
Summaries

EDITOR IN CHIEF'S COLUMN

Without industry, we will not get rich

MART RAUDSAAR

Editor-in-Chief of Riigikogu Toimetised

Times are changing and our industry is facing many challenges. Ahti Asmann, the Chairman of the Board of the Estonian Chemical Industry Association, writes about them in his essay.

Our industry is going through complicated times. It can also be seen from the analysis by Raul Eamets (which is titled “Complicated times in the Estonian industrial sector”) and the survey of Statistics Estonia by Jane Leppmets, which shows that last year Estonia’s exports per capita were below the EU average – this reflects the difficulties of our industry.

Ivo Suursoo, Chairman of the Board of IXIO Grupp and Best Leader 2024, and Keiu Telve, Research Fellow at the University of Tartu, discuss possible solutions. Toomas Randlo from the Baltic Mediamonitoring Group (BMMG) gives an overview of how the situation of Estonian industry is covered in the media.

In the Focus section, you can also read about the activities of the Estonian Defence and Aerospace Industry Association.

The Studies section offers a selection of topical studies from the Estonian Academy of Security Sciences. Indrek Paadik discusses the awareness and preparedness of the people of Estonia in coping with internal

security crises. Sander Promm has studied the hybrid security threats posed by the People’s Republic of China to the Republic of Estonia. And Hans Moks gives us an overview of the sense of security of the people of Estonia and their contribution to internal security volunteering.

Jaanika Puusalu presents a comprehensive analysis of the digitally empowered state and introduces three theoretical concepts to explain the nature of the modern state.

Chief Specialist of the Department of Sanctions and Strategic Export Control of the Ministry of Foreign Affairs Andres Siplane writes about the sanctions against the Russian Federation, and replies to the question whether these sanctions have an impact or not.

In Varia section of Riigikogu Toimetised, the reader will find an article by analyst Raivo Vare that discusses the changes the world economy is currently going through and how we have to adapt to them.

The data of Statistics Estonia show us how we are faring in terms of wage equality, and warns us that 84,000 people in Estonia feel deprived. We will find out what this means.

Media Competence Specialist of the National Library of Estonia Kateryna Botnar opens the topic of elections and misinformation. Nowadays, artificial intelligence makes it possible to produce all kinds of false content, like videos where people say things they have never said. Kristiina Kaju, who also works at the National Library of Estonia, recommends for inspiration

books about smart industry and smart production.

Energy specialist Andres Noodla examines the future of energy production and its dependence on subsidies. As always, Riigikogu Toimetised also gives the reader an overview of international parliamentary news.

I wish you happy reading!

CONVERSATION CIRCLE

Strong industry is vital for Estonia's economy

RIIGIKOGU TOIMETISED PANEL DISCUSSION

What should we keep in mind when developing our industry? What are our established national industries and how can we support them? What new developments are needed in our industry and how should we approach green transition policy? Members of the Riigikogu Jaak Aab (Social Democratic Party), Arvo Aller (Estonian Conservative People's Party), Aivar Kokk (Isamaa), Lauri Laats (Centre Party) and Tarmo Tamm (Estonia 200) discussed these issues in the discussion panel of Riigikogu Toimetised on 15 May. (Reform Party) replied to the questions in writing later.

JAAK AAB: In the future, our relatively dynamic labour market will give our industry the advantage or opportunity for remaining competitive. We have a wide ICT coverage. The time of cheap labour is over. The issue is productivity and the added value that comes into industry. There are many changes ahead. Artificial intelligence, automation, robotisation, development of technology. We have a programme for linking research and development with the challenges of business. If our companies are currently investing about one per cent of GDP or a little more in research and development innovation, then we should strive for the target being two per cent of GDP. Through

certain developments, the state can certainly contribute to this, or nudge in this direction, so that automation, digitalisation and, as a new thing, the developing of artificial intelligence could make progress. Development of renewable energy will provide opportunities. If industry needs cheap electricity, then the industry of the future will be established where the electricity is produced, and in this way, it will influence regional development.

