

Digital Political Participation in seven countries

Casestudies on digital political participation in Austria, France, Canada, Germany, Italy, Japan and Switzerland

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This short paper presents seven short case studies on digital political participation in Switzerland, Germany, Austria, Italy, France, Canada and Japan. Digital political participation is measured with the DigiPartIndex (DPI). In the analysed countries we find different levels of digital political participation with DPI-scores ranging between 33 and 65 points.

Additional Key Words and Phrases: digital participation, e-governance, internet voting, e-consultation, e-deliberation, e-collecting, e-ID, index

1 SWITZERLAND

1.1 political system of Switzerland

Switzerland has two important institutional characteristics that shape the different forms of participation that are possible and thus have an impact on the different forms of eParticipation. Firstly, Switzerland is characterised by a strong federalism, similar to Germany and Austria, but in contrast to the federalism in Canada or central governments such as in France or the UK [Rudzio 2019, 289 f]. Therefore, not all competences are at the national level and participation also takes place at the regional and local level. It is therefore possible that not all instruments of participation can be found at all three levels.

Secondly, Switzerland has elements of direct democracy at all three levels of government. While it is no exception to have direct democratic elements on the local or regional level, Switzerland is the only country in the world that also offers extensive direct democratic tools for citizens on the federal level [Knoepfel et al. 2014, 159f]. Direct democracy: This may have two possible implications: i) there are more tools that can be digitised, as there are more opportunities for participation in general. However, ii) as there are already many tools for participation in the analogue world, there may be less demand or implementation of new digital tools for participation.

1.2 opinion formation: 70 points

eDeliberation: 30 points. Swiss institutions regularly use social media as an information channel (e.g. the Federal Council on Twitter ([Communication](#), [Guy Parmelin](#)) or [Alain Berset](#)) and [Instagram](#); Parliament on [Twitter](#)). However, there is currently no dedicated platform for eDeliberation on national policy issues. We therefore award 2 points. We give a bonus point for diversity, as several institutions, such as the parliament and the government, use several social media channels. As this is used as an information tool rather than an interaction tool, there is no bonus for use, although

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there are very frequent posts. Overall, Switzerland scores 2.2 points, which is equivalent to 30 points on the normalised scale.

Civic eEducation: 85 points. General information necessary for participation is available online (e.g. [ch.ch](#), [voteInfo](#) or [Vimentis](#)). This is worth 1 point. There are also several Voting Advice Applications (VAAs) that help citizens to form an opinion on different candidates during elections (e.g. [smartvote](#) or [Parteienkompass](#)) or on proposals on the ballot paper ([votenow](#)). This is worth 1 point. There are several websites offering didactic material for schools (e.g. [easy vote](#) or [Politzkyklus](#)). This is worth 1 point. There is also a website sponsored by the Swiss government that offers tips and tricks for parents and children in the area of media literacy ([Jugend und Medien](#)). This is worth 1 point. A total of 4 points will be awarded. We also give a bonus of 0.2 points for inclusiveness as the information on the ballots is also available in [sign language](#). In addition, the Parliament's website is also available in [simplified language](#). There is an additional bonus of 0.2 points for having several VAAs. In total, Switzerland is awarded 4.4 points, which corresponds to 85 points on the normalised scale.

eTransparency: 95 points. Switzerland has its own "Open Government Data" strategy. In addition, political processes are open (e.g. [Parliament](#) or [Government](#)). There is also a [open government data platform](#). Finally, there are smart tools that further process parliamentary data to create insights for citizens (e.g. [smartmonitor](#) or [Lobbywatch](#)). This is worth 5 points. There is a 0.2 point penalty for not having a single point of contact. In total, Switzerland receives 4.8 points, which corresponds to 95 points.

1.3 co-creation: 20 points

eConsultation: 5 points. [Consultations](#) take place regularly and follow a very institutionalised process. However, this process does not include digital tools and material can only be submitted by email. Therefore, 1 point is awarded. There is a bonus of 0.2 points for use. In total, Switzerland receives 1.2 points, which corresponds to 5 points on the normalised scale.

eDemand: 35 points. The Swiss political system offers an elaborate set of direct democracy instruments. Therefore, the right to petition does not play as important a role as elsewhere and there is no official petition platform. However, there are several private, non-partisan petition platforms (e.g. [openpetition](#), [change](#), [WeCollect](#)). This is worth 2 points. As there are many different platforms that are used regularly, there are two bonuses of 0.2 points each for use and variety. In total, Switzerland receives 2.4 points, which corresponds to 35 points on the normalised scale.

1.4 Decision Making: 25 points

eID: 25 points. Switzerland does not offer a real eID. However, there is a [login](#) that can be used for eServices. This login does not necessarily need to be verified. The cantons' eID solutions can be used to create this login. In addition, there is new legislation that wants to introduce a real eID. However, it is unclear if and when this legislation will be passed. 2 points are awarded for this. There is no other bonus or malus. Switzerland receives a total of 25 points.

eVoting: 25 points. There is currently no [eVoting](#) in Switzerland, as no software has the necessary authorisation. Switzerland has a legal basis for eVoting ([Decree of the Federal Council on electronic voting \(VEleS\)](#)). In the past, there have been several pilot projects in many cantons and eVoting has been available to Swiss living abroad. Therefore, 2 points are awarded. There are no bonus or malus points. In total, Switzerland receives 2 points, which corresponds to 25 points on the standardised scale.

1.5 DigiPartIndex Score: 33

Switzerland receives a score of 33 for the DigiPart Index. This is a low score. In the opinion-formation dimension, Switzerland has 70 points, which is a high score. However, Switzerland scores only 30 points in the decision-making dimension and 20 points in the co-creation dimension, which are very low scores. The co-creation dimension is unlikely to change significantly as there appear to be no projects aimed at improving digital political participation in this area. This may be partly due to the fact that this dimension is quite extensive at the local level [see Hofmann et al. 2022; Serdült et al. 2021]. However, there may be some major changes in the decision-making dimension in the coming year, as there are efforts to introduce a proper eID and there are software solutions for eVoting that are expected to receive the necessary approvals in the near future.

2 GERMANY

2.1 political system of Germany

Germany has two important institutional characteristics that shape the different forms of participation that are possible and thus have an impact on the different forms of eParticipation. First, Germany is characterised by extensive federalism, similar to Switzerland and Austria, but in contrast to federalism in Canada or central governments as in France or the UK. Second, at the national level, Germany is a representative system in which national elections are the main form of civic political participation [Gabriel 2022a, 88].

Germany has a strong federalist state system with some legislative competences only at the national level (e.g. international relations), some competences only at the sub-national level (e.g. education) and some shared competences (e.g. criminal law) [Rudzio 2019, 289 f, 304ff]. This has important implications for political participation at the national level. Many forms of political participation are found only at the sub-national level [Gabriel 2022a, 88]. For example, at the national level, apart from the right to petition, there are no real direct democratic instruments that citizens can use to influence policy at the national level. At the sub-national level, however, there are a variety of direct democratic instruments such as the "Bürger- or Volksbegehren"¹, which allow citizens to contribute to the policy cycle [Gabriel 2022a, 89].

