



A proposal for the New Shape Prize: CIVICS: Changing Incentives for Voters in International Cooperation through Sampling

Nikola Blanchard, Olivier Pivot

► To cite this version:

Nikola Blanchard, Olivier Pivot. A proposal for the New Shape Prize: CIVICS: Changing Incentives for Voters in International Cooperation through Sampling. VIII International Smolny Student Conference 2019, Apr 2019, Saint Petersburg, Russia. hal-02273387

HAL Id: hal-02273387

<https://hal.archives-ouvertes.fr/hal-02273387>

Submitted on 28 Aug 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

A proposal for the New Shape Prize: CIVICS: Changing Incentives for Voters in International Cooperation through Sampling

Nikola K. Blanchard¹ and Olivier Pivot

General Idea

This model is built around the principle that any actor in a global governance institution should have interests aligned with mankind's. This means creating an incentive structure to make sure that in each different component, every member's best interest is to faithfully play their role, which is sadly not the case today.

Despite widespread awareness of the dangers of inaction on issues such as climate change, policy on the matter evolves very slowly, although a strong majority in most countries would prefer their government do more to prevent or counter its effects (including India, China and the USA). This is only one specific case of humanity agreeing on the need for action (and even often on what needs to be done), only for most policy-makers to shrink from pursuing truly effective policies due to personal or electoral risks and diverse lobbying interests. Current policy-makers do have an advantage, however, in that they are able to spend more time focused on the issue with teams of experts, and have access to more detailed and current information.

The goal is then to have decision-makers with the same interests as the general population, but with a decent understanding of the consequences of any decision taken. Once we make sure that the decision-makers are incorruptible, well-intentioned and well-informed, it is enough to design a system by which their decisions are respected and implemented by the international community. This model presents one way of obtaining such a set of decision-makers, and the tools they need to enforce the decisions taken.

Our model has a traditional parliamentary structure with some nuances. The upper house is mostly present to bring expertise and guidance from the international community, while the lower house composed of anonymous citizens is in charge of the final decision. An executive council then makes sure that the decisions are respected by all the member countries.

We will first explain some recent theoretical and technological developments which are at the heart of the model. Once this is done, we will present its different components and show how the model could be implemented before analyzing its potential weaknesses and their respective solutions.

Mathematical and Technological Considerations

The model relies heavily on sampling. In this context, sampling corresponds to the selection at random of a group of people from the general human population, with every person getting the same chance of being in the group. As this is how the groups who compose the lower house are

¹ Digitrust, Loria, Université de Lorraine

chosen, we want to be sure of the representativity of the sampled group (that is, we want to be certain that it accurately represents humanity as a whole).

Luckily, there is a well-studied theorem that is directly applicable in this context. Suppose that we take a random sample with one million members. If we were to create 5000 different categories of people (with any type of criteria, from citizenship, age or gender to hair color or musical preferences), the theorem states that all categories would be represented accurately in the sample with extremely high probability. To be precise, *accurately* here means with a margin smaller than 0.5% (more precise than most data we have, especially for criteria liable to change with time). *Extremely high probability* signifies that one could have taken one such sample every second since the Big Bang while keeping a negligible probability of finding any category represented with more than 0.5% error.

This seems to run against our recent experience of opinion polls which have way bigger margins, even with large samples. The main difference here is that opinion polls have extremely low response rates (generally 5-10%), as the people do not feel really responsible and often feel they have better things to do, which creates a huge sampling bias. Unlike with polls, being selected to be a member of an international parliament would mean a strong responsibility, and all current voter models predict a very low abstention in such situations, hence a good representativity.

We have just shown that taking one million people randomly from all of Earth would give a strongly representative sample of humanity in general. It is now time to look at the technologies that could create such a sample, and then help it do its duty. As it happens, the past ten years have been a boon for democratic innovations, with major progress in multiple directions. First, there are now many systems that allow secure online voting, with no risk of hacking (proved mathematically).

Secure voting protocols. Voting securely and anonymously has been a point of concern for centuries, and until the early 2000s there were no systems that could allow for full transparency and auditability while preserving the anonymity of voters. Although they are not yet deployed in any major democracy, mathematically secure voting systems have been developed that work both online and with paper ballots.

