

Attractive vocational education and training: What really matters?

Cathy Stasz, Sue Guthrie and Craig Holmes

Cedefop Workshop

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Outline of the workshop

- **Session 1: Introduction to the study**
- **Session 2: Trends and developments affecting IVET attractiveness**
- **Session 3: Can the attractiveness of initial vocational education and training be measured?**
- **Session 4: Policy initiatives—emerging trends and examples**
- **Session 5: Moving the attractiveness agenda forward: next steps**

Cathy Stasz

1. INTRODUCTION AND APPROACH

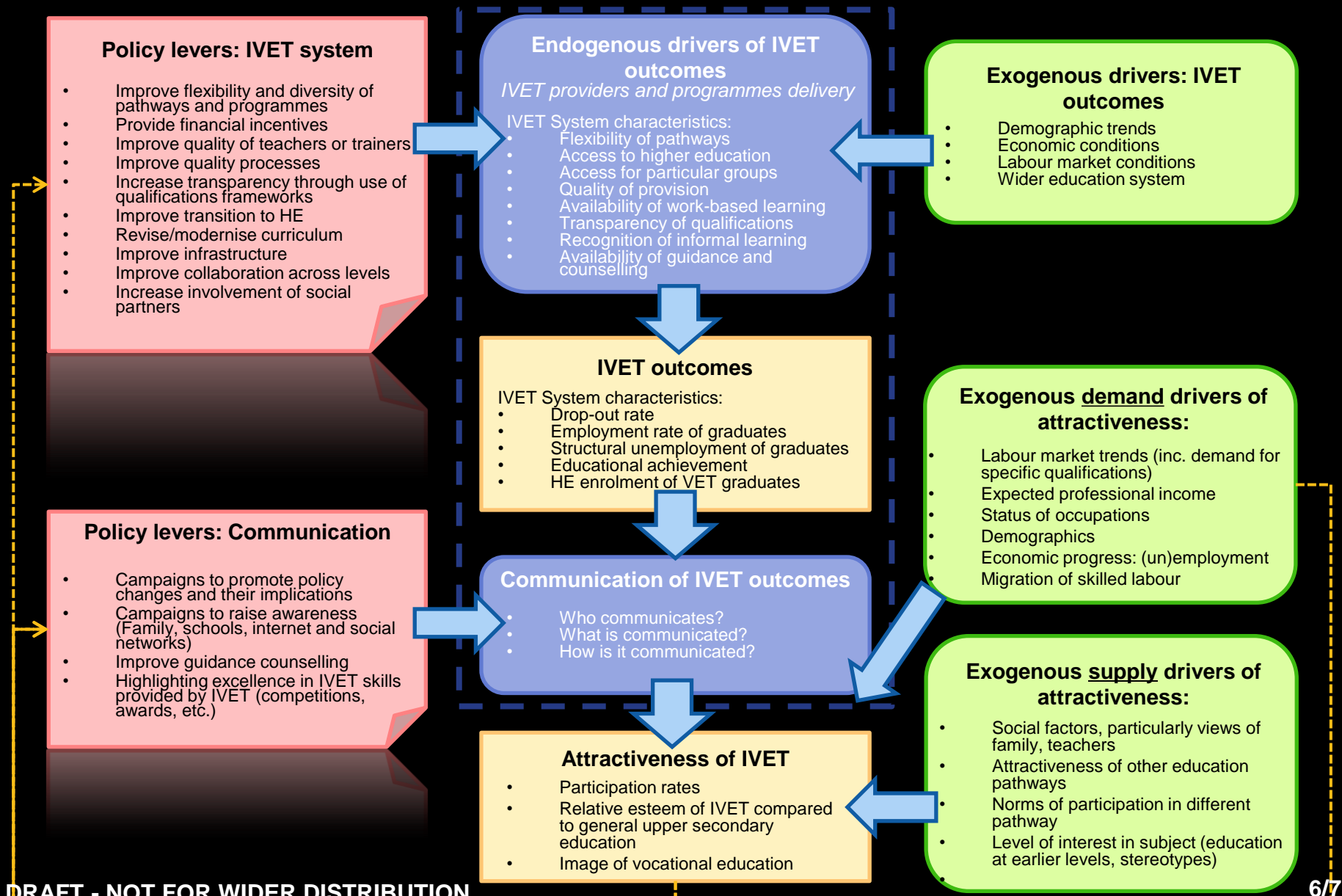
Aims of the Study

- **To improve the evidence base for policy decisions and actions at national and EU level to increase attractiveness of initial education and training (IVET) in Europe.**

Study Questions

- **Scope: How can IVET attractiveness be defined, conceptualised and measured?**
- **Drivers of IVET attractiveness: What are they?**
 - **To what extent are these drivers specific to the IVET system (endogenous), external to the IVET system, (exogenous)? Can they be influenced by policy (policy levers)?**
- **Perspectives of attractiveness: what are they among relevant stakeholders in different countries?**
- **Policy efforts and effectiveness: what are intended outcomes, intervention logic, effects and perceptions?**
- **What works and in what context? What are the characteristics of successful policies?**

Conceptual Framework



A Mix of Methodologies

Research questions	Research methodology
How can IVET be defined, conceptualised and measured?	Literature and documentary review Key-informant interviews Conceptual analysis
What are the exogenous, endogenous drivers of attractiveness?	Quantitative data analysis (e.g. Eurostat, OECDstat) Country reports
What have been the policy efforts to increase attractiveness?	Literature and documentary review Key informant interviews Country reports and case studies
What are the perspectives about IVET attractiveness?	Survey Quantitative data analysis (Survey, Eurobarometer) Country reports and case studies Key informant interviews
What works in what context? What are the characteristics of successful policies?	Case study analysis Analysis and synthesis of data from all sources

Key data sources

Data Sources	Description
Country studies Desk research plus key informant interviews	27 EU member states, plus Norway, Iceland, Switzerland, Australia, and South Korea
Case studies Desk research plus key informant interviews	10 policy initiatives in 6 countries: Germany, Finland, Ireland, Czech Republic, Denmark, Spain
Survey Adaptation of Eurobarometer items	Web-based; directed at guidance counselors, teachers, employers; limited sample (N=126)
Quantitative data	European Labour Force Survey (2000-2011; Eurobarometer (2011, 2004); Continual vocational training survey (2005); National statistics (UOE); European Social Survey (2010)

Limitations of the study

- **Short overall timeframe to gather and analyse wide variety of data**
- **Data limitations**
- **Small survey sample limits generalisability of findings**
- **Policy initiatives are complex, ongoing, have interrelated strands—difficult to isolate effects of single initiative**

Data sources

- **National statistics agencies**
- **European Labour Force Survey (2000-2010)**
- **Continuing Vocational Training Survey (2005)**
- **Eurobarometer:**
 - **Special 369 (2011)**
 - **Special 216 (2004)**

Craig Holmes

2. TRENDS AND DEVELOPMENTS AFFECTING IVET

Key Questions

- **What are the potential drivers of IVET outcomes and IVET attractiveness?**
- **What have the trends and developments looked like over recent years?**
- **How do they differ between countries?**
- **What does the picture look like across Europe?**

Data sources

- **National statistics agencies**
- **European Labour Force Survey (2000-2011)**
- **Continuing Vocational Training Survey (2005)**
- **European Social Survey (2010)**
- **Eurobarometer:**
 - **Special 369 (2011)**
 - **Special 216 (2004)**

Data sources (2)

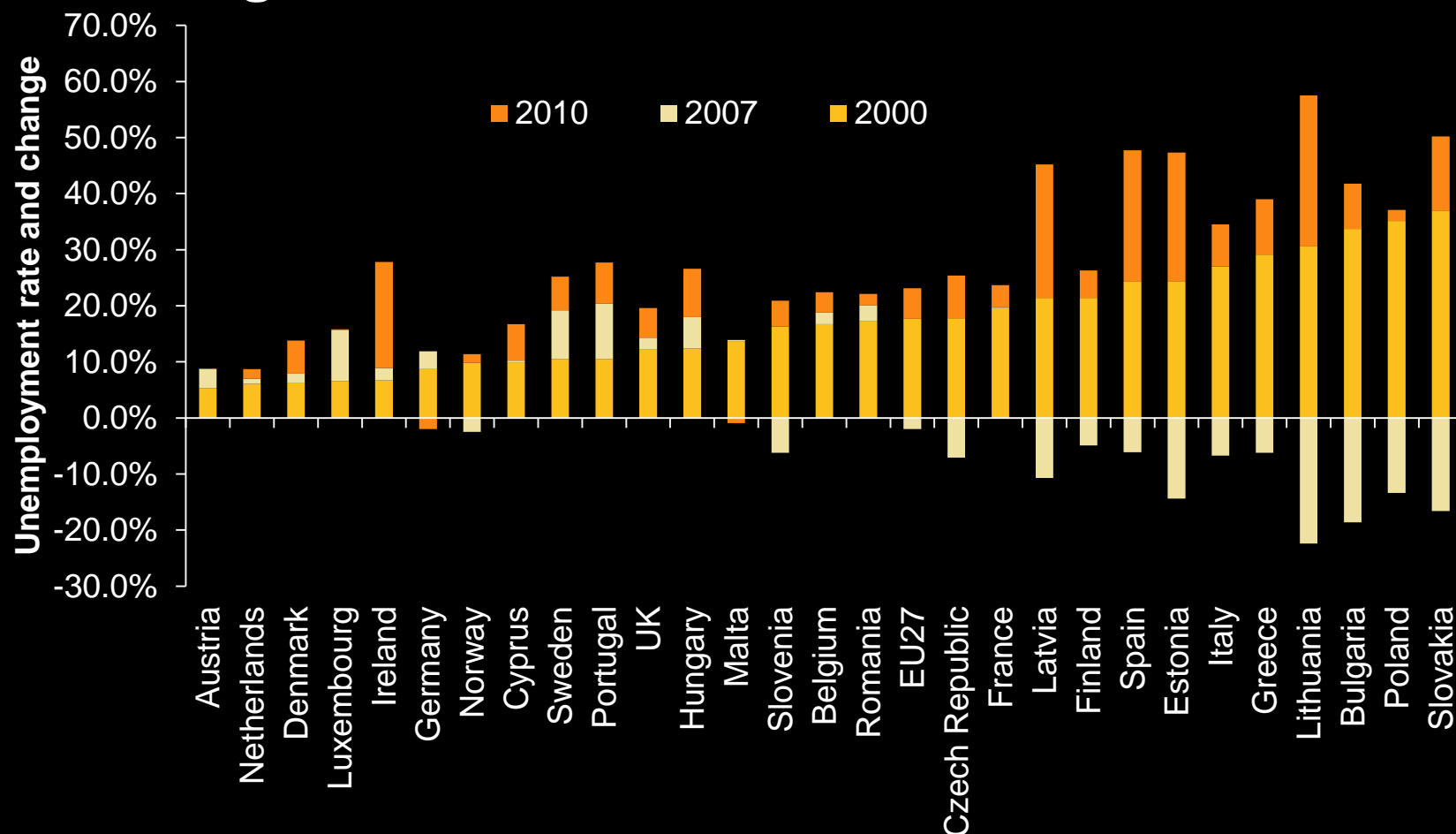
- **Limitations of the data:**
 - Some useful measures of attractiveness are not available e.g. *wage premia and employment rates for IVET graduates*
 - Other data is collected at higher level of aggregation and should be treated as indicators e.g. *IVET enrolments*
 - Some countries do not report for some measures e.g. *graduation rates by ISCED level*
 - Eurobarometer uses self-reported perceptions
 - Some data is going out-of-date e.g. *migration up to 2008*
- **Where relevant, data broken down into pre-crisis (2000-2007) and post-crisis (2007-2010)**
 - May still mask effects of crisis if recoveries occur at different paces

Exogenous drivers of IVET outcomes and attractiveness

- **Economic climate**
 - Rising (youth) unemployment
 - Fiscal austerity in near future
- **Demographics**
 - Population ageing – increased skill replacement demand
 - Migration – typically low skilled
- **Labour market:**
 - Changing skills needs
- **Wider education system**

