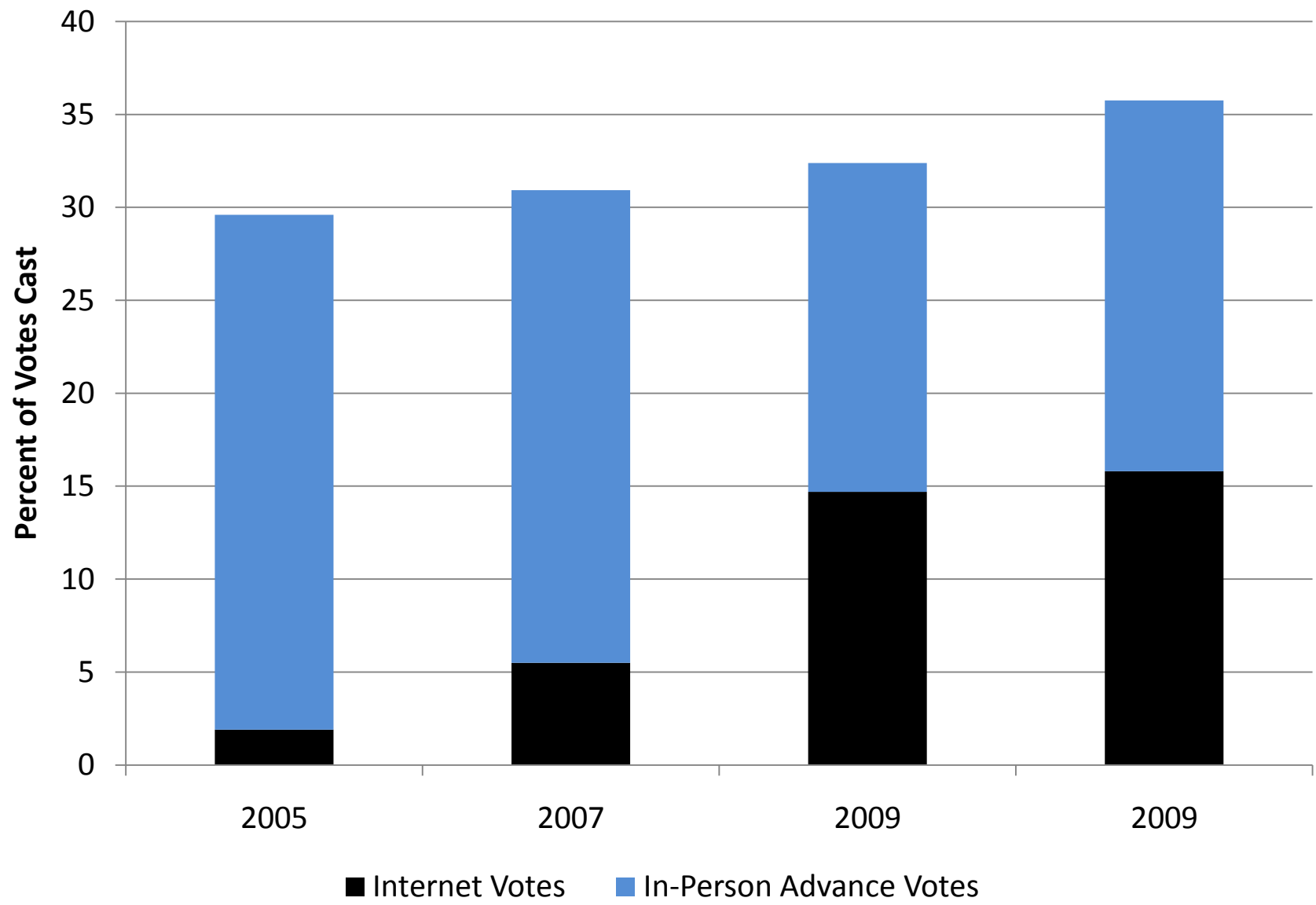
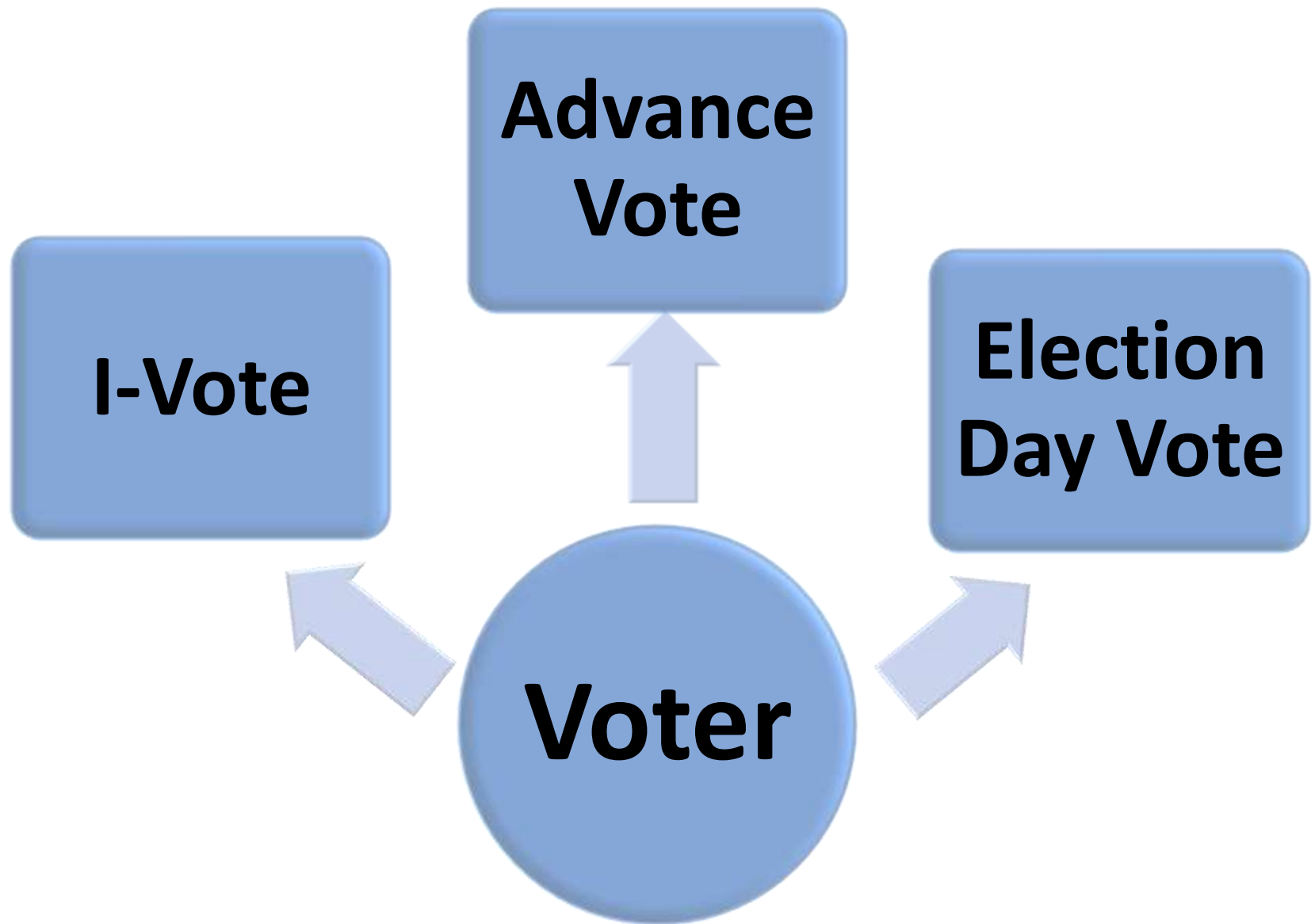


Latest Trends in Elections and ICT

Thad Hall

University of Utah, USA





Information



Ideology

**Vote
Choice**

2005

- Internet Voting Estonia
- Blogs/Websites

2007

- Social Media Gain Critical Mass in the United States

2009

- Social Media Worldwide



Face to face best.

Your family.

Your friends

Your neighbor.

The diagram consists of two large blue arrows pointing towards each other, meeting at a central point. The left arrow contains the text 'Information Seeking VOTERS' and the right arrow contains the text 'Information Pushing CAMPAIGNS. MEDIA'. The entire diagram is set against a white background with red horizontal bars at the top and bottom.

Information
Seeking
VOTERS

Information
Pushing
CAMPAIGNS.
MEDIA

The Online Yard Sign

The screenshot shows a campaign website for Steve Madison, City Council. The header features the slogan "Great neighborhoods in a great city!" and a large banner with the text "RE-ELECT Steve Madison CITY COUNCIL". The banner includes an American flag graphic on the left and a photo of Steve Madison on the right. Below the banner is a navigation menu with links: Home, About Steve, Issues, Endorsements, Events, Video, Fact Check, Share Your Story, Our District, and Voting Info. The main content area has a section titled "Proven Leadership on the Pasadena City Council" with a paragraph about Steve Madison's tenure and a list of his positions: Vice Mayor and Chair, Economic Development and Technology Committee. On the right side, there is a "Subscribe for Updates" form with a text input field, "Add" and "Remove" radio buttons, and a "Submit" button. Below this is a "Contribute" button with a circular icon.

Great neighborhoods in a great city!

RE-ELECT
Steve Madison
CITY COUNCIL

Home About Steve Issues Endorsements Events Video Fact Check Share Your Story Our District Voting Info

Proven Leadership on the Pasadena City Council

Steve Madison has represented District 6 since 1999. He was last re-elected in 2007, with more than 83% of the vote. While on the City Council, Steve has served in a number of key positions:

- Vice Mayor
- Chair, Economic Development and Technology Committee

Subscribe for Updates

☒ Add ☐ Remove

Submit

Contribute

Energizing the Base



You're using an older version of Twitter that won't be around for much longer.

