

VA #8.19

Combining Qualitative and Quantitative Labour Market Trend Information

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Mid-term skills supply and demand
forecast



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Introduction 1

- Rising number of different national approaches to skills monitoring and forecasting; some of them are interesting to inform and support further development of the Cedefop skills forecast model.
- Aim of our analysis: Produce an evidence based comparative study on how different monitoring and forecasting methodologies do combine qualitative and quantitative methods for data collection / analysis and result representation.
- Selection of tools has been previously coordinated, but also is based on experiences of previous studies.

Introduction 2

Research Questions:

- *What quantitative/qualitative methods are used to monitor/forecast skills supply and demand in the selected tools?*
- *How are they identified and brought together in each tool?*
- *How are different types of data processed and synthesised in a comprehensive model that informs the resulting skills monitoring / forecast outputs?*
- *How is public representation of qualitative and quantitative data influencing the choice of methodologies and sources? How to process complex information into broadly understood results?*
- *Do the different tools indicate common patterns and/or differences?*
- *Do the approaches identify methodological implications for a trans-national and Europe-wide skills forecasting tool that combines qualitative and quantitative methods? Challenges for that?*

Introduction 3

Conceptual Framework

— Meaning of “qualitative” and “quantitative”

Typically interview partners associated “quantitative” with econometric methods and “qualitative” with estimations or judgements made by experts

— Using the term “Forecast”

— *Assessment in terms of an upper and lower level of employment prospects or outlook (“chance and risk”)*

— *Assessment of occupations in terms of shortage, balance or surplus*

— *Assessment of occupations in terms of very good, good, paradox, fair or bad job opportunities*

— Understanding of “skills”

Several tools differentiate between professional and soft skills, some between job-specific and non-job-specific skills

Compared Tools

- ___ Austria: AMS Skills Barometer
- ___ Finland: Occupational Barometer (OB)
- ___ Germany: Labour Market Monitor (LMM)
- ___ Ireland: FÁS labour market anticipation system
- ___ Slovak Republic: National Occupations Framework (NSP)
- ___ Øresund Labour Market Balance (LMB)

Characterisation of Approaches 1

- ___ “Early Developers”: AMS Skills Barometer, Irish National Skills Database (both since 2003). The NSD is the basis for the labour market anticipation system.
- ___ “Recent Developers”: Finnish Occupational Barometer, German LMM, Slovak Occupations Framework and Øresund Labour Market Balance (LMB)
- ___ All tools integrate data from primary and secondary sources.
 - Primary: Questionnaires, recruitment agencies, interviews and / or focus groups, boards of trade unions and guilds, etc.
 - Secondary: Mainly data on skills demand (i.e. official statistics on economic development, employment, unemployment), and to a lesser extent on skills supply (demographics, educational level).Some tools use data on job vacancies, others use experiences on job vacancies.

Characterisation of Approaches 2

Experts estimating skills shortages

Viewpoints considered in expert estimations:

- More balanced estimations (integrating multiple perspectives as from employers, employees, educational providers, social partners, etc.)
- More focused estimations (priority to one or a few perspectives only, e.g. employers' views).

Characterisation of Approaches 3

Labour Market Monitoring Tool	Experts (estimating skills shortages)	Type of estimation	Viewpoints considered in estimations	Example
AMS Skills Barometer	External researchers (3s, ibw)	More balanced	Employers, CET providers, social partners	Workshops organised by the AMS Standing Committee on New Skills
Finnish Occupational Barometer	Employment officers	More balanced	Employers, employees, core actors at local and regional level	Survey of needs for workforce and training of enterprises (TKTT-model)
German LMM	Regional experts	More balanced	Employers' associations, chambers of commerce and industry, chambers of crafts, administrative districts and municipalities	Evaluation workshops where regional experts validate central estimations
FÁS anticipation system	Internal researchers (SRLMU)	More balanced	Employers, employer bodies, sectoral experts, training providers	Discussions with the framework of sectoral surveys
Oresund Labour Market Balance	Employment officers	More focused	1 Employers (mostly) 2 Social partners, educational institutions, labour market authorities	1 Large scale employer surveys 2 Oresund councils
Slovak Occupations Framework	Sector Skills Councils	More focused	Employers (mostly), sectoral ministries, Ministry of Labour, Social Affairs and Family	Organisation of focus groups: Occupational cards