These guarantee that the result of the election cannot be tampered with, but we need more in order for our model to work. As it happens, one recently developed tool called Random Sample Voting (or RSV), has all the required properties. It would allow the system to do the following:

- Select a group of people at random from the global human population.
- Give them all a way to vote securely online (or offline through a proxy).

The system also prevents all forms of corruption and coercion as it guarantees the anonymity of all selected people, to the point where they have no way to prove that they were selected. This means that they cannot even try to sell their vote, and can't prove who they voted for, rendering coercion impractical. Finally, both the selection and the voting are auditable by anyone who wants to, and all auditors can be sure that the selection was fair and that the vote was not tampered with (as any hacking would immediately be detected).

Now that we have a sample that is anonymous and incorruptible, we need to give it information, and a way to exchange and learn. This leads to the second technological breakthrough.

Intelligent deliberation systems. One pervasive problem in online (and real-life) debates is the repetition of the same argument, and the difficulty in organizing the different lines of thought. Recent advances in artificial intelligence and user interfaces hold great promise in that regard, with services such as Kialo, pol.is, or vTaiwan. This kind of technology has many advantages:

- It allows people to intelligently contribute to online political debates, generally with little cost to the user.
- It presents not just the arguments but also the clusters of people in favor of each argument, and the opinions of a population.
- It is very scalable, with discussions engaging at least tens of thousands of people at the same time (for now).
- It is flexible, being most frequently open source, translatable and adaptable with minimal costs to many different uses.

With these tools, we can now create a parliament with the right incentives and the desired properties.

Upper House

The upper house is the most visible part of the model, where each member state has official representation and a single vote. Its role is to represent the diversity of countries and cultures and to ensure states' participation within the model.

Missions

The main purpose of the upper house is to draft and recommend resolutions. Its main duties are the following:

- Drafting proposals that are then submitted to the lower house.
- Writing reports advising the lower house on the effects and consequences of proposals.
- Engaging the public during the deliberation period and answering questions.
- Ordering investigations in case of suspected wrongdoings from the executive council (at the initiative of a quorum of 10 member states).
- Voting to confirm decisions that have obtained majority by a small margin in the lower house, or to decide among multiple proposals that have all received strong popular support.

Membership

Every member state sends a permanent delegation to represent it in the upper house. This delegation, headed by an ambassador, represents the interests of the state in the absence of a member of government and advises it on technical issues.

Although the delegations could interact exclusively through the internet, it seems more efficient to have them meet in a physical setting, which would be granted extraterritoriality. The delegation benefits from the privileges guaranteed by the Vienna Convention of 1961.

Reports

In addition to writing drafts of proposals to be sent to the lower house, the other main role of the upper house members is making reports to inform the members of the public. To avoid overwhelming the public and the lower house, there should be a limited number of concise reports, all well-sourced. Thus, any member state will be able to make a single report on each of the proposals submitted to the lower house. Naturally, multiple members would be strongly encouraged to combine their work (also increasing its visibility). This means that for every issue there should be at most a few different reports to read for each position.

Trustworthiness

With these official reports being the main part of the information given to the lower house, an important problem becomes the vetting of the statements in them, to establish which are correct, which are biased, and which are outright propaganda. In the age of fake news, it is necessary to have a neutral arbiter commenting on all reports. This role would be filled by the executive council.

Although state-sponsored propaganda is very frequent today, it is generally distributed through viral means, and its contents are seldom officially endorsed. If a member state were to write a visibly biased report, it would reflect negatively on the state.

Delays

Parliaments are considered inefficient in many countries, as they often struggle to pass important legislation in time. This is due to the complexity inherent in creating and adapting laws, and doing it in a worldwide setting would not make it better. Some features, however, prevent the upper house from being too slow. The first is that by design it only concerns itself with a limited set of issues (the worst risks menacing humanity), and each member is not just a representative but also has a cabinet of experts hired by the country (as opposed to usual parliamentarians who rarely have those means). The second is that each state has a strong incentive to submit a concrete proposal to the lower house in six months (or to support another member's proposal), as they can't prevent a vote from happening. They have another three months (at most) to respond to other states' proposals.