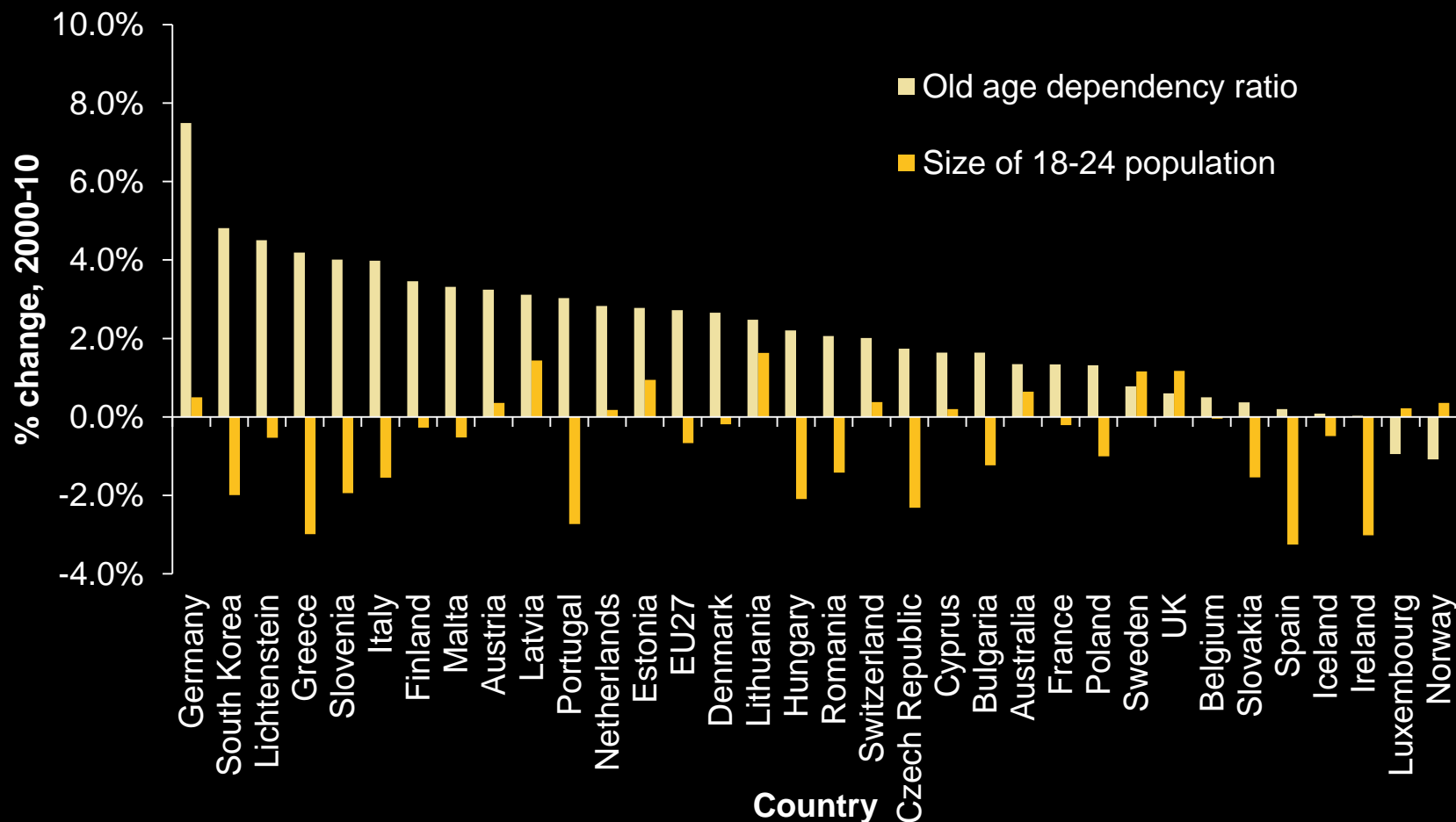
Economic climate

- 2000-7: growth; 2007-10: recession



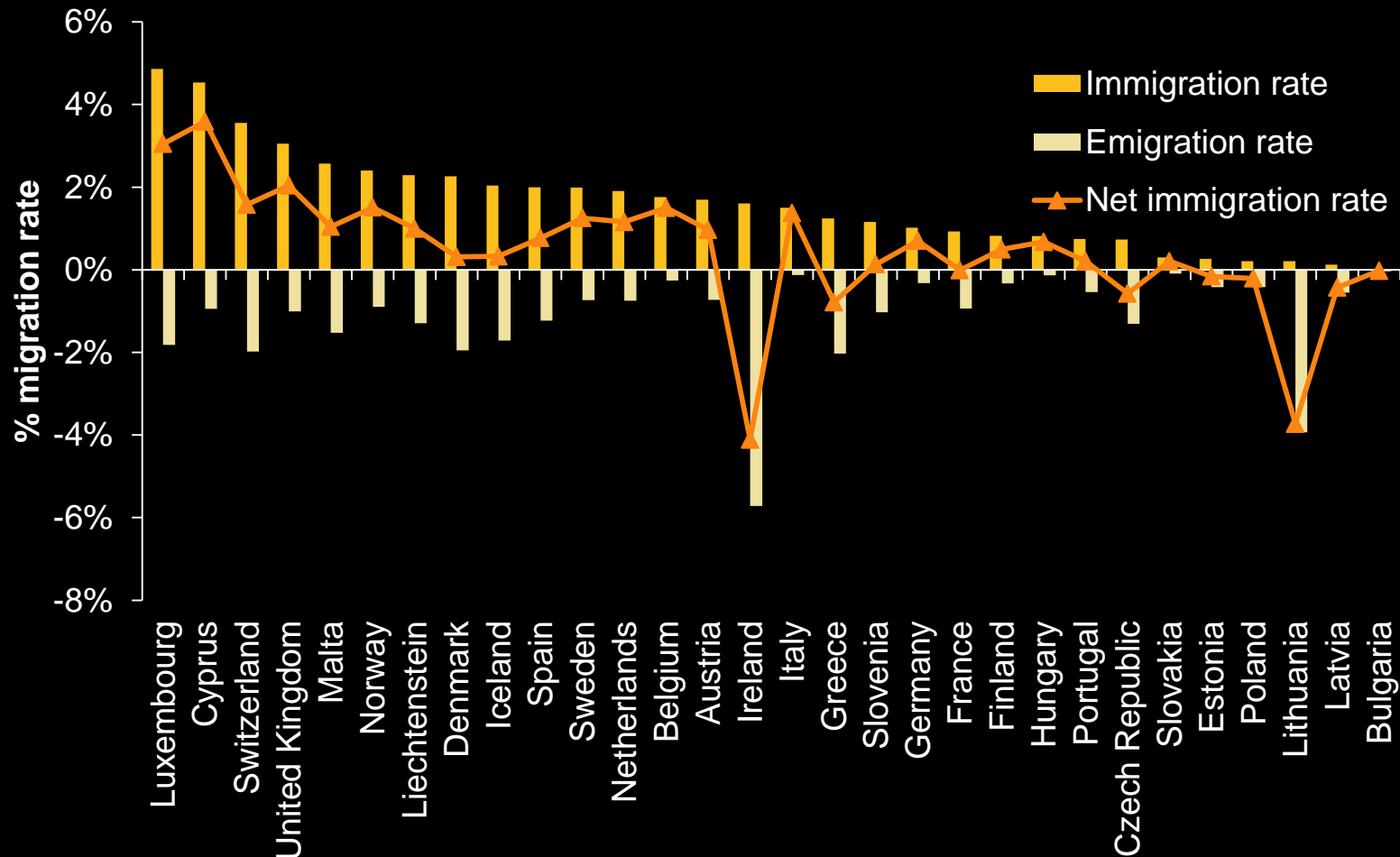
Demographics

- European populations are ageing



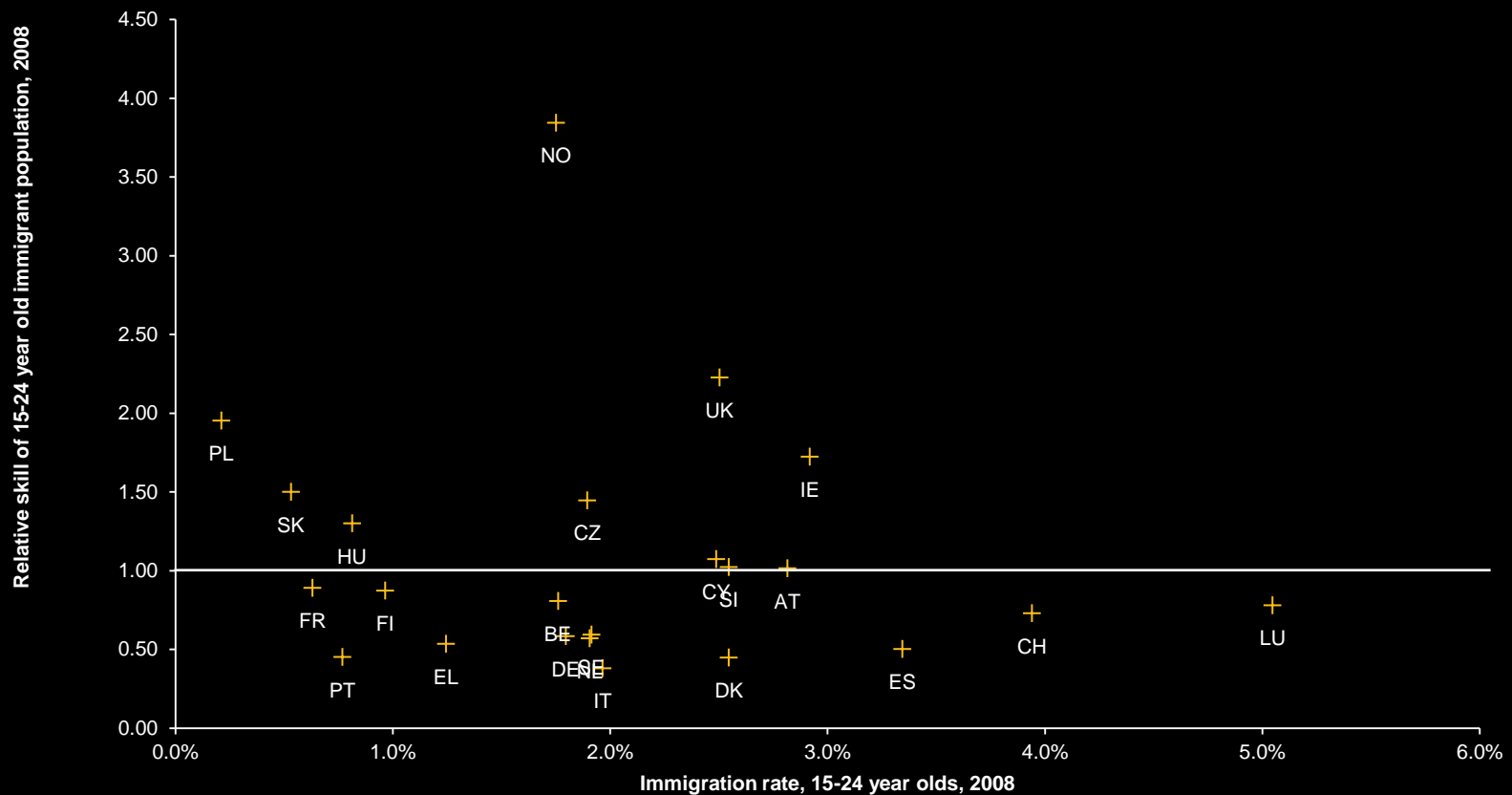
Demographics (2)

- Countries labour forces face inflows and outflows



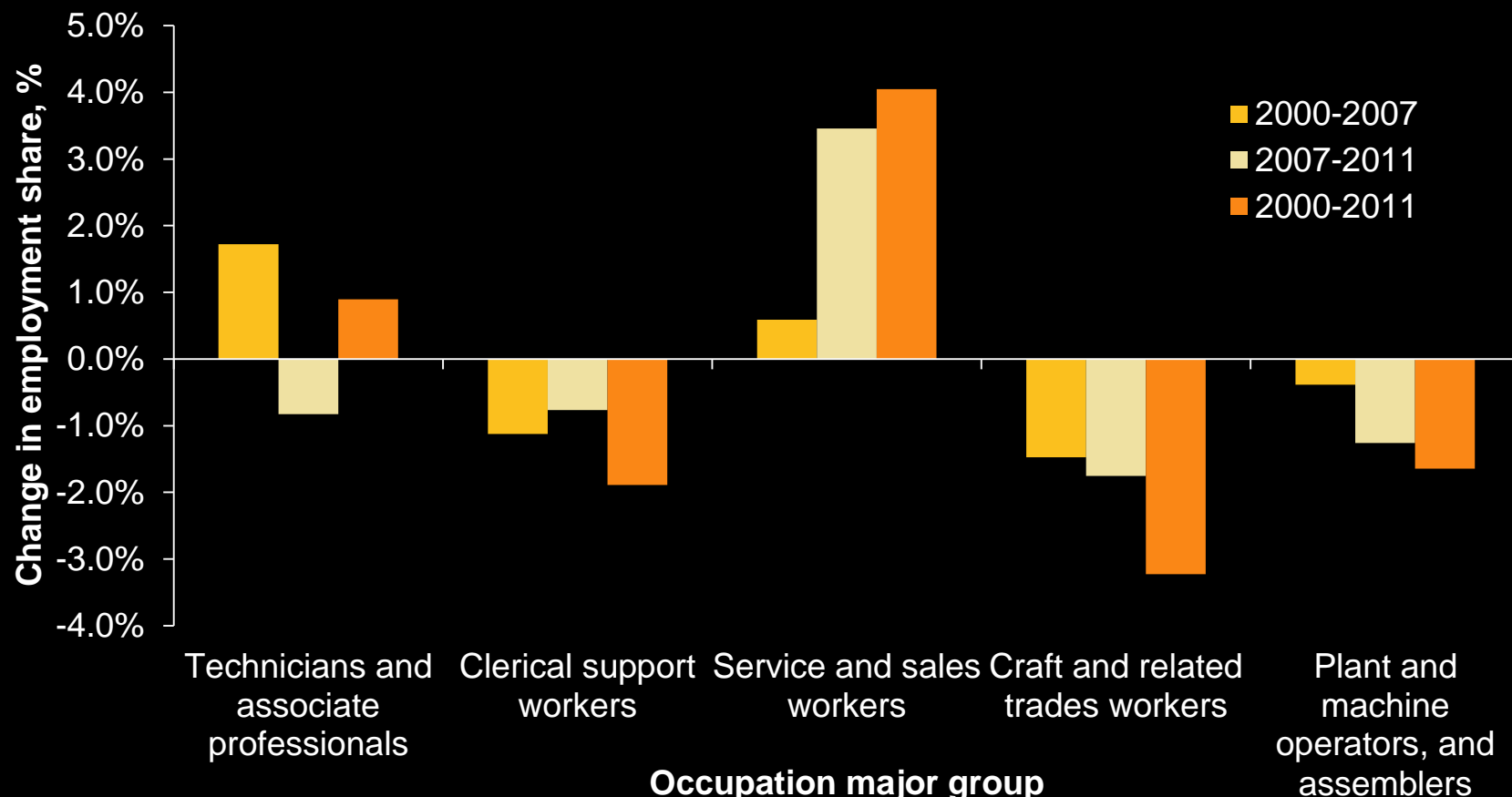
Demographics (3)

