

# The Swedish system of VET A German perspective

Prof Dr. Franz Kaiser  
supported by Martin French



## Content

- Aims, context and motivation
- Sweden and Germany in facts
- Cultural characteristics of Sweden
- Swedish educational and VET system (Yrkesprogram)
- Main changes in the last decades
- Perspectives
- Literature

## International comparative VET research – Objectives and perspectives:

- Change/ development of VET systems in other countries (development aid)
  - Improvement/ development of national VET structures (benchmarking)
  - Exchange of VET research approaches and methods
  - International comparative assessment of performance of VET systems
- 
- Global development and consulting (transcontinental)
  - European VET research
    - European VET policy
    - European VET programmes
    - Country studies (international comparison)

## International Handbook of Vocational Education and Training (published in German)

**Philipp Grollmann, Dietmar Frommberger** (Editors)

**International Handbook of Vocational Education and Training**

Basic publication, 4 folders



2006, 5400 pages

1-2 new studies each year

Loseblattwerk:

ISBN: 978-3-7639-3448-5

The publication is a regularly updated collection of country studies since 1995. It's the standard work for comparative VET research in Germany. Main focus on 42 country studies, which concentrate on national vocational education and training and educational systems. These provide an introductory insight into general socio-economic conditions and the educational policy competences. The study about Sweden is about 20 years old. Time for an update!

January

- Start of research
- Design of the study

May/June

- Conference/ workshops/  
study visits Sweden
- Progress report

December

- Final study/  
report

- Dissemination
- Research  
desiderata
- Projects

- Text basic data/ theory
- Text VET specifics
- Inputs Swedish experts

- Discussion with  
VET experts in  
Sweden

SPRING

AUTUMN



## Motivation of the researchers

### Franz Kaiser:

- General interest in Swedish culture (holidays, language)
- Study visits (*Göteborg 2008, Umeå 2009*)
- Conference participation (2012 etc.)
- University lectures (*Linköping, Stockholm 2014*)
- Interests in Connection of culture and structure of VET and current dynamics

### Martin French

- Several projects in Baltic Sea Region
- Contacts to VET researchers and stakeholders in Sweden
- International/ interregional knowledge transfer (systems - organisations - people - didactics)
- How can VET in Baltic Sea Region can be developed as macro-regional EU strategy?





# Sweden and Germany in facts

## Sweden

Area total: 450,295 km<sup>2</sup>

Population: 10.0 Million

Population density/km<sup>2</sup>: 22

GDP 500 Billion (USD)

5 years growth 2 %



# Sweden and Germany in facts

## Germany

Area total: 357,168 km<sup>2</sup>

Population: 80.9 Million

Population density/km<sup>2</sup>: 226

GDP 3.979 Billion

5 years growth 2 %



Source: www.ezilon.com, 2017.



## Basic data



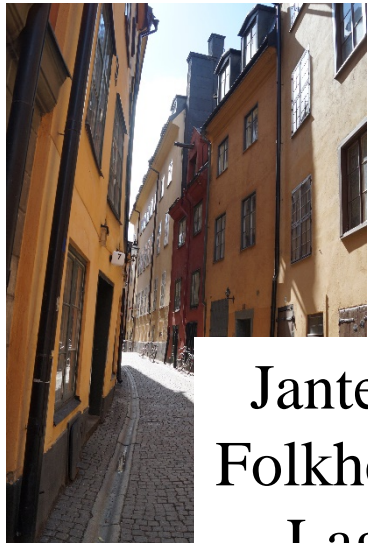
Employment rate 15-64 years old	75.5 %	73,8 %
Unemployment rate 15-64 years old	7.6 %	5.0 %
Youth unemployment 15-24 years	20.3 %	7.8 %
Average hours worked per year	1.612	1.371
Tertiary educational attainment 25+ old	40 %	28.5 %



# Sweden - Main changes in the last decades

	2015	2014	2013	2012	2011	2010	2000	1990	1980	1970	1960
Population on 31 December	9 851 017	9 747 355	9 644 864	9 555 893	9 482 855	9 415 570	8 882 792	8 590 630	8 317 937	8 081 229	7 497 967
Number of persons, 0-17 years	2 025 077	1 985 282	1 952 478	1 928 121	1 919 206	1 919 094	1 937 779	1 880 316	1 977 226	2 007 012	2 046 306
Persons aged 65 years and over	19.8	19.6	19.4	19.1	18.8	18.5	17.2	17.8	16.4	13.8	11.8
Foreign citizens [3]	782 833	739 435	694 662	667 232	655 100	633 292	477 312	483 704	421 667	411 280	190 621
Proportion of foreign citizens in %	7.9	7.6	7.2	7.0	6.9	6.7	5.4	5.6	5.1	5.1	2.5
Foreign-born	1 676 264	1 603 551	1 533 493	1 473 256	1 427 296	1 384 929	1 003 798	790 445	626 953	537 585	299 879
Proportion foreign-born in %	17.0	16.5	15.9	15.4	15.1	14.7	11.3	9.2	7.5	6.7	4.0
Foreign back-ground [4]	2 187 020	2 092 206	2 001 190	1 921 992	1 857 549	1 797 889	1 288 247				
Proportion foreign back-ground	22.2	21.5	20.7	20.1	19.6	19.1	14.5				

