

TAL TECH

ESTONIA 2018

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PRESENTATION OUTLINE



- I. ESTONIA
- II. TALTECH AND RAGNAR NURKSE DEPARTMENT OF INNOVATION AND GOVERNANCE
- III. HIGHER EDUCATION
- IV. ADULT EDUCATION

**TAL
TECH**

I. ESTONIA

FIXED SIZE

Population: 1 319 133 (November 2018)

Geographical area: 45 339 km²

Coastline: 3780 km

Shared border: 645 km

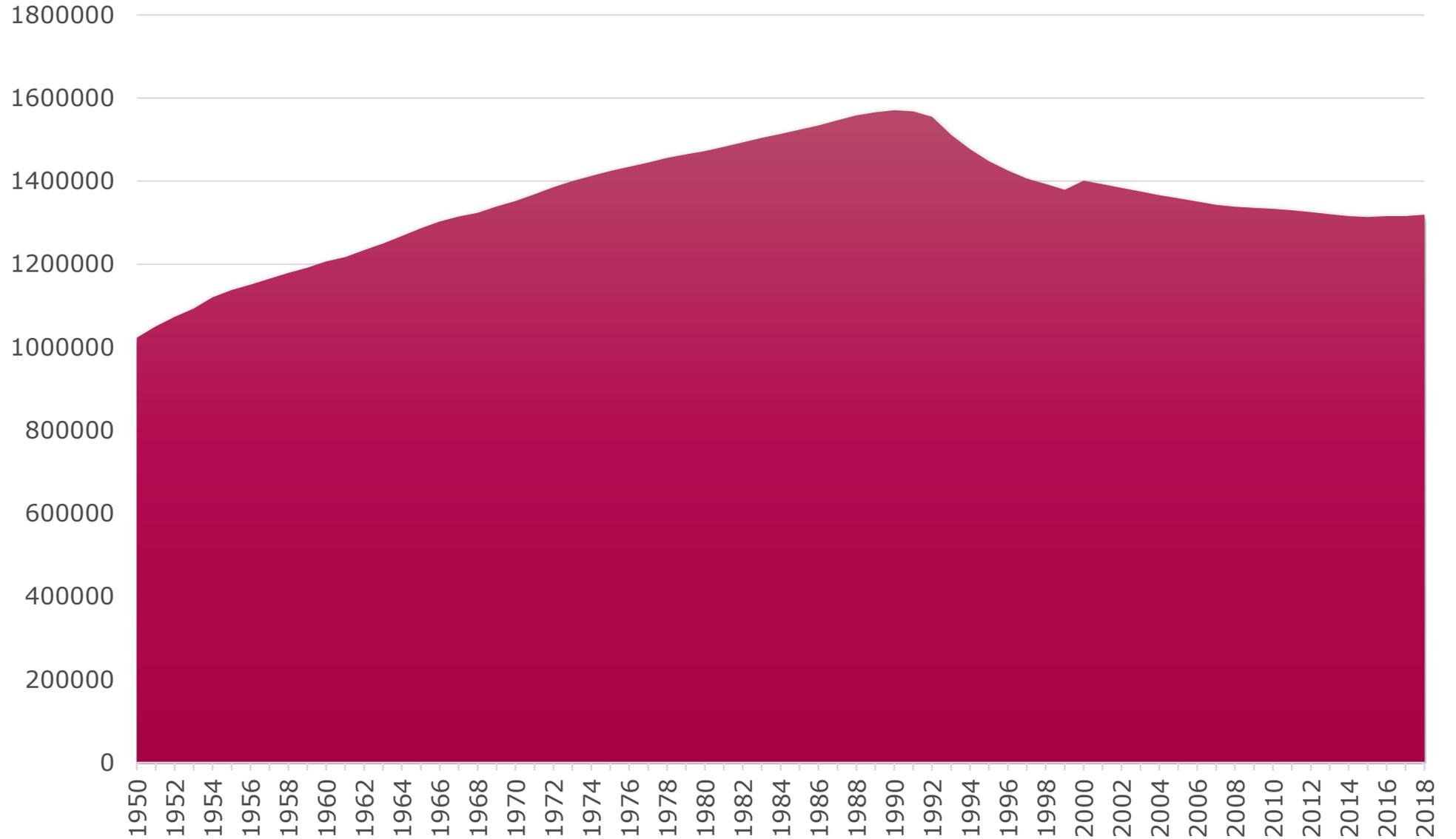
Estonia and Latvia: 339 km

Estonia and Russia: 294 km

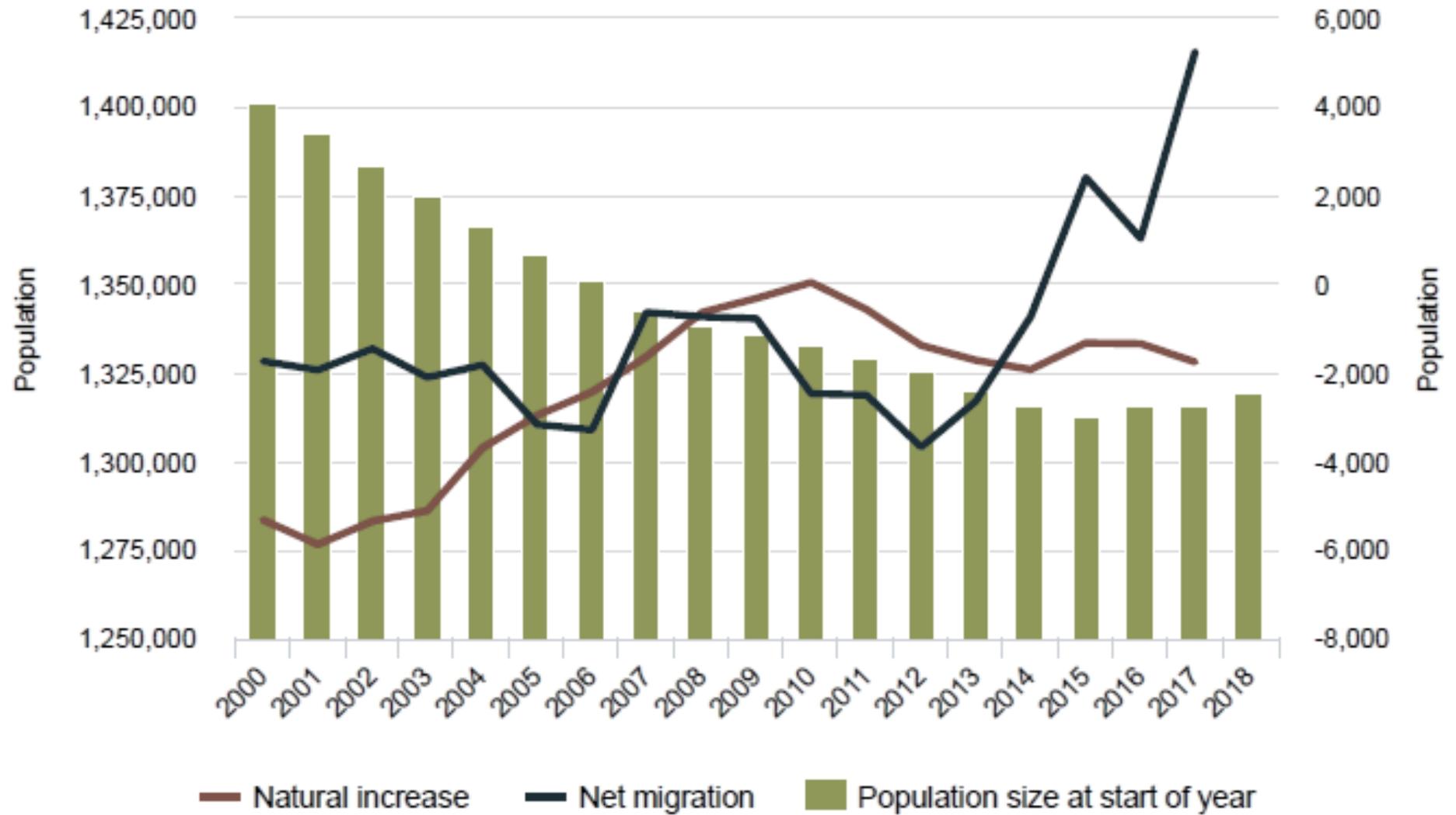
51,4% of Estonia's land territory is **covered by forests.**

Population density: 30,3 per km² (EU average 117,5 km²)

