

# Democracy Technologies in Europe

## Online Participation, Deliberation and Voting

A report for lawmakers, governments and policymakers  
at national and European level, 2023



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# Foreword European Commission Vice-President for Democracy and Demography Dubravka Šuica

## DUBRAVKA ŠUICA

*European  
Commission  
Vice-President  
for Democracy  
and Demography*

As a co-chair of the Conference on the Future of Europe, I remember well how the launch of the Conference coincided with a once-in-a-lifetime pandemic. At that moment the online multi-lingual digital platform was no longer just a tool to support the deliberative process. It became a vital part of the process to ensure that citizens could connect, contribute and participate in their democracy. Democracy technologies are increasingly important, in normal times and truly vital in times of crisis.

Five of the 49 tangible conclusions of the Conference on the Future of Europe address the importance of the digital transformation. Proposals number 33 and 34 of the Conference on the Future of Europe address the topic of a safe and trustworthy digital society. Proposal number 36 on European Democracy, calls on the EU to develop a 'full civic experience' for Europeans. I welcome this report as a timely contribution to that conversation.

Democracy happens during and between elections.

Citizens want us to ensure that their voice is also heard between elections, that participation is effective and to increase the frequency of online and offline interactions.

In response, the Commission is committed to improving its online infrastructure on citizen engagement. We are working on a new "Have Your Say" portal, that will incorporate the existing Better Regulation portal and the European Citizens' Initiative portal, as well as the new Citizens' Platform and other tools designed to engage with citizens, including the Child Participation Platform that I launched last year.

We are witnessing a deliberative wave sweeping across the European Union and the world. Increasing numbers of participative and deliberative practices are to be found at all levels, from the local and regional to the national and EU-level. Indeed globally! In this context, the European Commission is leading by doing. It is the first executive body anywhere in the world to have embedded deliberative democracy in its policymaking, by launching a new generation of European Citizen panels.

Given our increasing experience, we are in a privileged position to share lessons learnt and to help improve our policymaking with a view to inspiring governance at all levels. It is vital to help to build capacity among national, regional and local actors to build on these efforts, so they can launch their own new generation of decentralised citizens' dialogues based on deliberative approaches. Common practices and standards help to build trust in our democracy. To deliver what is needed, right where it is needed most.

In the EU, there is a wide range of knowledge and learnings available. This report helps to deepen our knowledge of current trends and markets. I welcome this report at a moment when the EU's competitiveness and strategic autonomy is increasingly important. We must harness the talent, skills and understanding in the area where technology meets political participation.

My thanks go to International IDEA and the Innovation in Politics Institute for bringing additional elements on online participation, deliberation and voting as we endeavour to lead by doing.

# Foreword by the International Institute for Democracy and Electoral Assistance

**KEVIN CASAS-ZAMORA**  
*Secretary-General,  
International IDEA*

Political parties, candidates, and citizens spend ever more time and money online. This digital shift is challenging democratic institutions and frameworks, as well as enabling new and dynamic forms of political engagement and communication. And while digitalisation and democracy discussions often focus on the challenges – which are real and serious – we must also leverage the power of technology to enhance and revitalize democracy.

To nuance the debate, this publication highlights the opportunities that technology brings to online political participation, deliberation and voting. Intended for policy-makers and legislators, this report outlines trends in the use of digital technologies to support democracy in Europe, highlights the needs of key actors, and provides recommendations on the safe adoption of such “democracy technologies” in Europe and beyond. Based on more than 50 interviews with government and industry representatives, this report shows the potential for using democracy technologies to enable citizen input on a more constant basis, on issues ranging from local budgeting to climate action. These technologies can also support outreach to demographics that may otherwise be difficult to reach, such as youth and immigrant communities – as well as broader populations under difficult circumstances, such as the Covid-19 pandemic and the war in Ukraine.

Yet if democracy technologies have the potential to reinvigorate democracy, this report also points to the obstacles that may block this potential. The market for democracy technologies is complex, with many suppliers, and a general absence of regulations and standards. This report shows how implementing these technologies often falls short in terms of security, resources and expertise. Ultimately, these obstacles and regulatory gaps may limit future growth and add new digital risks to democracy. In this context, the report offers recommendations to improve the enabling environment for effective, secure, and accessible democracy technologies.

I encourage all democratic stakeholders to read this publication, consider its findings and recommendations, and spread the word – both offline and online. I hope this report inspires further discussion of the opportunities and limitations of technology for democracy. International IDEA is committed to continue convening and contributing to this conversation. Digital tools and the Internet are and will remain a key infrastructure for democracy. Leveraging these capabilities will be key to making democracy fit for purpose in the 21st century and beyond. Citizens expect and deserve nothing less.

# Welcome!

**EDWARD  
STRASSER**

*CEO and co-founder  
Innovation  
in Politics Institute*

Over the past few months, we have conducted in-depth interviews with 53 political professionals, experts and democracy technology vendors in Europe. Together with the International Institute for Democracy and Electoral Assistance (International IDEA), we wanted to find out about the ways in which such technologies are currently used, the direction the market is moving in – and their impact on democracy from the perspective of practitioners. This report summarises our findings.

Some of the things we heard surprised us. For instance, how often the need for quality standards in online participation, deliberation and voting was mentioned by both political professionals and vendors. We also gained insights into what lawmakers and policymakers at the national level can do in an age when democracy is undergoing fundamental transformation.

And we found a flourishing market with technology providers who are working to strengthen trust in democracy, offering opportunities for European countries and for Europe as a whole.

I would like to thank the International IDEA team for their straightforward style of collaboration, the politicians and public officials who gave us insights into their work, the representatives of technology providers who shared their plans and thoughts with us, and all of the team members who helped to make this report possible. Furthermore, I would like to express my gratitude to all those who conducted and evaluated all the interviews.

Finally, I would like to invite you, the reader, to join our debate about online participation, deliberation and voting at [democracy-technologies.org](https://democracy-technologies.org).

# Purpose of the Report

## Technologies for online participation, deliberation and voting on the rise in Europe

As organisations such as the [OECD](#) and others have found out, an increasing number of local, regional and national governments, as well as political parties and organisations are working to include citizens in political processes. The strategy of complementing representative democracy with participatory and deliberative forms is a trend seen throughout democratic countries in Europe, with more and more politicians and civil society activists seeing it as an instrument to strengthen trust in democracy and improve policy results.

This has given rise to citizens' assemblies, participatory budgets, prioritising policy goals according to citizens' votes, collective writing of laws, party primaries, and other forms of participation.

In order to include large numbers of citizens in participatory processes, governments, technology companies and civil society activists have introduced a variety of digital technologies.

Initially, awareness of such technologies and methods was limited to a group of "participation enthusiasts". But in recent years, such applications have become common in many countries and cities, and more and more people working in politics and governments are looking for and implementing such solutions. As a result, a market for democracy technologies is taking shape in Europe.

*"When you have a war and people have smartphones, these are vital to stay in touch with your people, to show them the real news, to let them apply for different public services. We used our app to launch polls and consultations. And when the Russian forces tried to occupy the offices of TV channels and radio stations, we streamed the TV and radio through our application. After the war, the level of democracy in Ukraine will grow."*

**Mstyslav Banik**, Director of eServices Development, Ministry of Digitalisation, Ukraine



### Key questions in a rapidly growing market

This development raises several questions, such as:

- ▶ What effects are these technologies having on democracy?
- ▶ How big is this market today, and where is it headed?
- ▶ How should lawmakers and national governments address this new and – in many cases – privately owned democratic infrastructure in Europe?
- ▶ What do political professionals at the sub-national level need from governments in order to handle digital participation projects more effectively and securely?

- ▶ What do democracy technology companies and related organisations in Europe need so that they can flourish?
- ▶ How should international organisations, such as the European Union and the Council of Europe, address this market?

The purpose of this report is to provide some answers to these questions, offer insights into current trends, and provide an overview of where and how democracy technologies are being used in Europe for participation, deliberation and online voting, based on in-depth interviews with practitioners.

### Terminology

In this report the term “e-voting” refers to any electronic voting system that is used to cast and count votes in an election, including localised electronic voting

machines. The terms “online voting”, “i-voting” and “digital voting” refer to non-localised voting solutions that use the internet as a means of casting votes.

*“Anything related to climate change and sustainability is generally gaining a lot of traction. Youth engagement is a big thing as well, and during the pandemic there was a shift towards engagement of elderly people because they were an at-risk group.”*

**Ekaterina Petrikevich**, co-founder, Participation Factory

# Executive Summary

**Based on a series of in-depth interviews with 53 politicians, experts and representatives of companies across Europe, we can draw the following key conclusions on the state of democracy technologies:**

## Growing demand

- ▶ An increasing number of political professionals in Europe are trying to find ways to enhance the representativeness and effectiveness of democracy, so participatory and deliberative forms of democracy are on the rise.
- ▶ In addition to established approaches such as participatory budgeting, new and promising growth areas are emerging, such as citizen participation in reducing carbon emissions and other policy areas.
- ▶ Mature democracy technology applications show that demand increases where citizens feel they are making a real impact, but also that innovation is needed where this feeling is missing.
- ▶ These technologies constitute a new democratic infrastructure, and to date this has often gone unnoticed by legislative bodies and policymakers.
- ▶ This infrastructure has proven to be particularly useful in times of crisis, including during the Covid-19 pandemic, which turned out to be an accelerator for democracy technologies.
- ▶ As end-to-end verifiable voting systems are available, institutions, parties and other organisations in the political sphere are increasingly using online voting.

## Growing supply

- ▶ There are more than 100 vendors in Europe in the online participation, deliberation and voting sector. The vast majority of the industry representatives we interviewed reported a strong increase in demand for their services.
- ▶ Estimates by companies in this sector suggest that the European market for participation and deliberation technologies for the public-sector was worth less than EUR 100 million in 2022 and is expected to reach EUR 300 million in the next five years.
- ▶ The industry representatives we spoke to put the value of the online voting market (for referendums, elections, quasi-government organisations, party primaries, unions and associations) at less than EUR 100 million in 2022, but they expect this figure to grow to EUR 500 million in the next five years.

