

Arktis Radiation Detectors Ltd, info@arktis-detectors.com

Migration from an Industry Perspective

Engelberg Dialogues, October 16, 2018



Immigration and emmigration

Some of the pillars that make a country strong and foster economic growth

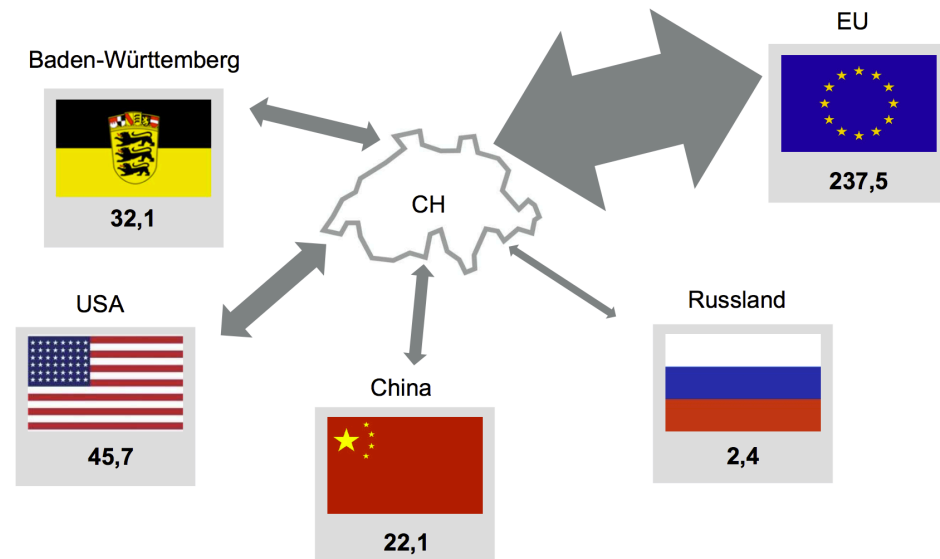
- Know which skill sets are crucial and foster those, for example education
- Strong partnerships
- Stable political environment
- Humanitarian aspect



Some of the pillars that make a company strong and foster economic growth

- Know which are company's strength, foster those and communicate those
- Strong partnerships
- Innovation (invention put into practice)
- Stable political environment, bilateral contracts (taxes, freedom of movement for workers)
- Market insight
- Ability to attract personnel
- Adapt to changes
- Social and humanitarian aspects

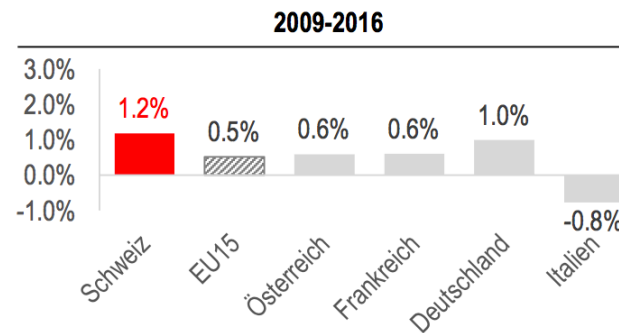
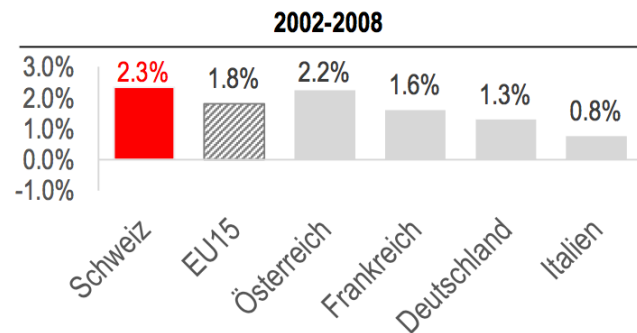
Handelsvolumen 2016 (Mrd. CHF)