- Immigration is relatively low-skilled



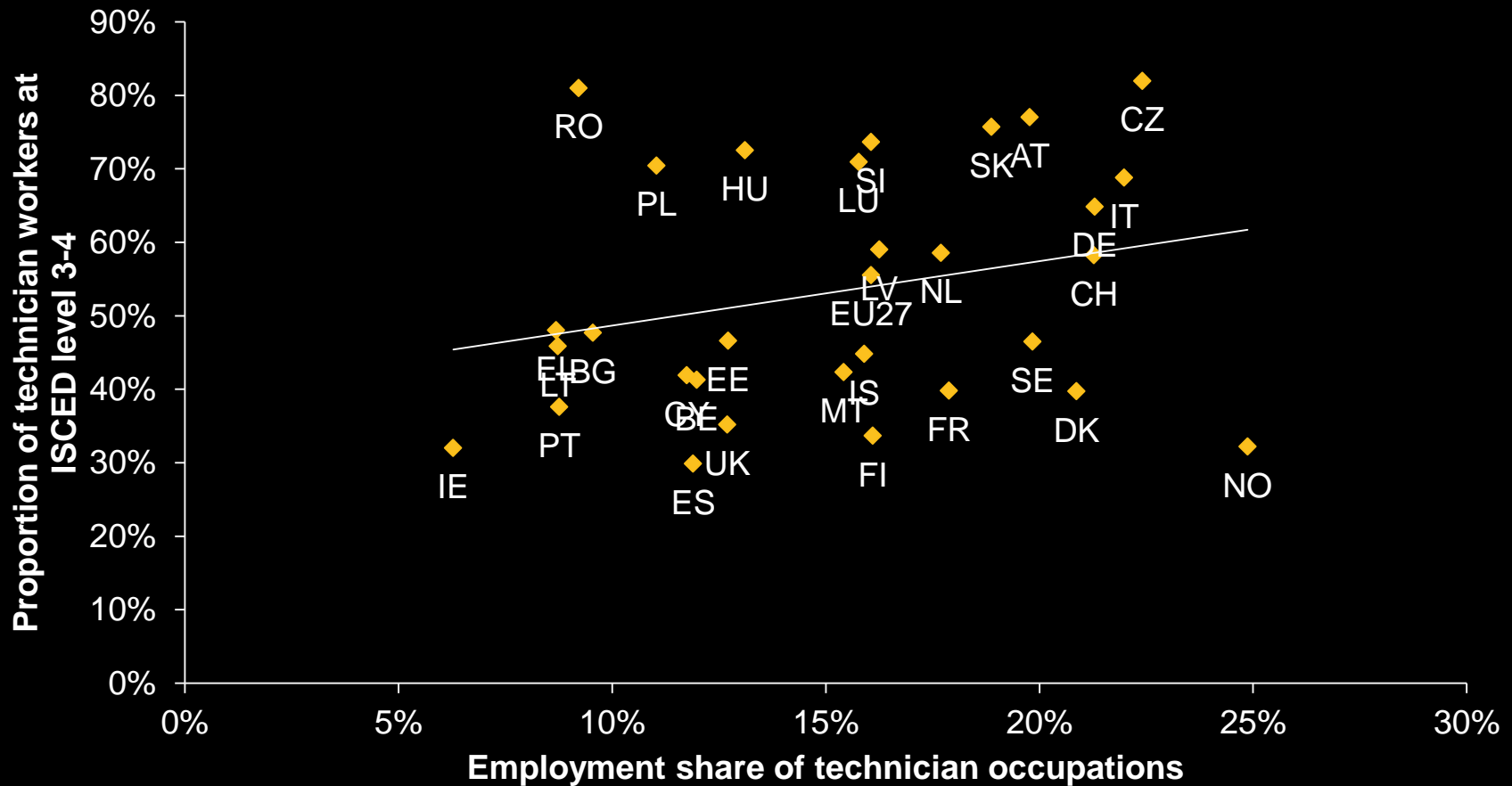
Skills needs in the labour market

- Moves away from semi-skilled manual, skilled trades and clerical work



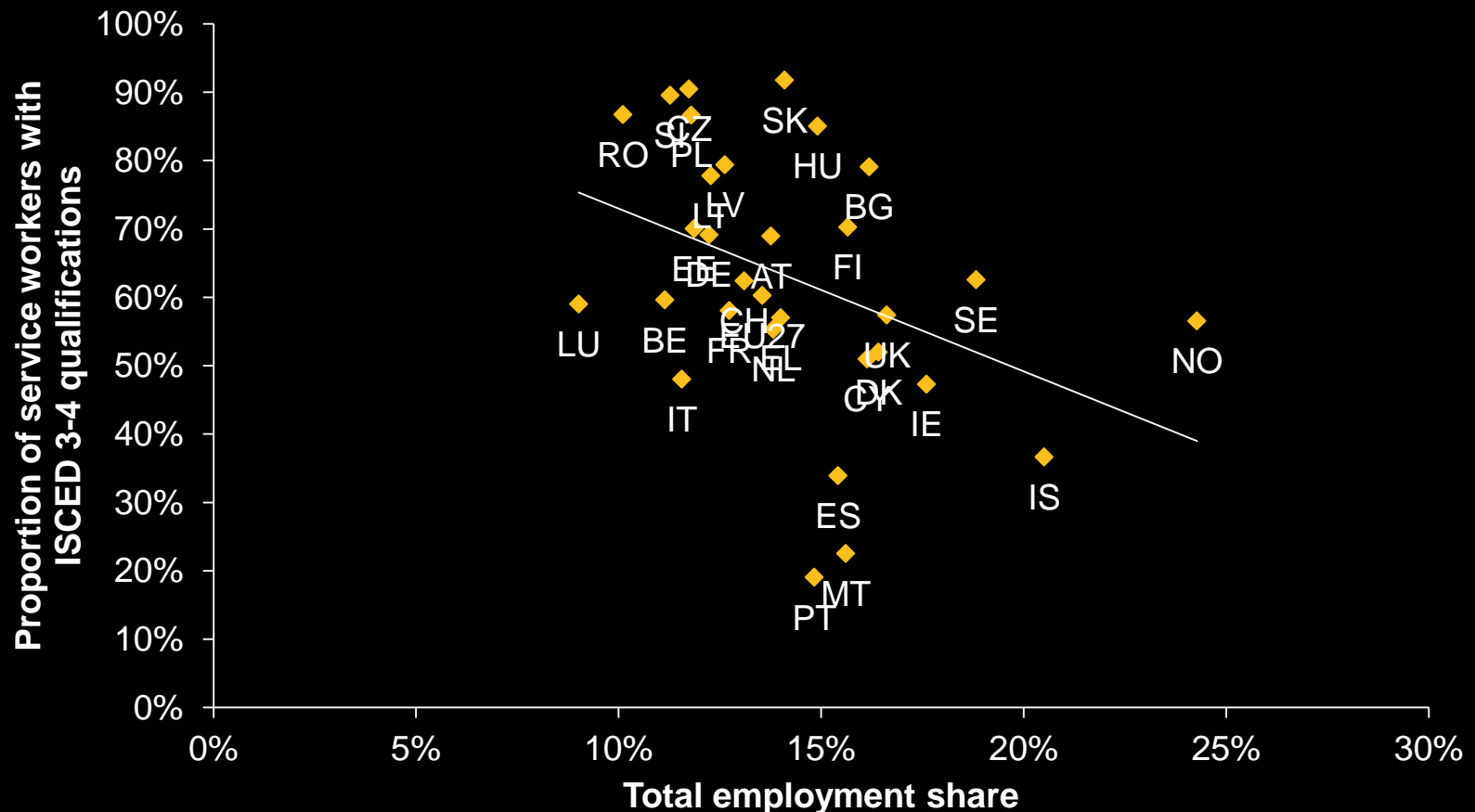
Skills needs in the labour market (2)

- More technicians benefits IVET graduates



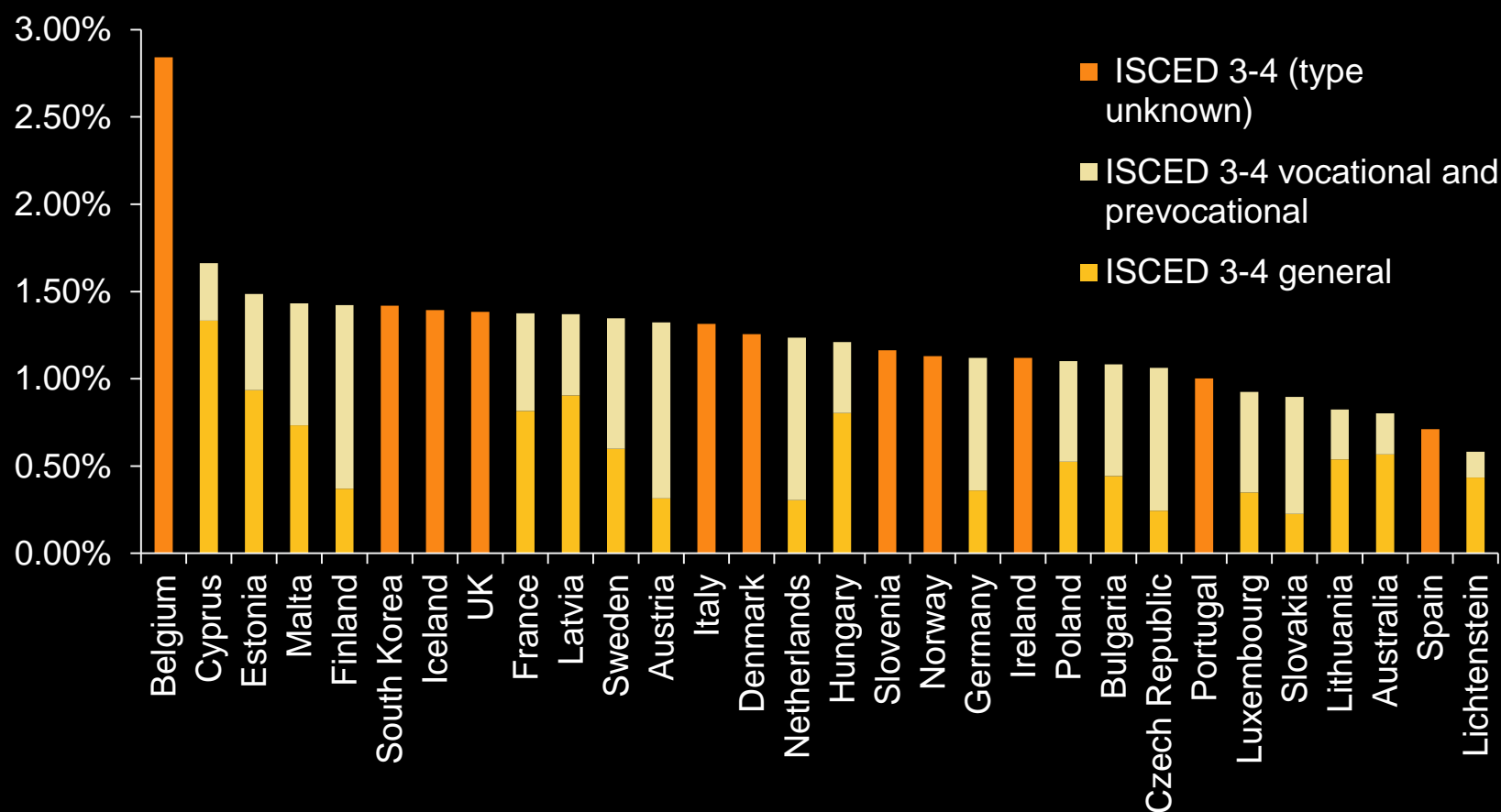
Skills needs in the labour market (3)

- **More service occupations benefits less qualified**



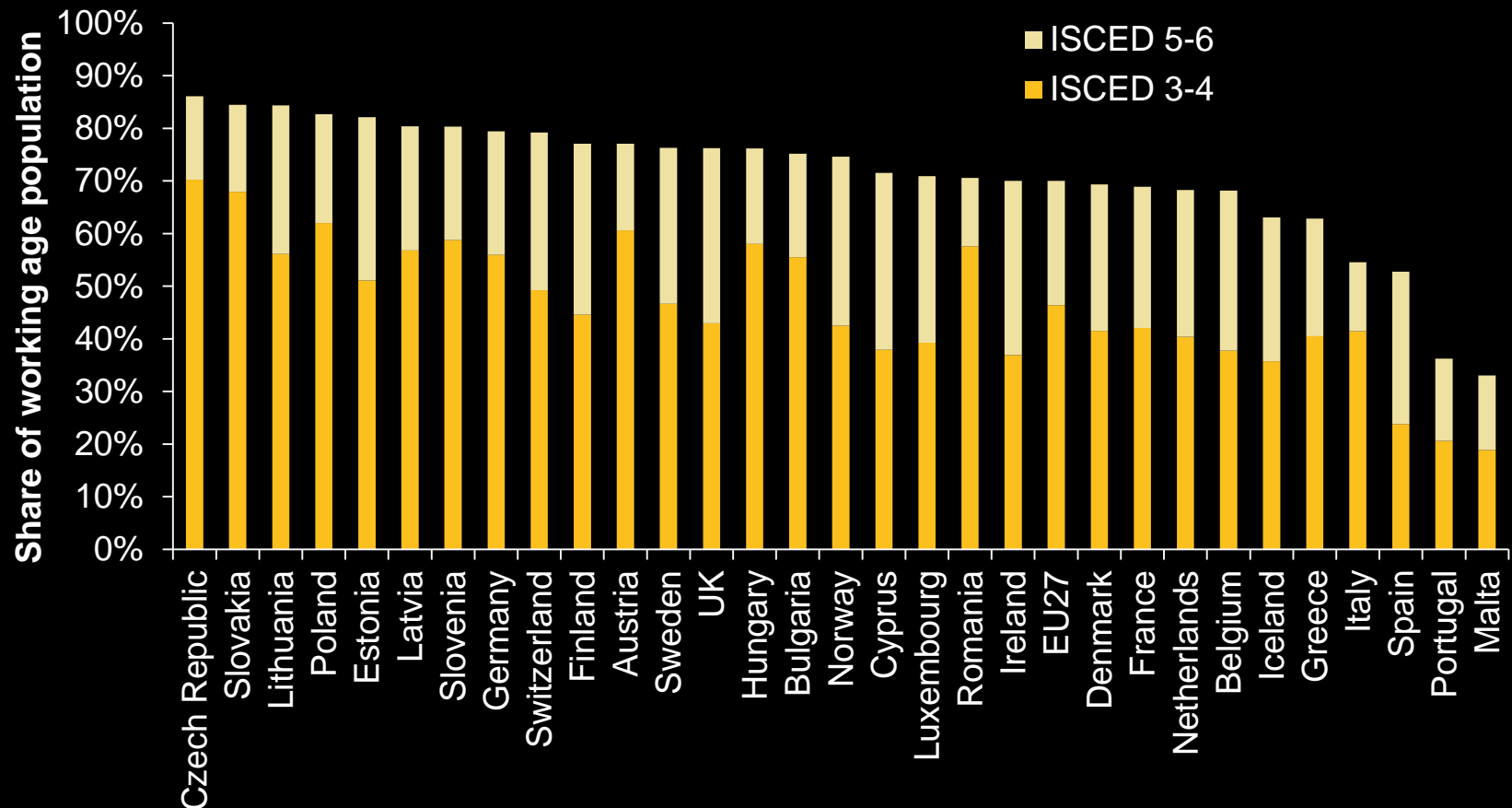
Wider education system

- Largely similar upper secondary expenditures



Wider education system (2)