### Opportunities

- ▶ There is a window of opportunity for European providers of democracy technologies to expand beyond Europe, as their products and services have been positively received in other regions of the world.
- ▶ Industry and government representatives stressed a lack of funding to adequately expand the development and implementation of democracy technologies, which they see as vital pillars of the democratic infrastructure.

### Quality standards for online participation, deliberation and voting

- ▶ Technologies and processes applied by governments vary in terms of quality and security.
- ▶ Politicians and public officials often lack experience in how to identify, select and apply appropriate technologies for citizen participation initiatives.
- ▶ The interview results suggest that the introduction of a Europe-wide quality trust mark for core processes of democracy technologies would be welcomed in the political sphere – it would contribute to the growth of citizen participation by increasing confidence among users and buyers of such technologies.

### Security issues

- ▶ Balancing ease of access and secure authentication of citizens remains an area where further development is required, and represents a potential risk of democracy technologies.
- ▶ In many participatory budgets, people can propose projects and vote on a city's budget even though they are not eligible residents.
- ▶ Some players have started to apply more secure authentication processes but reducing the potential risk of large-scale manipulation needs to be addressed at the national level.
- ▶ As end-to-end verifiable systems are becoming available for online voting, vendors believe that security standards are required for end-to-end verifiable voting.

### National agencies for online participation, deliberation and voting

- ▶ Statements made by local government representatives suggest that municipalities across Europe need more support from their national governments when it comes to introducing and improving online participation, deliberation and voting.
- ▶ Local governments' needs range from providing tools and processes, handling data and security issues, to providing know-how and sharing best practices.
- ▶ Also, in some countries, the legal framework for participatory and deliberative democracy and online voting is lagging behind the situation on the ground, especially regarding inclusiveness, data usage, accountability and transparency.
- ▶ National agencies for online participation and voting should be established to address local governments' needs and ensure consistent quality in participation processes. These agencies should provide know-how and offer local governments advice on security-checked tools, as well as developing recommendations for lawmakers and evaluating the impact of participatory processes.

*"The combination of bringing citizens and AI together to make proposals and work on policy with governments is going to be powerful, and it will eventually transform society."*

**Robert Bjarnason**, co-founder and President, Citizens.is

*"We believe that the challenges of the 21st century are about social infrastructure, and governments will have to put resources into that. We must create a culture in which this is viewed as an asset in terms of investing in the creation of new models for citizens."*

**Arnau Monterde**, Head of Democratic Innovation, City of Barcelona

# Introduction

## When technology meets political participation

More and more political professionals in Europe are trying to find ways to enhance the representativeness and effectiveness of democracy, so forms of participatory and deliberative democracy are on the rise.

Municipalities and other governments are increasingly tapping into the collective intelligence of their citizens to design better policies, allocate funds, increase engagement, prevent and solve conflicts, and improve relationships in local communities. New tools have emerged to facilitate this engagement, digitising previously analogue processes and widening accessibility and scale.

At the same time, the number of citizens who want to get involved in political processes is rising. Surveys such as the [European Value Studies](#) show that the majority of European citizens wish to be more closely involved in political decision-making.

As a consequence, more and more national and international organisations, think tanks and consultancies are providing governments with data and guidelines on how to implement online participation, including the [OECD](#), [NESTA](#), [People Powered](#), the [Solonian Institute](#), [DemocracyNext](#) and [Participation Factory](#), the [WinterGreen Report](#) and the Waag Report on [European Public Digital Spaces](#).

According to respondents, the Covid-19 pandemic significantly impacted adoption, forcing previously analogue activities to be transformed into digital ones. Moreover, we witnessed governments responding almost in real time to complex, constantly evolving demands that sparked an appetite for more agile forms of participation, such as the [Break The Curve Open Governance Laboratory](#) in Aragón, Spain, and the [We vs. Virus Hackathon](#) in Germany.

According to respondents, the Covid-19 pandemic significantly impacted adoption, forcing previously analogue activities to be transformed into digital ones. Moreover, we witnessed governments responding almost in real time to complex, constantly evolving demands that sparked an appetite for more agile forms of participation, such as the [Break The Curve Open Governance Laboratory](#) in Aragón, Spain, and the [We vs. Virus Hackathon](#) in Germany.

As one interviewee said, *“due to the financial crisis, budget cuts, civil service reforms, and devolution of government operations, citizens are now expected to be more independent, taking up tasks that were previously carried out by the government”*.

In 2022, thousands of municipalities and other government bodies in Europe used online participation, deliberation and online voting in various ways – in France alone, around 150 cities have introduced participatory budgeting. As a result, a vibrant market is emerging and growing quickly, drawing millions of European citizens to digital participation platforms.

When it comes to citizen participation, European countries and players are at different stages of development. [Estonia](#), the [Netherlands](#), [Switzerland](#) and others have developed legislative frameworks guaranteeing citizens' right to access enhanced forms of political participation, embedding practices such as referendums, consultations, participatory budgeting and citizen panels in their institutional architecture at local, regional and national levels.

*"We organise laboratories in which every citizen can create a digital space with a personal blog to share project ideas. You can send a question to the municipality, which will be published for everyone to see. Then there is a co-design phase to transform the idea into a project with the help of the public. The municipality will recognize you and will give you the power to take care of this piece of the city."*

**Michele d'Alena,**

*Director of Civic Imagination Office, Urban Center Foundation, City of Bologna*

*"The general issue with public participation and Civic Tech in Poland is still connected with the low level of trust in public administrations. The security of the systems and the privacy of the data is key. The city officer is the most important person to make a secure system that is trustworthy, transparent, clear and easy."*

**Joanna Krukowska,**

*Manager of UrbanLab Council of Citizen Participation, City of Gdynia*

### Democracy technologies form a new democratic infrastructure

There is, however, little recognition of or public debate about the market for 'democracy technologies'. Instead, digital solutions are categorised as either 'GovTech' or 'Civic Tech' – the former makes government more efficient and effective at providing services to the public, while the latter gives citizens a voice and promotes active engagement, improving the relationship between civil society and government. The 'DemTech' perspective does not prescribe a distinct set of tools but rather places democracy at the centre of the analysis of such technologies and methods.

It is important for public administrations and society at large to recognise the importance of developing, improving and protecting this new technological democratic infrastructure. As one city representative pointed out, "we have to ensure that this infrastructure is handled properly so that it can support the development of democracy".

But as the findings of this report show, in many European countries, the emergence of this new democratic infrastructure often goes unnoticed by legislative bodies and policymakers.

PART I

# Players in the Democracy Technologies Market



We have categorised the key players in the democracy technologies market in Europe as follows:

## Government decision-makers and implementers

These are elected representatives and public officials who purchase and implement democracy technologies, or – in the case of platforms developed in-house – their project managers. They acquire services from providers, receive and respond to citizens' demands, need to comply with regulations at higher levels, and also create new regulations at sub-national levels.

Most implementers of online participation, deliberation and voting currently operate at the local level, but national and international participation initiatives are gaining ground, like the Conference on the Future of Europe, national citizen participation projects in France and the Rahvakogu platform for legislative initiatives in Estonia.

In terms of their maturity and experience, we can distinguish three groups:

### Frontrunners

Municipal and regional governments with a mature participatory culture and a successful track record of open participation processes and institutions. They make digital democracy an essential part of their strategic vision and democratic culture. Examples include cities like Lisbon and Helsinki with their established tradition of participatory budgeting, Barcelona with its active ecosystem of social organisations, Amsterdam with its pioneering legislation that safeguards citizens' advanced participation rights, France's groundbreaking examples of collaborative legislation drafting, Estonia with its extended culture of online voting, and the numerous citizen advisory councils formed by random selection. Most of the project leaders are active in the international participation expert community and form networks with a view to sharing know-how with peers in other governments.

### Emerging actors

These players have already taken initial steps to complement representative democracy with participatory and deliberative democracy, and are open to taking further steps. They represent the largest source of potential for further growth in online participation and online voting and could benefit most from appropriate support. Some of them have experience with participatory budgeting or other projects, and are motivated to launch more ambitious initiatives, but are not sure about how to scale up. Or, as one interviewee stated, "we want to do more in this area, but we need more know-how and resources, too".

### Sceptics

These are political professionals and public officials who are indifferent to, unconvinced about or opposed to the idea of using technology for deliberative and participatory democracy and e-voting for various reasons.

## Democracy technologies industry

This group includes technology developers, platform providers and consultants in the democracy technologies sector. Although the market is broadly divided into private companies and NGO-type organisations, most of their representatives share an enthusiasm for strengthening democracy using technologies and methods for participation, deliberation and voting.

So far, only a small number of companies and organisations are operating internationally. The majority are small

teams of up to 10 employees. So far, most of these companies have been active at the national level in their home countries, but some told us about their plans to expand abroad.

Besides the larger platform systems (private and open source), some governments have their own participation platforms, such as the City of Antwerp. While these first movers developed their own platforms, the market – according to our findings – has largely moved to commercial and open-source platforms.

## Lawmakers and policymakers at the national and international level

Their role is to provide legal frameworks for online participation, deliberation and voting, as these concepts are relatively new in many countries and not yet regulated, e.g. regarding data security, minimum rights of citizens in participation processes, accountability for results, quality standards, and provision of resources. They also need to ensure enforcement of these regulations, sup-

port development of a lively and positive market and promote the use of democracy technologies.

As one respondent put it, *“the legal framework is a key factor in ensuring that citizens can participate in civic and political life and the management of our cities. The technological issue is how we can ensure that the technology run by our democracies is free, open and auditable.”*

*“Our model of citizen participation has always been a deliberative model, in which face-to-face interaction is the most effective way to generate spaces of trust. However, we have created our own online participation platform, which is used for surveys, online voting, video conferencing and digital whiteboards.”*

**Raúl Oliván**, Head of Democratic and Social Innovation,  
and **Carlos Oliván**, Head of Citizen Participation Services, Regional Government of Aragon

PART II

# Where Democracy Technologies are applied

# Current fields of online participation, deliberation and voting

In order to engage with citizens, city planners and policymakers utilise different kinds of participation process. An overview is provided below.