Due to the national representative system, there are not many formalised forms of participation at the national level apart from national elections [Gabriel 2022a, 88]. However, there are less formalised forms of participation such as informal discussions in forums or on social media, or more expressive forms such as protests [Gabriel 2022a, 88f]. Finally, the right to petition plays an important role in Germany (see the website of the Bundestag).

In general, digital forms of participation have played an increasingly important role in Germany since the "reunification" and especially since the beginning of the 2000s. They also play an important role in broadening participation and increasing its diversity and inclusiveness [Gabriel 2022b, 115].

2.2 opinion formation: 78 points

eDeliberation: 40 points. In Germany, all major political and social actors are also present on social media (see for example the Twitter profile of the Federal Chancellor or the national Parliament). Otherwise, there are no major portals at the national level that are dedicated platforms for citizens to actively engage in public political debate on national policy issues. However, there was a pilot project with a digital citizens' council in the summer of 2022. 200 randomly selected citizens participated in an online citizens' council on AI in the care sector, moderated by students from a

¹Both instruments are similar, but the latter is at the level of the *Länder*, while the former is at the level of the municipality or district

university in Stuttgart (see [citizens' council](#)). Although this citizens' panel was only a pilot project in the context of a research project, we awarded 3 points for eDeliberation in Germany. However, if there are no similar projects in the future, only 2 points will be awarded in future rounds. Due to the pilot nature of these councils, we have deducted a malus of 0.2 points as they are not yet held on a regular basis. We also deducted 0.2 points for inclusiveness, as participation in this council was not open to the public, but only to the randomly selected participants. In total, Germany scored 2.6 points. The standardised min-max is 40 points.

Civic eEducation: 100 points. Civic eEducation is very advanced in Germany. General information on the political system is available online. There are several VAAs to inform citizens about candidates for national elections.² Additionally, political education is very advanced generally and there is even a dedicated federal department ([Bundeszentrale für politische Bildung \(BpB\)](#)). This department provides a multitude of materials for political education in schools. Part of this material can also be considered as material for [political eEducation and media literacy](#). Finally, there are also gamified contents available that inform users about different political processes.³ We assigned the full 5 points for this indicator. As there are additional measures to design those tools in an inclusive way by providing content in [sign language](#) on the website of the Bundestag, for example, we assigned a bonus point of 0.2 points. However, we also assigned a malus point of 0.2 for usability, as political e-education is no one-stop-shop. These bonus and malus points cancel each other out and do not alter the score of 5 points. Min-max standardised the score lies at 100 points.

eTransparency: 95 points. Germany has a comprehensive open government data strategy. For example, parliamentary minutes and live streams of parliamentary sessions are [accessible](#) online. There is also a [open government data portal](#) that provides datasets and also lists applications that use these data. In addition, there are several open source tools that process this data in an intelligent way. The tool [Abgeordnetenwatch](#) allows citizens to check how MPs have voted on specific legislation and also allows them to ask questions directly to MPs. These are two important aspects of accountability that allow citizens to evaluate the promises that politicians made for their election and to hold them to account by interacting directly with them. Another interesting tool is the [openparliament TV](#), which makes MPs' speeches searchable. This makes it easier for citizens to monitor the political behaviour of MEPs. Therefore 5 points are awarded. We deduct a small penalty of 0.2 points because, for the full score, all tools should be available in a one-stop-shop to make them more accessible. A total of 4.8 points is awarded. The min-max standardised score is 95 points.

In summary, the first dimension of opinion formation is quite developed. With an average of 78.3 points, this dimension has a high score, which is almost in the highest segment of the scale. Civic eEducation is the most developed tool, but eTransparency is not far behind. In the area of eDeliberation, however, there is still some room for development. The civic tech community in Germany is very dynamic and there are many interesting initiatives that could have an even greater impact on future DPI scores.

2.3 co-creation: 50 points

eConsultation: 20 points. Consultations take place regularly (see [Unified Information Centre for National Consultations](#)). However, most of these consultations do not use digital tools and material has to be submitted by e-mail [[Gabriel 2022a](#), 87]. For a few consultations, ad hoc surveys were used instead of only accepting feedback by e-mail [[Liljeberg and](#)

²e.g. [Wahl-O-Mat](#) or [Metawahl](#)

³There are different games available such as [Planning games](#) ([Frei und Gleich](#) or [Unionslabor](#)). An overview of other games can be obtained <https://www.politische-bildung.nrw.de/fileadmin/3rdparty/fn-game/index.html>

[Krambeer 2020](#), see]. It is worth mentioning that at the sub-national level there are several initiatives for appropriate e-consultation tools [[Koop 2010](#), compare]. However, these are not considered in this paper as we focus only on the national level. Therefore, 2 points are awarded as there were some ad hoc surveys. However, as this is not the standard procedure and the material usually has to be sent in by e-mail, we deduct a penalty of 0.2 points for its use. This gives a total score of 1.8. The min-max standardisation gives a tool score of 20 points.

eDemand: 80 points. In Germany, there are several private ePetition platforms that are regularly used. Some of them, such as [Open Petition](#) or [Change](#), are also available in other countries. There is also another platform that is only available in Germany. The portal [Frag den Staat](#) is also widely used and allows citizens to get answers from the federal government. In addition, there is a central [Petition Platform](#) on the website of the Bundestag, where people can start petitions. Once they reach a certain quorum, the petitioners are heard by a committee. So they get 4 points. We also add a small bonus of 0.2 points for usage, as this petition platform is often used and many petitions reach the quorum and are heard in parliament. Therefore, the score is 4.2 points, which is 80 points according to the min-max standardisation.

In summary, the co-creation dimension receives a score of 50 points, which is exactly in the middle of the scale. This is mainly due to the eConsultation tool, which is not very developed at federal level in Germany. On the other hand, the eDemand tool is very well developed and citizens can even address a committee with their petition if enough fellow citizens support the petition. It is worth noting that - again - this analysis only reflects the level of digital political participation at the federal level. At the sub-national level, there are Länder that offer more tools, especially in the area of consultation (see for example the [participation portal](#) of Baden-Württemberg).