[Switch to New Twitter!](#)



newtgingrich

[+ Follow](#)

Followed by [@politico](#), [@davidfrum](#), [@PollsAndVotes](#), and 1 other

[Lists](#)



About to join the hosts of Fox and Friends. Tune in!

about 6 hours ago via web

This is a great website about George Washington's life and career. It is worth reviewing on this Presidents Day www.firstinpeace.com
11:09 AM Feb 21st via web

[@RudiKMSOL](#) we appreciate you letting us know about american anthem. [@CallyGingrich](#) and I look forward to learning about your show.

8:27 AM Feb 21st via web in reply to [RudiKMSOL](#)



Verified Account

Name Newt Gingrich

Web <http://Newt.org>

Bio Former House Speaker, author, Fox analyst, founder HealthTransformation.net, @AmSol. With enough time I'd be a paleontologist, chef, zoo director and movie reviewer

131

following

1,309,195

followers

7,779

listed

Tweets

2,240

[Favorites](#)

Actions

[block newtgingrich](#)
[report for spam](#)

Following



Energizing the Base



Author of the #1 New York Times Bestseller *Going Rogue*

SARAH PALIN

AMERICA BY HEART
Reflections on Family, Faith, and Flag

Information

Hometown:
Wasilla, Alaska

Birthday:
February 11

About:
<http://www.SarahPAC.com/>
<http://twitter.com/SarahPalinUSA>

Sarah Palin 

Wall **Info** **Notes** **Donate to S...** **Discussions** **YouTube Box** **>>**

Filters

**Sarah Palin**

Union Brothers and Sisters: Seize Opportunity to Show True Solidarity
The union-led school closures and demonstrations in Madison have left most ordinary Americans shaking their heads in disbelief. Months ago, I penned a message to my fellow union brothers and sisters when I found myself on the receiving end of union boss Richard Trumka's wrath. ...

February 18 at 9:32pm · View Feedback (16,657) · Share

**Sarah Palin**

The Truth Behind the White House's Budget Spin
Today the White House finally produced its proposal for the 2012 budget...

February 14 at 1:12pm · View Feedback (10,769) · Share

**Sarah Palin**

On Sputnik vs. Spudnut
Please read this article by the Hoover Institution's Research Fellow Peter Schweizer. ...

January 28 at 11:40am · View Feedback (8,598) · Share

**Sarah Palin**

Obama's Message to America: The Era of Big Government is Back, Now Help Me Pay For It
The President's State of the Union address boiled down to government is here as long as I am, so help me pay for it

 **Chat (Offline)**

Looking for Information

POLITICO

2012 LIVE

44

CONGRESS

CLICK

ARENA

OPINION

POLICY

VIDEO

How a shutdown could happen

By JONATHAN ALLEN & CARRIE BUDOFF BROWN | 02/22/11 1:48 PM



Thad Hall, University of Utah

Looking for Information

HUFFPOST POLITICS

THE INTERNET NEWSPAPER: NEWS BLOGS VIDEO COMMUNITY

f Like 33K

February 22, 2011 | Log In | Sign Up

f Connect 

REPORTERS  | 2012 ELECTIONS  | POLLSTER  | FUNDRAISE  | HUFFPOST HILL  | INVESTIGATIONS 
FRONT PAGE | POLITICS | MEDIA | ENTERTAINMENT | SPORTS | COMEDY | BUSINESS | TECH | IVY | LIVING | GREEN | TRAVEL | MORE ▼

work safe? I forget. No we aren't. just now @JonWalkerDC: GAO: Defense Department Fails to Provide Comprehensive

SEARCH

IMPASSE

No Progress In Talks To Prevent Government Shutdown



Indiana Goes Wisconsin: Dems
Flee State To Block Anti-Union Bill



Comments (3,184)

Poll Reveals Which President
Americans See As Greatest



Looking for Information

DAILY KOS



The STATE of the NATION

[HOME](#) \$ [PEOPLE](#) \$ [GROUPS](#) \$ [DIARIES](#) \$ [TAGS](#) \$ [FAQ](#)

GO

COMMUNITY SPOTLIGHT

California State Parks You Should Know - Torrey Pines State Natural Reserve

by [TheOrchid](#)

32 comments

A New Permanent Underclass

by [abe57](#) 65 comments

The Hardest Death to Watch

by [I love OCD](#)

99 comments

Making Sense of Revolutions

by [cabaretic](#) 13 comments

Hello DK4, My name is...

by [Aaron Krager](#)

43 comments

The Day the WI Governor Opened Fire

by [thenekkidtruth](#)

51 comments

[NEXT »](#)

TUE FEB 22, 2011 AT 03:03 PM EST

Midday open thread

by [kos](#)

FEATURE

PolitiFact: Walker's 'pants on fire' on collective bargaining



[Read report here.](#)

TEA PARTY EXPRESS

www.TeaPartyExpress.org

HOME

TOUR SCHEDULE

ENDORSED CANDIDATES

MEDIA

BLOG

WATCH LIVE

CONTACT

STORE

CONTRIBUTE

Congresswoman Bachmann • Tea Party Express Resp...



JOIN OUR MAILING LIST

Enter your email

Enter your postal code

Join

Tea Party Express
OurCountryPAC

The Great Defeat Obama Presidential Weekend! <http://bit.ly/dLWgm5> #tcot #gop #teaparty #sgp

MEDIA REPORT: Wisconsin Mob An Attempt to Silence Tea Party Movement <http://bit.ly/jdGxYC> #tcot #teaparty #gop #tlot #sgp

BREAKING NEWS: Obama Behind Wisconsin Hysteria <http://bit.ly/hvHrv2> #tcot #gop #witcot #teaparty

BREAKING NEWS: Obama Behind Wisconsin Hysteria <http://bit.ly/hvHrv2> #tcot #gop #witcot #teaparty

To Ben Nelson, Debbie Stabenow, Olympia

twitter

Join the conversation

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Follow us on Twitter



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WWW.OURCOUNTRYDESERVESBETTER.COM

Thad Hall, University of Utah

2010 US Congressional Elections

- 25% voters get email from candidates or interest groups.
- 20% visit candidate websites or follow them on Facebook or Twitter.
- Under 30 do online politics twice as much as Over 65

Political Internet Use – US

- Better educated
- Democrats
- Political Activists (Donors)
- Connected to Campaign (“Friend/Email List”)

Political Internet Use – Estonia

- Traditional Media Still Most Important
- 40% of Voters Use Internet for Politics
 - Looking for Issue Positions
- Small percentages sign up for emails from parties.
 - Parties could use social media more?



Elections in Information Society: *online*-campaigns 2011 in Estonia

Kristina Reinsalu, *PhD*
e-Governance Academy

Topics to be covered

- **background, earlier studies**
- **research questions and methods**
- **preliminary findings**
- **conclusions**

Background

- **Elections as one of the most important milestones to evaluate the level of democracy in society**
- **Estonia as good case for describing possible influence and effects of internet on democracy**

Earlier studies

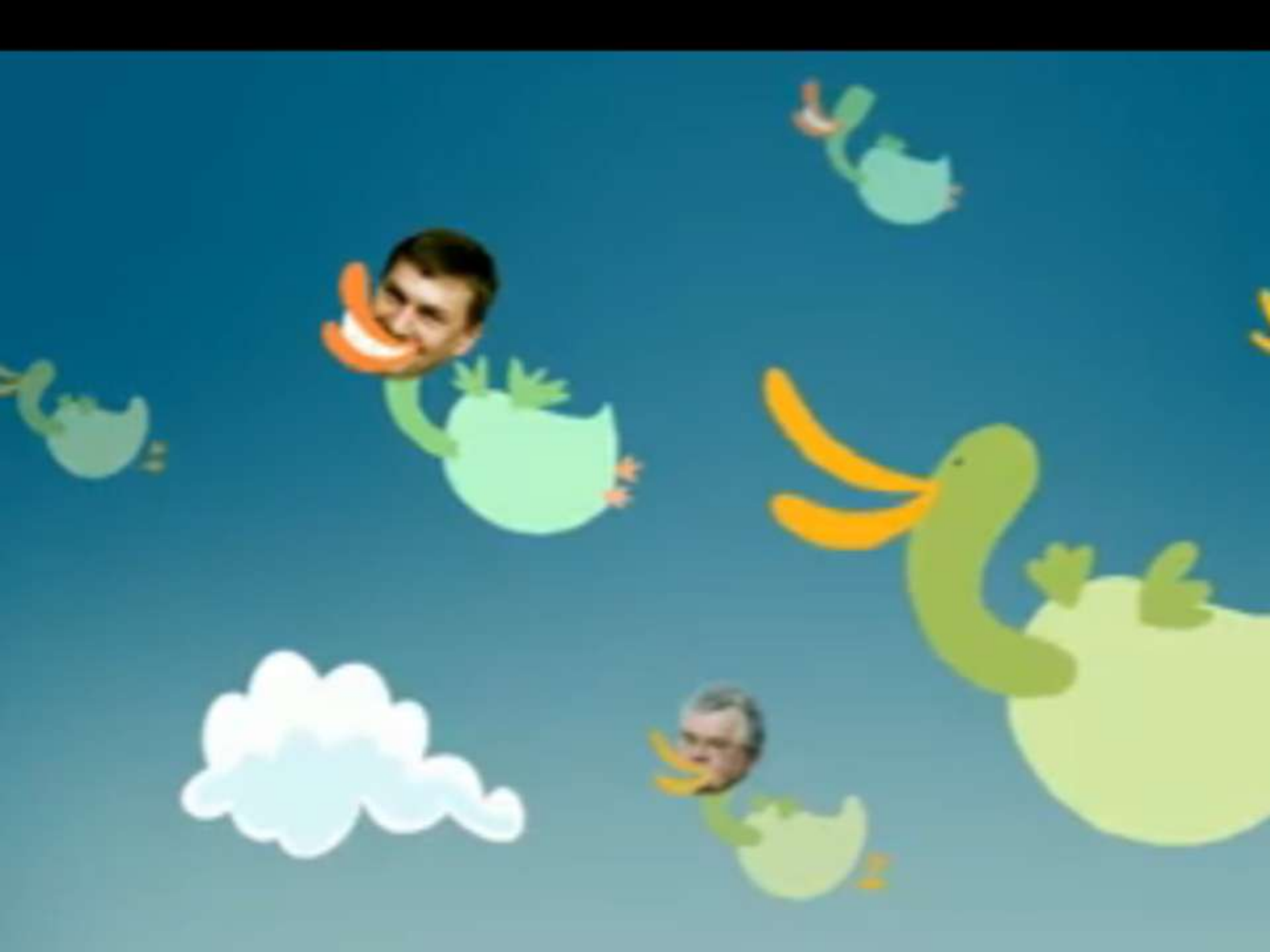
June 2009 EP elections and –

discourse analysis of online-campaigns in various *online*-environments, including social media