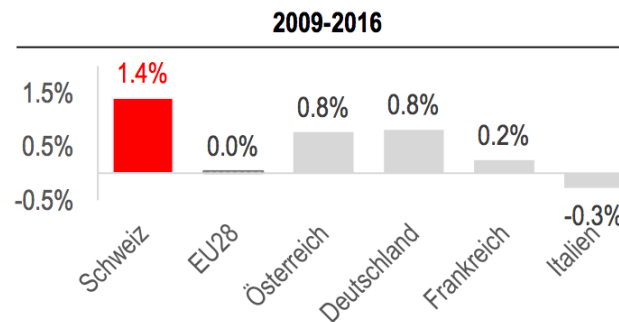
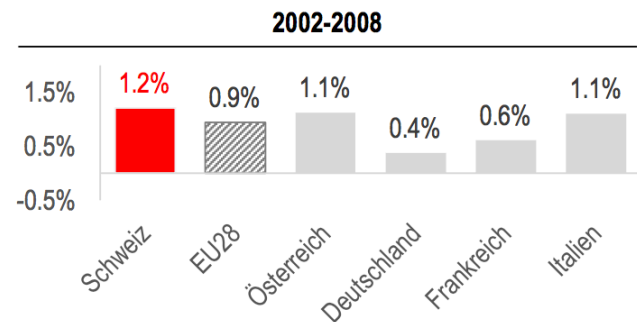
Economy and employment

In the 1990s Switzerland was one of the OECD countries with least economic growth, now above average. The free movement of persons agreement added to its economic growth. (admin.ch/europa)

Bruttoinlandprodukt, real, durchschnittliches jährliches Wachstum



Erwerbstätigkeit, durchschnittliches jährliches Wachstum



Quelle: Eurostat

Exchange fosters innovation

- Many companies in CH would have an issue if they could only recruit Swiss
- Exchange is inspiration
- Risk is that sometimes too short stays can also result into negative knowhow drain if not managed properly

Global Innovation Index 2018 rankings

Country/Economy	Score (0–100)	Rank	Income	Rank	Region
Switzerland	68.40	1	HI	1	EUR
Netherlands	63.32	2	HI	2	EUR
Sweden	63.08	3	HI	3	EUR
United Kingdom	60.13	4	HI	4	EUR
Singapore	59.83	5	HI	5	SEAO
United States of America	59.81	6	HI	6	NAC
Finland	59.63	7	HI	7	EUR
Denmark	58.39	8	HI	8	EUR
Germany	58.03	9	HI	9	EUR

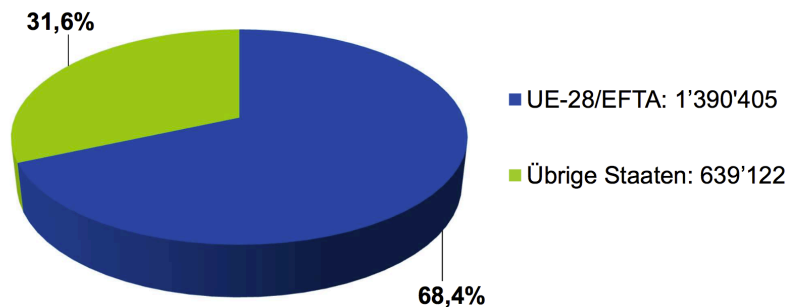
Source: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018-intro5.pdf

WIPO = World Intellectual Property Organization

Migration CH

In 19th century more emmigration then immigration.
Since end of 19th century more immigration.