## Fields of application

Main types of online participation, deliberation and voting activities, as mentioned by the participants interviewed for this report (based on a typology provided by Participation Factory)

### 1. Online voting

- ▶ Voter registration and identification
- ▶ Ballot casting and counting in
  - ▶ Referendums
  - ▶ Elections
  - ▶ Citizen legislative initiatives
- ▶ Candidate selection by political organisations (e.g. primaries)

### 4. Targeting specific demographics

- ▶ Youth
- ▶ The elderly
- ▶ People with disabilities
- ▶ Migrant communities
- ▶ Rural populations

### 2. Participatory budgeting

- ▶ Participatory budgeting in cities and regions
- ▶ Participatory budgeting in schools and other educational institutions
- ▶ Consultations related to the budget
- ▶ Negative participatory budgeting: people decide where they wish to invest less public money, allocating targeted budget cuts

### 5. Policy-specific

- ▶ Sustainability and climate change
- ▶ Culture and sports
- ▶ Education
- ▶ Health care
- ▶ Transport
- ▶ Job creation

### 3. Urban design

Participation in the transformation of urban spaces

### 6. General strategy

Involving citizens in the overall strategy and development of a municipality

### 7. Permanent participation

- Ongoing mechanisms for citizens to influence governmental decisions:
- ▶ Citizen assemblies or juries
  - ▶ Public offices focused on participation
  - ▶ Schools for digital participation
  - ▶ Public advisory committees and boards

*“Our democracy is challenged because people are not so interested in voting anymore and they don’t trust our politicians. I think participatory methods and digital tools are the way to go if we want to involve more people. In the future there will be a more collaborative democracy and voting will be digital.”*

**Kirski Verkka**, Development Manager, City of Helsinki

*“In case of war, electronic democracy tools have to be even stronger. Because we understand we have to live for the society and give citizens tools.”*

**Oleg Polovynko**,

Director of IT at Kyiv Digital, City Council of Kyiv

## Online voting

**Online voting in general elections and nationwide referendums is still rare in Europe, while online voting at the regional or institutional level is growing fast.**

**Estonia** established the required legal and technological framework in 2005 and has since successfully conducted a variety of national, regional and institutional elections online. Another pioneer at the national level is France, which offers the option of online voting only to citizens who live abroad – an estimated 65% of them chose online voting over postal

voting in the 2022 national elections – and has introduced new legislation ensuring better access for people with disabilities, which is likely to give rise to more options in upcoming elections.

**Switzerland** conducted extensive trials in 10 of its 26 cantons up until 2019 and is currently developing a national framework of standards for future trials. Beyond national elections and referendums, online voting is gradually expanding into most areas of society, politics and work, as respondents told us:

- ▶ Political parties are introducing online voting in candidate and leadership elections.
- ▶ Institutions like universities, unions, chambers of commerce and NGOs are also switching to online voting.

**Germany** will use online voting for [social security elections](#) in 2023, with 44 million people eligible to vote, making it the largest European online vote to date.

*“It is worth looking at countries where they have a lot of people voting from home by postal voting, those are the immediate markets to move over to online voting because of the complexity and expensive costs of operating nationwide postal voting. As the trend of more people working remotely from home continues, we’ll see more of a push toward online voting technology.”*

**Shai Bargil**, co-founder & CEO, Sequent

The interviews also showed that municipalities are expanding their online voting systems to other areas, such as participatory budgeting, urban planning and so on.

*"I think elections need digital technology to help out with the whole process. We need a synergy between the old school and a bit of technology in order to have better results to prevent corruption and deepen democratisation."*

**Nermina Suljević**, Head of Department for Sustainable Development, City of Sarajevo

One example, carried out by a company in a French city, shows how online voting is already used in local government referendums: *"We've recently innovated with a city in France on the ID verification process for a very sensitive consultation. We were able to verify the ID cards of each resident of the city to make sure they were proper residents. That was*

*organised with a physical voting process. At the end of the process, we were able to check whether the physical and digital votes on the platforms were not redundant and secure the entire consultation process. That was a bit of an innovation for France. We are going to make this available to all our clients."*

As one company representative predicted, *"if you ask me how I see the future of e-voting? We think that it will become the standard in a few years."*

Moving forward, cost savings and the [reduced CO<sub>2</sub> footprint](#) of online elections are strong arguments for future expansion, with improved transparency as a key factor, as two respondents noted: *"The same technology can be used not only for online voting but also to create a ballot tracking application. Voters can track their ballot throughout the election process to ensure that it is included in the final tally and correctly counted without violating their privacy,"* and *"it can be verified and audited."*

## Participatory budgeting

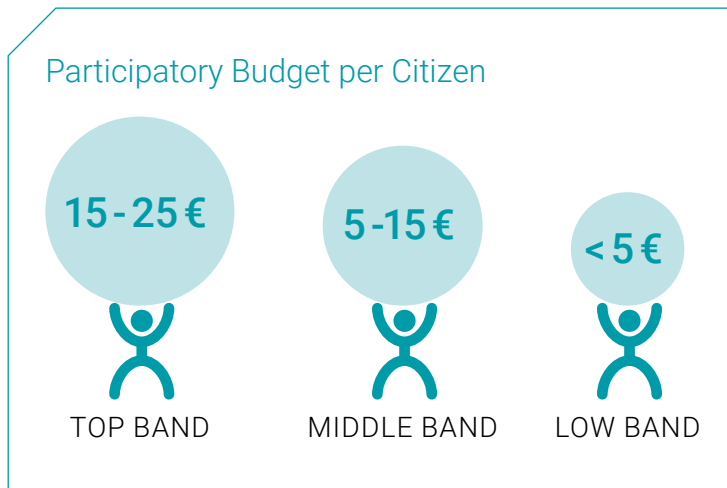
**Participatory budgeting (PB) is by far the most popular participation practice using online technologies among all the interviewed municipalities. It comes in different forms.**

How much money cities dedicate to a participatory budget per citizen depends mostly on the available funds in the city budget, and, of course, tax income per citizen. The field can be divided into three groups: a top band of EUR 15-20 per citizen (such as Cascais, Barcelona and South Finland), a middle band of EUR 5-15 per citizen (e.g. Amsterdam, Helsinki, Lisbon, Rzeszów, Vitoria), and a low band that dedicates less than EUR 5 per citizen (e.g. Braga, Sarajevo, Tampere, Leipzig). Paris, home to one of

the largest PB processes in the world, has allocated 5% of the annual municipal budget to PB, or up to EUR 45 per citizen.

Here are some examples:

In **Helsinki**, in the [OmaStadi](#) participatory budgeting process, citizens can vote on a budget allocation before the municipal council votes. The municipal council still manages the budgeting process, but citizens are given control over their share of the budget.



*"In Estonia, citizen participation is a hot topic right now. 65% of municipalities in the country are doing participatory budgeting. We believe that if you make participating easy and simple, then people will use it."*

**Karl-Hendrik Pallo**, Estonian Cooperation Assembly

**Lisbon's [Green Participatory Budgeting](#)** focuses on in-person engagement for discussion and debate and web-based platforms for voting and submission of proposals. Each year, the winning projects are integrated into the City Council's plan of activities and budget, which are approved by the City Council and the Municipal Assembly, and subsequently implemented. Citizens can see that "problems in their community were solved by the proposals that they made."

**Estonia** has built on the popularity of PB for pilot projects to allocate budgets in schools. The respondent explained that they have set up 18 projects which "give young people their first successful experience with democratic processes. A lot of young people don't actually know how to use these e-democracy tools, which are very important nowadays". The average budget for these projects is EUR 500 per school.

The prevalence of participatory budgeting varies from country to country – in Estonia 65% of municipalities and in France over 150 cities use participatory budgeting processes, while in others PB is still a novelty. Speaking about the trends in participation in her country, one representative said "PB is really big in our country, and I guess also in many countries in Europe. It's raising its head and it's really popular".

However, in some areas, PB may be losing traction and there is a need for innovation in the formats. A company representative pointed out that "we see signs that participatory budgeting, which was very popular 10 years ago, is slowly losing its appeal in some European countries. The outcomes of these formats might not have been convincing enough for citizens and civil servants alike, which shows the need to innovate on these formats, specifically the measurement of their impact."

## Urban design

Participatory processes in urban design, such as Madrid City Council's redevelopment policy, involve members of the community in decision-making processes for the development of their neighbourhoods. This approach aims to empower residents and ensure that their needs and concerns are taken into account in the planning and implementation of redevelopment projects. [Madrid City Council's redevelopment policy](#), for example, includes public consultations, community meetings, and the formation of citizen committees to provide input and feedback on proposed developments, such as the redesign of a main square. This approach not only gives

residents a voice in the development of their neighbourhoods but also helps to build trust and support for redevelopment projects among the community.

The majority of city representatives interviewed employ digital platforms to involve citizens in the design of urban spaces such as squares, parks, bike lanes and other facilities to improve neighbourhoods. Both frontrunners and emerging actors in this field point out that it is a good way to start building a culture of participation. *"Citizens feel their ideas can have a direct impact because the topic of their discussions is specific, understandable and relatable"*, as one participant stated.

*"In participation it's very difficult to communicate with each other because you can't imagine what you are talking about. That's why visualisation is key for communication. We are experimenting with augmented reality that allows neighbours to see a digital twin of the city and visualise what [urban projects] will look like when finished."*

**Esther Bakker-Beil**, Strategic Advisor,  
& **Brenda van Breemen-Olij**, Innovation Process Manager, City of Rotterdam

*"Thanks to geoinformation system technology, citizens can participate in a large variety of topics, such as urban planning, green infrastructure, all forms of mobility, pedestrian, bicycle, roads, as well as climate planning, climate adaptation, mitigation planning, schoolyards and playgrounds."*

**Claudius Lieven**, Office for Regional Planning and Urban Development, City of Hamburg

*"What we see is that a lot of municipalities tend to involve their inhabitants and citizens in local matters. Be it renaming a certain square, introducing new functions in the City Hall, or discussing the next kindergarten."*

**Gregor Wenda**, Deputy Head of Department of Electoral Affairs, Austria



## Demographic targeting

**In this area, public administrations and political professionals use democracy technologies to reach out to particular demographic groups in order to address specific needs or overcome disadvantages.**

Youth participation projects are the most common type. In **Flanders**, for instance, it is mandatory for ministers to consult [youth participation councils](#) whenever they want to make a decision that will have consequences for children and young people.