Common Features and Differences

- ___ Updating of data: Mostly two to three times per year
- ___ Basic units of data
 - _ *National classifications of occupations (individually developed, some based on ISCO)*
 - _ *Skills (highly developed in AMS Skills Barometer)*
 - _ *Regions*
- ___ Public Presentation and Access to the Tools
 - _ *Some are directly accessible online (Austria, Ireland, Slovakia, Oresund region), others have access for registered users only (Germany, Finland)*
 - _ *In general user-friendly and comprehensible, most of the information tools combine text with charts and/or graphs.*

Example 1: AMS Skills Barometer

Österreich gesamt							
Berufsfelder	Beschäftigte		Offene Stellen				
Informationstechnologie	prognostiziert	derzeit	Printmedien		AMS		
			2012	2011	2012	2011	aktuell online
>> Softwaretechnik und Programmierung	↑	■ ■	3.434	4.234	6.594	4.546	675
>> Analyse und Organisation	↑	■	1.528	1.384	1.268	816	127
>> Datenbanken	↑	■	308	254	358	214	34
>> EDV- und Netzwerktechnik	↑	■	1.234	2.506	2.556	2.682	180
>> Support, Beratung und Schulung	↑	■	817	1.064	1.496	1.048	293
>> IT-Vertrieb	↔	■	812	927	874	614	76

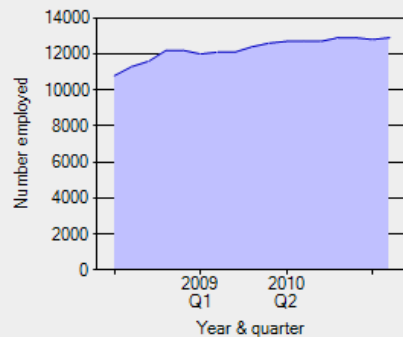
>> Offene Stellen im eJob-Room					
Beschäftigte prognostiziert für das Jahr 2015:	steigend ↑↑	tendenziell steigend ↑	gleichbleibend ↔	tendenziell sinkend ↓	sinkend ↓↓
Beschäftigte derzeit:	Anteil der Beschäftigten innerhalb des Berufsbereichs			hoch ■ ■ ■	niedrig ■

Example 2: Irish Anticipation System

ICT, specialist & project managers

Examples of other job titles: Technical directors (computer services); data centre managers; IT managers; IT support managers; programme managers (computing); project leaders (software design)

EMPLOYMENT TREND (?)



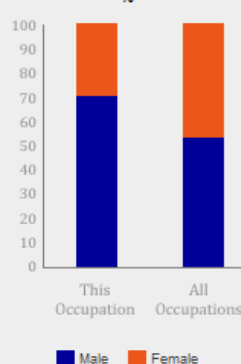
SUMMARY FOR THIS OCCUPATION FROM JOB SEEKERS' PERSPECTIVE

- ↑ Unemployment rate is **below average**(?)
- ↑ Some skill shortages have been identified(?)
- ↑ Employment growth prospects are **above average**(?)

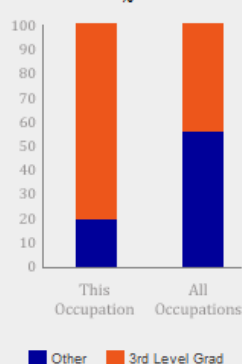
COMMENTS

Despite the recession, the ICT sector continues to expand and shortages continue to arise. One third of all mentions for difficult to fill posts were in the area of ICT and almost 900 new employment permits were issued to non-EEA IT workers. IT skills difficult to source include: computer software engineers: designers and developers with specific skills sets such: sophisticated database architecture, maintenance and operations (e.g. SQL Transact-SQL, Oracle); java-related applications (including .Net, C#, C++, Summit, UX/UI); open source applications (e.g. Linux,

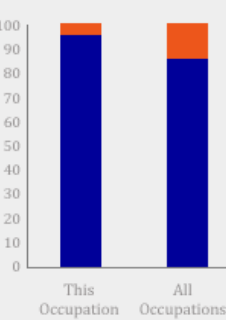
EMPLOYMENT BY GENDER (?)



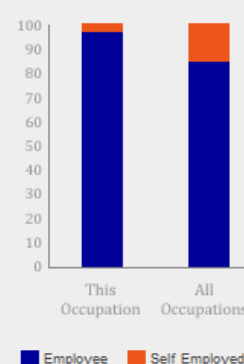
EMPLOYMENT BY EDUCATION (?)



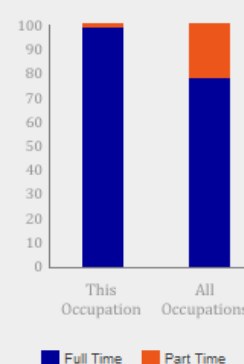
EMPLOYMENT BY AGE (?)