AIVAR KOKK: Foreign investors have come to Estonia because energy prices have been affordable here, and Russia's neighbourhood used to be good for us because we could buy raw materials cheaply from there. The timber sector is still number one, followed by the oil industry and the oil shale industry, and the third is the food industry. The energy problem is the most important challenge in Estonia, and the most optimal solution must be found to it. At the moment, there is a desire in Estonia to develop everything – offshore wind farms, nuclear energy, hydrogen technology, gas plants. Maybe it would be wise to sit around the table once and agree on how to achieve Estonia's energy consumption need of 8.5 TW. The important thing is that we would not be in trouble during the winter peak demand.

If we no longer have cheap labour, and if the input prices of energy and production are no longer favourable, then naturally the only way forward is automation.

In my opinion, the entrepreneurs today look forward to certainty about taxes because of the current big concern about energy prices.

LAURI LAATS: I would add the shipbuilding industry. I think we have the potential to develop it further and to attract attention on foreign markets. Another forward-looking sector is energy, where a lot is going to happen within the framework of the green transition. Although we have good companies in Estonia, it is already very difficult to access

the European Union market. We do not have common platforms, digital platforms. We do not have a common real estate register, a common register of companies. We do not have a common procurement platform, which is actually already hampering the domestic economy in Europe to a large extent, and this is certainly affecting competitiveness as a whole. Estonia should also stand for this more clearly in the Council of the European Union.

ARVO ALLER: The oil shale industry should be reprofiled. Oil shale chemistry, wood industry, wood chemistry – the production of end products is important. There is no point for us to export unprocessed timber. Thirdly, the food industry, where processing also takes place. We need to retain our traditional industries, and it is always worth to support the new ones. One big opportunity is ports. The potential of our ports is still unused. There are several industrial developments near the ports, and interested parties are ready to come there. However, they want the Estonian state to be behind this venture. Be it building a protein plant or making wind turbines, we have export opportunities. Support in the form of a national designated spatial plan or partial state funding would give the investor the certainty that in the future their investment will be profitable both for them and for the Estonian state.

TARMO TAMM (Estonia 200): In my opinion, in industry we have in very many places reached a point where we will not get much richer by continuing in the same way. The only option is to make your own product. It should be unique, and marketable not only in Scandinavia, but across the whole world. People have to want to buy specifically your product, only then it is possible to sell more expensively, get more money and pay significantly higher wages.

Food, timber, oil shale are all old things. Oil shale chemistry is very reasonable, the green transition is also a very reasonable

thing. If the European Union has decided that the green transition is a good thing, it is pointless to argue against it. We should find out how to use it in a way that is the most profitable for us. Closing something down will not satisfy our needs, but opening up new things will. Unfortunately, neither the local governments nor the Government of the Republic have not cared too much about industry. For example, the local government could get three per cent of the corporation tax, so that there would be an interest in a factory. Or get a fee for a windmill. They should get money for every cubic metre of felled timber and for the extraction of gravel. The state should pull itself together and create the role of a deputy secretary general responsible for the research-intensive industry.

ANDRES SUTT: Without industry, there would be neither innovation nor competitive economy—industry has always been the driver of changes and innovation.

Without digitalisation, skilful use of artificial intelligence and provision of clean energy to industry, export capability will disappear. It is the task of the state to support the transformation of industry. Therefore, the target of Renewable Energy 2030 is one of the bases of Estonian industry.

We can be proud of Estonia's various industrial sectors, like engineering, different branches of the timber industry, shipbuilding, wood chemistry or food technology. However, I would not prefer one industry to another, because the world needs different solutions at different times, but one thing is clear—every successful industrial company of the future is also a technology company.

The triangle of digital society, green reform and open talent policy will bring success to industry.

Green reform plays almost the most important role here, because without green energy or clear climate targets, no country or economy can be competitive.

Why? Because the consumers are concerned about the environment and the impact of products on the environment.

Investments in wind farms, solar power and nuclear power all provide greater investment certainty for industry. So does an open talent policy, because the availability of skilled workforce is of key importance from a strategic point of view. For people with internationally competitive skills, or talents, the quality of the living environment is one criterion for choosing a place to live. Investments, and thus also corporate headquarters and development centres, are increasingly moving to where the talents are, and not the other way round.

