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Measuring skills mismatches

ILO approaches in identifying and assessing skills needs

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Learning goals

01
Understand the key research questions that can be answered with skills anticipation

02
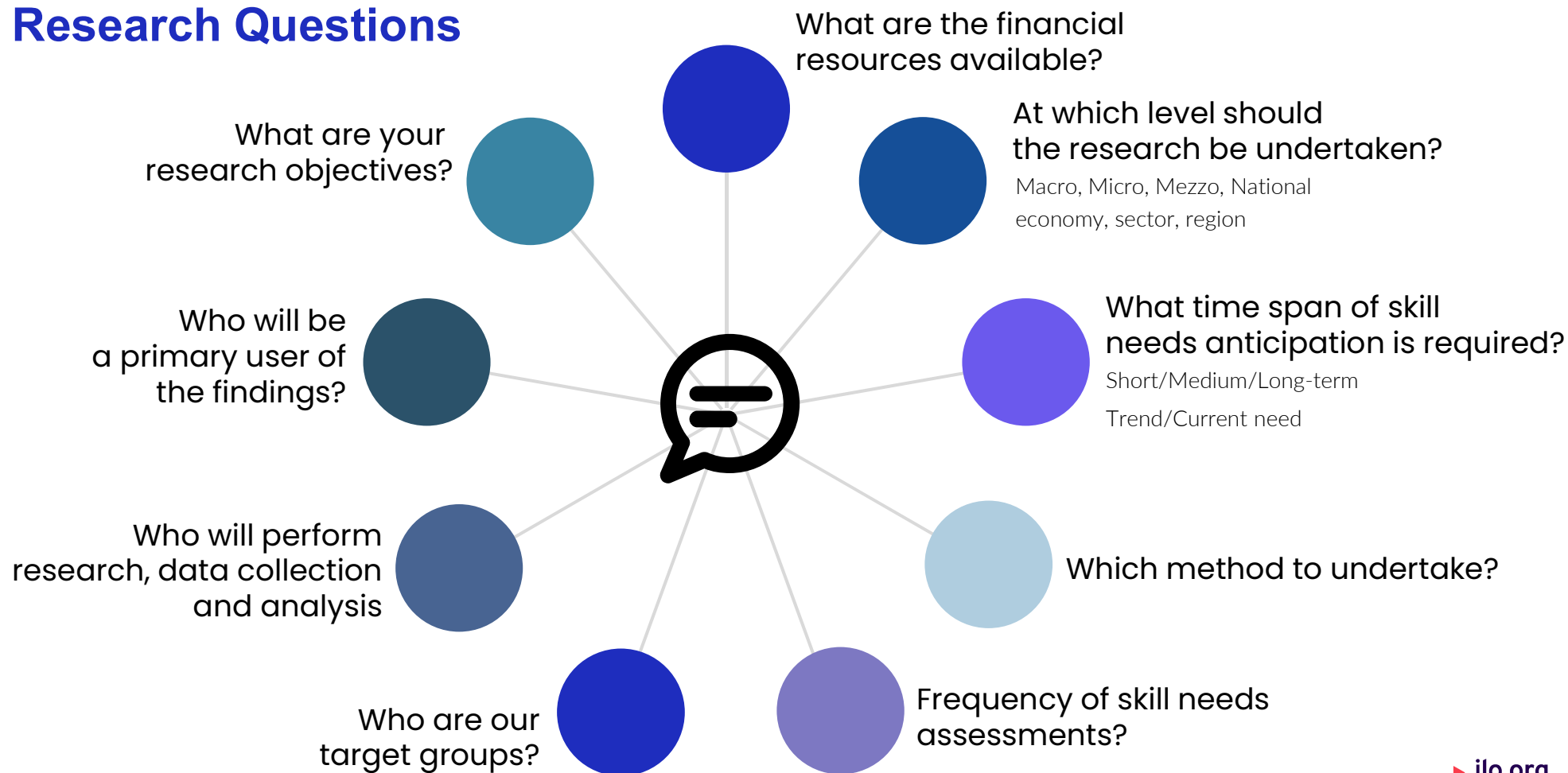The influence of demographics on policy intervention to tackle skill imbalances
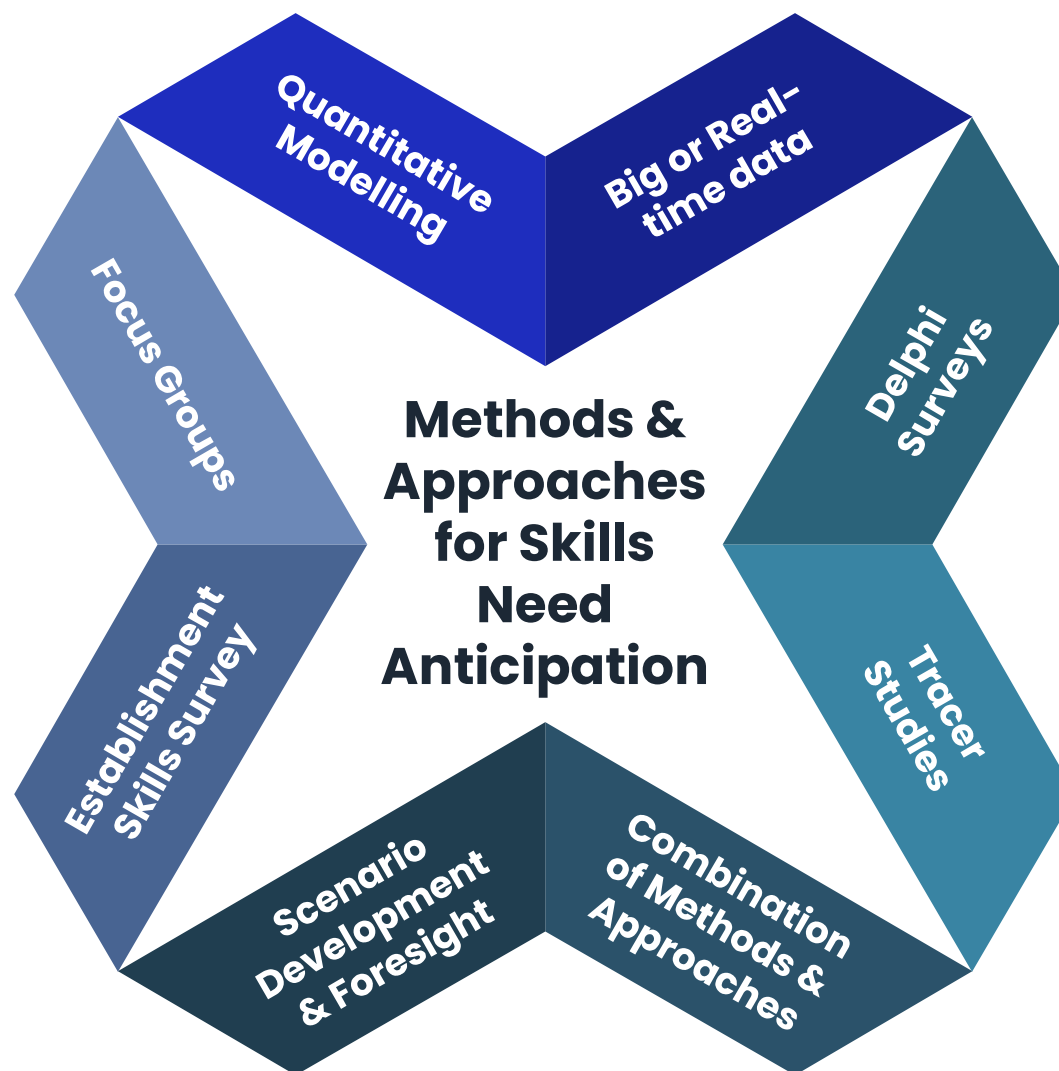
03
Elaborate quantitative and qualitative approaches

