



**SWISS  
CHAMBER**

Camera  
di Commercio  
Svizzera  
in Italia



**POLITECNICO  
DI TORINO**

# Formazione, Innovazione e Impresa

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## Giornata di studio tra la Svizzera e l'Italia



**Marco Gilli**

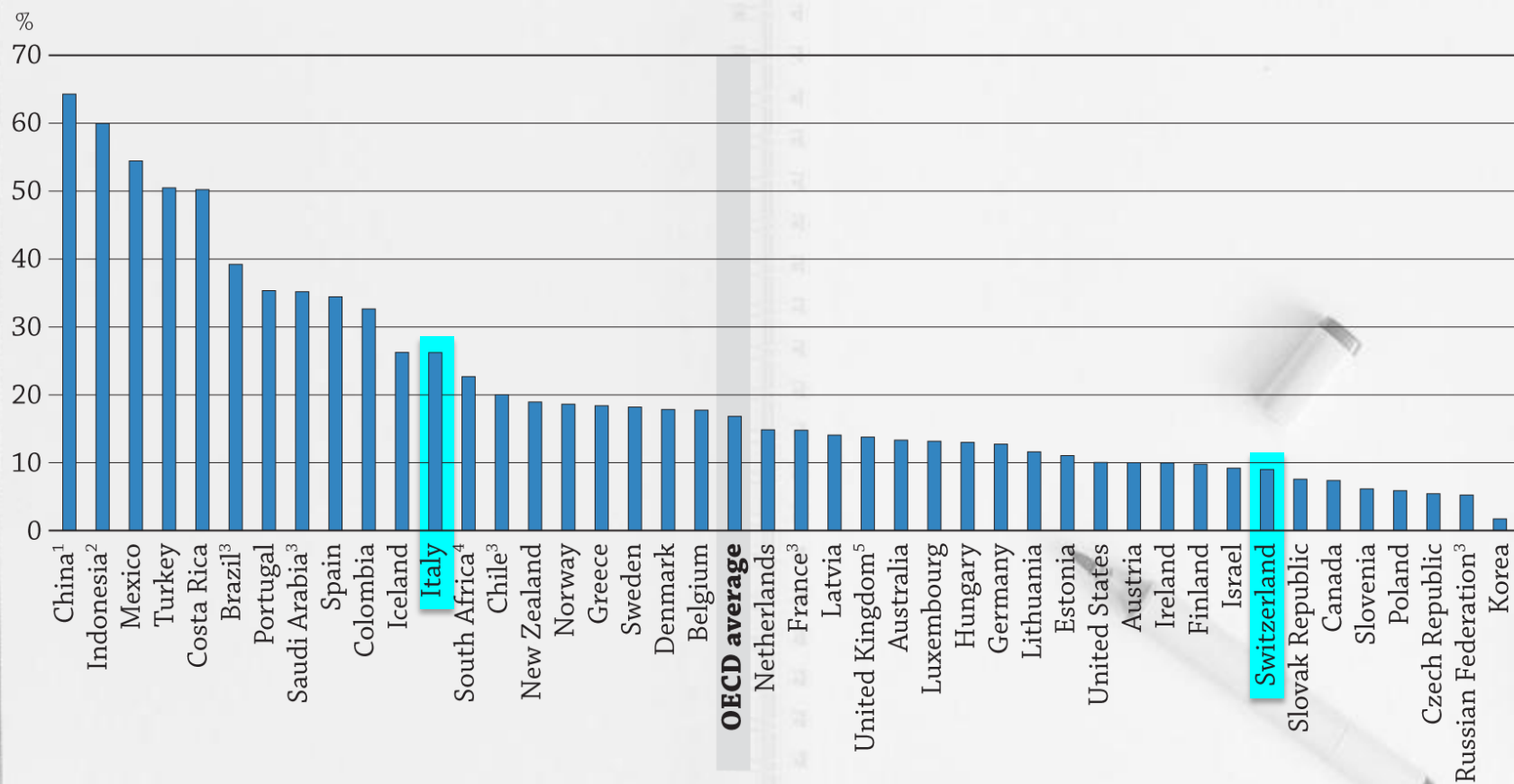
Rettore Politecnico di Torino

A photograph of two students in a lecture hall. The student in the foreground has curly hair, a beard, and glasses, wearing a maroon and grey long-sleeved shirt and dark jeans. He is sitting on a wooden chair, leaning forward, and typing on a laptop. Behind him, another student is partially visible, also working on a laptop. They are in a room with large windows in the background, letting in bright light. The foreground shows the backs of several rows of wooden chairs, which are slightly out of focus.

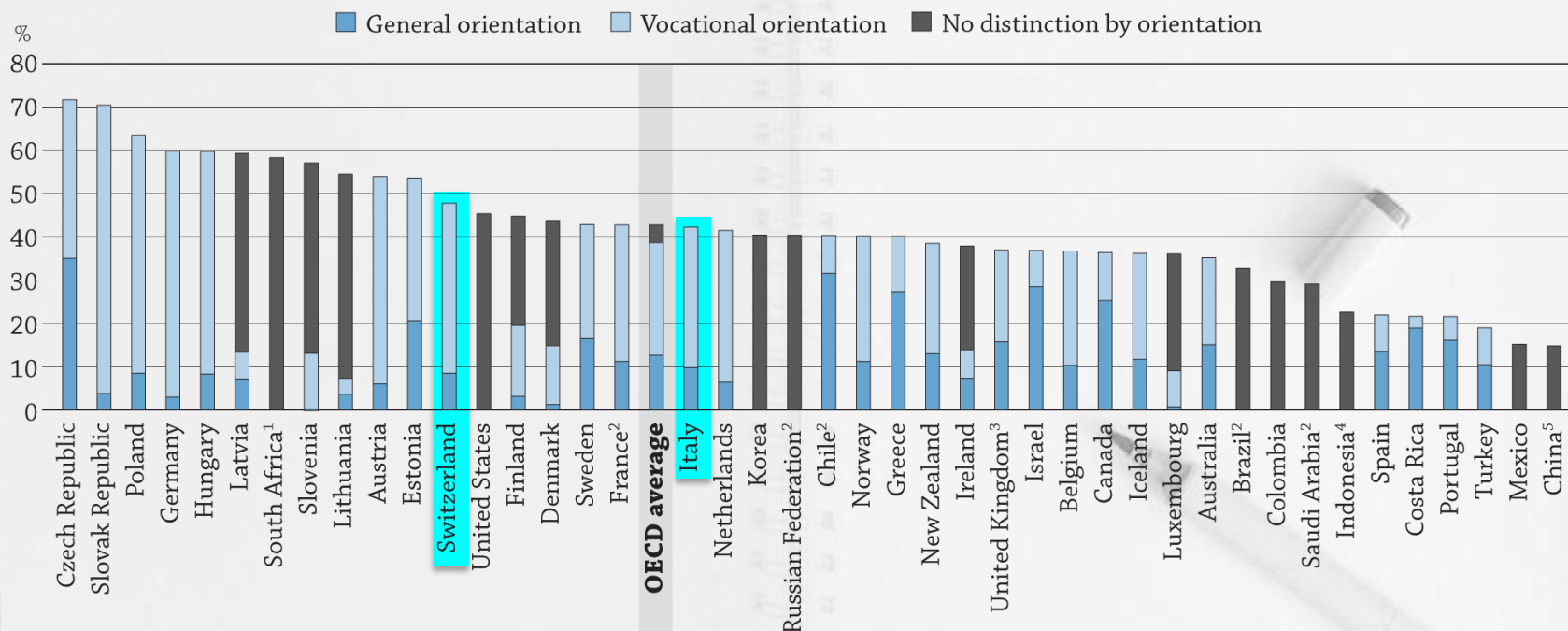
# Impatto della formazione Svizzera e Italia a confronto



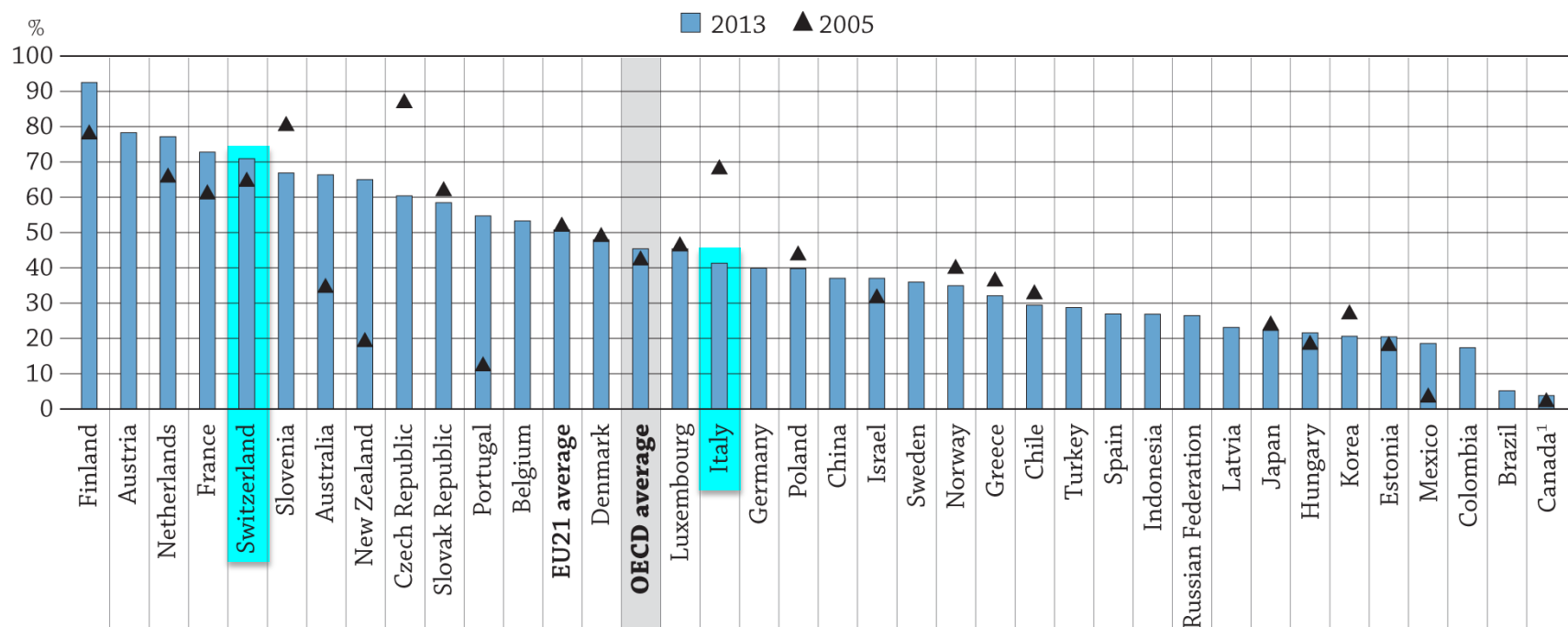
## Percentage of 25-34 year-olds with attainment below upper secondary education (2014)



## Percentage of 25-64 year-olds whose highest level of education is upper secondary or post-secondary non-tertiary, by programme orientation (2014)



## Trends in vocational upper secondary graduation rates (2005 and 2013)



Source: OECD. Table A2.4. See Annex 3 for notes ([www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm))

## Percentage of adults who have attained tertiary education, by type of programme and age group (2014)

Total tertiary  
25-34 year-olds  
(27)