October 2009 local elections –

Altogether 227 official web pages of local governments, 472 items of social media (includes Facebook, Twitter, blogs), 29 online newspapers were analysed using observation, content and discourse analysis methods

2010 - Study on use of social media among members of last Estonian Parliament



**What characterizes political communication
in *online*-environments in period preceding
Estonian Parliamentary elections 2011?**

Methods

- **Quantitative and qualitative content analysis methods combined**
- **Analyzed by experts of eGA and MA students of communication studies of University of Tartu**
- **Research period 13.02 – 3.03.2011**

Analýzis

- **Parties** – campaigns on a) official websites; b) social networks; c) *online*-newspapers
- **Candidates** – campaigns on a) blogs , b) social networks, c) *online*-media
- **Confirmity of campaign to the Code of Good Practices on Elections**

FINDINGS

official websites of parties

- **Linked to FB and blogs (Reform Party actively sharing almost every sub-page through social networks, Central Party linking to blogs)**
- **2 parties promote e-voting**



- 3 parties remarkably invested on website before elections
- no interactivity
- tricks and slogans as
“Enough”,
“New Start”,
“It ´s time!



parties in social media

- **Leading party in social media seems to be Reformist Party: has 2300 “likers”, every day 6-8 postings, 420 followers in Twitter, 25 videos in Youtube**
- **However, the use of social media is surprisingly modest**

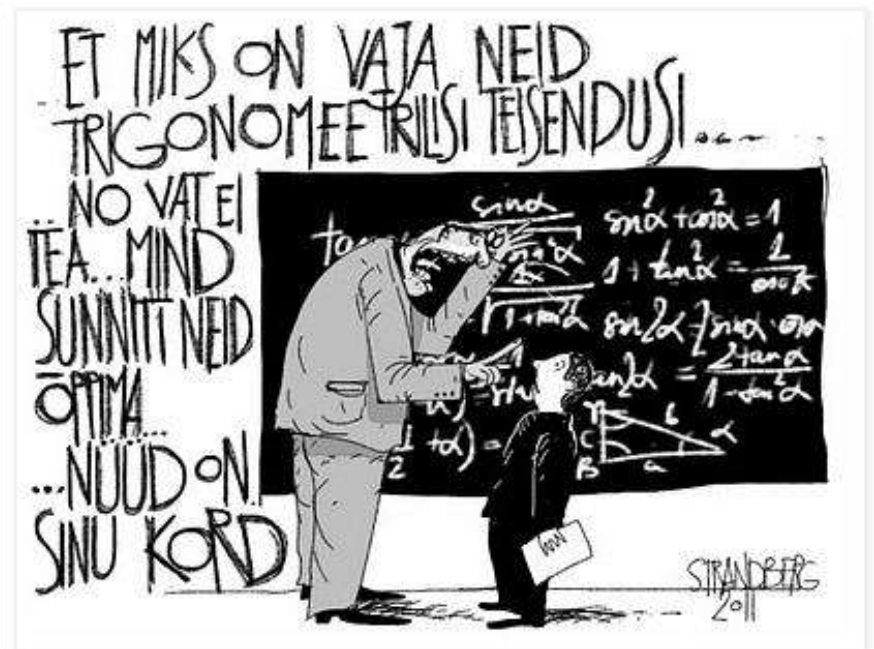
candidates in social media

- **FB is dominating – 70% of candidates are there, but not very actively**
- **No network, fight is individual**

blogs

- 14% of candidates are bloggers, 51% of them present political message
- Less than half of the candidates refer to program or link the blog with social networks
- Only couple of “top-bloggers” are getting commented

ON AEG HARIDUSREVOLUTSIOONIKS



Candidates and parties in *online*-newspapers

-
- The screenshot shows a web browser window with the address bar displaying <http://www.reformierakond.ee>. The page is the website of the Reformierakond (Reform Party) in Estonia. The header is yellow and contains the party's logo, the number '474', and the name 'Jaanus Rahumägi'. A button in the header says 'Tule valima 6. märtsil'. The main content area has a blue background and features a large photo of Jaanus Rahumägi. To the right of the photo is the text 'VÕID KINDEL OLLA' in large, bold, white letters. Below this, there is a blue box with white text that reads: 'Alta Tallinnas korda luua ja võida iPad! Jaanus Rahumägi on juba 20 aastat võidelnud korraldada aast Eestis. See ei ole lihtne töö. Pare end mängus proovida ja saada, kui kuuend on kuuend, poodid. Seetõttu võta nautuval kuuend ja kuuend on kuuend, kui võitlusest nautuval, jätke kuuend. Tenda eest, ainek nautuval teist.' Below this, there is a yellow box with black text that reads: 'Kõigi mängijate vahel loetakse 8. märtsil võitja pood iPad. Lisaks saavad 3 x 15 kuuendat ainek nautuval nautuval nautuval.' At the bottom of the page, there is a small text line: 'Hoi Partit eest, ära korraldage kuuend on võit. Ole võitlusest, ja kuuend nautuval pood kuuend nautuval. 112'.

**conformity of *online*-campaign
to Good Practices on Elections**

Cases of threatening, smearing or mocking of oponents

Võid kindel olla HINNATÕUSUS ja TÖÖPUUDUSES



Tõstsiime kaibemaksu 18% -> 20%

Tõstsiime toasooja kaibemaksu 5% -> 20%

Tõstsiime maagaasi aktsiisi 1000m³ 0 -> 367 kroonile

Tõstsiime raamatute ja õpikute kaibemaksu 5% -> 9%

Kaotasime matusetootuse ja tõstsiime matuseteenuste kaibemaksu 5% -> 20%

Tõstsiime kontsertide, spordiürituste, etenduste, muuseumide ja kinopiletite kaibemaksu 5% -> 20%

Tõstsiime majutusteenuste kaibemaksu 5% -> 20%

Tõstsiime kütuseaktsiisi 36%

Kehtestasime omaosaluse hooldusravis kuni 3000 krooni kuus (191,73 €)

Kaotasime hambaravi 300 kroonise (19,17 €) hüvitamine 19-62 aastastele

Kehtestasime pakendiaktsiisi 10-40 krooni (0,64 - 2,56 €) kg kohta

Vähendasime kohalike omavalitsuste tulubaasi 11,93% -> 11,4%-le

Peatasime pensioni II samba riigi poolset maksed

Üritasime kehtestada kilekotimaksu (plastkotiaktsiisi)



Reformierakond



IRL
Isamaa ja Res Publ



Kui majandus on kindlate uutes kaibemaksu- ja HINNATÕUSU tege



VÕID KINDEL OLLA

Võtsime vastu uue toolepingu seaduse

Tõstsiime pensioniiga, arvestamata rahva arvamusega

Lõpetasime pensionide TASUTA kojukande ja tõstsiime hinna 72-le kroonile (4,6 €)

Karpisime oluliselt haigus- ja hooldushüvitisi

Tõstsiime ametiautode erisoodustusmäära 2000 -> 4000 kroonile (256 €)

Sulgeme kohalikke postkontoreid ning vähendame ühistranspordilaine

Vähendasime üliõpilaste sõidusoodustust 500 -> 440 kroonile (28,12 €)

Vähendasime ülikooli põhitoetust 1000 -> 875 kroonile (55,92 €)

Kaotasime maksusoodustused äärmiselt intressidelt

EESTI
upuks võlgadesse

Picking words of oponents out of context



Conclusions

- **Webpage is place for showing your own strengths and desires, social media for opponents' weaknesses and evils**
- **Confusion of roles and individualism**
- **Still, political argument is clearer than before**
- ***online*-environments 2011 are more educative – electors' compasses and games**

What next?

- **Elements of campaign and real outcome**
- **Parties' self-evaluation of campaign**
- **Real effect of online-campaigns on election behaviour**

Thank you!

kristina@ega.ee





Very short overview

Traffic

Effects

Eestis ei ole naiste ja meeste võrdõiguslikkusega selliseid
probleeme, mis nõuaks riigi sekkumist



Lähim erakond

Erakondade pingerida väljendab Sinu hoiakute kokkulangevust erakondade hoiakutega. Mida suurem protsent, seda suurem on nõustumine Sinu ja erakonna vahel.

