of 12 indicators proposed by the UK's Migration Advisory Committee (MAC, 2008) or the so-called AWPANILS skills index that has recently been proposed by the National Institute of Labor Studies (NILS) in Australia (Mavromaras et al., 2013).

graduates disaggregated by field of study and/or educational programme and other suitable flows of skills whenever such data is available.

The indicators should portray the skill demand and supply trends of occupational groups at ideally the 3-digit level, as described by the International Standard Classification of Occupations (ISCO). Subject to data availability and in adherence with standard rules of statistical credibility, the Contractor should also attempt to collect indicators of occupational skill supply and demand at a more detailed and disaggregated level (e.g. 4-digit) whenever possible.

The proposed indicators should exploit all informative, relevant and timely international, European but **mainly national data sources** that contain information on skill demand and skill supply trends at a detailed occupational level in each EU Member State. As a starting point, the Contractor could consult the list of available sources as contained in the EU Skills Panorama, but a comprehensive overview of all relevant national labour market and educational datasets should be undertaken to guide the proposal of suitable indicators of occupational skill mismatches, including:

- European and national Labour Force Surveys;
- OECD's Survey of Adult Skills (PIAAC);
- National Employer surveys;
- Household Budget Surveys;
- Job vacancy statistics (e.g. as collected by country surveys and/or reported to Public Employment Services);
- Sectorial and occupational skill forecasts (e.g. Cedefop's skill supply and demand forecast; national forecasting outputs);
- European or national graduate surveys;
- Educational data on student enrolments and graduates (e.g. as provided by the UOE system published by UNESCO²¹ or other national administrative education and vocational training databases);
- Other national and regional sources of labour market intelligence (e.g. data on skill demand from temporary work agencies; vacancy data from job advertising websites; etc.).

The Contractor is also expected to work closely with Cedefop project managers in incorporating relevant information collected as part of Cedefop's datasets and tools, such as the European Skill Mismatch Survey (EUMISS), Cedefop's skill demand and skill supply forecasts and the pan-European Sectoral Based Anticipation System (SBAS) (²²).

The list of proposed indicators should describe the state and dynamics of skill demand and skill supply within each occupational group for each EU Member State. They should be highly transparent, open to replication and preference should be given to those that can be updated over time (though such updating does not constitute part of this contract). Indicatively, but not exhaustively, the list of indicators should draw on existing data sources that contain information on the following characteristics:

²¹ <http://www.oecd.org/education/database.htm>

²² Sectoral-Based Anticipatory System (SBAS) is a project initiated and financed by CEDEFOP, which aims at producing anticipation tools for complementing and integrating existing European approaches, methods and data to identify labour market trends and skill needs in the short-term. The aim of the project is to support strategic policy making on VET through the building of a short-term Sectoral-Based Anticipatory System (SBAS) for labour market trends and skill needs. The goal of the SBAS is to identify emerging short-term skill needs at EU and MS level. To this end, the research analyses suitable approaches to short-term forecasting at occupational (ISCO – 2digit) and sectoral level (NACE - 2-digit). The SBAS prototype is expected to be finalised by end 2013, and will be tested and operated in 2014.

Supply side

- *Age and gender profiles of occupations;*
- *Student responses* (e.g. enrollments and graduations by fields of study and degree programs; occupational choices, etc.);
- *Responses of education and training systems* (e.g. provision of formal and informal training, VET courses, apprenticeships, traineeships etc.);
- *Education to labour market transitions and graduate outcomes* (duration of school to work transition; transition matrix of graduates to occupations; share of mismatched workers, etc.);
- *Skills supplied per occupation;*
- *Mobility of inter-EU workers or non-EU nationals*

Demand side

- *Vacancies and the recruitment experience* (e.g. existence of hard-to-fill vacancies; vacancies attributed to skill deficits; vacancy duration; pool of job applicants; proportion of new hires; help-wanted job advertising; online recruitment vacancies, etc.);
- *Wage pressures* (e.g. earnings growth; average pay relative to other occupations in industry; wage returns to different skill groups, etc.);
- *Employer adjustment measures* (e.g. change in share of employees receiving on-the-job training and/or working overtime hours, etc.);
- *Employment dynamics* (e.g. current and projected occupational and sectorial employment growth, etc.);
- *Employer turnover and mobility* (e.g. change in share of new hires in occupation; transition inflows and outflows between occupations, etc.);
- *Skill requirements in occupation;*
- *Difficulties in attracting skilled labour to occupation;*
- *Other general labour market conditions* (e.g. change in share of occupation in unemployment pool; average work hours; changes in the share of workers on temporary or part-time contracts, etc.).

Data on the above indicators should be collated for the most recent year available, but the Contractor should also exploit the value of time-series information that may validate the reliability and consistency of key identified trends in the data.²³ The indicators should respect standard rules of credibility in terms of statistical sample sizes and be reliable in terms of informational content. Inadequate detail and quality in the data is likely to constitute a constraint on the generation of reliable indicators of skill disequilibrium at a detailed occupation level. Whenever considerable data limitations exist, appropriate labels and footnotes should thus be used to clearly mark any such statistical inconsistencies. The Contractor is also expected to work in close consultation with Cedefop project managers to decide on a country by country basis the degree of reliability of the selected indicators and on the reporting of final country results.

²³ The Contractor is expected to have at least three years of data at his disposal, based on the new occupational classification ISCO-08. However, in case of data limitations, he is encouraged to validate the proposed indicators by drawing on past years of available data that use the ISCO-88 taxonomy or other national classifications.

2.3.3 Task 3: Utilisation of a risk-assessment approach that enables the identification of key or 'high risk' occupations that require priority policy attention

For the third task of the project, the Contractor should adopt a risk assessment methodology that allows the identification of priority occupations where government policy and intervention is most warranted (²⁴).

To identify key occupations where governments should focus their policy efforts, the risk-based approach adopts a set of criteria for categorising and prioritising occupations according to whether they are at 'high risk' of not being able to meet strategic skill needs to the economy and are susceptible to market failures. The Contractor should therefore propose, test and validate appropriate criteria and methods which, combined with the proposed composite indices/indicators from Task 2, will guide the process of prioritisation of occupations, according to their degree of necessity for policy action. Indicative criteria that have been used in the literature include:

- if occupational bottlenecks are pervasive and/or uncertain;
- the degree of 'fit' between the acquired qualifications of individuals and the professional requirements;
- if supply bottlenecks are prominent due to long lead times necessary for the development of skills;
- the existence of national regulations on access to professions²⁵;
- whether the risk of bottlenecks in the supply chains have a high impact on economic growth and sector development, with significant community and economic costs.