04
Combine approaches and tools

Key Research Questions

What are the financial
resources available?

What are your
research objectives?

At which level should
the research be undertaken?
Macro, Micro, Mezzo, National
economy, sector, region

Who will be
a primary user of
the findings?

What time span of skill
needs anticipation is required?
Short/Medium/Long-term
Trend/Current need

Who will perform
research, data collection
and analysis

Which method to undertake?

Who are our
target groups?

Frequency of skill needs
assessments?

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Methods & Approaches for Skills Need Anticipation

Quantitative Modelling

Big or Real-time data

Focus Groups

Delphi Surveys

Establishment Skills Survey

Tracer Studies

Scenario Development & Foresight

Combination of Methods & Approaches

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Quantitative Modelling

DEVELOPING SKILLS FORESIGHTS, SCENARIOS AND FORECASTS
GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 2

Different forms

- Time horizon (Short-term, Medium-term, Long-term)
- Geographical coverage (Extraterritorial/International, National, Regional)

Analyse current/future trends of demand and supply of labour

Analyse potential labour market imbalances and skills shortages

Answers questions on

a) employment trends by sector/job/qualification (growth of numbers of jobs in economy);

b) replacement demand (how many jobs will need to be filled after current workers leave them);

c) labour force trends by qualification/gender/age groups (number of people available to work);

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Quantitative Modelling

PROS

CONS

Future is made explicit and transparent

**Reinforce systematic and logical thinking and act as a focus for intelligent debate**

Results of forecast are not the only possible future

- represent a benchmark for debate and reflection
- should be regarded as indicative of general trends and orders of magnitude and are not intended to be prescriptive

Data Quality
The results from such models cannot be more robust than the data upon which they are based

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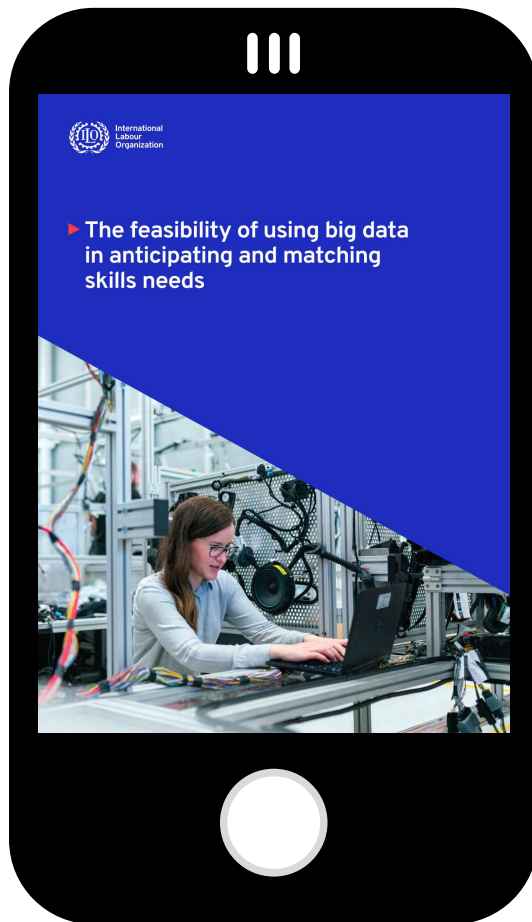
Big Data analytics

- Derived mainly from internet-based/digitized data sources (Online job vacancies, Financial Transactions)
- A growing area of business, research and policy concern

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Big Data

PROS

CONS

Almost instant

Big volume of information

New data need not be collected

Information is unstructured and imperfect

Issues of non-representativeness

Measurement errors

'Partial' occupation skill profiles

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Establishment Skills Survey

Obtain information on skills demanded and investment in skills by employers (Type, Level and Composition)

Examples of typical topics

- Level and use of skills by current and incoming employees
- Drivers of changing skills needs
- Skill gaps per group of occupations
- Recruitment practices and difficulties, (hard-to-fill) vacancies
- Evaluation of educational/training policies
- Changes in the demand for skills

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CEDEFOP European Centre for the Development of Vocational Training

International Labour Office Geneva

DEVELOPING AND RUNNING AN ESTABLISHMENT SKILLS SURVEY

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 5

![International Labour Organization logo]

Establishment Skills Survey

PROS

- Direct information on demand

- Details on skills requirements (quality, competencies and gaps)

- Possible to monitor change

- Possible to link with other firm characteristics (business strategies)

CONS

- Time and resource intensive

- Issues on frequency of survey and representativeness

- Respondent fatigue leading to low response rates

- Biasness

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Tracer Studies

Survey which provides information on the whereabouts of graduates sometime after the award of the degree
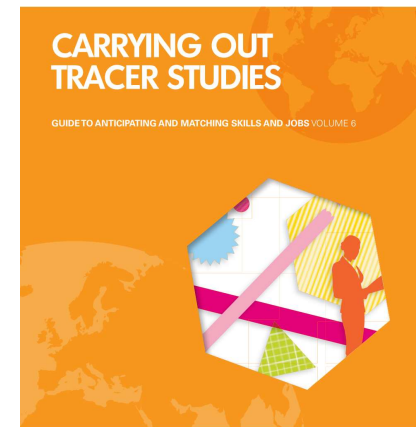
Objective