OECD	Australia	48
	Austria	38
	Belgium	44
	Canada	58
	Chile <sup>1</sup>	27
	Czech Republic	30
	Denmark	42
	Estonia	40
	Finland	40
	France	44
	Germany	28
	Greece	39
	Hungary	32
	Iceland	41
	Ireland	51
	Israel	46
	Italy	24
	Japan	37
	Korea	68
	Luxembourg	53
	Mexico	25
	Netherlands	44
	New Zealand	40
	Norway	49
	Poland	43
	Portugal	31
	Slovak Republic	30
	Slovenia	38
	Spain	41
	Sweden	46
	Switzerland	46
	Turkey	25
	United Kingdom	49
	United States	46
	OECD average	41
	EU21 average	39

Italia 24% ◀

Svizzera 46% ◀

Media OCSE 41% ◀

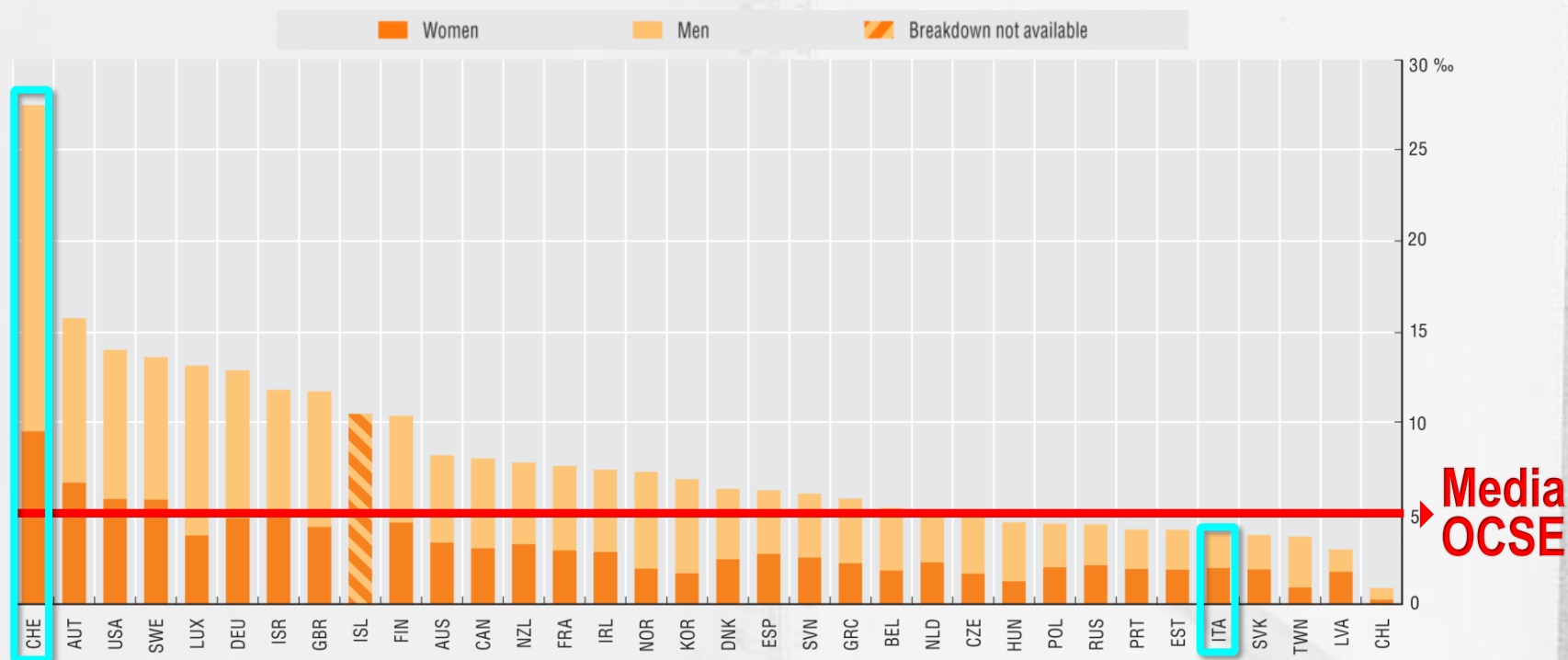
## Formazione terziaria età 25-34

Source: OECD. China, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Colombia, Costa Rica: OECD Education Database. Latvia, Lithuania: Eurostat. See Annex 3 for notes ([www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm))

# Doctorate holders in the working age population, 2012

Per thousand population aged 25-64

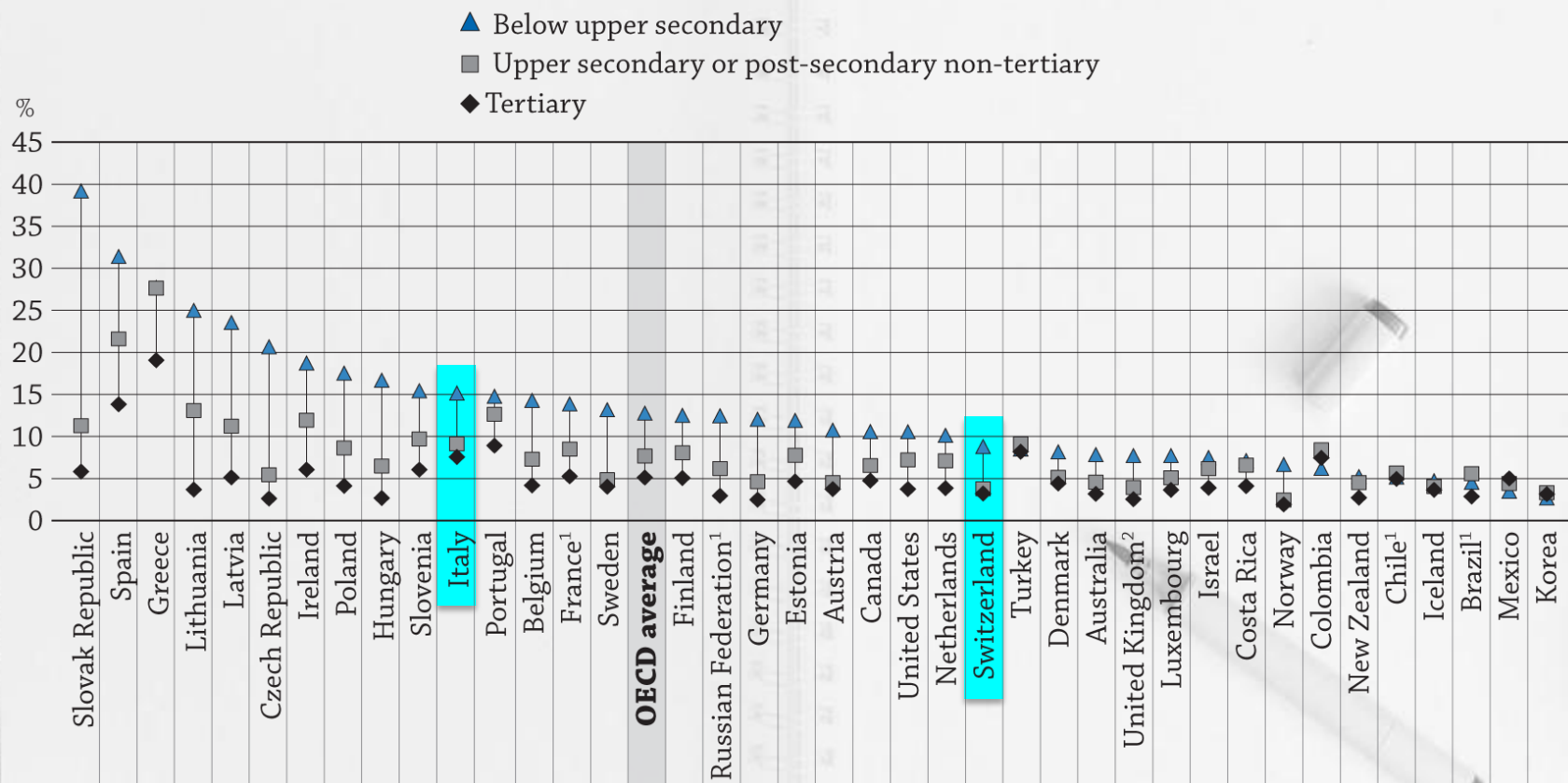
## Dottorato di Ricerca





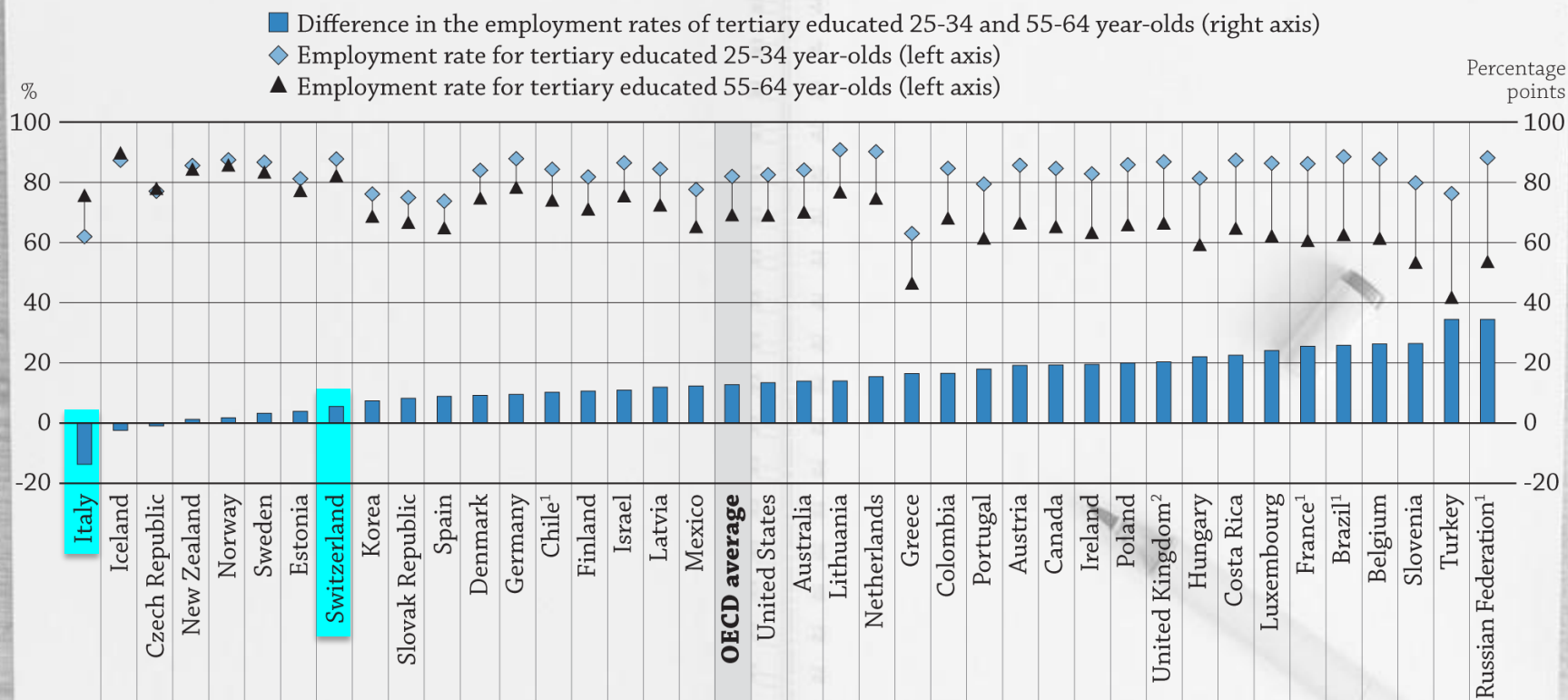
## Unemployment rates, by educational attainment (2014)

