Agora Voting

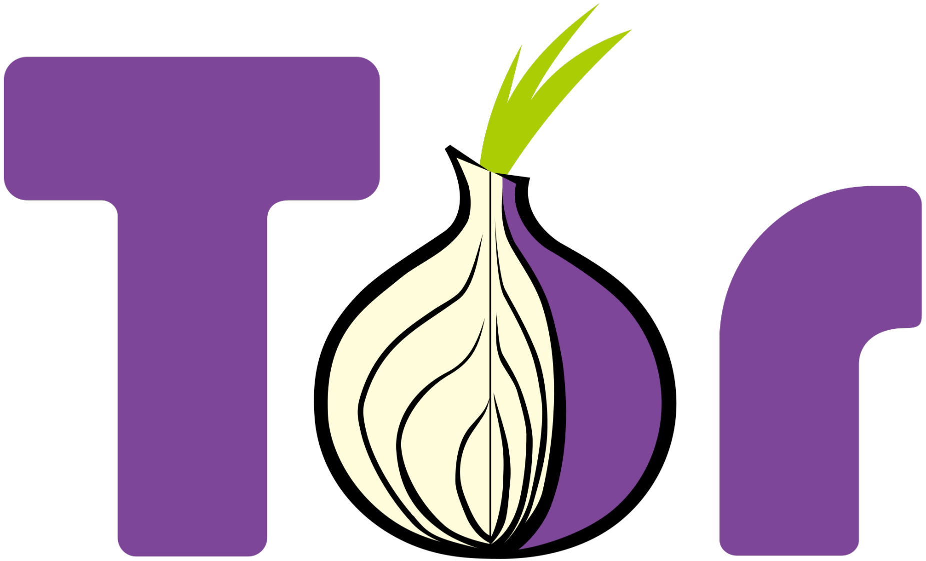
e-voting for skeptics

Eduardo Robles Elvira

https://agoravoting.com

“when we lose privacy we lose liberty itself”

J. Appelbaum, Citizen Four



important tech for preserving privacy via anonimity

technology vs. procedure

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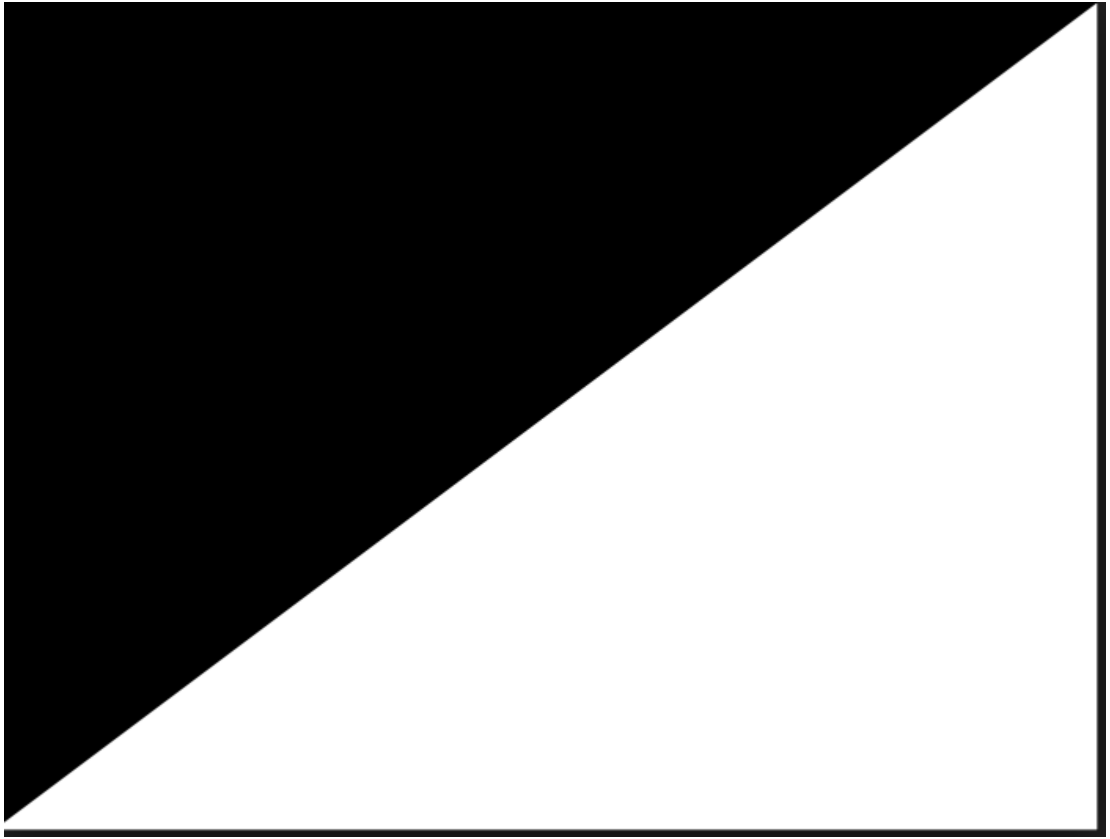