2.4 decision making: 38

eID: 75 points. In Germany there is a [eID card and online identification function](#) of the regular ID card that allows digital identification via a card reader and an app. The eID is therefore not seamless as it requires a physical card. This eID card can be used for a variety of different services listed [here](#). It is worth mentioning, although not relevant for the score, that most of the different eGovernment portals at federal and sub-national level are interoperable and citizens only have to [sign up once](#) and can use the same account for all different portals. Therefore 4 points are awarded. There are no bonus or penalty points. Therefore, Germany receives 75 points for the eID tool according to the min-max standardisation.

eVoting: 0 points. There is no e-voting system in Germany. There will be some experiments with [eVoting](#) in 2023, but not in the context of national elections. Below the threshold of state elections, there have been some [pilots](#) with eVoting in different institutions (parties, universities and others). However, eVoting will not be a possibility for real elections in the near future [[Deutscher Bundestag 2022](#)]. Therefore, 1 point is awarded, which corresponds to 0 points after the min-max standardisation.

In summary, Germany receives 37.5 points for the third dimension of decision-making. This makes it the weakest dimension of digital political participation in Germany. This is mainly due to the 0 points for eVoting.

2.5 DigiPartIndex Score: 53

Germany scores a total of 53 points. This is in the middle of the scale. While Germany offers very advanced tools for opinion formation, especially in the area of civic eEducation, there is still potential in the other two dimensions. For eConsultation and eVoting, Germany does not yet have much experience. However, there are various options for exploring the adaptation of digital alternatives, which are also promoted by an active civic tech community. By focusing

only on the national level, we cannot capture initiatives at the regional and local level. For a federalist country like Germany, this means that we ignore important parts of the political process. This may be one of the reasons why the eConsultation tool has such a low score, as most of the tools do not operate at the federal level, but rather at the regional level.

3 AUSTRIA

3.1 political system of Austria

According to the Austrian Constitution “Austria is a democratic republic. Its law emanates from the people” (Federal Constitutional Law, Artikel 1 B-VG). However, “Austrians do not pass their laws themselves but appoint, in National Council elections, representatives that perform the legislative work on their behalf – the Members of the National Council.” (<https://www.parlament.gv.at/ENGL/PERK/PARL/DEM/WAHLEN/index.shtml>). Austria is thus a Parliamentary Democracy which according to Austria’s parliament website means that “everyone should be able to voice their opinion and defend their interests in a spirit of mutual respect. In Parliament this is done by the different parties, the rules governing legislation and parliamentary control.” (<https://www.parlament.gv.at/ENGL/PERK/PARL/DEM/DEMOKRA/index.shtml>)

Politicians thus always have to justify themselves to Parliament and listen to others. The sentence “Its law emanates from the people” means 1) that all institutions and politicians have to justify their decisions and actions to their citizens and stand for elections regularly and 2) that every citizen must have the right to express their opinions and become politically active. (<https://www.parlament.gv.at/ENGL/PERK/PARL/DEM/DEMOKRA/index.shtml>).

Participation, inclusiveness, respect for different opinions and finding compromises thus play an important role in the Austrian political system and is an excellent basis for designing and developing electronic solutions for more active citizen participation.

3.2 opinion formation: 70 points

eDeliberation: 35 points. The Austrian parliament/government and the Austrian Digital Office have several social media channels (Facebook, Twitter, Instagram, Facebook, Youtube). They post frequently and there are some interactions. The Parliament also has a newsletter.

A good example is the [Facebook page](#) of the Austrian Parliament. There are regular posts that can be liked and commented. In some cases, answers to comments are also provided. The page has about 30k followers. In his Master thesis, [Atzmüller 2019], provides insights about the use of social media by the Austrian members of the National Council. He highlights interaction as a key feature of the social media use.

Civic eEducation: 95 points. The Website «Demokratiewerkstatt» (<https://www.demokratiewerkstatt.at/>) provides a lot of political information in many different formats especially for children and young adults. Examples of contents are: animation videos, video interviews, video chats, a lexicon, quizzes, games, your week as a politician, virtual tour through the parliament. With the law generator ([law generator](#)) you can even simulate the creation of a new law. You are guided through all necessary steps and at the end can download the law proposal as a pdf document.

With [wahlkabine.at](#) Austria also has a "Politics orientation guide". Interested users can playfully find out how their personal opinions match the positions of the parties.

Furthermore, on the Parliament website in the section “[Parlament Erklärt](#)” and on the parliament’s ([youtube channel](#)) podcasts and videos are available explaining the parliament podcasts and videos are available explaining the parliament.

The service unit of the Austrian Federal Chancellery “Media-Youth-Info Center (MJI)” fosters media literacy in all its aspects by collaborating closely with other organizations in the field. They operate the platform Saferinternet.at, which offers many interactive contents on topics such as information literacy, gaming, social media, data protection, cyber mobbing, copyright, etc. and for different target audiences (teachers, parents, teenagers/children). Particularly interesting and appealing are the two scavenger hunts/quizzes on Cybermobbing and Social Networks in which teenagers can test their knowledge in a playful way (<https://www.saferinternet.at/quiz/>).

Last but not least, the parliament website is multilingual (de, en, simplified language and sign language).

There is a malus for usability as the different elements are not made available in one platform.

eTransparency: 80 points. Many reports on parliament ols and decisions, governmental meetings, votings, decisions are available on the parliament website (<https://www.parlament.gv.at/> - mainly in the section “Parlament Aktiv”) and on the Open Government Data portal (<https://www.data.gv.at/auftritte/?organisation=parlament>). Furthermore, there is a vast section dedicated to political and public administration aspects on the Open Government Data portal of Austria ([https://www.data.gv.at/suche/?katFilter\[\]=httppublicationseuropaeuresourceauthoritydata-themegove](https://www.data.gv.at/suche/?katFilter[]=httppublicationseuropaeuresourceauthoritydata-themegove)). Beyond a large variety of data sets also various applications to visualize and elaborate the datasets are available. Third parties are invited to provide applications for the visualization and elaboration of data sets. Furthermore there is a portal dedicated to the visualization of the budget of the parliament (Budgetvisualisierung), which allows various interactions and provides nice visualizations (<https://www.parlament.gv.at/Budgetvisualisierung/>).

3.3 co-creation: 48 points

eConsultation: 60 points. All so-called pre-parliamentary (<https://www.parlament.gv.at/PERK/BET/VPBEST/>) and parliamentary (<https://www.parlament.gv.at/PERK/BET/PBEST/>) assessment processes/proposals (Begutachtungsverfahren), are published on the parliament portal (<https://www.parlament.gv.at/PAKT/BEST/ME/>) where citizens can submit their opinions and/or support single opinions by liking them. In this way citizens and institutions can provide their opinion on all legislative proposals throughout the parliamentary legislative process, electronically.

Most pre-parliamentary proposals have opinions while not all parliamentary ones have them. However, some parliamentary proposals have very high number of opinions (up to 277). The tool is thus used quite a lot.

The possibility to comment on pre-parliamentary and parliamentary proposals is located within the same section of the parliament portal as the possibility to comment on citizen initiatives: “Beteiligung und Stellungnahmen” under “Parlament Aktiv” (<https://www.parlament.gv.at/PAKT/BEST/>), and works in a very similar way. For this reason, we consider the two tools to be connected (bonus).