Estonia has a lot to offer as a place to live: a digital society, lots of space and clean nature, world-class education, culture and gastronomy. Besides that, a fast-growing technology sector and modern industry, investments in connectivity such as Rail Baltica, and the vision of a Tallinn-Helsinki twin city seamlessly linked by tunnel and by air, with the ambition to create the world's largest concentration of talent on the shores of the Gulf of Finland—they all speak for Estonia.

In Focus

Greenish industrial policy of the EU and what is going on in Estonia

AHTI ASMANN

Chairman of the Board, Estonian Chemical Industry Association

The Estonian green transition policy needs economic realism to ensure the viability and competitiveness of industry. More than 1000 organisations, including the Estonian Chemical Industry Association, have joined an appeal to EU leaders to support a European Industrial Deal that

has ambitions equal with the European Green Deal, highlighting the challenges relating to high energy prices and raw material supply.

The message of the Viru Keemia Grupp has been that green policy should focus on reducing CO₂ emissions, and not ban specific energy sources, such as oil shale. With the help of innovative technologies, oil shale can be used without CO₂ emissions, ensuring the achievement of climate targets, national energy security and economic stability.

Economic growth must remain one of the most important targets also in the context of the green transition policy. It is necessary to develop stable and affordable energy policy and, flexible education policy, and to create an environment favouring large investments. Estonia's aim should be to attract industrial investments here so that we would not remain losers in the green transition.

Complicated times in the Estonian industrial sector

RAUL EAMETS

Chief Economist, Bigbank

The Estonian industry is going through hard times because it is necessary to deal with the consequences of major crises: all inputs to production, from raw materials to wages, have become more expensive.

Export-oriented sectors in particular have been hit, as the economic situation of our trading partners is not at its best. The predictions for 2024 are not very promising either.

Processing industry forms 14% of our GDP, and by employment rate it is also the largest branch of economy, giving work to 120,000 people.

If we look back to the period of 2019–2022, we see that wood processing has grown the most, and the share of the

production of metal products and the share of computer and electronics manufacturing in the whole processing industry have also increased. Employment has also grown in these sectors. General salary growth has brought about the increase of labour costs in the whole economy. Sewing and textile sector has been hit the hardest, 5400 jobs have been lost there during the period under observation.

The need to prioritise processing industry also at national level is highlighted as a policy recommendation. The sectoral associations have proposed creating the position of a secretary general in the ministry responsible for economic affairs. It is also necessary to establish “green corridors” for applications relating to large investments and areas of strategic importance for Estonia.

How is the situation of Estonian industry covered in the media?

TOOMAS RANDLO

Communications Expert, BMMG

The data of platform Station of the Baltic Mediamonitoring Group (BMMG) show that industry is addressed around 20,000 times a year. If we look at the content of coverage, we can see that there is a lot of talk about the local food industry. And in the coverage of industry, politicians, leaders of representative associations and bank economists were mentioned the most.

While more negative news about Estonian industry appeared in the media in the second half of 2022, the picture is slightly different when we looking at it more broadly. BMMG attitude impact index that measures the amount of negative economic news in Estonian media started to rise nearly a year before.

In autumn 2021, the media started to actively cover price increases and inflation.

After that, the consumer barometer of the Estonian Institute of Economic Research, which measures how people see the situation of economy, started to fall. The media started to cover the concerns of industry more when the inflation was about to rise to its peak.

Estonia's export per capita was below the EU average last year

JANE LEPPMETS

Analyst, Statistics Estonia

In 2023, goods were exported from Estonia for EUR 18.2 billion at current prices, and imported for EUR 21.2 billion. In comparison to 2022, exports decreased by 16% and imports by 17%. The trade deficit amounted to EUR 3 billion.

While Estonia's exports per capita have traditionally exceeded the EU average, last year the situation was the opposite: Estonia's exports per capita was EUR 13,324, the EU average was EUR 14,523. Imports per capita exceeded the EU average (EUR 14,523).

In 2023, most of the enterprises engaged in foreign trade were micro enterprises with fewer than 10 employees. They formed 78% of all exporting and 84% of importing economic units. However, medium-sized enterprises with 50–249 employees generated the highest monetary value in trade last year. They accounted for 38% of Estonia's total exports and 29% of total imports.