As part of the Contractor's proposed methodology, the list of indicators (or composite indices) of skill mismatches and the harmonized criteria may be evaluated or weighted against some pre-defined and robust threshold values. In this case, the Contractor is expected to provide clear justifications for the selection of any proposed 'thresholds of exclusion or inclusion', based on a series of appropriate testing procedures that will confirm their robustness in terms of classifying and sorting occupations within particular groups or clusters. He should ensure that the list of criteria and measures are harmonised, consistent and uniformly applied across all occupations and EU Member States.

An alternative approach may take into account the qualitative judgements of experts regarding the presence of mismatches in occupational labour markets, considering the balance of the evidence provided by both the quantitative indicators and risk assessment criteria. In particular, such qualitative assessments may rely on whether the presence of disequilibrium in the skill supply-demand nexus is jointly supported by the value of the indicators, the evolution and direction of the indicators over time and/or the joined-up information provided in combination with the risk assessment criteria. The use of 'bottom up' analysis to validate the key trends of the 'skill mismatch indicators' with further sources of information on skills (e.g. industry insights obtained as part of specific sectorial studies, occupational and industrial foresight studies, scenario analyses, other national or regional sources) will add extra value to the task.

²⁴ As a guide, the Contractor may consult the risk-based approaches adopted in the cases of Australia (Skills Australia, 2008) and the UK (UKCES, 2010).

²⁵ For instance, the Contractor may consult the EU Single Market 'Regulated Professions Database'; Available on-line: http://ec.europa.eu/internal_market/qualifications/regprof/ , but other national databases of professional entry regulations should be exploited.

2.3.4 Task 4: Compilation of 'policy priority action matrices' in all EU Member States

After assessing and prioritising occupations in each EU Member State according to their propensity to skill mismatch, the Contractor should depict the information and results of the priority analysis in the form of summary tables or "policy priority action matrices" that are organised under clearly defined skill/occupational headings. In the matrices the list of detailed occupations in each EU Member State should be categorised according to an importance rating, colour-coded or other early warning scheme that clearly highlights and differentiates them according to their critical importance for the respective national economies and the necessity for policy action.

The priority matrices should outline the key sectors of the economy that are likely to be affected by the occupational skill deficits identified as part of Task 3. They should also include detailed contextual information justifying the reasons for the identification of the occupations as 'high risk' in the context of each EU Member State's economic situation. Moreover, the priority action matrices should contain a qualitative description of the key skills supplied and required in each 'high risk' occupational group, using all available information from existing international (e.g. O'NET; PIAAC), European (e.g. ESCO) and national data sources whenever possible. Of particular importance is the assessment and discussion of the implications of a 'high risk' occupation for the education and training provision in each country. Finally, the Contractor should propose a suitable course of action or strategy for validating the derived 'policy priority action matrices'. This may include the use of country-specific experts or rely on the input of key national authorities or stakeholders.

2.3.5 Task 5: A graphical representation of the performance of EU Member States' skills systems and of skill mismatches in priority occupations and comparative European synthesis

The Contractor should ensure that the outcomes of the aforementioned tasks, specifically the evaluation of the performance of the skill systems of EU Member States and the identification of priority skill mismatch occupations within each country, are clearly displayed and illustrated in a format that is attractive and synthetic for policymakers and a non-expert audience.

Specifically, the Contractor should produce concise country-specific summary leaflets ('fiches') that describe in a clear and attractive format the individual country score on the skill monitoring index and on the individual components comprising the aggregate index (as derived as part of Task 1). The fiches may contain some background information describing the skill situation of each country, a country profile, key challenges and trends. An encompassing fiche describing the overall comparative situation in the EU should also be provided as part of the deliverable.

For each EU Member State a set of visually attractive graphical outputs ('fiches') should be produced that summarise the occupations identified by the risk assessment exercise as 'skill mismatch occupations' of high policy relevance along with key contextual information for each occupation. The fiches should summarise in a format suitable for a non-expert audience the overall situation of the country with respect to the prevalence of occupational skill mismatches, based on the information derived as part of previous tasks. As a guideline, the summary information for each occupation may refer to the patterns of skill supply inflows (with emphasis on educational and training programmes related to the occupations), skill needs, reasons for a skill mismatch, the degree of accuracy or certainty in the assessment, the nature of its severity and possible forces that may influence the evolution of the occupational skill mismatch in the medium-term.

The Contractor should also draft comparative tables and graphical outputs that contrast each of the priority mismatch occupations between EU Member States. The tables should clearly highlight differences between EU countries in terms of predicted patterns of occupational shortages and surpluses.

During this task, the Contractor is expected to work closely with Cedefop project managers to ensure that the format of the data and graphical illustrations contained within the country and occupational fiches are compatible with the technical and ICT requirements of Cedefop's main webpage and of the EU Skills Panorama (EUSP) web interface and to make necessary preparations for their potential transfer to these websites.

2.4 Deliverables and timetable

The Contractor is required to submit the following deliverables, in accordance with the indicated timetable.

2.4.1 Inception phase

As part of the inception phase of the project, the Contractor should submit the following outputs:

- Deliverable INCEPTION.1: *Inception report*

An inception report, **4 weeks after the date of signature of the contract**, which refines the methodology proposed in the tender, including:

- The proposed actions to collate, coordinate and analyse information in 28 EU Member States;
- A preliminary identification of the data sources to be used for the selection of the criteria and indicators used in the course of the project and actions taken to ensure access to them;
- Proposed methodologies to be tested during the course of the project for the attainment of both objectives of the project;
- An updated work plan and timetable;
- Key reference sources and bibliography to be used.

2.4.2 Interim phase

As part of the interim phase of the project, the Contractor should submit the following outputs:

Objective (1): Develop a skills monitoring index of EU Member States

- Deliverable INTERIM.1.1: *A proposed methodology for constructing a comparative European skill monitoring index*

A proposed methodology, **within 4 months of the date of the signature of the contract**, which clearly outlines:

- A brief review of existing methodologies used to construct composite indexes that measure and compare country performance on a topic of policy interest;
- The rationale and method used in order to construct a composite index that enables the assessment and comparison of EU Member States' skill systems;
- The data sources to be used for populating the tool;
- An assessment of key challenges and data limitations;
- Actions to be taken to overcome potential difficulties in the construction of the tool;
- Annexes, containing bibliography used, list of abbreviations, research tools, data sources used, etc.