POPULATION CHANGES 1950-2018

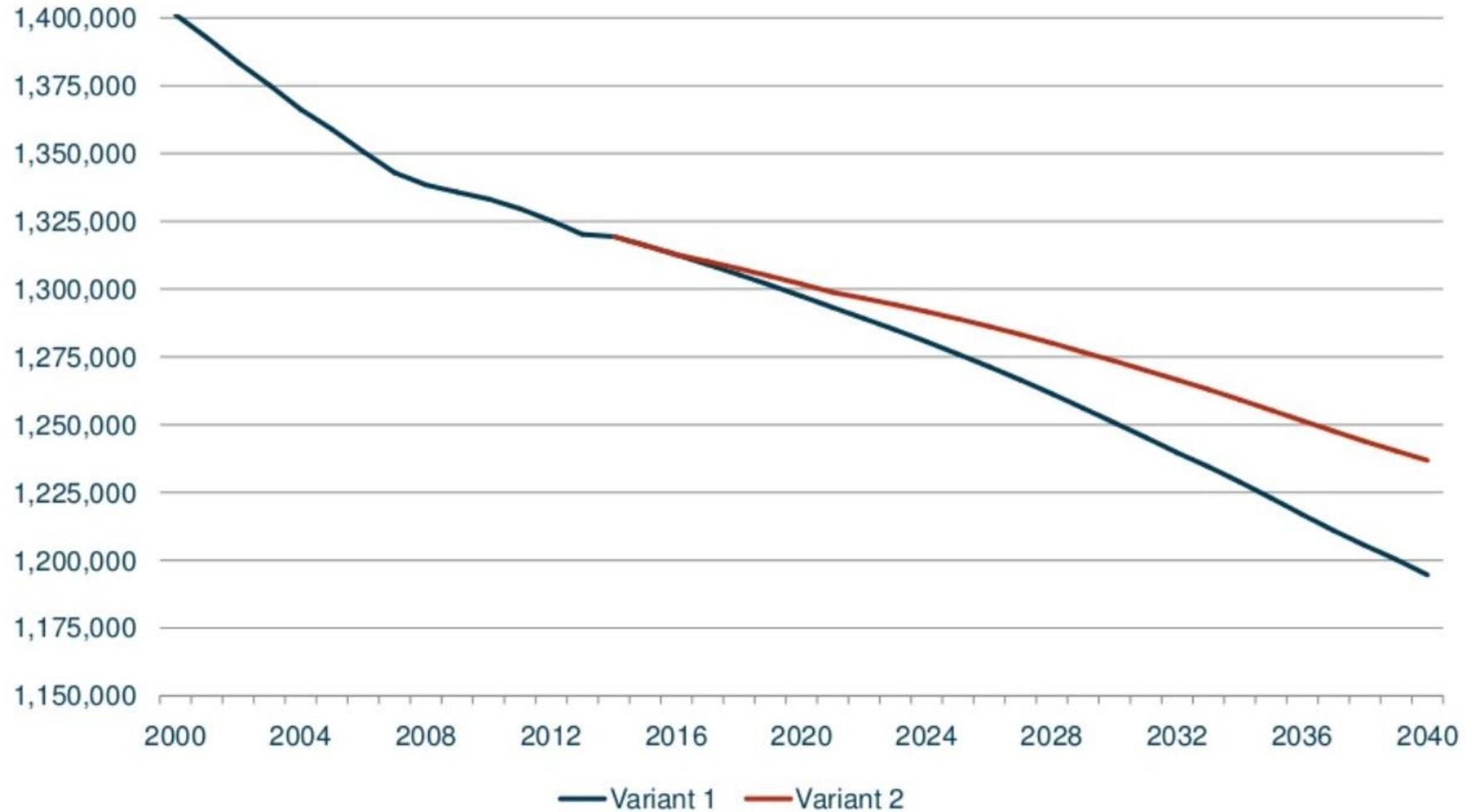


Change in population size and in events affecting it, 2000–2018



Source: Statistics Estonia

POPULATION PROGNOSIS 2000-2040



FIXED SIZE

- **Nationalities (2018):**

- 68,8% Estonian
- 25,1% Russian
- 5,2% Others
 - 1,2% Ukrainians
 - 0,9% Belarussians
 - 0,6% Finnish
 - 0,1% Tatars
 - 0,2% Latvian

- Around **15%** of all Estonians live abroad.

- Biggest Estonian communities in Russia, Finland, Sweden, USA and Canada.

SOVEREIGNTY SIZE

- First mention of Estonia (*Aesti*) in the 1st century.
- Christianization and the Baltic crusades in the 12-13th century.
- The period of **the Northern Crusade** battles during the 13th century also known as the period of „the ancient Estonian fight for independence“.
- **Danish occupation** of Northern Estonia starting from 1219.
- Southern Estonia Under the rule of **the Teutonic Order**.
- In the 16th Estonia submits to **Swedish control** to receive protection against Russia and Poland.
- Shortly belonged to the **Polish-Lithuanian Commonwealth** in the end of the 16th century.
- As a result of the Great Northern War in 1700-1721 Estonia became part of **the Russian Empire** until 1917.

SOVEREIGNTY SIZE

- Estonian national awakening in the middle of the 19th century.
- Russian February Revolution and the collapse of the Russian Empire leads to a window of opportunity.
- In 1918 the **Estonian Declaration of Independence** is issued by the Estonian National Council.
- **1918-1920 War of Independence** against Bolshevist Russia and the Baltic German forces.
- **1920 Tartu Peace Treaty** between Estonia and Soviet Russia.
- 1920 first Estonian Constitution.
- Molotov-Ribbentrop Pact on 23 August 1939.
- Military base agreement between Estonia and the Soviet Union in September 1939.
- In 1940 the **Soviet Union illegally occupies** Estonia.
- For a short period in 1941, Nazi Germany occupies Estonia.
- In 1944 the reoccupation by the Soviet Union.
- **20 August 1991 Estonia regains independence.**

SOVEREIGNTY SIZE

- Estonia had to build up a totally new administrative structure.
- 4 phases of development
 - **1990-1996: initial transformation**
New Constitution; radical reforms of the administrative system; need to overcome the legacy of the Soviet administration.
 - **1996-2004: accession to the EU**
External pressure to reform; rearrangments within the administrative structure; establishment of new agencies (foundations).
 - **2004-2011: post-accession and financial crisis**
Search for efficiency; post-accession structural reforms (consolidation); coordination discourse emerges.
 - **2011-...: search for effectiveness and better coordination**
Need to cope with contemporary societal, economic and environmental challenges as a small state with limited resources; public debate over the need to reform the state.

Membership in international organizations:

- Estonia was recognised and became a member of the **United Nations** in September 1991.
- Member of **NATO** since 2004.
- **European Union** accession negotiations began in 1998, joined in 2004.
- **Schengen area** member since 2007.
- In 2010 invitation to join **OECD**.
- Member of the **Eurozone** since 2011.
- **Nordic and Baltic Cooperation** development after regaining independence (Nordic Council of Ministers, Nordic-Baltic Eight (NB8)).

POLITICAL SIZE

- Parliamentary democracy
 - 101 members of Parliament
 - 4-year term
 - 5% threshold, party-list PR
- The Prime Minister is the head of government (currently Jüri Ratas)
 - *Primus inter pares*, no substantial competencies
 - The key tasks to manage the work of the cabinet and to represent the state
- The President is the head of state (currently Kersti Kaljulaid)
 - 5-year term, mostly a representative role
 - Can refuse to sign legislation, conflicts decided by the Supreme Court of Estonia
 - Highest leader of the national defence forces
- 79 local government units (extensive reform in 2017)

POLITICAL SIZE

- Currently 6 political parties in the Parliament.
- General elections coming up in March 2019.
- The current government stepped into Office in 2016. Before that the Estonian Reform Party (centre right) was in power for 17 years.
- Minimum winning coalitions. No coalition has lasted for the period of 4 years.
- Popularity of radical right wing party increasing.