security vs sec. measures

asymmetric resources

is it safe to use? how?
depends on the case

No fooling, Reality:
people need and use it. that’s why it’s important

e-voting?

rewind

we are in the same page

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e-voting: what’s so hard?

Privacy vs. Results

Ben Adida

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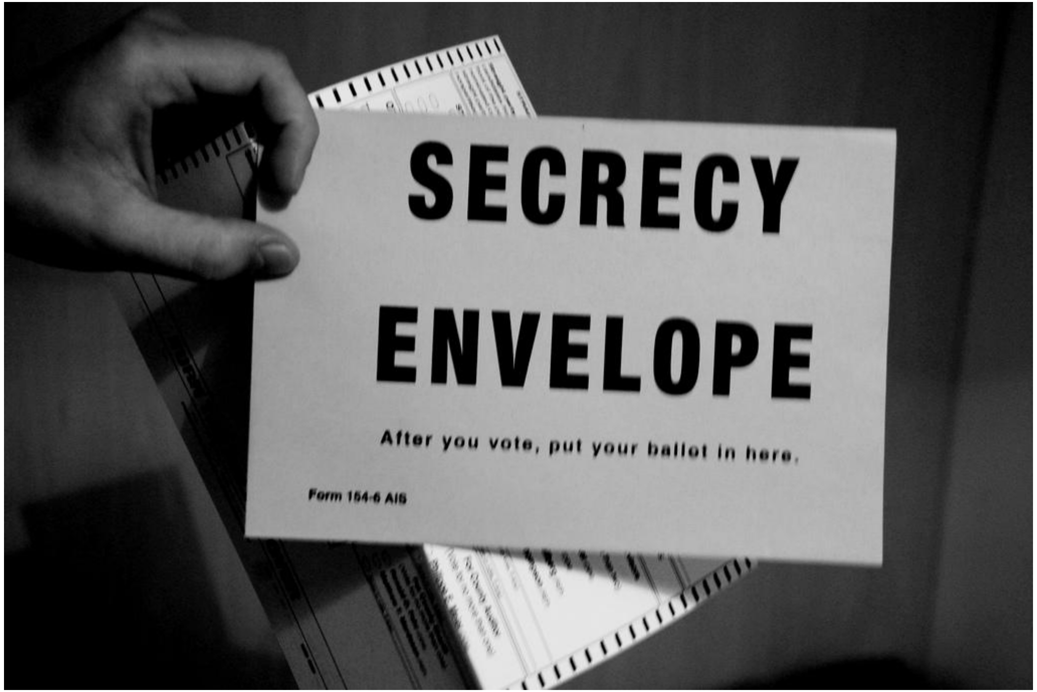
History

5 years

Technology

flexible and security focused e-voting


SECRECY
ENVELOPE
After you vote, put your ballot in here.
Form 154-6 AIS

Flexible

voting systems, auth methods, layouts, extra fields, tally options..