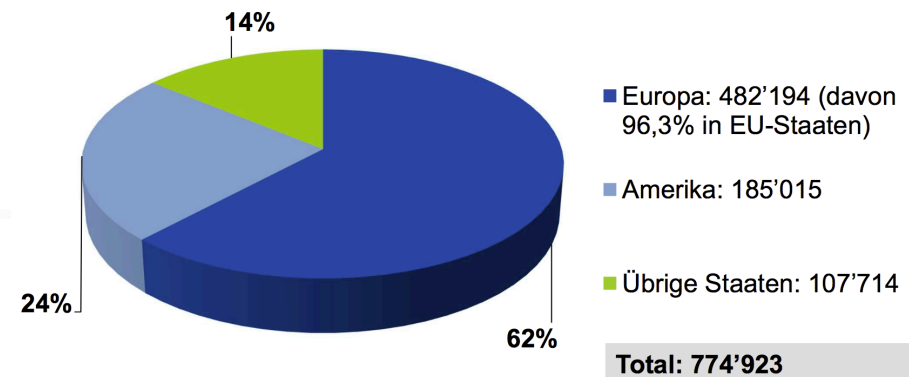
Ausländische Bevölkerung in der CH 2016



Wohnbevölkerung	8'419'550
Ausländer	2'029'527
Grenzgänger	313'281

Quellen: Staatssekretariat für Migration SEM & BFS

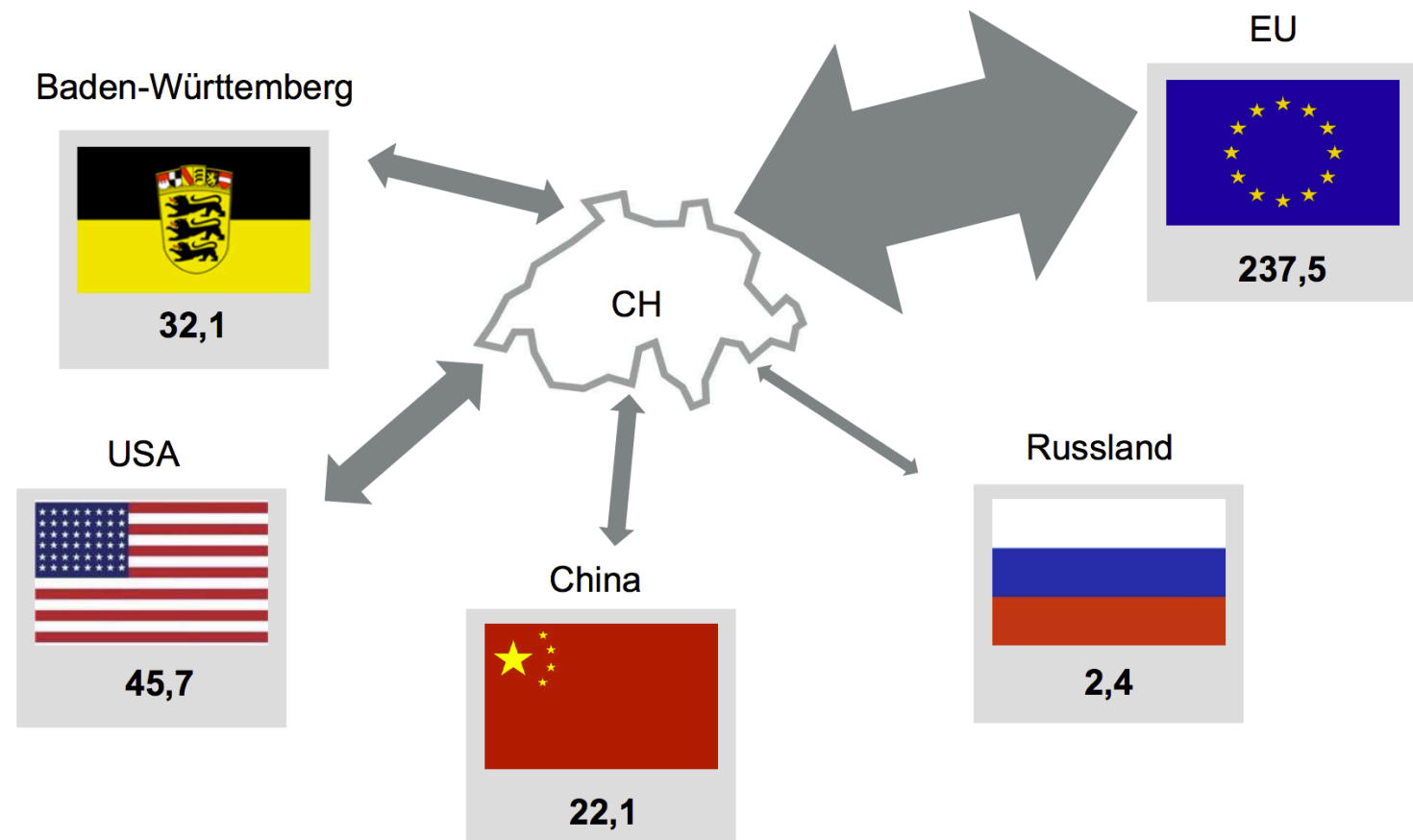
Schweizerische Bevölkerung im Ausland 2016



