

## Anticipation of skills and competences in a social system of knowledge creation?

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“**Concepts of anticipation**  
**of the demand for skills and competences**”  
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## Preface about matching and anticipation

- VET at almost 50% of upper secondary education (OECD average 2006, rather increase than decline) ...
  - high variation (5% to 80%; three groups of countries: 5 around 10%; 9 from 20-50%; 12 from 50-80%)
  - conceptually and politically strong mainstream towards tertiarisation
- ... means that VET makes some promises for utilisation of qualifications and competences)...
  - often strong belief in high value of VET, however, scarce proof for that
  - indicators and concepts do not include direct measures of matching
  - there are strong criticisms of concepts of matching and anticipation...
- ... in sum, we have a quite complex and contradictory situation with matching and anticipation, concerning
  - coordination between societal sub-systems vs. a “technical problem”;
  - a broad variation of views about what matching should mean, and what anticipation is about, etc.

## Agenda

- Observation and measurement of the supply-demand relationship
  - perspectives, methodologies
- Foresight and forecasting
  - foresight as social knowledge production vs. overemphasis on “technical” approaches of forecasting
- Requirements of an anticipation system as a social system of knowledge management
  - understanding the present, constructivist view of supply and demand
- Conclusions and questions
  - “critical design factors”

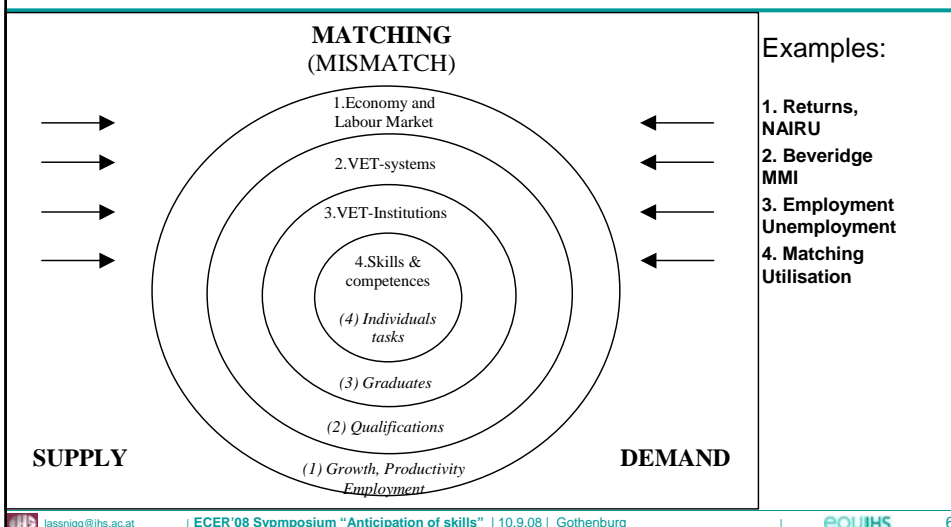
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## Observation and measurement of supply-demand relationship

- **Different perspectives - from aggregate to individual**
  - available measures mostly to loose for specialised VET, however provide important background information

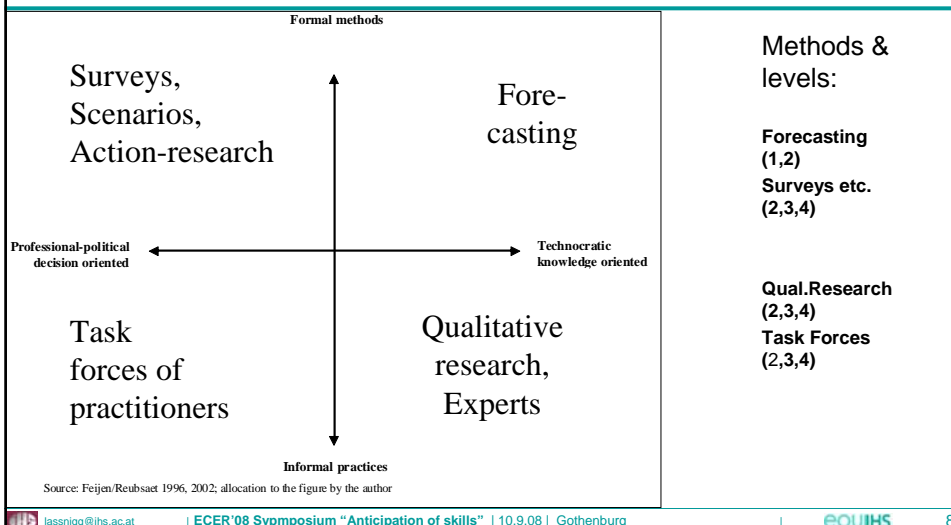
## Observation and measurement different perspectives



