



Will AI change the world for good, or just change it?

EY Baltics AI Perception Survey Estonia
March 2024

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EY's study on the use of artificial intelligence and attitudes towards it has been conducted in all Baltic countries in cooperation with the sociological research company Norstat. The research was conducted in October 2023, surveying at least a thousand residents in each country.

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Foreword

How will artificial intelligence (AI) change our lives? Experts and entrepreneurs are divided: there are those who believe that AI will take over work in all areas relatively quickly, and those who think that the impact of AI-based technologies will be limited. I believe that AI may be a bit like many other revolutionary trends: first they become a fashionable thing, and everyone talks about them all the time, and then they go out of fashion when the initial enthusiasm dies down, but in the long run they completely change certain areas of life. This was once

the case, for example, with the internet, e-commerce and digitalisation. We often overestimate trends in the short term but underestimate them in the long term.

In the context of the rapid development of AI, we at EY wanted to find out what people in Estonia and the other Baltic States think about it and what conclusions we can draw from it. The survey, carried out in collaboration with Norstat, revealed a mixed picture, with both the contradictions and challenges, and the opportunities offered by the new technology. Let's start with the challenges.

Silm Aben
EY Consulting
Partner in Estonia

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1 | AI could create a new digital divide

1/5

of people in Lithuania have already had experience with artificial intelligence technology.

61%

of Latvians have not yet used any AI solutions.

13%

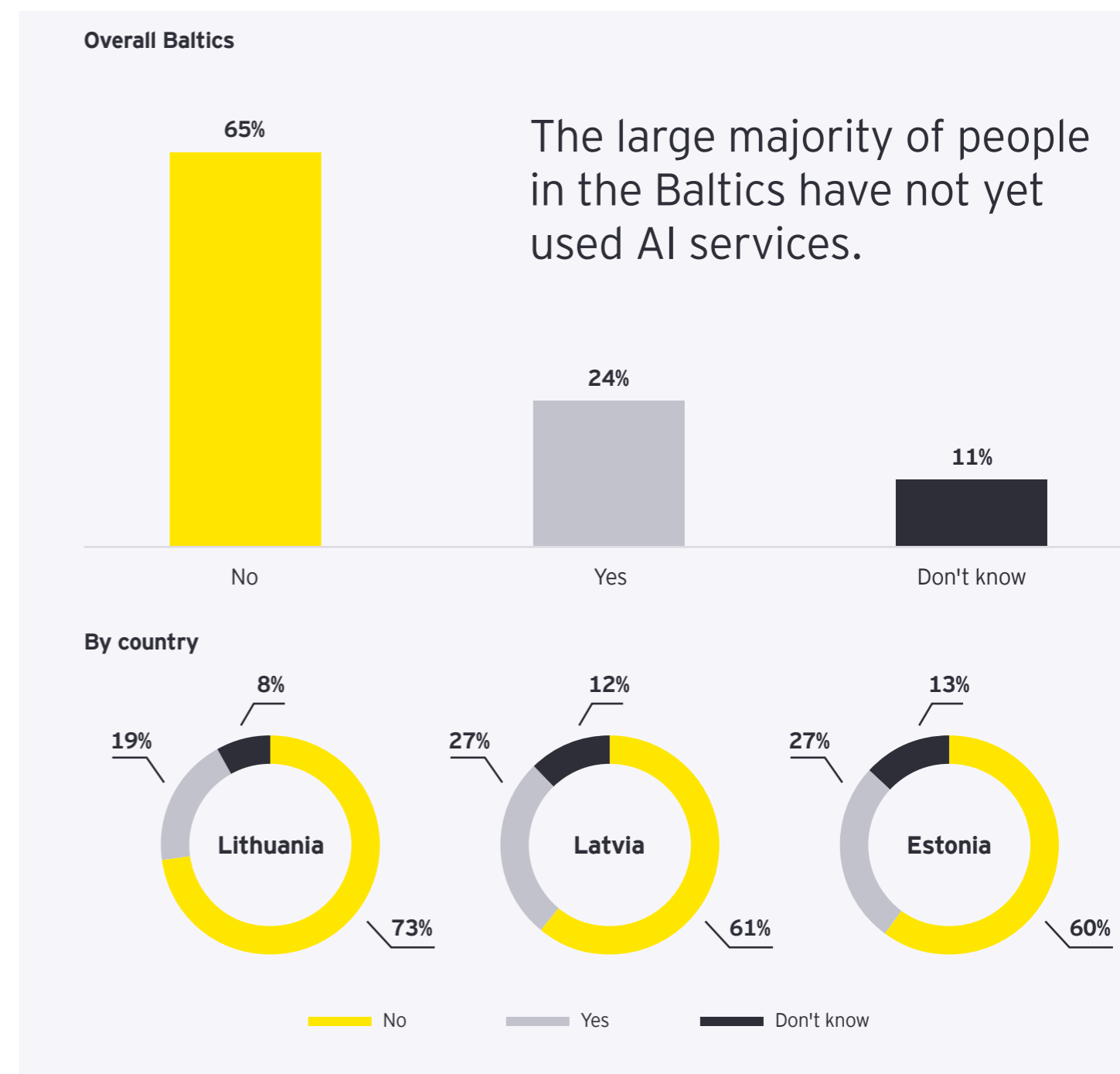
of Estonians are not sure if they have already used AI services.

