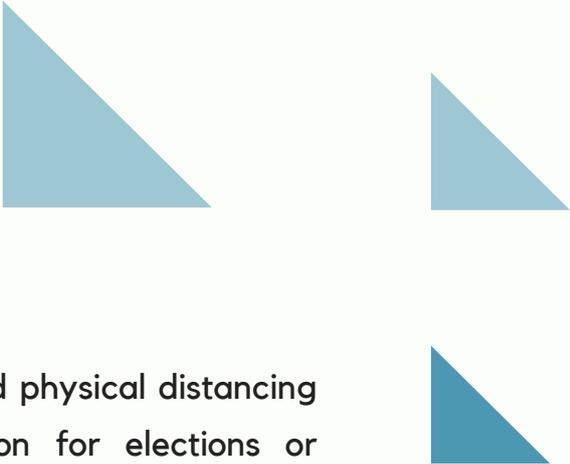


# I-Voting in the European Union

Policy briefing

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As world is fighting with the COVID-19 pandemic and physical distancing is recommended, i-voting remains the safest option for elections or decision-making. In addition to ensuring social distancing, i-voting could help reach isolated communities, increase accessibility for voters with disabilities and even increase voter turnout by engaging younger generations whose turnout at elections is usually lower. Internet voting can also save costs for holding elections. In Estonia, the only country which introduced i-voting at national level for all voters, it is estimated that during national elections in 2017 i-voting saved 11 000 working days[1].

There is no unified policy on i-voting in the European Union but some of its member states are exploring how to ensure cyber security and increase citizens' trust to i-voting. In 2017, the Council of Europe developed comprehensive guidelines for i-voting[2] that remain of advisory character. In 2018, the European Union changed its 1976 Electoral Act[3] for the first time to introduce an option for postal and internet voting. In 2019, citizens of the EU could vote electronically at the elections to the European Parliament.

Building on the experience of elections to the European Parliament in 2019 as well as different i-voting systems at the EU member states, this briefing provides recommendations on policies and technical solutions for i-voting in the European Union.

# Which policies should underpin i-voting?

1

I-voting systems should be based on principles of democratic elections and referendums.

2

I-voting should be introduced on sound legal grounds and do not contradict national electoral laws and constitutions.

3

Prior to introducing i-voting, rigorous feasibility studies, cost-benefit analysis, and non-binding trials should be performed. Grounding on their results, an informed data-driven decision about establishing i-voting and its specific format can be made.

4

It is important that Internet voting is offered not as an exclusive voting method but as an addition to traditional voting.

5

Large-scale i-voting should be preceded by ICT and digital skills awareness-raising and education for citizens.

6

The EU must invest in research and analysis and monitoring of i-voting practices in Europe. For example, the research of i-voting practices during 2019 European Parliament elections should provide practical insights and recommendations for i-voting in the EU.

7

Before i-voting is introduced at national or local levels, European citizens should be consulted on their attitude and trust towards Internet voting. The consultations will also reveal specific citizens' concerns with regards to i-voting. Combined with subsequent expert consultations, they would facilitate finding a trustworthy and efficient solution.

# What are the technical solutions for i-voting?

1

Advanced cyber security solutions should be the basis of every i-voting system. It is also recommended to attract 'white hat' ethical hackers to make sure that cyber security systems of i-voting can stand real-life challenges, are up-to-date and regularly upgraded.

2

It is recommended to opt for decentralised Internet voting systems, for example, distributed ledger technologies, such as blockchain.

3

Several stages of users' identification as well as cryptographic verifiability can provide additional security. For example, the combination of a 'hard' token (the identity card) and a 'soft' token (the PIN number) would ensure a more reliable identification of voters.

4

The possibility of altering one's vote multiple times online and the option of voting offline should prevent corruption, vote pressure and vote buying.

5

Lastly, in order to prevent the malfunctioning of technical systems, it is recommended to perform regular checks and updates of i-voting software and hardware, having backup arrangements, contingency procedure, perform audits, and ensure accountability.

For a detailed analysis of i-voting risks and a set of legal, organisational, and technical solutions of mitigating them please refer to the respective EDDA policy paper[4].

[1]<https://e-estonia.com/solutions/e-governance/i-voting/>

[2][https://search.coe.int/cm/Pages/result\\_details.aspx?ObjectId=0900001680726f6f](https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=0900001680726f6f)

[3]<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A01976X1008%2801%29-20020923>

[4]<https://www.europeandigital.org/internet-voting-challenges-and-solutions>

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