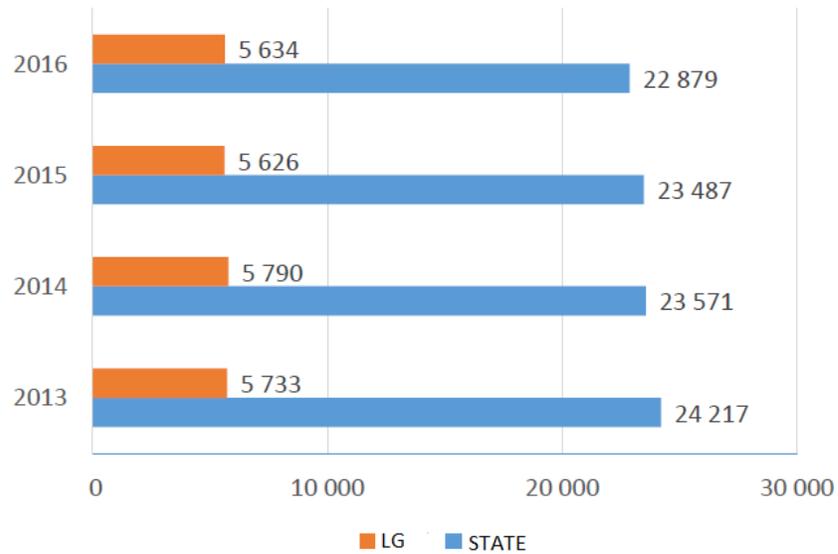
Party			2015		2011	
 Eesti Reformierakond (RE) ↗ Estonian Reform Party	Liberalism	27,7%	30	28,6%	33	
 Eesti Keskerakond (K) ↗ Estonian Centre Party	Centrism Social liberalism	24,8%	27	23,3%	26	
 Sotsiaaldemokraatlik Erakond (SDE) ↗ Social Democratic Party	Social democracy	15,2%	15	17,1%	19	
 Isamaa ja Res Publica Liit (IRL) ↗ Fatherland and Res Publica Union	Conservatism Christian democracy	13,7%	14	20,5%	23	
 Eesti Vabaerakond (EVA) ↗ Estonian Free Party	Conservatism	8,7%	8	-	-	
 Eesti Konservatiivne Rahvaerakond (EKRE) ↗ Conservative People's Party of Estonia [2011: ERL]	National conservatism	8,1%	7	2,1%	-	
Others		1,8%	-	8,4%	-	
Total		-	101	-	101	
Turnout			64,2%		62,9%	

Officials and employees:

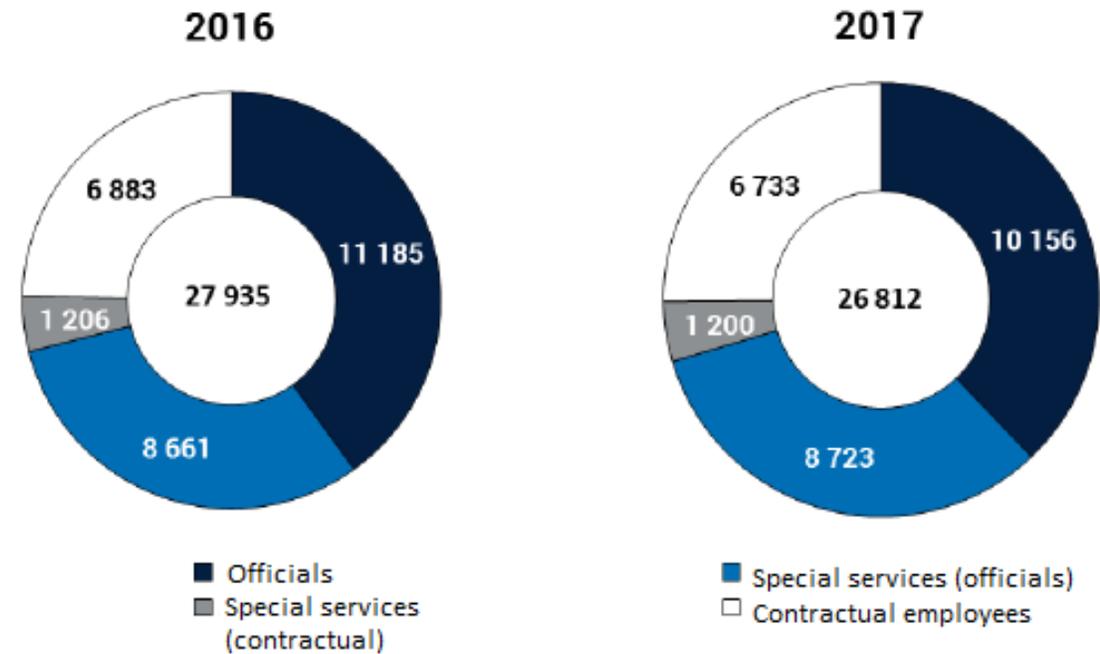
- CSA § 7 (1) **An official** is a person who is in the public-law service and trust relationship with the state or local government.
- CSA § 7 (4) **An employee** is recruited for the job, which does not involve the exercise of official authority but only work in support of the exercise of official authority. The employee shall work under the employment contract.
 - CSA § 7 (4) employment is primarily accounting; human resource work; records management; activities of procurement specialists; etc (list provided in the Act)