General AI usage in the Baltics

An EY survey on attitudes towards and use of artificial intelligence (AI) technologies, conducted by research firm Norstat in the Baltic countries, found that 27% of Estonians have already used an AI technology such as ChatGPT, Bard or Claude. In Latvia, the figure is the same as in Estonia

(27%), but in Lithuania slightly fewer people have used AI technology, at 19% (Figure 1). Furthermore, AI usage patterns point to a new digital skills gap in society, with younger and wealthier people using AI more.

Figure 1: Have you used any services or solutions that use artificial intelligence?



Estonia: AI usage and age

The survey reveals significant differences in AI use across demographics. More than half of 18-29 year olds in Estonia, 56%, have already used AI technologies, compared to a significantly lower proportion of 34% of 30-39 year olds

and only 20% of 40-49 year olds. Older people are even less likely to have used AI, with 18% in the 50-59 age group, for example, and only 8% of people over 60 (Figure 2.1).

Figure 2.1: Have you used any services or solutions that use artificial intelligence? (by age)

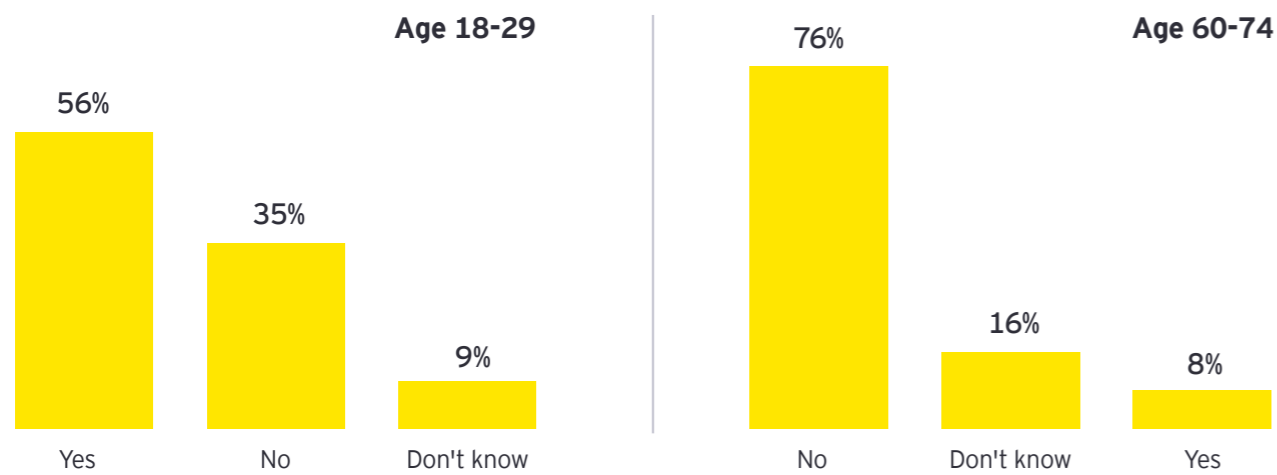
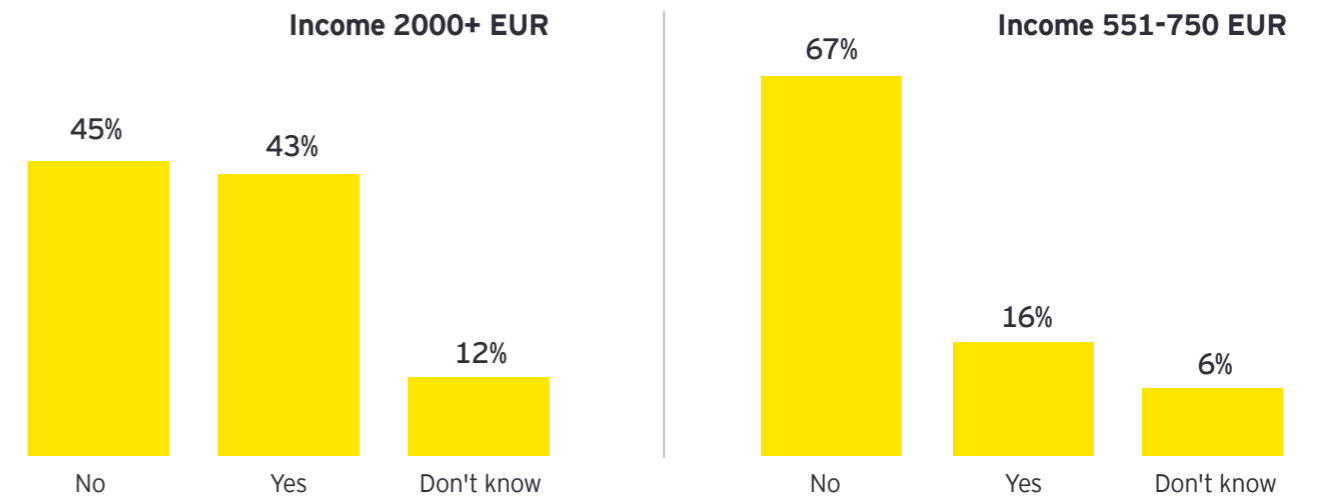
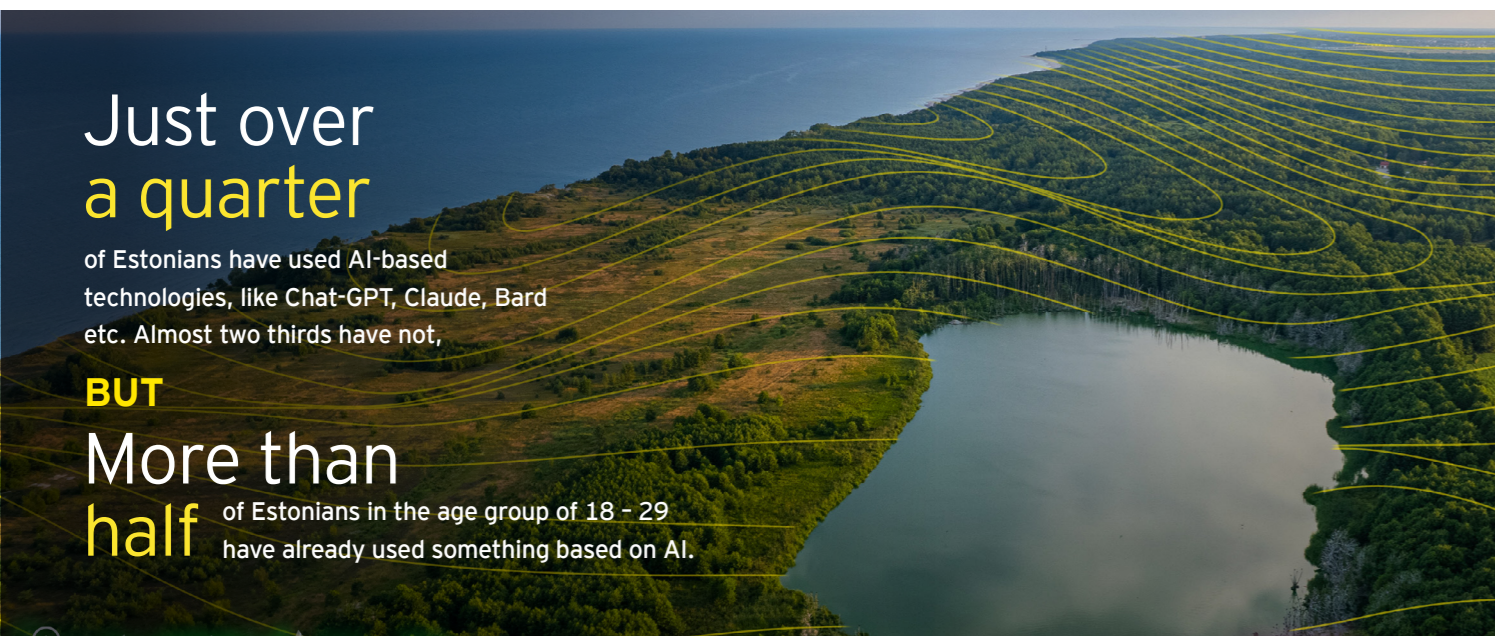


Figure 2.2: Have you used any services or solutions that use artificial intelligence? (by income)



The situation is similar in the other Baltic countries. In Latvia, 58% of 18-29 year olds have already used AI technologies (40% in Lithuania), but only 38% of 30-39 year olds (22% in Lithuania), 26% of 40-49 year olds (22% in Lithuania) and only 14% of 60+ year olds (8% in Lithuania).

In terms of income, 43% of people with a monthly income of more than €1,501 (34% in Lithuania) have used AI in Latvia, while only 21% of people with an income of less than €1,000 have used it (only 14% in Lithuania).




Estonia: AI usage and income level

The use of AI is also closely linked to people's economic situation, with 36% of the population with a monthly income of more than €1501 having used AI, compared to only 20% of people with an income of less than €1000 per month (Figure 2.2).

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There is still a deep pool of people with no practical experience of AI.

Those at the forefront of economic affluence and the younger people are making much more progress on AI already now and the society needs to move quickly to avert a situation where the skilled become more skilled and the less skilled fall behind. At this stage the trend can still be changed.

Siim Aben,
EY Consulting Partner in Estonia



2

AI: Improvement of life and level of trust

41%

of Estonians expect AI to improve their lives, while 34% think the opposite.

65%

of those between ages of 18 and 29 expect that AI can improve their lives.