### 25-64 year-olds



## Employment rates for younger and older tertiary-educated adults (2014)

25-34 and 55-64 year-olds, and percentage-point difference between these two groups



# Sistema universitario italiano



## Numero Università in Italia

Statali: **66 Atenei**

Non statali: **30 Atenei**

A questi si aggiungono:

## 24 Istituzioni universitarie

8 Istituti Speciali

2 Istituti di Alta Formazione Dottorale

3 Scuole Superiori

11 Atenei Telematici



## Numero studenti

**1 673 301**



# Istruzione Tecnica Superiore [I.T.S.]

Scuole ad "**alta specializzazione**" che si propongono di offrire una formazione tecnica professionalizzante post-secondaria su tematiche di interesse per il sistema delle imprese



ITS

64



Numero studenti

5 000

[dati 2014]



## Sistema Svizzero

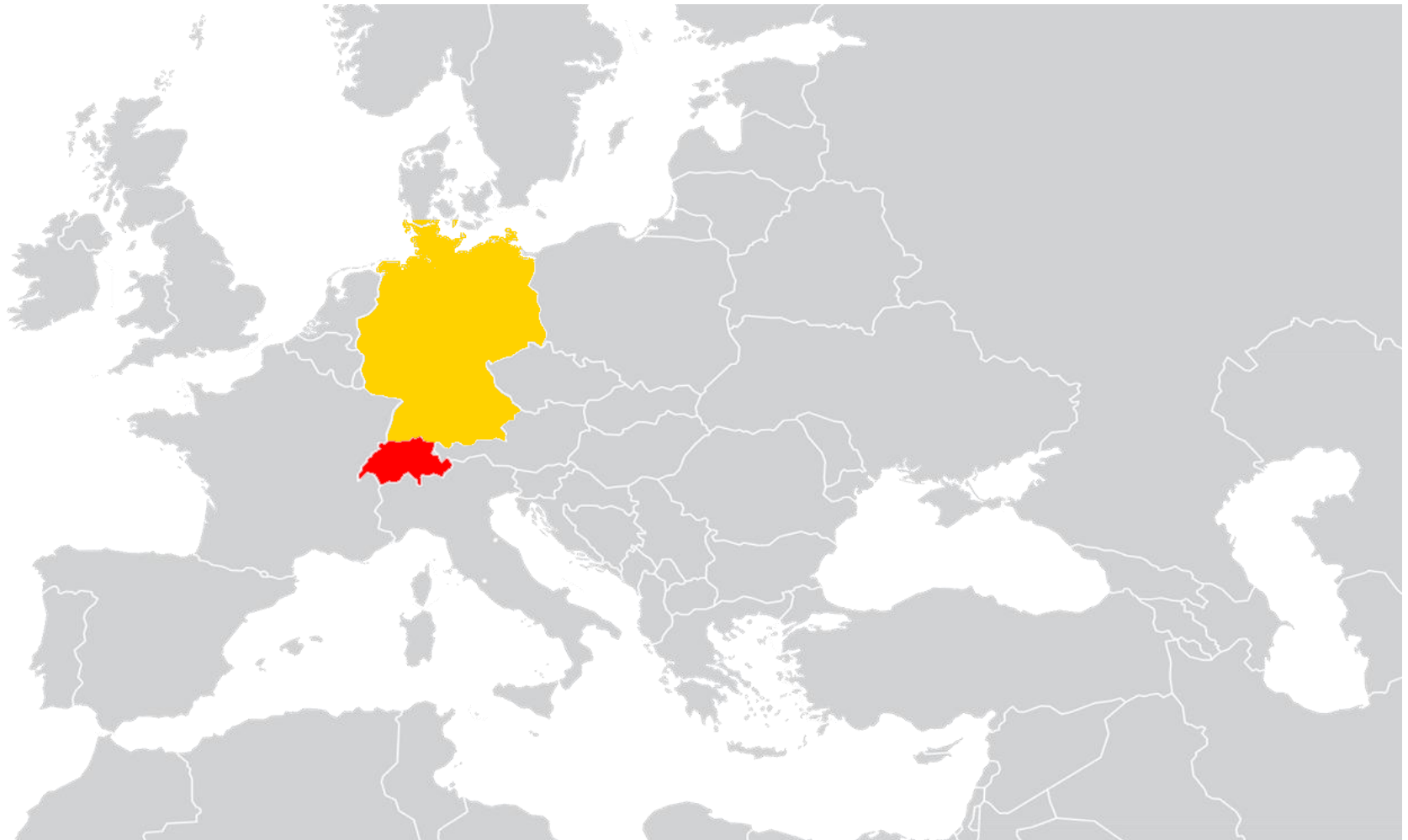
12 Universities

8 Universities of Applied Sciences

## Sistema Tedesco

102 Universität

170 Fachhochschule



## Sistema pubblico Stato della California

10 campus University of California

23 campus California State University

113 Community Colleges



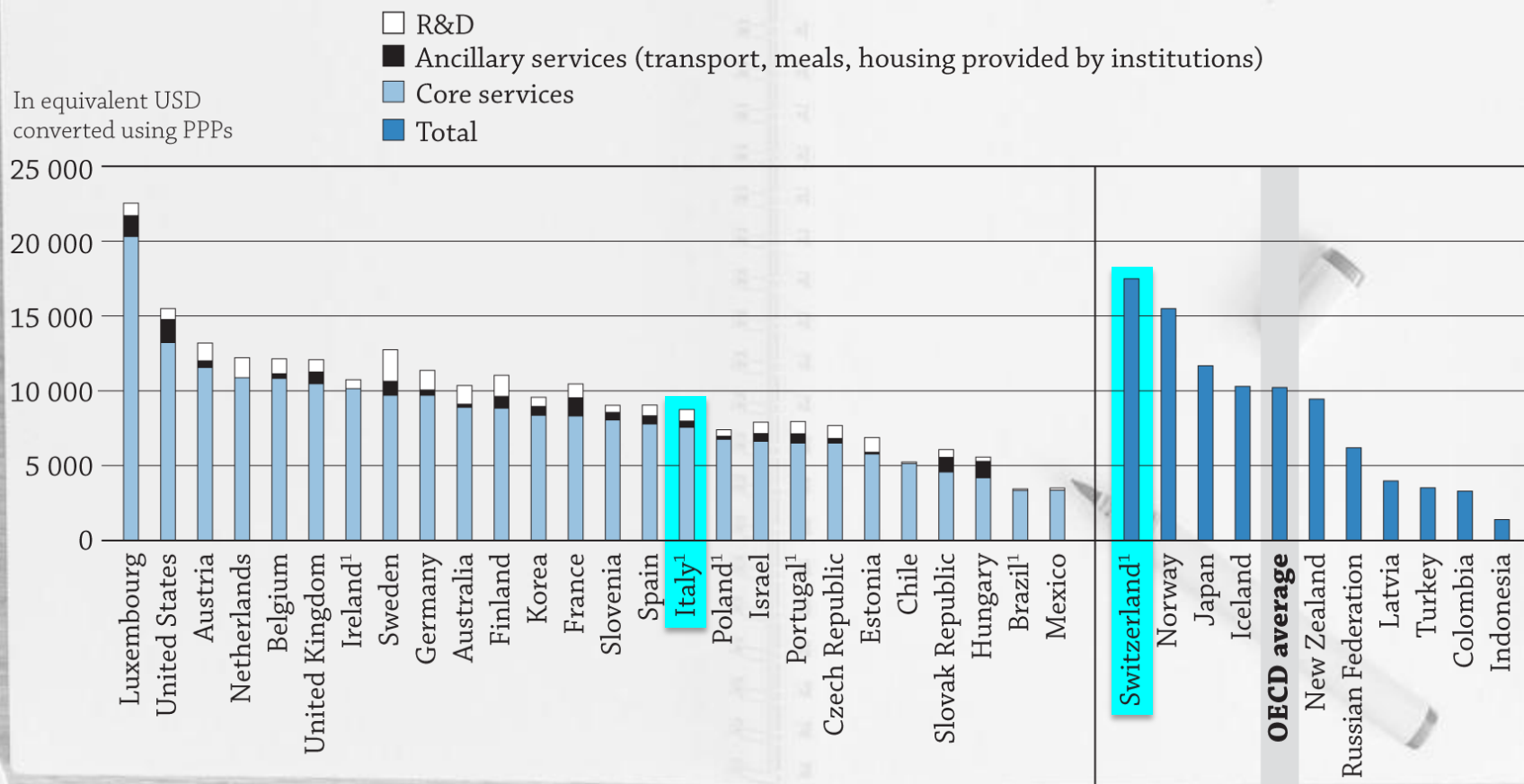


The image shows a blurred background of a modern office with large windows. In the foreground, a white table holds various business documents, a pen, and a glass of water. The documents feature bar charts and pie charts. The text 'Investimenti in formazione' is overlaid on the documents.

# Investimenti in formazione

## Annual expenditure by educational institutions per student, by types of service, from primary to tertiary education (2012)

*In equivalent USD converted using PPPs, based on full-time equivalents,  
for primary through tertiary education*



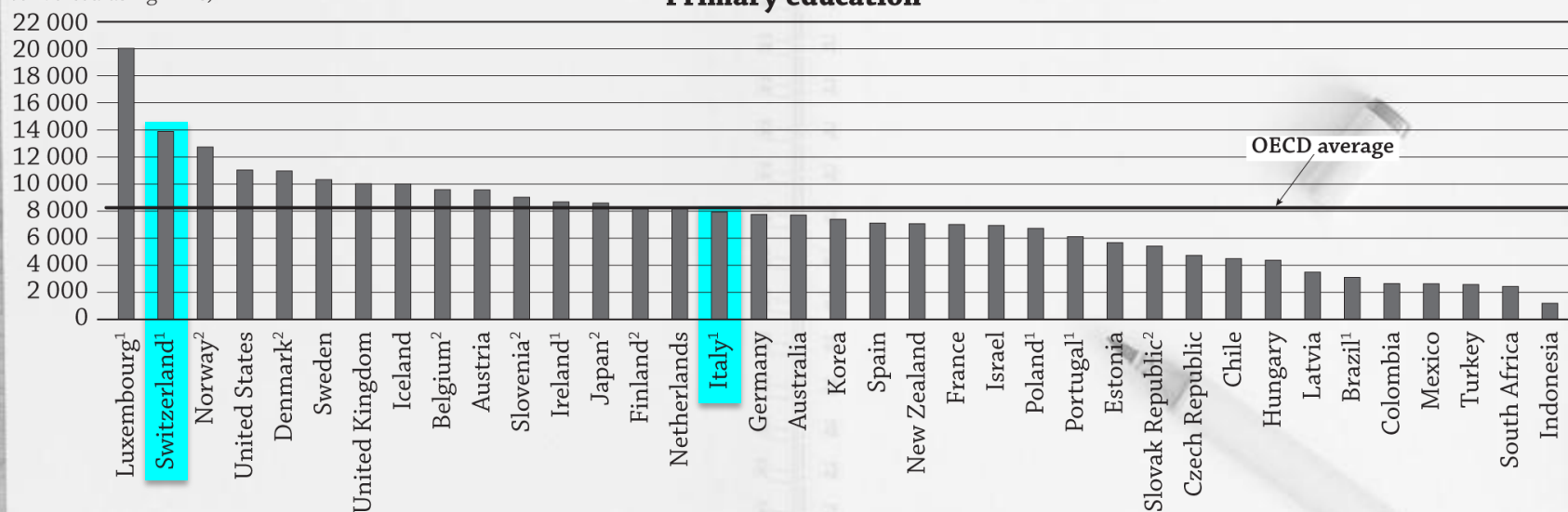


## Annual expenditure per student by educational institutions for all services, by level of education (2012)

*Expenditure on core, ancillary services and R&D, in equivalent USD converted using PPPs,  
based on full-time equivalents*

