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DONOR COMMITTEE FOR DUAL VOCATIONAL EDUCATION AND TRAINING
GEBERKOMITEE FÜR DUALE BERUFSBILDUNG

# Skills Needs Anticipation and Matching – Main Approaches and Methods

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International Labour Organization

AUSTRIAN DEVELOPMENT AGENCY

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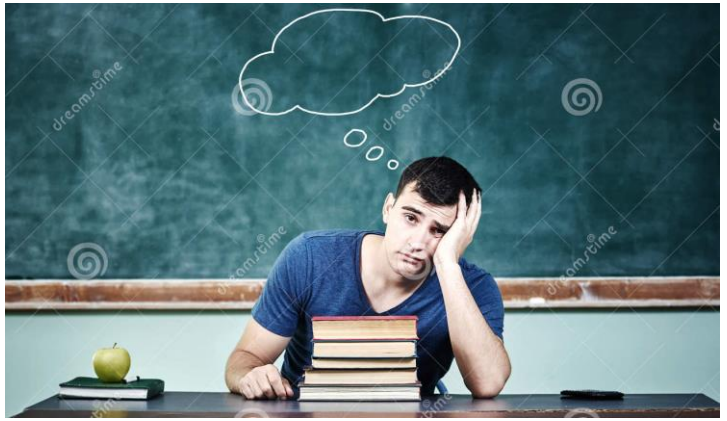
# Why is it so important?

- **Drivers of change:**
  - Technology, innovation
  - Demographic
  - Work organisation
  - Globalisation of markets, health
  - Climate change
  - Educational attainment
- **Strategic reasons:** Planning, Financing (RoI), development
- **Economic reasons:** Competitiveness, productivity
- **Social reasons:** employment, social cohesion
- **<u>Skills needs anticipation & dual VET:</u>**
  - Dual VET as a means of matching (bringing supply and demand together)