## Impressions „attitude towards life“



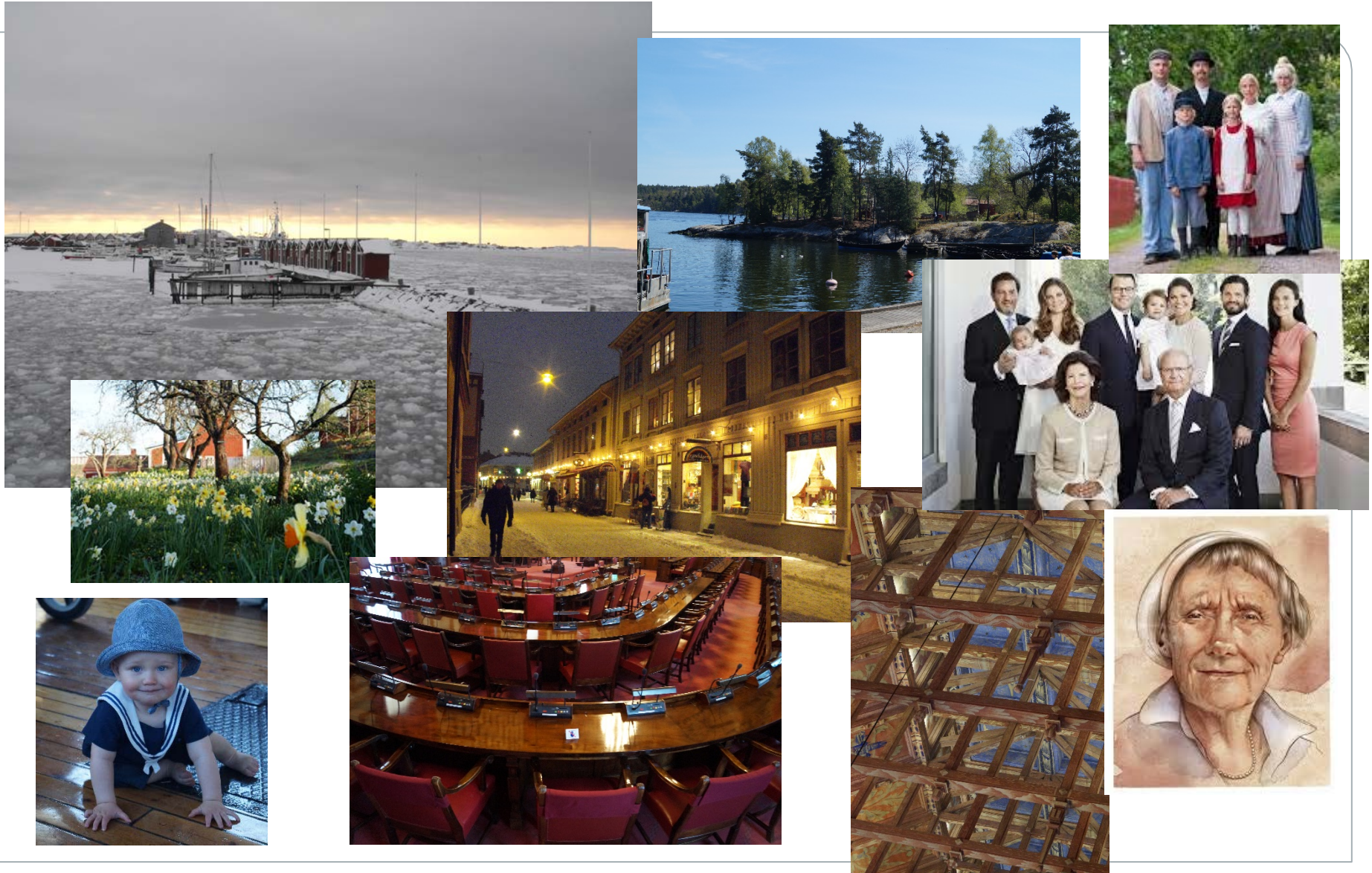
Jantelagen  
Folkhemmet  
Lagom

TRADITIONAL  
SWEDISH  
PASTRIES  
KANELBULLAR  
3 for 69:-  
SWEDISH FIKA  
45:-





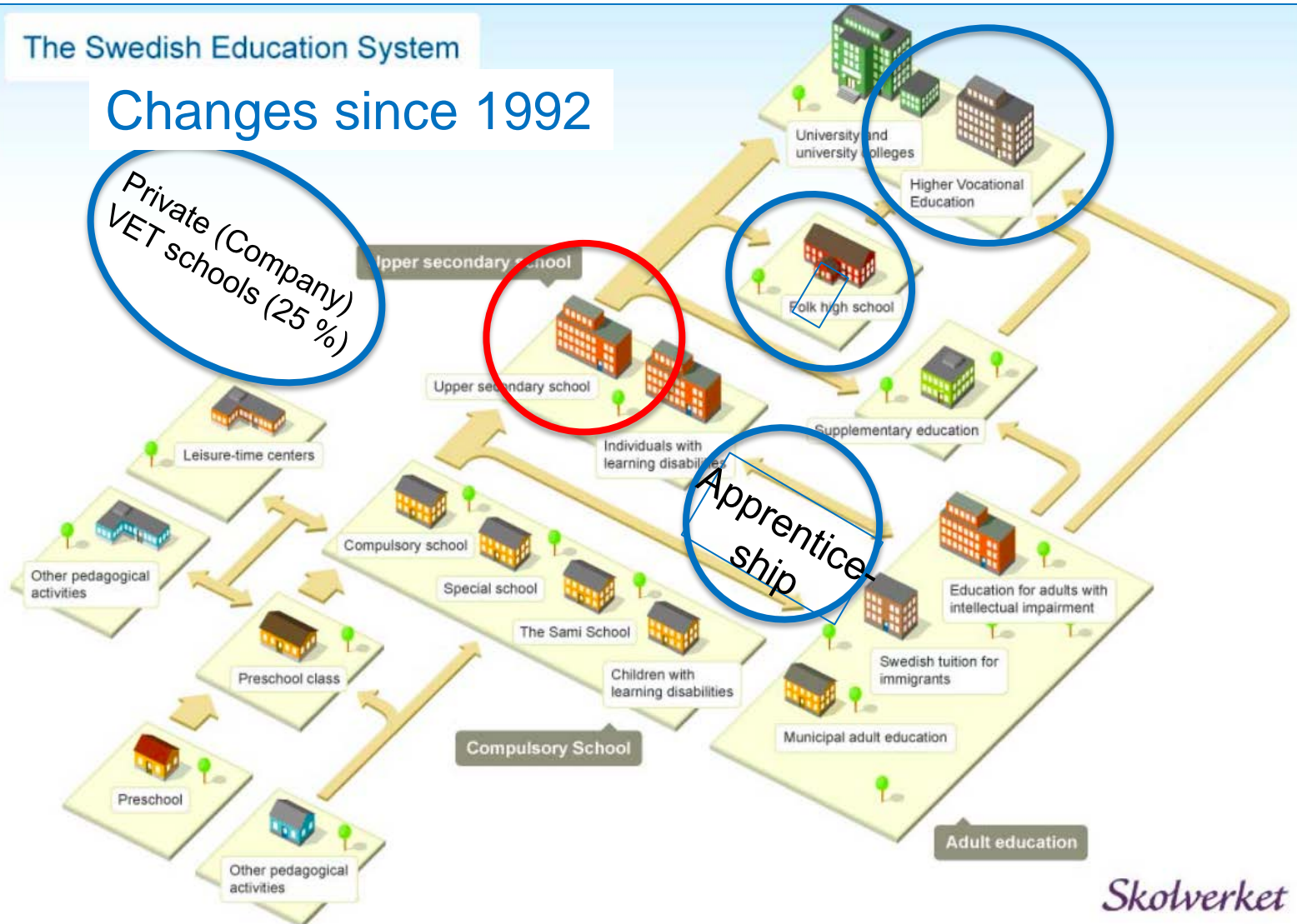
## Impressions „attitude towards life“



### The Swedish Education System

## Changes since 1992

Private (Company)  
VET schools (25%)





# Swedish educational and VET system

## Högskoleförberedande program (1346)

- Ekonomiprogrammet (256)
- Estetiska programmet (207)
- Humanistiska programmet (26)
- International Baccalaureate (9)
- Naturvetenskapsprogrammet (264)
- Samhällsvetenskapsprogrammet (365)
- Teknikprogrammet (219)

## Yrkesprogram (1470)

- Barn- och fritidsprogrammet (88)
- Bygg- och anläggningsprogramme... (197)
- El- och energiprogrammet (187)
- Fordons- och transportprogramm... (165)
- Handels- och administrationspr... (102)
- Hantverksprogrammet (138)
- Hotell- och turismprogrammet (63)
- Industri tekniska programmet (86)
- Naturbruksprogrammet (201)
- Restaurang- och livsmedelsprog... (75)
- VVS- och fastighetsprogrammet (93)
- Vård- och omsorgsprogrammet (75)

## Utländsstudier (31)

- Utbytesår / High School (21)
- Språkresor (10)

## Flygteknikutbildning (3)

## Marinteknikutbildning (1)

## Sjöfartsutbildning (5)

## Tågteknikutbildning (1)

## Övrigt gymnasiestudier (1)

## Läxhjälp (3)

## Gymnasieingenjör (17)

VET programmes  
at Swedish upper  
secondary schools  
(„gymnasieskolan“)

+

Training programme/  
schedule for commercial  