POLITICAL SIZE

Number of officials 2013-2016

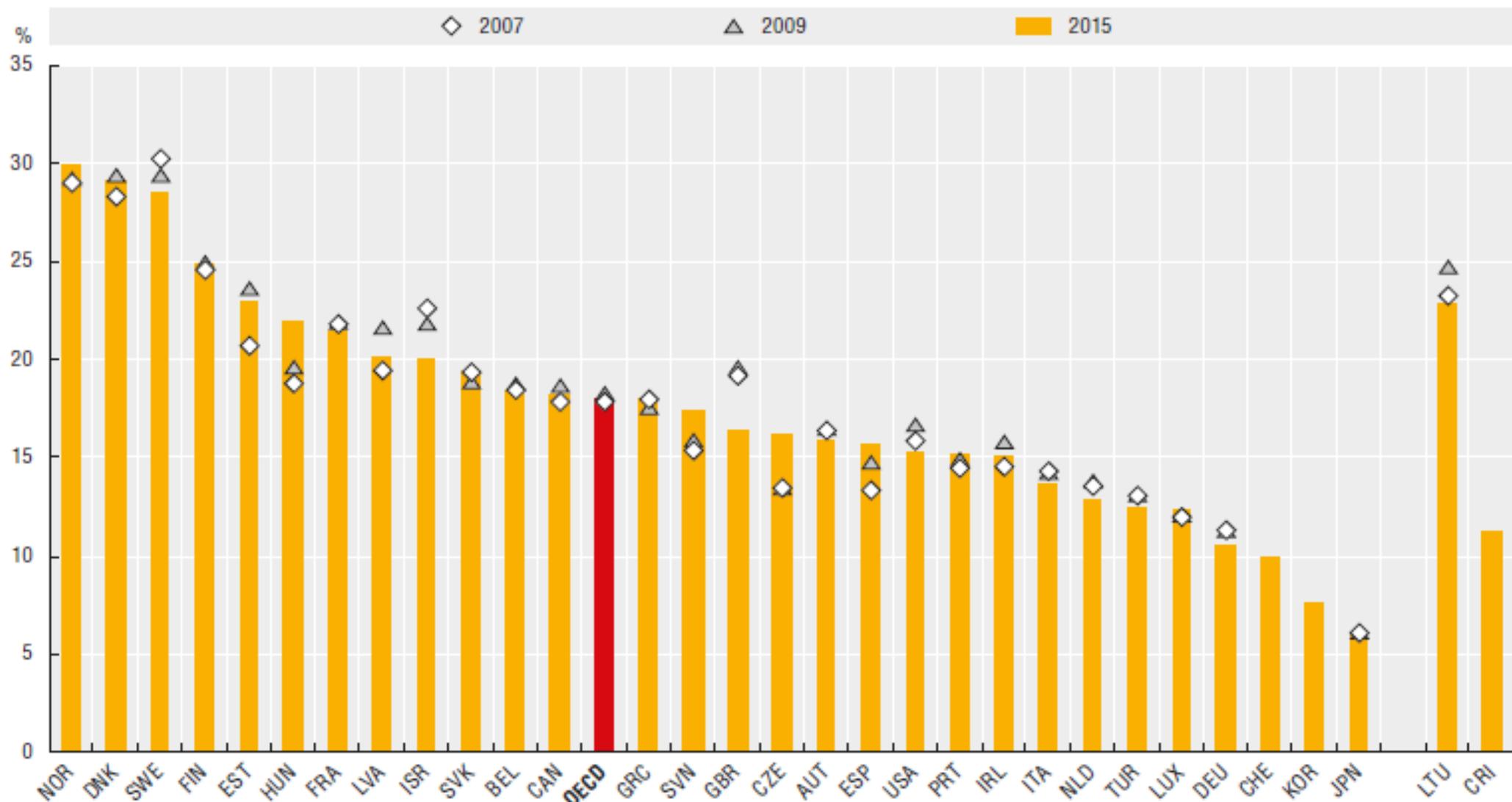


Composition of civil service

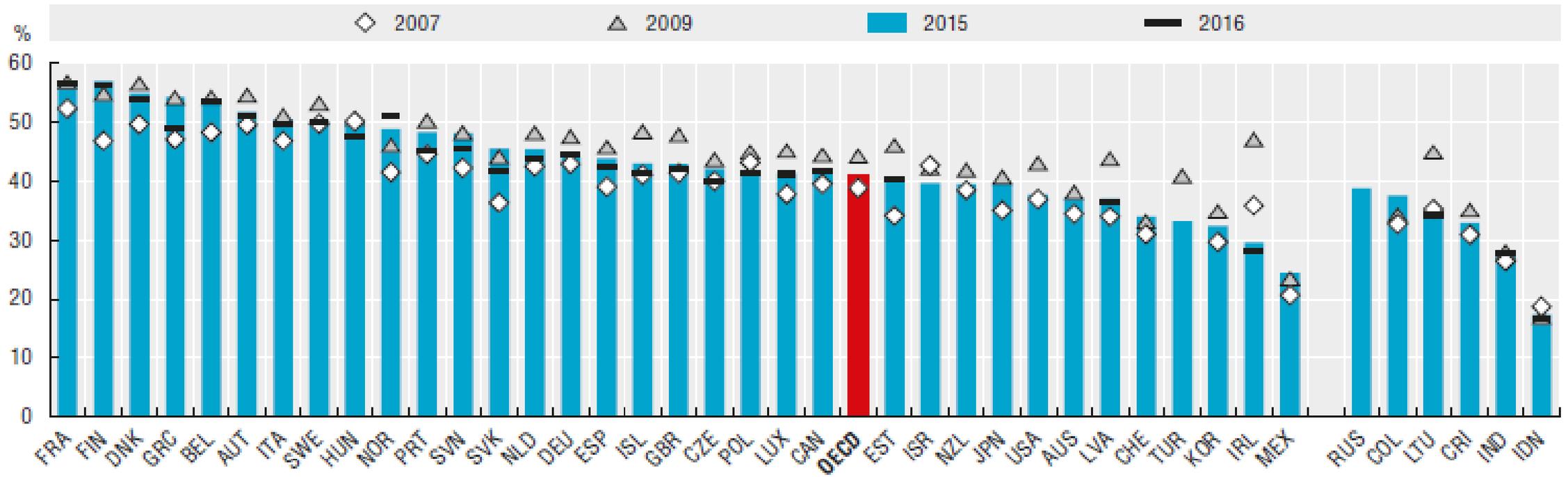


Source: The Ministry of Finance 2018

3.1. Employment in general government as a percentage of total employment, 2007, 2009 and 2015

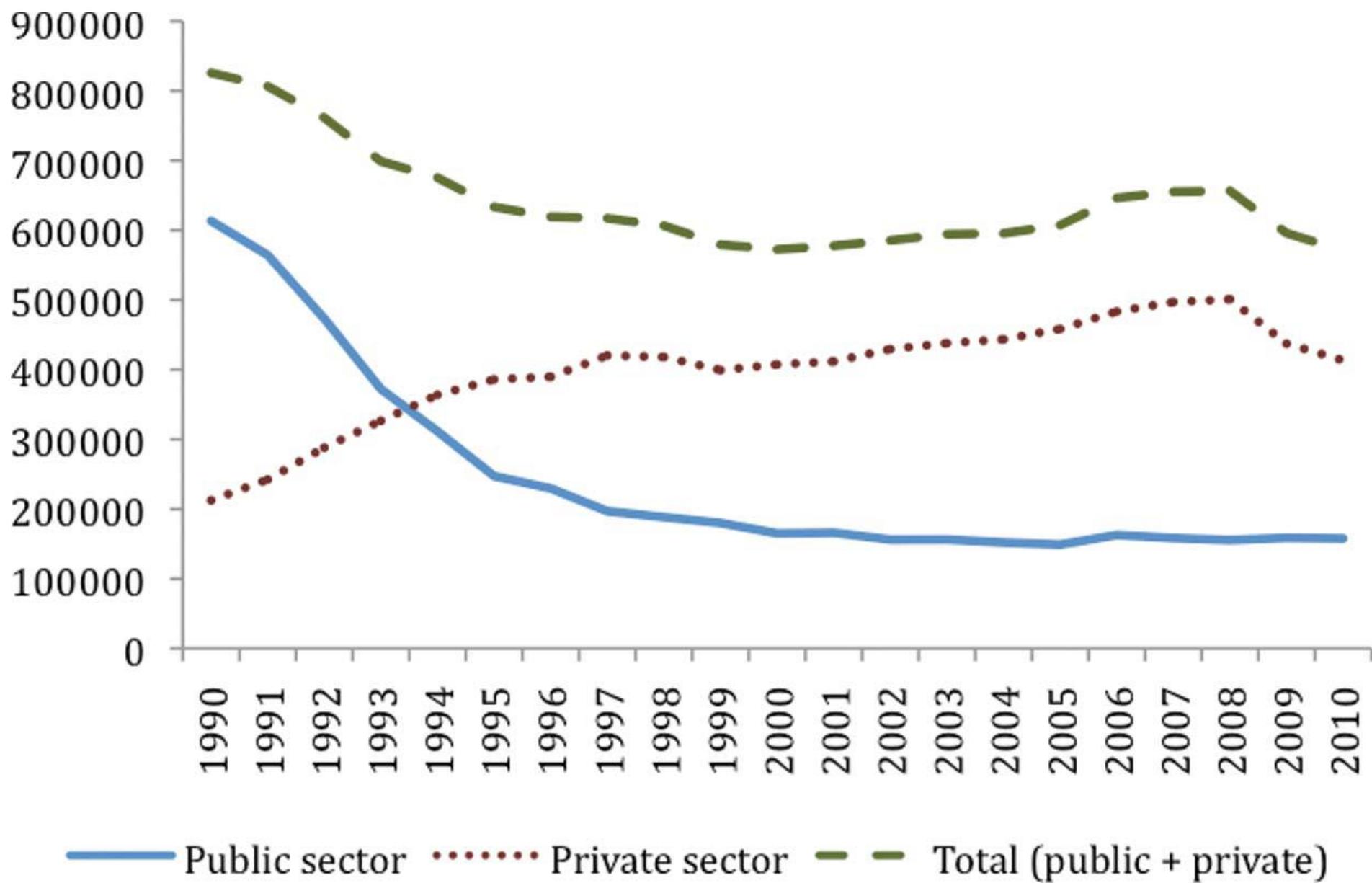


2.29. General government expenditures as a percentage of GDP, 2007, 2009, 2015 and 2016



Source: OECD National Accounts Statistics (database). Data for the other major economies of India and Indonesia are from the IMF Economic Outlook (April 2017).