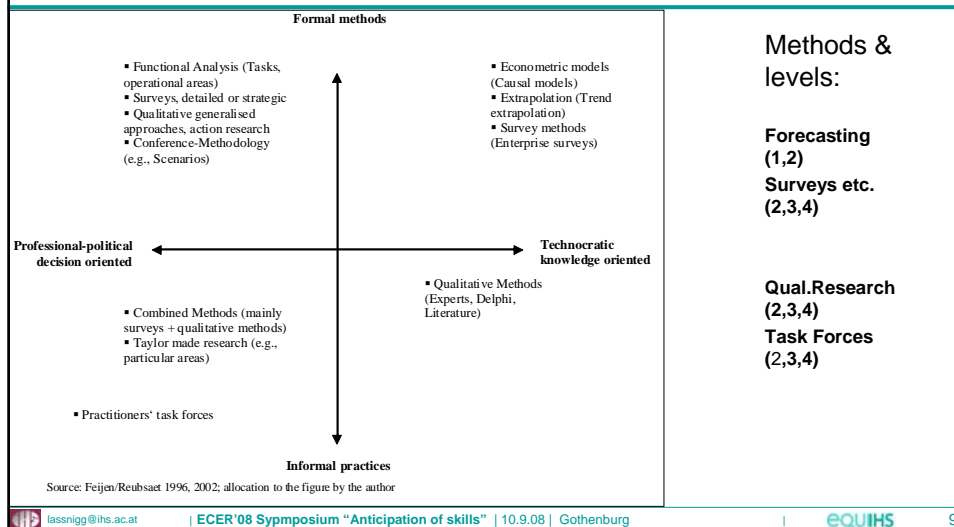
## Observation and measurement of supply-demand relationship

- Different perspectives - from aggregate to individual
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- **Many methodologies - how to combine?**
  - different types of methods at different levels; difficulties to combine them; are there competing rationales of different methods?

## Observation and measurement methodologies



## Observation and measurement methodologies



## Observation and measurement of supply-demand relationship

- Different perspectives - from aggregate to individual
  - available measures mostly too loose for specialised VET, however provide important background information
- Many methodologies - how to combine?
  - different types of methods at different levels; difficulties to combine them; are there competing rationales of different methods?
- **Some paradoxes?**
  - long-term experience with forecasting, high sophistications, however, little practical improvement with utilisation
  - reluctance to use formal anticipation in systems which would need them most (e.g., Austria)
  - little pragmatic approaches to matching

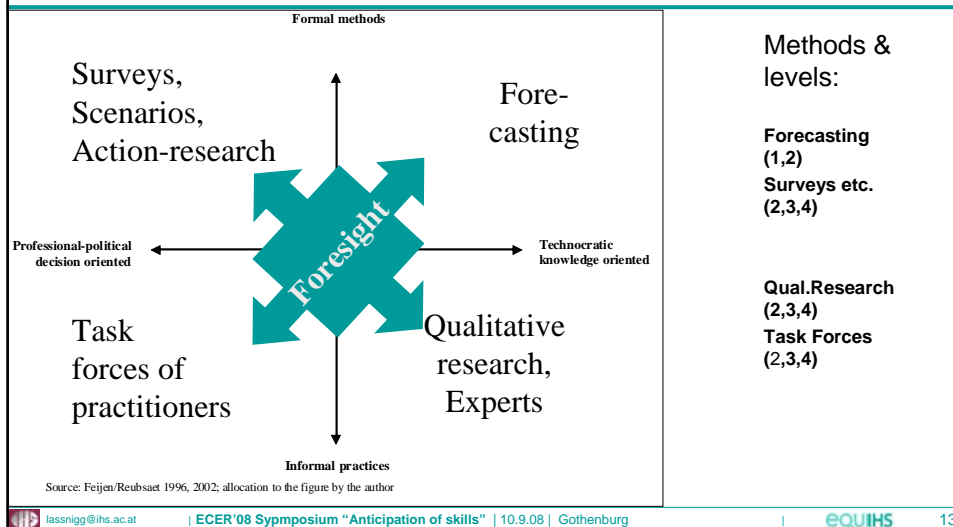
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## Foresight - Forecasting