professions

## Handels- och administrationsprogrammet

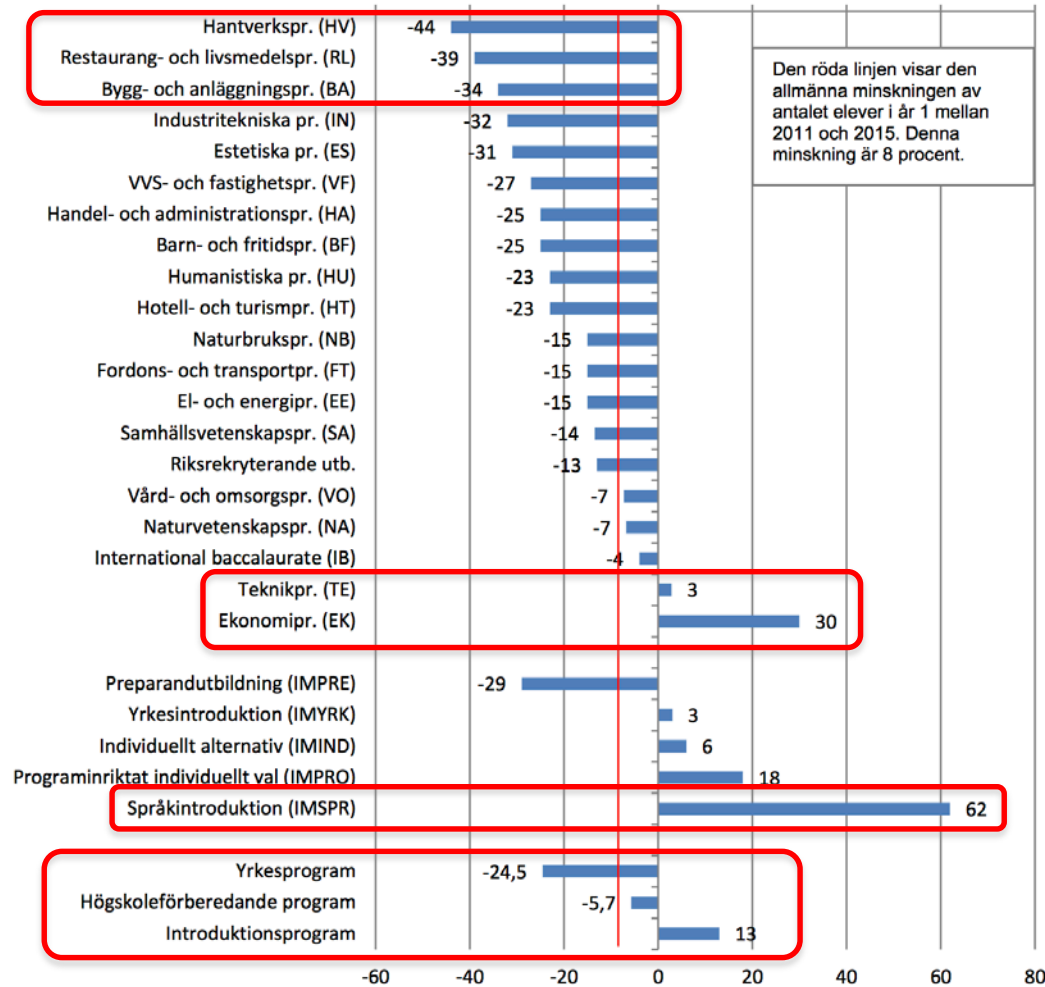
Kärnämnen	750	Inriktning Handel och service	450	Valbara kurser 300 p	Ind. val 300
Svenska/ Svenska som andraspråk A+B	200	Närhandel B	50	Exempel på kurser som kan erbjudas:	
Engelska A	100	Inköp och varubaser	100	Administration B	200
Matematik A	100	Praktisk marknadsföring B	100	Affärsjuridik	50
Estetik verksamhet	50	Handel specialisering (t.ex. livsmedel, mode och textil, elektronik, -sport och frid...)	200	Affärskommunikation engelska	50
Idrott och hälsa A	100			Affärskommunikation moderna språk	50
Naturkunskap A	50			Affärsvetor	100
Religionskunskap A	50			Affärsutveckling	100
Samhällskunskap A	100			Databehandling	100
				Förskvarer A	100
				Förskvarer B	100
				Autoteckenstegenografi	50
				Export och import	50
				Fridstämman	100
				Företagsplanering B	150
				Geografi A	100
				Historia A	100
				IT-mat	50
				Informations och layout B	100
				Personaladministration	50
				Konferens och reception	100
				Livsmedelshygien A	50
				Livsmedel A	50
				Mediamedia A	100
				Muntlig och skriftlig kommunikation	50
				Närhandel C	100
				Organisation och ledarskap	50
				Praktisk marknadsföring C	50
				Psykologi A	50
				Rätkunskap	50
				Samhällskunskap B	100
				Småföretagande B	100
				Medierna språk	100 - 200
				Telefonföreläsning	50
				Transport och spedition	50
				Webbdesign	100
				Kurser som skall erbjudas:	
				Matematik B	
				Engelska B	
					Se gymnasieforordningen