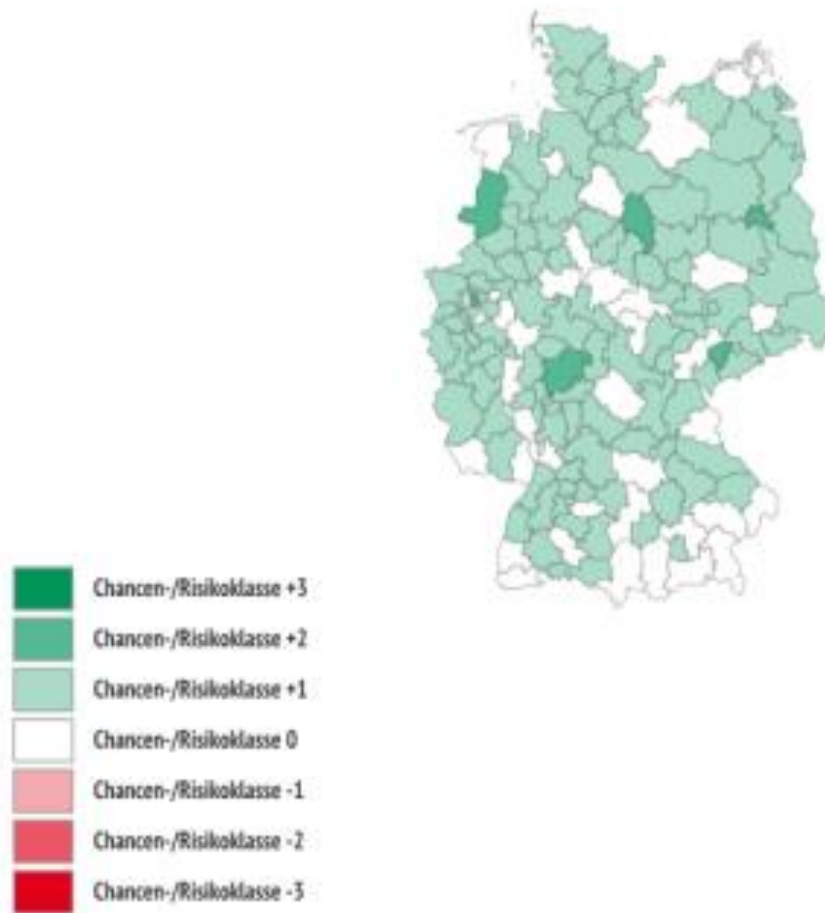
EMPLOYMENT STATUS (?)



EMPLOYMENT TYPE (?)