Involving less digitally-savvy citizens needs extra effort, as a representative from **Bratislava** noted: “We have been quite successful with reaching out to seniors. We have some very active seniors’ organisations. I would say, people who are poorer and less engaged, those are hard to reach for us because they have

*different issues and challenges and they seem like they don’t have time for engaging with the city.”*

**Glasgow’s** [Participatory Glasgow](#) programme aims to address a similar challenge and support disabled people, enabling them to participate and have their say. In **Antwerp**, a new digital participation tool called [OOR](#) (the Dutch word for “ears”) has been adopted to give low-threshold participants, such as eight-year-old children, the chance to share their opinions. [OOR](#) also allows users to consult the opinions of other community members, which encourages others to participate.

*“One curious fact that I’ve observed in recent years is that we see huge participation among elderly people. Because they have more spare time, they have access to digital content on their mobile phones and computers, and so they participate extensively.”*

**Diogo Farinha**, Deputy Councillor Urban Development, City of Braga

*“Our focus is on inclusivity when launching a citizen participation project, and respect for disabled people from other citizens. We have created a specific platform for disabled people to use.”*

**Eleni Zervoudaki**, Deputy Mayor in Social Policy, City of Chania

*“[Democracy technologies] can be useful to engage young people in talking about social issues; to engage neighbours in urban space development and to identify topics of interest to the resident through location-based notifications.”*

**Lilian Lukka**, Communications Manager, City of Tartu

*“One of the challenges is to integrate people of all ages. We take special care with elderly learners, who may think that it’s hard to use new technologies. We have many programs to integrate both the elderly and the young into society.”*

**Joanna Tejchma**, Subinspector, Department of City Brand, Cooperation and Tourism, City of Rzeszów

## Policy-specific

**Policy-specific deliberation platforms are used to discuss, debate and analyse certain issues collaboratively. Climate change, culture, sport, education, health care, transport and job creation are among the topics covered by such projects.**

Policy-specific deliberation platforms are used to discuss, debate and analyse certain issues collaboratively. Climate change, culture, sport, education, health care, transport and job creation are among the topics covered by such projects.

*“There is a tendency to confuse participation with legitimisation, and to justify things that have already been decided, when participation should be based on debate and citizens’ needs.”*

**José Luis Pérez (Kotelo),**

*Head of Civic Centers Services, City of Vitoria*

The City of **London** has introduced the participation platform “[Have your say](#)”, which is dedicated to improving the transport network by better identifying the needs of people who live and work in the capital. It covers deliberations on fairer taxi fares, the introduction of new bus lines, bike lanes, pollution avoidance and other aspects.

In **Aragon**, a very large and mostly unpopulated region, online meetings facilitate the participation of citizens who could not previously attend in person in a pilot project combining face-to-face workshops with online workshops.

In one example, the [Citizen Summit on Climate Change in the Baltics](#) sought to formulate concrete action plans in the partner countries to protect particularly vulnerable coastal areas around the Baltic Sea from the effects of climate change.

## General strategy

**These are participative processes that aim to develop general strategies for municipalities, regions and countries, or at an international level.**

As a leading example, the European Union's Conference on the Future of Europe project, which involved 26 countries, aimed to give citizens a voice in shaping the future of Europe. It was the continent's largest ever digital participation process and concluded in May 2022 with 49 proposals. It provided a platform where common issues could

be tackled and explored through discussion and debate, and also served as a forum for civil society organisations to voice their concerns. According to a European Commission policy analyst who was responsible for the design of the conference, *"It's about showing how engaging citizens can have a real impact on policymaking."*

*"We plan on running civil councils of randomly selected people that will discuss topics and give recommendations to Leipzig's City Council. We will do it using analogue and digitised formats and hope to reach more young people and working people that have limited time but want to participate."*

**Pia-Mareike Heyne**, Head of Department for Democracy and Social Cohesion, City of Leipzig

*"At the European Commission we are working toward mainstreaming participatory and deliberative practices, because we want to give citizens a say in the future of Europe. At the Conference on the Future of Europe, five million citizens visited the platform, contributing around 50,000 different ideas and organising more than 6,000 events."*

**Paulo Rosa**, Policy Analyst, Competence Center on Participatory and Deliberative Democracy, European Commission

## Permanent participation

**These projects aim to establish citizen participation on a permanent basis. They allow citizens to voice their ideas and proposals at any time and often on any issue.**

In one example, starting with the Covid-19 pandemic, **Chania** developed an e-service app that enabled citizens to write and submit their thoughts, requests or complaints and comment on the quality of the services provided to them. The goal is to ensure that everyone is treated equally regardless of their status in the community.

In order to improve continuous participation, several municipalities have introduced **offices of participation**, tasked with identifying and opening up more opportunities for participation, or **schools of digital participation** to provide training in communication, collaboration and technology for public workers, citizens and journalists.

*"In Switzerland, we have the possibility to vote on many issues. However, it's only possible to vote yes or no, and in a more polarised political system, it's hard to find a majority for change, then you stay with the status quo. I see a trend towards introducing more deliberation in the process, towards creating ideas that are supported by the majority. Also voting on a 1 to 10 scale, so you can say 'I agree 70% with this.'"*

**Melanie Eberhard**, former Deputy Managing Director, Youth Swiss Parliament, Canton of Glarus

*"The most important thing is that all the citizens feel that their city council wants to receive all their ideas, proposals and hopes for the future. It's also vital to get the kids to participate, to work with them, because in this way they will understand that they need to be a part of the process, they will be confident with you and you will have the participation of these people in the future."*

**Ricardo Pita**, former Head of Participation, City of Lisbon

*"The key challenge is getting people who are not used to working together to collaborate to create ideal services for the citizens. Officials often love to work in their silos, so we are building multi-disciplinary, agile teams to implement modern digital services. It is a model that requires much cooperation and that is new for everyone."*

**Tadeusz Osowski**, Director, Office of Digitalisation, City of Warsaw

*"The Open idea box is a place where citizens can post their ideas. If 50 votes are collected within two months, an expert from the City of Linz is invited to discuss the idea. We also do a Hackathon every year on a special topic. All the ideas are uploaded onto the platform and citizens can vote for their favourite project."*

**Ana Zuljevic**, Head of Democracy and Social Cohesion, City of Linz

PART III

# The Market for Democracy Technologies in Europe

## The European market for democracy technologies, such as participation and deliberation platforms and online voting tools, is going through a phase of rapid growth and transformation.

The market's boundaries are still blurred, as some vendors see key competitors and opportunities in the following markets:

- ▶ Government Technologies (GovTech), e.g. improving government services with feedback from citizens
- ▶ Civic Technologies (CivicTech), e.g. petition tools and crowdfunding platforms, and
- ▶ Property Technologies (PropTech) and Smart City technologies, e.g. citizen participation in urban development projects.

In the early years of online participation, governments – especially those of larger cities – developed their own proprietary platforms. But as the scope of application grows, mature platforms covering more features are gaining the upper hand, because developing a proprietary platform gradually becomes more and more complex and uneconomical.

## Market players

**Online participation, deliberation and voting technology providers can be divided into two main camps: for-profit companies and not-for-profit organisations. Most providers stated that they founded their organisations out of a sense of responsibility to contribute to more lively and timely democracy beyond traditional forms of political representation and decision making.**

Besides the obvious difference of being for or not for profit, the two camps are separated by strong ideological differences in how they see the role of technologies in democracy, especially when it comes to the question of whether this emerging democratic infrastructure should be privately or publicly owned. Other questions, such as the debate about open source (see chapter “Practitioners’ Concerns”), are being discussed along these lines, too.

In Europe, there are currently over 100 companies and organisations providing services for online participation, deliberation and voting. Most of them only operate at the national level. In many cases, they originated from a single project successfully carried out by a small team that later decided to set up on their

own. With such a diverse group, “Europe is rich in civic tech. We have more civic tech than the US or Australia”, as one participant pointed out, while another said that “the number of citizen engagement solutions is vast, from very small local providers run in a non-profit way to the big multinational players in the market.” The same can be seen in online voting services, as “new companies are being created every year”, one representative told us.

But when it comes to mature companies and organisations with a high degree of professionalism, the field is much smaller. A director of one company pointed out that “there are a lot of competitors, but they’re quite small. In Europe, there are not that many companies doing what we do in a professional and serious way.

*There are probably five or six.” And as one voting company stated, “when it comes to the real e-voting companies, there are about five to ten big players”.*

*“There are a lot of competitors, but I would say that there are only a few mature competitors that have enough investment capacity to play internationally. In general, I’d say there are a lot of players, but at the same time, there’s convergence in the market, and more and more partnerships are being formed. I foresee that consolidation of the market will come soon.”*

**Julie de Pimodan**, co-founder & CEO, Fluicity

Even the leading companies and organisations in Europe are – compared to the general technology market – still rather small, with 10 to 60 employees, apart from a few exceptions. Most of them already operate internationally – or are planning to do so – and expanding quickly.

As far as participation platforms are concerned, some participants believe that the window for establishing new companies is closing. *“I don’t think there are a lot of new platforms being developed these days because there are already so many mature platforms on the market. New companies that come in will take a more specific and niche approach to things. Our competitors are still the same as five years ago, and we don’t see a lot of change there”,* as one CEO said.

The NGO-type organisations are often constituted as associations, and in these cases, their services and products are based on the work of volunteers. One representative stated that *“as a civil society organisation, we only did volunteer work for the first five or six years, but we’re gradually becoming more sustainable and we now have a core team of three people”.*

Big technology corporations, though, have not yet entered the democracy technologies market with their own services. As one interviewee of a consultancy put it, *“the big tech corps are completely missing out on it. Maybe because they just look at the small size of the current market and have not yet realised its political relevance”.* In this context it is worth noting that at least one multinational tech corporation has acquired a stake in one of the providers mentioned in this report.