Objective (2): *Utilise a risk-based approach to identify and prioritise occupations with high skill mismatch*

- *Deliverable INTERIM.2.1: Review of existing methodologies for the identification of skill mismatch occupations in EU Member States*

An extensive review, within **4 months of the date of the signature of the contract**, which highlights:

- Existing methodologies, used internationally and within EU countries, with the purpose of identifying occupations that are subject to skill mismatches;
- Advantages and disadvantages of different approaches;
- Key aspects, data and methods that may be adopted and benefit the construction of the Contractor's own system;
- Annexes, containing bibliography used, list of abbreviations, research tools, data sources used, etc.

- *Deliverable INTERIM.2.2: Review of available information sources on skill supply flows in EU Member States*

A comprehensive review, **within 8 months of the date of the signature of the contract**, of:

- Available data sources, key contact or reference points and national informational systems that may be exploited for the purposes of obtaining an in-depth description of skill supply flows in each EU Member State. Emphasis should be given to student outflows disaggregated by fields of study and/or detailed educational or vocational training programs, intra-EU or migration of non-nationals and other flows of skilled labour that take place within occupations;
 - Appropriate quantitative or qualitative techniques to link or map the data on skill supply inflows with the occupational groups, taking professional regulations or licensing requirements into account;
 - An assessment of the feasibility of whether and how best to incorporate information on skill supply inflows into the proposed risk assessment system;
 - Annexes, containing bibliography used, list of abbreviations, research tools, data sources used, etc.
- *Deliverable INTERIM.2.3: A harmonized risk assessment methodology for the identification of skill mismatch occupations of high economic relevance in EU Member States*

A final proposed system for monitoring and prioritising occupational skill mismatches, **within 12 months of the date of signature of the contract**, which will comprise of:

- A draft list of indicators describing trends in skill supply and skill demand at detailed occupational level;
- Main data sources used, information on major challenges or data limitations encountered, solutions found or proposed and assessment of their impact on the implementation of the project;
- Clear justifications for the selection of the proposed indicators, also in relation to existing international practices that rely on indicator methodologies for the identification of occupational skill mismatches;

- Appropriate testing procedures confirming the robustness of the indicators, with particular reference to their sensitivity for predicting occupational skill mismatches;
 - Relevant methodologies considered to construct relevant composite indices and associated sensitivity tests undertaken;
 - A detailed description of the selected risk-assessment methodology and criteria;
 - A justification of the selected criteria and of associated thresholds to be used in order to identify key 'at risk' occupations in each EU Member State, along with a discussion of relevant sensitivity testing procedures;
 - Annexes, containing bibliography used, list of abbreviations, research tools, data sources used, etc.
- *Deliverable INTERIM.2.4: Piloting the risk-assessment approach to prioritising and monitoring occupational skill mismatches in EU Member States*

The proposed system for monitoring and prioritising occupational skill mismatches should be piloted on 6 EU countries to illustrate how the system works and a review of key findings and results should be discussed, **within 16 months of the date of signature of the contract**, as follows:

- A discussion of main findings of the risk-based approach for six pilot Member States (proposed by the Contractor in agreement with Cedefop at the third (interim) meeting);
- Key data problems and/or other conceptual difficulties encountered and proposed methods of overcoming such methodological difficulties;
- Examples of 'policy priority action matrices', containing descriptions of the skills outlook of 'high risk' occupational groups in the 6 pilot EU countries;
- Examples of graphics and other visually attractive outputs used to engage in a comparative overview of the findings;
- Annexes, containing bibliography used, list of abbreviations, research tools, data sources used, etc.

As part of this deliverable, the Contractor should provide an overall assessment of the feasibility of the proposed approach with respect to its validity and wider applicability to all 28 EU Member States, including proposals for an alternative course of action in case of a negative evaluation.

2.4.3 **Final phase**

- *Deliverable FINAL.1: Measuring and comparing the relative situation and performance of EU Member States' skills systems*

A report should be prepared and delivered to Cedefop **within 10 months of the date of signature of the contract**, which summarises the outcomes of the implementation phase of the skill monitoring index under Task 1 and includes:

- A detailed description of the methodology and data sources used to construct a composite European skills monitoring index, along with an in-depth and comparative discussion of the main findings and policy implications;
- 29 (28 countries + 1 EU aggregate) self-standing country fiches that summarise the key messages and information on the performance of EU Member States' skills systems, as derived by the composite skill monitoring index. The fiches should use a visually attractive layout, in order to summarise and communicate the information collected to a non-expert audience (see section 2.3.5).

- *Deliverable FINAL.2: Final report*

A final report, **within 22 months of the date of signature of the contract**, following the guidelines provided in these Technical Specifications and including:

- An executive summary, which can also be distributed as a self-standing document, highlighting the main findings from a comparative analysis of the skill monitoring tool that evaluates and compares the performance of the skill systems of EU Member States. The summary should also clearly identify and contrast the incidence, reasons and underlying trends of occupational skill mismatches in the EU, discuss their relevance for policymaking and highlight key policy considerations with emphasis on appropriate education and training policies;
- Detailed description of the methodology and data sources used to construct a composite European skills monitoring index, along with an in-depth and comparative discussion of the main findings and policy implications;
- Detailed description of the methodology and data sources used to engage in a risk-assessment of occupations that are susceptible to skill mismatch and of high economic relevance, along with an in-depth and comparative discussion of the main findings and policy implications;
- A comparative description of the key 'high risk' mismatch occupations that demand greater policy interest in the 28 EU Member States;
- Recommendations and lessons learned for different stakeholders concerned with employment and education and training policy, at national and European level;
- Annexes containing bibliography, list of abbreviations, research tools, data sources used etc.

- *Deliverable FINAL.3: Summary tables or "policy priority action matrices" for each EU Member State*

Summary tables or "policy priority action matrices" identifying key 'at risk' occupations for each EU Member State, using appropriate colour-coded or other early warning signals and explanatory background information that justifies their selection, delivered **within 22 months of the date of signature of the contract** and along with the submission of the final report.