Quelle: EDA, Auslandschweizerstatistik 2016

Trade volume 2016 (in billion CHF)

In 2016 54% of Swiss exports (113 billion CHF) went to EU.
72% of Swiss imports (124 billion CHF) were coming from EU.



Quellen: Swiss-Impex, Statistisches Bundesamt (DE)

My company: Arktis Radiation Detectors



- Zurich based; US and UK subsidiaries
- Technology Origin: CERN and ETH Zurich
- In-house production facilities, contract manufacturing
- Winner of Venture Business Plan Competition (McKinsey & ETHZ), ZKB Pionierpreis Technopark, Global Security Challenge

Markets

Homeland Security



Prevent nuclear material and dangerous radioactive sources from entering customer's borders
Homeland Security →

Nuclear Industry



Monitor nuclear waste and safely decommission nuclear facilities
Nuclear Industry →

Recycling & Manufacturing



Protect your supply chain against radiological contamination
Recycling & Manufacturing →

Facility Security & Safety



Protect your facility, your employees and visitors against radiological threats
Facility Security →

Law Enforcement & Intel



Mobile and fixed monitoring and detection solutions for covert detection missions
Law Enforcement & Intelligence

Research



Arktis' unique detection capabilities used for world class research
Research →

Selection of Products



MODES SNM Mobile Radiation Detection System

Equipped with Monitoring, Search and Mapping Packages

Mobile detection systems have the versatility to cover a broad spectrum of radiation detection missions. While deployed in the daily business of port security and law enforcement, they can also be kept ready for rapid deployment in emergencies such as reactor accidents, heightened terrorism threats, recovery actions for lost or stolen nuclear materials, or intelligence driven operations.



Arktis FLASH™

Radiation Portal Monitor

Innovation in radiological/nuclear threat detection



Reliable Radiation Detection



For companies it is important to

- challenge themselves
- adapt to changes
- attract skilled people
- rely on politically stable environment

A booming economy depends on exchange and strong and reliable partnerships

Innovation monitor: CH on top

Global Innovation Index 2018 rankings

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2017

Rank	Economy
1	Switzerland
2	Sweden
3	Netherlands
4	United States of America
5	United Kingdom
6	Denmark
7	Singapore
8	Finland
9	Germany
10	Ireland