StatLink  <http://dx.doi.org/10.1787/888933531820>

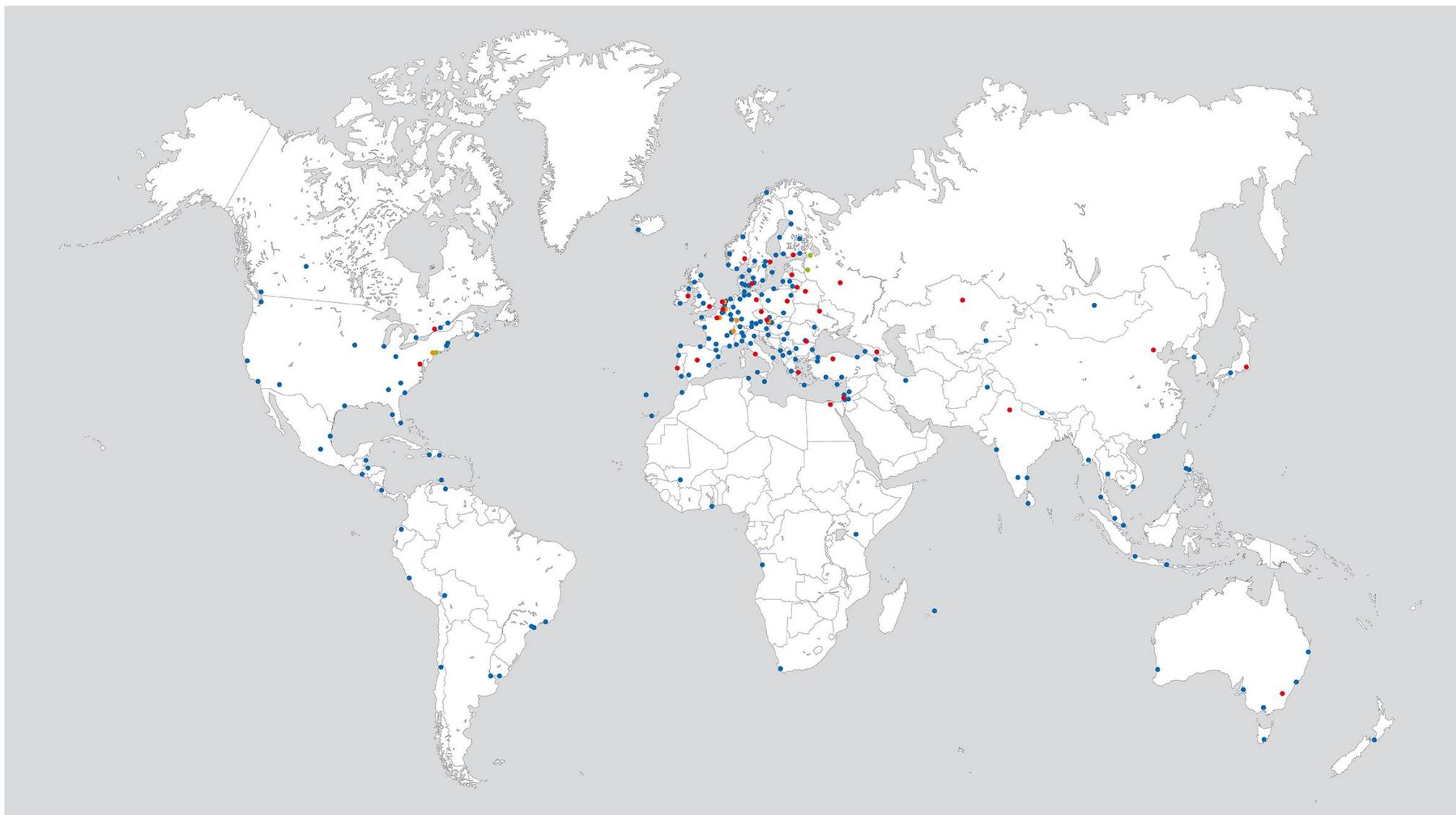


Foreign representation:

- Estonia has diplomatic relations with 173 countries
- 44 foreign missions in 2018, including 7 permanent representations at international organisations.
- Around 200 honorary consuls in 87 countries worldwide.
 - Respected and well-known economic or cultural figures in the receiving state who performs consular functions (e.g. consulting, issuing travel documents abroad etc). Important role in introducing Estonia abroad and contribute in creating new connections in business, culture, education and other fields.
 - Do not receive remuneration from Estonia.
- 164 Estonian diplomats, 54 non-diplomats and 105 locally employed workers are working in the Estonian foreign missions.