Poliitiline radar

Maastik

Salvesta tulemus

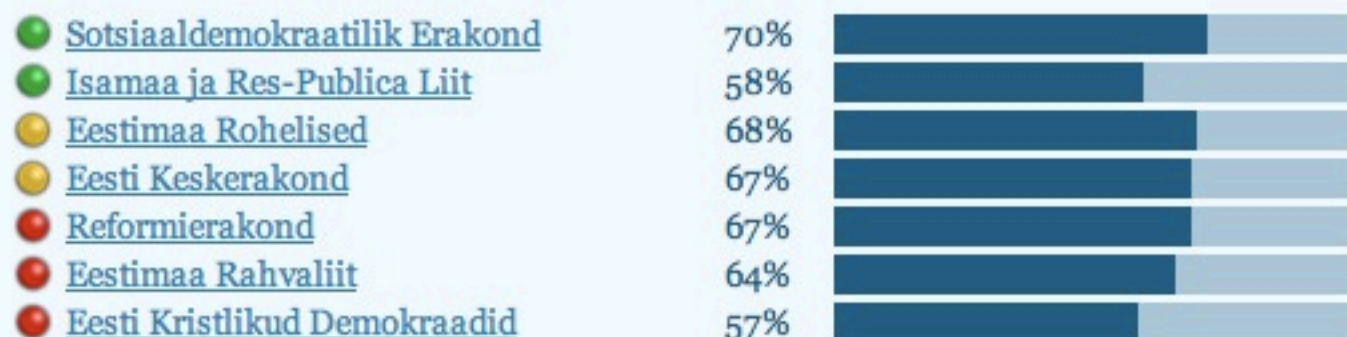
Jaga tulemust



Lähim erakond

Lülita foor välja

Lülita kaalud välja



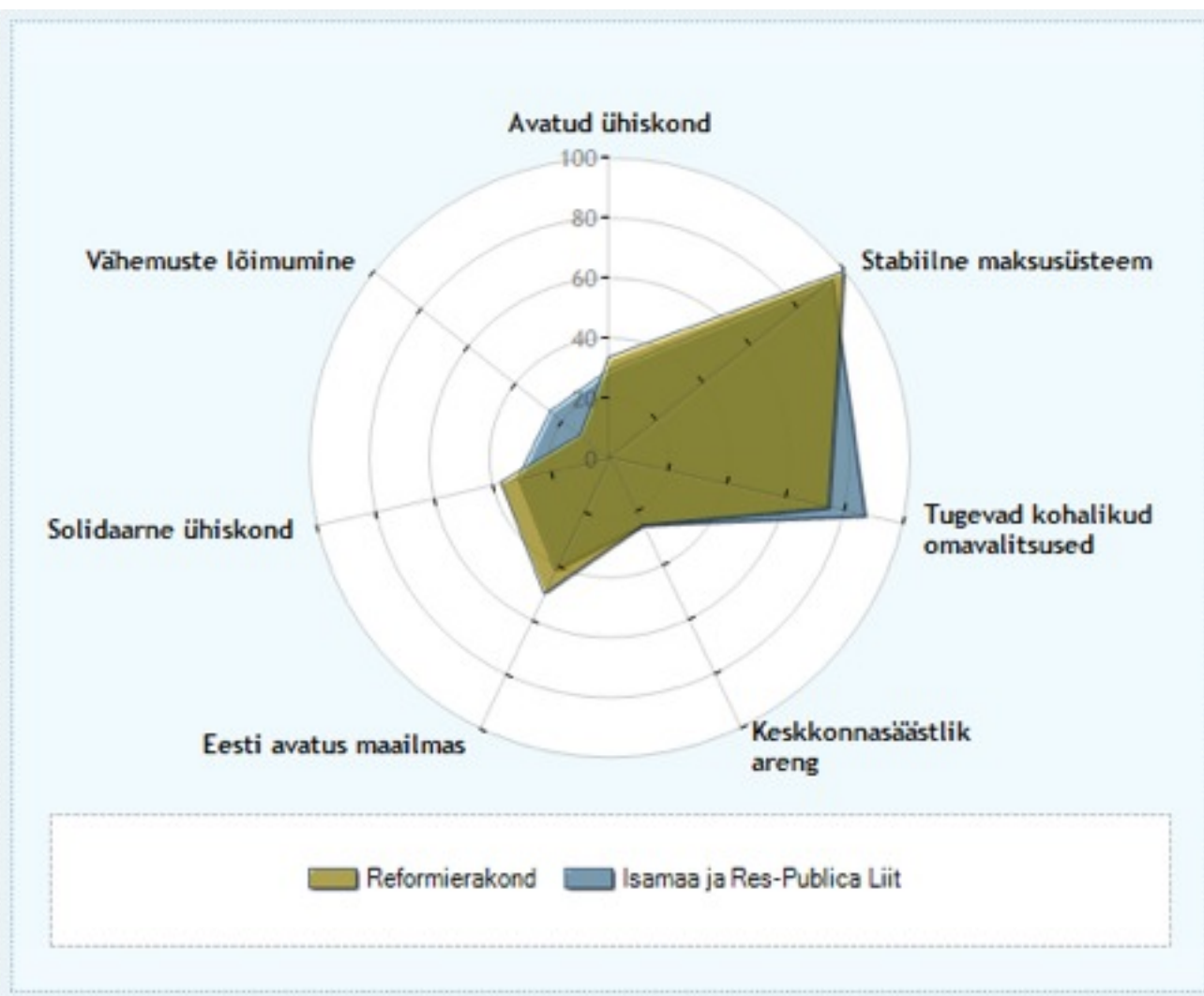
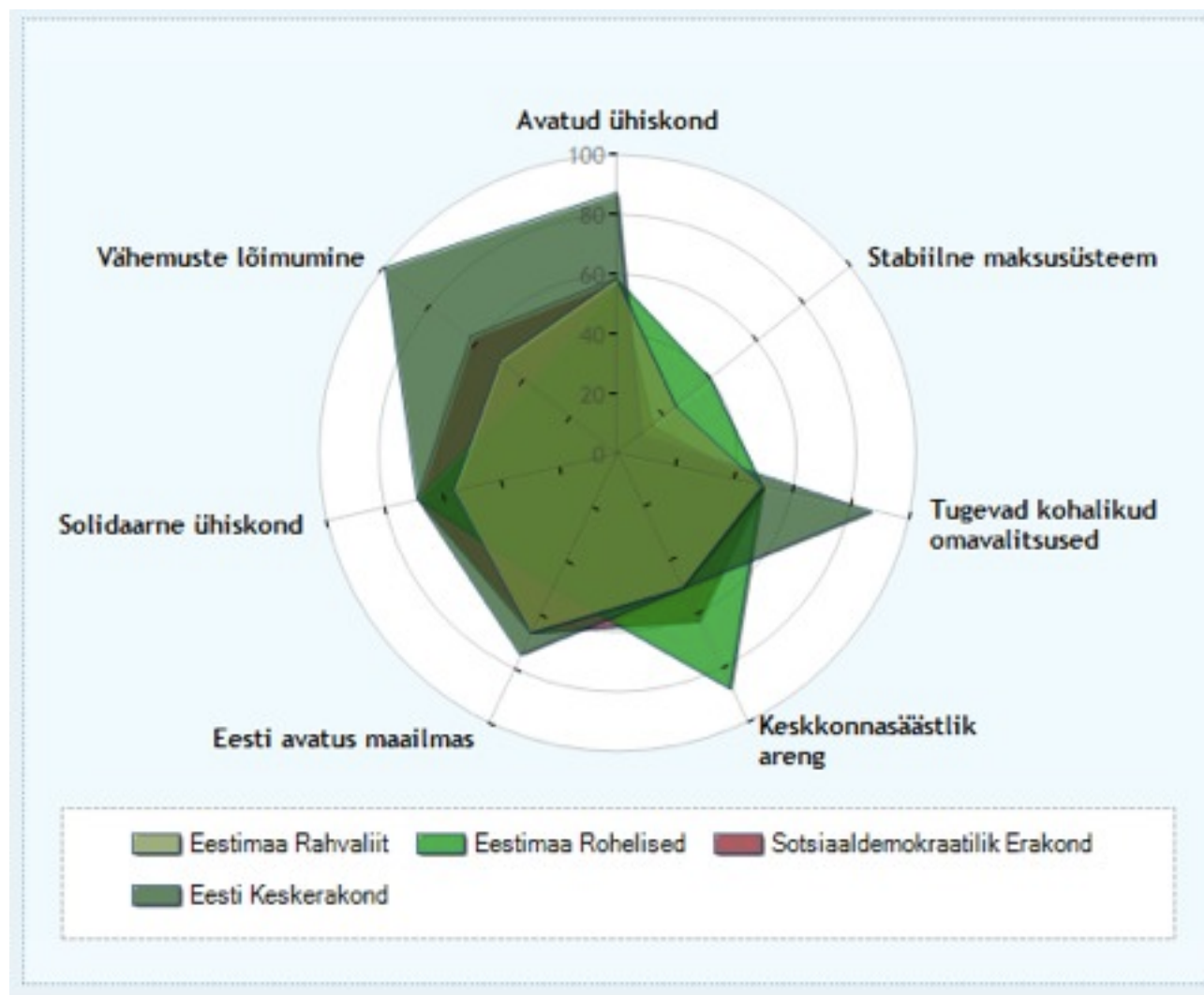
Foor reastab erakonnad selle järgi, millise erakonna poolt Sa oled valmis hääletama. Foori välja lülitades jäävad kattuvuse protsendid samaks. Muutub vaid erakondade järjestus, sest Sinu hinnangut vastava erakonna poolt hääletamise tõenäosusele kompass siis ei arvesta. Julgustame Sind foori välja lülitama ja süvenema ka nende erakondade positsioonidesse, kelle poolt hääletamist pead vähem tõenäoliseks, kuid kellega Su vaated väidetes sisalduvatele küsimustele on tegelikult lähedased.

Kaalusid sisse välja lülitades võivad kattuvuse protsendid muutuda, sest muutub väidete suhteline tähtsus seisukohtade kattuvuse arvutamisel.

Lähim erakond väljendab Sinu vastuste kokkulangevust erakondade positsioonidega protsentides. See on kõige täpsem viis, kuidas analüüsida Sinu ja erakonna arvamuste kattuvust, kuna arvesse võetakse kõik 30 poliitilist väidet.