25%

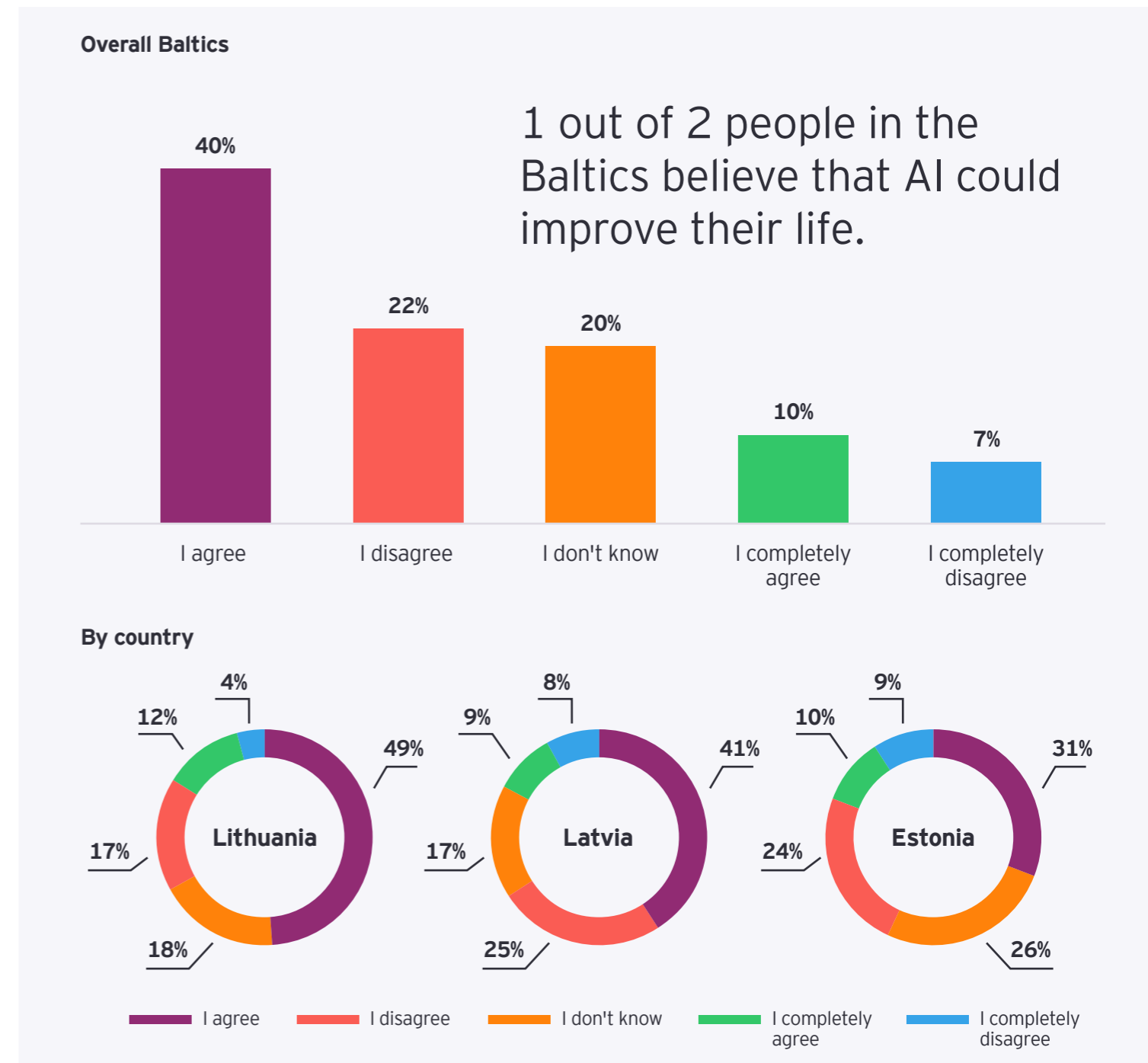
of those aged above 60 expect positive change from AI.

High potential, but risk of AI skills divide

The opinion of Estonians residents largely reflects the prevailing trend in the Baltic states. Namely, 40% of Estonians also expect improvements in life from AI technology. However, a large part of Estonians also have the opposite opinion - 34% do not expect improvements in life from AI technologies.

Optimism about the positive impact of AI solutions on people's lives is the most pronounced in Lithuania - here 61% have positive expectations for AI and only 21% do not expect improvements in life (Figure 3).

Figure 3: Do you agree that artificial intelligence services and solutions will make your life better?