## Market volume

**When it comes to estimating the size of the market in Europe and its prospects, industry players give a wide range of replies. Here are some examples:**

*"If you look at the civic tech market only through participative democracy platforms in Europe, it may be between EUR 50 and 70 million per year, not including the civic tech-related industries such as trainers or consultants. The civic tech market, including in the big service areas, we expect it to reach EUR 300 million in the coming years.*

*"If you asked 'How much is spent today on digital participation in Europe?' I would assume around 50 million. It's still very early days, and there are many governments that don't have anything yet. If we look at local governments in, let's say, a technologically mature environment you'll get to about half a billion euros. If the market continues to grow, this is what it could look like."*

*"We're talking about all digital terminal and non-terminal voting devices. The different voting devices for turnout elections, online election systems, just the whole market was forecast to grow from a few hundred million dollars to USD 8 billion in 2026." (worldwide, no estimate for Europe provided)*

*"The potential in Europe is huge. Digital voting or online voting in Europe, I think it's going to be a few hundreds of millions of dollars."*

*"Participation platforms, I think it would be around tens of millions of euros. It's a tiny market. If you're looking specifically at democracy processes or decision-making processes in general, then the digital transformation market is much bigger."*



## Growth prospects

**Almost all the companies and organisations who participated in our research have seen a strong increase in demand for their services. “With Covid-19, things began to move”, one participant stated, as governments had to reach out to citizens digitally and started to involve the public in collectively developing solutions for crisis-related issues.**

*“2023 is our big year because we are in the phase of expanding our solutions.”*

*“Participatory budgeting is used everywhere, also a lot in Europe, and in very different ways. There’s still room to grow there even though maybe it’s been tried out in several places already.”*

*“When it comes to expanding the business, we see a lot of opportunities in the US, we also have a partner there, and there is really big demand, and a lot of work that should be done with communities. ... We have great hopes for the future and scaling of the business.”*

*“2023 I think is going to be post-Covid, and in the future online voting is going to be something regular.”*

*“We are seeing a lot of growth this year. We have seen growth rates in the 40s, and even the 100s in recent years. Then there is a huge increase in requests in the market, and we get requests from all over the world.”*

*“Our revenue growth was about 30 percent from 2020 to 2021. We are looking for capital funding at the moment in the range of five to eight million euros. If we manage to do that, then we’d be looking at a much higher growth rate.”*

**Factoring in both the statements from industry representatives and available market studies, the market volume in Europe is as follows:**

- ▶ The market for participation and deliberation technologies in the public sector, such as online platforms and software-as-a-service solutions, is worth less than EUR 100 million and is expected to grow to approx. EUR 300 million within the next five years.
- ▶ Online voting for referendums, local and national elections, party primaries, other political institutions, unions and associations is currently valued at less than EUR 100 million in Europe and is seen rising to EUR 500 million within the next five years.

*“It would be a pity and a missed opportunity if the European companies were acquired by American companies. Europe needs to take a position to strengthen its [DemTech] market and localise its presence.”*

**Wietse Van Ransbeeck**, CEO, CitizenLab

*“We clearly see a trend of increasing numbers of projects using or implementing citizens’ dialogues. It is a trend at the moment to do something directly with people. Between two election dates, we have to go in direct contact with the population just to increase the involvement of citizens in decision processes.”*

**Myriam Pelzer**, Spokeswoman & Project Manager,  
Ostbelgien – Parliament of the German-speaking Community of Belgium

## Product trends

**Providers of participation and deliberation platforms report that they are constantly adding functionalities to their main products. Our interviews showed that in most cases these additions focus on three areas: artificial intelligence, voting and reporting.**

**Artificial intelligence (AI):** the leading democracy technology firms are introducing AI solutions to address problems of mass participation, like translation, fact-checking, sentiment analysis and clustering, distribution of content, and compiling groups online: *“We are working on proposal assistance for citizens. That’s going to make it more fun to participate. It will make it more meaningful in a situation where the governments and citizens can use artificial intelligence together where you have a citizen with an AI to interact with to make their proposal the best, and that goes into the process”.*

*“It is our goal to expand in e-voting, and that’s why we are researching new technologies, trying to learn as much as we can, and participating regularly in targeted European initiatives.”*

**Monica Manneschi,**  
Councillor for Innovation, Community of Arezzo

**Voting:** enhanced voting processes are increasingly being implemented into participation platforms, e.g. for participatory budgeting. As the leading participation and deliberation platform providers strive to provide as many use cases of citizen participation as possible, a convergence of voting and participation technologies is underway. This is corroborated by platform providers: *“We also have different applications like surveys, votes .... We do a lot of different things already, and in terms of features our platform is already quite versatile and probably already serves most of the needs that governments might have”.*

**Administration and reporting:** some platform providers are building new services for reporting and data preparation for public officials, as the rising number of projects has generated a need to keep track and learn from past participative projects, as well as requests for more internal reporting: *“We have a lot of investments in reporting, for example, more dashboards, and more text analytics to help you get a summary of what’s being said by the residents,” and “we observe a need for in-depth analysis of citizen opinions on main topics and trends. Decision-makers want to validate their projects with solid data and are looking for massive participation to get the most representative insights”.*

PART IV

# Practitioners' Concerns

## What implementers and providers need from legislative and governmental bodies

We asked political professionals, public officials and platform providers what they think is needed from legislative bodies in Europe to promote the growth of online participation, deliberation and voting in their area of work and beyond.

Several key topics were mentioned by a large number of respondents:

- ▶ Access to funding and human resources
- ▶ Ease of access
- ▶ Security standards for private data
- ▶ Open source and open code
- ▶ Authentication and related security risks
- ▶ Acknowledgement and encouragement

## Access to funding and other resources

Most of the political professionals and public officials we interviewed mentioned a shortage of staff, technical know-how and financial support to implement digital participation. In their view, digital participation should receive priority funding and incentives for projects that involve participation.

*"In Finland all municipalities are required by law to offer participation opportunities to their citizens. The cities would like to do more, but only the larger cities have enough funding for participation. How do we support the smaller areas which don't have the necessary funding?"*

**Antti Hukkanen**, CEO & founder, Mainio Tech Oy

*"Generally, the biggest cities are the leaders in Poland, because they have more money, possibilities and human resources. On the other hand, small towns have no money nor enough good workers or maybe people who are open minded, who are choosing bigger cities due to the brain drain. I don't think this is okay."*

**Piotr Masłowski**, Deputy Mayor, City of Rybnik

*"The biggest challenge in participation is not the tools, the budget or the development, it's the people and their fear of change. The key element is the human factor."*

**Roel Camps**, Expert, Participation and Advisory Councils Youth, City of Antwerp

As one city official stated: *"It is clear for most of the projects that there is a lot of work to be done, but funding is difficult. Therefore, the legal framework is not the main issue, but funding is more important."* Another official voiced similar concerns: *"I think that funding is the most relevant dimension, and all the other areas in terms of legal framework or regulation are currently adaptable to reality."*

In another example, a company representative told us that in order to launch their platform, they had to find an alternative to pay for digital signatures: *"We have to pay for them. So we basically also ask for donations. People donate money and up to now, it's worked pretty well. We have donations approximately at the same amount that we have to pay for the digital signatures."*

In one country where cities are required by law to offer participation opportunities to their citizens, an official told us: *"Many cities definitely do not have the funding and resources to implement this."*

Similar statements were given by other city representatives.

## Security standards

**In the view of a large group of city officials and company representatives who we spoke to, the collection and use of personal data by political campaigns and other organisations has become a major concern. Numerous interviewees observed a lack of trust among citizens regarding the security of their private data and expressed concerns about the expertise of implementers when it comes to guaranteeing data security.**

While the GDPR provides a comprehensive legal framework for handling such data in the EU, implementers face challenges posed by fast-moving technologies that they find difficult to assess with regard to actual levels of guaranteed security. And in an environment of generally limited trust in [data handling by governments](#), citizens will need to be persuaded to provide sensitive information online and reassured that such information cannot be manipulated.

As one respondent stated: *"Citizens, stakeholders and civil society members are more willing to take part in a [participation] project if they know for sure that it is in safe conditions", while another said that "the biggest challenge in terms of citizen participation through these digital platforms is safeguarding private data".*

Some vendors see the need for security standards, especially in the field of on-line voting. One company representative stressed that *"standards for e-voting can help to build trust, and make it easier for those who want to run an election to choose the right providers and the right software and the right tools. Right now, it's people who run elections, and depending on the resources, they really have a hard time in making the right decision, or calculating the risk they're taking".*

Another CEO strikes the same note: *"What we see now is that there is no general standard yet. Meaning it's a bit of an unregulated market in many places. There are a lot of black box systems out there, and you have no chance to scrutinise and vet. And I've been talking to people within this field to say that we need industry representation to actually argue for such standards", while another vendor proposed that "there should be some sort of label maybe for civic techs that are renowned and reliable", so that government bodies have a better idea of which tools to select.*

*"Building standards for e-voting can help build trust and make it easier for those who want to run an election to choose the right providers, software, and tools. Right now, people who run elections have a hard time making the right decision or calculating the risk they're taking."*

**Jan Wegner**, Head of Product Management, Polyas

*"Blockchain technology should be integrated more so that everyone can be sure that the voting process and other things are really clear and open."*

**Nadezhda Gerasimova**, CEO, Urbanpinion

## Authentication and related security risks

**Interviewees identified a trade-off between accessibility and security when it comes to user authentication. When the threshold is higher (e.g. with submitting ID, two-factor authentication or biometrics), participation rates drop significantly, according to respondents. When the authentication barriers are low, this opens the door for non-eligible participants and large-scale manipulation.**

As participatory and deliberative democracy is a rather new concept in many European countries, participation rates are still low, ranging on average from 2-4% of the eligible population (based on the statements of respondents). To increase participation rates and representativeness, local governments tend to reduce administrative barriers for citizens, such as easy registration processes without user validation. As a consequence, in many of the participatory budgets we examined, it is possible to propose projects and vote on the city budget without being an eligible resident.