In addition, in Austria there is the option of “Volksbefragungen”. However, they are not carried out electronically but in a similar way as votations with the difference of not being legally binding. The option is not used (frequently).

eDemand: 35 points. In Austria there are so-called Parliamentary Citizen Initiatives for the National Council (Parlamentarische Bürgerinitiative - <https://www.parlament.gv.at/PERK/BET/BII/index.shtml>). To hand in such an initiative, 500 signatures have to be collected physically. The parliament website provides a [pdf document](#) to describe the initiative and collect the signatures. The pdf document can be filled in electronically, but the signatures have to be collected physically (only original signatures are valid).

Afterwards, the initiative/petition is published on the parliament website and it is possible to vote or comment them online (<https://www.parlament.gv.at/PAKT/BEST/BP/>). The tool seems to be used quite a lot as nearly all initiatives/petitions have votes and comments, with some having even quite a high number of them.

Citizens' initiatives are then assigned to the Committee for Petitions and Citizens' Initiatives of the National Council, which usually seeks opinions from ministries, other institutions and experts on the topics. In addition, the initial signatory may be invited, to make a statement to the committee. The Committee can then decide to assign the initiative to another specialized committee for further handling, to forward the subject matter to the Ombudsman Board for further treatment, refrain from further proceeding if the topic is considered unsuitable by a majority of the committee or to simply take note of the citizen initiative.

The possibility to comment on citizen initiatives is located within the same section of the parliament portal as the possibility to comment on pre-parliamentary and parliamentary proposals: ("[Beteiligung und Stellungnahmen](#)" under "[Parlament Aktiv](#)"), and works in a very similar way. For this reason, we consider the two tools to be connected (bonus).

Furthermore, in Austria there are several private petition platforms such as ([openpetition.eu](#)), ([Mein Aufstehn](#)), or ([change.org](#)).

As the collection of the signature has to happen physically, we do not consider this as a e-petition platform. Therefore, we only award 2 points with a bonus for variety and use. This adds up to 2.4 points which results in 35 points.

3.4 Decision Making: 48 points

eID: 95 points. The "ID Austria" enables people to identify themselves securely online and thus to use digital services and do transactions. It is a further development of the already previously existing "Handy-Signatur" and "Bürgerkarte" (<https://www.oesterreich.gv.at/id-austria.html>). To register an ID Austria it is necessary to personally go to a registration authority so that they can establish the identity of the applicant.

The ID Austria is currently in the Pilot phase, which started on January 28th, 2021. Therefore currently only selected registration authorities are available. Starting from summer 2023, it will go over into the regular operating phase and will thus be available with all registration authorities. The ID Austria is mainly used through the smartphone and the app "Digitales Amt" but can also be used with a phone number or through a FIDO security-key.

Very detailed information about the introduction of ID Austria can be found at the following [link](#).

For this we award 5 points with a malus for the physical verification.

eVoting: 0 points. In Austria there was one trial of e-voting at national level. In 2009, for the elections to the Austrian National Union of Students (ÖH) it was possible to cast one's vote electronically [[Krimmer et al. 2010](#)]. However, the Constitutional Court later annulled the ordinance on e-voting for ÖH elections as unlawful. Since then, Austria has no appropriate and/or suitable legal basis for e-Voting. In the following guest blog, the political scientist Carolina Plescia presents insights on e-voting in Austria (Sep, 2022): <https://www.derstandard.at/story/2000139155633/e-voting-digitaless-wahlen-als-zukunftsmodell>. An academic paper by [[Prosser et al. 2004](#)] outlines the requirements for implementing e-Voting in Austria and describes the state of e-Voting at two Austrian organizations – the Austrian Student Union and the Federal Chamber of Commerce while a dissertation by [[Krimmer 2017](#)] describes the history, development and building blocks for the Future of Internet Voting in Austria.

3.5 DigiPartIndex Score: 54

4 ITALY

4.1 political system of Italy

Two factors shape political participation in Italy. First, Italy is a representative democracy with some direct democratic elements on the national level [Köpl 2007, 112]. Second, although there is strong decentralisation and there are developments towards more federalist institutions, Italy has to be considered as a centralised system [Köpl 2007, 179ff.]. Therefore, participation mostly takes place on the national level through (frequent) elections and some direct democratic decisions.

4.2 opinion formation: 35 points

eDeliberation: 30 points. The Italian government has several social channels ([Facebook](#), [Instagram](#), [Linkedin](#), [Youtube](#), [Twitter](#)). Each institution of the Italian government has its own official channel. Posts are regular, 1 or 2 times a day. All posts and videos shared receive at least an average of 2,000 interactions, with a hundred or so comments stimulating discussion on the featured content. Most of the content concerns official meetings between institutional public figures, various public statements by politicians and the announcement of special events affecting the community. Law enforcement agencies also have their own social channel, where information on successful operations and developments of events of public interest are posted and shared. Posts are frequent and interactions are numerous, hence the score of 2.2.

Civic eEducation: 25 points. The Italian government has its own official [website](#) where it is possible to find information on news in the Italian political landscape and also has sections to better understand how the government is composed, the roles and responsibilities of each institution and its members. The State provides citizens with the [Eligendo](#) website and app, which allows them to check the flow of current election data and also previous election campaigns. Eligendo shows all types of elections, from municipal to European, through a search engine that allows various filters to be set to select the specific campaign. The data are displayed in Excel tables.

The Italian government makes available the Political Navigator 2022, a VAA that aims to provide Italian voters with a neutral source of information on politics, giving details on the various positions of political candidates, without favouring the vote of any party or coalition. The [Political Navigator 2022](#) is a free digital political tool and is designed to serve any individual, but also institutions and organizations. The VAA uses independent academic expertise as its base system and also has a scientific research center that produces highly relevant data for those interested in political elections and the various parties. These data are published regularly and are at the complete disposal of the academic community, always respecting current privacy regulations. For these reasons, the score is 2.

eTransparency: 50 points. The Italian government has a transparency section called '[transparent administration](#)'. Here, one can find documents on general provisions, competition regulations, personnel management and public administration salaries. Italy also has a [website](#) of the Chamber of Deputies that makes parliamentary documents available for consultation by citizens. The site has a user-friendly interface and offers the possibility to search by subject area, as well as having a section with highlighted topics. Italy is also part of the [Open Government Partnership \(OGP\)](#) programme, which was created in 2011. The Italian state, through the Ministry of the Interior, is developing five National Action Plans (NAPs), which have dialogue with citizens as a pillar while developing skills on how to put the principles of open government into practice. For these reasons, the score is 3.

4.3 co-creation: 40 points

eConsultation: 55 points. The Italian government provides '[ParteciPa](#)', a platform dedicated to public consultation⁴ and participation processes. The ParteciPa platform uses modern technology to provide a service to citizens that helps them stimulate discussion to make better decisions regarding policy processes. ParteciPa is an open source platform promoted by the Department of Public Function and the Department for Institutional Reforms of the Presidency of the Council of Ministers, realised with the support of Formez PA.