Lower House

The lower house is the main focus of the model, and is actually not a single entity, but a collection of entities, one per group of decisions that need to be made. Each time a vote is required, a group of one million people is taken at random from the general adult population of Earth. This forms a temporary instance of the lower house, dedicated to a given subject. The members are informed of their role and their duty, and have one year to make a decision. The idea is that, instead of making the experts vote (as in a technocracy), we should make sure that the voters themselves become experts. First, though, why select one million members for the lower house?

Membership

Although one million members would have been impossible to handle in a physical setting, it becomes relatively easy with online deliberation and voting tools (which have already been used for large public debates in countries with tens of millions of citizens). As we have seen earlier, such a group would be representative of all of mankind. Moreover, even if multiple lower houses were needed at the same time (on different subjects), only a very small fraction of people would be asked to participate in multiple houses at the same time. It is, however, still big enough that once the model is used, most people will know someone who will have participated, to guarantee public engagement.

The members are selected through the use of a central database. Every member state defines the rules regarding which citizens are included, as long as they are older than a commonly agreed threshold. They are free to exclude certain categories of people (such as convicts) but it is not in their interest as it diminishes their voting power.

Decision-making ability

Once the one million members of a lower house are chosen, they are contacted (for example, by letter or email) informing them of their role in the upcoming debate and vote. Over the next year, they are encouraged to follow the deliberations of the upper house and to give their own opinions, just like everybody else in the world. Finally, they are to read the main reports and make their decision.

From the parliament's design, we can derive multiple properties concerning the set of decision-makers in the lower house:

- They are well-informed, thanks to the reports from the upper house, which should be as unbiased as possible through the rating and commenting system.
- Through the online deliberation platform, they also know what the people most invested in the issue (activists, for example) think about it.
- They have time to look at the issue at their own speed, and can have any questions answered.
- They are highly motivated, as they feel that their decision has a real effect (experiments have shown that abstention goes down quickly when voters feel that they have an impact).
- They are representative of mankind as a whole.

Together, these results show that the lower house's decision corresponds to the decision that humanity would agree on if given the time and resources needed to come to an informed decision. It doesn't mean that this decision would necessarily be the correct one, but if we are to hope that democracy can work, it is the best achievable.

Primacy over the upper house

Any proposal submitted to the lower house and agreed upon by a simple majority has to go back to the upper house to be validated (once again, by simple majority). However, if a proposal obtains more than two thirds of the popular vote, the upper house cannot vote it down.

In the case where multiple proposals get strong popular support, either a new vote can be held in the lower house to choose the best one (with little additional delay), or a vote can be held in

the upper house, with the proposal garnering the highest average support across both houses being selected.

Executive Council

Role

The executive council has two main duties:

- Addressing unforeseen emergencies that require immediate worldwide cooperation (such as epidemics and natural disasters).
- Implementing the decisions taken by the houses and checking that all countries comply with them.

Size and replacement

There is a maximum possible size for any committee to be able to meet quickly and work efficiently, which means that the executive council has to be small. Here we consider a council of 5 members, as it seems optimal, although 7 could be possible. There is no member with more weight than others, but for honorific duties the longest-serving member has priority. The members all serve a term of 75 months, and are replaced progressively (one by one, every 15 months). The progressive replacement and long mandates guarantee stability and a focus on long-term solutions to the crises that come up.

Regional groups

To guarantee a rotation of the executive council that balances the interest of all countries, the world is divided into 5 abstract regions, with a councilor for each. The regions correspond to countries that share opinions and goals rather than geographic proximity. This means that groups of countries with similar goals can unite to guarantee representation in the council.

Unlike the United Nations' regional groups, those regions are fluid, and any member state can decide to change their group allegiance once per year. This prevents situations in which one region has twice as many members as another, except if it suits the interests of all concerned countries, and offers long-term flexibility in case of shifting power balances.

