

## Factsheet #2.

# GlobalSay on Robotics: results from worldwide consultations with citizens



This factsheet presents a summary of the results of the citizens consultations through the GlobalSay\* methodology that took place in October and November 2021 across 12 different countries.

The in-depth report “Citizens Consultation Report (D4.1)” can be found on the Robotics4EU website [www.robotics4eu.eu](http://www.robotics4eu.eu).

The current development within the area of robotics is rapidly causing considerable change to our society and evidently, these changes are already impacting much of the world around us. Therefore, it is essential to investigate how these societal changes might be perceived and received by “regular citizens”, namely individuals who are not directly involved or consulted for the design of robots, and not considered by robot designers as the target customers and users of these devices. The opinions of those most likely to be directly impacted by these changes should be considered to ensure that new and emerging technological development is both ethical and broadly acceptable by society.



## The GlobalSay methodology

GlobalSay is a concept for distributed dialogue that is designed to engage citizens in deliberations about selected topics. The citizens are engaged in micro-meetings of 4-9 participants which are organized by regular citizens, who have volunteered to host the meetings. The meetings can take place where and whenever it is convenient for the participants, and instead of having a human facilitator, the event is facilitated by an online platform: **EngageSuite**.

More info at: <http://globalsay.org/>



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## Consultation overview

**141**

consultations took place

**12**

different countries

**742**

citizens were engaged

**37,02**

The average age of participants was 37,02 years.

54% were female while 45% were male and the remaining 1% chose 'other' or 'prefer not to answer'.



**46%**

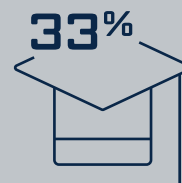


**23%**

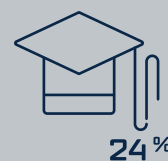


46% answered that they live in a 'large city', with the second most picked answer being 'small town' with 23%.

When asked about education 33% answered that they had a masters' degree or equivalent while 24% answered that they had a bachelor's degree or equivalent, indicating that the consultation noticeably engaged citizens of higher education.



**33%**



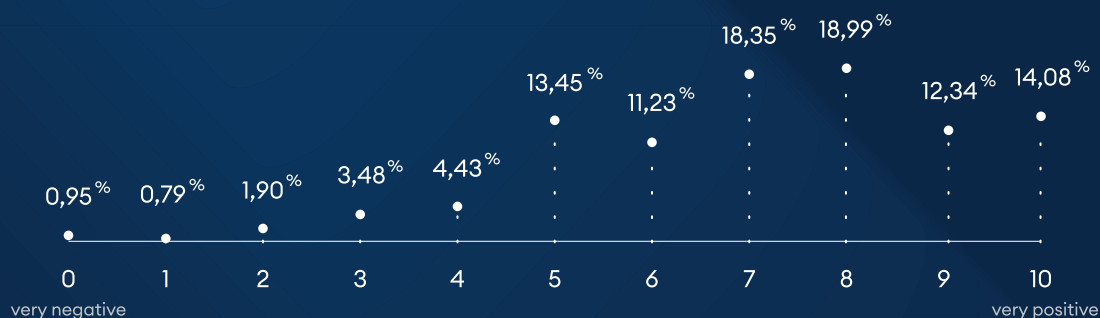
**24%**

# Initial attitude towards robotics

At the beginning of the consultation most of the citizens engaged stated that they had a **positive attitude towards robots**.

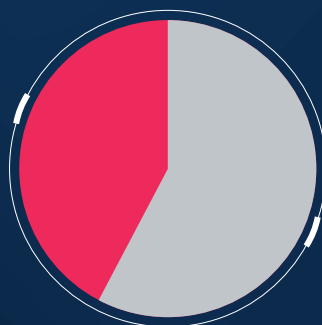


What is your opinion about robots?



Do you already have a robot at home or at your workplace?