- Large HE sectors in Scandinavia, much of Western Europe and the South

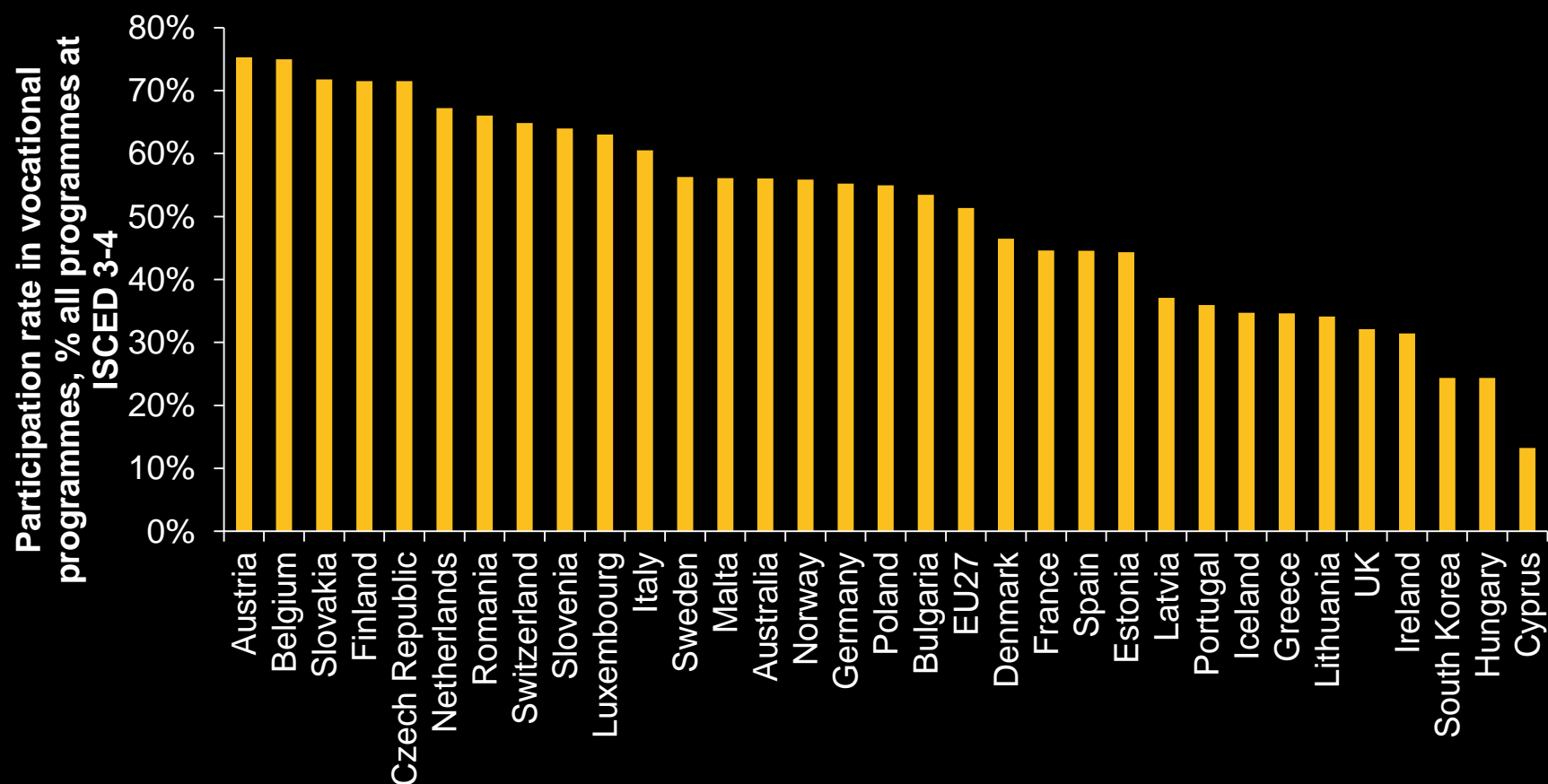


IVET outcomes

- **Skill supply**
 - Participation rates
 - Graduation rates and other measures of attainment
- **Economic outcomes**
 - Earnings
 - Employment prospects

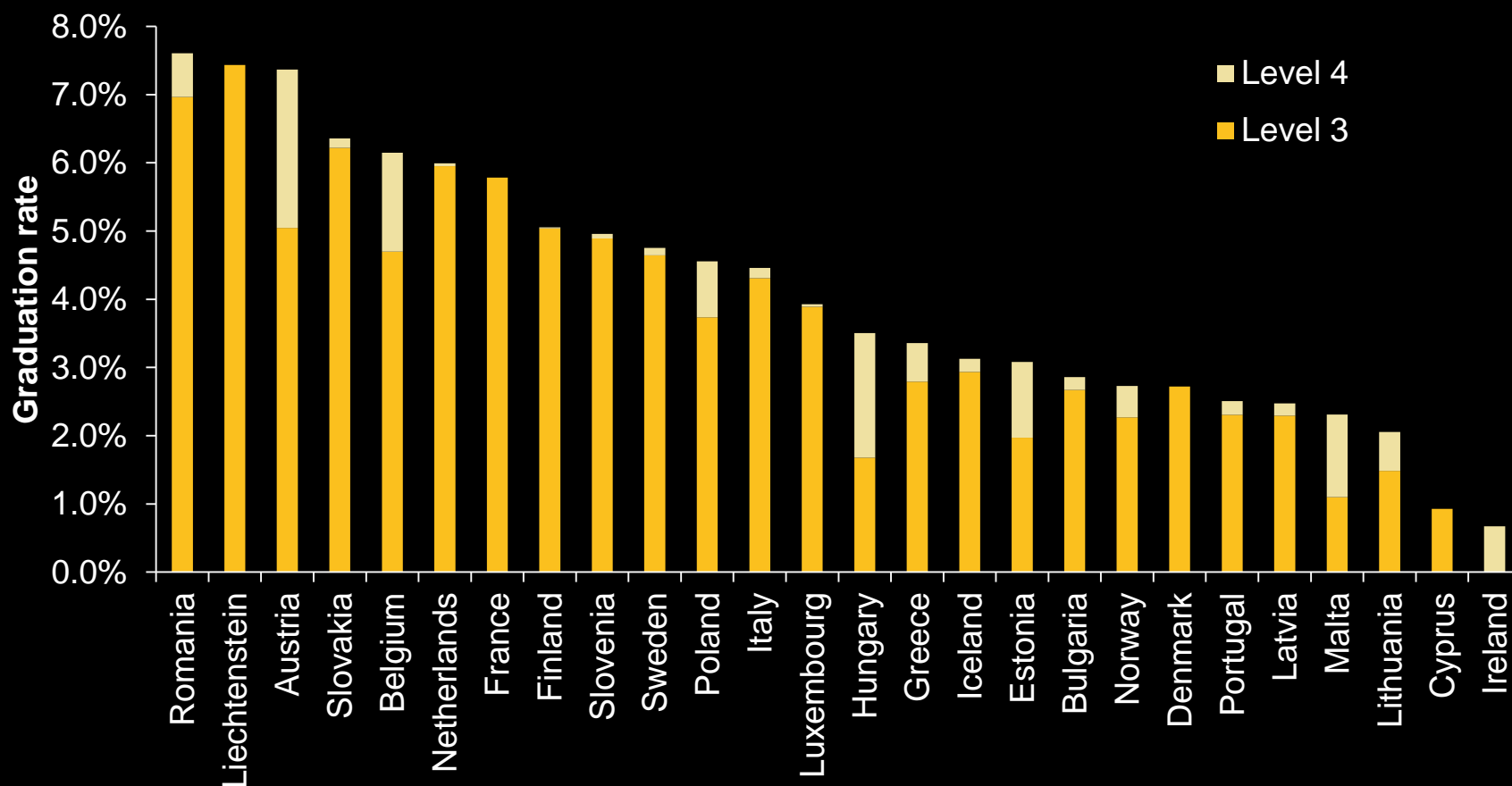
Skills supply

- Participation rates do not indicate supply



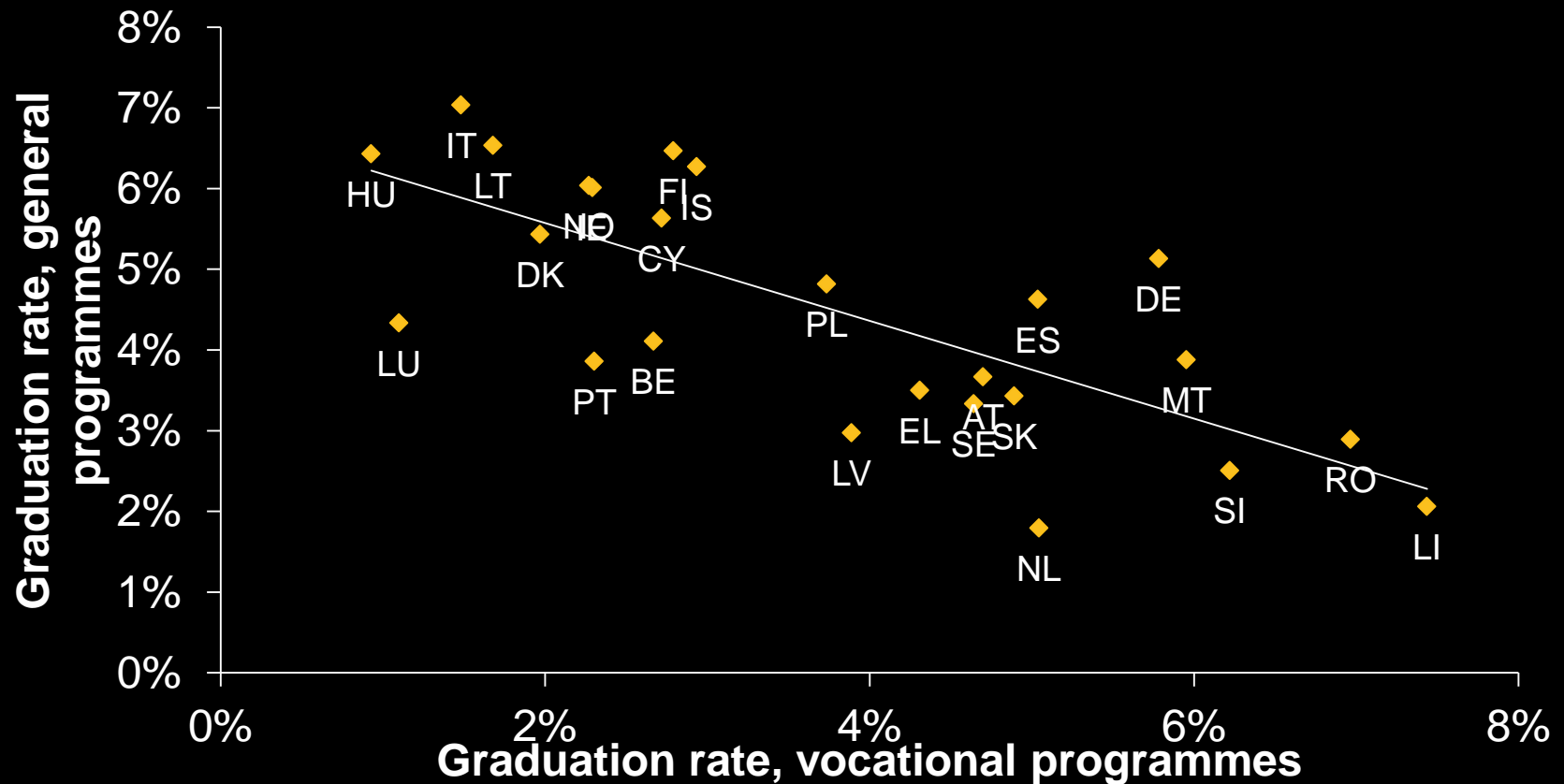
Skills supply (2)