Source: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018-intro5.pdf

WIPO = World Intellectual Property Organization

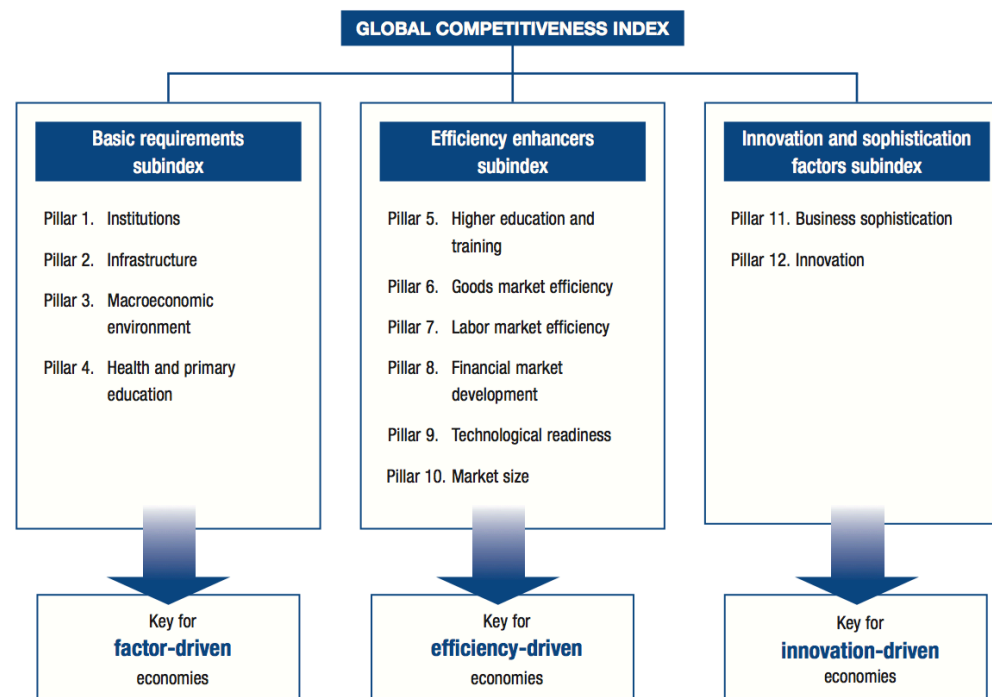
6	Knowledge & technology outputs	67.0	1
6.1	Knowledge creation.....	88.2	1
6.1.1	Patents by origin/bn PPP\$ GDP.....	17.6	1
6.1.2	PCT patent applications/bn PPP\$ GDP.....	8.9	1
6.1.3	Utility models by origin/bn PPP\$ GDP.....	n/a	n/a
6.1.4	Scientific & technical articles/bn PPP\$ GDP	55.8	4
6.1.5	Citable documents H index.....	686.0	9
6.2	Knowledge impact	55.5	6
6.2.1	Growth rate of PPP\$ GDP/worker, %.....	0.3	83
6.2.2	New businesses/th pop. 15–64 ^①	2.5	40
6.2.3	Computer software spending, % GDP	0.8	3
6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP.....	23.7	14
6.2.5	High- & medium-high-tech manufactures, %	66.1	2
6.3	Knowledge diffusion	57.3	7
6.3.1	Intellectual property receipts, % total trade.....	4.1	1
6.3.2	High-tech exports less re-exports, % total trade.....	14.2	11
6.3.3	ICT services exports, % total trade.....	3.0	25
6.3.4	FDI net outflows, % GDP	2.6	25

Competitiveness monitor: CH on top

The Global Competitiveness Index 2016–2017 Rankings

	Economy	Score ¹	Prev. ²	Trend ³
1	Switzerland	5.81	1	
2	Singapore	5.72	2	
3	United States	5.70	3	
4	Netherlands	5.57	5	
5	Germany	5.57	4	
6	Sweden	5.53	9	
7	United Kingdom	5.49	10	
8	Japan	5.48	6	
9	Hong Kong SAR	5.48	7	
10	Finland	5.44	8	