42.27%



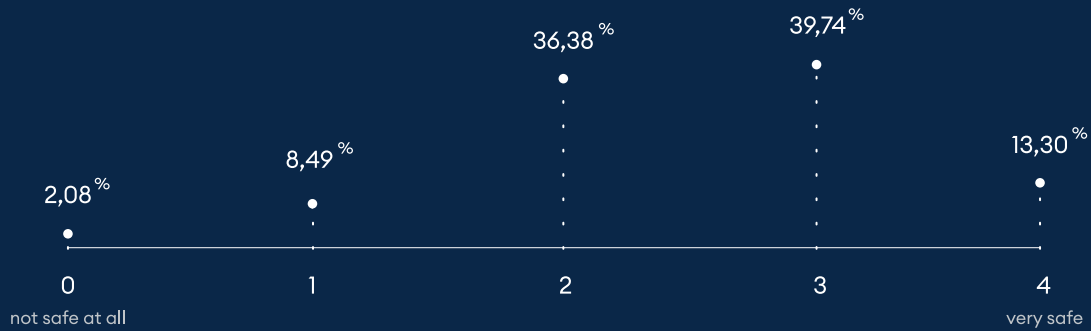
57.73%

● Yes ● No

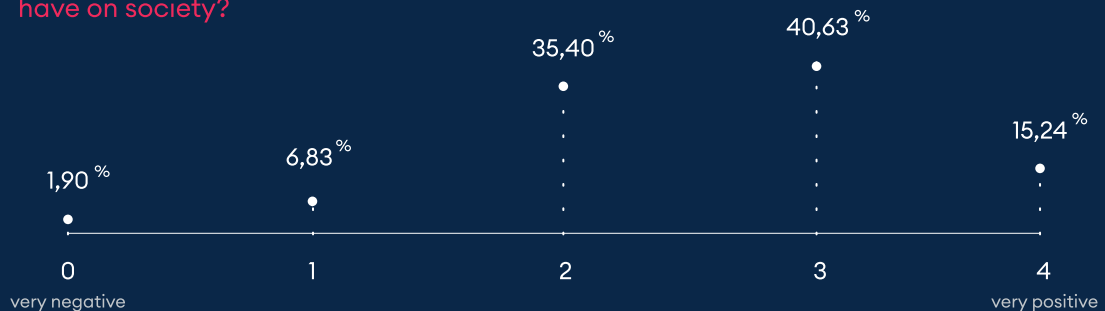
Moreover, 60% of the citizens stated that they already have a robot in their home or at their workplace.<sup>1</sup>

<sup>1</sup> It is important to mention that this question did not provide a definition of concept of a robot. So, whether citizens consider smart appliances such as coffee machines and vacuum cleaners to be robots is not specified. However, it still shows that citizens consider robots to be a part of their daily life.

## Do you think robots are safe?



## What kind of impact do you think robot technology will have on society?



## Biggest concerns

Among the most pressing concerns is the **fear of unemployment** due to technological advancement.

"Many people are afraid of being replaced by robots. I feel that society would stop interacting less and we would lose social interaction."

USA

"The intelligence of these [robots] could exceed that of humans, it is one of the greatest fears of humans concerning robots."

France

"I think they will help solve the staffing challenges of the future in the health care system and in other sectors to which it is difficult to recruit."

Norway

Following this, the biggest worries are mainly concerned with robotics used for **military** and defence purposes, robotics to be used in **healthcare** and robotics that utilize a high level of **Artificial Intelligence (AI)**.

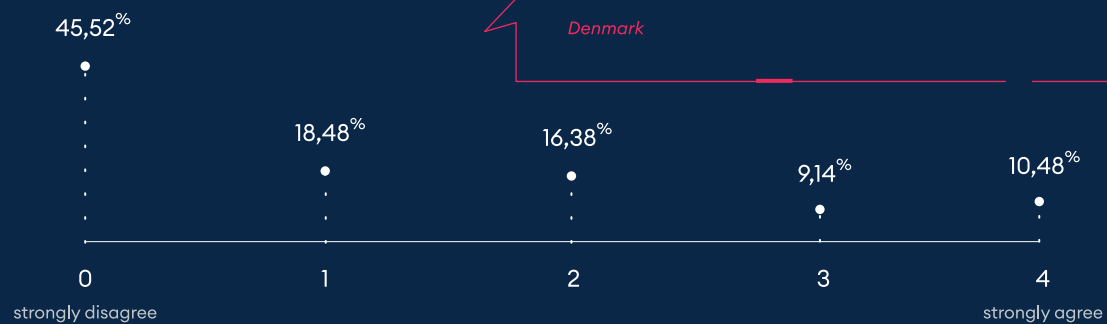


# Some dilemmas, future roles and rights of robots

- If robots are more commonly used in the workplace and in public places, it would be okay if they were made to look and behave like human beings.