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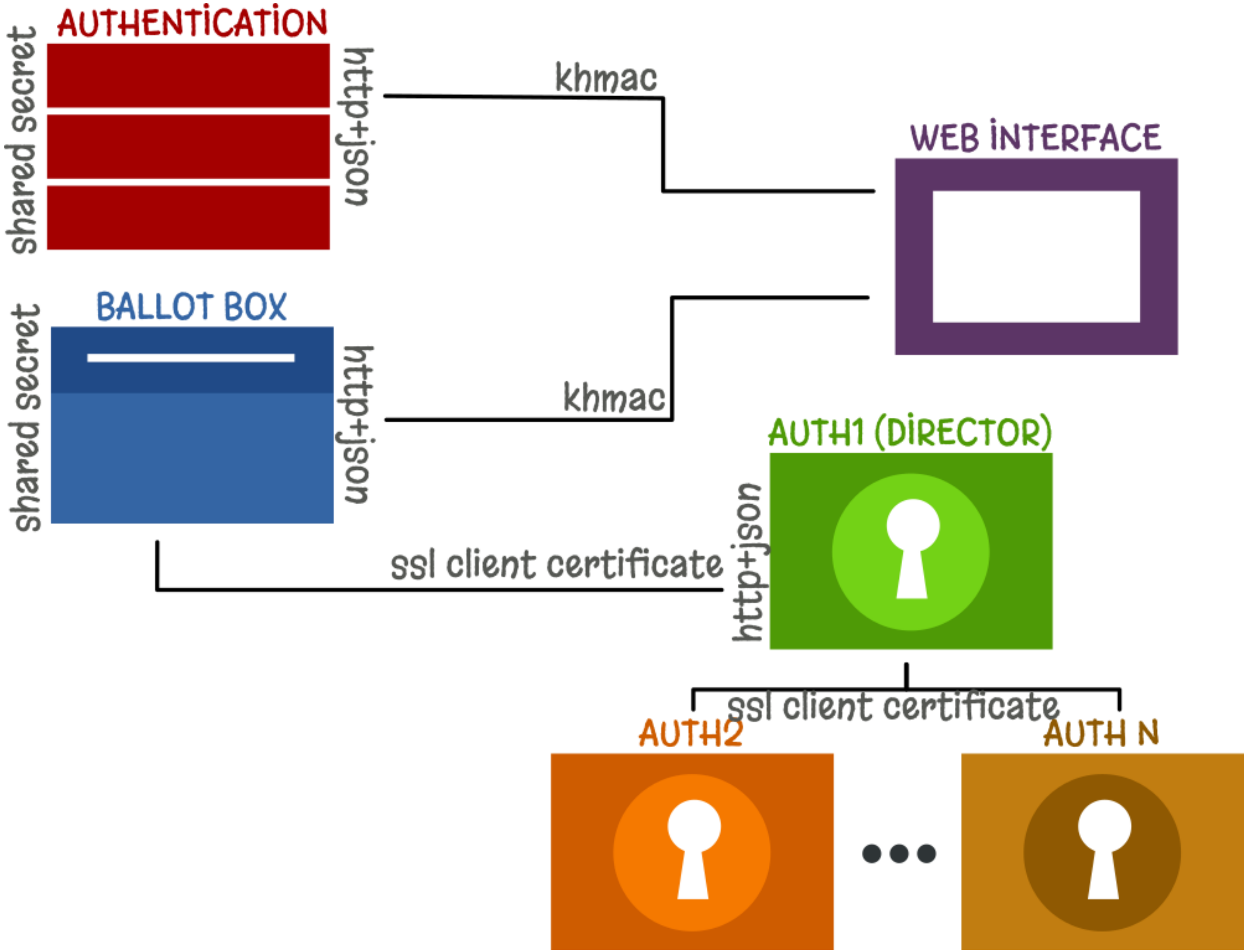