- *Deliverable FINAL.4: Updating and maintaining the system*

A technical report, **within 22 months of the date of signature of the contract**, which outlines necessary technical and data access requirements and makes proposals with the aim of further improving the methodologies employed during the course of the contract and sustaining its regular operation and updating after completion.

The contractor shall submit all deliverables in English, in hard copy and in electronic format.

Figures and tables should be delivered separately in Ms Excel or in Ms Word, as appropriate. Ms Excel charts must include the data used to enable Cedefop to reproduce the charts.

The electronic files must correspond fully to the hard-copy version.

The scripts (e.g. STATA log and do-files) used to run the analysis will be delivered to Cedefop to ensure the transparency and replicability of results.

Lay-out and format of the text – in particular for citation, bibliography, tables and figures – must comply with Cedefop's style manual (Annex H).

The Contractor shall ensure that the final reports as submitted to Cedefop have been subject to professional proof-reading and editing in English, the cost for which should be included in the financial offer (see point 5.4, item 2c in Price Schedule table).

2.5 Meeting and travel expenses

a) Meetings at Cedefop premises in Thessaloniki

The contractor (**up to 2 persons**) will be requested to attend in total **five one day meetings with the responsible project manager(s) at Cedefop's premises in Thessaloniki, Greece:**

1. a kick-off meeting within 4 weeks after the contract is signed to fine-tune the research methods to be applied, the sources to be used and the final project planning, described in the Tenderer's proposal;
2. a meeting 5 months after the contract is signed to discuss the proposed methodology for constructing a composite skill monitoring index and to agree on subsequent steps to be taken for the achievement of objective (1) of the project;
3. a meeting 12 months after the contract is signed to discuss the suggested risk assessment approach following the submission of Deliverable INTERIM.2.3, monitor progress of the work undertaken in anticipation of the submission of Deliverable FINAL.1., and agree on the outline and course of action regarding the tasks of the pilot and final phase of the project;
4. a meeting 17 months after the contract is signed to discuss the outcomes of the pilot exercise, monitor progress and agree on the outline and course of action regarding the tasks of the final report;
5. a meeting 22 months after the contract is signed to discuss and provide comments on the final outcomes and key policy messages included in the final report. The Contractor will take these comments into account in the preparation of the final version of the study.

All costs incurred, including travel & accommodation related to Cedefop's meetings in Thessaloniki (described above), have to be included in the financial offer (see point 5.4, item 2a in Price Schedule table).

b) Other meeting costs

Any other travel, accommodation etc. expenses that may occur in performing the tasks as described in the Technical Specifications have also to be included in the financial offer (see point 5.4, item 2b in Price Schedule table).

Any extra travel expenses, besides those mentioned above, that might be needed to perform the tasks related to the contract upon the request of Cedefop, shall be subject to Cedefop's prior written approval and shall be reimbursed by Cedefop separately, according to its relevant rules (see Annex III of the Draft Contract in Annex B).

3 SPECIFIC INFORMATION CONCERNING PARTICIPATION TO THIS TENDER PROCEDURE

3.1 Exclusion criteria

Participation to this tender is only open to tenderers who are in a position to subscribe in full to the Declaration on Exclusion Criteria and absence of conflict of interest given in Annex C. Therefore all tenderers, all group (consortium) members (if any) and any subcontractor/s, (identified as per the two bullet-points in the fourth paragraph of point 4.2 below) **must** provide the self-declaration found in Annex C duly signed and dated. The exclusion criteria will be assessed in relation to each company individually.

Cedefop reserves the right to check the situations described in points c) and f) of the Declaration.

In the event of recommendation for contract award, point j) of Annex C will apply.

3.2 Selection criteria

The selection criteria concern the tenderer's capacity to execute similar contracts.

The tenderers **must** submit documentary evidence (or statements, where required) of their economic, financial, technical and professional capacity to perform this contract.

Each and all requirements for economic and financial capacity should be fulfilled by the tenderer - alone (in the case of single tenderers) or as a whole (in case the tenderer is a grouping/consortium). Participation in tendering is open to all legal persons bidding either individually or in a grouping (consortium) of tenderers.

An economic operator may, where appropriate and for a particular contract, rely on the capacities of other entities, regardless of the legal nature of the links which he has with them. He must in that case prove to the contracting authority that he will have at his disposal the resources necessary for performance of the contract, for example by producing an undertaking on the part of those entities to place their resources at his disposal. This obligation may be fulfilled by presenting signed Statements from those entities. Please note that natural persons (individuals, freelancers) are also considered 'entities' for this purpose.

3.2.1 Economic and financial capacity

The tenderers must be in a stable financial position and have the economic and financial capacity to perform the contract.

Requirement:

- The average annual turnover of the tenderer for the last **three (3)** financial years **concerning the type of services covered in this call for tenders** should be at least **300,000 €**.

Proof of economic and financial capacity **must** be furnished by the following document:

- Signed statement (please fill-in and sign your Statement in Questionnaire 2 of Annex G) of the tenderer's turnover concerning the type of services covered in this call for tenders during each of the last 3 (three) financial years.

In the case of a consortium (grouping) or subcontracting each member of the consortium and all sub-contractors (*in line with points 4.1 or 4.2 of the tender documents*) must provide the required statement for the economic and financial capacity (Questionnaire 2 of Annex G), **but the assessment of whether the minimum requirement is met will bear on the consortium as a whole or the tenderer together with his subcontractors.**

In the event of recommendation for contract award the winning tenderer (single tenderer or in the case of a consortium (grouping) each member of the consortium) will be requested to prove the above by submitting Audited Financial Statements (Audited Profit and Loss Account/ Statement or equivalent) if these are foreseen by the respective national legislation. Should total subcontracting exceed 40% of the work by value, Cedefop reserves the right to request audited financial statements also from the subcontractors.

If, for some exceptional reason the tenderer is unable to provide one or more of the above documents, he is required to justify the non-provision and may prove his economic and financial capacity by any other document which Cedefop considers appropriate.

Cedefop reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

3.2.2 Technical and professional capacity

The Tenderers are required to have sufficient technical and professional capacity to perform the contract. They must demonstrate qualifications, knowledge, skills and the ability to perform the tasks outlined in the terms of reference.