- It would be acceptable if people have a robot as a romantic partner, that is: a girlfriend or boyfriend.



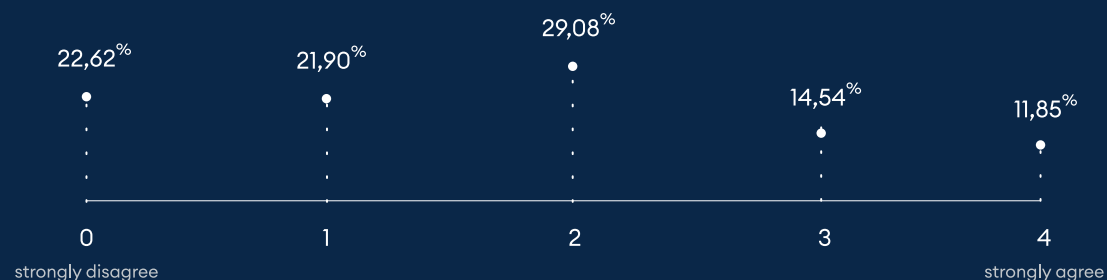
"[Yes] a robot will not be able to replace what social people have. It will not be able to replace a human being with emotions and care. A robot will also not be able to think socially and make a decision based on care and emotions."

Denmark

- If future robots can develop feelings, i fear those may include negative feelings too.



- It would be acceptable for robots to have full control in situations with direct risk to human life or health.



When asked to consider robots used in caregiving situations, participants generally considered it to be **acceptable for robots to be the primary caretakers for older adults**, but not for children.

It would be acceptable for robots to be the main caretakers of elderly people who are no longer self-sufficient

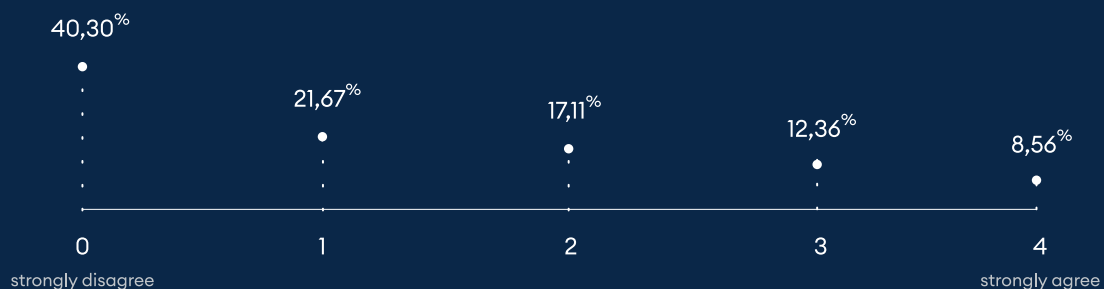


It would be acceptable for robots to be the main caretakers of children who are not yet self-sufficient because of their age.

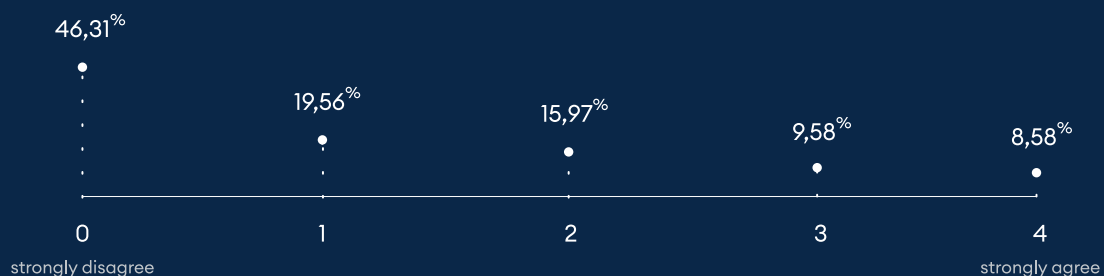


Further, it was noteworthy that many participants think that **robots should not be given any kinds of rights** – not even similar to rights of animals.

If robots become as intelligent as humans, they should have similar rights as animals.