- Measures the employability of graduates (labour market information)
- Feedback from graduates to improve the study programme (retrospective evaluation)

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CEDEFOP — European Centre for the Development of Vocational Training

International Labour Office — Geneva

CARRYING OUT TRACER STUDIES

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 6

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Tracer Studies

PROS

CONS

Easy to execute

Provides useful information for improving planning and programming

Confined to workers early labour market experience

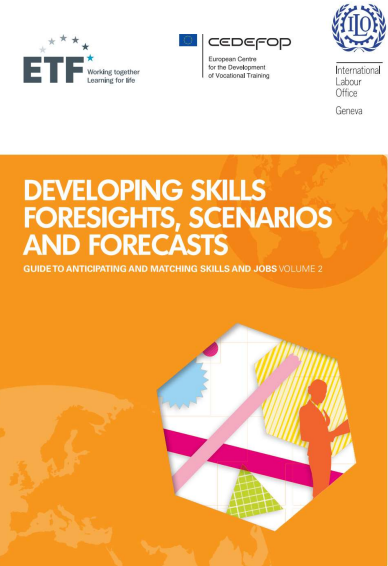Cross sectional data and not longitudinal

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Scenario Development and Foresight

Policy analysis tool that describes a set of possible future conditions

- Scenarios are a preparation for potential future challenges, not predictions of what will happen
- Helps to identify issues and plan action
- Does not require extensive data gathering and analysis
- **Plausibility**
  - Falling within the limits of what might conceivably happen. Creativity is encouraged but stories that are unrealistic and impossible should be avoided
- **Consistency**
  - Scenario has to be internally consistent.
  - Combination of logic should not have any inconsistencies that could undermine its credibility

ETF Working together Learning for life

CEDEFOP European Centre for the Development of Vocational Training

International Labour Office Geneva

DEVELOPING SKILLS FORESIGHTS, SCENARIOS AND FORECASTS

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 2

Focus Groups infographic — International Labour Organization

Focus Groups

A form of qualitative research strategy

Group of people are asked about their perceptions, beliefs, attitudes towards issues of interest

- Supports improvements on ideas
- Gaining feedback on various other forms of studies/research methods
- Encourages group think
- Oriented at obtaining information on skill needs anticipation from researchers, and technical staff
- Validating results of a quantitative forecast
- Initial preparation of preliminary ideas, products, versions of strategies as a starting point
- Gaining a better understanding and interpretation of data