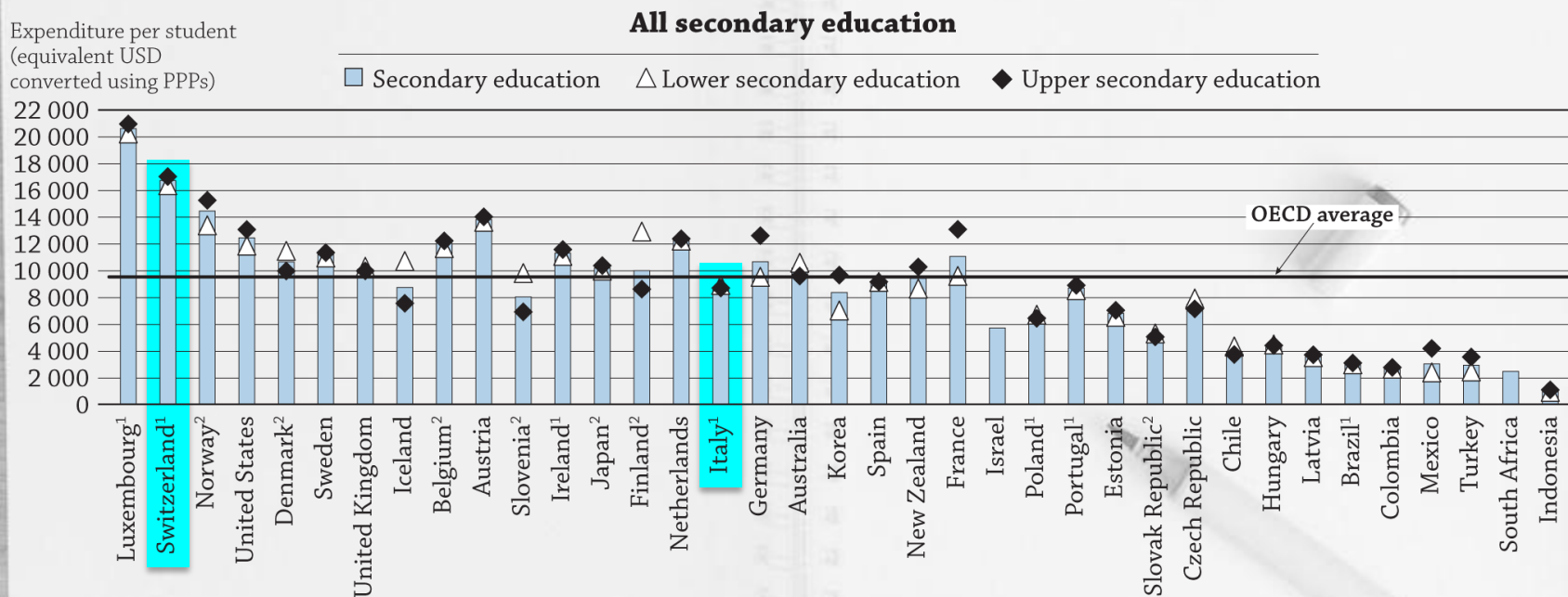
Expenditure per student  
(equivalent USD  
converted using PPPs)

### Primary education



## Annual expenditure per student by educational institutions for all services, by level of education (2012)

*Expenditure on core, ancillary services and R&D, in equivalent USD converted using PPPs,  
based on full-time equivalents*

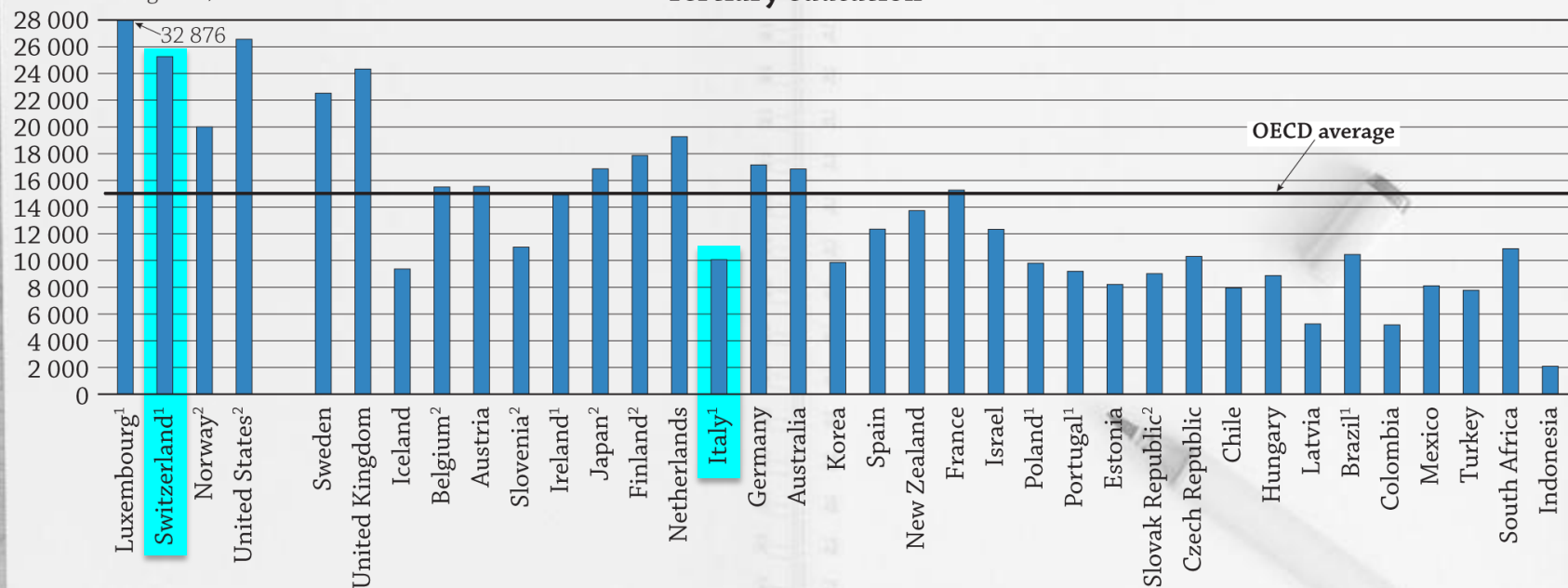


## Annual expenditure per student by educational institutions for all services, by level of education (2012)

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based on full-time equivalents*

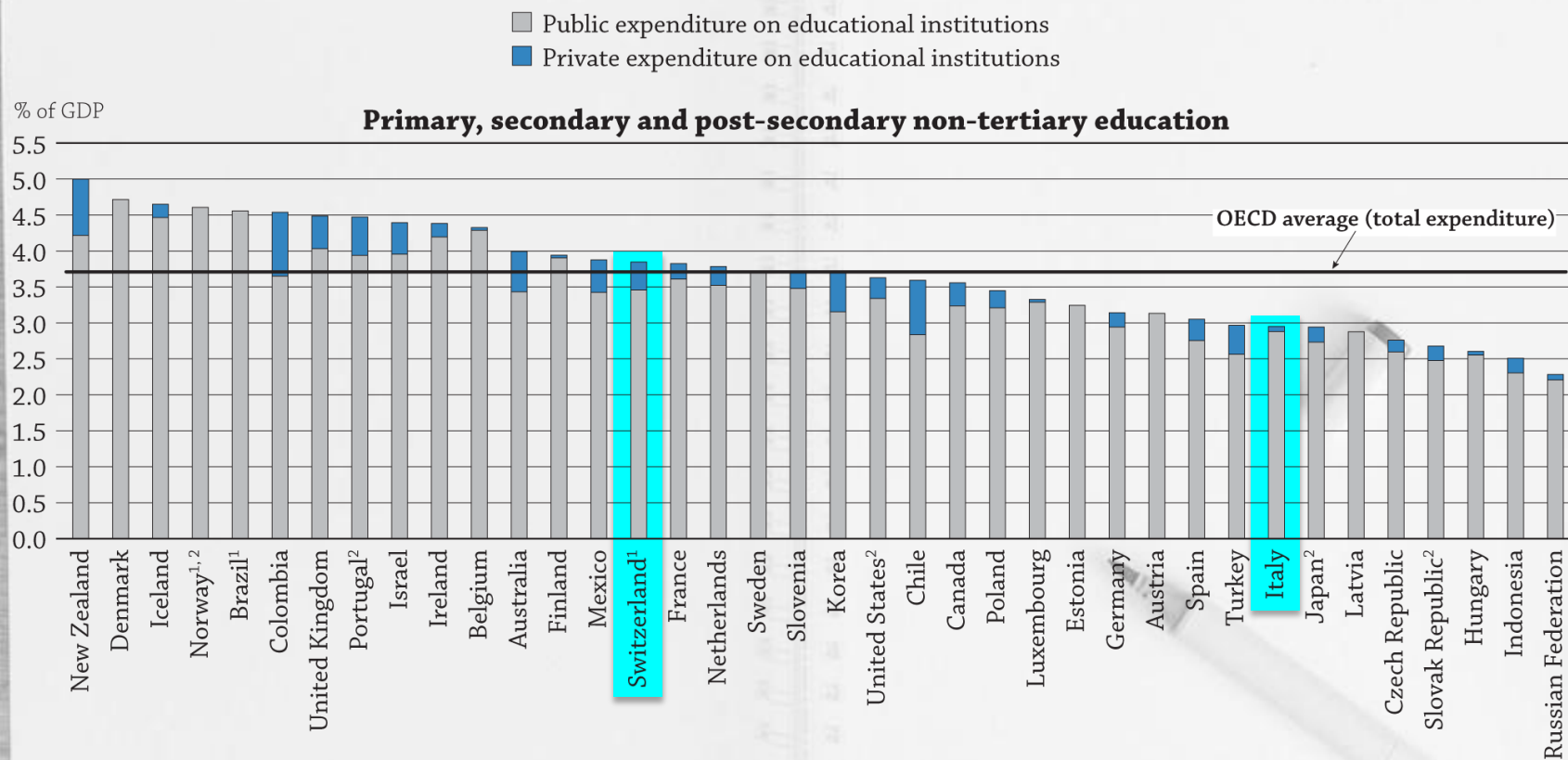
Expenditure per student  
(equivalent USD  
converted using PPPs)