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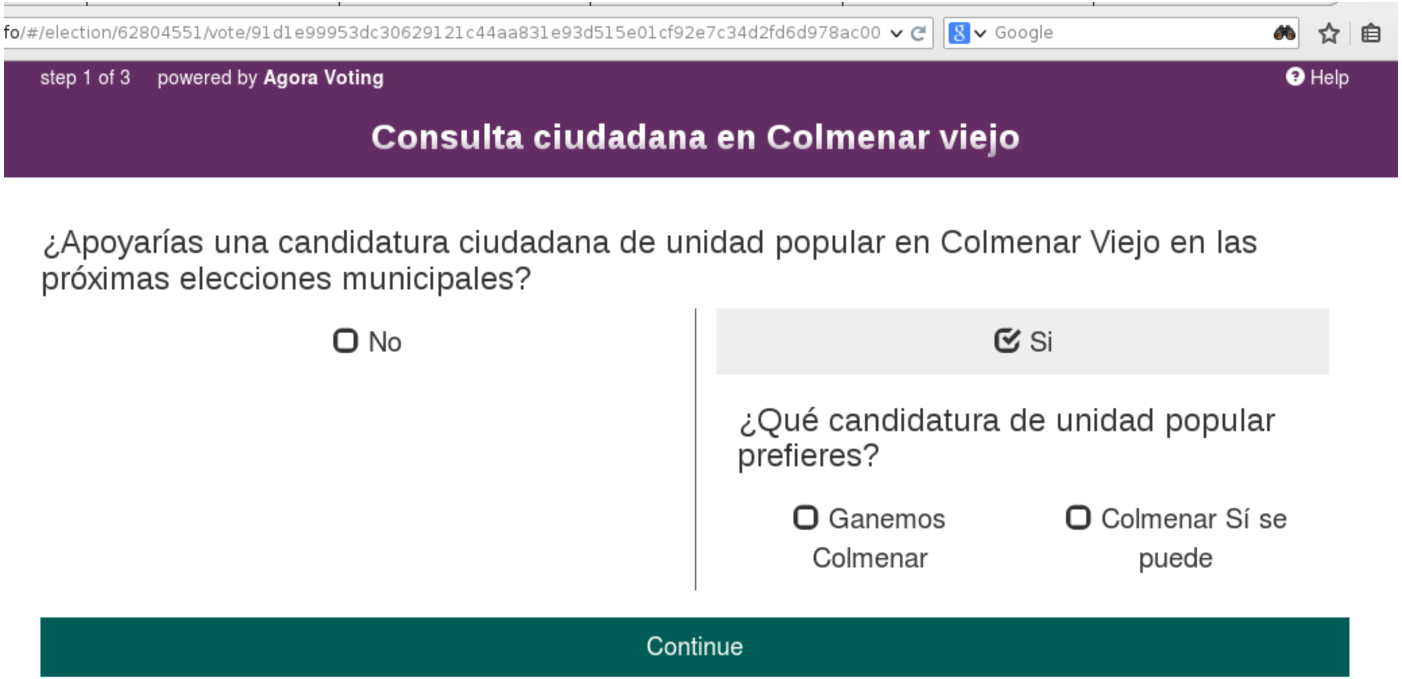

fo/#/election/62804551/vote/91d1e99953dc30629121c44aa831e93d515e01cf92e7c34d2fd6d978ac00
Google

step 1 of 3 powered by **Agora Voting**

Consulta ciudadana en Colmenar viejo

¿Apoyarías una candidatura ciudadana de unidad popular en Colmenar Viejo en las próximas elecciones municipales?