As one platform provider stated, “Cities are more concerned about not getting enough participation and putting up a barrier that is too high. There’s a lot of demand for no registration at all. They want to keep it as light as possible.”

Asked if cities require citizens to authenticate their identity using a digital ID or passport, another representative said: “Most of the time, no. It’s very rare. It requires a lot of logistics. ... The general thing [cities] do is ask for the information in writing such as name, age or maybe date of birth and address. That’s just information. They don’t necessarily verify it. For them, it actually costs a lot of money and time to do this kind of ID verification. Also in person, it’s more logistically complicated, but some of them do. Sometimes they verify afterwards based on what they have on registers. Sometimes they ask for a sample of those participants to come and check their ID, but not all of them. It depends on the volume as well, but sometimes they take maybe like one percent of the participants and then they do a more thorough check on those people.”

*“It’s a fine line between lowering barriers for participation, which we believe very strongly in and not lowering them so far that Russian troll farms can infiltrate or a local NIMBY stakeholder could infiltrate. I don’t think we’ve come up with the answer yet.”*

**Michael Simon,**

Vice President Strategic Partnerships, Zencity

*“If a citizen can trust the banking application to make transactions, then equivalently our service can be trusted to make the citizen’s voice heard. We want people to trust this application because we know that it is there for them to protect the right to speak and vote.”*

**Nikolaos Tsounis,**

co-founder & Sales Director, Electobox

With more and more local governments introducing participatory budgets, this leads to the risk of manipulation by whoever has a motive and the means to influence democratic processes in Europe or in a specific country. Some companies, organisations and governments have started to apply secure validation processes, but their prevalence to date is low.

Reducing the risk of potential misuse on a large scale should be addressed at the respective national or the European level. One possible solution mentioned by a platform provider: *“A significantly higher penetration of digital IDs in the population would reduce efforts for user validation at the level of municipalities and reduce security risks to a minimum.”*

## Ease of access

**City and government representatives see the representativeness and inclusiveness of online participation, deliberation and voting as a key success factor. At present, there are no generally established standards for accessibility, but they are necessary to ensure that all voters have equal access to the processes, regardless of their technological know-how or access to technology. This especially applies to elderly people, citizens with little experience of using participation platforms, citizens on low incomes, homeless people, and citizens with disabilities and language barriers.**

As one company official explained, *“To increase the adoption of online democracy, it starts with strong participation frameworks, and then you see the adoption of digital platforms. Nevertheless, lawmakers should be thinking about accessibility guidelines, and try to promote online participation directly more through technology.”*

A significant challenge was also pointed out by another manager, one which we see as exemplary for the hurdles involved in creating truly accessible systems: *“There was a CAPTCHA on our platform. For blind people, it’s very difficult and blocks their navigation experience. I think we’re not at a very high level of maturity, and we still get to push those accessibility guidelines that are already out there.”*

Barriers to participation are not only technological in nature; age, socioeconomic level and ethnicity are also among the factors that may affect the capacity of different groups to engage in political participation. As one respondent stated: *“We have been quite successful in reaching out to seniors [...] but it is hard to reach people who are poorer and less engaged, because they have different issues and challenges and they don’t seem to have time for engaging with the city”.*

## Open source and open code

**Democracy technologies are highly diversified when it comes to transparency, open source and open code. Some government officials see open source and open code as a minimum requirement in participatory democracy, while others do not consider it to be relevant.**

There is also a high degree of divergence between providers' policies: some platforms and online voting systems are fully open source, some companies use closed source but provide open code, and some provide little or no transparency at all, possibly indicating a reliance on security by obscurity.

Some industry representatives stated that they do not consider open source to be the main issue, but transparency of the code: *"The essence there is the open code, not the open source. The most important thing is that governments want to bring transparency to how platforms are developed. It's not about those com-*

*panies being for-profit, or even about the licences because it can be threatening to your business model if you are open source, but still having the commitment to offer full transparency on the code and how it's been developed."*

*"Open code and offering transparency on the code is a movement we've seen. It's important for the governments to understand what 'open source' means because sometimes they're not sure about it. They hear it as a buzz term or buzzword. It would be good for us to declare why we want open source. What do we want to open? Do we want the code to be open?"*, one platform provider asked.

*"We think that when you are doing something so democratic in your core and your process, then maybe the tool that you use for that should reflect the same values. I think that open source is key to that because it's more transparent and has more checks and balances."*

**Esther Nass**, Director, Consul Democracy Foundation

*"The raw material of democracy is information and nowadays technology can reach everybody and support you to put across your words, defend your idea, and then vote and use your power of choice, in processes like participatory budgeting. We should do much more because we are facing a big challenge in our democratic system and values."*

**José Ribeiro**, Mayor, City of Valongo



*"The game changer is maybe open data or transparency of the algorithm when there's an algorithm, as that's not always the case. I'd rather talk about open data and open code for this type of algorithm than open source that doesn't apply to me or change anything", another company official replied.*

*"Our tool is now open source, which was not the case before 2022. It was important for us to make this move, as it was something most of our customers were waiting for."*

**Agathe Bianchin-Fabre,**  
Customer Success Manager, Cap Collectif

*"In the deliberative commissions, we bring together deputies and citizens who are drawn by lot through the national register. 10,000 people receive an invitation letter to participate. We try to have an equality between men and women and we also take into account the level of diploma, age, education and place of residence."*

**Gaël Watteuw,** Guarantor of Deliberative Process,  
French Parliament of Brussels

Some open source developers see their level of transparency as an advantage, but also state that a level playing field where privately-owned systems adhere to similar transparency standards is better for everyone: *"I would love for governments to work with us, but they don't have to if they regulate it in a way that means other private data software [solutions] also have to adhere to some better rules concerning data."*

The ascent of artificial intelligence in systems overall is viewed as inevitable, but for many, the lack of regulation and transparency raises concerns: *"We need to make sure that AI is monitored. We also need to be able to see how results are being processed,"* as one respondent said, referring to the handling of large numbers of text inputs provided by citizens in mass-deliberation processes with AI. In a similar statement we were told: *"AI is, again, a good use case for why we need to open code. It needs to be auditable."*

One city representative formulated it in more general terms: *"The technological issue is how we can ensure that the technology run by our democracies is free, open and auditable."*

## Awareness and encouragement

The majority of interviewees identified a lack of open mindedness among lawmakers towards participation technologies and a lack of encouragement for citizens and project implementers as a major obstacle to growth in digital participation.

*"A decade ago citizens were at the end of a long chain of decision making, but now they are in the middle. This means that a whole organisation has to be willing to share information, power, money, etc. Traditional institutions of democracy have to be kept, but participatory democracy can help bridge the gap between citizens and build trust."*

**Joana Balsemão**, Councillor for Citizenship and Participation, City of Cascais

*"The politicians, decision-makers and city officials are very blocked with the feeling of: 'What do those people even know? They don't have the expertise, experience and knowledge that I have.' Then on the citizen's side, there are people who don't know because they don't have the expertise. They think: 'They should ask me. They sit in the participation forums but don't listen to me.'"*

**Eliza Bujalska**, Deputy Mayor, City of Mińsk Mazowiecki

*"We have been quite successful with reaching out to seniors, but the poorer and less engaged are harder to reach. It's important to get those unreachable ones, and engage with them where they feel comfortable."*

**Petra Dzurovčinová**, Chief Information Officer, City of Bratislava

One company representative stated that *"petitions at the local level would be important to change the culture of participation."* She argued that participatory budgeting should be made *"almost mandatory at the national level"* and that local governments should be helped by higher authorities to do so. In her view, Europe is quite late in integrating democracy technologies into their different tenders, and so *"it is not so much about new regulations than it is about culture and tenders. You need to create a culture in which this is viewed as an asset."*

Other respondents pointed out that *"governments should create their own digital public spaces to communicate with citizens, and they should be fun as well."* And *"having public digital platforms is like having a park. Policymakers should try to inject positive things into the information sphere."*

As one city official who works with others at the national level pointed out: *"They have a lot of resources to invest in physical infrastructure, but not in social infrastructure. We believe that the challenges of the twenty-first century are about social infrastructure, and you'll have to put resources into that. That means that we must create a culture in which this is viewed as an asset in terms of investing in the creation of new models for citizens."*

PART V

# Democracy Technologies in Times of War and Authoritarian Regimes

**In Ukraine, the outbreak of war, with its immense challenges for government and civil society alike, has shown that digital participation technologies are a vital instrument for maintaining democracy. When governmental and media infrastructures are destroyed and public spaces are no longer safe, debates about issues and opinion forming are best held in digital spaces. Here are some insights into how the Ukrainian government is keeping democracy alive through online participation:**

*"In Ukraine, we have a state application here that includes digital documents, public services, etc. We have almost 18.5 million unique users. It is the Ukrainian citizens. That means that more than 70 percent of the adult population of Ukraine uses this application"*

*"We had polls from the President of Ukraine or a specific minister and consultations on key questions that the government has. In a poll taken by the Ministry of Internal Affairs, 1.7 million people voted in favour of allowing civilians to have shotguns for their own protection. The poll in our application looks like a vertical video. The President, minister or somebody else asks you about something in a minute. This solution seems very simple, but nobody realised it in other countries. We gave 18.5 million people such a simple solution like Instagram to have an impact on state solutions."*

At the municipal level, digital solutions were implemented in response to pressing needs arising from the invasion. In the words of one city official: *"We launched Kyiv Digital one year ago, with almost two million downloads. The app helped the city administration to hear demands from citizens that would not have come to their ears without the help of digital technologies. After the invasion, the people gave the petition to increase the time when they could move freely, allow payment by credit card in the transport, expand the timetables of public transport, change the names of streets, remove statues, and start curfew time from midnight, one additional hour, which was a petition of the small businesses"*.

Citizens could sign up to the city app easily thanks to its integration with the nationwide secure signature application. *"We use the integration with the [state application] DIIA in additional tools, and validated citizens can use services for voting and electronic democracy. They just have to smile, blink in front of a camera, and they can sign any application form or even documents."*

*"In case of war, electronic democracy instruments have to be stronger, because you have to hear from businesses and society, who are under attack like the whole country"*.