- Output of IVET graduates varies dramatically



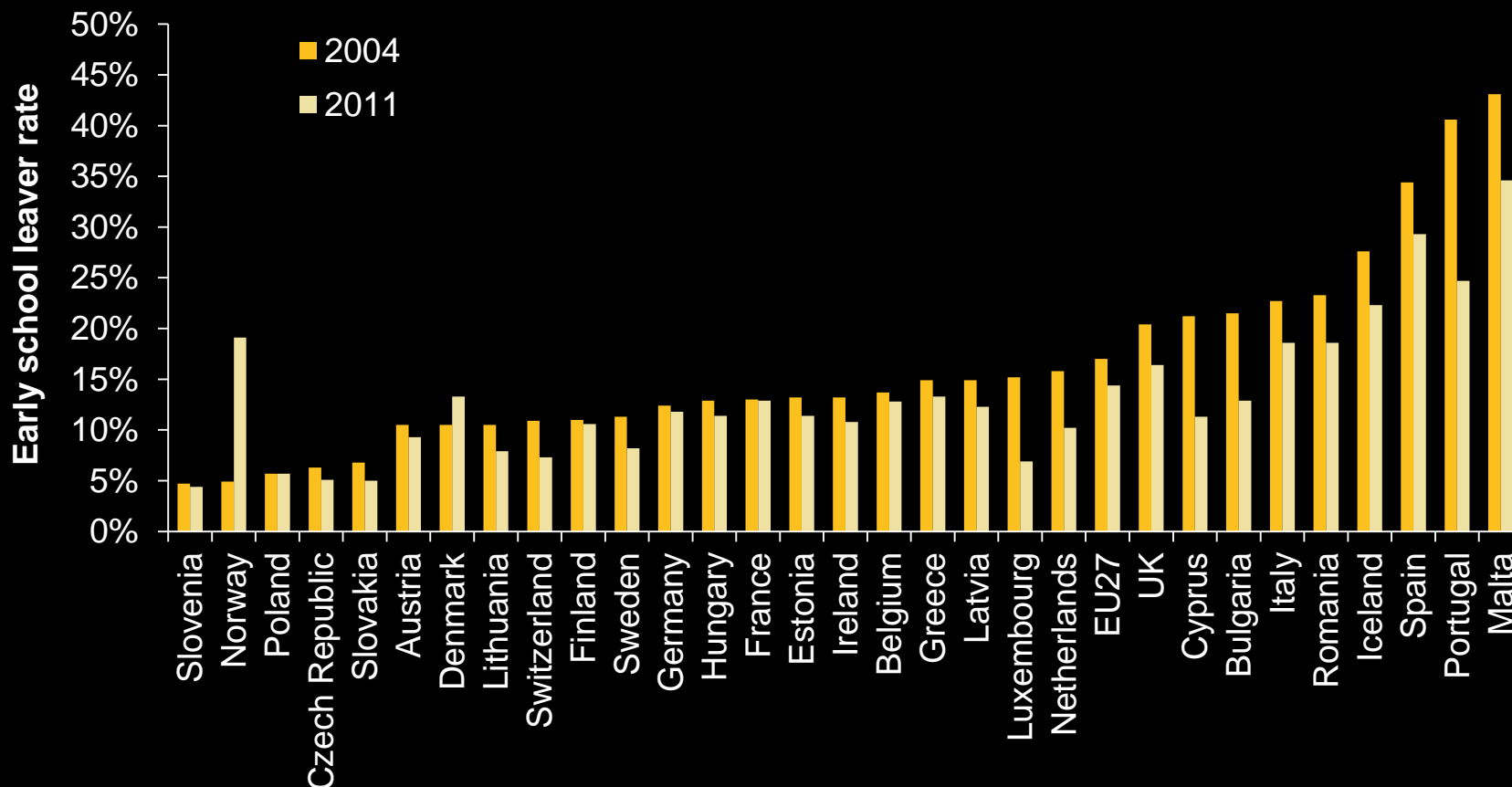
Skills supply (3)

- There is somewhat of a trade-off between turning out general and vocational graduates



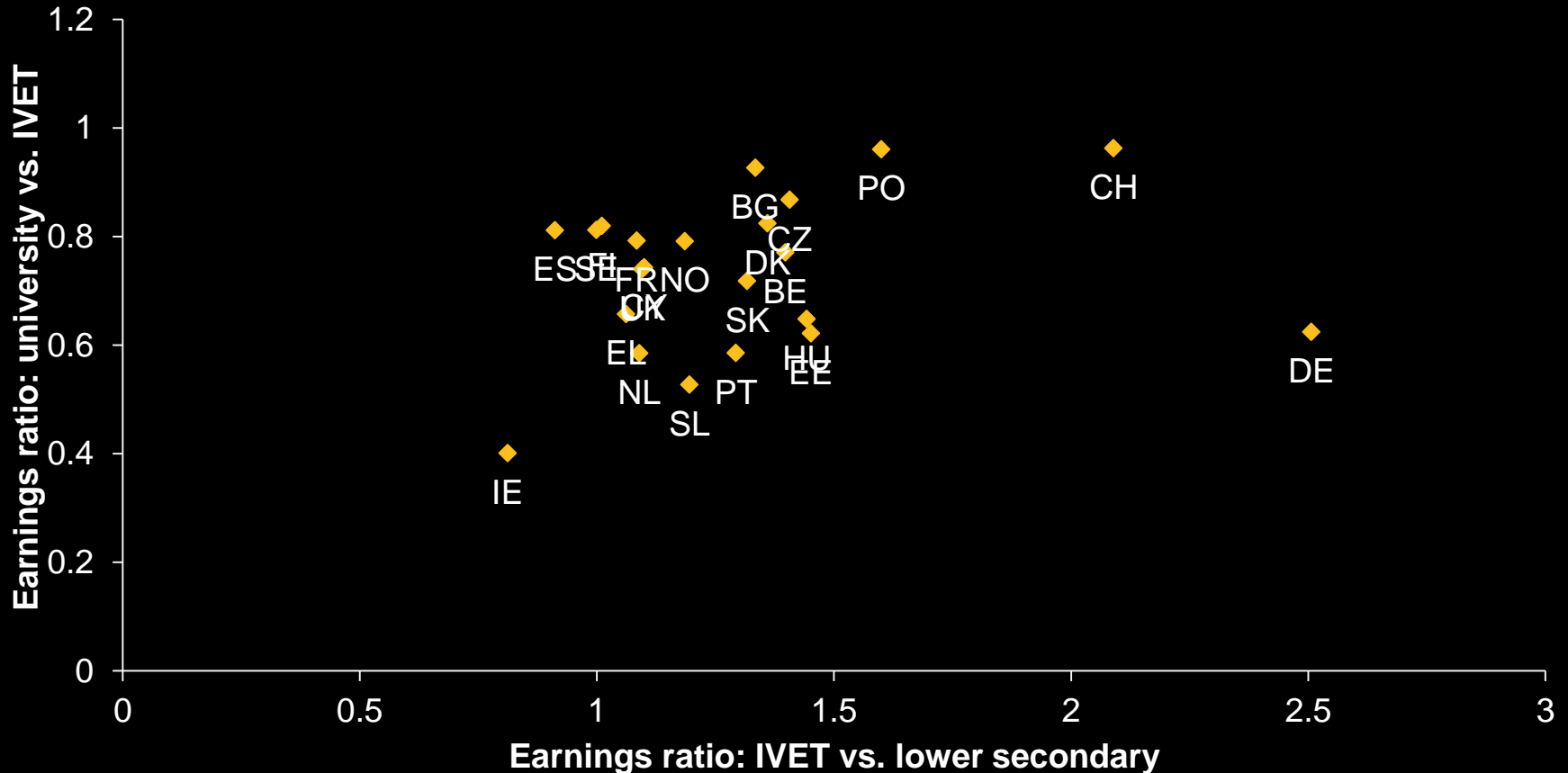
Skills supply (4)

- High drop-out rates are a persistent problem



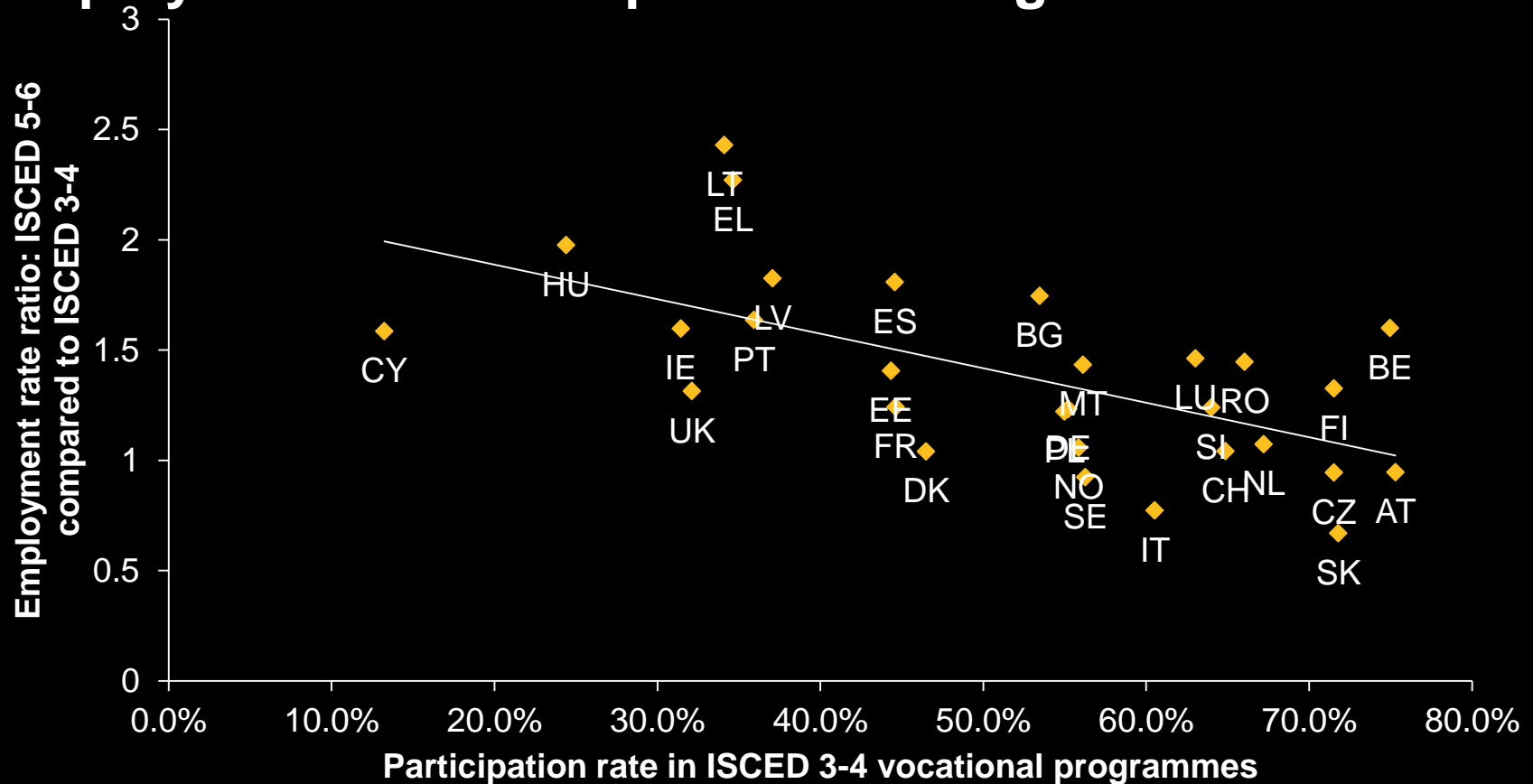
Economic outcomes

- Higher absolute IVET wages also improve the relative earnings of graduates



Economic outcomes (2)

- **Vocationally-focused upper secondary systems have employment rates comparable to HE graduates**



IVET outcomes

- **No countries have highly successful IVET systems across all these output measures:**
 - High graduation rate but low wage premia (e.g. Netherlands)
 - Compressed earnings and employment rate distributions → IVET graduates have few advantages over low qualified but relatively close to HE graduates (e.g Nordic countries)
 - Unequal earnings and employment rate distribution has opposite effect (e.g Estonia, Latvia, Hungary etc.)
- **More examples of unsuccessful systems with few (if any) positive outcomes:**
 - Greece, Ireland, Malta
 - UK, Iceland, Portugal (with missing data)

Sue Guthrie

3. VIEWPOINTS ON ATTRACTIVENESS

Key questions

- **What measures can we use to understand the attractiveness of IVET?**
- **What data are available?**
- **What does the picture look like and how does it differ across Europe?**

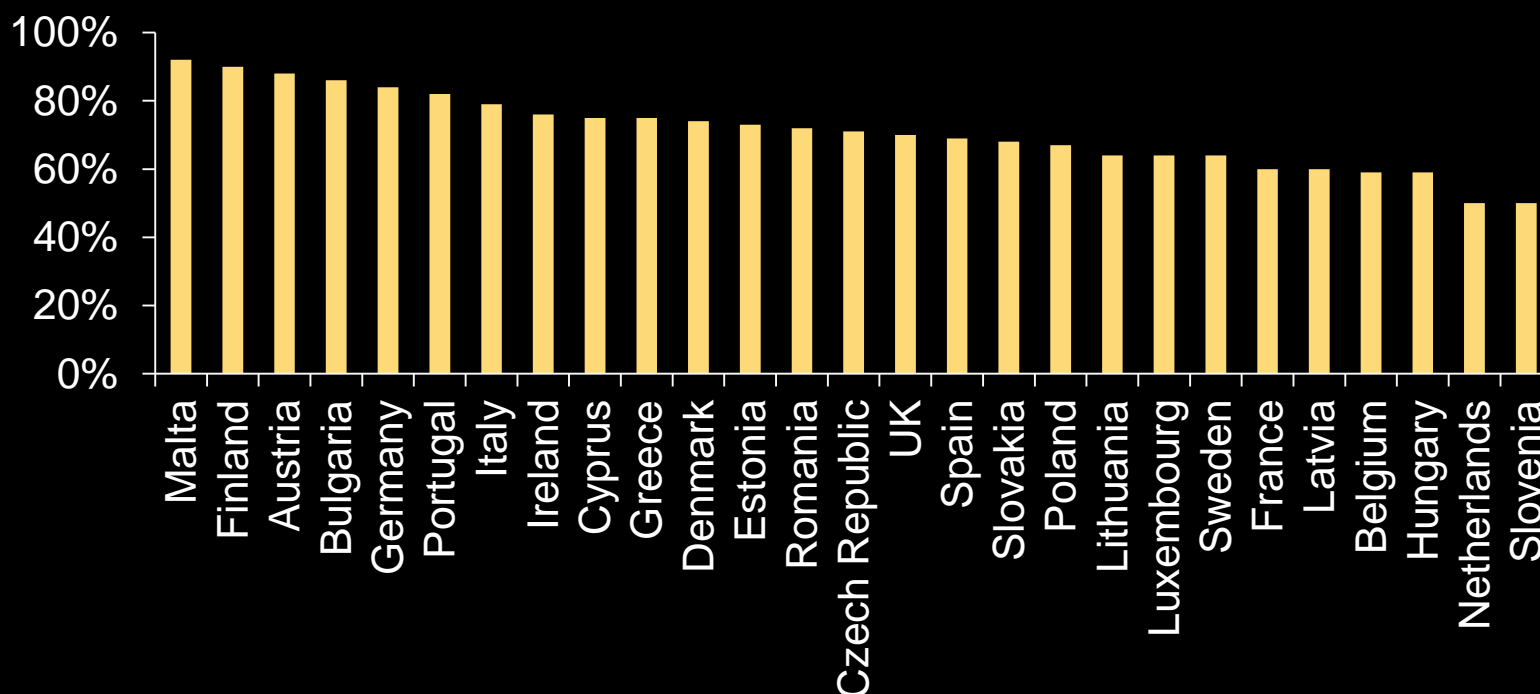
How can we measure the attractiveness of IVET?