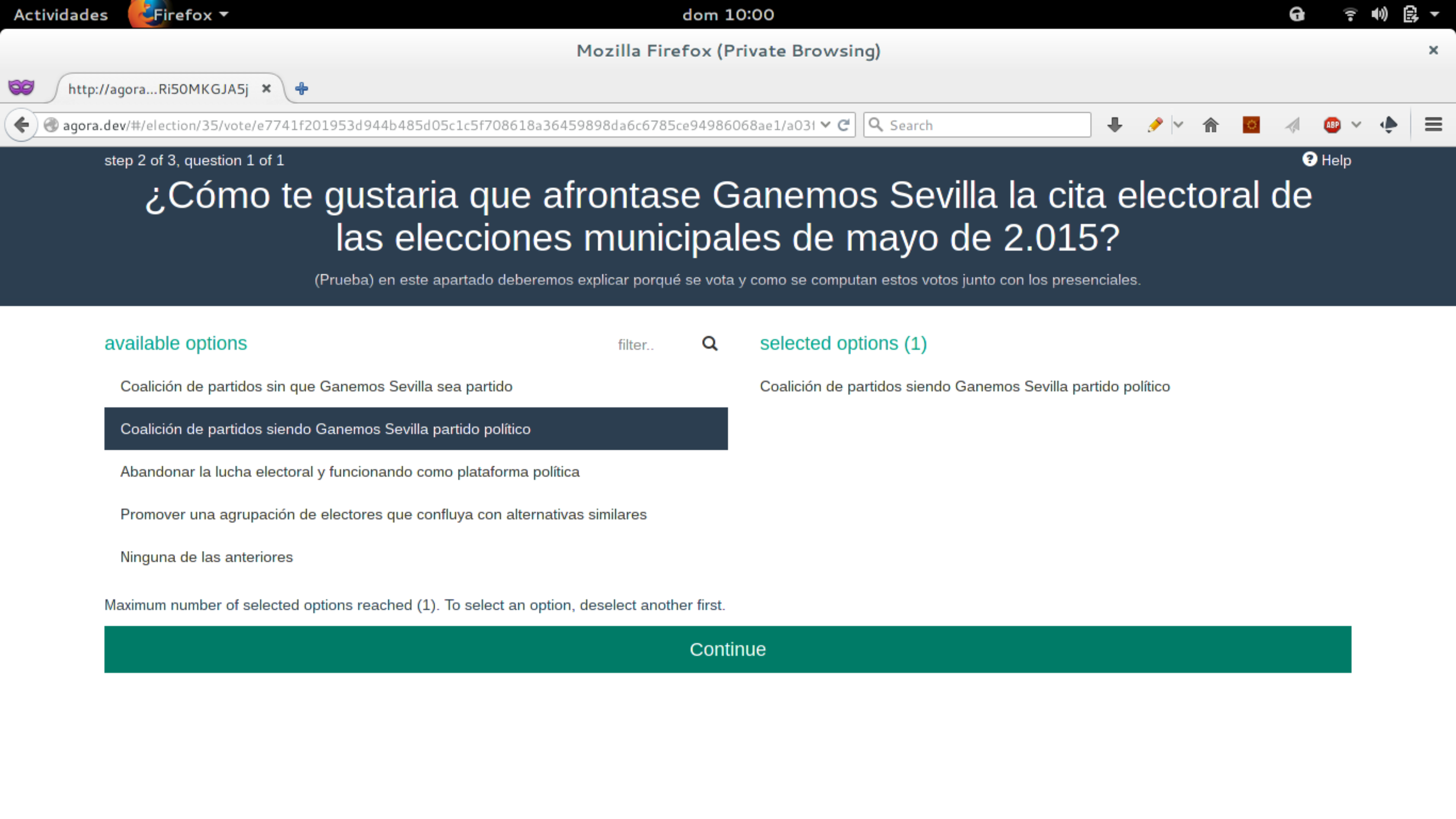
□ No

☑ Si

¿Qué candidatura de unidad popular prefieres?

□ Ganemos Colmenar

□ Colmenar Sí se puede


Actividades
Firefox
dom 10:00
Mozilla Firefox (Private Browsing)
http://agora...Ri50MKGJA5j
agora.dev/#/election/35/vote/e7741f201953d944b485d05c1c5f708618a36459898da6c6785ce94986068ae1/a03
Search
Help
filter..
Continue

step 2 of 3, question 1 of 1

¿Cómo te gustaria que afrontase Ganemos Sevilla la cita electoral de las elecciones municipales de mayo de 2.015?