*"We are in a new meaning of the word "war". The war we imagined previously, like the Second World War, is only a part of our war, because other spheres are under attack at the infrastructure level, in cyberspace, on social media, in the minds of our citizens. So you have to go to the base of democracy, which relies on the movement of three streams: the government, business and society. Therefore, we have to listen to business and society because they are under attack, as is the whole country."*

*"We are now working more on polls with every direction to collect feedback from the citizens, proposing new projects for the citizens to vote on. During the war and after, we will be focusing on the development of digital solutions and electronic democracy features. The number*

*one challenge was to change mindsets, because some older mindsets [from the Soviet times] believed that voting or going to elections would change nothing. However, we are seeing a fantastic change in the mindset of the people because they are focused on democracy."*

**In an authoritarian context, civil society in Belarus has made use of the thriving ecosystem of technology startups in Minsk and employed democracy technologies to evaluate election results.**

*According to one respondent, "In Belarus, there are elections to elect the president and representatives at municipal level, but the elections have been rigged since 2001. So we built our own platform to monitor the election process".*

*A project was created to evaluate the fairness of the elections by providing an alternative registry of votes "through mathematical models that allow us to count votes during the election [...] and estimate what was the overall percentage for each candidate. This allowed us to prove that the elections were rigged."*

*An alternative ballot counting system was designed to compare the official numbers of people voting in polling stations. "1.6 million people participated [in our app] in the 2020 elections. The people uploaded a photo of their votes in the ballot. Then you know how many users we have from each station submitting the ballots. If in a polling station we have a thousand voters, and officially it is 800 votes for Lukashenko, but we have 300 ballots [for the opposition], then we can prove that it was rigged in this particular station".*

PART VI

**Recommendations  
to Lawmakers  
and Policy Makers  
on the National  
and International Level**

**We asked government representatives, vendors and experts what, in their view, is needed from lawmakers and policymakers at the national and international level. Their answers can be clustered around the following topics:**

- ▶ Support for local governments in planning and implementation
- ▶ Quality and security standards, and legal frameworks
- ▶ Support for the growing market

## Support for municipalities in planning and implementation

**Several representatives of municipalities stated that they are eager to widen citizen participation in their area, but lack the necessary resources.**

*“The higher levels of government, like the ministries or the state, could help the different cities that are doing the same thing. I think it’s a waste of time if all the cities do the same tasks and development on their own. It would be useful to have some facilitator that encourages information and knowledge sharing and that takes the development of these different platforms in the same direction to better tackle common challenges.”*

**Lilli-Nora Siikasmaa**, Head of the Office of Education and Culture, City of Tampere

*“In Greece, there is a lack of political will to adopt those [participatory] practices at a higher level. Without that, change won’t happen. We have proven that the bottom-up potential is there – people are good at collaborating, there are enough NGOs and social entrepreneurs emerging. However, you need the top-down potential.”*

**Amalia Zepou**, Former Vice Mayor for Civil Society and Innovation, City of Athens

### **Provide a selection of vetted tools:**

Municipalities need support in selecting the right tools and processes. Local governments sometimes invest substantial resources in developing tools for consultations – sometimes for one-off projects – without being aware of the variety of solutions already available. Also, municipalities are overwhelmed by the number of products and platforms available and need guidance in selecting services suited to their needs. To save time and money, and to increase the quality of participation projects, municipalities should be provided with a selection of vetted online participation and voting tools by their national governments.

### **Provide know-how and training:**

Furthermore, training and know-how exchange for public officials and political professionals is needed, as local governments often lack expertise and experience in how to run participatory projects. “Schools for digital participation” or similar initiatives should be established for this audience.

**Evaluation and sharing best practice:**

Processes for exchanging best practice should be established at the national level. This would ensure that successful projects are widely communicated, so that new actors in this field can build on their know-how and experience. Also, evaluations of the impact of participatory programs should be provided at

*“[Cities] need more knowledge, funding and support for developing open-source participation software. Knowledge on how to design participation, providing template participation processes and interactive websites to reduce the dependency on external professionals, and information on which technology is useful for which policy challenges.”*

**Anne Jochems,**  
Head of the Citizen Engagement Bureau,  
City of Amsterdam

the national level, in order to implement criteria and measure the effectiveness of policies.

**National agencies for online participation, deliberation and voting should be created for all the tasks mentioned above.**

Examples of such superordinate centres with resources and know-how on citizen participation are [LATINNO](#), a systematic source of data on new institutions for citizen participation in 18 Latin American countries, and the [Portuguese Network of Participatory Municipalities \(RAP\)](#) – a network of municipalities that share best practice in local democracy. Also, the concept of “participation coordinators” (introduced by Participation Factory in Slovakia) could be a blueprint for a structure that provides know-how at a national level. On the international stage, the [OECD Center for Innovative Citizen Participation](#) and the European Commission’s [Competence Center of Participatory and Deliberative Democracy](#) have a similar purpose.

## Quality, security standards and legal frameworks

As outlined above in the chapter on practitioners’ concerns, quality and security standards are required:

*“I think that the lottery is a useful way to get representative panels of citizens. It’s still difficult for us to organise that because we need a legal framework to use the population register, for example, and to make this lottery.”*

**Arnaud Pinxteren,**  
Head of Citizen Participation, City of Brussels

**Quality trust mark:**

Governments and political parties have introduced participatory democracy in various forms. The technologies and processes they apply vary in quality and security. Elected representatives and public officials often lack experience on how to identify, select and apply the appropriate technologies for citizen participation initiatives. Interviewees suggested developing a Europe-wide quality standard for trusted democracy technology solutions.



Such a trust mark would provide information about the tools' strengths and weaknesses, their conformity with the GDPR and other security issues. The interview results suggest such a Europe-wide "quality trust mark" for core democracy technology processes would be readily embraced in both the political sphere and industry, and contribute to growth in citizen participation. Successfully established trust marks from other industries could serve as blueprints.

*"As a cautious and democratic-minded citizen, I think it is very important for politicians to establish some minimum standards for digital voting solutions. We are dealing with something extremely sensitive, namely trust in democratic elections and in our democracy. Hence, we must ensure that one of the founding pillars of our society is handled in a way that can ensure trust and verifiability in the entire election process."*

**Jacob Gyldenkærne,**

CEO & founder, Assembly Voting

*"Key topics are data protection and what we do with data. A lot of subjects and laws are evolving lately in these fields but still, there is always more to do to improve the quality and security of the participation of citizens in a project."*

**Marine Lesaint,**

Digital Engagement Manager,  
Civocracy

### Security standards:

As municipalities and other government institutions try to increase the number of citizens taking part in participation initiatives and online voting, they often reduce barriers by allowing non-eligible users to participate, and even to vote, e.g. in participatory budgets.

Some mature platforms already provide high security standards and reliable authentication standards. Providers told us that not all their clients apply the available authentication standards because they want to lower barriers to participation. So national lawmakers should define minimum requirements for user validation and recommend suitable tools to municipalities. Also, as some interviewees stated, more widespread use of digital IDs would contribute to solving this issue.

In online voting processes, there is a lack of industry-wide standards for end-to-end verifiability, so such standards need to be defined (see also the "Practitioners' Concerns" chapter). As one representative of a voting company stated, *"what we see now is that there is no general standard yet. Meaning it's a bit of an unregulated market in many places. There are a lot of black box systems out there, and you have no chance to scrutinise and vet. The vast majority are black box systems that contain none of the crucial parts that constitute legitimate election eligibility. This is why we need standards."*

### Legal frameworks:

The comprehensiveness and up-to-dateness of legal frameworks for online participation in Europe varies widely. Some countries have extensive and tested frameworks, like Estonia. Others do not sufficiently address inclusiveness, data usage, accountability or transparency. And some do not provide applicable legal frameworks for online participation at all. Lawmakers in such countries should be called upon to set up development processes for adequate legal frameworks, so that citizens can rely on secure, high-quality processes and municipalities receive guidance.

Additionally, the role of complex software and artificial intelligence in handling, evaluating and analysing inputs from large numbers of citizens is growing. In this respect, interviewees stated that Europe needs a comprehensive strategy to support, protect and inspect the implementation of complex software and artificial intelligence in democracy technologies.

## Support for the growing market

**Some interviewees expressed concerns that mergers and acquisitions over the next few years could result in market concentration with non-European ownership structures.**

Today, most of these companies and organisations are based in Europe, with European ownership set-ups.

Non-European concentration is seen as a risk for European countries, as the democratic infrastructure for online participation, deliberation and voting would potentially be controlled by conflicting interests.

*“The digital transformation of democracy requires more funding and investment, and regulations adapted to the new technologies.”*

**Susanna Maier**, co-founder, VoteRookie

*“Lawmakers have to be aware that civic technologies are evolving very fast. We have to cope with the evolution of citizen engagement, and with progress in the area in other parts of the world. For that, we need funding, and help from the European lawmakers.”*

**Adrien Duguet**

President, Association of Civic Tech Europe

On the other hand, European providers see a window of opportunity to expand beyond Europe, as their products and services are positively received in other regions of the world. If governments in Europe want this young market on the continent to thrive and want to safeguard this vital technical competence, they should provide substantially higher funding for research and development – also as initial customers – for new technologies.

## Sources

This report is based on interviews with 53 industry leaders and representatives of cities and governments in Council of Europe member countries. They were split into three main groups:

- ▶ **16 frontrunners:** representatives of governments with extensive experience of participatory and deliberative democracy
- ▶ **20 emerging actors:** representatives of governments in the early stages of adopting participatory and deliberative democracy
- ▶ **17 representatives** of democracy technology companies and consultants

102 representatives of cities, organisations and companies in 27 countries were invited to contribute, and 53 responses were included in the report.