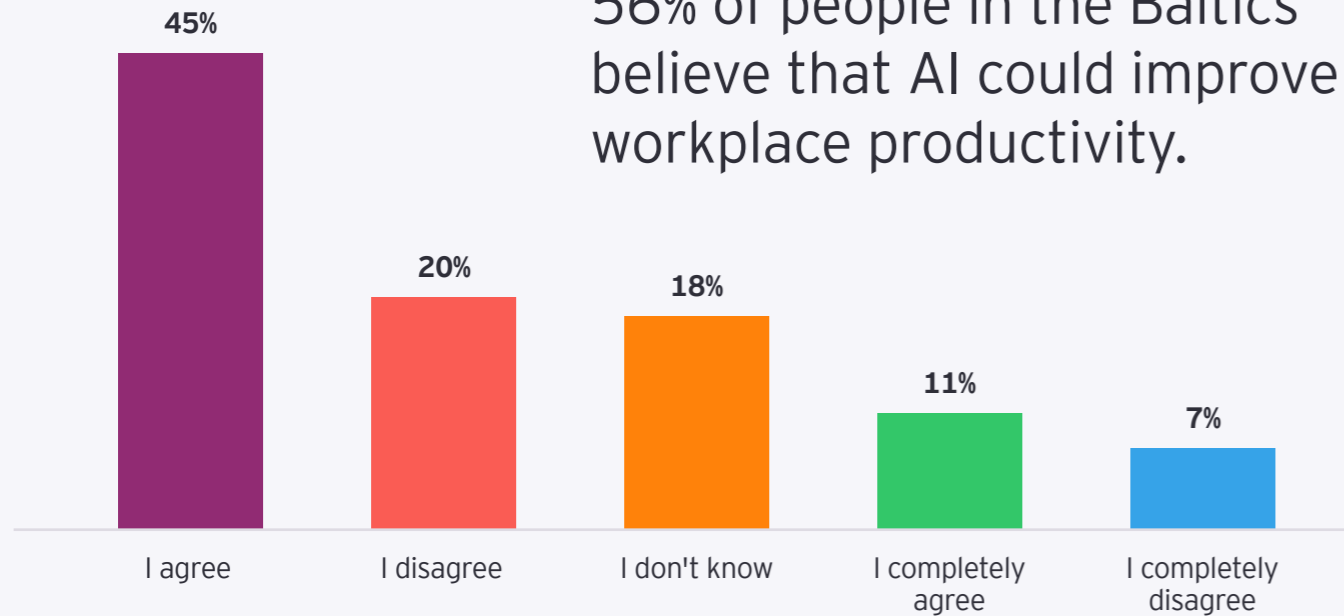


The situation is similar with regard to the expected growth of productivity under the influence of AI (Figure 4) - 63% expect it in Latvia (25% disagree), and 51% in Lithuania (27% disagree).

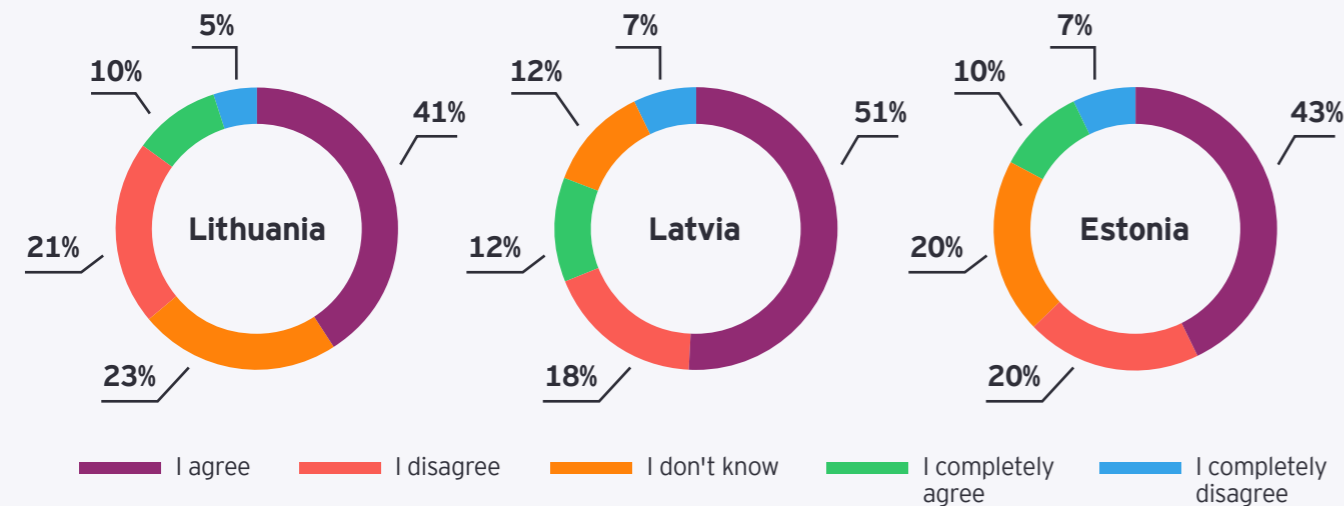
Figure 4: Do you agree that artificial intelligence could improve productivity in your workplace?

Overall Baltics

56% of people in the Baltics believe that AI could improve workplace productivity.



By country



Trust in AI solutions is relatively low, at least for now

Trust in AI-based solutions is the lowest in Estonia of all the Baltic countries: just under one in three Estonians (29%) would trust a service or product based on AI, while nearly half (49%) would not.