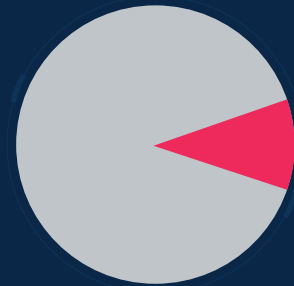
If robots become as intelligent as humans, they should have similar rights as humans.



# The importance of limitations

Should there be any areas where there are limitations on the use of robotics?

90%  
566



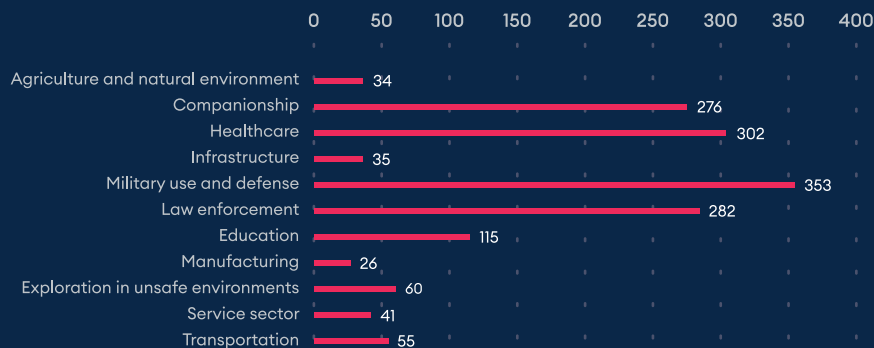
10%  
64

90% of participants find it **important to impose limitations on robotics**.

Here the most important areas for placing limitations were **military, healthcare, and companionship**.

● Yes ● No

Which of the following areas do you think are the most important to impose limitations on?

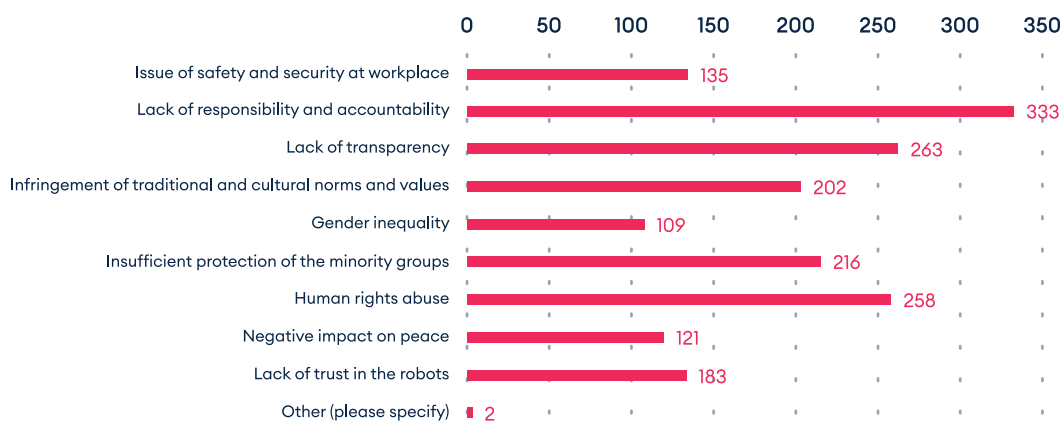


## Accountability is key

Generally, citizens considered accountability to be the **most important ethical issue when developing responsible robotics**. More than 75% of the participants feel that **engineers and designers of robotic should be held morally accountable for their creations**.



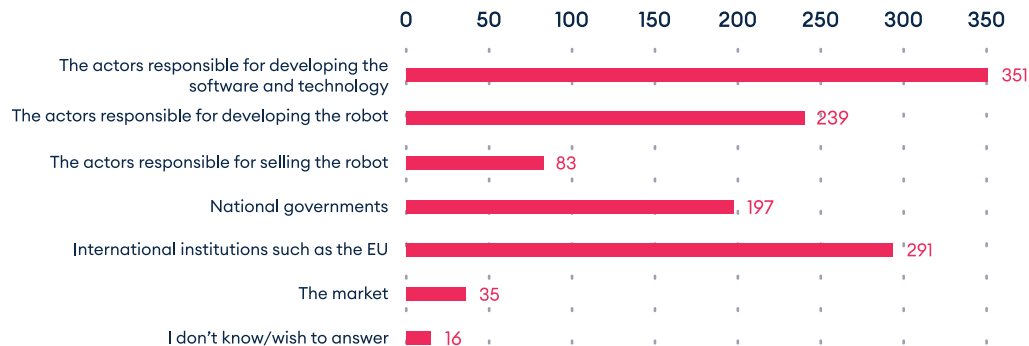
Among the ethical issues listed below, which 3 do you think would have the most negative impact?