In 2023, Estonia's main export partners were Finland (17% of Estonia's total export), Latvia (12%) and Sweden (9%).

Electrical equipment, metal and metal products were exported most to Finland.

Goods were imported to Estonia mostly from Finland (15% of Estonia's total import), Germany (12%) and Latvia (11%).

Lack of ambition holds back industry and economy

IVO SUURSOO

Chairman of the Board, IXIO Grupp; Chairman, Chamber of Innovation Acceleration at Estonian Employers' Confederation; Best Leader 2024

Estonian industries and the country as a whole face limitations in their development due to a lack of ambition. The hunger for progress that once drove us has now been replaced by frugality, and the pursuit of achievement has given way to contentment. However, without economic growth, we cannot address the increasing needs and aspirations of our society.

To explore these challenges, the Estonian Employers' Confederation commissioned a study among Estonian industrial companies in autumn 2023. One significant finding was that our cultural-historical background often holds us back. When we achieve something, we tend to become conservative, losing the hunger for progress that characterised our early years. A comprehensive management study conducted by Enterprise Estonia a few years ago reached a similar conclusion: ambition is lacking.

Ambition encompasses vision, determination, and courage. While the vision to enhance productivity in our economy and industries exists, what we now need is the will and courage to take the necessary steps to achieve it.

Therefore, over the next decade, prioritising the development of a higher-value economy should be a central goal for the Estonian state, transcending political administrations. In spring of 2024, business unions also proposed this as a part of an economic agreement "Ambition Is a Choice" with political parties.

Bickering within Estonia robs the industrial sector of power to develop and grow

KEIU TELVE

PhD, founder of Center for Applied Anthropology at University of Tartu

Keiu Telve writes about the study commissioned by the Estonian Employers' Confederation which mapped the attitudes of managers and owners of Estonian industries regarding innovation and business development.

The anthropological case study revealed that the industrial sector perceives the state as pushing long-established companies, successful in local markets, toward an unknown direction, with innovation seemingly prioritised for image rather than practical goals. For industry managers, innovation encompasses computer literacy among employees, efficient business processes, accurate oversight, higher-priced products, awareness of new opportunities, and increased employee value.

Surprisingly, industry leaders emphasised community engagement. They felt responsible for preserving jobs and salaries, valuing honesty, transparency, and involvement in the green transition. However, the negative image of industrial sector in Estonia has led to a low self-esteem.

The study underscores the need for a social agreement and vision, supported by societal trust, to encourage and expect industrial sector development in Estonia. Leaders require multifaceted support from officials, politicians, local communities, media, and society to bring innovation to life.

What does the Estonian defence and aerospace industry do?

ESTONIAN DEFENCE AND AEROSPACE
INDUSTRY ASSOCIATION

The global security situation has become unpredictable, and the turnover and exports of the defence and space industry companies are growing.

The Estonian Defence and Aerospace Industry Association has more than 130 member companies based on private capital, where the main business model is business to government, which means that the end user of the companies is the state.

In comparison to other sectors, the defence industry market is characterised by a high entry barrier, stricter monitoring requirements, sales cycles of at least 4-5 years, a small number of customers and the fact that customers are mainly in the government sector.

Free competition is also influenced by a complex market dependent on security policy decisions and rules as well as export restrictions.

The Estonian Defence and Aerospace Industry Association unites companies that offer services and products to our internal market, including the Defence Forces, and companies whose products are mostly oriented towards the export market. The principle “everything that can be done in Estonia must be done in Estonia” is valued.

All the companies belonging to the Association are not engaged in the production and development of purely defence-related goods. A significant number of companies sell and broker finished products, provide components for the production of complete products, logistics services and much more to other companies.

According to the data of the commercial register, the total sales revenue of the members of EDAIA in 2022 was EUR 1,275,159,515; in comparison to 2021, the growth was 5.2%.

According to the commercial register, the export turnover in 2022 was 7,8% higher than in 2021.

Studies

Sanctions. How to understand them?

ANDRES SIPLANE

Chief Specialist, Department of Sanctions and Strategic Export Control, Ministry of Foreign Affairs (the article expresses his personal views)

A sanction or a restrictive measure is one of the many foreign policy instruments a state or an association of states uses to achieve a certain political change or to express a certain view.