(Prueba) en este apartado deberemos explicar porqué se vota y como se computan estos votos junto con los presenciales.

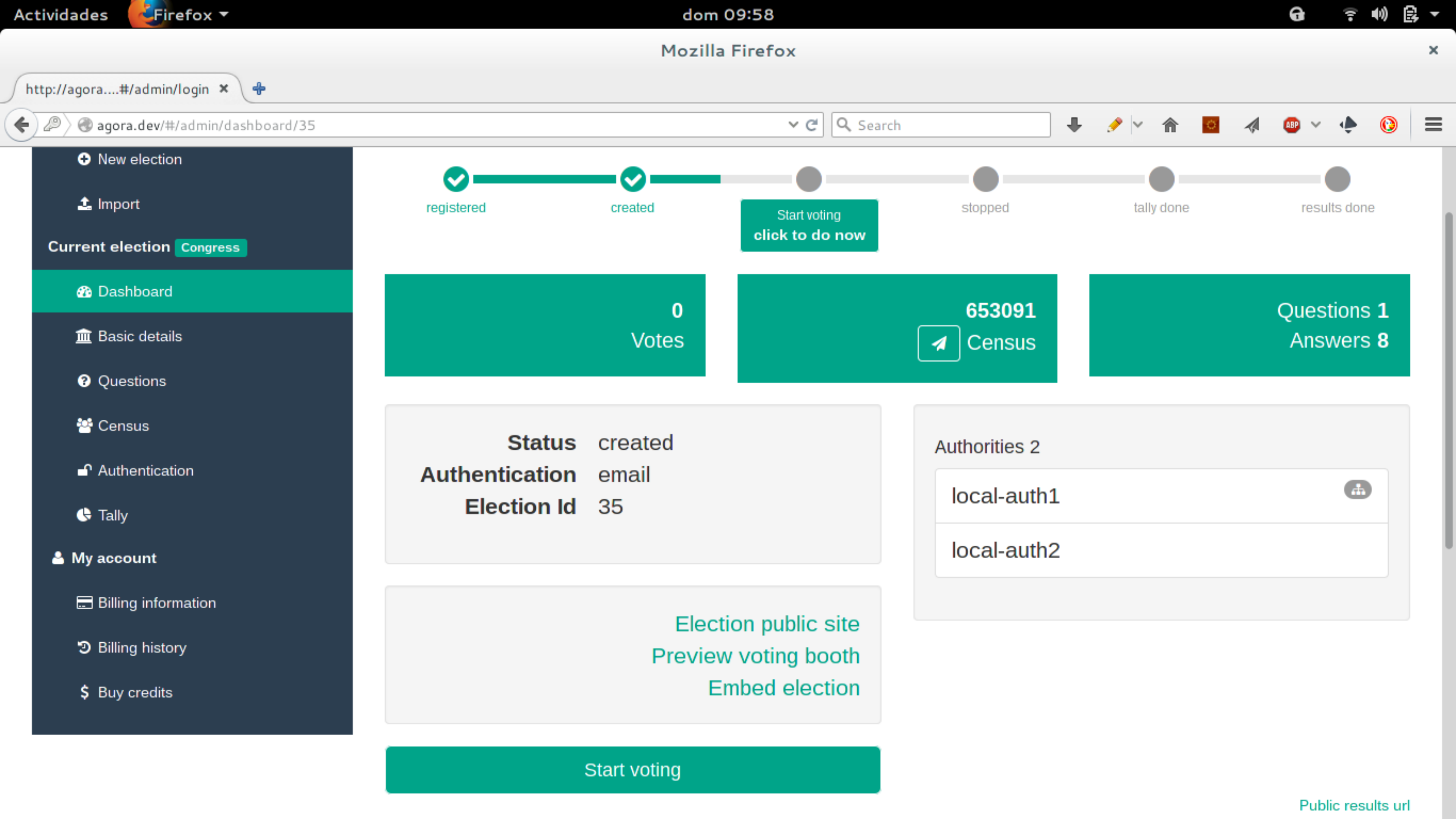
available options

- Coalición de partidos sin que Ganemos Sevilla sea partido
- Coalición de partidos siendo Ganemos Sevilla partido político
- Abandonar la lucha electoral y funcionando como plataforma política
- Promover una agrupación de electores que confluya con alternativas similares
- Ninguna de las anteriores

selected options (1)

- Coalición de partidos siendo Ganemos Sevilla partido político

Maximum number of selected options reached (1). To select an option, deselect another first.