Councilor selection

Every councilor's seat is temporarily held by a member state, and the person representing it officially can change within the term. Once a councilor's term ends, elections are held within the corresponding regional group. Any state who hasn't had a councilor in at least 75 months can run. The state that represents the region is elected by majority judgment without anonymity. That is, every state gives a rating to all the others, and the one with highest median grade wins, and the lack of anonymity forces the judgment to be consistent, (removing the main weakness of majority judgment). To prevent abuse of the fluid region system, a member state that changes groups forfeits its right to vote in the next election for council member.

The choice of the actual representative sent to the council by the elected state follows a few main rules:

- The councilor can be elected by the state's citizens directly, or chosen by the government, depending on each state's own rules.

- The councilor should have no official role within that state (as an elected official or member of government), to guarantee their availability and focus on the council's task.
- A councilor may resign if they want to, but the state's government cannot fire them directly. However, if they suspect wrong-doings, the state's government can petition the upper house to impeach the councilor.
- If the seat becomes vacant for any reason, the state selects another councilor in the same way as if it had just been elected.

Powers

The council has both normal and emergency powers that are to be regulated by decisions from the houses and evolve as needed. The initial normal powers are as follows:

- Submitting a proposal to the parliament.
- Ordering an investigation in case of suspected wrongdoing of a member state or official.
- Proposing measures against a state if it fails to comply with decisions taken by the parliament. Those measures have to be approved by a simple majority in the upper house.
- Proposing reforms to the model.
- Issuing statements on the accuracy and bias present in upper house reports.

The initial emergency powers (which can go against national sovereignty) could be the following, depending on the situation:

- Breaking embargos and supervise aid sent to countries hit by natural disasters.
- Temporarily restricting member countries' border control rules to handle a sudden flow of refugees, and distribute them equitably among member states.
- Imposing sanitary measures and travel limitations to prevent the spread of extremely infectious diseases.
- Calling for an immediate vote in the upper house to extend the model's jurisdiction (which requires a majority of four fifths), to increase the flexibility of the model in case of emergencies. This power can and should be limited (for example, if any military capacity is given to the model, an extension of its jurisdiction should go through the usual channels).

Votes in the executive council are by a simple majority, although extreme measures require either 4 votes, or unanimity depending on their nature.

Responsibility

Any actions taken by the councilor that are due to corruption or not in good faith engage not only their own responsibility, but their state's. If the review that happens after that councilor's term finds that they acted in bad faith or tried to advantage some countries, the state they represent can find itself forced to compensate the others, and lose the ability to run for councilor for a time longer than 75 months.

Court of Justice

A court is attached to the model, with three main duties:

- Investigating and prosecuting members accused through the previously discussed means.
- Conducting the review of all councilors when they leave office.
- Settling disputes between member states over interpretation of decisions taken.

Its members are elected at a two thirds majority (in the upper house) among respected legal professionals, and serve for life. Three different chambers handle the court's duties to avoid conflicts of interest.

Cases are judged according to the regulations created by the model when applicable, and to the defendant's national legal system otherwise.

Agenda Setting

Even if the decision is ultimately in the hands of the people, it is possible to prevent their will from being acted upon by refusing to address certain subjects within the parliament's jurisdiction despite strong popular backing. To solve this problem, there are multiple ways to make sure that a subject is treated by parliament:

- Members of the upper house can initiate a debate on a given subject if they have the needed quorum of 25% of the house.
- The executive council can also be the initiator.
- Finally, any organization or association can petition the executive council. To show that not only the petitioners consider the subject important, a random sample of the population is taken (smaller than for the lower house, with only 10000 members). The subject is studied in parliament if more than 25% of the sample believe it should.

Detailed Timeline

In a normal non-emergency setting, the decision-making process takes slightly more than a year from the initial thought to the decision being taken.

The first step is to consider a new subject that requires international cooperation for treatment within the model. This can be done by the upper house, the executive council or any organization willing to pay for the petitioning and sampling costs. If the subject is not within the model's jurisdiction, the council can order an immediate vote in the upper house to extend the jurisdiction (needing unanimity).