# The need for regulation

When considering regulation, the citizens were especially **concerned with the actors responsible for developing the technology for the robots.** Furthermore, they highlight international institutions (like the EU) as important actors when it comes to the regulation of robotic technology.

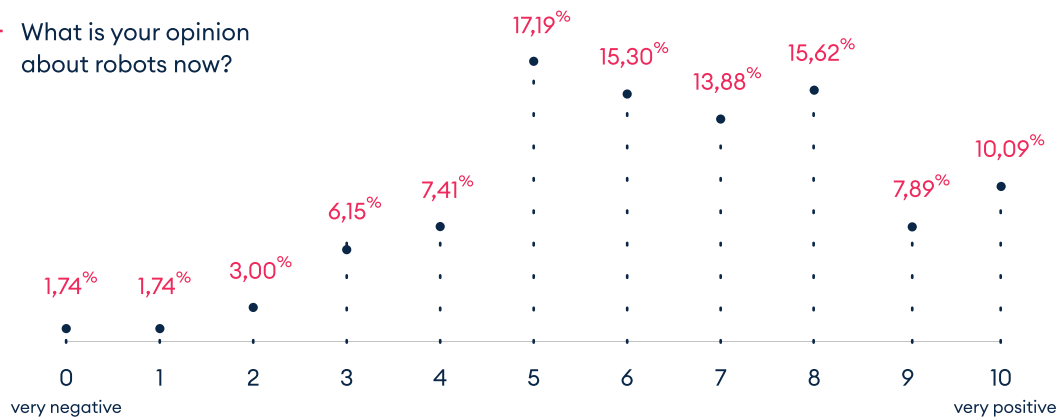


Here it was also evident that **certification of robotic technology** was considered by participants to be an important factor along with the need for general regulatory bodies (such as the EU). More specifically, participants highlighted case-by-case approval for individual robotic solutions was highlighted as the best means to ensure proper regulation.

## After the consultation

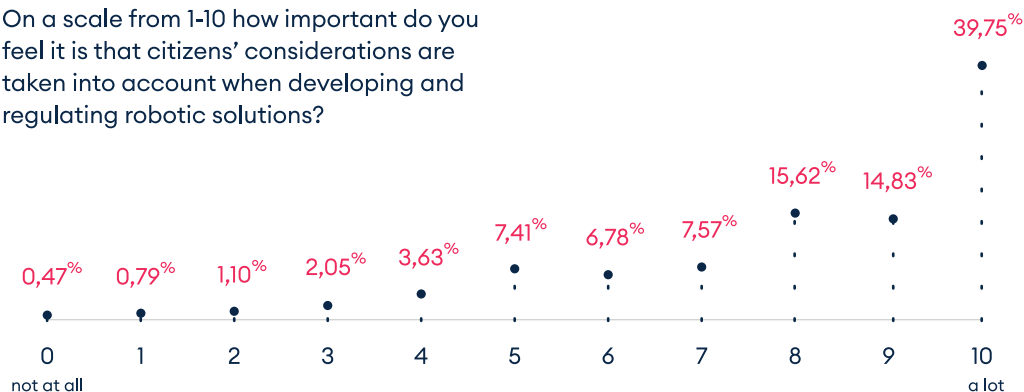
At the end of the consultation, and after discussing the topic, the participants were **less positive towards robotics.**

What is your opinion about robots now?



85% of them thought it to be **very important that citizens are heard** and included when it comes to developing and implementing new robotic technologies. However, it is not a surprising outcome considering that the consultation mainly focused on barriers towards the acceptance of a broader uptake of robotics in society.

On a scale from 1-10 how important do you feel it is that citizens' considerations are taken into account when developing and regulating robotic solutions?