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Focus Groups

PROS

CONS

Useful to develop and improve ideas

Brings new ideas on how to tackle a problem

Results obtained may be influenced by the facilitator

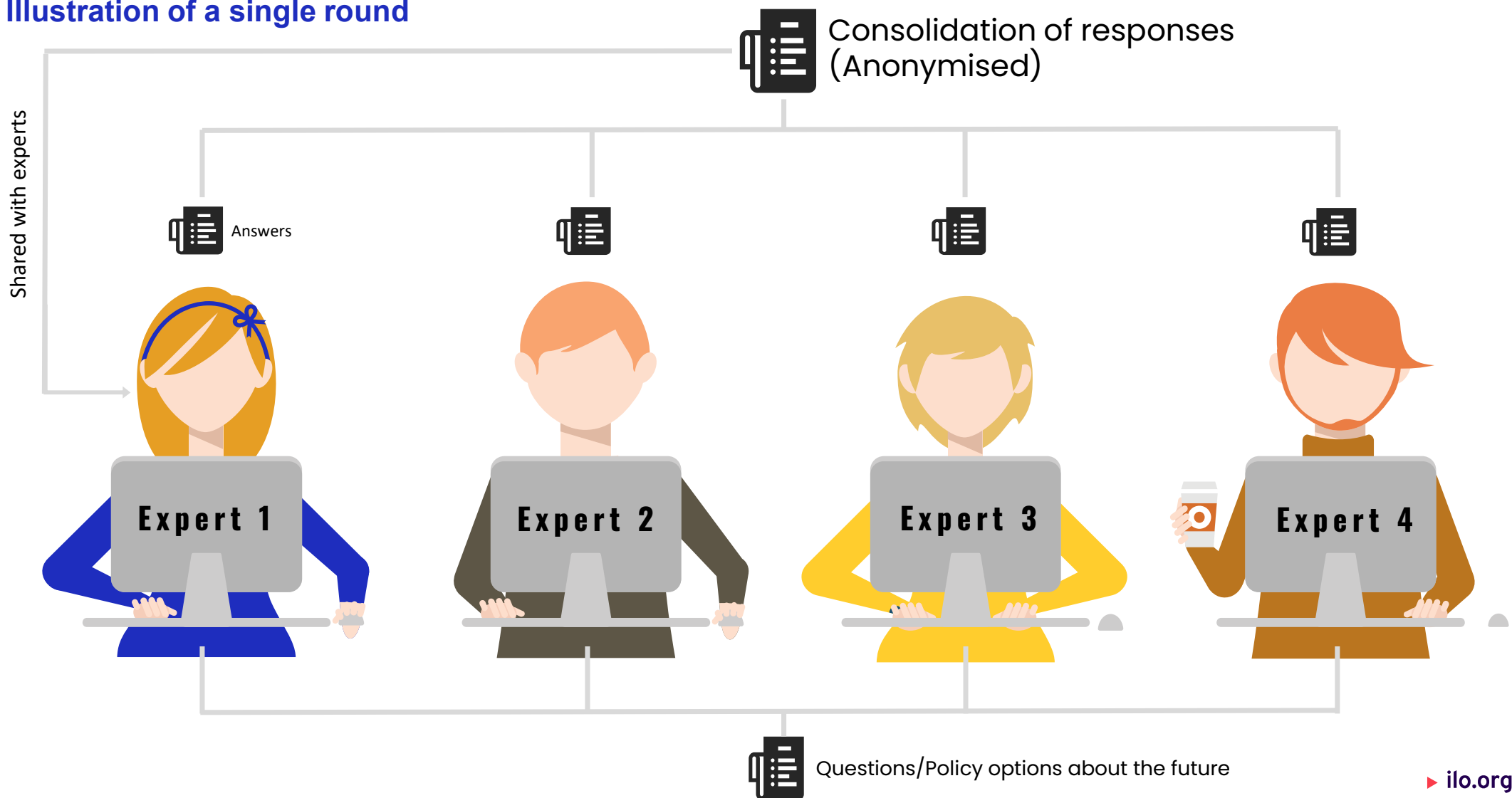Participant's ideas are not always representative of the institutions or target group

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Delphi Method
Illustration of a single round

Consolidation of responses
(Anonymised)

Shared with experts

Answers

Expert 1

Expert 2

Expert 3

Expert 4

Questions/Policy options about the future

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Delphi Method

PROS

- Holistic 'learning' approach
- Direct 'user/customer' involvement
- Results from a structured group of individuals are more accurate than those from unstructured groups
- Anonymity and controlled feedback process

CONS

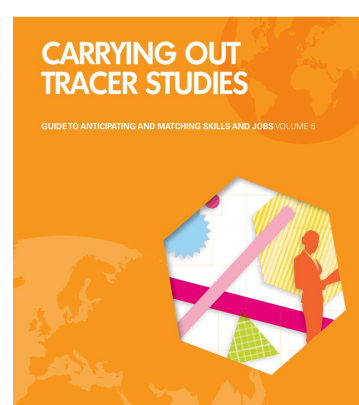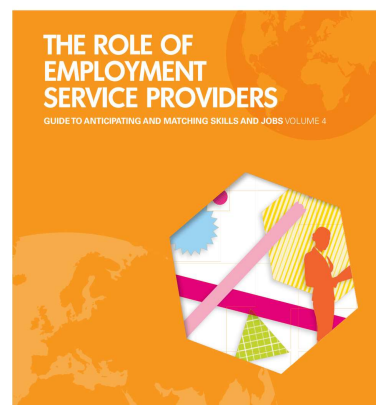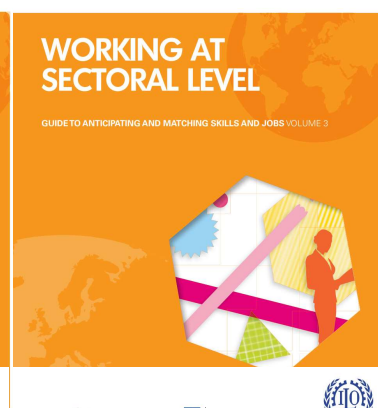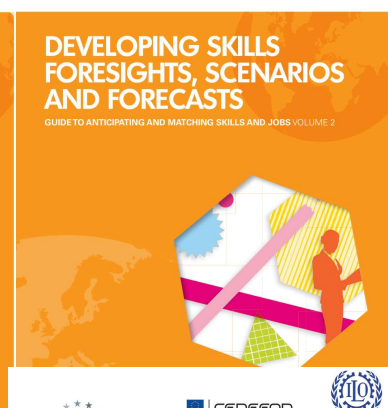- Time consuming
- Inconsistent (low response rate)
- Non-systemic
- Subjective (biasness)