ESTONIAN DIPLOMATIC MISSIONS ABROAD

MARCH 2017



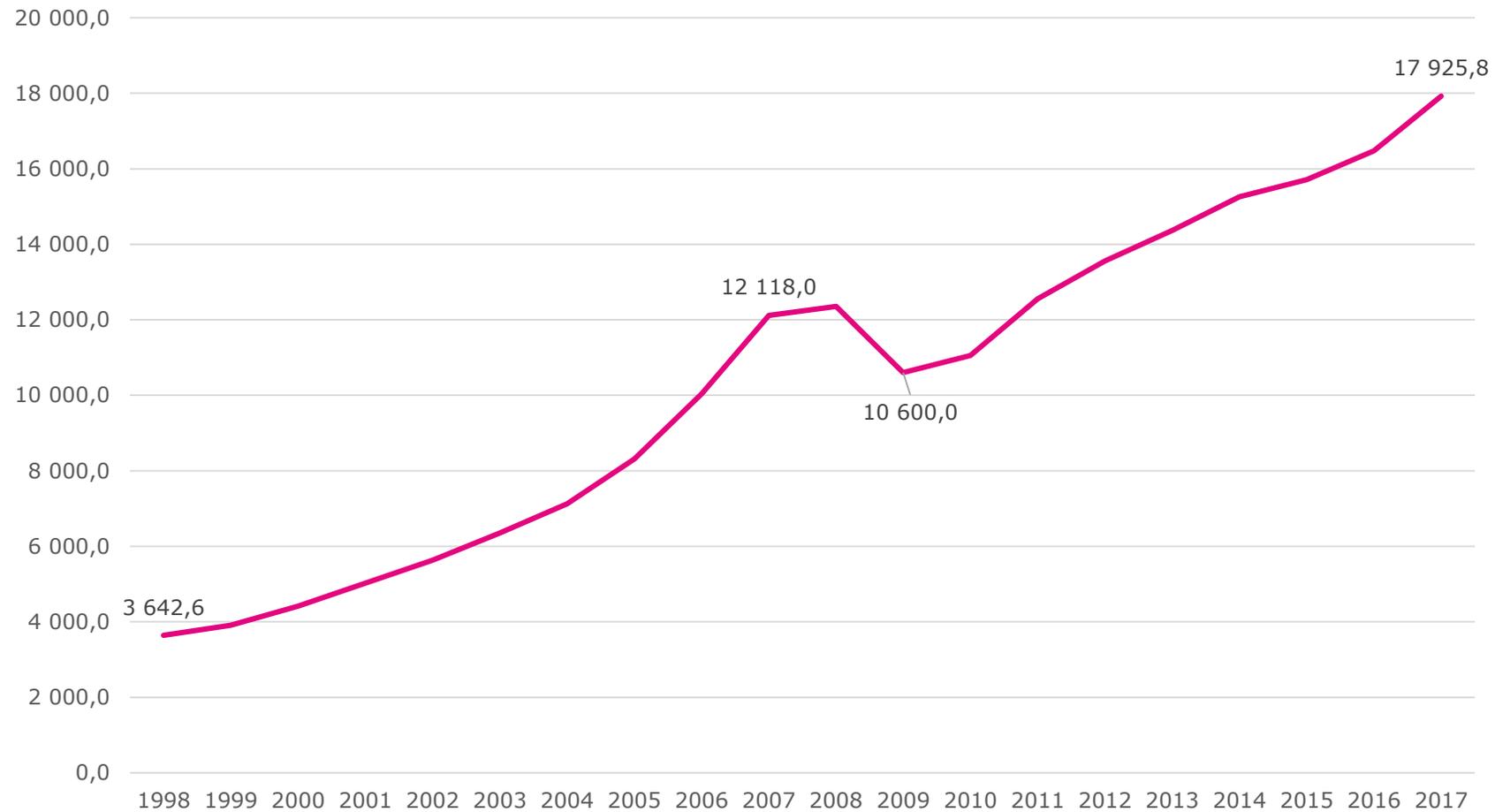
POLITICAL SIZE

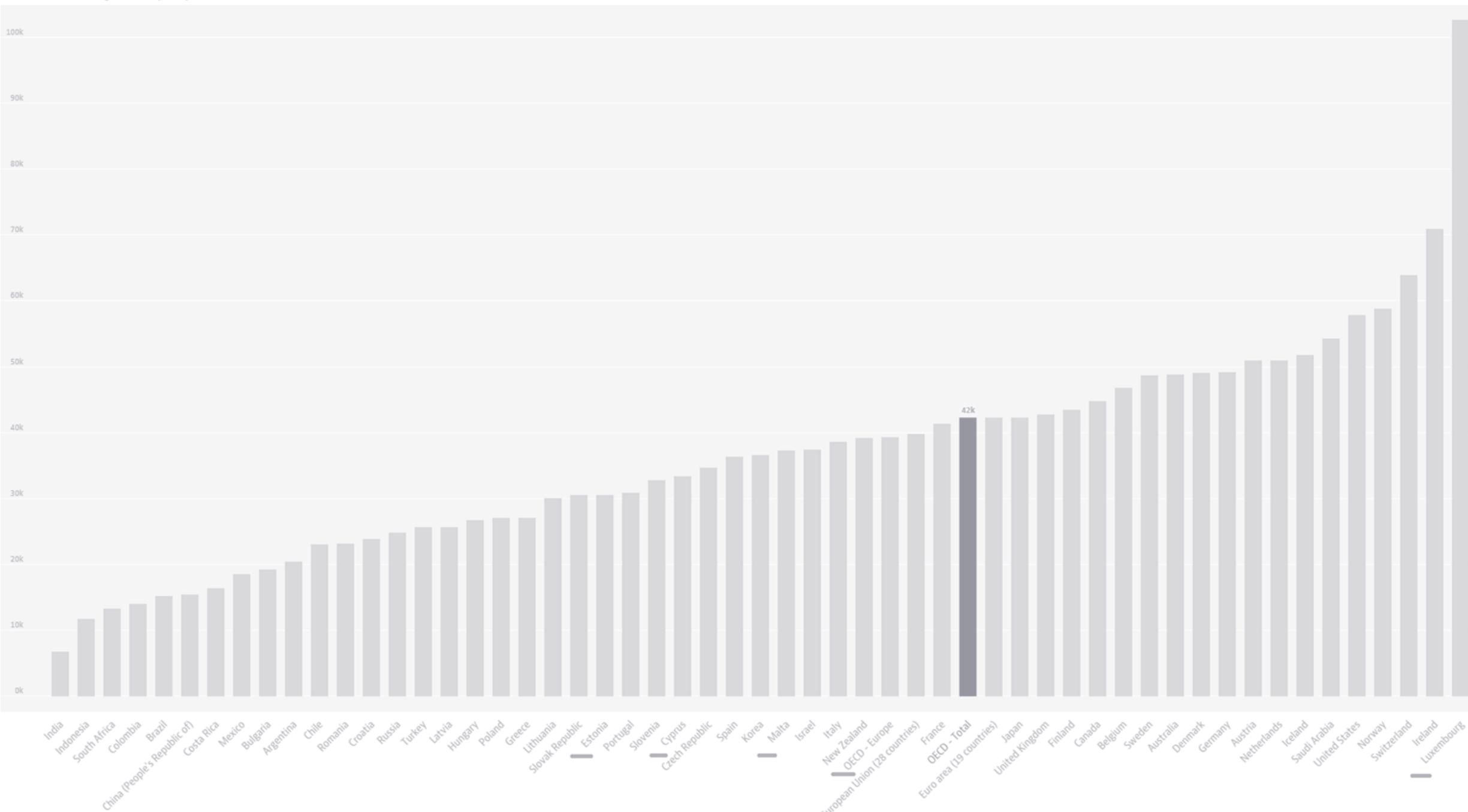
- **Compulsory military service** for men aged 18-30 (8 or 11 months).
- Average size of the Estonian Regular Armed Forces in peacetime is 6000 persons.
- Voluntary Defence League has around 15 000 members.
- Planned size of wartime personnel is **60 000 people**.
- **NATO membership and international cooperation as a priority:**
 - Estonia one of the four NATO members that spend **2% of their GDP on defence**.
 - Participation in UN-led international missions.
- Budget of the Ministry of Defence in 2018 is 523,6 mln € which accounts for approximately 2,14% of GDP. In 2017 the budget was 479,2 mln €.

ECONOMIC SIZE

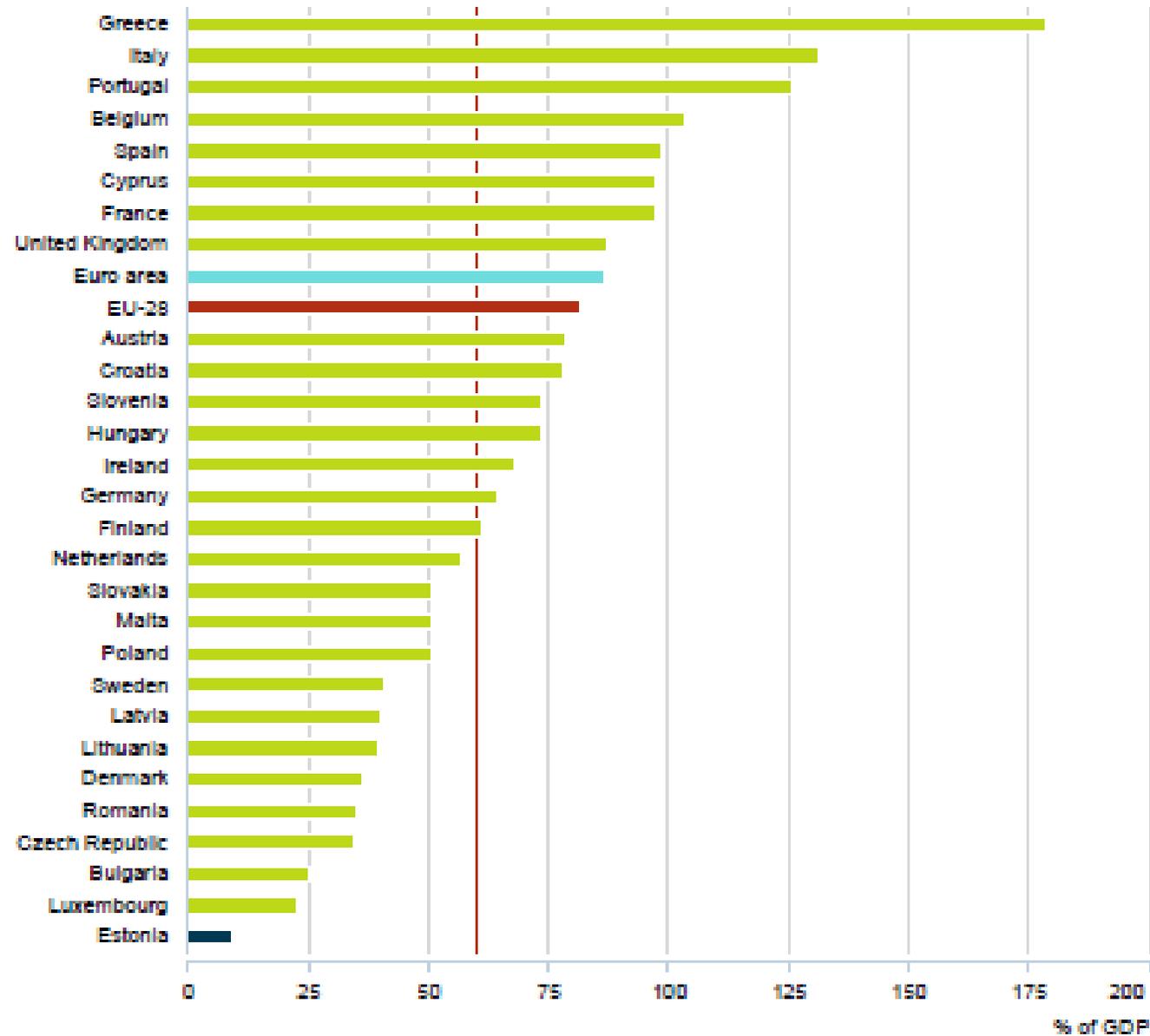
- More than 70% of Estonian GDP deriving from the service sector, industrial sector around 25% and primary sector 4%.
- Biggest industries are the mechanical industry, timber and paper industry, agriculture and chemical industry.
- Fastest growth in the information technology and telecommunications sector.
- Huge **impact of the financial crisis** in 2007-2009 – GDP dropped 24%.
 - Strict austerity measures
 - Aim was to still qualify for the Eurozone
- Unemployment rate is decreasing, but the growth of economy has led to a lack of qualified workforce.
 - Huge demand for highly qualified IT-specialists.