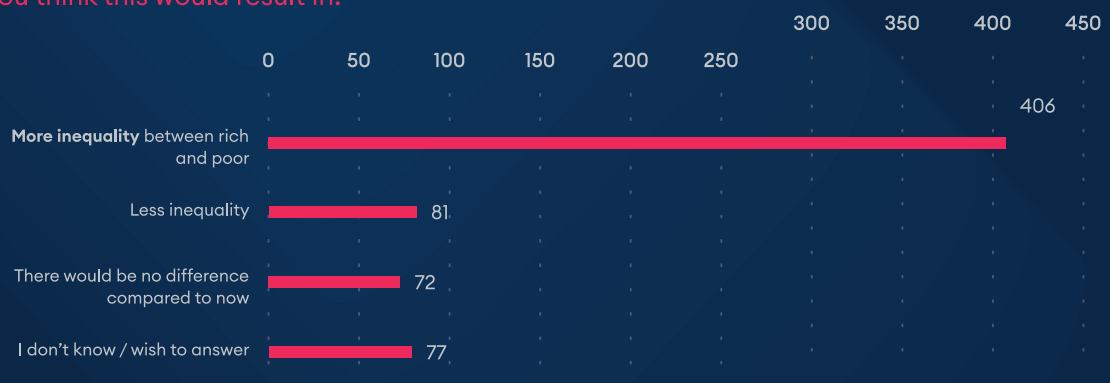


## Other noticeable findings

Participants were generally **concerned about the divide** that could potentially be brought about due to an increasing use of robotics.

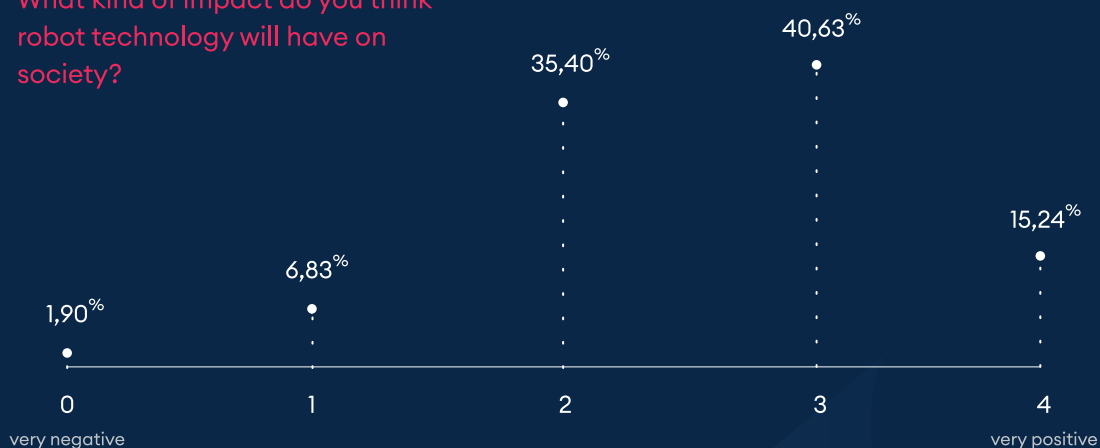
And when asked what would happen if robots became able to perform many of the jobs currently done by humans, **more than 60%** answer that this would result in more inequality.

If robots become able to perform many of the jobs currently done by humans, do you think this would result in:



This is quite interesting given that, when asked about the impact of robotic technology in society most citizens (**56%**) answered that they were either positive or very positive.

What kind of impact do you think robot technology will have on society?



“Overall, robots improve life in general, reducing dangerous and repetitive work. Ideally, they also create a safer society.”

*Malta*

“Balancing pros and cons, the balance seems to me to be extremely positive in the sense that in an aging society, as is the future trend of humanity, robots with the ability to support and interact with humans will be indispensable.”

*Portugal*

**Issues concerning the use/misuse of data were also raised during the consultation. Here, it was evident that citizens are uneasy about the misuse and vulnerability of their personal data when interacting with robots. Thus, worries about what kind of data as well as how much data the robots we encounter in our daily lives collect and share are among the primary concerns of citizens engaged in the consultation.**

The in-depth report “Cizitens Consultation Report (D4.1)” and its conclusions can be found on the Robotics4Eu website [www.robotics4eu.eu](http://www.robotics4eu.eu).

# consortium

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