The platform is regulated by the Digital Administration Code, which is in line with the best international experiences. The open source software that underpins the platform is at the complete disposal of all interested state, regional and local institutions.

The effort to involve citizens also continues with the creation of a [consultation portal](#), which brings together all the links to public consultations that are promoted by public administrations and has the advantage of offering all consultations that may be of interest to citizens in a single portal. For these reasons, the score is 3. We add a bonus because it is frequently used. so the score is 3.2.

eDemand: 25 points. The Italian Senate can receive petitions by ordinary mail, e-mail, telephone or fax. . Petitions are provided for in Article 50 of the Constitution, which reads: "All citizens may petition the chambers to request legislative measures or to express common needs. The subjects for which petitions can be executed, only concern cases of public interest and never personal ones. Petitions must be addressed to the President of the Senate. The House Service takes care of their publication in the House register and referral to the relevant committees. There are also non-partisan platforms, such as [change.org](#) or [petitions.com](#). Therefore, the score is 2.

4.4 Decision Making: 50 points

eID: 75 points. The [Carta di Identità Elettronica \(CIE\)](#) is the identity document of Italian citizens issued by the Ministry of the Interior and produced by the State Printing Works and Mint, which has the capacity to confirm the identity of the CIE holder and consequently to access Public Administration services that are available online. This service is equipped with a sophisticated anti-counterfeiting and security system and is available in Italy and also in other EU countries. The main purpose of the Electronic Identity Card is to ascertain the holder's identity, e.g. when carrying out administrative procedures at public offices, but also in all cases where it is necessary to confirm one's identity. The contactless microchip that is installed on the Electronic Identity Card is at the heart of the identity verification system without which recognition would not be possible, as the digital identification process still involves the [use](#) of the physical card. For these reasons, the score is 4.

eVoting: 25 points. The experimentation of [e-voting](#) was provided for in the 2020 Budget Law, which established the Fund for e-voting with an allocation of €1 million for the year 2020. The Fund aims to introduce digital voting on an experimental basis, for all domestic and European political elections, along with referendums. The experimentation will only take place for Italians living abroad and voters temporarily away from their municipality of residence for work, study or medical reasons. This provision was amended by Decree-Law No. 77/2021, which provided for an extension of the experimentation process to regional and local elections as well, taking into account that some changes would need to be made by 31 October 2021 to enable digital voting for the elections of the year 2022. Decree Law 41/2022

⁴https://partecipapa.gov.it/processes?filter%5Barea_id%5D=&filter%5Bdate%5D=past&filter%5Bscope_id%5D=

postponed the experimentation from 2022 to 2023. This decree also provides for a refinancing of EUR 1 million for the year 2023 of the e-voting fund (Article 6, paragraph 3). For these reasons, the score is 2.

4.5 DigiPartIndex Score: 41

5 FRANCE

5.1 political system of France

As a Napoleonic institutional system, France is characterized by a strong centralized government along with a deeply rooted representative democracy culture [Kuhlmann and Wollmann 2019]. Both aspects necessarily frame the relationship between citizens and the State, establishing national elections as the most important instance of political participation. Alternative forms of participation beyond electoral processes were hence originally very limited in France both at the national and the local level. A gradual change of approach nevertheless occurred with the digital revolution and the large array of democratic innovations it brought forth [Smith 2009]. When the digital transformation of the State was at first entrenched in an e-government trend featuring little to no participatory dimension, a shift took place in the mid-2010 with digital participation being advocated a remedy to the so-called “crisis” of French representative democracy. In the face of an increasingly vocal citizens’ distrust toward political elites that climaxed with the 2018 Yellow vests movement, a growing number of public, private and civil society actors now advocate for the use of digital tools to re-invigorate democracy [Defacqz and Dupuy 2021] (Defacqz and Dupuy, 2021).

However, a shift in approach took place in the mid-2010 with digital participation being advocated a remedy to the so-called “crisis” of French representative democracy. In the face of an increasingly vocal citizens’ distrust toward political elites that climaxed with the 2018 Yellow vests movement, a growing number of public, private and civil society actors now rely on digital tools to re-invigorate democracy [Defacqz and Dupuy 2021].

5.2 The Digipart-Index in France

The use of new technologies to “promote transparent, participatory, inclusive and accountable governance” is at the heart of the [Open Government Partnership](#) joined by France in April 2014. A turning point occurred one year later with the Law for a Digital Republic which, for the first time, gave citizens the opportunity to co-create the draft law via a three-weeks long online consultation (ibid, 2022). This laid a fertile ground for the Civic Tech ecosystem to thrive in the country. France Stratégie defines Civic Tech as a “heterogenous body of digital initiatives aiming to foster citizen participation”.⁵ Leaning on the DigiPart-Index (DPI), our goal is to focus on digital instruments enabling or promoting e-participation to map the scale and scope of the French Civic-Tech landscape. While there is still room for progression when it comes to e-participation, the DPI ranks France in the top half of the country classification with an overall score of 66.7 points out of 100. The DigiPart-Index hence demonstrates a rather conducive national environment regarding digital political participation in France with 75 points attributed for the dimensions “Opinion Formation” (D1) and “Decision-Making” (D3) and 50 points allocated for the dimension “Co-Creation” (D2). If France is relatively balanced in the DPI individual dimensions, significant disparities however appear when taking a close look at individual tools (T1-T7). With a difference of 70 points, the range between the lowest value and the highest is very high.

⁵France Stratégie, 2017. Le numérique transforme-t-il la participation citoyenne ? URL <https://www.strategie.gouv.fr/debats/numerique-transforme-t-participation-citoyenne>, accessed 29th December 2022.

5.3 opinion formation: 73 points

eDeliberation: 30 points. The first dimension “Opinion Formation” (D1) comprises three different tools: e-deliberation (T1), e-civic education (T2) and e-transparency (T3). As regards to e-deliberation, French institutions are using social media on a regular basis as an information channel triggering a great deal of citizen-to-citizen interactions but in which local authorities rarely engage. We therefore attribute 25 points to which we give a 5 points bonus for variety as several institutions are using various social media channels (30 points).⁶

Civic eEducation: 95 points. Moving to e-civic education, France was assigned the highest score of 100 minus a malus for usability. The government indeed provides information about ballots online (20 points)⁷ as well as a political e-education platform intended for schools and education workers (20 points).⁸ In addition, several voting advice applications are available to voters (20 points)⁹ along with serious games simulating political processes (20 points)¹⁰ and applications for media literacy and fact-checking tools (20 points)¹¹.

eTransparency: 95 points. Finally, in France [parliamentary](#) and [governmental](#) reports are available online as pdf files. There is also an [open data portal](#) and several Civic Tech tools that smartly process, sort and visualise these data.¹² We therefore give 100 points for e-transparency with a 5 points malus for usability as information services are not a one stop shop (95 points).