Requirements:

- The tenderer must have a **minimum of five (5) years' experience in the field of comparative European data and policy analysis and the capacity to analyse socio-economic data at national and European levels;**
 - Previous professional experience working with Eurostat micro-data and/or institutional eligibility to access Eurostat micro-data;
 - The tenderer's proposed team of experts must have the profiles, knowledge and experience relevant to the subject of the study for the successful implementation of the contract. In particular, the following requirements are mandatory:
- **For the proposed Team Leader:**
 - **Minimum five (5) years** of individual experience in European research project management;
 - **Minimum five (5) years** of individual professional research experience in total, in one or more of the following fields:
 - Comparative research on education and training policy
 - Comparative research on labour market and/or employment policy analysis;
 - **Minimum five (5) years** of individual professional research experience in handling, processing and engaging in data analysis of international, European or national socioeconomic data sources;
 - Linguistic ability to communicate and draft to a **high standard in English** (Level C1 ⁽²⁶⁾ as determined in "Language levels of the Common European Framework of Reference (CEF)").

²⁶ <http://europass.cedefop.europa.eu/LanguageSelfAssessmentGrid/en>

- **For the proposed Senior Researchers:**
 - **Minimum four (4) years** of individual professional research experience in total, in one or more of the following fields:
 - Comparative research on education and training policy
 - Comparative research on labour market and/or employment policy analysis;
 - **Minimum four (4) years** of individual professional research experience in handling, processing and engaging in data analysis of international, European or national socioeconomic data sources;
 - Linguistic ability to communicate and draft to a **high standard in English** (Level B2 as determined in "Language levels of the Common European Framework of Reference (CEF)").
- **For each of the proposed Researchers/team members** who will be involved in the study:
 - **Minimum two (2) years** of individual experience in total, in one or more of the following fields:
 - Comparative research on education and training policy
 - Comparative research on labour market and/or employment policy analysis;
 - Linguistic ability to communicate and draft to a **high standard in English** (Level B2 as determined in "Language levels of the Common European Framework of Reference (CEF)").

Proofs / Evidences of technical and professional capacity

The following documents or information must be presented by the tenderer to prove his technical and professional capacity to perform the proposed contract:

- **A brief company profile** with short presentation of the Tenderer (experience in comparative European data and policy analysis, previous professional experience working with Eurostat micro-data, capacity to analyse socio-economic data at national and European levels);
- Copy of an existing contract signed with Eurostat for access to Eurostat micro-data, or statement of eligibility to be checked against the legal entity form attached in annex D as filled in by the tenderer, in line with Eurostat restrictions on access to micro-data²⁷;
- A list of at **least 3 contracts** performed in the past five (5) years (*concluded by the deadline of submission of offers*) similar to the scope, size and nature of this call for tenders (i.e. covering subjects of research and analysis on education and training and/or labour market policies), describing the contracting authorities, the subjects, the amounts, the dates, the percentage and the specific tasks performed by the tenderer (please fill-in Annex G, Questionnaire 3);
- **The detailed CVs of the experts** (in Europass format or similar)²⁸ who will be proposed to implement the contract (the Team Leader, Senior researchers and the team of Researchers), i.e. of the persons whose involvement will be crucial for performing the contract, including reference to linguistic abilities and list of publications.

In case of consortium or subcontracting, the consortium or the tenderer with all subcontractors together must provide evidence of technical and professional capacity as a whole (see also 4.1 and/or 4.2 below).

²⁷ <http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/introduction>

²⁸ <http://europass.cedefop.europa.eu/europass/home/vernav/Europass+Documents/Europass+CV.csp>

3.3 Legal Position

Tenderers may choose between submitting a joint offer (see 4.1) as a Consortium / Grouping or introducing a bid as a single tenderer, in both cases with the possibility of having one or several subcontractors (see 4.2). Whichever type of bid is chosen, the tender must stipulate the legal status and role of each legal entity in the tender proposed (see also 5th bullet of point 4.1. below). To identify himself (and any other participating entities, if applicable), the tenderer must complete Questionnaire 1 in Annex G. Tenderers are also requested to complete a Legal Entity Form found in Annex D, accompanied by all documents and information indicated in the form.

The Legal Entity Form must be completed and signed by the representative(s) of the tenderer (who sign(s) the cover letter as per point 4 of the Invitation to tender) authorised to sign contracts with third parties.

The Legal Entity Form should not be submitted by sub-contractors (if any).

4 ADDITIONAL INFORMATION CONCERNING PARTICIPATION TO THIS TENDER PROCEDURE

Participation in Cedefop tendering procedures is open on equal terms to all natural and legal persons or groupings of such persons (consortia) falling within the scope of the Treaties. It includes all economic operators registered in the EU and all EU citizens. Pursuant to Article 119 of the general Financial Regulation the participation is also open to all natural and legal persons from non-EU countries that have a ratified agreement with the European Union in the field of public procurement on the conditions laid down in that agreement. Cedefop can therefore accept offers from and sign contracts with tenderers from 34 countries, namely: the 28 EU member States, 3 EEA Countries (Lichtenstein, Norway, Iceland) and 3 SAA Countries (FYROM, Albania and Montenegro).

The procurement (tender) procedures of Cedefop are **not** open to tenderers from GPA countries.

A natural or legal person can take part (as an individual tenderer or as a member of a consortium submitting a tender) in only one tender. In the opposite case all tenders in which that person has participated may be excluded from the evaluation.

4.1 Joint Offers/ Groupings (Consortia)

Groupings (consortia), irrespective of their legal form, may submit a tender on condition that it complies with the rules of competition. A consortium may be a legally-established permanent grouping, or informally constituted group of tenderers submitting an offer (joint offer) for a specific tender procedure.

Cedefop does not require consortia (if any) to have a given legal form in order to submit a tender, but reserves the right to require a consortium to adopt a given legal form before the contract is signed (if this change is necessary for proper performance of the contract). This can take the form of an entity with or without legal personality but offering sufficient protection of the contractual interests of Cedefop.

If awarded the contract, the tenderers of the group (consortium) will have an equal standing towards Cedefop in executing it.

A grouping (if any) of firms must nominate one party to be responsible for the receipt and processing of payments for members of the grouping, for managing the service administration, and for coordination.

Tenders submitted by consortia of firms must specify the role, qualifications and experience of each member or of the group (please fill-in the respective Questionnaires in Annex G).

Each member of the group (consortium) must provide the required evidence for the exclusion and selection criteria. Concerning the selection criteria, the evidence provided by each member of the group (consortium) will be checked to ensure that the consortium as a whole fulfils the criteria.