1:3 vs 1:2

is the ratio of people who would trust - and would not trust an AI-based technology in Estonia.

Trust in AI is closely linked to the age of the population: younger people are significantly more trusting of AI solutions," says Siim Aben, Partner at EY Estonia. "In Estonia, for example, 43% of people aged 18-29 trust AI, but only 24% of people aged 50-59. A similar trend can be seen in the other Baltic countries, and this is something that financial and public service providers, for example, should certainly take into account in their operations, as they are increasingly using AI in the development and implementation of their services. Trust in AI-based services and products is low in all

“

Trust will be critical if we want to realize the full potential of AI productivity gains. Perhaps a mixture of solutions will need to be explored to build trust and chief among them will be transparency, independent oversight, and practical experience of ethical AI, that proves that the technology can be trusted. Best practices still need to emerge and take root to build public confidence.

Nauris Kļava,
EY Consulting Partner in Estonia

Baltic countries, with Estonians having the lowest trust (29%), largely reflecting the trend in the Baltic countries. While more Latvians than Estonians (50%) believe that AI will make their lives better, there are also many who strongly disagree (33%). Lithuania is the most optimistic about the positive impact of AI solutions, with as many as 61% of respondents expressing positive expectations, and only 21% expecting no benefits from AI.



3 | Expectations on AI

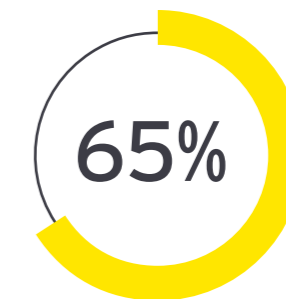
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People in Estonia have a very practical perspective on AI: our society clearly sees the functional potential of AI, especially in areas where it has been talked about publicly, such as business, healthcare, transport and public administration. However, there is still a lot of caution about the impact on people-to-people communication and creativity - probably fearing what the impact of automation will be on how we create, communicate and on our emotions and values.

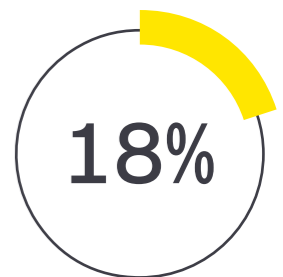
Siim Aben,
EY Consulting Partner in Estonia

People expect AI to change the job skills required for workers in the future

EY's survey also showed that a majority of people in Estonia and the other Baltic countries believe that AI will change the skills required of workers in the future. As many as 65% of the Estonian population, the highest in the Baltics, think so, and only 18% are convinced that such changes are not expected. In Latvia, 60% of the population expects changes and 25% believe that AI will not change the skills that workers will be expected to have in the future. In Lithuania, the corresponding figures are 57% and 29%.



think already now, that AI will change the skills needed in the workplace.



expect no change.

In Estonia, respondents believe that AI has the potential to provide good practical solutions for advancing various areas of life, but 57% think that it inhibits people's creativity. In Latvia and Lithuania, 51% and 59% respectively hold similar views. 42% of Estonians thought that AI threatens

freedom of speech and 53% were convinced of the negative impact of AI on people's everyday communication. Among Latvian respondents, 40% considered AI to be a threat to freedom of expression and a negative impact on everyday communication (49% and 57% respectively in Lithuania).

32% vs 38%

is the proportion of Estonians who believe that AI will improve education vs. those who believe the opposite.

Interesting that people with higher education level have more pronounced opinion for and against AI in education and are split almost evenly.

In more practical areas, however, positive rather than negative attitudes towards the impact of AI can also be seen in Latvia and Lithuania. According to the EY survey, Estonians perceive the impact of AI-based technologies to be most positive in the manufacturing and transport sectors, where 51% of respondents saw development potential for AI in both sectors, and only 17% and 14% respectively thought that AI would hamper the development of these sectors.

Shopping and Entertainment are also expected to improve.

“

Functional spheres of life and economy fare better when it comes to what people think about the expected AI affects. It may be because there is a higher degree of acceptance that AI and robotics bring efficiency. This can then be easier translated to positive expectations for the “functional” industries.

Siim Aben,
EY Consulting Partner in Estonia

Creativity



1 in 2 Estonians think that Human Creativity will be affected negatively.

Culture



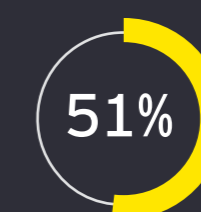
1 in 3 Estonians fearing negative impact of AI on culture. Just one in five disagree.

Strong margins of positive expectations due to AI in other industries

Healthcare industry shows strong expectations with **42%** awaiting AI-based improvements and only **28%** think the opposite.



believe **Financial services** will be positively affected. 20% are of the opposite opinion.



think AI will improve **Transportation**. 14% think the opposite.

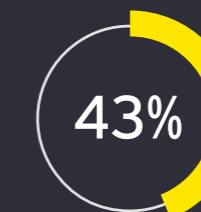
Production strongly expected to benefit from AI

51% think that AI will improve production industries, which is in line with the general expectation of improved productivity. Less than **1 in 5** expect negative consequences of AI on production.