5.4 co-creation: 50 points

eConsultation: 45 points. The second dimension “Co-Creation” (D2) is made of two tools: e-consultation (T4) and e-demand (T5). Starting with e-consultation, Etalab, that coordinates the design and the implementation of the State data strategy, developed a simple [interface](#) dedicated to consultations and civic participation. According to the DigiPart-Index coding scheme, 50 points were attributed with a 5 points malus for use as the platform is not extensively used by French institutions (45 points).

eDemand: 55 points. Regarding e-demand, an [e-petition](#) website enables citizens to present petitions to the National Assembly as well as to sign the ones that have already been submitted. Petitions are examined and discussed within the Standing Committee of the National Assembly and under specific conditions debated in the plenary session of the Assembly.¹³ The platform records a high number of ongoing petitions with proportionately very few signatures. We hence allocated 50 points for e-demand with a 5 points bonus for usability as petitions submission and signing processes go through the Franceconnect e-ID service (55 points).

⁶The French President has both a [twitter](#) and a [Facebook](#) account. The Government uses several social networks such as [twitter](#), [LinkedIn](#), [Facebook](#) and [Instagram](#) and some government department also have their individual social media channels ([Ministry of Economic and Financial Affairs](#) or [Ministry of Foreign Affairs \(@francediplo\)](#)). Finally, the Parliament also uses [twitter](#) and [Facebook](#).

⁷Election and consultation results are available on the [Ministry of Interior website](#).

⁸Éduscol is the Ministry of National Education and Youth’s official website for information and support for teachers.

⁹Voters can use several voting advice platforms ([ELIZE](#), [paumésdansmesélections](#)) developed by civic Tech entrepreneurs.

¹⁰[Callmepresident.fr](#) is a game developed by WWF simulating the presidential function in France.

¹¹Several tools for media literacy dedicated to check information and debunk fake news are available ([Factuel](#), [les Décodeurs](#), [Décodex](#), [hoaxbuster](#))

¹²The French association [Regards Citoyens](#) creates web applications to promote open data and democracy such as [Nosdéputés](#) and summarizing the parliamentary activity of the MEPs and Senators as well as [Lafabriquedelaloi](#) enabling citizens to follow the evolution of law throughout the legislative process.

¹³A debate on a given petition may be held in public session 1) if the petition has collected more than 500 000 signatures from people residing in at least 30 departments and overseas departments and 2) if the request has been made by the chair of the responsible Standing Committee or a chairman of a political group.

5.5 Decision Making: 75 points

eID: 100 points. The last dimension “decision-Making” (D3) is also comprised of two tools: e-ID (T6) and e-voting (T7). As previously mentioned, an online identification and authentication apparatus was implemented in 2016 to give French citizens access to both public and private services. [Franceconnect](#) is a e-ID aggregator making the link between identity providers and service providers. Over 1400 online administrative procedures are available on a the FranceConnect centralized e-government interface to which citizens can log in and identify themselves via several options (impots.gouv, Ameli, LaPoste digital identity, MobileConnect et moi, msa.fr, Yris). No physical verification is needed and login to France connect is easily accessible on the official [French administration website](#). For e-ID the maximum score of 100 was therefore assigned to France.

eVoting: 50 points. Finally, as per Art. 22 of the [Law N°2013-659](#), French people living abroad have the possibility to vote online for legislative elections and French consular elections. Access to the e-voting platform is granted upon submitting their NUMIC (consular identification number) which restricts the process solely to French people living abroad. In accordance with the DigiPart-Index coding system, 50 points was hence awarded for e-voting.

5.6 DigiPartIndex Score: 65

The Index of Digital Participation unveils a rather favorable French national context to the development of e-participation initiatives. If the digitalization of the public sector started off several decades ago, the e-participation movement accelerated in the late 2000’s to reached a tipping point in the second half of the 2010’s with the surge of the Civic Tech ecosystem both in and outside governmental institutions. There is nevertheless still scope for progress, especially when it comes to e-deliberation, e-consultation, e-demand and e-voting.

6 CANADA

Canada prides itself on being a transparent, accountable and engaged democracy.

It is a member of the Open Government Partnership (since 2012), and ranks favourably on the main international metrics for good governance, transparency and corruption, such as the well-known Transparency International Corruption Perception Index or the Press Freedom Index. It also ranks well on various e-government measurement indexes.

Our analysis of Digital Political Participation has underlined that while Canada ranks very well in some categories, for historical, cultural and managerial reasons, it does significantly more poorly in others.

6.1 political system of Canada

Canada is a federal system with 10 provinces and three territories. While territories have more limited political independence, provinces have their spheres of jurisdiction. Provinces are responsible for most of the policies that have a direct impact on citizens (education, healthcare). Elements such as national defence, justice, and international relations, are found at the federal level. But, even in international relations, provinces have a say in their sphere of responsibilities. This is notably the case for Quebec with its missions abroad. The attribution of these responsibilities has been defined in the Constitution. Any residual jurisdiction not explicitly mentioned in the Constitution is *de facto* attributed to the Federal level. There remains room for discord and disagreement, particularly in terms of the funding of certain policies most notably healthcare. It is to be noted that the country operates under both the Common Law and Code Civil system.

Canadian political participation, at the federal and provincial level, is rooted in a ‘first-past-the post system’. It is a single-member plurality system where Members of Parliament are elected in each political circumscription. The system is characterized by heavy distortion between the % of votes of a party and its representation in Parliament. Despite repeated political promises to move to a more representative electoral model, nothing has been achieved. Many other options are nevertheless provided for, from petitioning political authorities to numerous debate forums. Referendums are also an option in the Canadian system, but unlike in Switzerland, these have almost always been used for major constitutional changes.

Two issues impact the discussion on digital political participation. One is the size of the country, with unequal access to reliable high-speed internet (notably in rural and remote areas). The second is the importance and proximity of the United States (75 % of all Canadian exports). Canadian debates on electoral issues are always impacted by the problems and issues south of the border.

6.2 opinion formation: 78 points

eDeliberation: 35 points. The ability for a Canadian citizen to discuss issues is vast and takes many forms.

At the federal level, all Ministries, and Politicians, in the government or the opposition, have an active and dynamic social media presence. Specific policy initiatives, for example, Open Government Canada, also have their curated online presence (@OpenGovCan).