Sul on võimalus enda tulemust vaadata ka Poliitilisel radaril ning Poliitilisel maastikul. Mõlemal juhul on tegemist illustreerivate diagrammidega, mis on erakondade pingereaga võrreldes vähemtäpsused, kuna ei sisalda kõiki 30 väidet. Poliitilisel maastikul orienteerumiseks võib nendest siiski abi olla.

orienteerumiseks võib nendest siiski abi olla.
võrreldes vähemtäpsused, kuna ei sisalda kõiki 30 väidet. Poliitilisel maastikul
Mõlemal juhul on tegemist illustreerivate diagrammidega, mis on erakondade pingereaga
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Sotsiaalmajanduslik vasak

Liberaalne

Konservatiivne

Sotsiaalmajanduslik parem

KESK



ERL



ROH



SDE



REF



EKD



IRL

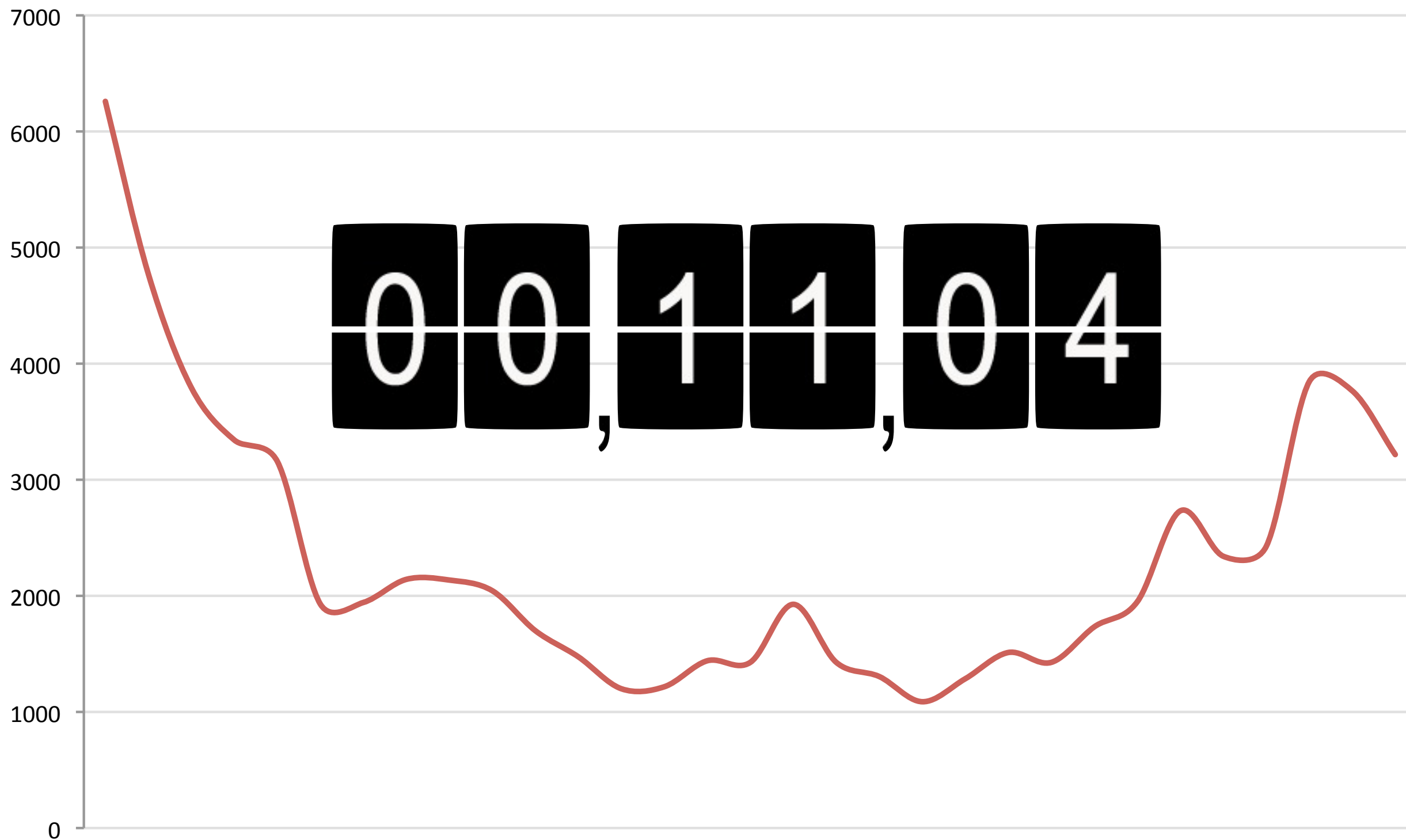


Traffic

*in just 6 weeks
more than 2 min*

110,000

10% of eligible voters



00,11,04

Effects

a widget

*a small gadget or mechanical device, one whose name is
unknown or unspecified*

a toy

*a gadget or machine, regarded as providing amusement for
an adult*

eu★profiler

Leia enda asukoht poliitilisel maastikul 2009. aasta Euroopa Parlamendi valimiste kontekstis

Vali riik:

Eesti Vabariik

Vali keel:

☒ eesti ☐ English

Start



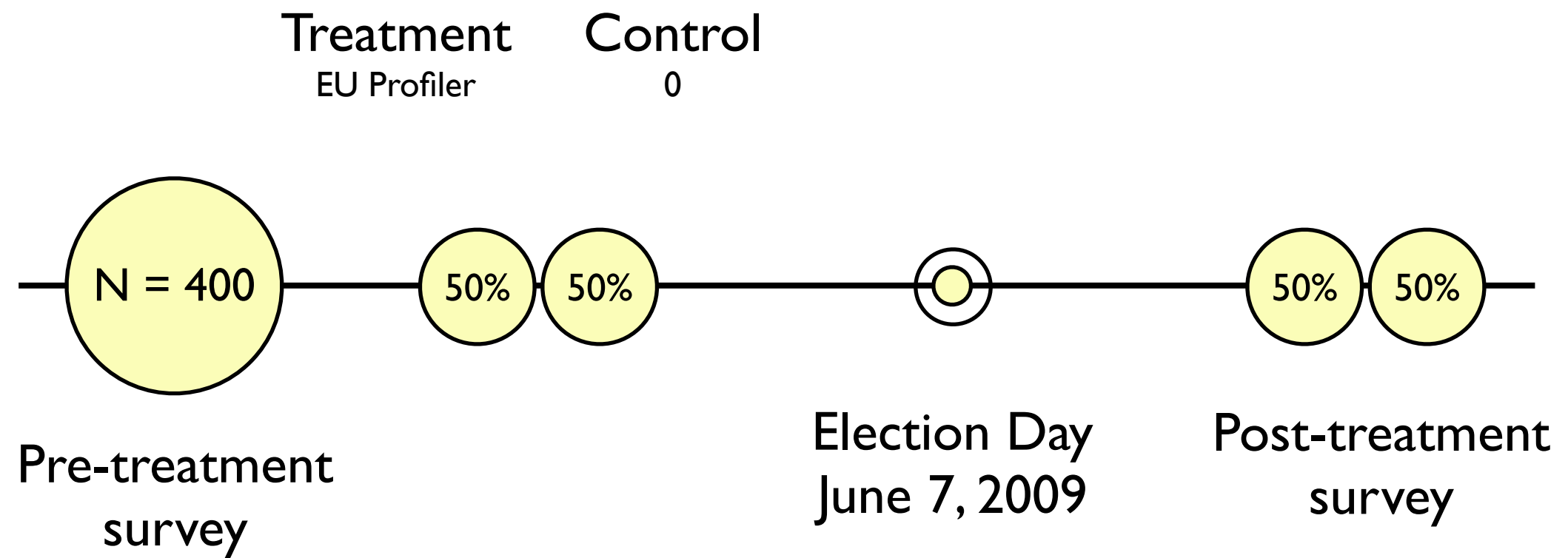
Kieskompas.nl



nccr
democracy

de Vrijding
Trouw

★ help our research



t

Erakonnad

Eestis on mitmeid erakondi kes sooviksid Teie häält. Kui tõenäoline see on, et Te kunagi annate oma hääle järgnevatele erakondadele? Märkige oma eelistus skaalal 0 - 10, kus 0 tähendab "ei ole üldse tõenäoline" ning 10 tähendab "väga tõenäoline".

Jätka

	0	1	2	3	4	5	6	7	8	9	10
Eesti Keskerakond	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reformierakond	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eestimaa Rohelised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Isamaa ja Res-Publica Liit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sotsiaaldemokraatlik Erakond	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eestimaa Rahvaliid	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

$t-1$

Erakonnad

Eestis on mitmeid erakondi kes sooviksid Teie häält. Kui tõenäoline see on, et Te kunagi annate oma hääle järgnevatele erakondadele? Märkige oma eelistus skaalal 0 - 10, kus 0 tähendab "ei ole üldse tõenäoline" ning 10 tähendab "väga tõenäoline".

Jätka

	0	1	2	3	4	5	6	7	8	9	10
Eesti Keskerakond	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reformierakond	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eestimaa Rohelised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Isamaa ja Res-Publica Liit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sotsiaaldemokraatlik Erakond	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eestimaa Rahvaliid	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

$$Diff_t = PTV\ 1^{st} - PTV\ 2^{nd}$$

t	Party A	0	1	2	3	4	5	6	7	8	9	10
	Party B	0	1	2	3	4	5	6	7	8	9	10
	Party C	0	1	2	3	4	5	6	7	8	9	10

$$Diff_{t-1} = PTV\ 1^{st} - PTV\ 2^{nd}$$

$t-1$	Party A	0	1	2	3	4	5	6	7	8	9	10
	Party B	0	1	2	3	4	5	6	7	8	9	10
	Party C	0	1	2	3	4	5	6	7	8	9	10