### Tertiary education



## Expenditure on educational institutions as a percentage of GDP (2012)

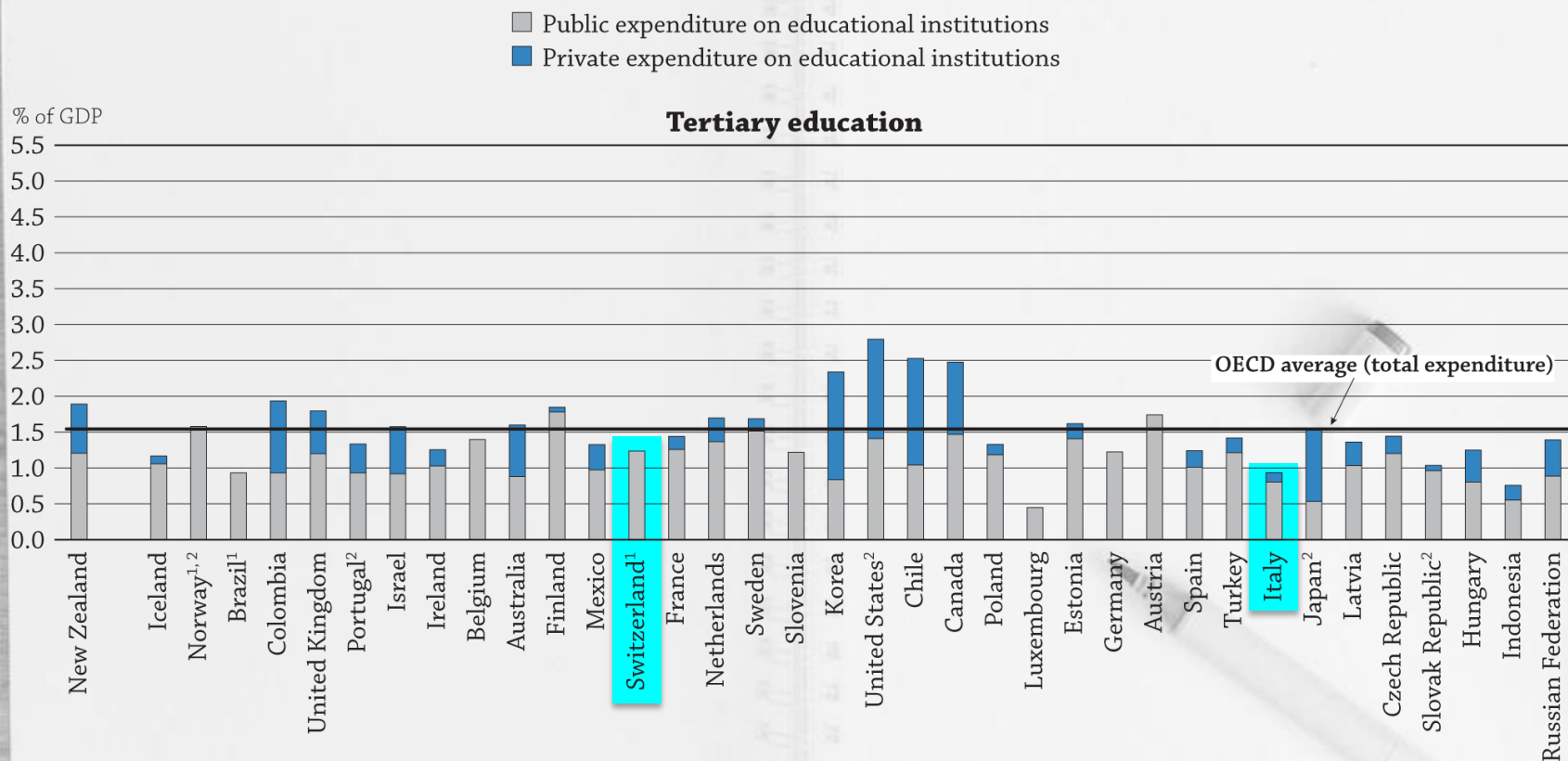
*From public and private sources, by level of education and source of funds*



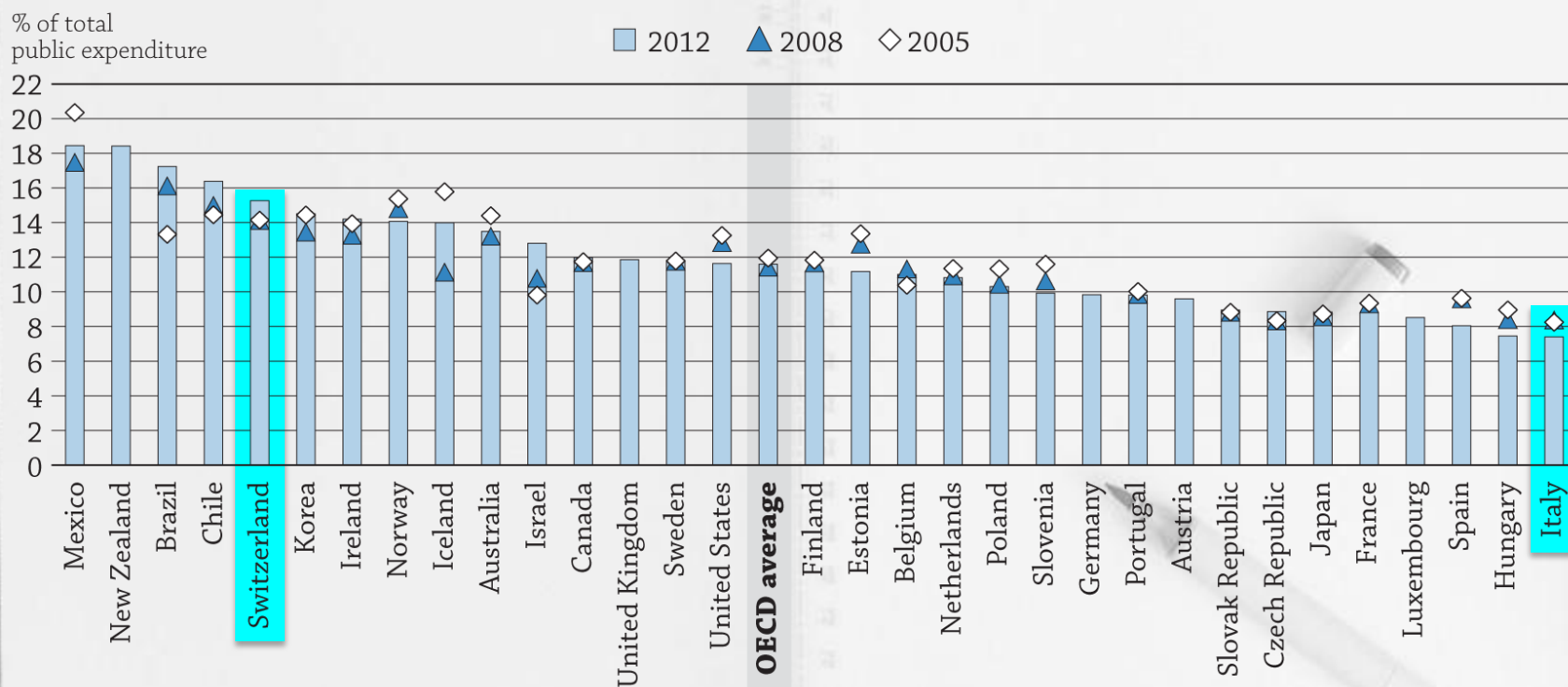


## Expenditure on educational institutions as a percentage of GDP (2012)

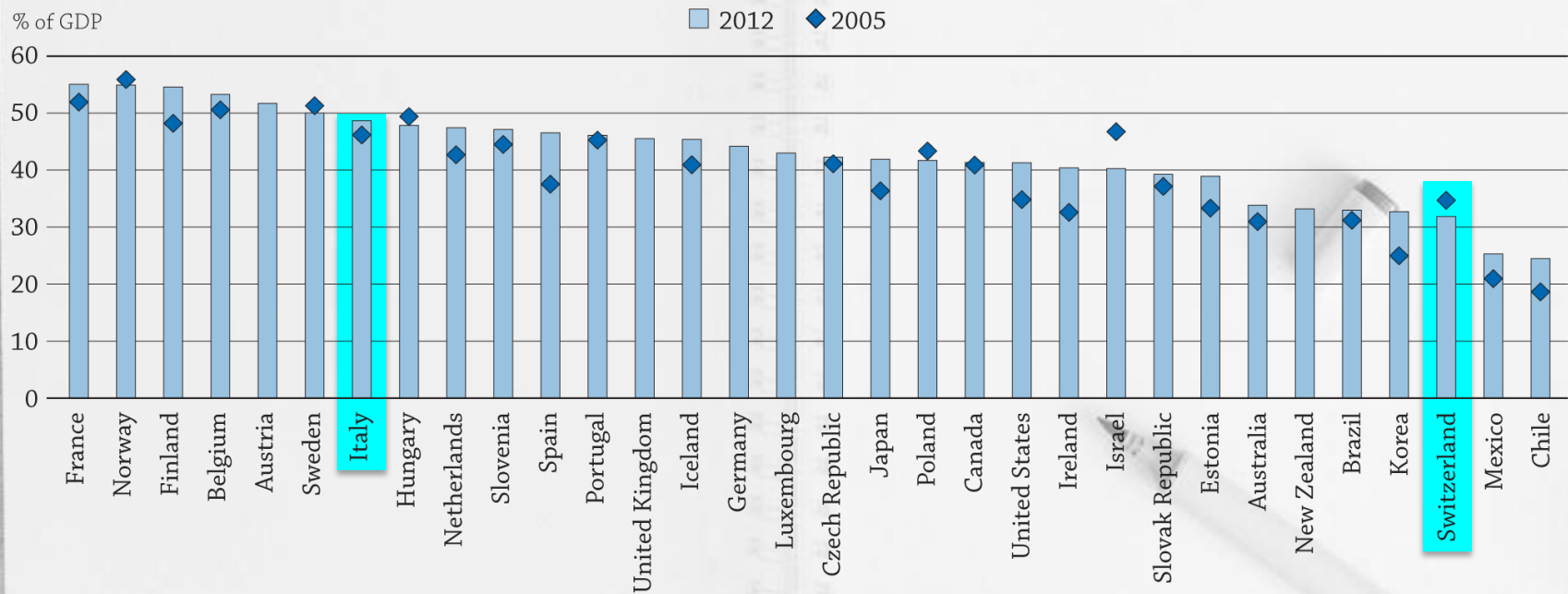
*From public and private sources, by level of education and source of funds*



## Total public expenditure on primary to tertiary education as a percentage of total public expenditure (2005, 2008, 2012)