Status created
Authentication email
Election Id 35

Authorities 2

local-auth1

local-auth2

Security focused

End-to-end verifiable

- Cast-as-intended
- Recorded-as-cast
- Counted-as-recorded

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Original vote => Coded vote => Encrypted vote (secret)

Option A

1

```
“alpha:“”
4258953182677722371453880409268749051389633699899139097103333
5609799611441877064526136245284657244122497804586518859294565
1877785541874859765385259678770773327674493904355475862323079
8244900422118578808183914623385583455279240358704186547645415
1642574286811110595709606305943585368898322670544410819455389
3898313678099587301832995949891300765385109456876356636830982
9621063361936513208912074536638240814203652274729623087308622
6136520543602814223229543379123164699348284892677673309747460
7594270141984485824354753705840465535479006074891726177534767
6919767775061144602085812100027923945031524819751853625225344
3532905","beta":"
2718571143715739082618846267833200710935512879972992311079981
4299160657193983088363684193264062089876081017637156241870149
2268943497906539573392136429364565460810863742148764087225861
7897228416006853032907791888414234031982720295547801494026144
1607806659182188705541155188761329158988352447193849484578841
0646510289308326492003238843218639982122006858127856026180567
3191418496873900482466825780123124890638611193743582990322461
9050149130528774456591475897031746579331975898008525610664867
0807004858815297385565144899958927284019656516001908088614891
8344833521576380014837258317011567351544241696282256254549007
2555258”
```

Authorities

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Encrypted votes => mixnet => clear text votes and anonymous

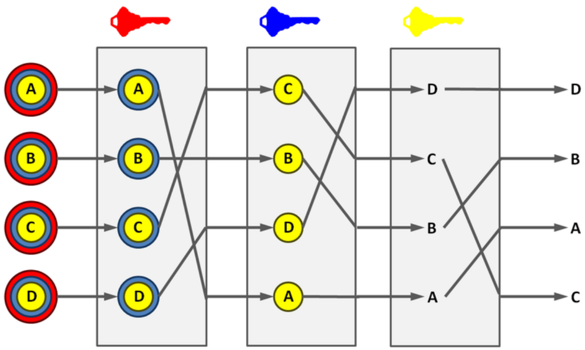
John Vote

“alpha:“”
4258953182677722371453880409268749051389633699
8991390971033335609799611441877064526136245284
6572441224978045865188592945651877785541874859
7653852596787707733276744939043554758623230798
2449004221185788081839146233855834552792403587
0418654764541516425742868111105957096063059435
8536889832267054441081945538938983136780995873
0183299594989130076538510945687635663683098296
2106336193651320891207453663824081420365227472
962308730

Jane Vote

“alpha:“”
4258953182677722371453880409268749051389633699
8991390971033335609799611441877064526136245284
6572441224978045865188592945651877785541874859
7653852596787707733276744939043554758623230798
2449004221185788081839146233855834552792403587
0418654764541516425742868111105957096063059435
8536889832267054441081945538938983136780995873
0183299594989130076538510945687635663683098296
2106336193651320891207453663824081420365227472
962308730

.. and more votes ..



Source: wikipedia.org

option A

option B

option A

option C

option A

option A

option C

.. and more votes ..

Just getting started

Statistically sound auditing

Open hardware

Improve dispute-freeness

Distributed ballot-box

Deterministic builds

Formally verify code (sel4)

Authentication

Used in binding elections

+100k votes in a single election

Software Libre

http://github.com/agoravoting

The Company

professional services

SaaS beta