- Key points of foresight-methodology (Keenan et al. 2003):
  - **structured long-term** anticipation and projections
  - **wide range** of influential factors, interdisciplinarity, different types of expertise
  - **formal techniques, eliciting expertise, outcomes generated by the process**
  - **interactive & participative** methods of exploration, wide variety of **stakeholders**
  - new **social networks** equally/more important than formal products (reports, lists, action plans)
  - **institutionalised structures** facilitating creation of networks & communication channels between different actors
  - products beyond scenarios & plans: guiding strategic **vision** & shared sense of **commitment**
  - recognition & explication of implications of **present day** decisions & actions
  - **long-term orientation** (ten years), objective: inform current decisions and generate insights towards more immediate developments
- Forecasting: necessary element for understanding conditional developments (not generating truth about future)
- Key issue: why utilisation of forecasting results does not work?

## Foresight combines methodologies

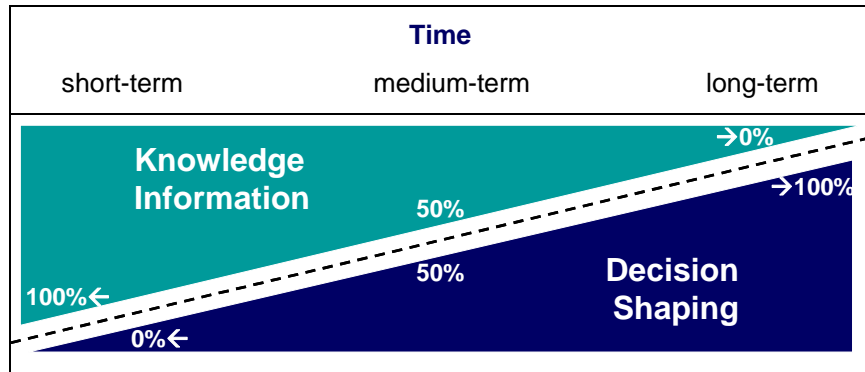


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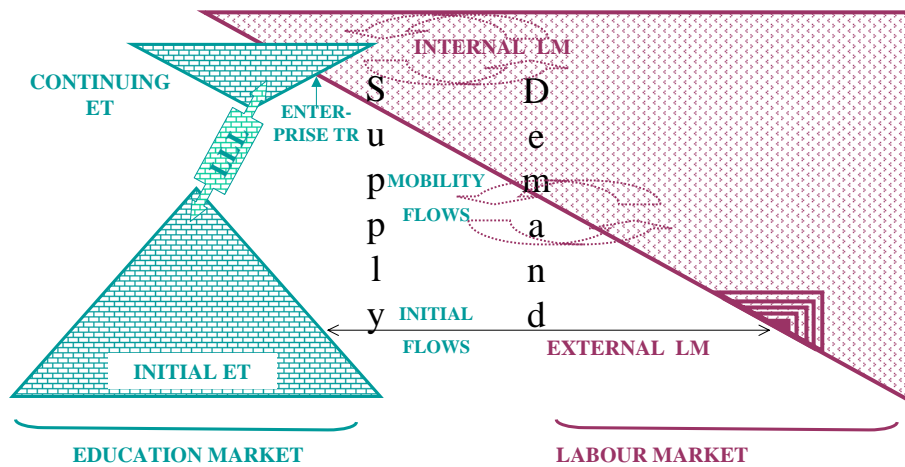
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## The „object“ of anticipation constructivism-realism

Knowledge (Information), decision making (shaping), and the time-axis (*also true for the most sophisticated prognosis*)