- **Three indicators from two sources**
 - **Do you think that vocational education and training has a very positive, fairly positive, fairly negative or very negative image in this country? (% answering 'positive' or 'very positive')**
Source: Special Eurobarometer 369, 2011
 - **Nowadays, which of the following would you recommend to a young person who is finishing compulsory education? (difference in percentage points between % recommending vocational education and general education)** ***Source: Special Eurobarometer 369, 2011***
 - **Participation rates in vocational programmes as a % of all participation at ISCED 3&4 (15-64 year olds)** ***Source: Eurostat 2010***
- **Could also use entry-level employment rates and earnings of IVET graduates, but data not available**

Limitations of the data

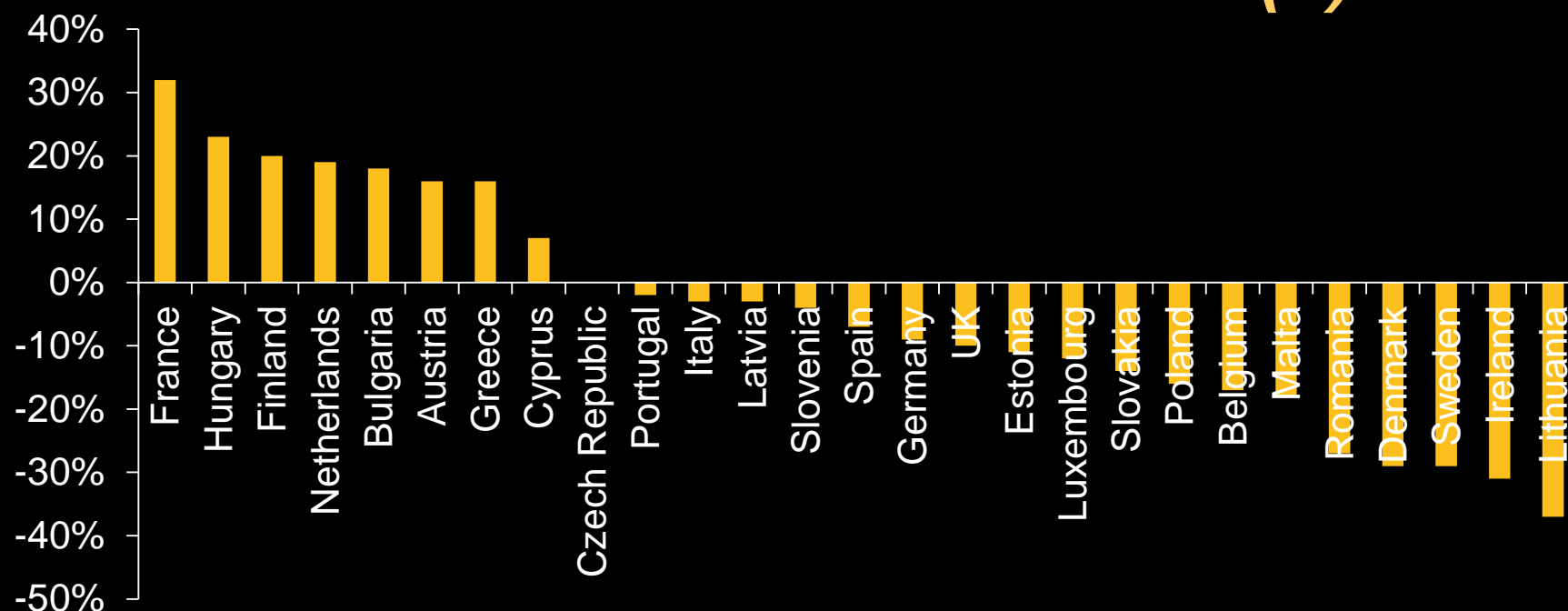
- **Eurobarometer survey methodology**
 - Treats vocational education as a homogenous whole
 - Focuses on vocational education – few questions make the comparison to other available options
 - Questions not specific and may be differently understood in different countries
- **Inclusion of CVET**
 - Participation covers age group 15-64
 - One of Eurobarometer questions asks about image of vocational education as a whole
- **Survey is from 2011, participation data from 2010**
- **Eurobarometer only covers EU MS**

How attractive is IVET: what does the picture look like across countries?



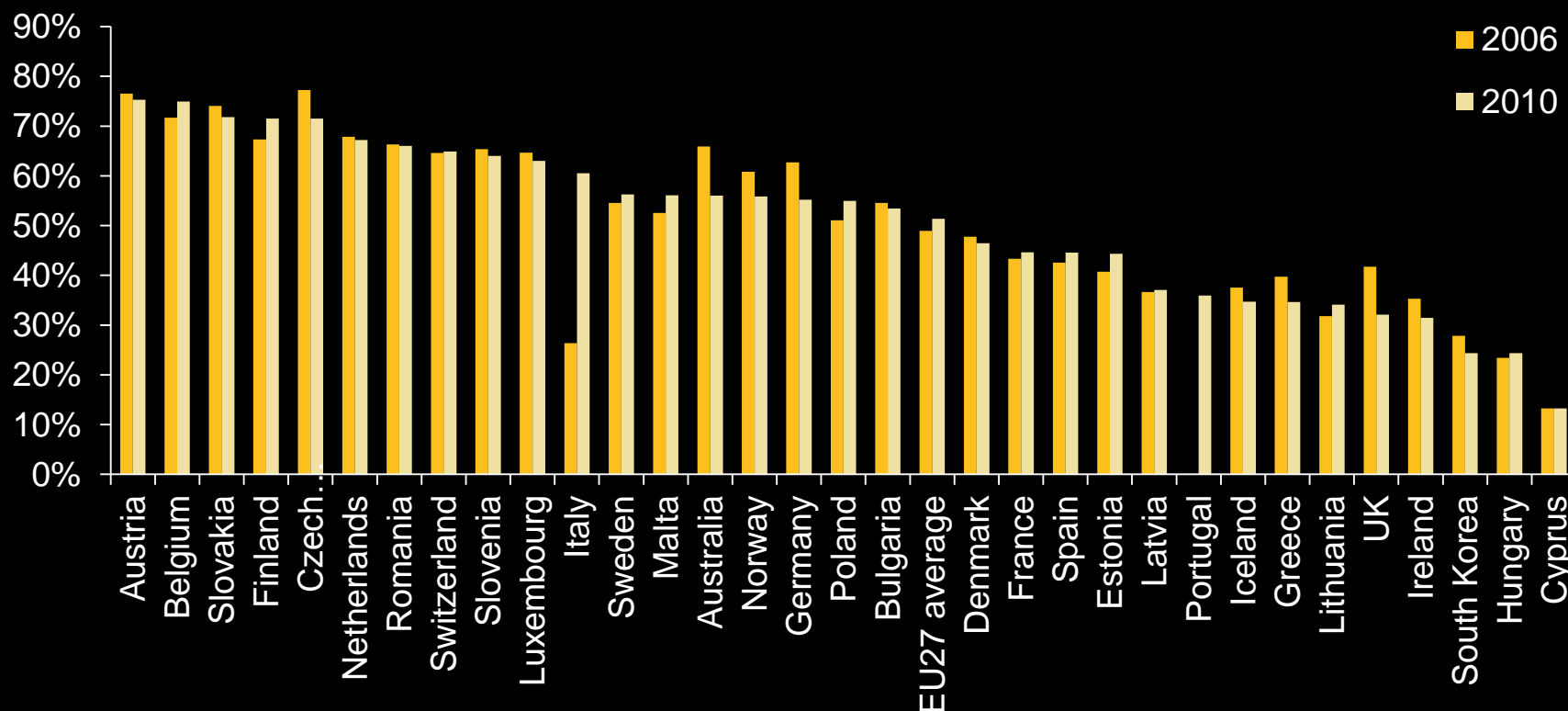
- 'Do you think that vocational education and training has a very positive, fairly positive, fairly negative or very negative image in this country?'
- Average of 71% answer 'positive' or 'very positive' across all EU member states

How attractive is IVET: what does the picture look like across countries? (2)



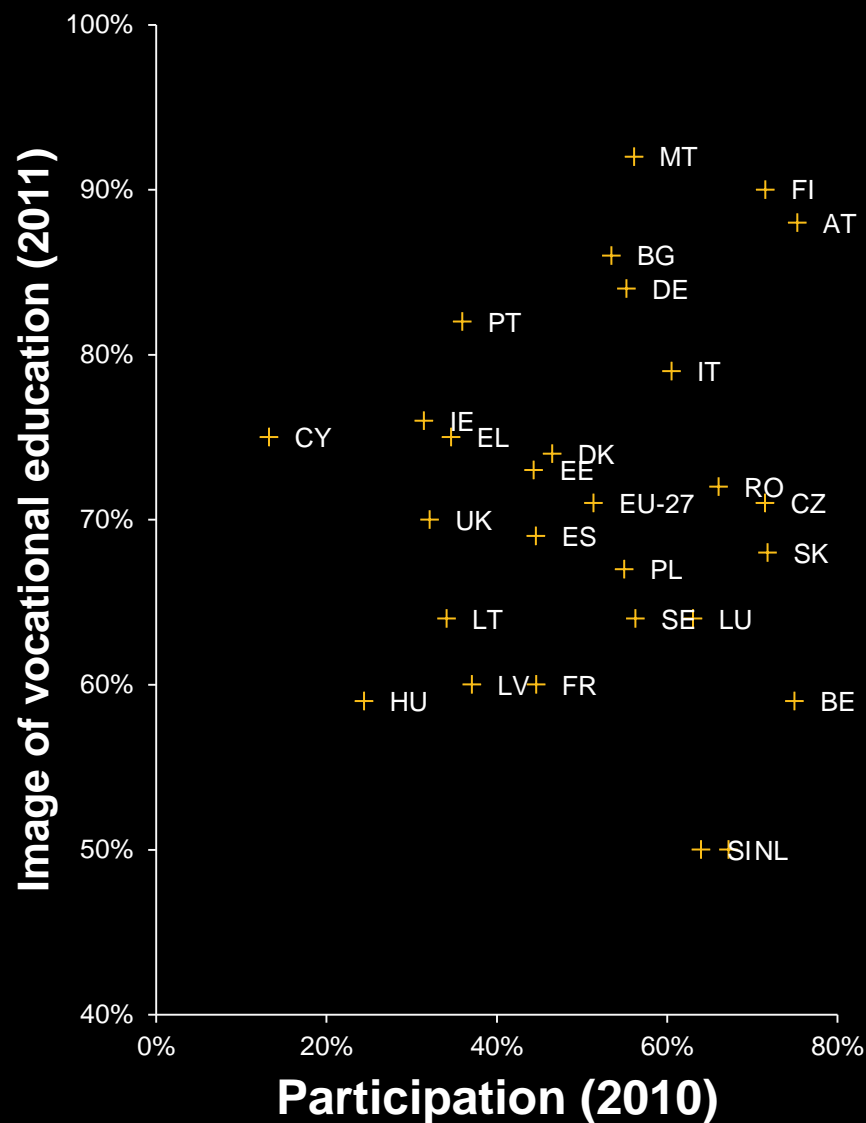
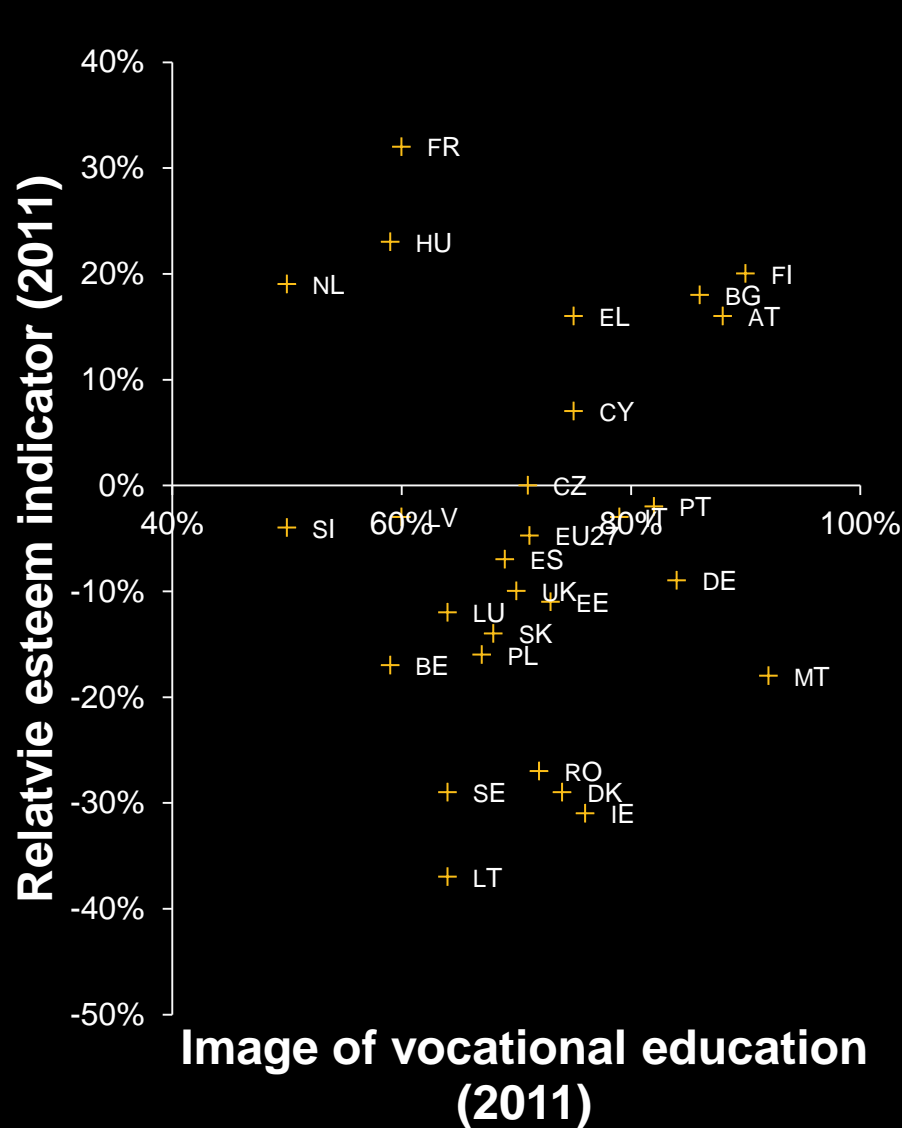
- **Relative esteem indicator (difference in percentage points between the percentage recommending general education and the percentage recommending vocational education)**
- **Average value is -5%**
- **Younger respondents, and those with higher level of educational attainment more likely to recommend general education**