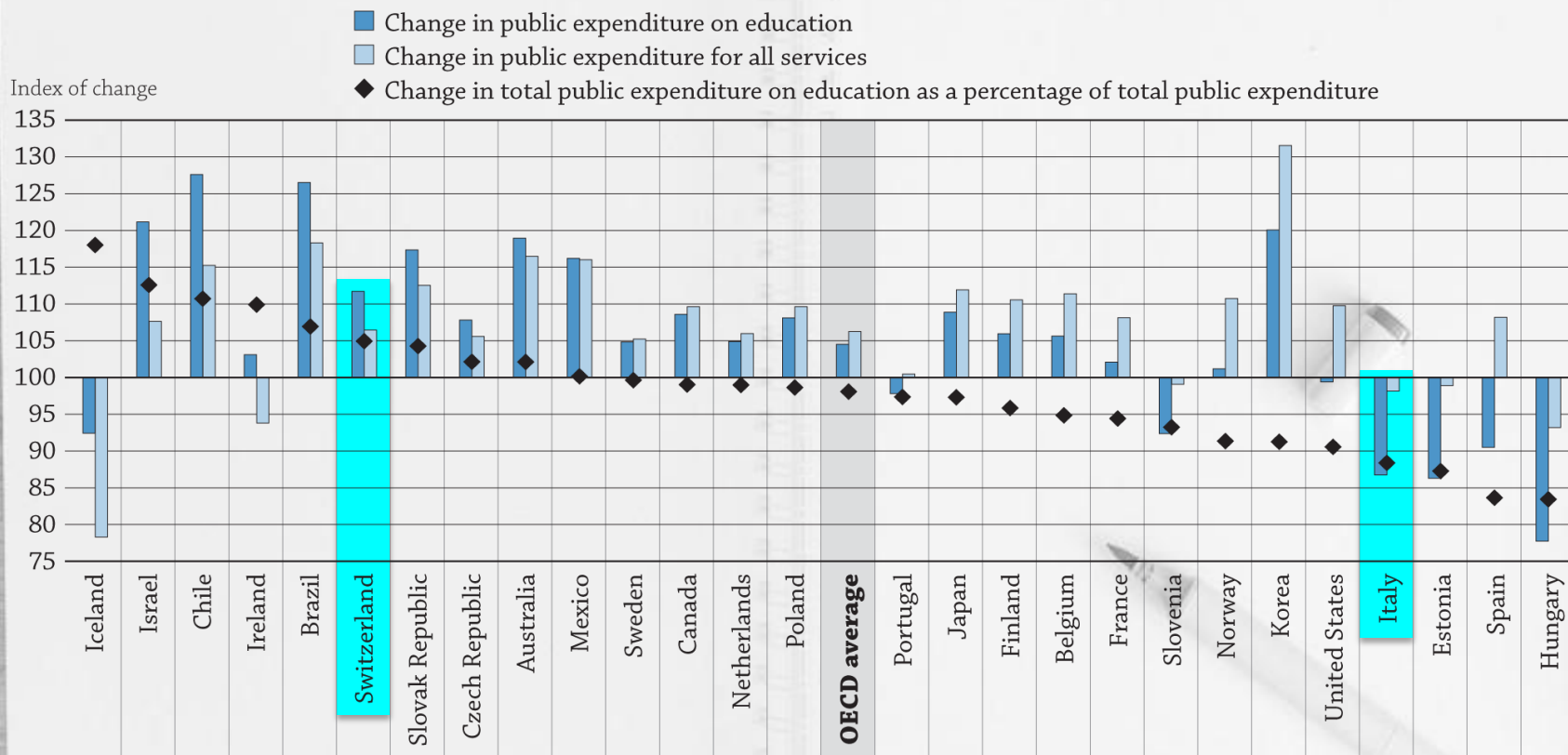


## Total public expenditure as a percentage of GDP (2005, 2012)



## Index of change between 2008 and 2012 in total public expenditure on education as a percentage of total public expenditure

Primary to tertiary education (2008 = 100, 2012 constant prices)







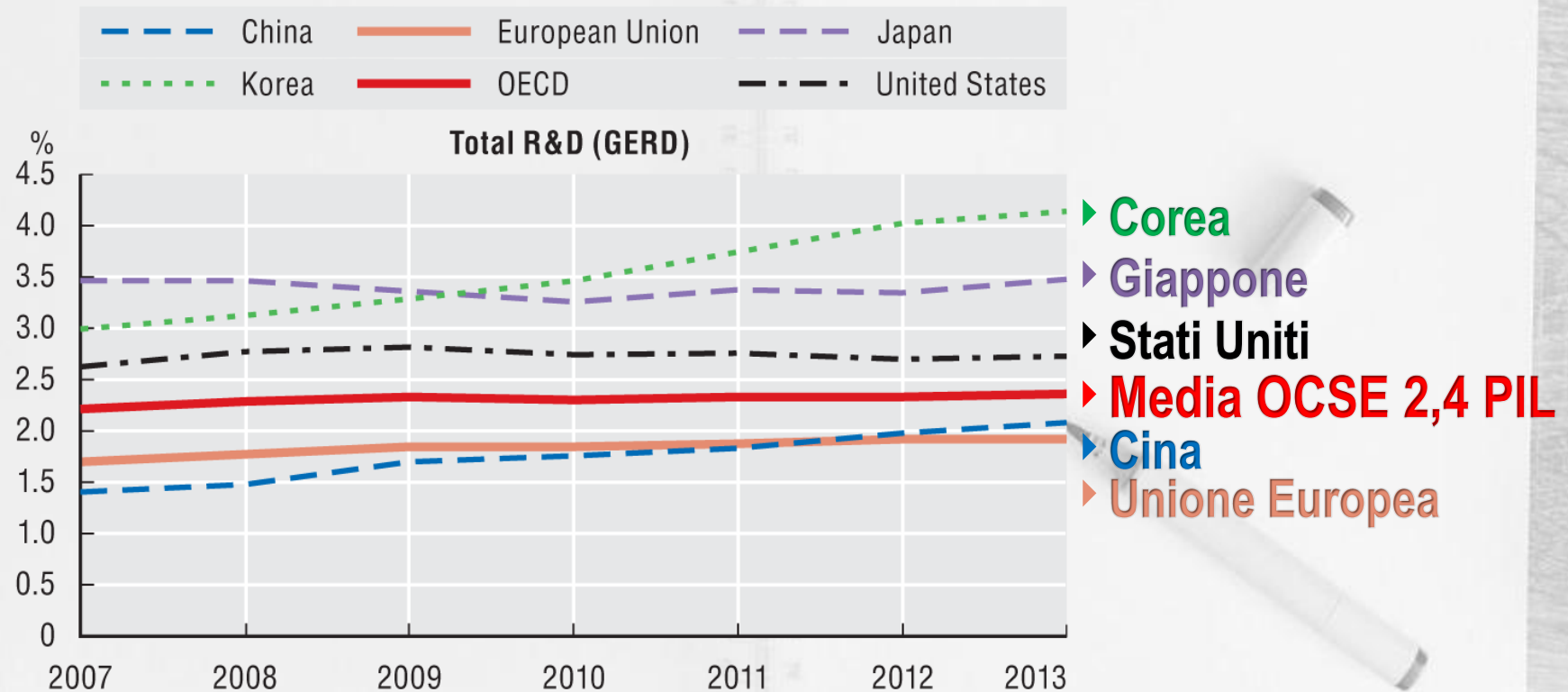
Innovazione e impresa

# Scenario internazionale

## Recent trends in R&D performance, OECD and selected economies, 2007-13

Totals and sector estimates, as a percentage of GDP

## Investimenti complessivi in Ricerca e Sviluppo

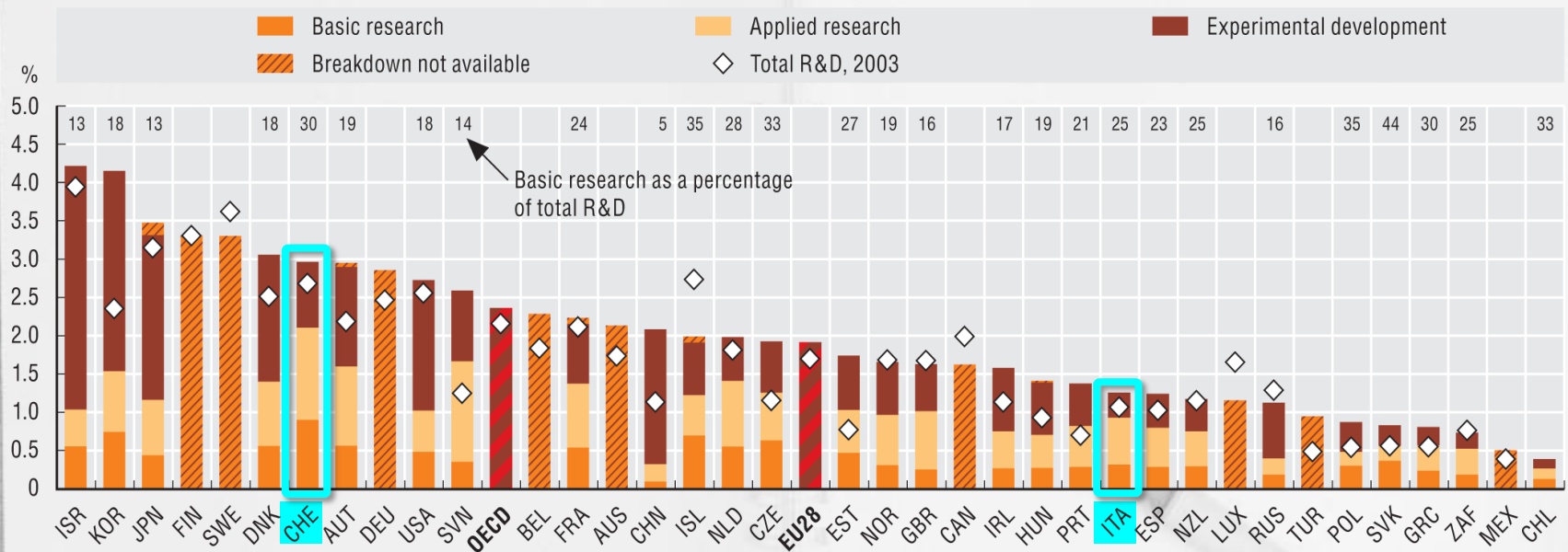


# Scenario internazionale

## Gross domestic expenditure on R&D, by type, 2013

As a percentage of GDP

## Investimenti complessivi in Ricerca e Sviluppo



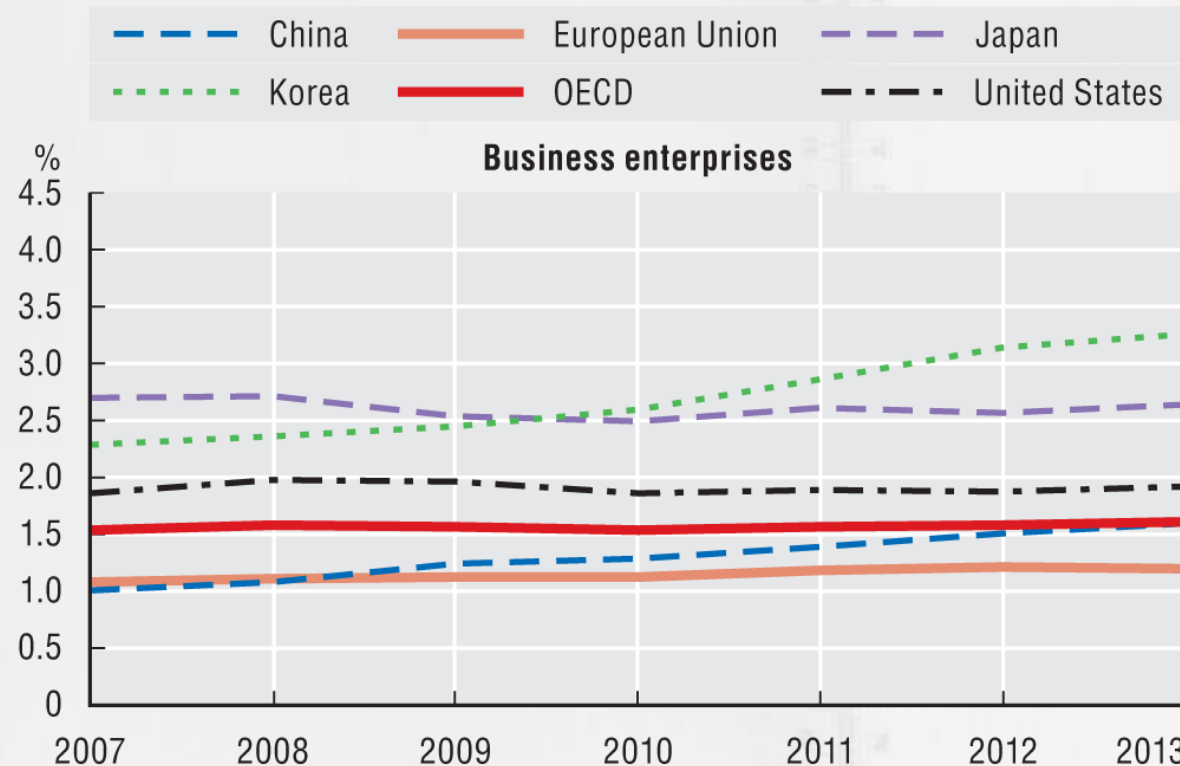
In Italia circa la metà  
degli investimenti OCSE