Interactive online options are offered by a number of social actors, offering information, documentation and presentation of events, in presence and online, where participants can interact. For example, the Public Policy Forum (ppforum.ca/) or Policy Insight(www.policyinsights.ca). Live, curated and dedicated, social-media-type platforms, are rarer as institutions tend to use the usual social media platforms. In some instances, especially for specific policy fields, platforms have been developed, for example in the healthcare sector, but these tend to be closed-door platforms for experts rather than open citizen-focused forums. (<https://ncceh.ca/content/blog/announcing-new-ncceh-healthy-built-environment-online-discussion-forum#h2-0>)

The mainstream media (tv, radio, press) all provide curated spaces for political discussions. Many other media, smaller in scope, more regional, or more ideologically focused also provide space for debate. Due to strict laws, notably through the Charter of Rights and Freedom, most platforms are monitored and curated to avoid legal issues for the owners.

Irrespective of the source of funding or the type of institutions providing civic space for discussion, it appears increasingly difficult to find balanced and non-polarized forum. This is also true for seemingly neutral or technical policy areas.

For this 2 points are assigned with a bonus for usability and use respectively. In total this adds up to 2.4 points that corresponds to 35 points.

Civic eEducation: 100 points. Education is a provincial responsibility in Canada. But, civic participation is present at all levels of the system. At the national level, Elections Canada has developed a dedicated page entitled [Electionsand-Democracy](#). It focuses exclusively on civic education and addresses many aspects of Canadian democracy. It features numerous information, educational resources and ready-to-use in-class activities. Games are provided, and the professor can print hand-outs and other resources for students.

Outside of government, several civic education tools are available, notably assisting citizens in identifying whom to vote for. In this register, the [VoteCompas](#) of the CBC, the national public broadcaster, is emblematic.

eTransparency: 100 points. At the federal level, there is a dedicated [Open Government web portal](#). Additionally, and each ministry has its own Transparency pages.

Most events in parliament (official sessions, question period, commissions, etc.) are available. Specific information, from public tenders to the exact listing of hospitality expenses in the administration, are available and searchable. The government also has an open data approach (<https://open.canada.ca/en/open-data>) making several databases accessible for use and re-use by citizens and scholars alike. Canada has embraced the logic of proactive transparency. Instead of waiting for citizen to request information, the government directly provides information on its different platforms.

6.3 co-creation: 75 points

eConsultation: 85 points. A specific website, [Consulting with Canadians](#) has been created.

The system lists all consultations at the federal level, with details as to the objectives and particular focus. After identifying a specific consultation, any citizen can easily provide input either on the content of the consultation or its process. These comments are then relayed to the Consultation secretariat.

eDemand: 65 points. The House of Commons of the federal parliament has a petition website where citizens can make request. <https://petitions.ourcommons.ca/en/Home/AboutContent?guide=PIGuideForPetitioners>

It states that “A petition is used to draw attention to an issue of public interest or concern and to request that the House of Commons, the Government of Canada, a Minister of the Crown, or a Member of the House of Commons take some action.”

To go forward, a petition needs the official support of a member of Parliament or of a Senator. The petition is then published, and start gathering signatures. Government has to respond to all petitions within 45 days. If the government does not respond in 45 days, the case goes to a commission. Roughly 200 e-petitions are open for signature every year and gather over 500'000 signatures annually. Of course, one can also directly write to its Member of Parliament, whether by regular mail or email.

6.4 Decision Making: 2.5 points

eID: 20 points. In August 2022, the Canadian government launched a consultation on the development of a digital id framework for public services. <https://www.globalgovernmentforum.com/canada-to-launch-public-consultation-on-digital-id-framework-for-federal-public-services/> It is to note that Canadians do not have any formal identity card (digital or otherwise). This is a cultural and political particularity, especially for those used to the European system.

Every digital public service requires a citizen to provide an email and create a password. These do not work across Ministries, Departments or Providers.

For this 2 points are assigned. There is a malus for usability as for each service there is a new login.

eVoting: 0 points. Election Canada wanted to test e-voting in 2013. It was never done. The main explanation provided was budget cuts. In 2017 the government, following a Committee proposal, clearly said no to electronic voting. <https://www.cbc.ca/news/politics/liberals-mandatory-online-voting-1.4054412>

During COVID, Elections Canada addressed the issue, but indicated that rigorous testing would be required before going ahead. “Elections Canada did not consider introducing Internet or phone voting. Implementing such a change would require significant planning and testing to ensure the confidentiality, secrecy, reliability and integrity of the vote. Given the current operational and time constraints, these options could not be explored properly ahead of the next general election.” <https://www.elections.ca/content.aspx?section=med&dir=cor&document=index&lang=e>

6.5 DigiPartIndex Score: 39

7 JAPAN

In the current 2022 version of the UN e-government survey, Japan ranks first in the world in terms of e-participation. This makes Japan a particularly interesting case to complement Switzerland and its neighbours. However, the UN ranking and the general perception of e-participation or e-democracy in Japan are puzzling. Political observers familiar with Japanese politics and institutions find it difficult to justify the highest ranking. We expect the DigiPart Index scores to differ significantly from the UN survey scores.

7.1 political system of Japan

With the new constitution of 1947, written under the strong influence of the U.S. after World War II, Japan is now a parliamentary system. The National Diet consists of two chambers, the Lower House and the Upper House. Despite provincial parliaments and governments, politics in Japan can be considered centralised. At the provincial and local levels, some elements of direct democracy, particularly recall, are used from time to time. National elections are held periodically or can be called by the prime minister. Snap elections are not that uncommon in Japan. Formally, the emperor is the head of state. However, his role is largely ceremonial. Since 1955, the government has been dominated by the multi-factioned Liberal Democratic Party (LDP) and its more recent coalition partner Komeito. Amendments to the constitution are possible only through a referendum, which requires a super-majority of two-thirds of the votes in the National Diet. As a result of these high hurdles to constitutional change, no national referendum has ever been held. However, the revision of Article 9, which enshrines Japan's pacifist character, has been repeatedly debated. Current armed conflicts, as well as China's growing military aspirations, may lead to a reform of Japan's Self-Defense Forces, requiring a referendum in the future.

7.2 opinion formation: 37 points

eDeliberation: 30 points. Political discussions on private social media channels are common in Japan. To put this into perspective, the most popular video blog on Japanese politics on YouTube Kazuya has 679.000 followers with a vibrant comments section (<https://www.youtube.com/c/kazuyahkd>), particularly active during election campaigns. More targeted, officially supported e-discussion channels for politics do not go beyond trial stage and have a startup character (see also: e-consultation). The Japanese government uses several social media channels such as Facebook, Instagram, YouTube and Twitter, in the first place to provide and distribute information, not to engage with the larger public in a discussion. Social media postings are frequent and regular. Both the House of Representatives and the House of Councillors also communicate via social media. The two parliamentary chambers use social media in the first place to communicate election results. For e-deliberation, the score on the scale is therefore 2 points for having official channels on social media with a bonus for variety, in total 2.2 points.