How attractive is IVET: what does the picture look like across countries? (3)

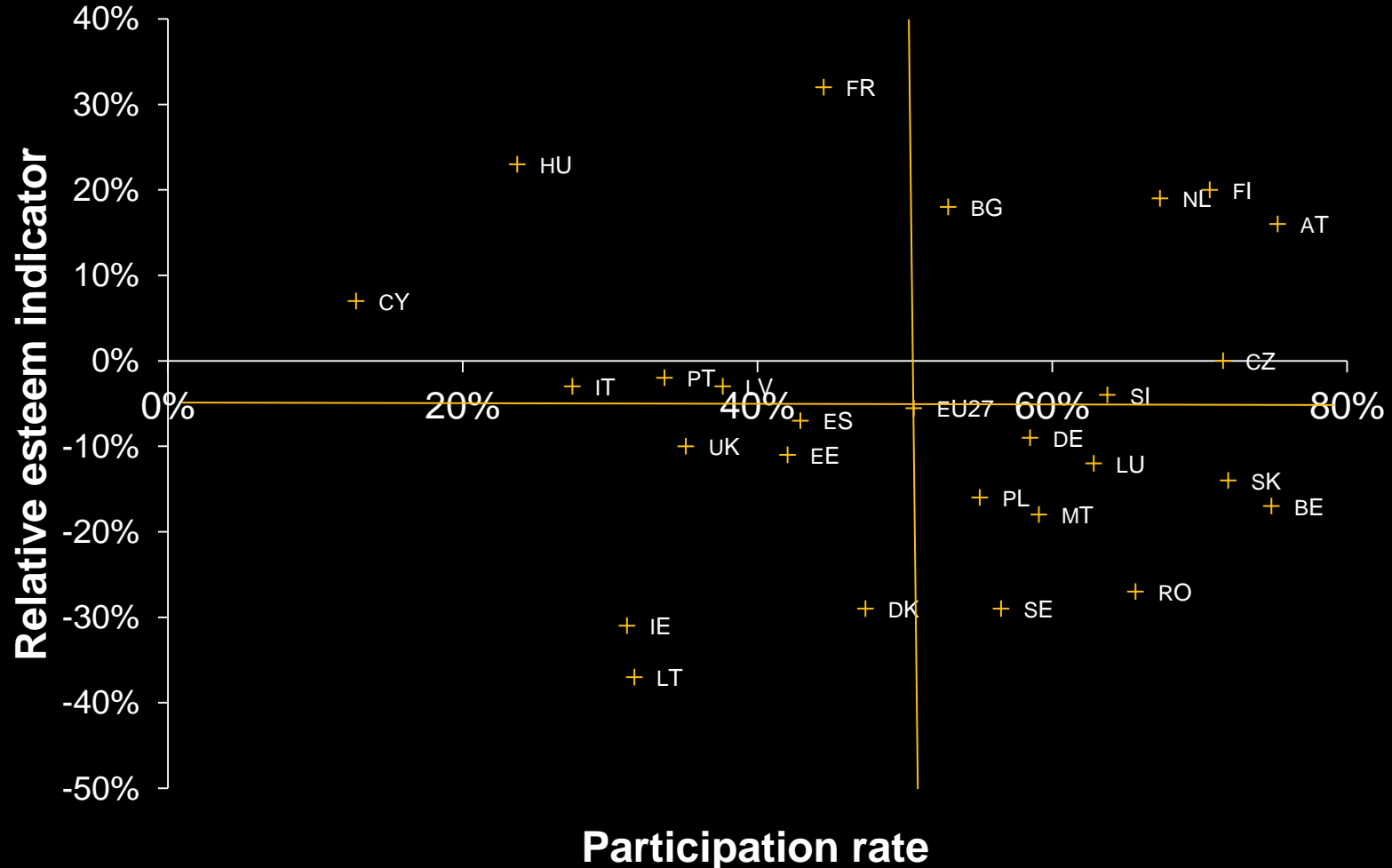


- **Participation rates in IVET (Level 3 & 4) vocational programmes as a % of all at ISCED 3 and ISCED 4 (15-64 year olds)**

Measures of attractiveness are not correlated



Measures of attractiveness are not correlated (2)



Trends in attractiveness

- **Relative esteem indicator (Source: Eurobarometer 369 (2011) and 216 (2004))**
 - Falls in Western Europe, notably the UK and Ireland
 - Increases in Eastern and Southern Europe, e.g. Cyprus, Latvia, Slovakia
 - But need to consider the starting points



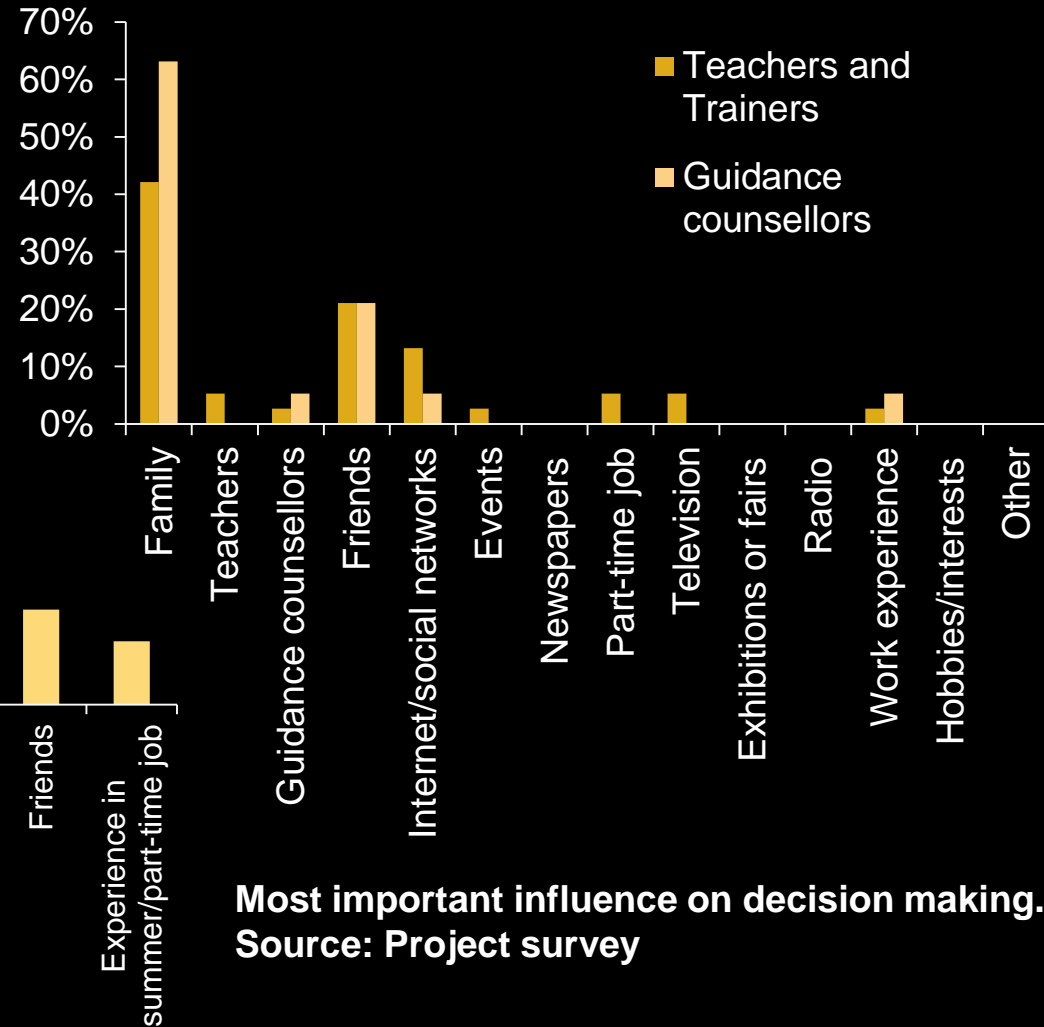
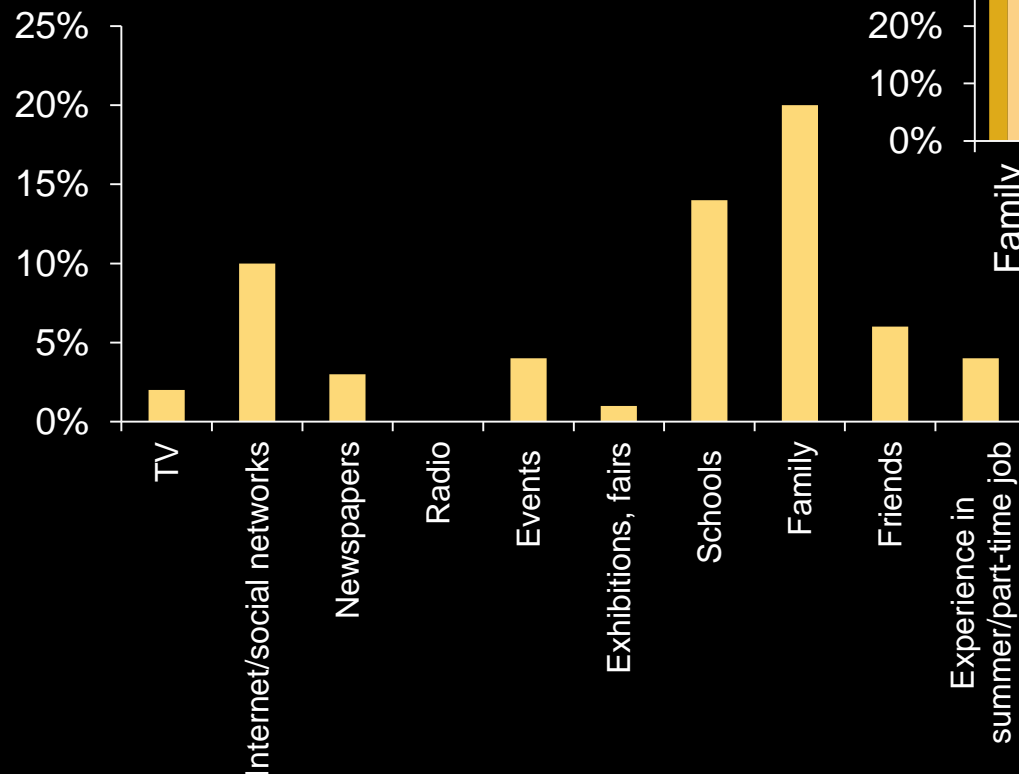
- **Participation levels are stable in most countries**

Influence of exogenous demand drivers on attractiveness

	Participation (2010)	Relative esteem (2011)	Relative esteem (2004)
Spend on ISCED 3-4 vocational/prevocational education as a percentage of GDP (2008)	Yes, positive (0.862)	X	Yes, positive (0.469)
Unemployment rate	Yes, negative (- 0.403)	X	X
Youth unemployment	X	X	X
Proportion working as technicians and associate professionals	Yes, positive	X	X
Change in proportion working in craft and related trades and clerical support	Yes, positive	X	X
Change in proportion working as plant and machine operators, and assemblers	Yes, negative	X	X
Change in proportion working in service and sales	X	Yes, positive	X
Old age dependency ratio	X	X	Yes, positive (0.458)
Size of youth population	X	X	Yes, negative (- 0.573)

Influence of exogenous supply drivers on attractiveness

- Families, teachers, people from the world of work, and the internet/social media are important**



Most important influence on decision making.
Source: Project survey

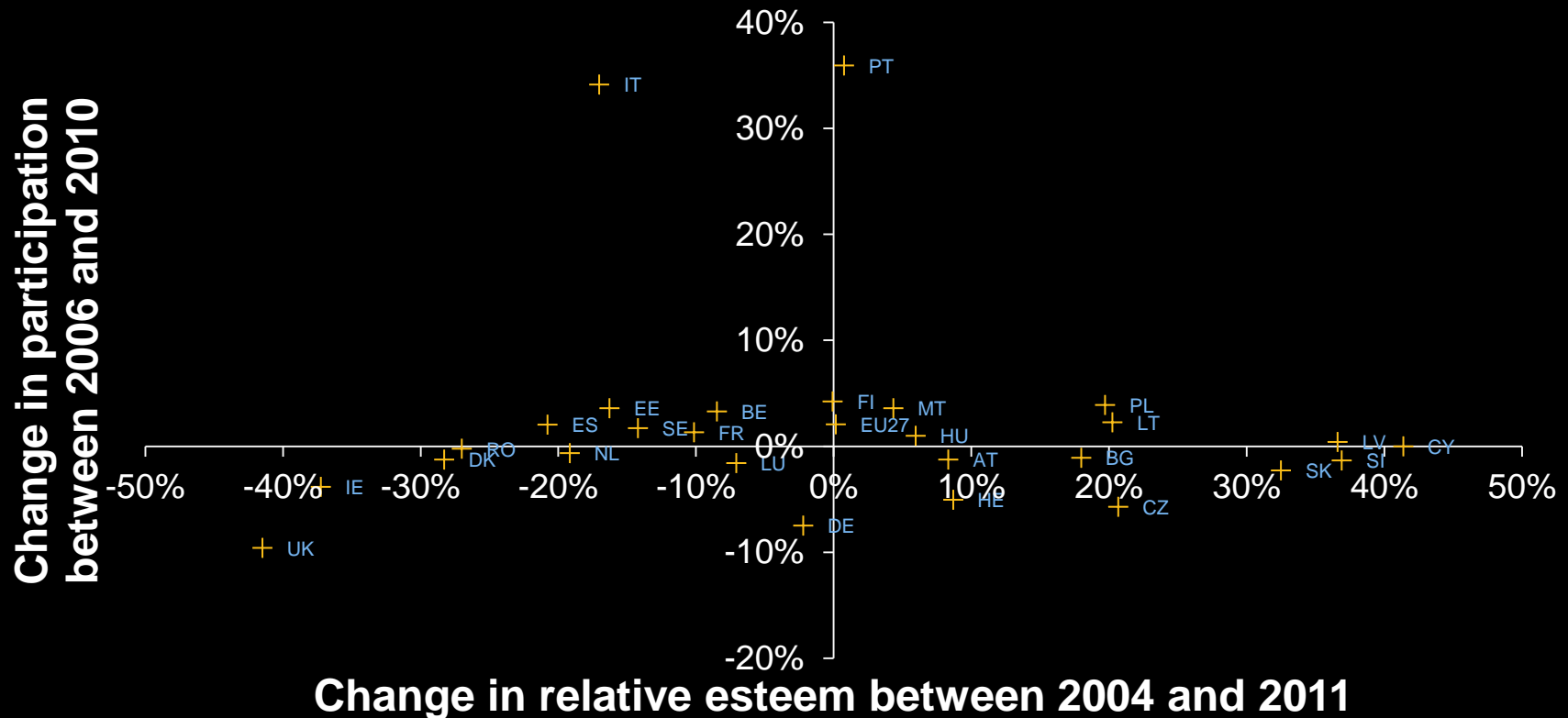
Sources of information used. Source: Eurobarometer 369 (2011)