Productivity

Slightly more than **half** of Estonians expect that AI will improve workplace productivity.

State services



think AI could have potential to improve **State Services**.

Only 24% do not.

AI to replace human interaction?

People expect the personal communication to suffer due to AI: **Less than 1/5** expect an improvement but more than **1/2** think it will worsen.

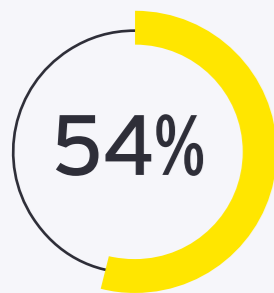
Personal income

The Baltics seems to outdo Europe as far as some key technology-related factors are concerned. Part of it is owing to the thriving startup ecosystem and the digital edge that the Baltic countries have. For instance, 92% investors think that the Baltics fare as well or better than Europe with regard to the availability of workforce with technology skills.

Ninety percent of the investors think that the Baltics perform as good as or better than Europe vis-à-vis the network of startups and research institutions.

Eighty percent of the investors surveyed in the Baltics think that the support by government and regulatory authorities to drive the digital agenda is on par with or better than the European average.

People do not yet see a material effect in their own lives.



54% of Estonians do not yet expect that AI would affect their income level.

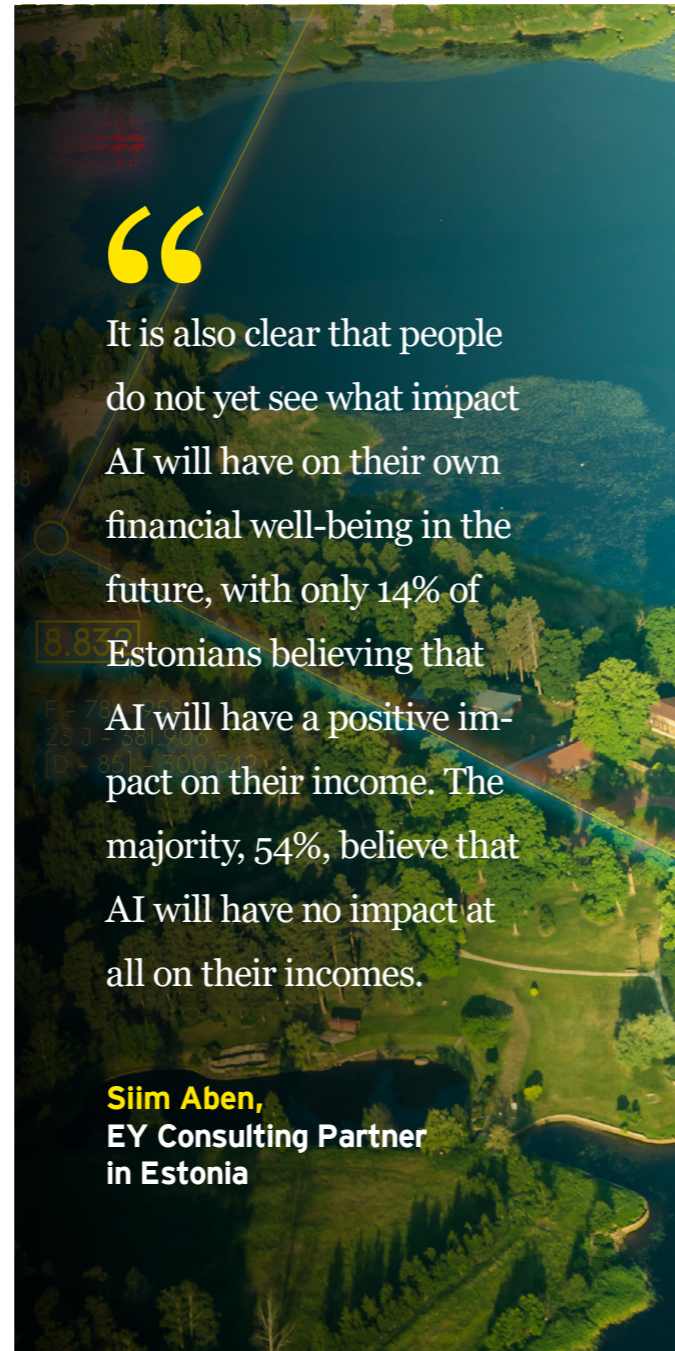
Just **10%** of people older than 60 expect any improvement in their income due to AI.

Among people up to the age of 29 the number is at least somewhat higher:

19%

A similar sentiment can be observed in other Baltic countries, for example in Latvia, 1 in 2 people believe that AI will worsen people's creativity (in Lithuania - 59%) and 40% think that AI technologies will worsen people's daily communication (in Lithuania - 57%), while 41% think, that

AI will have a negative impact on freedom of expression (in Lithuania - 49%). On the other hand, in various areas of practical life, in Latvia and Lithuania too, a significant preponderance of positive evaluations of the impact of AI over negative attitudes can be seen.