The offer has to be signed by all members of the group (consortium). However, if the members of the group so desire they may grant an authorisation to one of the members of the grouping (consortium). In this case they should attach to the offer a power of attorney (see model in Annex I) authorising this company or person to submit a tender on behalf of the grouping (consortium).

- For groupings not having formed a common legal entity, Annex I, model 1 should be used and separate legal entity forms (see Annex D) should be completed and signed by all members.
- For groupings with a legal entity in place, Annex I, model 2 and one legal entity form (Annex D) should be completed and signed only by the single representative of the consortium.

The contract will have to be signed by all members of the group (consortium). If the members of the group (consortium) so desire, they may grant authorisation to one of the members of the grouping by signing a power of attorney. The same model as above duly signed and returned together with the offer is valid also for signature of the contract.

Partners in a joint offer assume joint and several liabilities towards Cedefop for the performance of the contract as a whole.

4.2 Subcontracting/Subcontractors

Subcontracting is defined as the situation where a contract has been or is to be established between Cedefop and a contractor and where the contractor, in order to carry out that contract, enters into legal commitments with other entities for performing part of the service. If awarded, the contract will be signed by the selected Tenderer (the Contractor), who will be vis-à-vis Cedefop the only contracting party responsible for the performance of this contract. Cedefop has no direct legal commitment with the subcontractor(s).

The contractor retains full liability towards Cedefop for performance of the contract as a whole. Cedefop will treat all contractual matters (e.g. payments) with the contractor, whether or not some tasks are performed by a subcontractor. Under no circumstances can the contractor avoid liability towards Cedefop on the grounds that the subcontractor is at fault. Any subcontracting/subcontractor must be approved by Cedefop, either by accepting the bidder's tender, or, if proposed by the Contractor after contract signature, in writing by an exchange of letters. In the latter case subcontracting/subcontractor will be accepted only if it is judged necessary and does not lead to distortion of competition.

Tenderers are free to choose their subcontractors from both eligible and non-eligible countries. Thus, in principle all economic operators can act as subcontractors of eligible tenderers.

The tenderer must clearly indicate the identity of each subcontractor and the percentage of work by value that he will perform for this contract (please fill in Annex G).

Only in cases when:

- a subcontractor undertakes between 10% and 40% of the work by value,
- the total subcontracting is above 40% of the work by value, independently of the individual Subcontractor's contribution to the work by value,

the tenderer should submit with the offer:

1. the Declaration on exclusion criteria and absence of conflict of interest (Annex C) filled-in and signed by the respective Subcontractor;
2. the required documents related to the economic/financial and technical/professional capacity of the Subcontractor as described in points 3.2.1 and 3.2.2;
3. the Form in Annex J (Model of Letter of Intent for Subcontractor/s) duly filled-in and signed by each respective Subcontractor, stating his unambiguous undertaking to collaborate with the tenderer if the latter wins the contract. Also should be stated the roles, activities and responsibilities of the subcontractor(s) and the extent of the resources that the respective subcontractor will put at the tenderer's /contractor's disposal for the performance of the contract.

N.B.: The Subcontractor(s) (if any) have to provide the documents to prove their capacity only for the parts of the contract that are relevant to them. The evidence provided will be checked to ensure that the tenderer with the subcontractor(s) altogether fulfil the criteria.

5 AWARD OF THE CONTRACT

Only the tenders meeting the requirements of the exclusion and selection criteria will be evaluated in terms of quality and price.

The contract shall be awarded to the tenderer submitting the tender that offers the best-value-for-money as represented by the highest Total Score (TS) out of 100.

The Total Score (TS), comprising quality + price score, will be calculated for each tender by applying the formula below:

Total Score (TS) = X*(TQV/100) + Y*(Cheapest TFO / TFO)
--

Whereby:

TQV = Total Quality Value of the tender, obtained as per point 5.1;

TFO = Total Financial Offer of the tender (as per point 5.4);

X is the weighting for quality score (TQV) and for this tender procedure it is fixed to **(70)**;

Y is the weighting for price (TFO) and for this tender procedure it is fixed to **(30)**.

Cheapest TFO is the Cheapest Tender Price of a technically compliant tender (i.e. among those having achieved a minimum of 50% of the possible score for each of the award (evaluation) criteria 1, 2 and 3 and in total a minimum of **65** out of 100 points (TQV) in the technical evaluation – see below).

5.1 Technical evaluation

The assessment of the technical quality will be based on the ability of the tenderer to meet the purpose of the study contract as described in the Tender Specifications.

The following Award Criteria for the technical evaluation will be applied to this tender procedure:

Award criteria		Points
Award criterion 1 (A.C.1) – <i>Level of understanding of the nature of the assignment, its context and results to be achieved (20 points)</i>	A.C.1. Demonstration of an in-depth knowledge and understanding of the concepts, literature and research issues related to the measurement and comparison of the skill systems of EU countries and to the assessment and monitoring of occupational skill mismatches for the purposes of informing education and training policies	20 points
Award criterion 2 (A.C.2) – <i>Quality and appropriateness of the methods suggested to carry out the work (60 points)</i>	A.C.2.a. Relevance and soundness of the approach for constructing a composite index for measuring country performance on skills with emphasis on the suggested: - methodology for data synthesis; - data sources to be used; - sensitivity and robustness tests proving the reliability of the approach; - visual display of key findings.	25 points
	A.C.2.b. Relevance and soundness of the approach for measuring and prioritising occupational skill imbalances with emphasis on the proposed: - method for data collection, analysis and synthesis; - level of occupational breakdown of analysis; - indicators of occupational skill demand, skill supply and skill mismatch; - risk assessment criteria; - data sources for use; - sensitivity and robustness tests proving the reliability of the approach; - validation process, including the quality of external country experts to be used for qualitative inputs; - visual display of key findings.	35 points
Award criterion 3 (A.C.3) – <i>Organisation and management arrangements (20 points)</i>	A.C.3.a. Allocation of tasks, type and degree of involvement of the proposed experts	10 points
	A.C.3.b. Project organisation and mechanisms to guarantee successful and on-time delivery of tasks with adequate quality and risk management (clarity, coherence and feasibility of the work programme and timetable)	10 points

In order to guarantee a minimum threshold of quality, offers that

- do not reach a minimum of 50% of the possible score for each award (evaluation) criterion 1, 2 and 3, and
- obtain an overall total score (Total Quality value) of less than the total **65** (of a maximum of 100) points against the award (technical) criteria,

will not be considered acceptable and will be eliminated from further evaluation.