Influence of exogenous supply drivers on attractiveness (2)

- **Assessment of attractiveness should compare to the alternatives**
 - Relative esteem indicator demonstrates this
 - IVET rated highly in terms of labour market relevance and quality in Eurobarometer survey
 - In project survey, when compared to general education, quality less well considered
- **Difficult to assess impact on attractiveness of these factors due to data limitations**
 - Perceptions around likelihood of finding employment is correlated with relative esteem
 - Labour market relevance of IVET emerges as important in both surveys

Influence of exogenous supply drivers on attractiveness (3)

- Student interest in the subject and/or related jobs an important consideration in decision making
- Norms – participation stable, relative esteem changing



Relationship between endogenous drivers and the attractiveness of IVET

- **Lack of suitable data makes it difficult to analyse**
- **Previous studies suggest some drivers:**
 - **Labour market relevance**
 - **Accessibility**
 - **Provision of guidance**
 - **Assured quality of education**
- **Survey and Eurobarometer data support the importance of labour market relevance to attractiveness**
- **Contrasting broad classifications, market-led systems, (e.g. UK and Ireland) lead to lower levels of IVET attractiveness**

Relationship between IVET outcomes and the attractiveness of IVET

- **Limited availability of data on the direct outcomes of IVET**
 - **E.g. employment rates of IVET graduates, or HE enrolment of IVET graduates**
- **Where available, not strongly correlated with attractiveness**
 - **E.g. Overall early dropout levels, Level of educational attainment at the population level, Wage premiums for differing levels of education**
- **Can infer from survey data that labour market relevance and access to HE are likely to be important**
- **Scarcity of data suggests outcomes are not being well communicated**

Conclusions

- **Three measures of IVET attractiveness are available**
 - **Relative esteem**
 - **Image of vocational education**
 - **Participation**
- **The picture regarding attractiveness is mixed, and differs significantly across countries**
 - **Participation is typically high relative to general education**
 - **Esteem is typically lower**
 - **Relative esteem typically growing in new MS (from a low starting point) and declining in Western Europe**

Conclusions (2)

- **Can identify a number of factors that influence attractiveness**
 - **Spend on vocational education**
 - **Composition of the labour market**
 - **View of others, particularly family**
 - **Comparison to general education**
 - **Norms**
- **Survey data suggests key factors in decision making are:**
 - **Personal interest in the subject**
 - **Future employment opportunities**
- **This analysis is limited by data availability**
 - **More data on IVET outcomes in particular are needed**
 - **Eurobarometer could be improved as a tool for gathering data on attractiveness**

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4. POLICY MEASURES AND EXAMPLES

Policy Approaches: Data

- **Sources of information for country fiche**
 - ReferNet report is main source
 - Other sources include: Ministry reports on implementation of EC strategic framework , OECD Learning4Jobs, T. Leney et al 2004
 - Key informant interview
- **Could not validate information due to time and resource constraints, but attempted to reconcile conflicting information**
- **Findings should be interpreted as broad snapshot of policy measures, not exact accounting**

Countries Adopt a Wide Variety of Measures to Increase IVET Attractiveness

- **Categorised about 20 broad types of measures**
- **Most frequently mentioned (by at least 15 countries)**
 - Provide financial incentives
 - Improve quality of teachers or trainers
 - Improve guidance and counselling
 - **Improve flexibility and diversity of pathways and programmes**
 - Increase transparency through use of qualifications frameworks
 - **Campaigns to raise awareness**
 - **Improve quality processes**

Countries Adopt a Wide Variety of Measures to Increase IVET Attractiveness (2)

- **Less frequently mentioned (cited by 11-14 countries)**
 - Improving transition from VET to higher education
 - Revising, modernizing the curriculum
 - **Supporting skills competitions or awards**
 - Improving the infrastructure of VET schools
 - Improving access for specific groups
 - Making structural changes to improve collaboration across levels
 - Increasing the involvement of employers, the labour market and social partners
 - Improvements to the apprenticeship system
- **A few countries noted particularly successful measures, but extent of countries' evaluation of measures is unclear**

Relationships Between Measures and Indicators of Attractiveness

- **Carried out preliminary analysis to identify patterns**
- **Used Eurobarometer data to classify countries according to level of relative esteem**
 - **Compared measures cited by countries in highest and lowest quartiles**
 - **Compared measures cited by countries where esteem increased to those where esteem decreased from 2004-2011**
- **Used participation data to identify countries with highest and lowest IVET participation**

Measures Associated with Relative Esteem

High Esteem Countries (N=7)	Low Esteem Countries (N=6)
Improvements to guidance and counselling	Reducing drop-out rates
Skills competitions	Introduce IVET at lower secondary or at younger age
International/transnational mobility	Adjust IVET curriculum to meet changes in the labour market
	Initiate structural changes to improve collaboration across stakeholders

Measures cited by low esteem countries appear to deal with more fundamental issues like increasing IVET participation and completion

Measures Associated with Participation

High participation (N=7)	Low participation (N=7)
Reduce drop-out rate	Recognition of prior learning
	Improve infrastructure of VET schools

Suggests that countries with high participation are more focused on ways to keep students enrolled

Case studies of selected initiatives

- **Aim is to examine IVET attractiveness in selected countries to identify ‘what works,’ in what contexts**
- **Six countries, 10 cases: Germany, Finland, Czech Republic, Ireland, Denmark, Spain**
- **Selection based on several considerations: measure of attractiveness, IVET participation, geographic spread, presence of key initiatives, availability of data, expertise within study team**
- **Conducted desk research plus interviews with key informants and descriptive analysis**

Case study #1: Skills Competitions in Finland: Context

- **Upper secondary education divided into general and vocational: 3 years duration, both provide eligibility for higher education**
- **VET is attractive: 43% in ISCED 3 vocational programmes (71.5% for ISCED 3/4); 90% report VET has positive image**
- **Economic situation mainly positive: rapid growth from 2000-2007 and remains healthy relative to EU**
 - **Recession has not affected funding of VET**
- **Youth employment declining, but at 39% is above EU average**

Brief description of initiative

- ***Taitaja-Mästare***: annual competition for VET students and apprentices under age of 20
 - Competition in 40 skill areas, over 3 days
 - Set tasks capture skills at work and test essential skills and competences
 - Judged according to standards set by national qualifications requirements, developed in partnership with social partners
 - Help identify vocational talent to represent Finland at international competitions
 - Largest yearly education event in Finland
- ***Taitaja-Mästare9***: for comprehensive school students ages 14-15; manual dexterity tasks (craftsmanship)
- ***Taitaja-Mästare Plus***: for students with special needs

Brief description of initiative (2)

- **Skills Finland, not-for-profit organisation, promotes quality and attractiveness of skills, VET, entrepreneurship**
 - Organises competitions, training and coaching of young people, competition experts and trainers
- **Excellence in Training System**
 - Focus on skill and motivation development for competitors and trainers
 - Continuously developed in cooperation with VET providers, social partners, research centers
- **Emphasis on competitions as opportunity for learning and improving VET in Finland**

How does initiative support attractiveness?

- **Competitors: personal development (self-esteem, motivation); raises skills, competence, preparation for working life; contributes to degree studies**
- **Employers: raises awareness of VET quality; opportunity to identify talent and compare own training with national/international benchmarks; enhances reputation as responsible employer**
- **Teachers and trainers: develops individually- and occupationally-oriented instructional methods; creates connections between school and work**
- **VET providers: join network of professionals to exchange good practices, information; develop internal operations, internationalisation, business partnerships**
- **Society: raises awareness; showcases excellence in variety of vocational occupations; signals quality of IVET**

Why skills competitions ‘work’

- **Integrated with national policy objectives and strategies for improving attractiveness and quality of VET**
 - **Considered in relation to EU-policy initiatives**
 - **Skills Finland as designated organisation, with wide reach**
- **State funding and support, with financial contribution from key stakeholders (VET providers, employers, sector organisations, municipalities)**
- **Incorporates research and development for improvement**
 - **Concrete results from international competition**
 - **Process to identify lessons learned and modify practice**
 - **Independent research on modeling characteristics of vocational excellence**

Case study #2: Information Campaigns in the Czech Republic: Context

- **Upper secondary system has two main pathways: 2-3 years for vocational certificate; 4-year matura qualification, prerequisite for higher education**
- **Attractiveness: 71.5% of upper secondary at ISCED 3/4; 71% report that VET has positive image**
- **Economic picture mainly positive: rapid growth from 2000-2007; real growth since then**
- **Youth unemployment increasing, but at 24% is below EU average**

Brief description of initiative

- ***Řemesio Žije!*** (Craft is alive!) is a City of Prague campaign to raise awareness of craft occupations, with two goals:
 - Students see craft disciplines as training and career path
 - Enterprises become involved in educational programmes
- **Main activities:**
 - Website with range of information targeted at different groups by age and role (includes on-line chat, news feed, social media, videos of artisans)
 - TOP camps: regular, 2-3 day events in selected fields; high performing students spend time in work setting
 - Skills competitions: young people compete against professionals

Brief description of initiative (2)

- **Active marketing of campaign events in local media (print, TV, radio)**
- **Regional focus reflects devolution of education responsibility since 2004**
 - **Enables adaptation of campaign to regional labour market**

How does initiative support attractiveness?

- **Elements designed to tailor information to specific groups**
 - Website and social media especially appeal to young people
 - Narratives by participating students, videos of artisans strengthen credibility of message
 - Employers, parents more likely to seek local media outlets (TV, radio, print)
- **Competitions promote apprenticeship approach, highlight skills of young people, and engage employers**
- **Evidence of high awareness among parents of primary pupils**

Why does initiative work?

- **Region-based initiative aligns with wider trend toward localisation in the Czech Republic**
- **Employs targeted communication strategies that are known to be effective**
- **Addresses some structural weaknesses of apprenticeship system (e.g. employer perception that VET students unprepared for work)**

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5. CONCLUSIONS MOVING FORWARD

Conclusions moving forward

- **Context still matters: A wide range of factors can affect attractiveness, and comparison to other educational pathways is crucial for understanding attractiveness**
- **Attractiveness is susceptible to the ebb and flow of change within countries, so IVET systems need to be flexible**
 - **Countries will respond to change at their own rates and in relation to national needs**
- **There are no clear ‘winners’**
 - **No country exhibits all the characteristics to support a ‘good’ system (produces many graduates who will enjoy relatively high wages and employment prospects in the labour market)**

Conclusions moving forward (2)

- **Some system characteristics may be beneficial, and have been identified in prior research (e.g. strong social partnerships, coordinated strategic planning)**
- **Better data is needed to understand attractiveness more fully**
 - **European-level data on destinations of IVET graduates**
 - **More impact studies on measures to increase attractiveness**
 - **More systematic data from students**
 - **Suggested improvements to Eurobarometer questions (comparison of IVET to other pathways, reasoning behind perceptions of IVET)**

Conclusions moving forward (3)

- **Lack of data makes it difficult to communicate important outcomes of IVET**
- **Lessons from behaviour change literature may inform policy to increase attractiveness, for example:**
 - **Family is important *messenger*, so campaigns should consider parents**
 - ***Defaults* often favour general upper secondary education over IVET**
 - **Information specific to local context may be more *salient***
 - **Personal interest in the subject regularly emerges as a crucial factor in decision making, showing impact of *affect***
 - **Engaging employers in small ways may lead to larger *commitments***

Implications for conceptual framework

- **Attractiveness of IVET: three possible measures identified.**
 - **Not correlated** - represent different types of attractiveness
 - **Comparable measures across countries**
- **Information on communication of IVET outcomes is limited**
 - **Some lessons from case studies and behaviour change literature**
- **Limited data on outcomes from IVET**
 - **Difficult to compare 'quality' of IVET to attractiveness**
 - **Indicators which we are available not correlated with attractiveness.**

Implications for conceptual framework (2)

- **Exogenous supply drivers of attractiveness**
 - **Factors listed in the framework do influence attractiveness**
 - **Important in developing a full understanding of attractiveness**
 - **Comparison to other educational pathways significant**
- **Exogenous demand drivers of attractiveness and outcomes**
 - **Spend on vocational education and availability of employment in specific job categories**
 - **Relationships complex, but important to understand**
- **Endogenous drivers are complex but have been explored in the literature**
- **Wide variety of policy levers employed, most common described in framework**

Implications for conceptual framework (3)

- Evidence from the study does not contradict this framework
 - Supports the need to consider attractiveness as separate from outcomes
 - Strongly supports the need to consider wider exogenous drivers of attractiveness, both on the supply and demand side.
 - To fully understand all the relationships illustrated more data are needed



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