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Guides to anticipating and matching skills and jobs

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USING LABOUR MARKET INFORMATION

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 1

DEVELOPING SKILLS FORESIGHTS, SCENARIOS AND FORECASTS

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 2

WORKING AT SECTORAL LEVEL

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 3

DEVELOPING AND RUNNING AN ESTABLISHMENT SKILLS SURVEY

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 5

THE ROLE OF EMPLOYMENT SERVICE PROVIDERS

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 4

CARRYING OUT TRACER STUDIES

GUIDE TO ANTICIPATING AND MATCHING SKILLS AND JOBS VOLUME 6
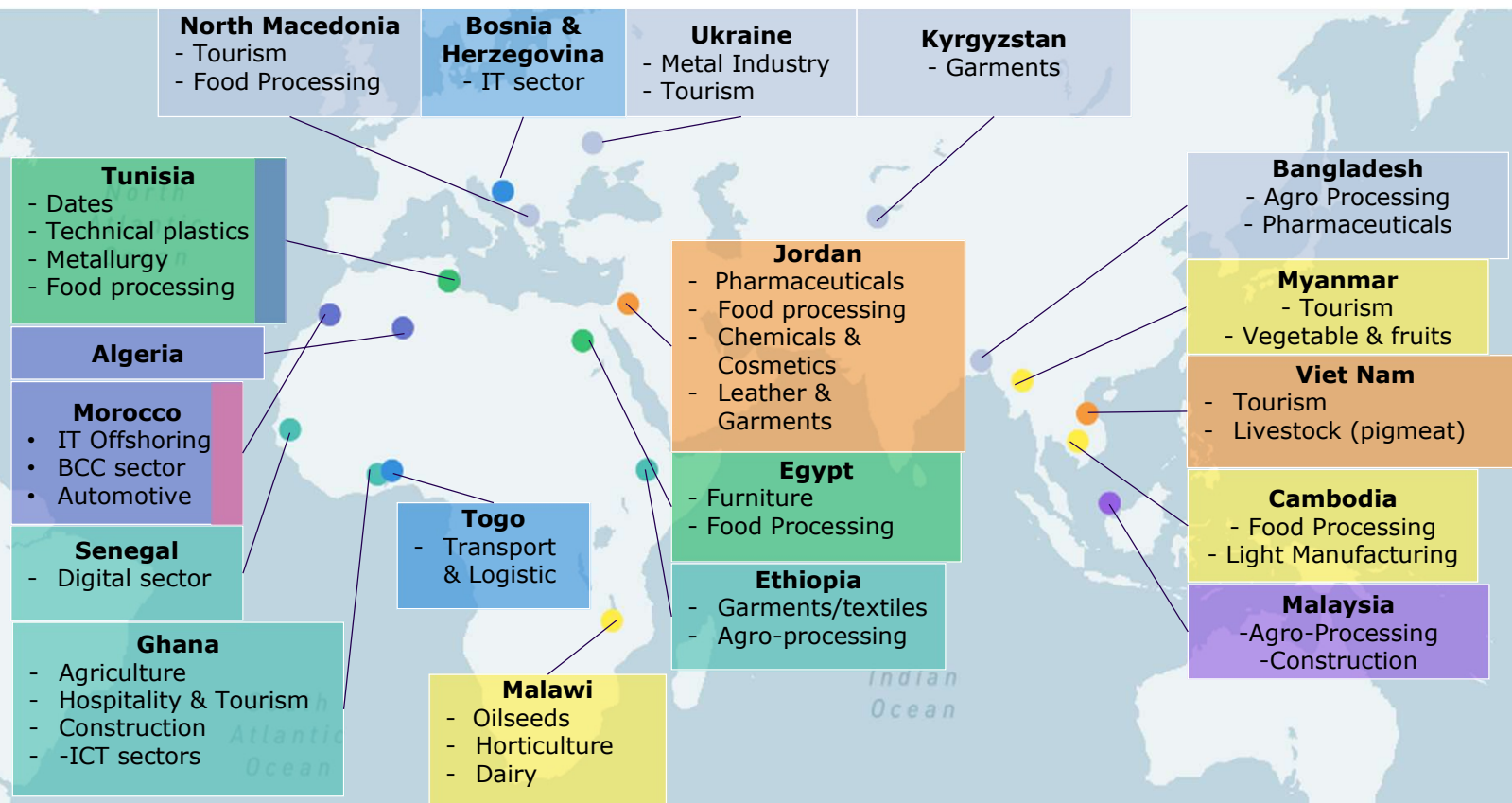
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Why sectoral approaches to skills?