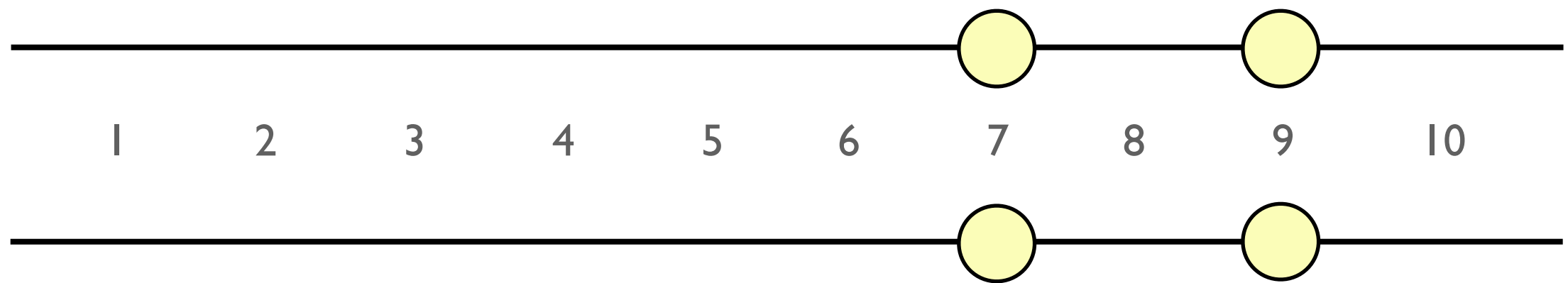
$$Y = Diff_t - Diff_{t-1}$$

sheer randomness of the world

or

the effect of EU Profiler

younger than 30

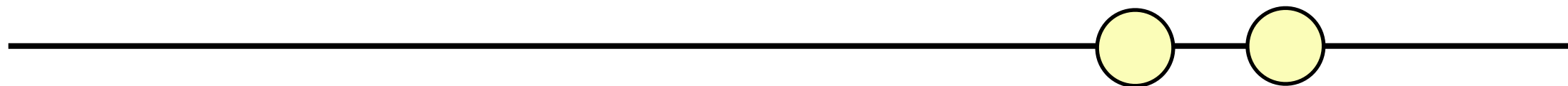


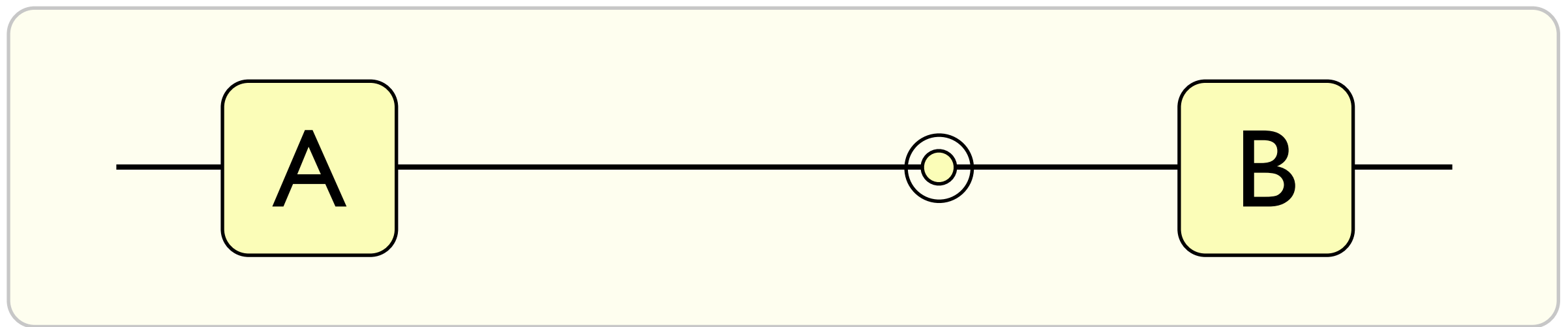
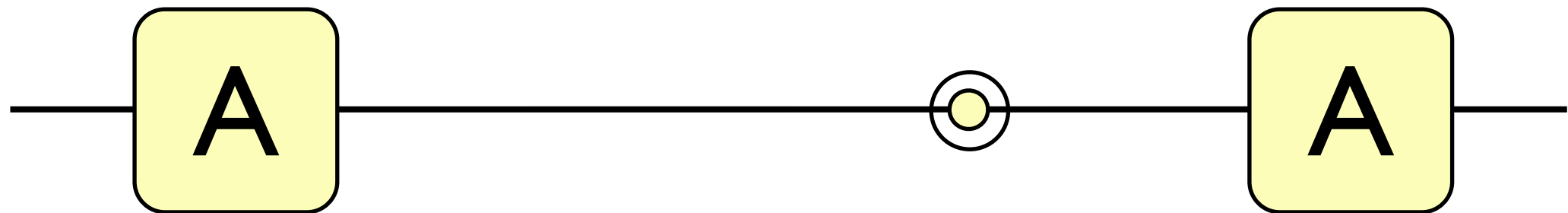
older than 30

younger than 30



older than 30

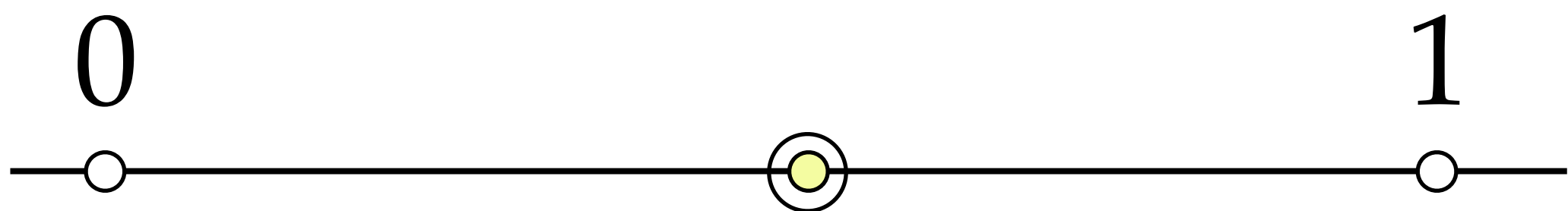


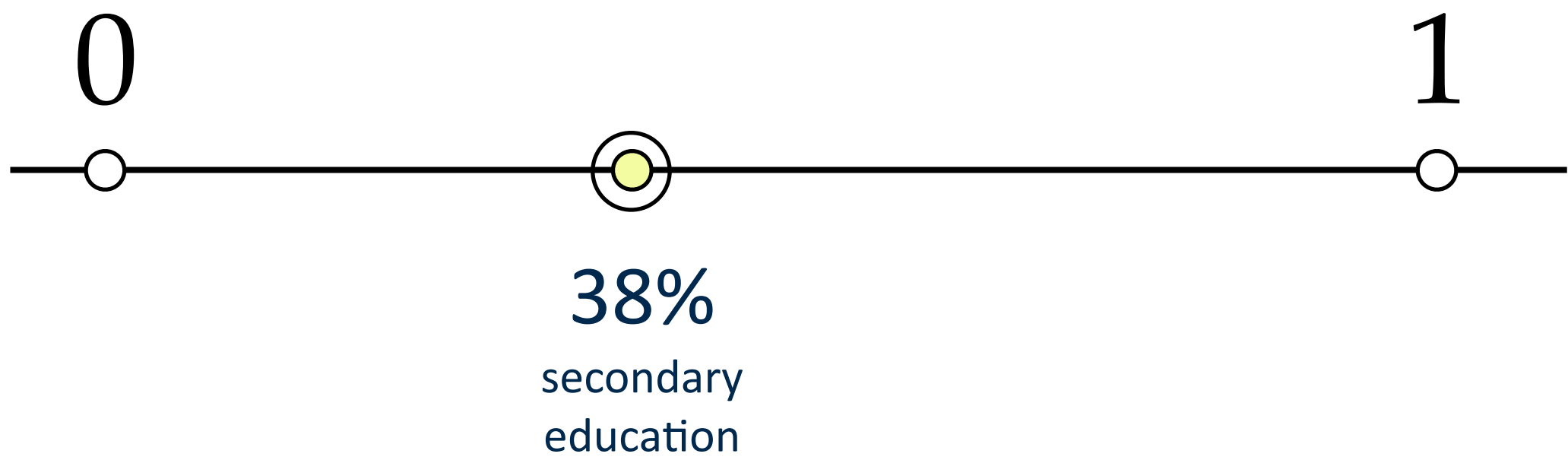


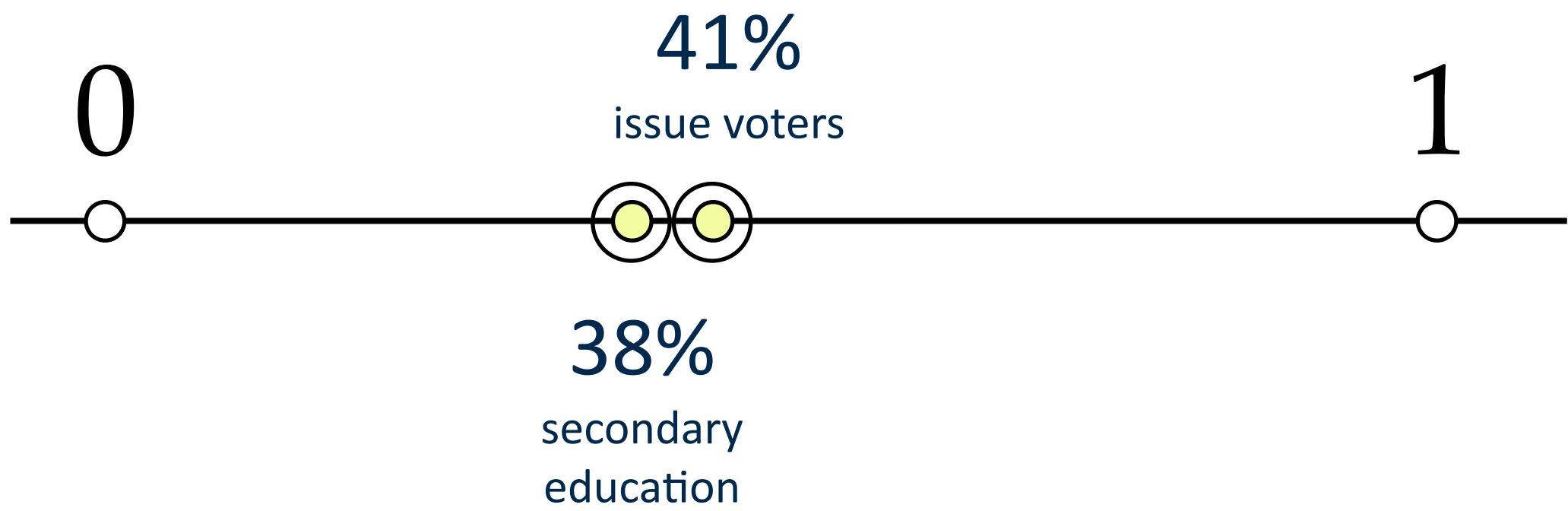
*sheer randomness of the world
or
the effect of EU Profiler*