GDP at current prices per capita





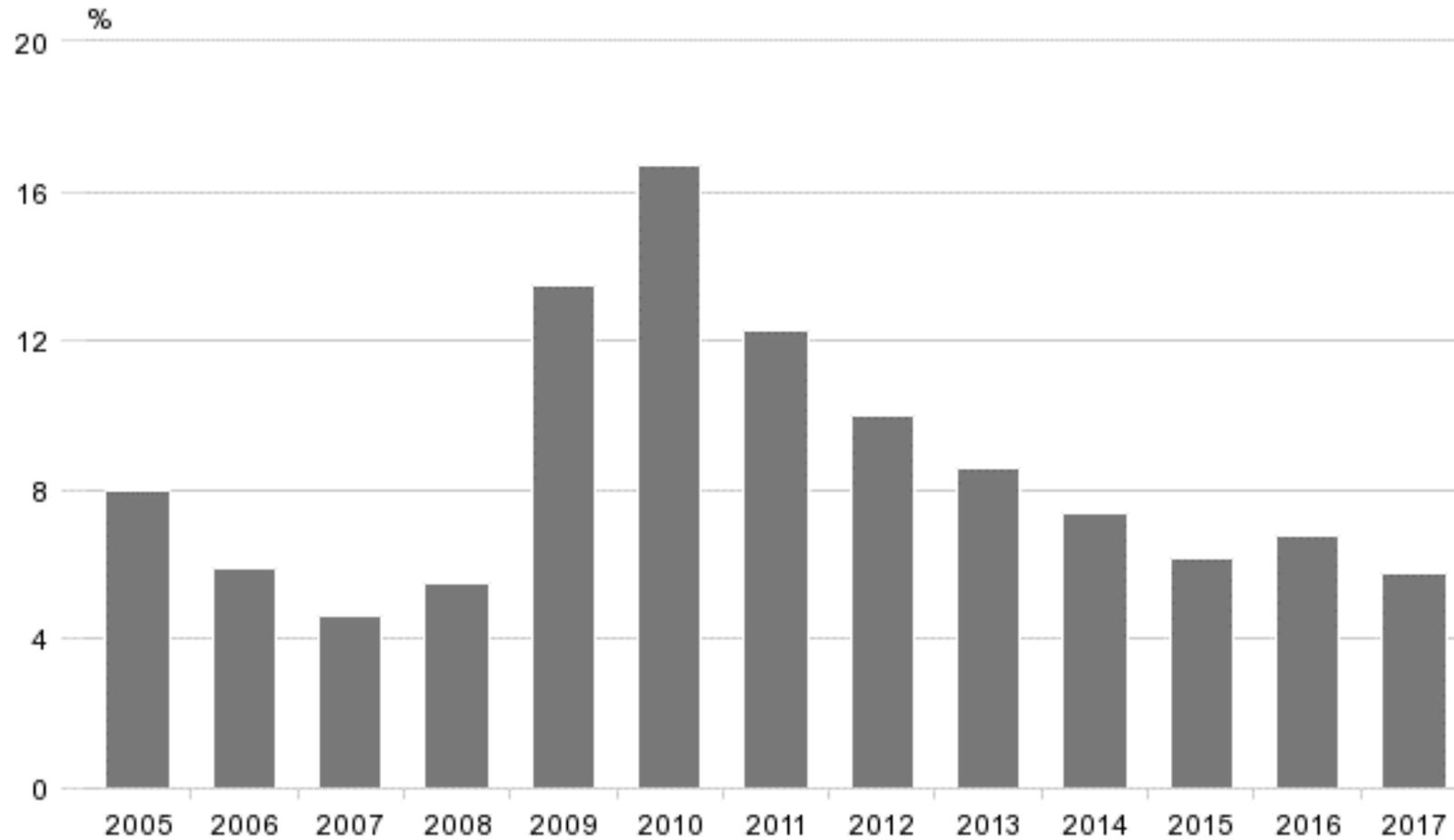
General government debt level in the European Union, 2017



Source: Eurostat

ECONOMIC SIZE

Level of unemployment 2005-2017



PERCEPTUAL SIZE

Internal perspective

- Awareness of smallness and dependence on international partners.
- Limited resources in the centre of public debate. A strong pressure from the business sector to downsize the state based on the argument of smallness.
- Agile, smart, flexible and innovative, but at the same time high structural fragmentation, lack of coordination.
- Specialization in niche areas, e.g. Cybersecurity (NATO Cooperative Cyber Defence Centre of Excellence) as a possibility to punch above one's weight.

External perspective

- „Straight A student“ - one of four NATO members spending 2% of GDP on defence; compliance towards the EU.
- Estonian e-government as an exemplary international case. The pioneer of digitalisation.
- Baltic states often seen as one entity.
- (Decreasing) stereotypical perception of Estonia as an Eastern European or ex-Soviet Union state.
- Lack of openness to new cultures.

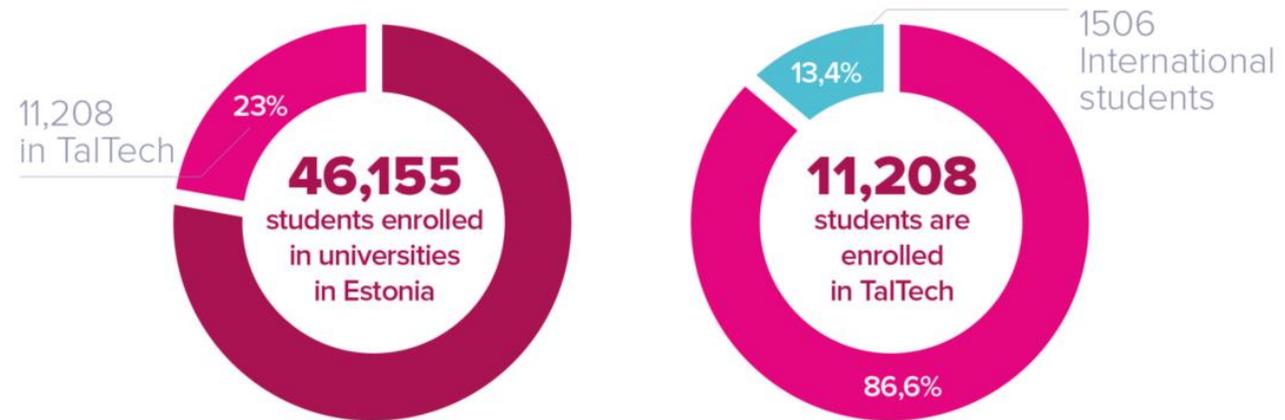
PREFERENCE SIZE

- Acknowledgement of smallness.
- Desire to be seen as a small Nordic country.
- Ambition to be the flagship state of digital government and e-governance solutions.
- Promotion of single digital market and on e-commerce on the EU level.
- Increased cooperation and connections with Western countries
 - E.g. Rail Baltic project connecting the Baltic capitals with Poland and Germany by rail connection.
 - Military cooperation
- 2017 EU Council Presidency as an opportunity to increase perceptual size and visibility in the EU.
- Everything related to digitalization and cyber-security as a possibility to be a bigger player on international field.

**TAL
TECH**

**II. TALTECH AND
RAGNAR NURKSE DEPARTMENT OF
INNOVATION AND GOVERNANCE**

- Established in 1918.
- Largest university in Estonia after University of Tartu.
- Tallinn University of Technology (TalTech) as the flagship of Estonian engineering and technology education and research.
- Research university, where education can be obtained at all levels in **engineering, technological, natural** and **social sciences**.
- The mission of Taltech is to „be a promoter of science, technology and innovation“.



CURRICULA:

93 **33**
International curricula



IN 2017 TALTECH ADMITTED :

3455 **558**
students international students



STUDENTS GRADUATED IN 2017:

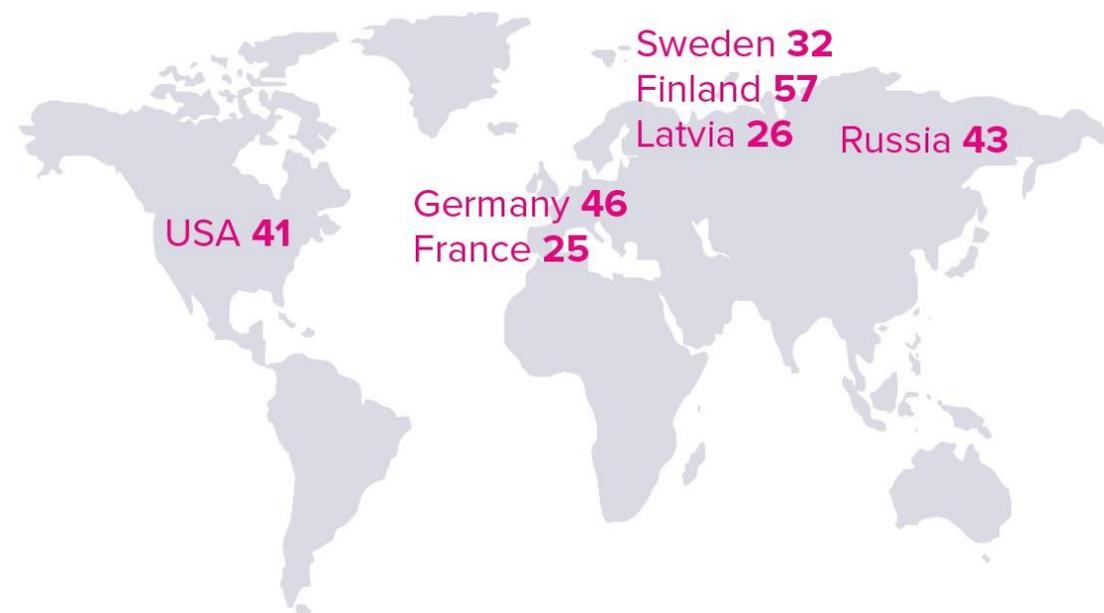
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RESEARCH AND DEVELOPMENT

Every TalTech scientific publication was cited **4.89** times on average during the last five years.