# Scenario internazionale

## Recent trends in R&D performance, OECD and selected economies, 2007-13

Totals and sector estimates, as a percentage of GDP

**BERD**  
Investimenti privati  
in Ricerca e Sviluppo



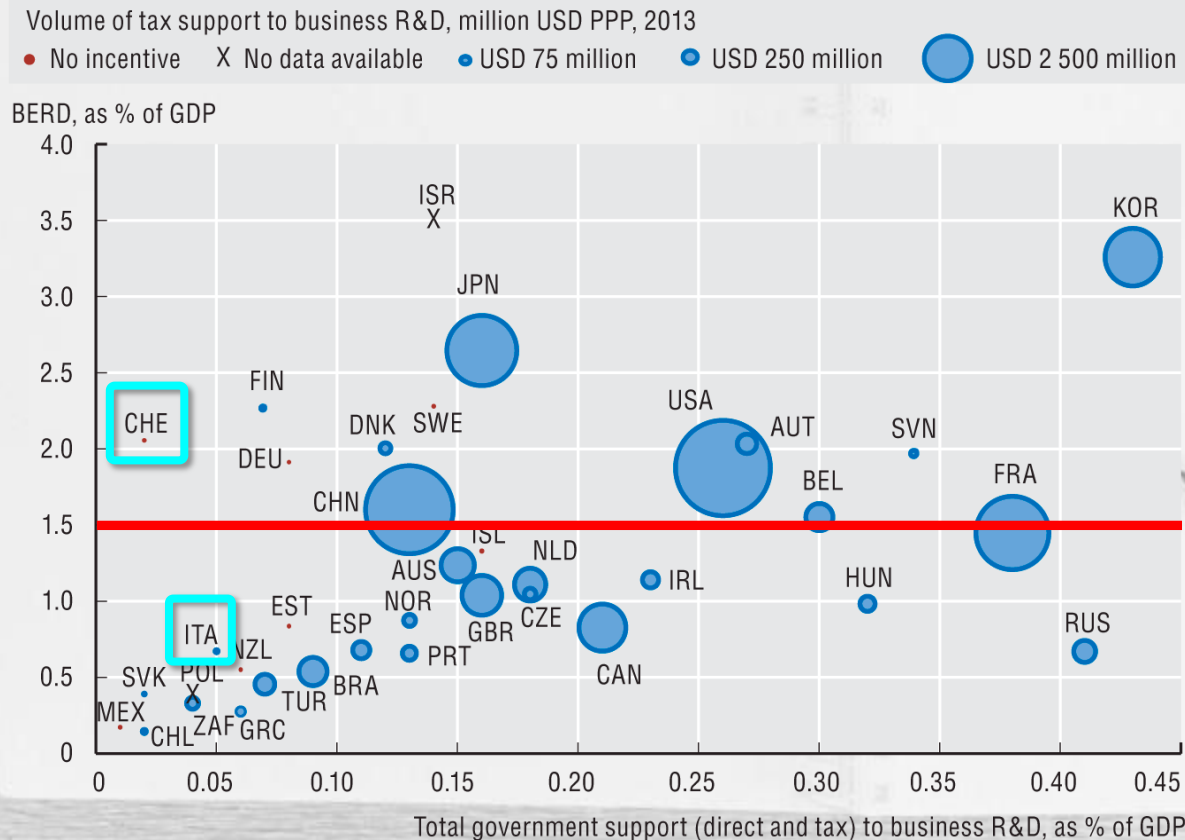


# Scenario internazionale

## Business R&D intensity and government support to business R&D, 2013

As a percentage of GDP

**BERD**  
Investimenti privati  
in Ricerca e Sviluppo



# Scenario internazionale



## R&D in OECD and key partner countries, 2013

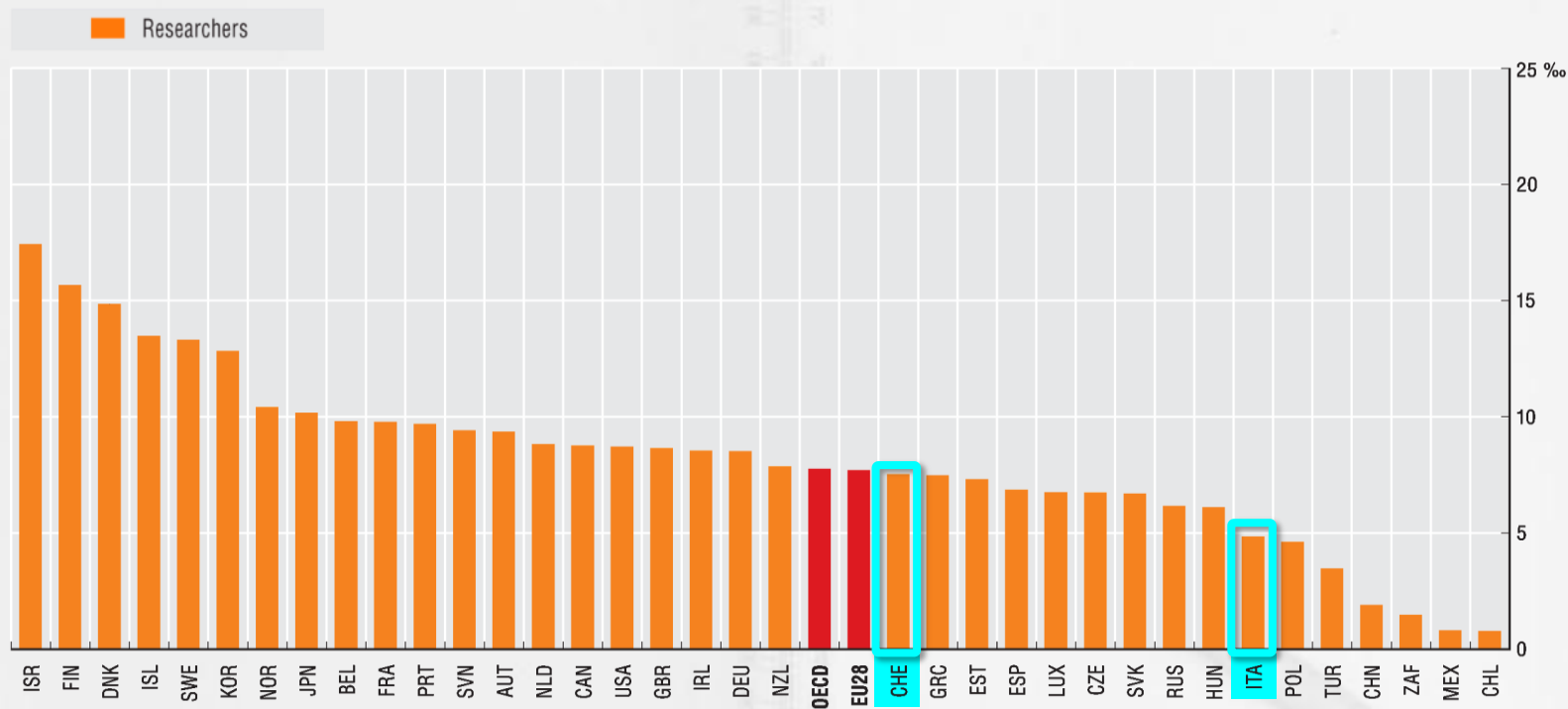
Ricercatori e addetti alla ricerca  
% sensibilmente inferiore

# Scenario internazionale

## R&D personnel, 2013

Per thousand employment

## Ricercatori



# Scenario internazionale

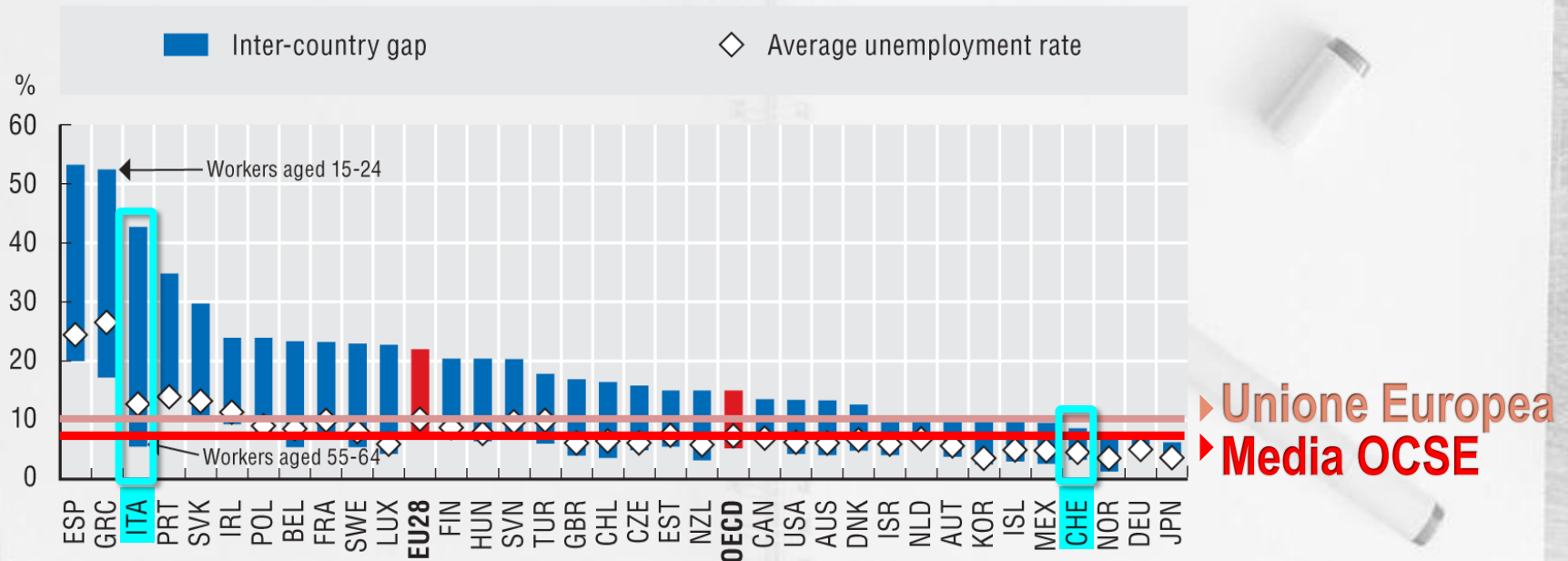
**Unemployment rates in the OECD, gap between younger and older workers 2008-14 and differences by country in 2014**