The war waged by the Russian Federation against Ukraine has brought along a change of paradigm in sanctions policy. Never before have so many sanctions been imposed so quickly against one country. As it is an existential threat to the existing world order, sanctions have not been limited to the traditional types of sanctions, but have been imposed on anything that can be agreed on within the EU.

In the context of Russia's current aggression, one of the most innovative sanctions is the oil price cap, which has to solve several problems – reduce Russia's revenues, but at the same time ensure stability in the global oil market.

When imposing restrictive measures, it is attempted to predict their impact on the offender, but when predicting those impacts, it has to be taken into account that the cultural, economic, political and psychological context of the target country is completely different. In most cases, the country subject to sanctions is a dictatorship with limited freedom of expression.

Information about Russia's state budget, oil revenues and trade volumes may be available, but Russia's aggression against Ukraine is not a rational economic

undertaking. Therefore, we should not assume that once the Russian leadership realises that the aggression has become economically harmful, it will stop. It is likely that phenomena like cult, psychology, religion, ideology, mythology and many others have their role behind the aggression decision, and not economic considerations.

The attempt to evade sanctions is a kind of confirmation that the sanction has been appropriately planned. In December 2022, the European Union created the post of the EU Special Representative for Sanctions, whose task is, among other things, to prevent circumventing the trade sanctions via third countries (statistically, Kazakhstan, Kyrgyzstan, Uzbekistan, etc.), that is, to ensure the extraterritorial validity of the EU sanctions to as large extent as possible. As a rule, countries bordering Russia express readiness to cooperate in one way or another, but they also have their own considerations and dependencies relating to Russia.

Digitally empowered state. Three theoretical concepts for explaining the essence of a modern state

JAANIKA PUUSALU

Research Fellow, Research Centre, Internal Security Institute of the Estonian Academy of Security Sciences

The modern state, which can be seen as a symbiosis of the physical and digital spheres, is functioning with the help of digital technologies, or a digitally empowered state. This interaction requires a novel theoretical way for interpreting it, which would support the practical need, in a tense geopolitical situation and with increasing dependence on electrical energy, to assess the processes necessary

to ensure the sustainable functioning of the state as a whole, including addressing the issues relating to the border, internal order and the security of the population of the state that has expanded into virtual space.

Based on Estonia's digital development, this analysis presents three theoretical concepts of digitally empowered state that can be used to explain the functioning of the state and its changed nature due to digital integration. The concepts proceed from the extent of the digital services of the state, their interoperability, and the change in the size of the state caused by parallel functioning of virtual and physical sphere. To illustrate the possibilities for implementing theoretical approach to ensure sustainable functioning of the state and assessing the social processes, the analysis also uses the concepts for mapping new challenges in the field of internal security.

Awareness and preparedness of the people of Estonia in coping with internal security crises

INDREK PAADIK

Internal Security Institute of the Estonian Academy of Security Sciences

The Master's thesis 'The Awareness and Preparedness of the People of Estonia in Coping with Long Term Crises Relating to Internal Security' examines the preparedness and the level of knowledge of the Estonian population in regard to various crises connected with internal security.

A quantitative study was performed for the Master's thesis, using a questionnaire survey as the data collection method. People of different age groups from all over Estonia participated in the survey. The results show that although the majority

of people are aware of potential crises and possible coping strategies, many are insufficiently prepared or have not been given sufficient information for overcoming crises.

The proposals made on the basis of the thesis focus on more effective providing of information, strengthening education programmes, improving community cooperation and involving volunteers in crisis communication. The aim is to increase society's overall capability to cope with different crisis situations and to ensure the resilience of critical infrastructure and essential services during long-term crises.