▸ Sector is crucial to understand the key drivers of change in skills demands

▸ Clear stakeholders

▸ Facilitate coordination, collaboration and dialogue

▸ Reduce complexity and scope of intervention

▸ Deeper insights into skills needs in strategically important sectors

▸ Linked to industrial policies, investment decisions

▸ Less reliant on availability of statistics

▸ Scope for reconcile non-comparable data on skills demand and supply

STED – the ILO approach to skills anticipation for tradable sectors

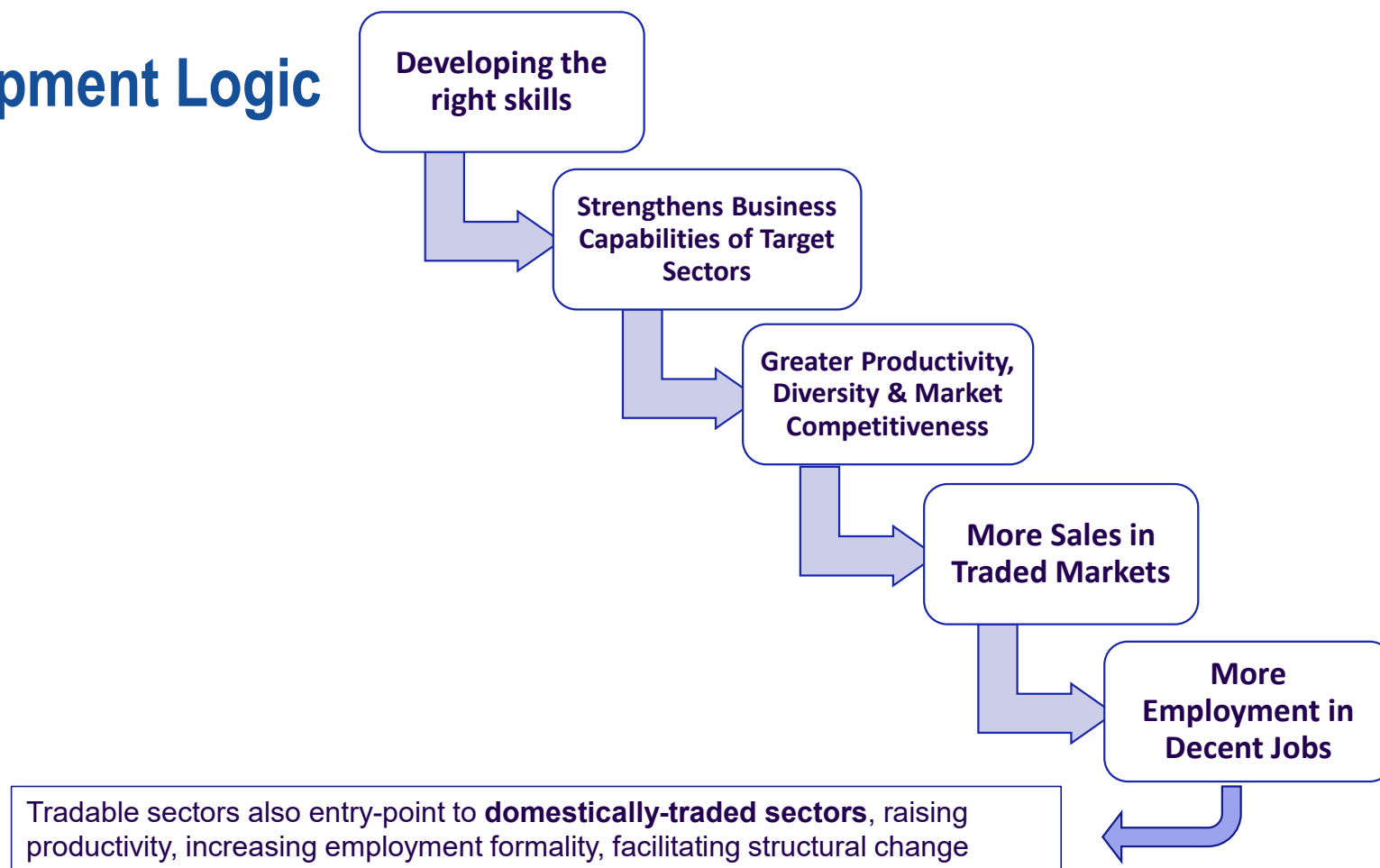- ◆ **STED – Skills for Trade and Economic Diversification**