Civic eEducation: 30 points. Civic education does not play a prominent role in Japan in the school curriculum. It is not taught in all branches. For example, in high school, if you opt for the science branch you will not have civic education classes at all. In general, there is not much of a conscious effort to promote civic education, in contrast to Germany for example. In particular, there seems no effort trying to take civic education online. For information on the political system and elections people have to rely on general resources on the internet (1 point). In addition, there are usually 5-6 Voting Advice Applications (VAA) running before each election in Japan, mainly operated by large media corporations (<https://vote.mainichi.jp/26san/>) or NGOs (<https://sangiin.go2senkyo.com/votematches/>). VAAs can

therefore be considered to be common. They are not massively but widely used. For the variety of VAAs a bonus could be applied (1.2 points). In total, 2.2 points can be attributed for this part of the index.

eTransparency: 75 points. Digital monitoring of the political process in Japan is mainly possible by consulting the minutes of plenary sessions and committee meetings on the Diet's website (<https://kokkai.ndl.go.jp/>). These documents are available in digital form from the first Diet session since May 1947. The site is fully searchable by date, speaker and keywords. Results can be displayed as text or pdf. The government promotes and maintains a comprehensive open data strategy with an open data portal (<https://www.data.go.jp>). The range of data is large. However, there do not seem to be any monitoring or civic tech tools based on open data for the political sphere. We therefore give this tool 4 points on the scale. There are no additional intelligent tools that make use of the available open data or try to visualise political data in a smart way.

7.3 co-creation: 25 points

eConsultation: 25 points. Consultation with the wider public in the national policy-making process is not common in Japan. A lot of consultation takes place in a plethora of expert committees linked to the Diet. The government conducts surveys to take the pulse of the public. But since 2018, a 19-year-old student at Keio University has initiated a web-based service called poli-poli, which allows the government to consult the public on proposed policies. This is the first attempt in Japan to digitally open up policymaking to crowd-sourcing and collecting opinions from a wider audience, beyond the parliamentary committee system. So far, the platform is mainly used by a few provincial or local governments. It still has a start-up character. Users can also post their opinions. There are currently two instances of poli-poli. On poli-poli gov, institutional actors such as ministries, provincial or local governments post their proposals to gather the wisdom of the crowd (<https://polipoli-gov.com/>). On poli-poli, politicians, political parties and voters post policy proposals and collect opinions from users. Voters can also post requests for new policies. This feature can be seen as an ephemeral first e-petition portal. Users can also discuss policies and register as experts if they are particularly knowledgeable in an area. While this latest initiative is certainly worthy of attention, we give this tool only 2 points in total at the moment. There is no official e-consultation channel in Japan.

eDemand: 25 points. There is no official e-petition platform in Japan that is linked to one of the national political institutions, such as for example the Blue House e-petition website in South Korea. The only way to make demands online or start an e-petition in Japan is through the Japanese branch of change.org (<https://www.change.org/ja>). But change.org Japan is very active. Petitions regularly receive tens of thousands of digital signatures. An alternative but not much used additional option is the e-petition functionality on poli-poli (see: e-consultation). For the moment, therefore, the total score is 2.

7.4 Decision Making: 45 points

eID: 70 points. The eID in Japan is called MyNumberCard. It consists of a 12-digit number and a physical card that must be used with a card reader. The system was introduced in October 2015. While it is possible to apply for the card digitally, it is still necessary to pick it up at the city hall before it can be used. During the visit to the town hall, the applicant's identity is verified on the spot. The range of services available with the MyNumberCard is constantly growing. For example, during the first year of the Covid-19 pandemic, it was possible to receive an individual government subsidy by using the card instead of filling out a paper application form. Users can also go to one of the many convenience stores in Japan and use the MyNumberCard to print out certificates that would otherwise have to be obtained from a government

office in person. The MyNumberCard was also used as a means of identification in Tsukuba City's Internet voting trials (see eVoting below). In the near future, the government plans to replace health insurance cards with the MyNumberCard. For the eID, Japan scores 4 points on a 5-point scale, minus 0.2 points for requiring personal identification to obtain the MyNumberCard (<https://www.kojinbango-card.go.jp/en-tsuchicard/>). The total score for this tool is therefore set at 3.8 points.

eVoting: 20 points. Japan used e-voting machines in some municipalities. However, the technology got outdated and they are not used anymore [Iwasaki 2009; O'Meara 2013]. Since 2018 two internet voting trials took place in Japan, claiming also to have used blockchain technology for storing the votes (apparently tied to Amazon Web Services). Trials were conducted in Tsukuba City close to Tokyo (<https://www.japantimes.co.jp/news/2018/09/02/national/politics-diplomacy/new-online-voting-system-introduced-city-tsukuba/>). Tsukuba City is science city where many top research facilities and the University of Tsukuba are located. Voting takes place on a platform developed by a private technology startup called "Vote For". To protect the voters from coercion up to 15 repeated votes are possible with the current system, similar to the approach taken in Estonia. For the identification of voters the e-ID solution MyNumberCard was used (see eID). The latest known trial vote on smart city projects in August 2019 also experimented with face recognition. For this trial 150 digital votes were cast (<https://www.city.tsukuba.lg.jp/shisei/oshirase/1008320.html>).

For the moment, we give 2 Points because Japan has a legal basis allowing internet voting and some pilots carried out in the past on a municipal level only (minus 0.2 points). Total: 1.8 points.

https://www.soumu.go.jp/main_content/000547414.pdf

7.5 DigiPartIndex Score: 37

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8 APPENDIX

8.1 eEducation

Secondly, another important aspect of opinion formation concerns political education in the digital space (T2). Learning about politics with the help of the Internet and online applications should be possible. Here it is not just about knowledge sharing but also about acquiring the corresponding competencies leading to critical thinking. We are evaluating where and how political education takes place online. The more interactive, smarter and competence-oriented the offerings, the more points they receive. This tool is a summative indicator. We assign one point for each element that is available. We look for five different elements:

- (1) Classic information offered on websites, for example with explanations of the political system or instructions for elections and votes, such as [voteinfo](http://voteinfo.ch) or votey.ch.
- (2) Availability of Vote Advice Applications (VAAs) that help inform citizens' decisions for elections such as [smartvote](http://smartvote.ch) or [parteienkompass](http://parteienkompass.ch) or ballots such as [votenow](http://votenow.ch).
- (3) Active measures for political eEducation such as collections of course material that is accessible online (e.g. [easyvote](http://easyvote.ch) for schools).
- (4) Gamified apps mimicking or simulating politics, political processes based on an extended competence acquisition (e.g. CH+ or Lawmaker in the canton of Zürich).
- (5) Apps or websites for media literacy, also learning about netiquette, fake news

There can be a bonus for multilingual or simplified language offerings that lead to more participation. The bonus for user-friendliness can be obtained if combinations with other tools are possible. Likewise, a bonus can be awarded if there is more than one provider of VAAs. On the contrary, a malus can be applied in case a large variety of tools are not available in a one-stop shop.