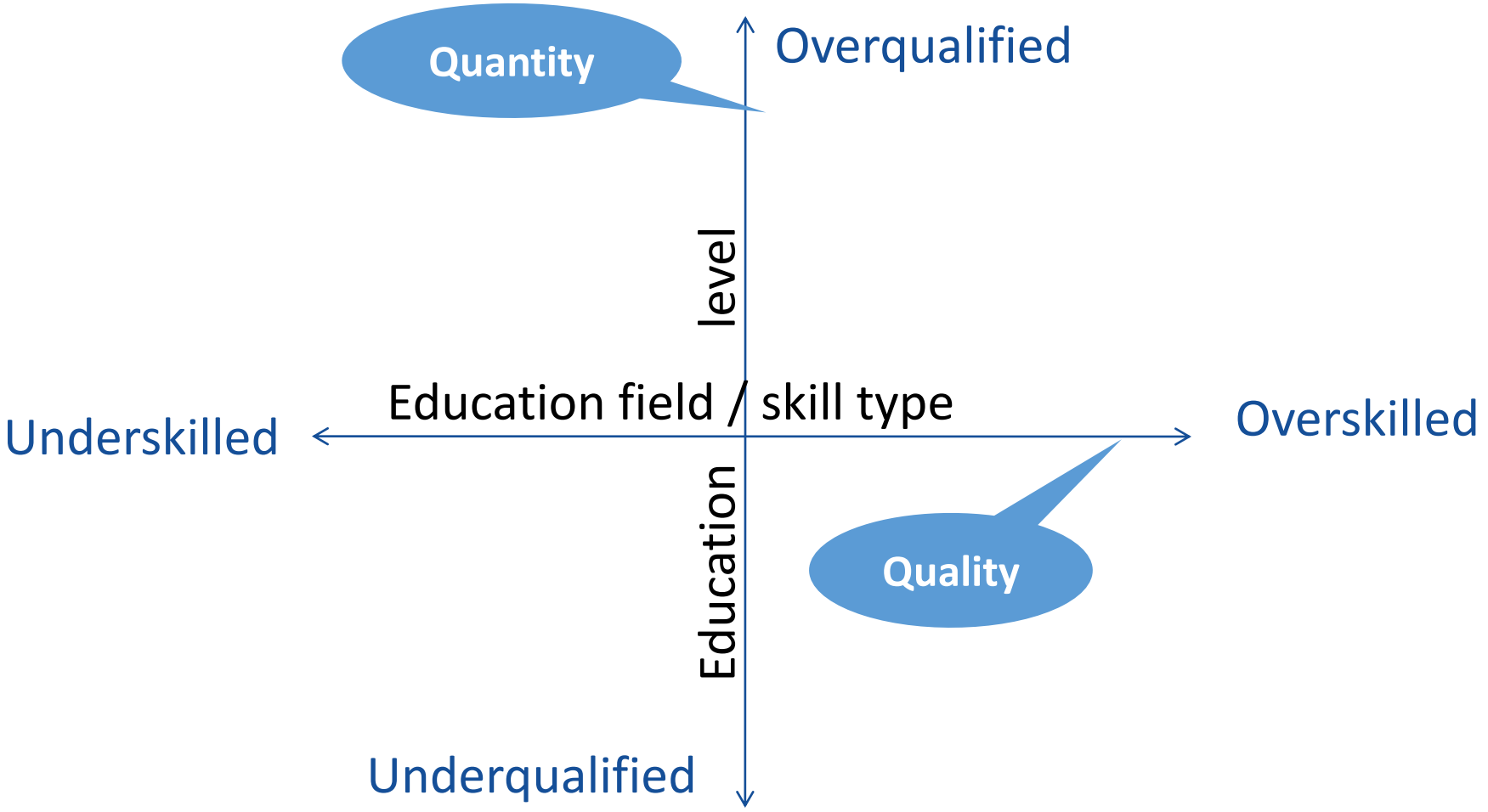


**We are preparing students for jobs that do not exist yet, using technologies that have not been invented yet …**

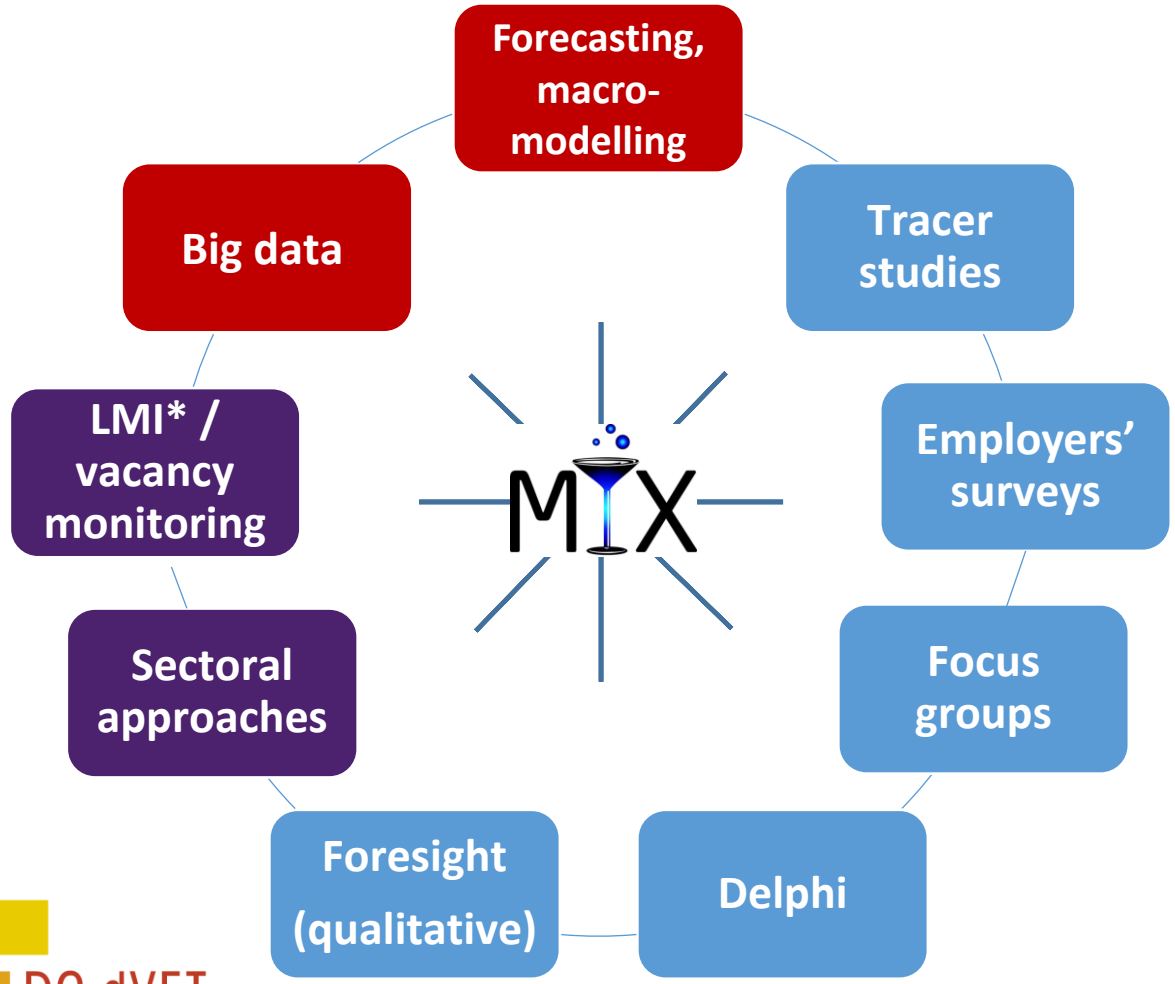
# Definitions

- **Skills needs anticipation:**
  - *Quantitative and qualitative methods to assess labour market developments and related needs for skills and qualified workforce in the future.*
  - *Short-, medium-, longer-term*
  - *Macro, meso / sectoral, micro (local)*
  - *Consistent and systematic*
- **Skills Matching:**
  - *Measures to reduce the gap between skills demand and supply*
  - *Curriculum and training programme development, career guidance, referral and placement, TVET and HRD policies*
- **Occupation:**
  - Group of jobs which have a repeating set of main tasks and duties across industries
  - *Classification: ISCO, national classifications*
- **Job:**
  - A paid position of (usually regular) employment
- **Qualification:**
  - A certified outcome of training / education
  - Classification: ISCED
- **Skill:**
  - Ability to carry out a mental or manual activity, acquired through learning and practice. Includes knowledge, competence and experience.

# Horizontal and vertical skills mismatches



# Finding the right methodological mix




* Labour Market Information

- No forecasting of exact numbers
- Trends and tendencies
- No one method by itself: mix

**What do you need to know? Main research question:**

- ➔ **Skills? Occupations? Mismatch?**
- ➔ **What level? Macro, meso, micro?**

- What information is available?
- What are the gaps?
- Lack of quantitative data / statistics: qualitative methods, consultation
- What is your budget?

# Methodologies (1)

## Tracer studies

**Graduates / TVET schools**

- Labour market status
- Job search history
- Skills utilisation
- Satisfaction with education
- Skills relevance
- Working conditions

➔ **Curriculum development, education / VET planning, attracting students, career guidance, school-to-work-transitions**

## Employers' surveys

**Companies**

- Skills needed by companies
- Recruitment plans and difficulties by qualification / occupation
- Type, level and skills needed
- Skills gaps per occupation
- Labour shortages
- Satisfaction with quality of graduate training

➔ **Education / VET policy and planning and, curriculum review and development, occupational standard development, career guidance**