Hybrid security threats from the People's Republic of China to the Republic of Estonia

SANDER PROMM

Internal Security Institute of the Estonian Academy of Security Sciences

As recently as a decade ago, receiving investments and technologies from the People's Republic of China was not seen as something bad in Estonia. One may even say that it was encouraged. By today, the picture has changed dramatically, and security theorists, scientists, politicians and media people are all talking about the dangers relating to accepting investments and technologies. Over the decades, China has managed to lull other global great powers to sleep under the auspices of its "peaceful rise", and has quietly become a serious competitor to the US. However, under its current leader Xi Jinping, China has not attempted to hide its global ambitions in any way – it has clearly stated that it wants to take the leading role in the world. To achieve this, China must first break the current US-led security architecture, for which all available

tools and tactics are used, such as brute force, hybrid warfare and interference in the politics of other countries through investments and supplying of technologies. The purpose of this article is to shed light on the specific threats that Chinese investments and technologies may bring to Estonia.

Estonian population's sense of security and contribution to internal security volunteering according to public opinion surveys

HANS MOKS

Internal Security Institute of the Estonian Academy of Security Sciences

Ensuring the protection of the lives and property of its people and a general sense of security is one of the most important tasks of all countries. People's trust in the state and its institutions plays a crucial role in building up a sense of security. In recent years, the global security situation has changed, making the stability of a country's security increasingly dependent on the contribution of its citizens to its internal security, including voluntary activities, like assistant police, volunteer maritime rescue, volunteer rescue, the Defence League and neighbourhood watch. Internal security public opinion surveys of 2016–2022 show that people feel they are safe in Estonia. The surveys highlight that, over the years, the existence or the lack of the sense of security has had a considerable impact on the interest and willingness of the people to participate in volunteer activities.

People of Estonia have high confidence in the Police and Border Guard Board, the Rescue Board and the Estonian Defence League, and this forms a strong basis for

involving volunteers. The people of Estonia have a strong interest in volunteering, and the target level goals set in the Ministry of the Interior's development plan for volunteers are achievable. The active participation of citizens in security efforts, which is supported by the state, enhances security in society. A strong community that cooperates with the security authorities and encourages volunteering is of critical importance in creating a secure and stable environment.

Varia

Estonian economy in the environment of a new development cycle

RAIVO VARE
Observer

In the multicrisis of recent years, Estonia has done relatively well, but the country and society that have gotten used to the success story they have enjoyed so far are not satisfied. What is different in this crisis?

The world is undergoing a change in the existing political and economic order. The current West-centred model is being replaced by a new one. A new superpower, China, has entered the arena, using Moscow and its aggressiveness as an ice-breaker. This global confrontation cannot pass us by, because the EU, as the third centre of economic power in the world, will not be able to maintain the current line of being in a business relationship founded on mutual benefit only with both superpowers.

Capitalism is also changing, and we do not believe any longer that the development of market economy will almost automatically bring along the domination of democracy. Very different forms of government can flourish on the market economy base, and the confrontation

between liberal democracy and autocracy is only growing.

The share of democracies, or free and partially free countries, in world economy is decreasing. When at the end of the Cold War it was 80%, then according to forecasts, it will be only 40% by 2050. The so-called non-free countries will take their place.

This time, our still ongoing economic crisis is also taking place in the context of an unfortunate combination of circumstances. Estonia continues to be in a convergence stage, the classic problem of which in the big picture is connected with the fact that prices and costs tend to rise first and revenues catch up a little later. Cheap energy has now become more expensive than average and cheap money has also run out. Besides that, relatively cheap and skilled labour force is also running out, which is a factor that hinders economic development in any case. The image of a so-called war zone has also made its negative contribution, which first of all has had an impact on foreign investments.

It is also clear that the logic of the economic cycle will sooner or later lead to a fundamental exit from it. How quickly and with what results will, besides objective and global circumstances, also depend very much on the policies that need to ensure the wisely coordinated directing of economy.

Will electricity production in Estonia become an industry that relies only on dotation and gives no added value?

ANDRES NOODLA

PhD, with nearly 50 years of experience in the management of production companies

Estonia's own electricity production continues to decrease, covering less than 60% of consumption.

The current trend is to switch essentially to 85–90% of wind-solar electricity. Besides that, the legislator has set a target to phase out the production of oil shale electricity by 2030.

At the same time, all countries are developing wind and solar farms, and the number of hours in which wind and solar electricity generation covers consumption is increasing. Here lies the biggest threat to Estonia's electricity economy. Surrounding countries have relatively more controllable capacities, including nuclear and hydro power, against which Estonia's controlled oil shale electricity is not competitive due to high taxes.