Andel av eleverna i år 1 per program respektive läsår,  
samt förändring (procentandelar) läsåret 2015/16 jämfört med 2011/12.

	2011/12	2012/13	2013/14	2014/15	2015/16	Förändring (procentenheter) 2011/12–2015/16
Barn- och fritidsprogrammet (BF)	2,8	2,5	2,6	2,3	2,3	-0,5
Bygg- och anläggningsprogrammet (BA)	4,5	4,1	3,8	3,5	3,2	-1,3
El- och energiprogrammet (EE)	4,3	4,2	4,1	4,1	3,9	-0,4
Fordons- och transportprogrammet (FT)	3,1	3,1	3,1	3,1	2,8	-0,3
Handels- och administrationspr. (HA)	2,5	2,3	2,2	2,3	2,0	-0,5
Hantverksprogrammet (HV)	2,9	2,5	2,2	2,0	1,8	-1,1
Hotell- och turismprogrammet (HT)	1,2	1,1	1,1	1,0	1,0	-0,2
Industri tekniska programmet (IN)	1,5	1,6	1,4	1,3	1,1	-0,4
Naturbruksprogrammet (NB)	2,5	2,3	2,3	2,3	2,3	-0,2
Restaurang- och livsmedelspr. (RL)	2,2	2,0	1,9	1,8	1,5	-0,7
VVS- och fastighetsprogrammet (VF)	1,1	1,1	1,0	1,0	0,9	-0,2
Vård- och omsorgsprogrammet (VO)	2,5	2,5	2,7	2,6	2,6	0,1
Riksrekryterande utbildningar	0,3	0,3	0,3	0,3	0,3	0,0
<b>Yrkesprogram totalt</b>	<b>31,4</b>	<b>29,4</b>	<b>28,6</b>	<b>27,4</b>	<b>25,6</b>	<b>-5,8</b>
Ekonomiprogrammet (EK)	7,4	7,9	9,4	10,1	10,5	3,1
Estetiska programmet (ES)	7,6	8,1	6,8	6,3	5,8	-1,8
Humanistiska programmet (HU)	0,9	0,9	0,7	0,7	0,7	-0,2
Naturvetenskapsprogrammet (NA)	11,5	12,3	11,7	11,6	11,5	0,0
Samhällsvetenskapsprogrammet (SA)	15,8	16,7	15,7	15,7	14,8	-1,0
Teknikprogrammet (TE)	6,7	7,1	7,3	7,4	7,5	0,8
International baccalaurate (IB)	0,9	0,9	0,9	1,0	0,9	0,0
<b>Högskoleförberedande program totalt</b>	<b>50,9</b>	<b>52,4</b>	<b>52,5</b>	<b>52,7</b>	<b>51,7</b>	<b>0,8</b>
Individuellt alternativ (IMIND)	4,2	4,7	4,6	4,4	4,3	0,1
Preparandutbildning (IMPRES)	2,1	2,0	1,6	1,6	1,6	-0,5
Programinriktat ind. val (IMPRO)	2,4	2,7	2,5	2,7	3,0	0,6
Språkintrödningsprogrammet (IMSPR)	5,7	6,1	7,6	8,4	10,9	5,2
Yrkesintroduktion (IMYRK)	2,6	2,7	2,6	2,7	2,8	0,2
<b>Introduktionsprogram totalt</b>	<b>17,7</b>	<b>18,2</b>	<b>18,9</b>	<b>19,9</b>	<b>22,6</b>	<b>4,9</b>
	100	100	100	100	100	