## Focus groups

**Perceptions and opinions of stakeholders and experts (small groups)**

- Facilitated brainstorming on future trends
- Improving existing ideas
- Receiving feedback on different analysis
- Interpretation of data

➔ **Validation of quantitative forecasts, of final results of studies, development of occupational standards, programmes and curricula**

# Methodologies (2)

## Delphi-method

**Broad array of experts, different structured consultation rounds, feedback of results**

- Breakdown of complex issues
- "Wisdom of the crowd" assessment of upcoming new trends, disruptive effects
- Assessment of developments without data
- Consensus building
- Development of alternatives

➔ **Long term policy development (various areas) and education / VET planning, validation of results**

## Foresight and scenarios

**Experts, stakeholders, guided panels and discussions, consultation (also quantit. projections)**

- Main drivers of change and systemic linkeages
- Assess future conditions and Disruptive factors
- Scenarios for plausible evolution
- Strategic choices, action-oriented

➔ **Long term policy development (various areas) and education / VET planning**

## Sectoral focus / STED*

**Economic / industry sectors; (clusters of) companies, sector skills councils, quantitative and qualitative information**

- Skills / workforce needs for increased sector productivity, growth and competitiveness
- Skills gaps, lack of qualified workforce
- Capacity gaps of companies

➔ **Occupational standards development; curricula & training programmes; Career guidance, incentives, budgets**

*STED: Skills for Trade and Economic Diversification

# Methodologies (3)

## Vacancy monitoring / labour market inform.

**Employment Services, Labour force surveys, unemployment data, vacancy announcements**

- Occupations in demand
- Occupations in decline
- Qualifications / skills demanded by employers
- Qualifications / skills of workforce

➔ **Referral, placement, career guidance, active labour market policies, curriculum development**

## Big data

**Large amounts of real time data, online vacancy announcements, job ads, digital analytic programmes (e.g. Burning Glass), machine-learning / AI**

- Trends and tendencies in skills and occupations in demand by employers,
- Emerging skills gaps
- Wages, work conditions.
- Careful: biases, imperfections

➔ **Career guidance, curriculum development, recruitment andtalent management, labour market programmes, matching**