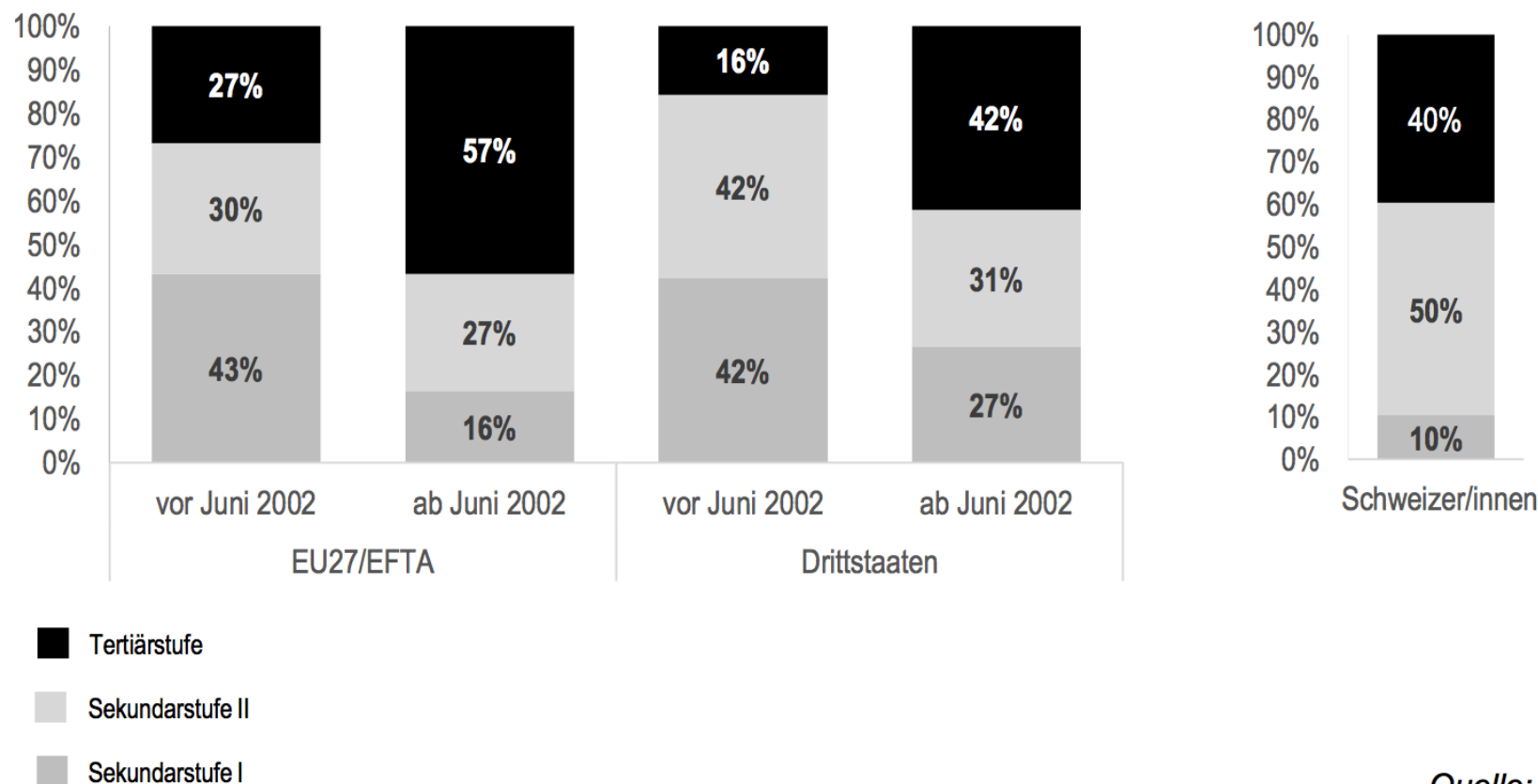
The Global Competitiveness Report 2016–2017 is published by the World Economic Forum within the framework of the Global Competitiveness and Risks Team.



Education degree of immigrants before and after free movement of persons agreement

Qualifikationsstruktur nach Staatsangehörigkeit und Zuwanderungszeitpunkt, erwerbstätige ausländische Bevölkerung, im 2. Quartal 2016

Zum Vergleich: Qualifikationsstruktur Schweizer/innen, Erwerbstätige im 2. Quartal 2016



Quelle: BFS/SAKE

Summary of small survey: What is truly compelling about CH?

- Beautiful nature
- High quality of living
- Education: universities, apprenticeships
- Interesting jobs
- Political environment
- ...
- People welcome foreigner in foreigner's language

Value and be conscious about a country's strengths

Which strengths do we need to invest in and build upon as a country? What creates sustainable jobs?