- ◆ ILO's sector-based methodology to provide **strategic guidance on integrating skills development** into policies to strengthen traded sectors

- ◆ STED takes a **forward-looking perspective**

- ◆ **Strong social partner** and **stakeholder involvement** and engagement

- ◆ **Holistic and strategic focus** on **skills**

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Locations of STED development cooperation

North Macedonia
- Tourism
- Food Processing

Bosnia & Herzegovina
- IT sector

Ukraine
- Metal Industry
- Tourism

Kyrgyzstan
- Garments

Tunisia
- Dates
- Technical plastics
- Metallurgy
- Food processing

Algeria

Morocco
- IT Offshoring
- BCC sector
- Automotive

Senegal
- Digital sector

Ghana
- Agriculture
- Hospitality & Tourism
- Construction
- -ICT sectors

Togo
- Transport & Logistic

Malawi
- Oilseeds
- Horticulture
- Dairy

Jordan
- Pharmaceuticals
- Food processing
- Chemicals & Cosmetics
- Leather & Garments

Egypt
- Furniture
- Food Processing

Ethiopia
- Garments/textiles
- Agro-processing

Bangladesh
- Agro Processing
- Pharmaceuticals

Myanmar
- Tourism
- Vegetable & fruits

Viet Nam
- Tourism
- Livestock (pigmeat)

Cambodia
- Food Processing
- Light Manufacturing

Malaysia
-Agro-Processing
-Construction

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STED Development Logic

Developing the right skills

↓

Strengthens Business Capabilities of Target Sectors

↓

Greater Productivity, Diversity & Market Competitiveness

↓

More Sales in Traded Markets

↓

More Employment in Decent Jobs

↓

Tradable sectors also entry-point to **domestically-traded sectors**, raising productivity, increasing employment formality, facilitating structural change

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Full- STED: Analytic and Implementation process

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STED Analytic phase

STED Implementation phase

STED Start up

Choosing Sectors

Output document: Note on sector selection

Consultation and capacity development with national constituents – *government, employers, workers*

Desk Research

Output document(s): Report(s) on desk research

Survey of Employers

Output document(s): Report(s) on sector survey

Skills Supply Study

Output document(s): Report(s) on supply study

Interviews with Experts & Partners

Output document(s): Report(s) on interviews

Analysis and Synthesis

Output document(s): Report(s) on STED analysis

STED Technical and Policy Workshop

Output document(s): Report on Workshop

Conclusions, Recommendations and Validation

Output document(s): Finished STED report(s)

Initial Education / Training (including Workplace-based)

Provision of Continuing Education / Training

Competency frameworks
Curriculum development
Course development
Course piloting

Capacity development:
Ed/Training Provider
Employers
Institutions

Planning, skills anticipation and Labour Market Information

System reform

Consultation and capacity development with sector stakeholders
(employers, workers, government, education and training providers etc.)
through steering committees and/or stakeholder workshops

Rapid STED: Analytic and Implementation process

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STED Start up

STED Analytic phase

STED Implementation phase

Choosing Sectors

Output document: Note on sector selection

Consultation and capacity development with national constituents – *government, employers, workers*

Background Research and Consultations

Output document(s):

STED Background study

STED Technical and Policy Workshop

Output document(s):

Initial outline draft of diagnosis and strategic skills recommendations

Validation and Improvement of Strategic Skills Recommendations

Filling information gaps

Sector Skills Strategic Document

Document setting out diagnostic and strategic skills recommendations for the sector

Validation of Sector Skills Strategic Document

Initial Education / Training (including Workplace-based)

Provision of Continuing Education / Training

Competency frameworks
Curriculum development
Course development
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