There is no doubt that it is necessary to produce and consume as much combustion-free wind, nuclear and solar electricity as possible, but how can we get the money for these investments?

Today, the emissions trading scheme takes the investment money for pollution-free generation, or EUR 200–300 million per year, out of the electricity market.

In fact, there are enough funds to support the development of combustion-free production and the electricity grids, so that the production could enter the market without adding the renewable energy charge to the price of electricity, and the competitiveness of economy with neighbouring countries would be preserved.

Should the proceeds from the sale of emission quotas be used to subsidise the investments into wind-solar-nuclear electricity that is more expensive by cost price, or spent on fulfilling election promises to show how politicians “direct” the economy in the spirit of green transition? This is the key of both Estonia's and the whole Europe's future climate policy.

Data school of Statistics Estonia: Who wants to earn women's salary?

KADRI ROOTALU

Data Scientist, Statistics Estonia

EVELI VOOLENS

Social Statistics Team Leader

MARRE KARU

Experimental Statistics Team Leader

What does Statistics Estonia know about men's and women's salaries and how is the notorious gender pay gap calculated?

In order to find the pay gap, it is calculated how much men and women working in Estonia on average earn per hour, before income tax. Then, the average gross hourly wage of female employees is subtracted from the average gross hourly wage of male employees. The resulting sum is divided by the average gross hourly wage of male employees. A pay gap of 17.7% means that, on average, women earn 17.7% less per hour than men.

Gender pay gap demonstrates the situation of many different social processes. The pay gap is, among other things, caused by gender stereotypes and gender roles that still exist in society, and push girls and boys to acquire different professions. As a result, girls are more likely to go into the low-paid social sector, while boys end up in the high-paid IT sector.

Unfortunately, the statistics of recent years have shown that Estonia is consistently at the top of the pay gap ranking table in Europe. The pay gap in Lithuania is two times smaller than in Estonia. In the light of this, we can ask ourselves: are Lithuanian men and women and the work they do really so much different from those in Estonia?

84,000 people experience deprivation in Estonia. What does this mean?

EPP REMMELG

Senior Analyst, Statistics Estonia

According to Statistics Estonia, 6.2% of the population, or nearly 84,000 people in Estonia, feel deprived. Deprivation is one of the facets of poverty, which is based on the assessment of a person themselves. According to the social study of 2023, every sixth person living in relative poverty felt deprivation.

The deprivation rate indicates the proportion of people who cannot afford at least five of the following 13 components:

1. paying rent and utility costs on time;
2. keeping home sufficiently warm;
3. covering of unforeseen expenses;
4. eating meat or fish or food containing equivalent proteins every second day;
5. week-long vacation away from home;
6. car;
7. replacing of worn or damaged furniture;
8. replacing of worn clothes with new ones;
9. at least two pairs of outdoor footwear in good condition and suitable for our climate;
10. spending even a small amount of money on oneself every week;
11. regular participation in some paid leisure activities;
12. getting together with friends or relatives at least once a month to eat and drink together;
13. using the internet at home for private purposes, if necessary.

People aged 65 and over were the most likely to feel deprived (8.4%), while 16–24 year olds were the least likely (3.5%). Among households, single-parent households with children are the most likely to feel deprived.

The secret plans of artificial intelligence: how misinformation plays with elections

KATERYNA BOTNAR

Media Competence Specialist, National Library of Estonia

The word “elections” has a potential to become the most used word throughout this year because millions people are about to vote in 2024. And although we are quite familiar with the process of re-setting the parliament or other government institutions every few years, this time the elections are probably more challenged than ever. The reason for this is the emergence of artificial intelligence and its almost immediate integration into various comprehensive social, cultural and political processes. This article gives an overview of the trends and the level of involvement of artificial intelligence based programmes in election campaigns across the world.

Smart industry and smart production: books for inspiration

KRISTIINA KAJU

Leading Specialist of Social Sciences, National Library of Estonia

The article presents the (e-)books on industry trends and the aspects influencing them, as well as books on Industry 4.0 and 5.0 in the collections of the National Library of Estonia. From these books, the readers can find practical examples and strategies that provide food for thought, experience and inspiration.