The second step is to draw one million people at random to form a lower house. Those people are informed of their rights and duties then encouraged to follow the debates.

Thirdly, each member of the upper house has six months to propose a potential solution for the problem at hand or join another member's proposal (they can remain silent, but it is not in their interest). Public comments and critiques on the proposals have to be answered within a certain time.

Within the next three months, countries have to rate other proposals and write a report on each (generally as a group of countries).

During that time, public deliberation on AI-assisted platforms gives the public an idea of what people invested in the issue believe.

One year after the drawing, the lower house votes on each of the proposals, after being informed by the public deliberation and reports.

Depending on the margin, the proposal can be directly implemented or confirmed by the upper house. If multiple proposals are successful, a decision (in either the upper or lower house) is made within one month to select the best one. If no proposal garners a simple majority but some have more than 40% support, the most popular one is presented to the upper house where it requires 60% approval to pass. In case no proposal gets sufficient support, the subject can be put to the upper house after a delay of five years.

All member states have a set amount of time to comply with the decision, which the executive council enforces, through economic penalties if needed.

Power and Resources

The model as presented here does not include military capabilities, although it could be an extension (in which case interventions would have to be approved by unanimity in the executive council). This limits the council's power to enforce the decisions taken by the parliament, leaving only economical means. However, those means could be extremely strong thanks to the design of the system.

For instance, if a member state were to repeatedly refuse to comply with the decisions, an embargo could eventually be proposed by the council. To prevent rash decisions, a measure of this magnitude would have to be confirmed by a majority in the upper house and a strong majority in the lower house (in both cases, the target state and its citizens would not have voting power). Although individual states might have little desire to implement the embargo due to the economic consequences on their own economies, the widespread popular support for the measure would force them to also comply. Moreover, if needed, it would be possible to compensate those that are most affected. Insofar as most states agree on the terms, this would give extremely strong incentives to collaborate and follow the system's decisions without directly infringing on national sovereignty.

Implementation and Transition

So far, most advances in international cooperation have followed catastrophes of unseen-before magnitude. To prevent the next catastrophe, there must be strong incentives for states to join a new institution, even though it could restrict their powers or national sovereignty on certain subjects.

The problem with any system that aims to change the status quo, however, is that current beneficiaries of said status quo are generally against any change. As this model seeks to replace part of the United Nations' decision-making protocol, the countries currently benefiting from it may be against its implementation. Those countries would most probably be the ones with permanent seats on the security council, and their allies who benefit from such a privileged position. This is true for the model shown here, but also for any model with similar goals.

In some cases, international pressure can make a member state change its policy, but if the five permanent members decided to block a new global institution, they could probably withstand the economic consequences (making any economic threats useless).

This means that, instead of relying on external pressure, any new model should at least partially rely on internal pressure to adhere to a new institution of global cooperation. This is where this model has an advantage, because a major threat to international cooperation, in the public's eye, lies in the fear that bureaucrats and oligarchs will lower regulations and profit at the expense of the people (through trade agreements and immigration). Thus, a model that relies directly on the people and where they have the last word would have great appeal to the people of the different crucial countries.

A possible strategy for implementation would be to have a compact calling for the implementation of the model once enough signatories join (like the National Popular Vote Interstate Compact in the USA). Starting with countries that have much to gain (such as India, or Indonesia), most other countries that are currently not advantaged by institutions could join (mostly members of the G77). Then, international pressure to adhere and internal popular pressure to give more power to the people instead of politicians could make some key countries sign (depending on electoral luck), increasing the pressure on the remaining uninvolved countries each time, until all major countries abide by the model.

Potential Issues

Despite its advantages, there are multiple potential weaknesses in the model proposed. Here are the main issues, and how they could be addressed.

Central census

To have the ability to correctly draw at random people from all around the Earth, one needs to have a central database with all eligible people. Today, no such database exists (in public knowledge, at least). However, more and more countries have individual centralized databases, and the number is growing due to increased availability of the technology. The challenges in creating and maintaining one unique merger of all of those would be threefold:

- Preventing access to the database from unauthorized parties (that is, prevent hacking).
- Guaranteeing that every eligible person is in the database.
- Guaranteeing that every entry corresponds to a real person.