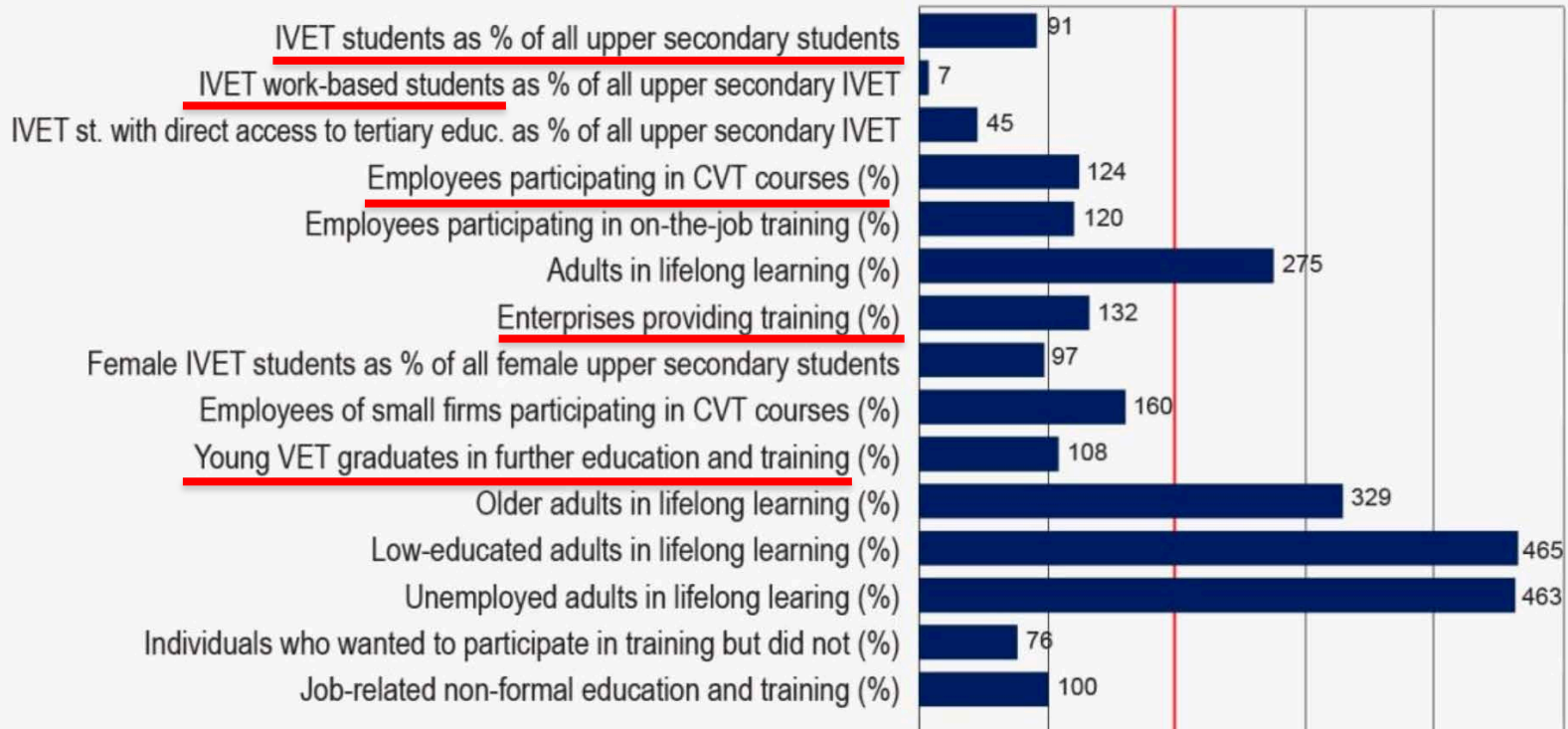
Procentuell förändring av antalet elever i år 1 mellan hösten 2011 och hösten 2015.



## VET indicators for Sweden for the last available year

Index numbers (EU=100) – IVET = initial VET; CVT = continuing vocational training

### ACCESS, ATTRACTIVENESS AND FLEXIBILITY





## Apprenticeship in Upper secondary school in 2014

Redovisning för elever i årskurs 1 efter bostadskommun.

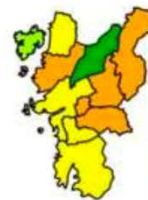
Andel av elever på alla nationella program. Procent.