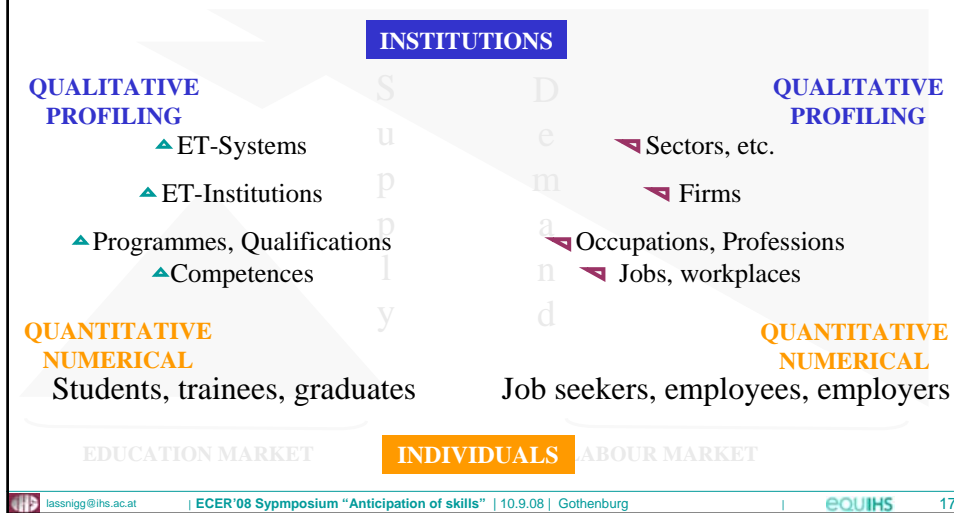


## Matching & anticipation problem System level (stocks and flows)

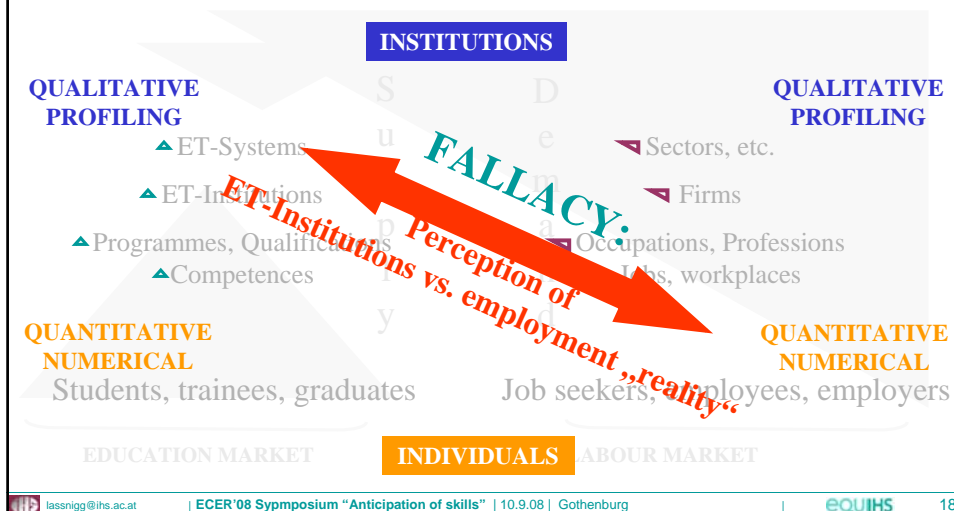




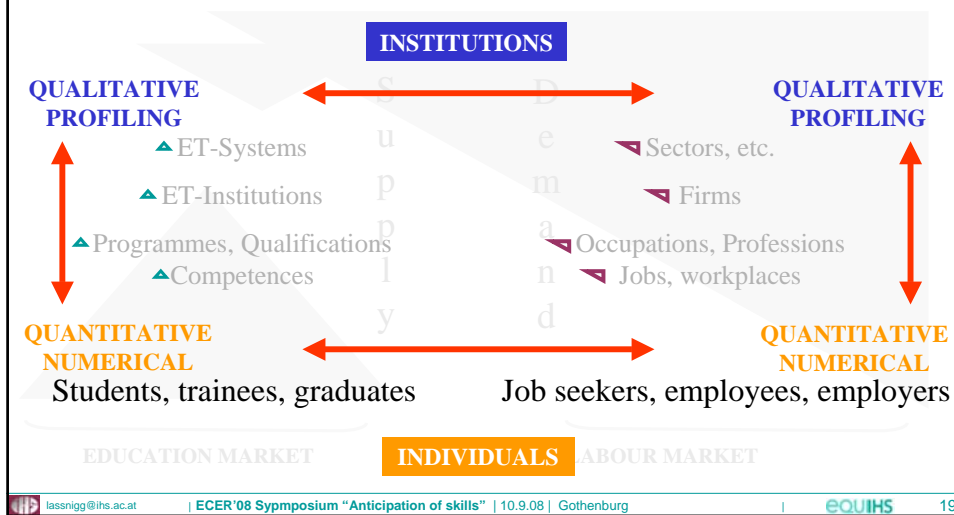
## Matching & anticipation problem Action level (quantitative/qualitative)