As the number of people with access would be limited, securing the database should not be too hard. However, the main problem lies in the fact that countries would have an interest in inflating their census data. Thankfully, independent investigation could easily estimate how prevalent this is, and in case of real fraud the state at fault could be penalized. To this end, the census should not just reveal basic information on the person, but also a way to contact them (which will be increasingly easy in a connected world).

It would also be possible for the system to be opt-in, in which case it would be in the countries' best interest to provide as much information as possible to motivate people to participate.

The member states are encouraged to provide technological expertise to countries with inadequate infrastructure, to provide equivalent participation opportunities to all citizens their countries.

Equitable access

In this document, we have assumed that almost everyone on our planet has access to information, generally through the internet. This is not yet true, as only slightly more than half of the world has internet access today. However, it is reasonable to think that by the time our model could be implemented globally, only a small percentage of the population wouldn't have access to it. Moreover, all the different components could work offline, or at least be spread offline to populations without internet (this is true for the debates and the reports, but more importantly the vote). Illiteracy could also be an issue, but it is decreasing quickly enough that it should be a minor problem by the time the model is implemented (moreover, text-to-speech technology would also be a potential solution).

A second problem would be the language barrier, but this could be handled in multiple ways. First, automatic translation is already a viable possibility (although dangerous, as legal speech is very nuanced). Second, each state could be responsible for the translation of its different reports and proposals into the official languages of all member states (possibly with the help of a dedicated translation office attached to the upper house).

The last problem to handle to guarantee equitable access is the financial one, with wealthier populations being able to devote more time to studying the issue, and thus being over-represented (as the others might abstain or vote randomly). One potential solution to this would be a small financial transfer through cryptocurrencies (to preserve anonymity) as the voters are selected. This would allow the poorest voters to spend time on the issue without struggling to make ends meet. Its effect on the other voters would, however, be complex to study, as financial reward could increase abstention in certain cases.

Proposal wording

Even with popular control of both agenda-setting and voting on legislation, it is still possible to orient the decisions of both houses by creating proposals with biased language or sentences meant to unduly influence the voters' decision. Member states can preemptively solicit the opinion of the executive council in order to ensure neutral wording and to avoid a negative comment from the council.

When it comes to the wording of petitions, it is the petitioning organization's goal to stimulate interest, so there is no risk of adverse bias (the only risk being that people could be less interested in the subject than initially thought).

Propaganda

Two types of propaganda are possible. One would be the diffusion through the system of strongly biased reports, or the discrediting of some reports by groups of countries. In both cases, the ability of the model to counter this depends on the existence of an honest fraction of the upper house. If such a thing cannot be achieved, however, any hope at international cooperation would be void.

The second and much more worrisome type lies in the indoctrination of a population to the point that they always vote according to the recommendations of their government, even if the corresponding report has been denounced as biased by all other members. This is a real

concern, but it is unavoidable in any worldwide democratic system. Indeed, any governance model has three options:

- Countries have a single vote each,
- Countries have a vote with weight proportional to their population,
- Populations vote directly (or through sampling).

The first one discriminates against big countries and isn't truly democratic, and the risk of indoctrination in the third is still an improvement over the united front presented by a country in the second option.

Some measures could also alleviate the problem partially. For example, strong encryption when accessing the reports could at least give access to all documents to the indoctrinated population (although if there is a camera pointed at every screen, that wouldn't help). More importantly, external pressure (and economic threats) could potentially push a country to stop (or reduce) its indoctrination.

Core Values

The power in this model lies in the lower houses (one per given subject). On any given matter, the decision is made by a group that is mathematically representative of mankind, even more so than in normal referenda as the increased responsibility and ease of access would lead to diminished abstention. This would counteract the effect of overrepresentation of the upper classes in most votes.

As we are all fallible and influenceable, we must also be wary of our worst tendencies. However, it is much easier to influence people who do not study a subject for long, and who vote with their guts, as they know that their vote doesn't really matter due to large number of voters and thus diminished individual responsibility. In this model, the increased responsibility of each participant leads to more time spent on the issue, and lower vulnerability to disinformation campaigns.