Overview

AI survey finds fears of digital divide in Estonia but hopes for productivity



Siim Aben,
EY Consulting
Partner in Estonia

The study found that the use of AI varies widely across demographic groups. More than half of 18-29 year olds in Estonia have already used AI-based technologies (56%), while the 30-39 age group has already used AI to a much lesser extent (34%), and the 40-49 age group only 20%. Older people are even less likely to have used AI, with only 13% of those aged 50-74 having done so. The use of AI is also strongly correlated with people's economic status, with 43% of people with a monthly income of at least €2001 having used AI, compared to 24% of people with lower incomes.

The younger or wealthier people are, the more likely they are to have already used AI. This is to be expected, as AI solutions are currently prevalent in professional circles, but this trend could create a new digital divide in society, dividing people according to whether or not they

understand how to use AI-based technologies. These skills will be indispensable in the future, as AI solutions will soon be at the heart of many different processes. We may soon face a new digital divide that divides society into two societies moving at different speeds, where those who can use AI become smarter and more productive, while those who cannot fall further and further behind. The same logic applies to businesses. Policymakers need to take this into account.

At the same time, however, we also see that just under one in three Estonians (29%) would trust a service or product based on AI. Almost half (49%) of us would not trust AI solutions. Trust in AI is closely linked to the age of the population: younger people are significantly more likely to trust AI solutions. In Estonia, for example, 43% of people aged 18-29 trust AI, but only 24% of people aged 50-59. This is something that financial or public service providers, for example, should certainly take into account in their operations, as they are increasingly using AI in the development and implementation of their services. Young people are more likely to embrace such innovations than older people. This trend is very similar to the way digital services developed

in our country 10-20 years ago, further confirming that a new digital divide may be emerging.

Practical solutions support the economy, public administration and overall productivity growth

However, the EY survey also revealed some positive things. Fully 40% of Estonians expect AI to make their lives better (34% disagree), and 53% think AI-based technologies will improve productivity (28% disagree).

According to the survey, Estonians see the impact of AI-based technologies most positively in the manufacturing and transport sectors, where 51% of respondents saw development potential for AI in both sectors, and only 17% and 14% respectively thought that AI will hinder the development of these sectors. In Estonia, 42% of people think AI will improve medicine and healthcare (29% disagree), and 38% believe AI will make our everyday lives safer in the future (28% disagree). Slightly more Estonians (38%) think the emergence of AI will provide worse education than before, while 32% disagree.

We can see that people in Estonia

have a very practical perspective on AI: our society clearly sees the functional potential of AI, especially in areas where it has been publicly discussed, such as business, healthcare, transport and public administration. Such an attitude is crucial as it helps to foster AI-driven productivity growth.

Increasing labour productivity is in fact the main thing that AI can give us. AI-based technologies will allow Estonian people and businesses to catch up faster with developed Western countries and compensate for the small size of our domestic market. When applying AI, it is no longer so important that demand on the domestic market is low or that we cannot take on enough cheap labour. AI will level the playing field, but only if we can learn to use and deploy it in time.

There are still many unanswered questions

At the same time, however, the survey also shows that there is still a lot of caution about the impact on people's interaction and creativity - probably fearing what the impact of automation will be on people's social space, emotions and values. People in Estonia are wor-

ried that AI could stifle people's creativity, with as many as 57% of respondents saying so (16% disagreeing), and 53% saying it would have a negative impact on people's everyday interactions. The survey also found that 42% of Estonians are concerned that AI threatens freedom of expression, and only 11% believe that AI-based technologies will benefit freedom of expression.

Unfortunately, there is no simple and clear answer to these questions, and Estonian society seems to have adopted a rather cautious position. At international level, too, researchers, politicians

and technology companies are currently focusing primarily on ethical issues in the case of AI and philosophising about what it means to be human. On ethical issues, we are obviously at the beginning of the journey, and only time will tell whether and how well we will be able to reconcile the potential of AI to make money and increase productivity with the preservation and development of the human environment. We must keep our finger on the pulse of these developments, encourage constructive debate, including at local level, and play an active role in the drafting of international legislation. ■

Methodology

The EY Baltics AI Survey was conducted based on a structured methodology to ensure a comprehensive understanding of the impact of AI across Estonia, Latvia, and Lithuania.

At least 1000 respondents from each country were surveyed in cooperation with Norstat, a leading sociological research company. The data collection process took place over approximately one week in October 2023.

The selection of the survey respondents was carefully done to include a diverse range of age, gender, education level, income bracket, and country of residence. This mix of respondent profiles allowed for a broad perspective on AI's impact across the different sections of the population in the Baltic States.

The survey comprised five key sections that aimed to assess the perception of AI's influence on various aspects of life and work. These included the perceived improvement of life and productivity due to AI, the change in work skills, the impact on daily life elements, the effect on government services and economic factors, and finally, the level of trust in and usage of AI technology.

This robust approach was designed to offer comprehensive insights into AI's impact in these regions, providing valuable data for businesses, government agencies, and organizations.

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