Only the technically compliant (acceptable) tenders as per the above will be subject to Financial (Price) Evaluation (5.3).

5.2 Technical proposal

The tenderer's technical proposal should consist of a clear and comprehensive response to all requirements as per the Terms of Reference above providing a practical, detailed description of the goods or services proposed for performance of the contract.

Tenderers are requested to organise the technical proposal in headings or to structure it in such a way as to ensure that the content of the technical proposal meets the requirements set out in the Terms of Reference as closely as possible and to facilitate the subsequent evaluation of tenders against the technical award criteria. It is up to the tenderer to present in his Technical Proposal a detailed organisation and methodology such that they fulfil (comply in full to) all requirements outlined in the Terms of Reference.

The Technical Proposal should prove that the Tenderer is capable of meeting the tender specifications, by providing all the information related to the scope of this project. All the information and means of proof provided in the tender commit the contractor throughout the duration of the contract.

For the technical evaluation of the proposal against the award (technical) criteria mentioned above, the tenderer must provide:

For award criterion 1 (maximum 15 pages)

A concise discussion of the subject, demonstrating in-depth understanding of the objectives, relevant literature, research issues of the study and key challenges to be encountered.

For award criterion 2 (maximum 60 pages)

AC2.a

- discussion of alternative approaches to constructing composite indices that measure and compare the performance of countries on a topic of policy interest;
- detailed description of the envisaged methodology employed and harmonised data sources to be used;
- a discussion of relevant sensitivity tests to be undertaken as validation of the soundness of the proposed approach;
- illustration and prototype examples of the country fiches produced on the basis of the findings of the proposed skills monitoring index, with a clear suggested display and visual layout.

AC2.b

- detailed description of the proposed set of synthetic, transparent and regularly updated indicators of skill supply and skill demand that can be used to measure and monitor occupational skill mismatches;
- discussion of the main data sources to be used in each EU Member State and efforts to be undertaken to ensure access to such sources during the course of the project;
- detailed description of the envisaged methodology and criteria to be used for prioritising occupational skill mismatches using a risk-assessment approach;
- a discussion of the proposed sensitivity tests to be employed as validation of the soundness of the proposed approach;
- an outline of the envisaged process and quality of external expertise to be used for the purpose of validating the main findings of the risk assessment exercise;
- Illustration and prototype examples of the "policy priority action matrices" to be derived as part of the project.

For award criterion 3 (maximum 25 pages)**AC3.a**

- structure of the proposed team, the nature and the extent of the team members' expertise and participation in the study and allocation of tasks.

AC3.b

A detailed work plan illustrating intended organisation and management of the tasks, including:

- timetable with descriptions of the deliverables;
- arrangements for secure and easy communication with Cedefop;
- detailed quality assurance and preliminary assessment of likely difficulties in carrying out the tasks (risk assessment and proposed measures to mitigate risks).

The tenderer shall identify a Project Co-ordinator within his organisation who will represent the single contact point for all administrative and operational communication in regards to the contract implementation. As appropriate, the Team leader (see 4.2.2.) can also act as Project Co-ordinator, or two different persons can be identified. Cedefop will also designate the Contact Person in charge of handling the contact with the selected tenderer.

In addition to the above, the tenderer must clearly specify which parts of the work will be subcontracted (if any) and specify the identity of those subcontractors only undertaking more than 10% of the work by value (or of all subcontractors if total sub-contracting is above 40% of the work by value) as requested in point 4.2.

NB: All the information and means of proof provided commit the contractor throughout the duration of the contract.

5.3 Financial evaluation

Only tenders scoring **65** points or more (of a maximum of 100 points) against the technical award criteria and **50%** or more of the possible maximum score for each of the award criteria 1,2 and 3 above will have their financial proposal evaluated. The evaluation will be made on the basis of the **Total Price** offered in the Price schedule table (see 5.4 below).

The tenders are awarded points for the Total Price offered by using the following formula:

$$\text{Financial score} = (\text{cheapest Financial Proposal} / \text{Financial Proposal of the tender considered}) * Y.$$

Where Y = price weighting (see the complete formula under point 5 above)

5.4 Financial proposal

The financial offer must be clear and in compliance with the tender specifications. The financial proposal should indicate the total price in order to carry out all the activities indicated in the Terms of Reference.

The tenderer must fill in the Price Schedule table available below and present a detailed breakdown of the price offered. The financial proposal should clearly match the Terms of Reference and take account of the estimated contract value. All services that shall be procured should be included.

Price Schedule table

1)	Names/positions of the Experts ⁽²⁹⁾	Number of person-days	Unit price (EUR) per person-day	Price (in EUR) for services/experts
	1a)	.....	.....	.....
	1b)	.....	.....	.....
	1c)	.....	.....	.....

	1N)	.....	.....	.....
Subtotal 1(1a+1b+.....)				.....
2)	2a) Attending 5 one-day meetings at Cedefop premises in Thessaloniki (see 2.5.a)	Number of persons attending the 5 meetings	Price (EUR) per person	Amount (EUR) for all meetings
	
	2b) All estimated travel, accommodation, etc. expenses related to performance of the tasks (see 2.5.b – 1 st paragraph)	Number of persons	Price (EUR) per person	Amount (EUR) for travel, accommodation, etc.
	
	2c) Other administrative expenses including professional proof-reading and editing in English of final report (see 2.5.b – 2 nd paragraph)	Number of Units (if applicable)	Unit price (EUR) (if applicable)	Amount (EUR) for other administrative expenses
	
Subtotal 2 (2a+2b+2c)				.....
3)	Total Price = Subtotal 1 + Subtotal 2			.....

The VAT amount must be indicated separately here (this applies to tenderers established in Greece only): ... EUR.

The financial offers will be checked for any arithmetical errors in computation and summation. Errors will be corrected by the evaluation committee as follows:

- where there is a discrepancy between a unit price and the total amount derived from the multiplication of the unit price and the quantity, the unit price as quoted will be the price taken into account. Tenderers will be requested to confirm in writing the corrected calculation so that it may eventually be included in the contract.