When it comes to minority protection, the very nature of the decisions to be made by the lower houses and their limited field of application should prevent most types of targeting, but the upper house is also responsible when it comes to making sure that no prejudiced decision makes it to the lower houses. Moreover, a relatively frequent problem in some democracies comes from a vocal and motivated minority oppressing a smaller minority, while the majority stays neutral (due to lack of information and motivation). This effect would be reduced in any model with decreased abstention from the neutral majority, like the one presented here.

Thus, the people making the decision would be representative of humanity, and their values representative of mankind's, while their biases would be partially prevented by an increased sense of responsibility and a lower sensitivity to propaganda.

One has to be careful here, because many schools of thought (from all origins) have a tendency to claim universality too quickly. It is easy to observe a supremacist attitude in many countries by asking two questions (the following example would target a Frenchman but would be applicable to most people in democracies):

- Should a global governance system give every person on Earth the same weight?
- Would you be ready to submit to a system where China has twenty times more votes than France?

The answer to the first would overwhelmingly be yes as it is among the core principles of democracy, but the second would receive wide opposition, even if people were assured that minorities would be protected. Any system that gives equal weight to all humans must then confront some measure of imperialist and independentist thought from even staunch defenders of democracy.

Thus the values defended could be far from the values currently accepted in many western countries.

Decision-Making Capacity

To ensure high reactivity, two different decision-making systems are included in the model. In case of real-time emergencies, such as major natural disasters or extreme epidemics, the executive council can meet at a moment's notice, thanks to its reduced size and the fact that its

members have no stronger commitments. They have a strong mandate to coordinate worldwide efforts while following the guidelines previously established by the parliament. Moreover, they have strong incentives to act quickly, as they are examined after their mandates not just on their actions, but also their potential inaction (thus preventing Paul's postcautionary principle).

The second decision-making system lies with the houses of parliament, which both work with enforceable deadlines. When tasked with proposing solutions, the members of the upper houses have a strong interest to either come up with one or support someone else's solution by the time the six months are over. As for the lower houses, once the upper house publishes its different proposals, they all have six more months to select their favorite, ensuring that a decision is made in at most one year. Those delays can be made shorter or longer in very specific cases, upon the executive council's authority (the delay should be set when the initial task is given to the upper house).

As opposed to the current security council of the United Nations, no member state has a permanent seat on the executive council, preventing unilateral blocking of potentially important decisions (as is still frequently practiced). This means that any single member state can only delay the implementation of a decision by at most 5 years. Moreover, the lower house can decide to dismiss (and potentially impeach) a member of the council, leading to immediate elections, if that member is preventing decisive actions from being taken.

Finally, the agenda itself can evolve quickly to address rising concerns, as the house has to address any petition with widespread support (25% of a random sample of 10000).

Effectiveness

The model has multiple advantages when it comes to effectiveness. First, it gives very strong incentives not just to act, but also to act while keeping in mind the long-term objectives, partially through the long mandates enjoyed by the executive council's members. The lower house is minimally biased and represents the stakeholders directly (i.e. the people), with next to no input from interest groups. However, those groups can spend their wealth on producing compelling high-quality data and arguments to defend their position. As they are not able to bombard the lower house with those but only to offer them on a balanced public deliberation platform, we can assume that the lower house will have access to balanced high-quality material to take reasonable decisions with the long term good of humanity in mind.

Once those decisions are made, the main duty of the council is to implement them. Here a reasonable approach is taken, with each concerned state having to take the necessary measures under penalty of harsh economic sanctions. Before those sanctions are applied, however, they would need to be validated by a strong majority of the lower house. This gives much more weight to the decision, as it would be much more costly for a government to publicly go against such decisions when they face overwhelming worldwide condemnation and serious financial sanctions.