Percentage points

## Disoccupazione

Disoccupazione (aprile 2015)  
**6,9% nei paesi OCSE 10% in Europa**

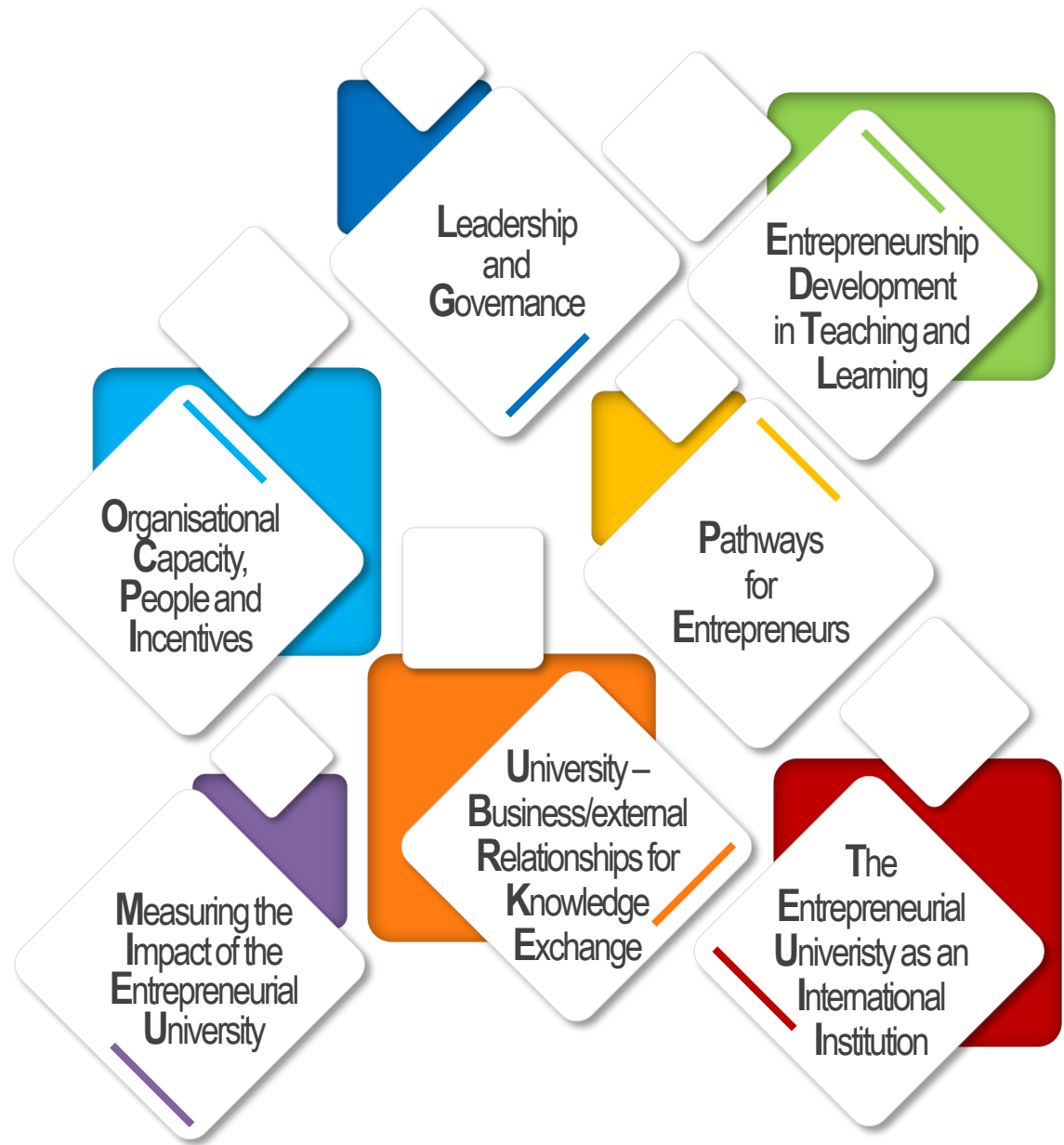
Disoccupazione giovanile (dai 15 ai 24 anni)  
**in Italia, Spagna, Grecia oltre il 40%**







# “Heinnovate - A guiding framework for entrepreneurial university”



# Politecnico di Torino



# Storia del Politecnico di Torino

Scuola di Applicazione  
per gli Ingegneri



1859

Museo  
Industriale Italiano



1862

Inaugurata la sede di  
Corso Duca degli Abruzzi



1958

150 anni di  
Cultura politecnica



2009

1861



Unità d'Italia

1906



Regio  
Politecnica di Torino

1991



Parte il "raddoppio di  
PoliTO", poi Cittadella  
Politecnica

Oggi





# Campus in continua espansione

**Scuola di Ingegneria**



**Cittadella Politecnica**



**Scuola di Architettura  
e del Design**



**Cittadella della  
Mobilità**



**Scuola di Master**





# Budget 2016



Fondi per  
la ricerca **23%**

# Studenti a.a. 2014/2015

**33 461**

**Studenti**

**26,9%**



**34%** **Studenti provenienti  
da fuori Piemonte**

**16%** **Studenti internazionali**

**5 616** **Immatricolati primo anno  
(a.a. 15/16)**

**8,6%** **Immatricolati stranieri  
(a.a. 15/16)**

**205** **Studenti Master**

**700** **Dottorandi**



# Laureati

**2015**

**6 356**



**3 198**

**Triennale**

**3 158**

**Magistrale**





# Condizione occupazionale



Università

Media  
nazionale

Laureati  
PoliTO

68,7%

84,7%



Ingegneria

Media  
nazionale

Laureati  
PoliTO

85,1%

90,9%



Architettura

Media  
nazionale

Laureati  
PoliTO

63,6%

69,1%



# Corsi di laurea in inglese

**14**

**Percorsi formativi**

**Triennali**

**5 corsi**

**Magistrali**

**9 corsi**

**7**

**Master**

**specializzati**

# Accordi internazionali

A world map in a light blue color, showing the continents and oceans, serves as the background for the slide. It is centered behind the title and the three data boxes.

**428**

**Accordi di cooperazione  
con università straniere**

**425**

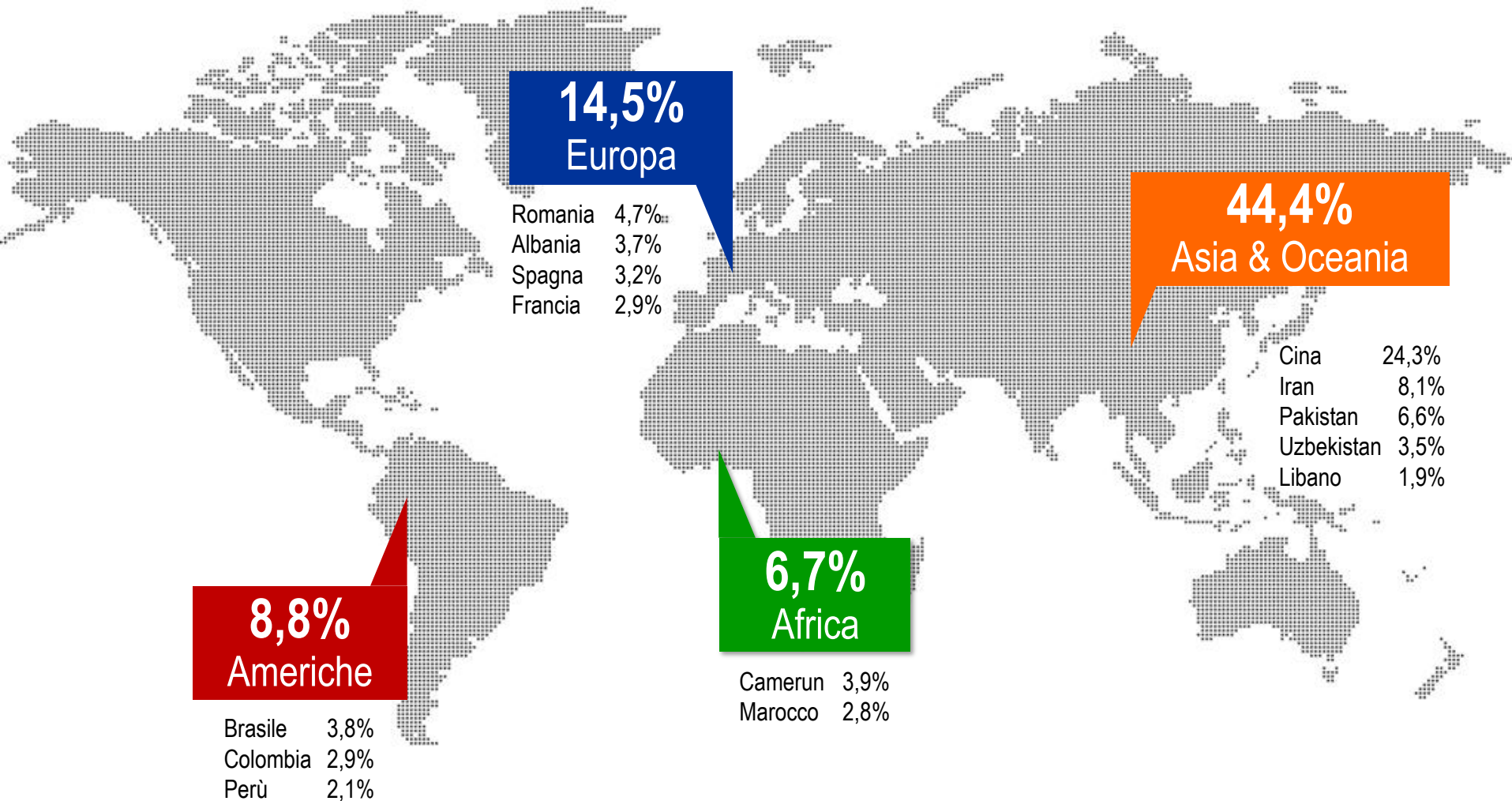
**Accordi  
Erasmus**

**112**

**Accordi di  
doppio titolo**



# Studenti internazionali



## PROGETTI FP7

2007-2013



PARTNER

233

PROGETTI

FINANZIAMENTI

6,9 Mio Eur

In Italia miglior tasso di successo dei progetti per ricercatore

## PROGETTI RICERCA INTERNAZIONALE

2012-2015



PARTNER

23

PROGETTI

FINANZIAMENTI

6,9 Mio Eur

## PROGETTI NAZIONALI

2012-2015



PARTNER

94

PROGETTI

FINANZIAMENTI

6,9 Mio Eur

## PROGETTI REGIONALI

2012-2015



PARTNER

225

PROGETTI

FINANZIAMENTI

6,9 Mio Eur

## PROGETTI SMART CITY



PARTNER

10

PROGETTI

FINANZIAMENTI

6,9 Mio Eur

## ICT FET FLAGSHIPS



PARTNER

Ufficiale in  
entrambi i progetti  
finanziati dalla CE





## PROGETTI UE H2020



PARTNER

57

PROGETTI

FINANZIAMENTI

21

Mio Eur

## PROGETTI ERC



8

PROGETTI

FINANZIAMENTI

10,5

Mio Eur

6 dei quali all'interno di H2020



# Partner istituzionali e commerciali

ThalesAlenia  
A Thales / Finmeccanica Company  
Space

Avio Aero  
A GE Aviation Business



Ferrari

FCA  
FIAT CHRYSLER AUTOMOBILES



IBM

Indesit  
company

GIUGIARO



Microsoft

NOKIA

PHILIPS



PIAGGIO

pininfarina



SIEMENS

SKF



TIM

700

Contratti  
annui

# Incubatore Imprese Innovative



15°



5°



WINNER of  
CHAMPION'S CUP  
2013



300  
idee



100  
business  
plan



15  
start up



Treatabit  
powered by I3P



120

team  
imprenditoriali



191  
start up





**SWISS  
CHAMBER**

Camera  
di Commercio  
Svizzera  
in Italia



**POLITECNICO  
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# Formazione, Innovazione e Impresa

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## Giornata di studio tra la Svizzera e l'Italia