Andel lärlingar på nationella program

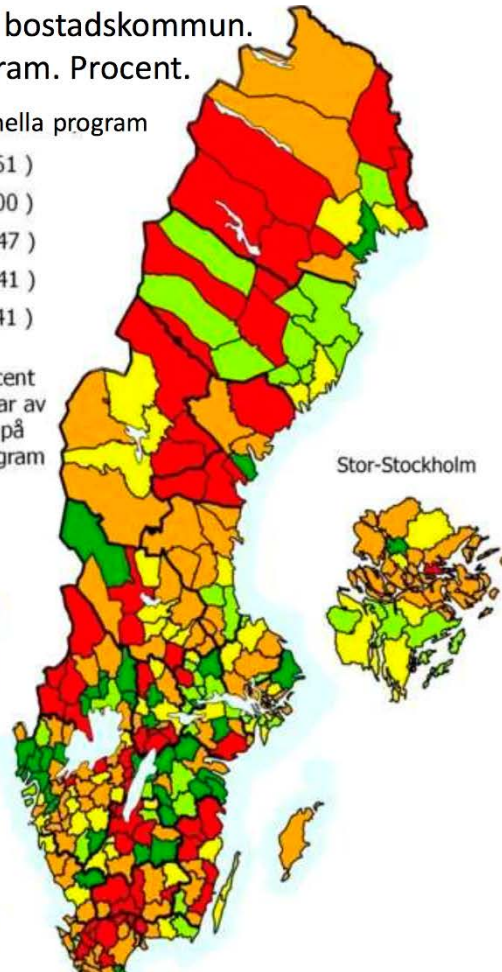


Riket: 1,95 procent  
1 895 lärlingar av  
96 990 elever på  
nationella program

Stor-Göteborg



Stor-Malmö



Stor-Stockholm

Högst andel

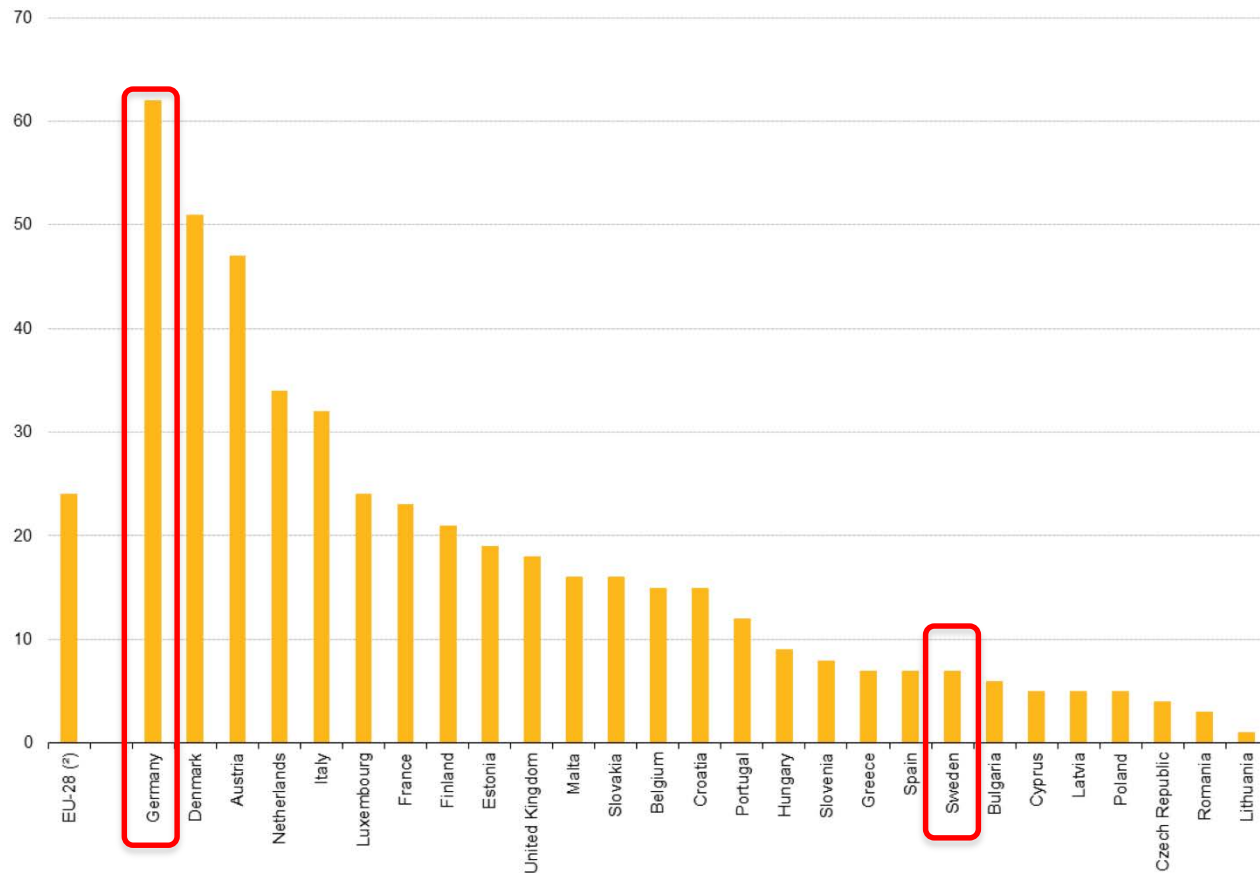
Kommun	Procent
Filipstad	16,4
Lysekil	12,6
Valdemarsvik	11,3
Munkedal	10,4
Färgelanda	10,1
Sotenäs	9,4
Flen	9,3
Härnösand	9,2
Ale	8,7
Hylte	8,4
Lilla Edet	8,2
Simrishamn	8,2
Mellerud	8,2
Karlsborg	7,7
Sala	7,7
Motala	7,5
Boxholm	7,4
Kil	7,3
Sävsjö	7,3
Grums	7,2