### Technology providers and consultants

<b>Jacob Gyldenkærne</b> , CEO & founder	Assembly Voting
<b>Adrien Duguet</b> , President	Association Civic Tech Europe
<b>Agathe Bianchin-Fabre</b> , Customer Success Manager	Cap Collectif
<b>Robert Bjarnason</b> , co-founder and President	Citizen.is
<b>Wietse Van Ransbeeck</b> , CEO	CitizenLab
<b>Marine Lesaint</b> , Digital Engagement Manager	Civocracy
<b>Esther Nass</b> , Director, Consul Democracy Foundation	CONSUL
<b>Nikolaos Tsounis</b> , co-founder & Sales Director	Electobox
<b>Julie de Pimodan</b> , co-founder & CEO	Fluicity
<b>Antti Hukkanen</b> , CEO & founder	Mainio Tech Oy
<b>Anonymous Participant</b>	A Belarus initiative
<b>Jan Wegner</b> , Head of Product Management	Polyas
<b>Ekaterina Petrikevich</b> , co-founder	Participation Factory
<b>Shai Bargil</b> , co-Founder & CEO	Sequent
<b>Nadezhda Gerasimova</b> , CEO	Urbanpinion
<b>Susanna Maier</b> , co-Founder	VoteRookie
<b>Michael Simon</b> , Vice President Strategic Partnerships	Zencity

### Governments and other organisations

<b>Roel Camps</b> , Expert Participation and Advisory Councils Youth	City of Antwerp	Belgium
<b>Amalia Zepou</b> , former Vice Mayor for Civil Society and Innovation	City of Athens	Greece
<b>Anne Jochems</b> , Head of the Citizen Engagement Bureau	City of Amsterdam	Netherlands
<b>Gregor Wenda</b> , Deputy Head of Department of Electoral Affairs	Ministry of Interior Affairs of Austria	Austria
<b>Monica Manneschi</b> , Councillor for Innovation	Comune of Arezzo	Italy
<b>Raúl Oliván</b> , Head of Democratic and Social Innovation, and <b>Carlos Oliván</b> , Head of Citizen Participation Services, Regional Government of Aragon	Region of Aragon	Spain
<b>Arnau Monterde</b> , Head of Democratic Innovation	City of Barcelona	Spain
<b>Michele d'Alena</b> , Director, and <b>Leonardo Tedeschi</b> , Community Manager, Civic Imagination Office, Urban Center Foundation	City of Bologna	Italy
<b>Diogo Farinha</b> , Deputy Councilor Urban Development	City of Braga	Portugal
<b>Petra Dzurovčinová</b> , Chief Information Officer	City of Bratislava	Slovakia
<b>Arnaud Pinxteren</b> , Head of Citizen Participation	City of Brussels	Belgium
Joana Balsemão, Councillor for Citizenship and Participation	City of Cascais	Portugal
<b>Eleni Zervoudaki</b> , Deputy Mayor for Social Policy	City of Chania	Greece
<b>Karl-Hendrik Pallo</b> , SA Eesti Koostöö Kogu, Raahvalgatus.ee	Estonian Cooperation Assembly	Estonia
<b>Paulo Rosa</b> , Policy Analyst, Competence Center on Participatory and Deliberative Democracy & Conference on the Future of Europe	European Commission	EU

<b>Melanie Eberhard</b> , former Project Leader at engage.ch and Deputy Managing Director of Youth Swiss Parliament	Canton of Glarus	Switzerland
<b>Joanna Krukowska</b> , Manager of UrbanLab Department, Council of Citizen Participation	City of Gdynia	Poland
<b>Claudius Lieven</b> , Department of Urban Development and Housing, Office for Regional Planning and Urban Development	City of Hamburg	Germany
<b>Kirsi Verkka</b> , Development Manager	City of Helsinki	Finland
<b>Oleg Polovynko</b> , Director of IT, Kyiv Digital	City of Kyiv	Ukraine
<b>Pia-Mareike Heyne</b> , Head of Department for Democracy and Social Cohesion	City of Leipzig	Germany
<b>Ana Zuljevic</b> , Head of Democracy and Social Cohesion	City of Linz	Austria
<b>Ricardo Pita</b> , former Head of Participation	City of Lisbon	Portugal
<b>Eliza Bujalska</b> , Deputy Mayor	City of Mińsk Mazowiecki	Poland
<b>Myriam Pelzer</b> , Spokeswoman & Project Manager	Ostbelgien – Parliament of the German-speaking Community of Belgium	Belgium
<b>Esther Bakker-Beil</b> , Strategic Advisor & <b>Brenda van Breemen-Olij</b> , Innovation Process Manager	City of Rotterdam	Netherlands
<b>Joanna Tejchma</b> , Subinspector at Department of City Brand, Cooperation and Tourism	City of Rzeszów	Poland
<b>Piotr Masłowski</b> , Deputy Mayor	City of Rybnik	Poland
<b>Nermina Suljević</b> , Head of Department for Sustainable Development	City of Sarajevo	Bosnia and Herzegovina
<b>Lilli-Nora Siikasmaa</b> , Head of Office of Education and Culture	City of Tampere	Finland
<b>Lilian Lukka</b> , Communications Manager	City of Tartu	Estonia

<b>Mstyslav Banik,</b> Director of eServices Development	Ministry of Digital Transformation	Ukraine
<b>José Ribeiro,</b> Mayor	City of Valongo	Portugal
<b>José Luis Pérez (Kotelo),</b> Head of Civic Centers Services	City of Vitoria-Gasteiz	Spain
<b>Tadeusz Osowski,</b> Director of Office of Digitalization	City of Warsaw	Poland
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OECD Center for Innovative Citizen Participation

<https://www.oecd.org/governance/innovative-citizen-participation/>

Competence Center of Participatory and Deliberative Democracy <https://cop-demos.jrc.ec.europa.eu/>



# Annex

## Questionnaire for political professionals

1. What is your role and function regarding citizen participation and democracy technologies in your area of work?
2. Can you tell us about at least one ... up to max. three ... citizen participation processes supported by digital technologies that have been implemented in your municipality/area of work (e.g. for online participation, deliberation and voting)?
3. What were the biggest challenges that arose during these projects?
4. What in your view are the key success factors when launching citizen participation projects?
5. Which platforms or technologies were used? What were your experiences regarding these technologies and the providers?
6. In which areas are you thinking about expanding citizen participation supported by technologies?
7. In which areas of democratic processes do you think (better) technologies are needed?
8. What kind of support from higher levels of government and legislation (e.g. parliament, national or regional government) would be helpful for your citizen participation projects and the use of such technologies ... regarding regulations/legal framework, funding and infrastructure?
9. Do you see risks for democracy when using democracy technologies?
10. What trends do you see regarding citizen participation in other cities, municipalities or government entities?
11. If your city does participatory budgeting: how much money did you dedicate per citizen in your most recent participatory budget?
12. Are there any topics in the field of democracy technologies you would like to get more information about? What sources do you currently use to obtain information about democracy technologies that you would like to recommend?

### Questionnaire for industry leaders

1. Is there any news or are there any achievements in your company that you would like to share?
2. What are your key products and services today? In which areas are you planning to introduce new products and services? Do you see other fields in which your platform/solution can be applied?
3. What are your business objectives?
4. What are the biggest challenges you face with your clients when helping them to implement their projects?
5. In your view, what are the key success factors when launching citizen participation projects? Do you have any data on user satisfaction (citizens) that you could share with us?
6. What are currently the most in-demand applications, products and services in this market? How do you think this will change in the next year?
7. What are the key growth areas? What is your estimate of the market size in Europe in 2023?
8. How would you describe the development of the supply side of the market in Europe, e.g. growing number of market participants?
9. What trends in new technologies do you see in the market? What other trends or issues do you see?
10. Thinking of lawmakers and policymakers in Europe and at the national level: what aspects of regulation should they work on?
11. Do you see the need for more investment capital to help the most innovative companies in this sector thrive?
12. In what way could lawmakers and policymakers support positive market development?
13. What security issues do you see in current democracy technologies?
14. How do your clients in the public sector ensure that all participants are eligible to participate?

## About the International Institute for Democracy and Electoral Assistance (International IDEA)



[idea.int](https://www.idea.int)

The International Institute for Democracy and Electoral Assistance (International IDEA) is an intergovernmental organisation with the mission to advance democracy worldwide, as a universal human aspiration and enabler of sustainable development. We do this by supporting the building, strengthening and safeguarding of democratic political institutions and processes at all levels. Our vision is a world in which democratic processes, actors and institutions are inclusive and accountable and deliver sustainable development to all.

### **What do we do?**

In our work we focus on three main impact areas: electoral processes; constitution-building processes; and political participation and representation. The themes of gender and inclusion, conflict sensitivity and sustainable development are mainstreamed across all our areas of work. International IDEA provides analyses of global and regional democratic trends; produces comparative knowledge on good international democratic practices; offers technical assistance and capacity-building on democratic reform to actors engaged in democratic processes; and convenes dialogue on issues relevant to the public debate on democracy and democracy building.

### **Where do we work?**

Our headquarters is located in Stockholm, and we have regional and country offices in Africa, Asia-Pacific, Europe, Latin America and the Caribbean. International IDEA is a Permanent Observer to the United Nations and is accredited to European Union institutions.

## About the Innovation in Politics Institute



[innovationinpolitics.eu](https://innovationinpolitics.eu)

The Innovation in Politics Institute is a mission-driven company based in Vienna and Berlin, and is represented in 15 European countries. It identifies, develops and applies innovations in politics, and facilitates the exchange of best practice across borders.

Through the annual Innovation in Politics Awards, it has collected one of the largest databases of innovative policies in Europe. Over 2,500 projects have taken part in the competition so far, and more than 500 winners and finalists have been selected by a citizens' jury in which over 5,000 citizens have participated.

Furthermore, the Innovation in Politics Institute has launched the European Capital of Democracy. Starting in 2023, each year one city will be selected in a two-stage process – by a jury of experts and a jury of up to 10,000 European citizens – and granted this honorary title. Together with its citizens, the European Capital of Democracy curates, organises and hosts a variety of activities that strengthen democracy, attracting visitors from all over Europe.

The Institute launched the online magazine Democracy Technologies to provide people working in politics and the industry with in-depth information about new developments and technologies in the field of digital participation and deliberation, electronic voting, and other digital tools that improve political organisations.



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Democracy Technologies is your independent source covering developments in the field of democracy technologies, participation and e-voting tools. We cover news about the industry, share stories about what works and what doesn't and provide you with contributions from experts in the field.



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