Information concerning price

- The prices quoted must be fixed and are not revisable.
- Prices must be quoted in euro and include all expenses.
- Under Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Union, Cedefop is exempt from all charges, taxes and dues, including value added tax (VAT). Such charges may not therefore be included in the calculation of the price quoted.

²⁹ Distinguish between: Expert/senior researcher - junior researcher - Secretary/assistant - External expert (if applicable). The estimated total number of working days must be justified by the methodology and work organisation.

6 INFORMATION ON PRESENTATION AND CONTENT OF TENDER

It is important that tenderers provide all documents necessary to enable the evaluation committee to assess their tender. Tenderers should fully respect the instructions indicated under points 2, 3 and 4 of this open invitation to tender.

In addition, below you will find details of the required documentation.

6.1 Envelope A – Supporting documents

One original and one copy of:

- cover letter (art. 4 of the invitation), signed by the person/s (name and position) that is/are authorised to sign the contract in case of contract award
- the exclusion criteria declaration requested in section 3.1 and standard template found in Annex C
- the selection criteria documents as requested in section 3.2
- Questionnaires 1 – 3 as found in Annex G
- Power of Attorney (Model 1 or 2), as required in section 4.1 (if applicable) and found in Annex I
- Model of Letter of Intent for Subcontractor/s as required in section 4.2 (if applicable) and found in Annex J
- the Legal Entity Form as requested in section 3.3 and found in Annex D
- the Financial Identification Form as found in Annex E
- the checklist found in Annex F

In the case of tenders submitted by groupings (consortia) or involving contribution by subcontractors, envelope A should also contain all relevant documentation as requested in points 4.1 and 4.2 respectively (with reference to sections 3.1, 3.2 and 3.3).

6.2 Envelope B – Technical proposal

- **One original signed unbound version and three bound copies** of the Technical Proposal providing all information requested in section 5.2, including information relevant to subcontracting (if any) as requested in section 4.2.

6.3 Envelope C – Financial proposal

- **One original signed version and three copies** of the financial proposal containing all information requested in point 5.4.

Annex A

CONTRACT NOTICE

(Given as separate file in *.pdf)

Annex B

DRAFT CONTRACT

(Given as separate file in *.pdf)

Annex C:

**DECLARATION OF HONOUR WITH RESPECT TO THE EXCLUSION
CRITERIA AND ABSENCE OF CONFLICT OF INTEREST**

(Given as separate file in *.doc)

Annex D

LEGAL ENTITY FORM

Legal Entity Form to be downloaded, depending on the nationality and legal status of the tenderer, from the following website:

http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm

Legal Entity Form to be completed and signed by a representative of the tenderer (name and function) authorised to sign contracts with third parties. It should not be signed by sub-contractors (if any).

Annex E

FINANCIAL IDENTIFICATION FORM

To be downloaded, depending on the nationality of the tenderer, from the following website:

http://ec.europa.eu/budget/contracts_grants/info_contracts/financial_id/financial_id_fr.cfm

and completed and signed by an authorised representative of the tenderer (with indication of name and function), but not by subcontractors.

PLEASE NOTE:

Please indicate the BIC (Bank Identification Code) in the REMARKS box of the downloaded form.

Annex F

CHECK LIST OF MANDATORY DOCUMENTS

The checklist must be used to ensure that you have provided all the documentation for this tender and in the correct way. This checklist should be included as part of your offer.

Please Tick ✓ the boxes provided

Mandatory documents to be included as part of the tender	Reference paragraph	Included		If the document is not included, please provide an explanation for the reason
		Yes	No	
<u>Envelope 'A' must contain</u>				
one original and one copy of:	6.1	<input type="checkbox"/>	<input type="checkbox"/>	
- Cover letter, signed by the person/s that is/are authorised to sign the contract in case of contract award (name and position of the individual(s) entitled to sign contract)	Art. 4 of Invitation to tender; 6.1	<input type="checkbox"/>	<input type="checkbox"/>	
- Exclusion Criteria Declaration (including those of consortium members and subcontractors, if applicable)	3.1, 6.1 & Annex C	<input type="checkbox"/>	<input type="checkbox"/>	
- selection criteria documents (If applicable, including those of consortia and subcontractors)	3.2, 4.1, 4.2, 6.1	<input type="checkbox"/>	<input type="checkbox"/>	
- Questionnaires 1-3 (Annex G)	3.2, 3.2.1, 3.2.2, 4.1; 6.1 & Annex G	<input type="checkbox"/>	<input type="checkbox"/>	
- Power of attorney of partners in joint bid / Consortium (if applicable)	4.1, 6.1 & Annex I (models 1 or 2)	<input type="checkbox"/>	<input type="checkbox"/>	
- Letter of intent of subcontractor (if applicable)	4.2, 6.1 & Annex J	<input type="checkbox"/>	<input type="checkbox"/>	
- Legal Entity Form	3.3, 6.1 & Annex D	<input type="checkbox"/>	<input type="checkbox"/>	
- Financial Identification Form	6.1 & Annex E	<input type="checkbox"/>	<input type="checkbox"/>	
- this Checklist	6.1 & Annex F	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Envelope 'B' must contain</u>				
one original and three copies of:	6.2	<input type="checkbox"/>	<input type="checkbox"/>	
- the technical proposal	5.1, 5.2, 6.2	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Envelope 'C' must contain</u>				
one original and three copies of:	6.3	<input type="checkbox"/>	<input type="checkbox"/>	
- the Financial Proposal	5.4, 6.3	<input type="checkbox"/>	<input type="checkbox"/>	

The tenderers should also ensure that:	
<input type="checkbox"/>	the offer is formulated in one of the official languages of the European Union.
<input type="checkbox"/>	both the technical and financial proposals of the offer are signed by duly authorised agent.
<input type="checkbox"/>	the offer is perfectly legible in order to rule out any ambiguity.
<input type="checkbox"/>	the offer is submitted in accordance with the envelope system as detailed in the invitation to tender point 3.
<input type="checkbox"/>	the outer envelope bears the information mentioned in the invitation to tender point 3.

Annex G

QUESTIONNAIRES 1- 3

(Given as separate files in *.doc)

Annex H

CEDEFOP STYLE MANUAL

(Given as separate file in *.pdf)

Annex I

POWER OF ATTORNEY

(MODELS 1 & 2)

(Given as separate files in *.doc)

Annex J

MODEL OF LETTER OF INTENT FOR SUBCONTRACTOR/S

(Given as separate file in *.doc)