61 kommuner har inga  
elever som går  
lärlingsutbildning

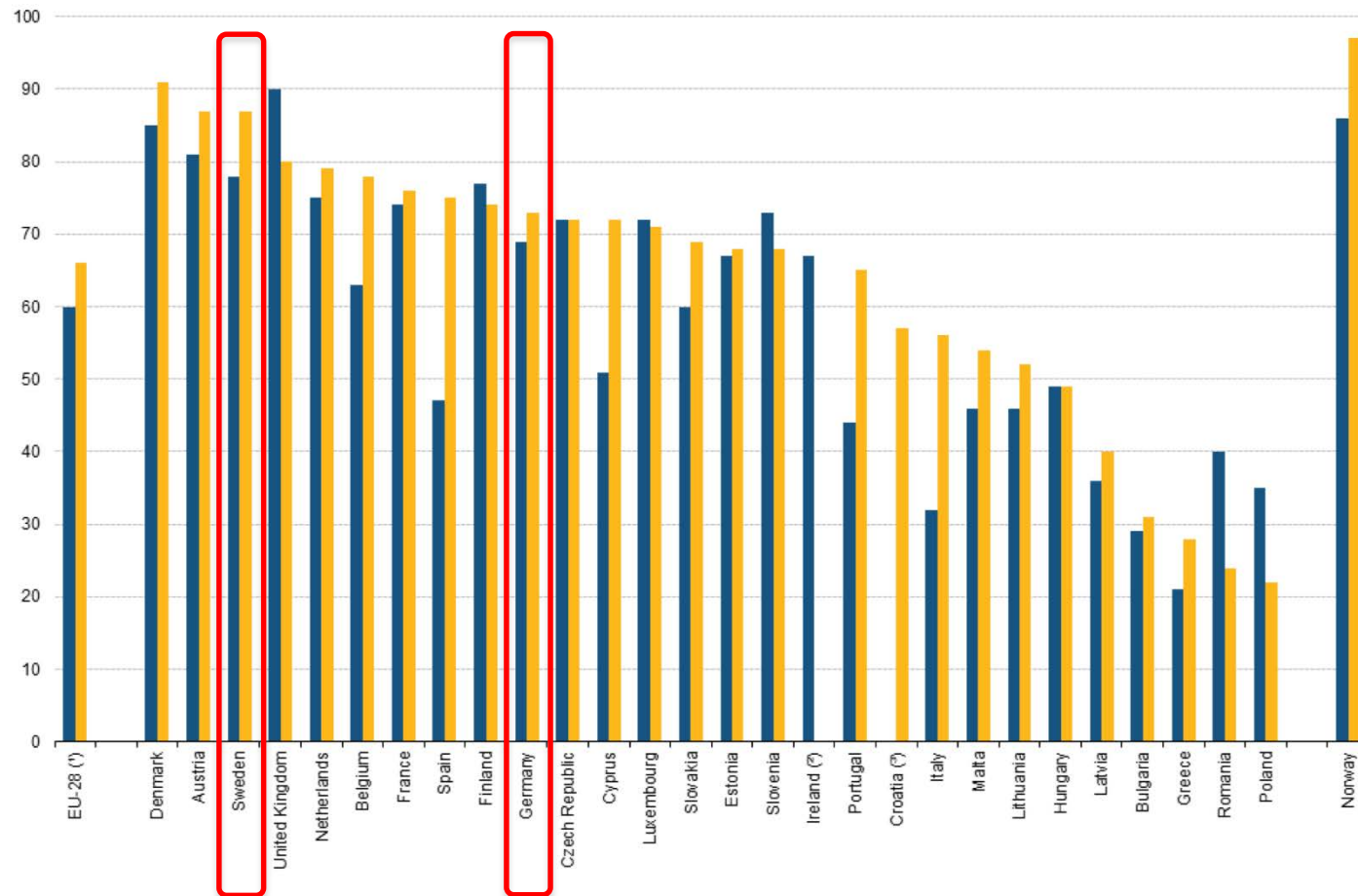
## Change rate 2013 vs 2014

Nationella program	- 641
Yrkesprogram	- 1 259
Lärlingar	+ 468
eller + 0,49 procentenheter	

## Proportion of enterprises providing initial vocational training, 2010 <sup>(1)</sup>



## Share of enterprises providing continuing vocational training, 2005 and 2010 (%)





### **Anna (employment and qualification in geriatric nursing)**



45 years old, two children, working about 20 years in geriatric nursing as unqualified care helper. Left school system after general upper secondary school programme and decided not to study.

Growing requirements in the sector opens a chance for her to participate in systematic qualification course in „Yreksutbildning inom vuxenutbildningen“. First happens a validation of her competences, than participation in only the courses there she has knowledgegaps.

Time she spends in the courses are worktime and not leisure time. The benefit is on both sides, the employee and the employer

Supported by Per Andersson, liu

### Omid (integration of refugees)

25 years old, 4 years in Sweden, in Syria integrated in a family-owned store, participated in swedish language courses for immigrants.



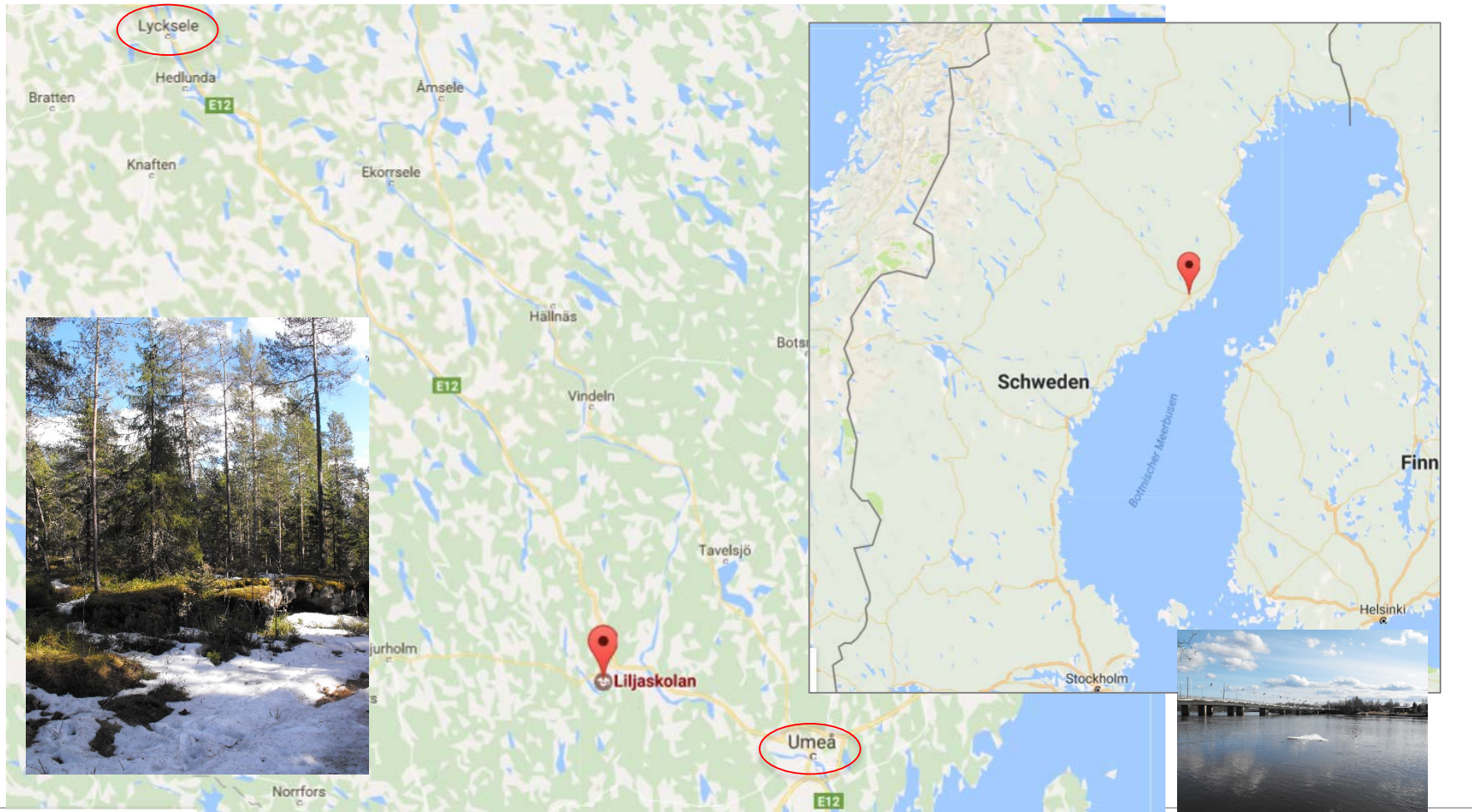
He is interested in work and economic autonomy maybe self employment. At the moment he is in a kind of apprenticeship training for adults, learning to be a sales man in a big department store. His actual tasks are the logistics of the goods, replenishing the shelves.