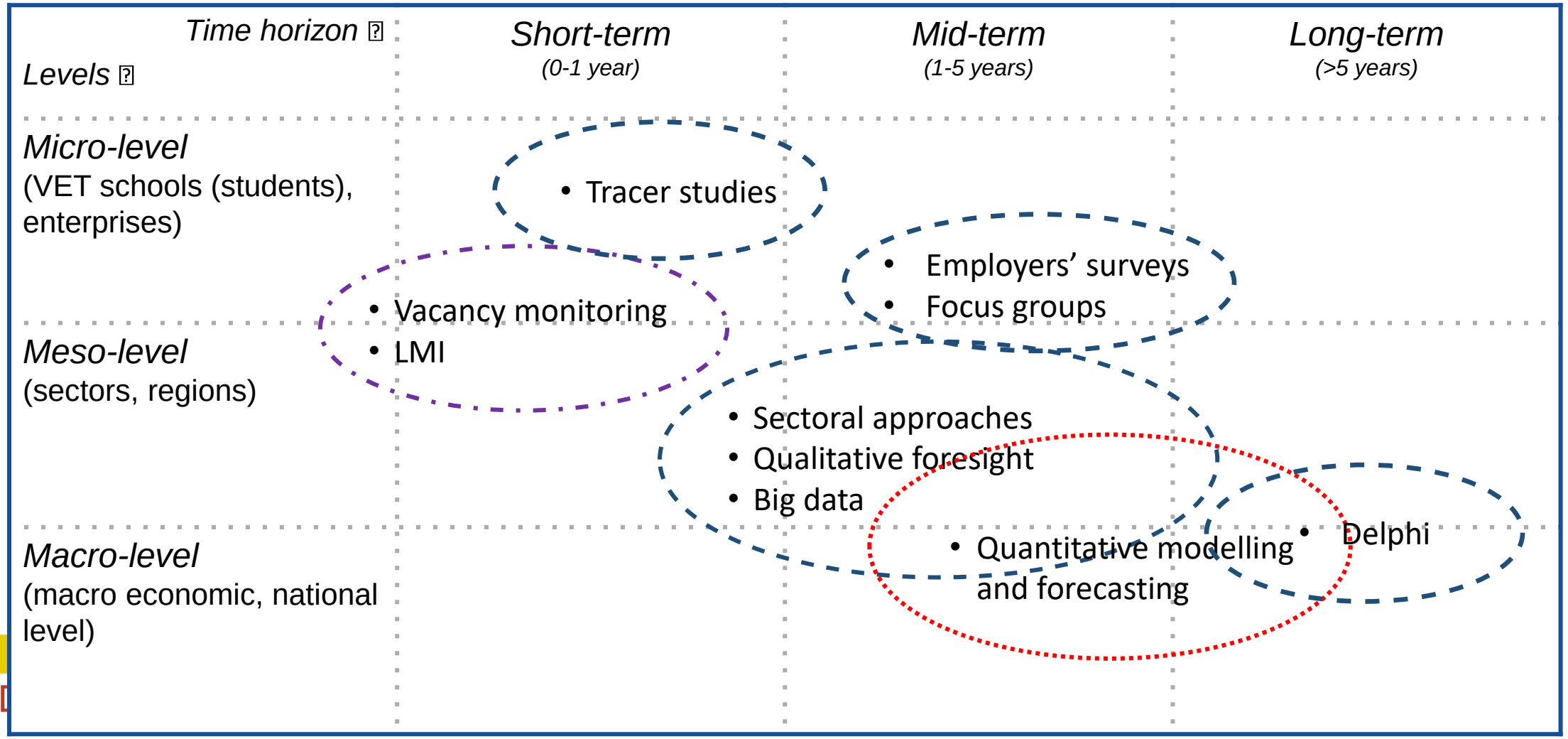
## Forecasting / quantitative modelling

**Large sets of reliable, long-term, disaggregated quantitative occupational & economic data**

- Longer-term horizon projections
- Formal, model-based forecasts
- Model: simplified reality to understand complexity
- Trends, interactions with economic indicators.
- Assumptions: unchanged patterns

➔ **Major reforms and policies with long term impact (e.g. education, employment, econ. dev., social policies)**

# What methods to use when?



# Challenges to data generation and policy use

| | | | |
|---|---|---|---|
| **Limited data, barriers to data exchange** | **Insufficient resources** | **Ad-hoc / project based** | **Too short term LM outlooks** |
| **Lack of partnerships / agreed roles and responsibilities** | **(Centralised) Skills anticipation practices and policy responses** | **Weak / no career guidance** | **Insufficient /inefficient dissemination** |
| **Results too qualitative / too quantitative** | **Results not sufficiently disaggregated / inaccurate** | **Lack of stakeholder consultation** | **Lack of consideration of labour market dynamics** |

**Policy coherence + Social Dialogue** (Employers' & Workers' Organisations) **+ Coordination**

# Guides and training

International Labour Organization

## Skills needs anticipation and matching

[Link to the Compendium: 6 guides]

## STED: Skills for Trade and Economic Diversification

[Link to publications on STED]

## ITC-ILO Training Courses

- [Skills needs anticipation and matching]
- [Sectoral approaches to skills development]

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