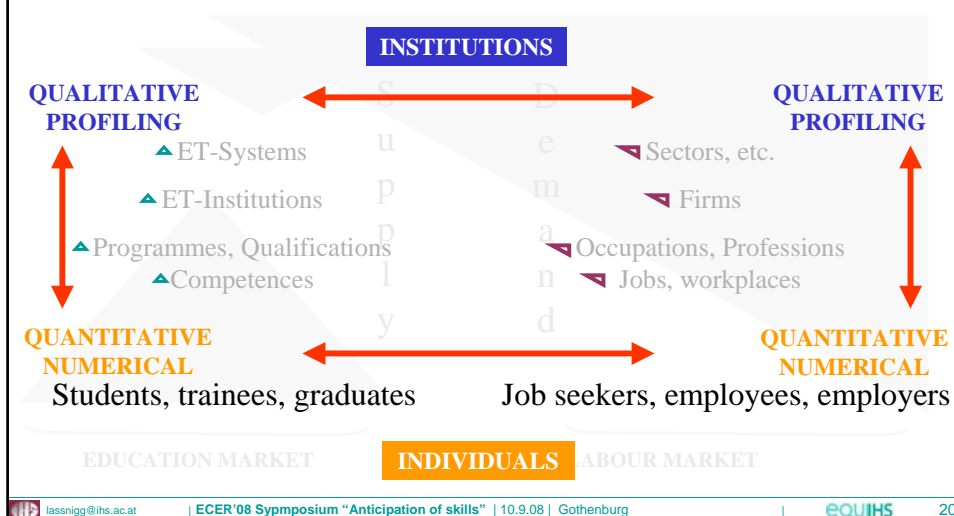
## Matching & anticipation problem Action level „simplification fallacy“



## Matching & anticipation problem Action level: fourfold space



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## Requirements of an anticipation system

- Understanding and monitoring the present state
  - departure of present state essential for the understanding of possible trends and reasonable decisions (e.g. initial-continuing ET; internal-external LM; enterprise behaviour; etc.)
- Supply in a constructivist sense is structuring demand
  - how does this work in a system?
  - how is anticipation *de facto* provided?
  - how can policy intervene successfully?
- Demand as a constructed institutional reality (no “plain” reality)
  - how are the individual micro-level demands transformed into institutional demands?
  - how is information constructed and provided?
  - which demands are pushed forward/invisible?

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## Conclusions & questions for debate

- If we have a specialised supply, is there an alternative to anticipation?
  - supply orientation as an alternative?
  - deregulation, privatisation and market as an alternative?
  - despecialisation and III as an alternative?
- How to develop a social system of anticipation? At which levels? Including which actors?
  - basically simple idea, however, seems difficult to realise - why?
- What are the key factors?
  - what might be the roles of a LLL-strategy and the building of a NQF?
  - ??? others...

## Conclusions „design factors“ of anticipation system

- attention to **shaping** more critical than „scientific recognition“
- clarity of the **fourfold dimensions** of the problem
- **social** system, **communication** system
- **foresight** instead of overemphasis on forecasting
- combinations of different **forms of knowledge** (formal, informal)
- departure from knowledge about the **present**
- combination of knowledge and **decision making**
- clarity about **uncertainty** of decisions, balancing of **risks**

# The End

# Thank you

for your attention !

## Material

Keenan M / Abbott D/ Scapolo F / Zappacosta M (2003) **Mapping Foresight Competence in Europe: The EUROFORE Pilot Project** IPTS Technical Report Series, EUR 20755 EN. Seville. (Internet: <ftp://ftp.jrc.es/pub/EURdoc/eur20755en.pdf>)

Feijen T / Reubsaet T (1996) **Instruments, tools and policies to anticipate the effects of industrial change on employment and vocational qualifications**. Country report: THE NETHERLANDS. Study for the European Commission. Nijmegen: ITS.

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Lassnigg L (2006), **Approaches for the anticipation of skill needs in the "Transitional Labour Market" perspective - the Austrian experience**. Wissenschaftszentrum Berlin fuer Sozialforschung (WZB), Discussion paper SP I 2006-105. (Internet: <http://skylla.wz-berlin.de/pdf/2006/106-105.pdf>)

Lassnigg L (2008) Improving the quality of the supply-demand match in vocational education and training by anticipation and 'matching policy'. **European Journal of Vocational Training** No.44 2008/2

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