A tutor from the store and a teacher from the education center help him as learning guides. One day a week he is at the „school“ – a private contracted provider - to learn theoretical aspects of the vocation.

The aim is, to lead him in this 40 weeks programme in long-lasting employment at the store he is qualified now.

Supported by Per Andersson, liu

Studyvisit at University of Umeå, May 2009, Sígurd Johansson, Signild Lemar  
Trips to some VET schools







LILJASKOLAN  
**Fordonsprogrammet**  
*lack, karosseri, recond & styling*







## Study visit of a principal of a German VET school from Marburg in Sweden (2015)

### International coordinator:

*“Did you get in touch or familiar with VET schools in Eskilstuna?”*

### Dr. Knell:

*“Sweden has no dual system, vocational education and training takes place in upper secondary schools (“gymnasieskolan”). Financial issues are quite similar to Germany, municipalities and the state are involved. Financing VET in Sweden is linked to the various education recipients and target groups, and it seems that the financial status quote is on a high level.*

*It’s surprising and impressive that a non-pedagogical support system of i.e. psychologists, doctors, nurses or administration staff is available.*

*In comparison to similar systems [schools] like Käthe-Kollwitz-Schule a spacious library with new media and a large selection of literature, with fact and special books, is existing. Here educational specialists are available for consulting and supervising and all-day opening hours are guaranteed.”*



### TEACHERS IN VET SCHOOLS AND CENTRES

01

Teachers  
of general  
subjects

02

Teachers of  
vocational  
theoretical  
subjects

03

Teachers of  
practical sub-  
jects in school  
workshops or  
simulated  
learning  
environments  
(such as  
inter-company  
training  
centres)

### TRAINERS IN COMPANIES

04

Often called  
apprentice tutors  
or mentors or  
practical training  
instructors who  
accompany  
students during  
apprenticeships  
or different types of  
placements in  
companies as part  
of school-based VET





### Teaching and supervising staff in VET – School teachers

- A higher education degree in vocational education can be obtained by **studying 1.5 years in a vocational teacher training programme** at a university college or university.
- However, it is **necessary to have advanced and relevant vocational knowledge** or post-secondary education in the vocational field to be admitted to the programme.
- In addition, **basic eligibility for studies in higher education** is a requirement.
- A person who is already working as a vocational teacher but lacks a degree in vocational education only needs to study one year at a university college or university.
- Vocational teacher education comprises the **core of education methodology, namely general teaching knowledge and skills, and also practical supervised training at school** (verksamhetsförlagd utbildning, VFU).

## Changes in the last decades

- Since 1960 school based model with upper secondary VET-programmes was dominant, steered by central government
- 1990 reform with marketization, privatization and decentralisation. Growing influence of lokal companies on content, responsibility came to municipalities, money comes with students (Lundahl 2002)
- 2011 reform reintroducing apprenticeship, strengenth the link between VET and working life



Different forms of vocational training for young people (Thunqvist/Hallqvist 2014)

## Key facts

### Education and Training



- Sweden invests heavily in education and training, with general government expenditure on education being among the highest in the EU.
- Sweden has one of the highest tertiary educational attainment rates in the EU for 30-34 year-olds and the employment rate of its recent tertiary graduates is very high.
- School education outcomes in terms of basic skills proficiency declined continuously over the past decade. This could translate into declining skill levels of adults in the future.
- The increasing performance gap between foreign-born and native-born students is a challenge: school segregation may well have increased in a system with greater school choice.
- Integrating the large number of newly arrived students in the education system is a major challenge; Sweden can however build successfully on its policy tradition and current efforts.



- Participation in all forms of education increased and outcomes improved, including for disadvantaged groups. Socioeconomic background however still has a major impact on education outcomes.
- Integrating the high number of recently arrived refugees is a major challenge. A large proportion of the refugees are young and poorly qualified.
- Almost half of a youth cohort start higher education. Higher education is also attracting an increasing number of international students, in particular in science, technology, engineering and mathematics (STEM) disciplines.
- The well-established dual training system is struggling to attract enough apprentices in certain regions and sectors. Combined with negative demographic trends, this may lead to a lack of skilled workers.
- Addressing the key challenges will require additional investment in education, which remains low by international comparison.



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- In Addition a lot of statistics from Sweden, CEDEFOP, OECD ets.