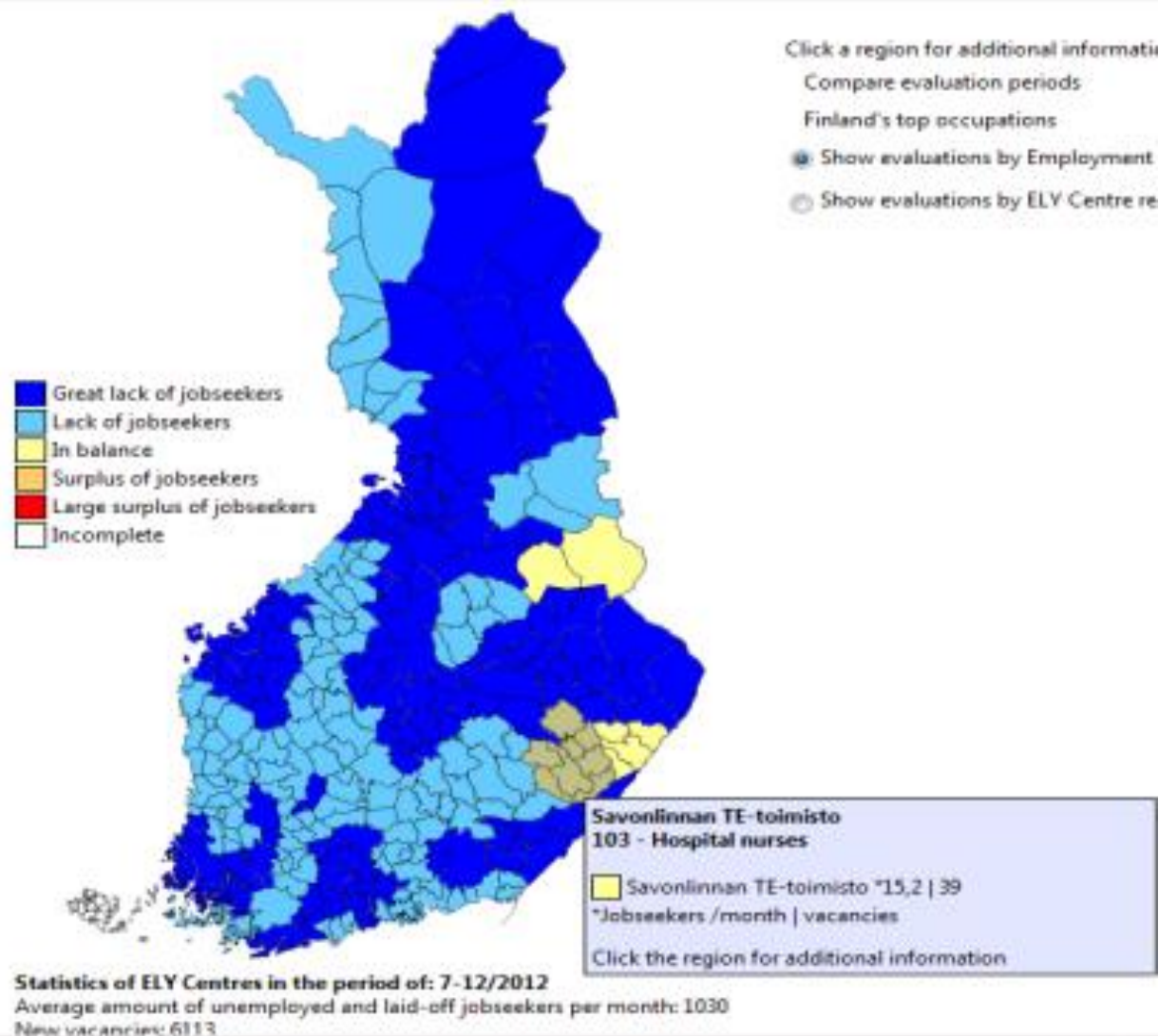
Example 3: LMM Risk and Chance



Gesundheitswesen

Datenquelle: Lokale Brancheneinschätzung der Bundesagentur für Arbeit

Example 4: Finland - Shortages



Example 5: Job Opportunities in DK / SE

It og teleteknik

Stillingskategori	Balance (DK)	Balance (SE)
Programmørarbejde		
Programmering, design, analyse og overordnet planlægning af edb-systemer		
Edb-operatørarbejde samt planlægning af edb-drift		
Teknikerarbejde vedrørende elektroniske anlæg med videre		
Edb-ledelse, eksklusive edb-virksomheder		

Over- and Under-Qualification 1

Addressing over- and under-qualification requires in-depth knowledge about current labour market developments of certain sectors or regions, i.e.:

- Sectoral surveys (Ireland)
- Expert standing committees (Austria)
- Sector Skills Councils (Slovakia)
- Inter-regional councils (Øresund Councils)

Usually not integrated into the monitoring and information tools explicitly, but used for recommendations for policy makers and training providers.

Over- and Under-Qualification 2

Under-qualification is addressed more often:

- “Up-skilling” workforce
- Identifying knowledge gaps
- Addressing often long-term unemployed

Over-qualification refers usually to specific groups:

- Migration background
- Persons with breaks in their professional career

Transferability 1

Potential transfer of methodological approach and analyses (“how to produce results”)

- Easy for secondary sources
- Primary sources usually aim on characteristic needs of a region / country

Potential transfer of structural aspects (way of communication, use of expertise)

- Communication structures are based often on traditions (“social partners”, etc.)
- But structural communication can be set up, where it is not existing in the same way
- Structure of available data (classifications...) – “Europeanisation” needed!
Example: Different usage of “skills”

Transferability 2

Potential transfer of presentation of results (interface, way of publication)

— Easy access to information – online

— Easy understanding of complex information – pictograms, maps

➔ Categorisation issues are in need to be discussed internationally!

Recommendations 1

General recommendations:

- Secondary sources on skills supply and demand should be identified and provided in a comparable way
- Primary sources should be defined clearly
- Adoption of a common classification system is recommended
- Common data collection could be developed
- Common coding system for entering the data into a common database (data warehousing)
- Data collection on skills and competences, differentiating professional and soft skills
- Forecasts / skill-anticipation valid for at least 2-5 years

Recommendations 2

Specific recommendations:

- Monitoring tools focussing on branches or regions with high labour force exchange
- Integration of qualitative arguments, i.e. explanations about particular labour market trends – specific and easy to understand at the same time
- Dynamic editorial work during all phases (fostering two-way communication)
- Organisation of international expert discussion on different topics, especially simplification of complex information

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