MAIN PARTNER COUNTRIES IN JOINT PUBLICATIONS



RAGNAR NURKSE DEPARTMENT OF INNOVATION AND GOVERNANCE (RND)



The **Vision** of RND is to be one of the leading R&D and teaching centers on governance and innovation in Central and Eastern Europe and Nordics, and to use the competencies to contribute to the sustainable development of Estonian economy and society.

The **Mission** of RND is to participate actively in the leading research projects and consortia financed by the EU framework programmes and ESIF, to collaborate with international and Estonian public and private sector organizations, and to integrate topical research and societal challenges with our teaching activities thereby increasing the speed of knowledge transfer and feedback between science and society.

Dynamic and overlapping R&D streams:

- Governance, public policy-making and public sector transformations (transition, reforms, austerity).
- Public sector organisation, coordination and collaboration.
- Bureaucracy, civil service and public sector HRM.
- Techno-economic paradigms, technology governance and innovation policy.
- Public administration and technology: e-governance, public sector and innovation.
- Philosophy of science and technology.
- Big data in social sciences, data-driven innovation in public sector.
- Governance and economic development in small states.

RAGNAR NURKSE DEPARTMENT OF INNOVATION AND GOVERNANCE (RND)



Staff: around 40 people (part time and full time), 50% foreigners. Average age of 6 full professors is 44.

Active students: BA: 90, MA: 58+54, PhD: 48.

Programs in Estonian: Public Administration and Governance (BA), Public Administration (MA)

Programs in English: Technology Governance (MA), Public Sector Innovation and E-governance (Erasmus Mundus from 2017/2018), Public Administration and Technology Governance (PhD)

Research excellence: annual output of articles in **international peer-reviewed journals** between 2010-2016: ca 26 (more than 1 per academic FTE)

Close cooperation with **public sector organizations** as long-term development partners.

Interactive and **interdisciplinary Lab model** in BA and MA studies: Public Sector Design Lab and techEstonia Lab.



**TAL
TECH**

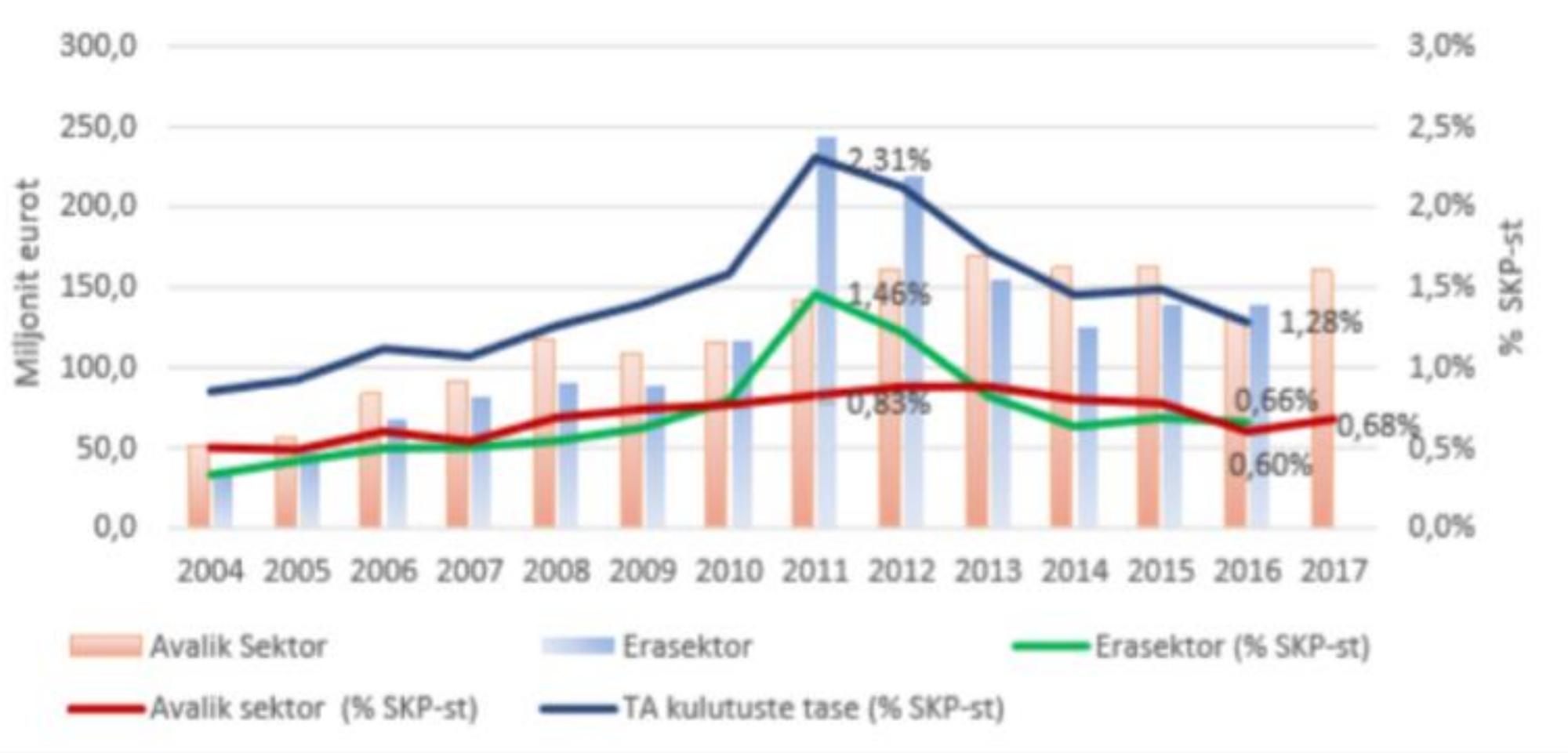
III. HIGHER EDUCATION

HIGHER EDUCATION

- 20 higher education institutions.
 - 6 public universities that offer education on all levels
 - 5 private professional higher education institutions
 - 8 state professional higher education institutions
 - 1 privately owned university
- R&D funding from the state budget is decreasing
 - In 2016 the share of total R&D expenditure in GDP was 1.28%. From total government expenditure 1.19%.
 - In 2015 the government investments in R&D was 1,72% from total government expenditure.

R&D expenditure in Estonia (M€) and % of GDP

Public sector- pink bars, red line; business sector-blue bars, green line. Total- blue line



UNIVERSITY	MAIN RESEARCH FOCUS
UNIVERSITY OF TARTU	Classical university
TALLINN UNIVERSITY OF TECHNOLOGY	Engineering, technical, natural and social sciences
TALLINN UNIVERSITY	Humanities and social sciences, film and media
ESTONIAN UNIVERSITY OF LIFE SCIENCES	Natural sciences
ESTONIAN ACADEMY OF ARTS	Art and design
ESTONIAN ACADEMY OF MUSIC AND THEATRE	Music and theatre



ESTONIAN
ACADEMY OF ARTS



EESTI
MUUSIKA- JA TEATRIKADEEMIA

**TAL
TECH**

IV. ADULT EDUCATION

ADULT EDUCATION

- Adult Education Act (2015) – „right of every person to constantly develop their knowledge and skills“.
- Adult education is divided into:
 - formal education (basic, general secondary and upper secondary)
 - informal work-related training and retraining
 - popular adult education
- The organization of work-related training is divided between three ministries:
 - **Ministry of Education and Research** (employed adults whose training is financed through the education institutions)
 - **Ministry of Social Affairs** (unemployed people and people seeking work, financed through the Unemployment Insurance Fund)
 - **Ministry of Economic Affairs and Communication** (employed adults whose training is financed through companies).
- All ministries are trilaterally responsible for creating work-related training opportunities for the adult population.

ADULT EDUCATION

- Informal courses and retraining offered by institutions of vocational education and higher education.
- Training courses often linked to the adult learners' interests and hobbies. Less academic-type courses.
- The Association of Estonian Adult Educators (ANDRAS)
 - Best national project award 2018 awarded by the European Association for the Education of Adults
- Estonian Lifelong Learning Strategy 2020
 - General goal is to provide people with learning opportunities that are tailored to their needs and capabilities throughout their lifespan, in order to maximize their opportunities for dignified self-actualization.