Resources and Financing

This model presents a deliberation and decision-making body, which mostly relies on individual states to implement the measures taken. This allows it to have minimal operating costs, depending on the financing structure used. The amount of centralized bureaucracy needed for the main components to work is very limited, as most of the different tasks can be accomplished by each state independently. Indeed, it would fall upon the different states to produce reports and gather data and resources to inform the lower house (those reports would be subject to general approval to limit biased reports). As for the lower house itself, it mostly requires an online platform and the cost of getting the citizens their ballots securely. A focus on online work with open data in a common framework would also limit the expenses.

The need for bureaucracy and central services would mostly consist of the following:

- A permanent inspection unit, tasked with checking the accuracy of census data.
- A centralized translation service for the upper house.
- A service in charge of providing expertise and assisting the councilors.

There would also be the costs associated with the physical upper house and court, but all considered, the costs would be a fraction of current U.N. operating budget, which would be paid by all member states proportionally to their GDP.

Trust and Insight

The best way to get people to trust a system is to make it entirely transparent and invite them to participate. Those are two essential parts of the model, as the lower house is not only composed of the people it represents, but is also informed by them through the public deliberation system.

Every single step should be accessible to the people, from upper house and council deliberations to reports published by the different expert boards to the critiques of those reports. Most importantly, the vote in the upper house would not be secret but public knowledge, while the vote in the lower house would be verifiable, preventing manipulation and making collusion very visible. As a final step, the automatic review of all officials should instill confidence in the system's ability to fight corruption.

Through the use of simple and transparent tools, great public confidence can thus be achieved.

Flexibility

Any model should account for the possibility of change, without making it too easy. The biggest threat to change, as we have seen, lies in the existence of a privileged few who will defend their own interests. The model proposed gets rid of some of the privileges present in the U.N. and many organizations, so it would face strong initial opposition as already discussed. However, making our model evolve would be easier, because it would start from a position of higher equality. Moreover, the three quarters majority needed in the lower house to implement any real modification would be realistically attainable if the people feel the need for the model to evolve. As the only reason to make the model evolve is to address emergencies that had not been foreseen and that couldn't be handled by it in its current state, it is safe to assume that it would only evolve when it needs to. And in case of new perils, when it would need to change, most people would probably agree with that need, leading to organic change as needed. The greater the urgency, the greater the popular will, and the easier it would be to effect those changes.

Finally, unlike the present U.N. regional groups, the groups represented in the executive council are fluid and can evolve naturally over time.

Protection against the Abuse of Power

There are four different barriers to prevent abuse of power by the model. The first one is that the power ultimately lies in the hands of the people, and that strong decisions require strong majorities. These people are shielded from corruption and coercion, and anonymous, meaning that they can be as impartial as feasible.

The second barrier is the upper house, which can guide the lower house by issuing reports and prevent certain proposals if they threaten any minorities that require protection.

The third barrier corresponds to the guarantees offered by the fact that the model has a limited jurisdiction, and its threats to national sovereignty are very limited in scope and agreed upon by all members (they would mostly concern nuclear and biohazard risks). Economic sanctions that are widely implemented would not infringe on national sovereignty but still provide a strong enough incentive to comply with the system.

The last barrier comes through the automatic review of each member of the council after their service, and the close scrutiny that prevents them from visibly making biased decisions. Moreover, the possibility to dismiss or impeach a councilor by the houses prevents too much damage being done by someone not afraid of consequences. This also applies to countries, as conviction of a member of the house or council has repercussions not just on their person but on their home country (in the form of temporary ineligibility in the council or fines, for example).

Accountability

By design, only part of the system can be held accountable. The lower houses, populated by members of the general population, are anonymous, and couldn't be held accountable in any way. However, as they have absolutely nothing to personally gain from their vote (as the system prevents vote-selling and lobbying), it is reasonable to assume that they vote and act in good faith. Current studies on voter behavior show that people act more seriously when given actual power and responsibilities, so the risk of a significant proportion of the lower house being obstructive is negligible.

On the other hand, for both the upper house and the executive council, all the actions and discussions are a matter of public knowledge, with open data as a foundation. Not only are those actions visible while the members are in office, but an automatic thorough review of each member of the executive council removes most incentives to commit wrongdoings. The court's ability to prosecute is a final guarantee that the people can hold the decision-makers accountable.