$\{0 ; 1\}$









The causal effect on mobilization is virtually absent

a widget

*a small gadget or mechanical device, one whose name is
unknown or unspecified*

a toy

*a gadget or machine, regarded as providing amusement for
an adult*

*One has to either reconsider what a
widget or a **toy** really means*

or

*return to the playground and rediscover
the importance of toys*





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Internet Voting in Estonia

A Comparative Analysis of Four Elections since 2005

Prof. Alexander H. Trechsel
European University Institute
Florence, Italy

March 5, 2011
Riigikogu, Tallinn, Estonia

1

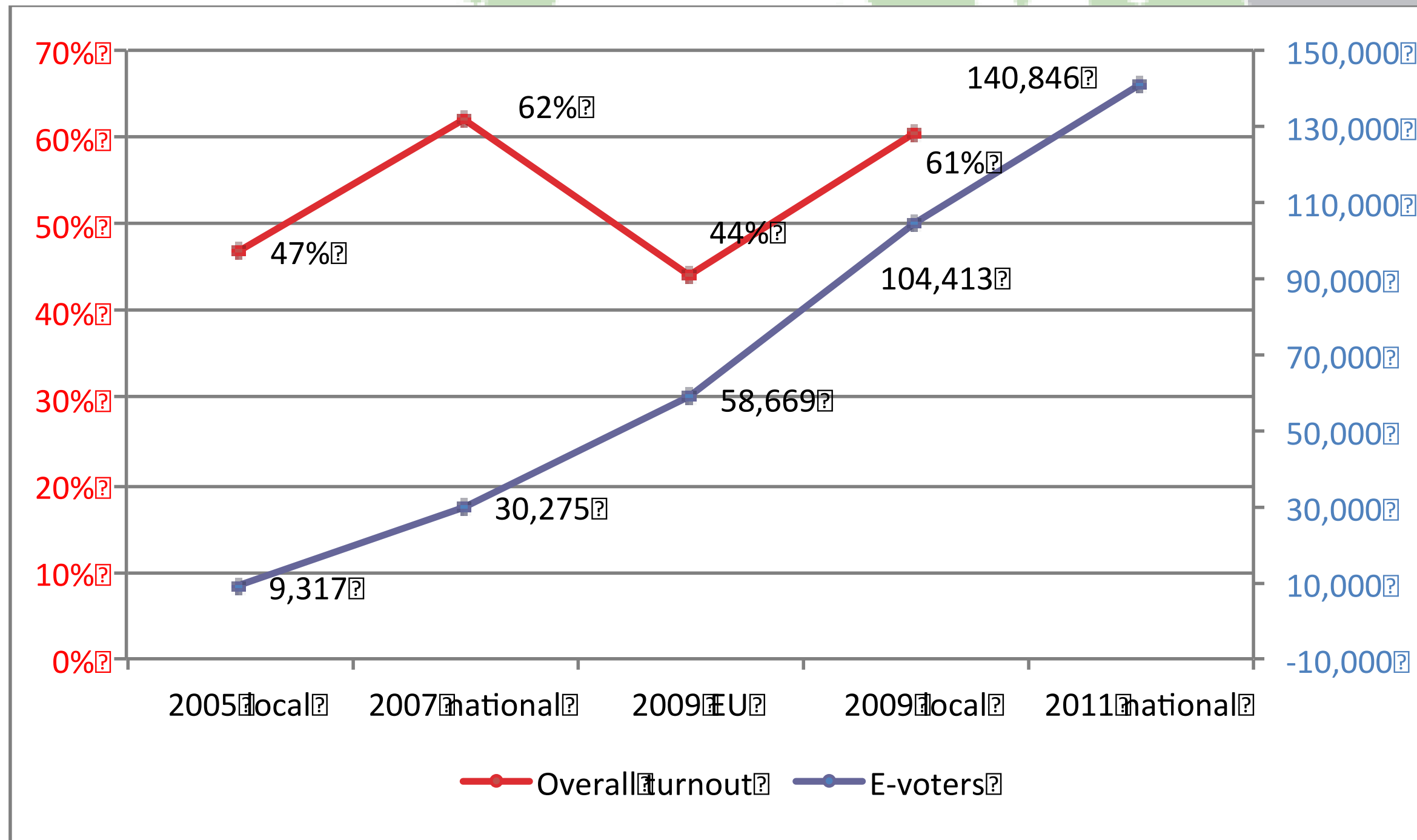
Turnout

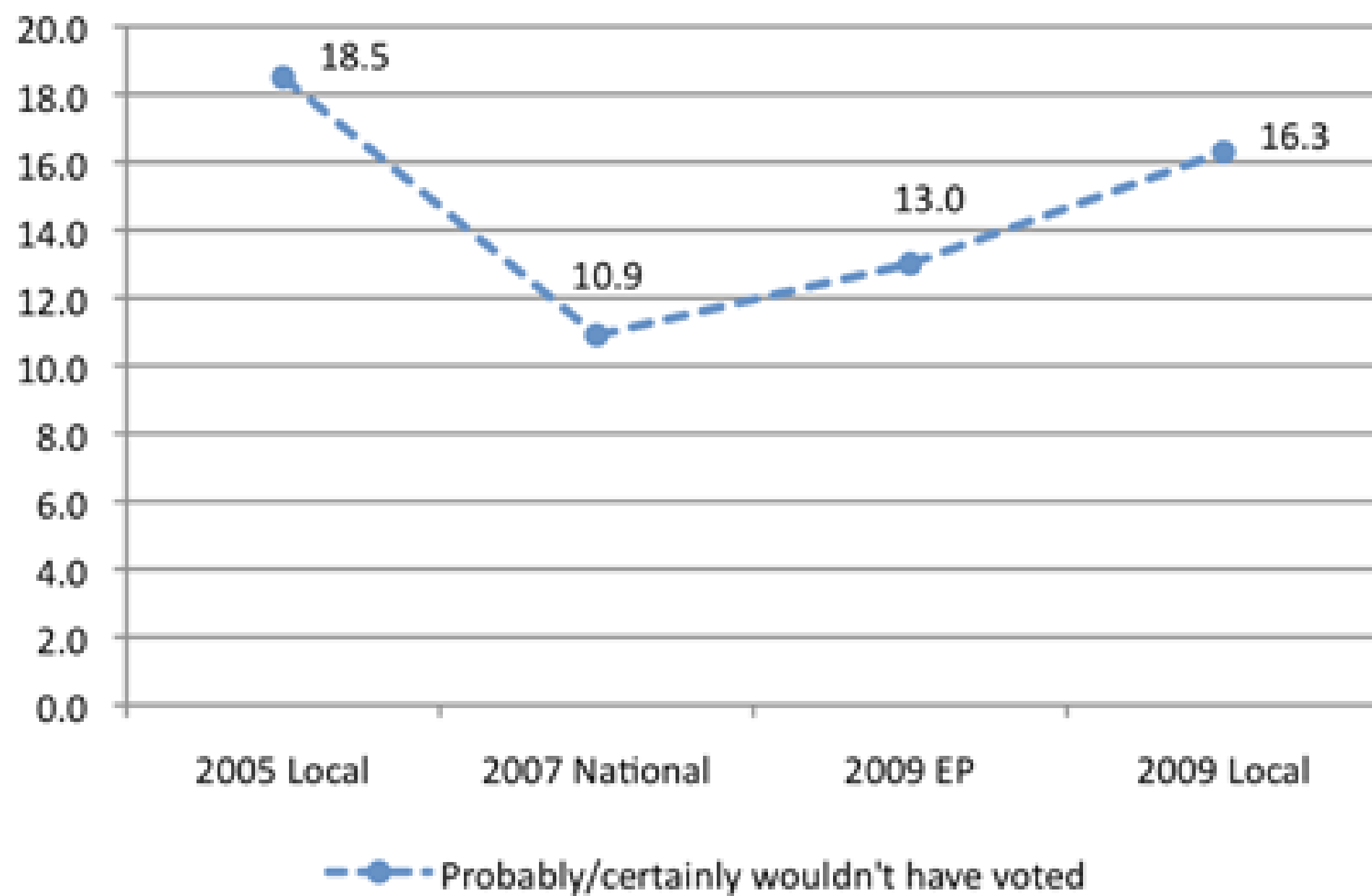
2

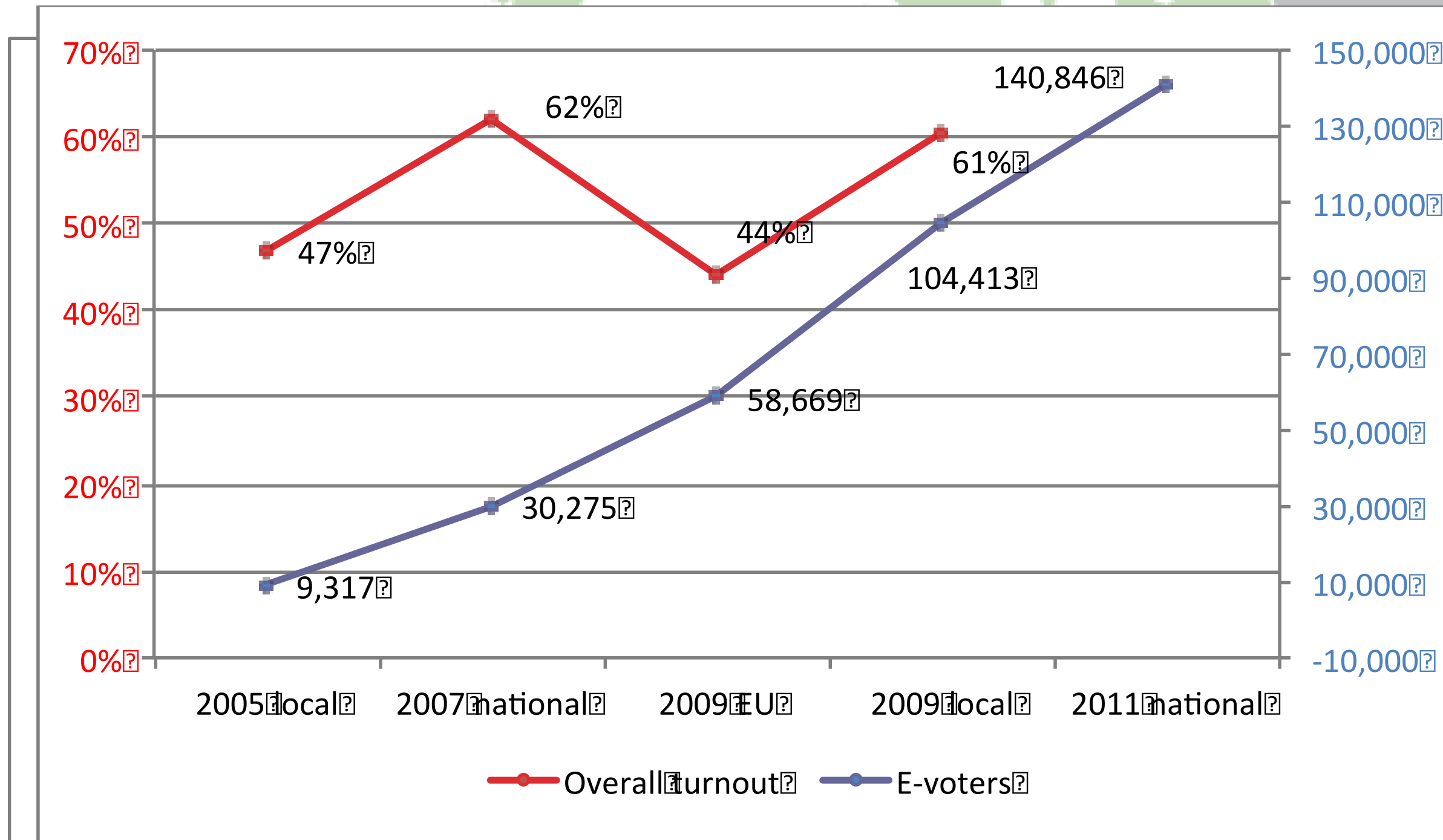
Setup of the studies

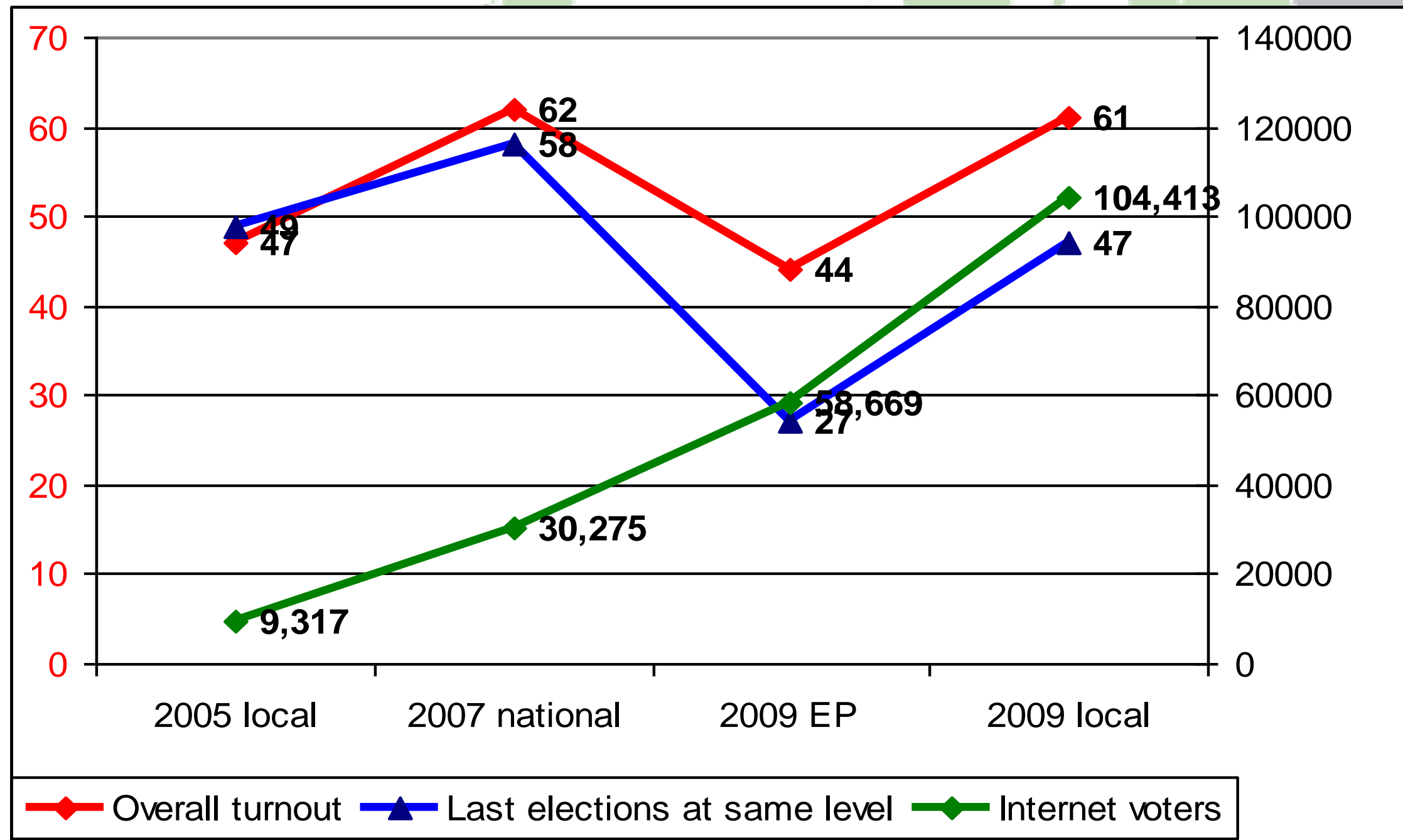
3

Main findings









2

Setup of the study

Partnerships

- European Union Democracy Observatory, Florence
- Council of Europe, Strasbourg
- e-Governance Academy, Tallinn
- Estonian Electoral Committee, Tallinn
- California Institute of Technology, Pasadena
- University of Utah, Salt Lake City
- Ifo, Munich

Why some choose to vote by Internet while others don't?

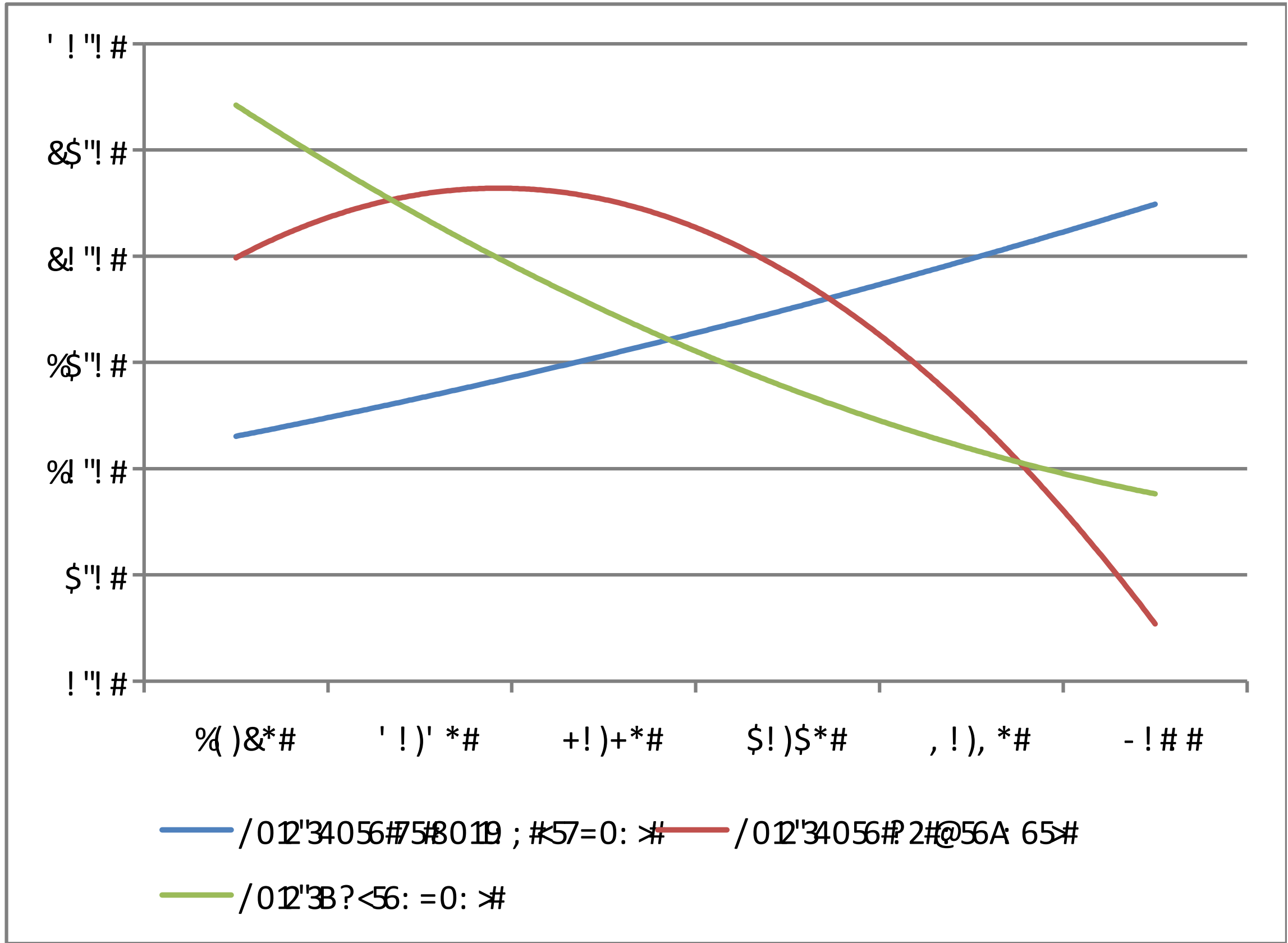
E-voters

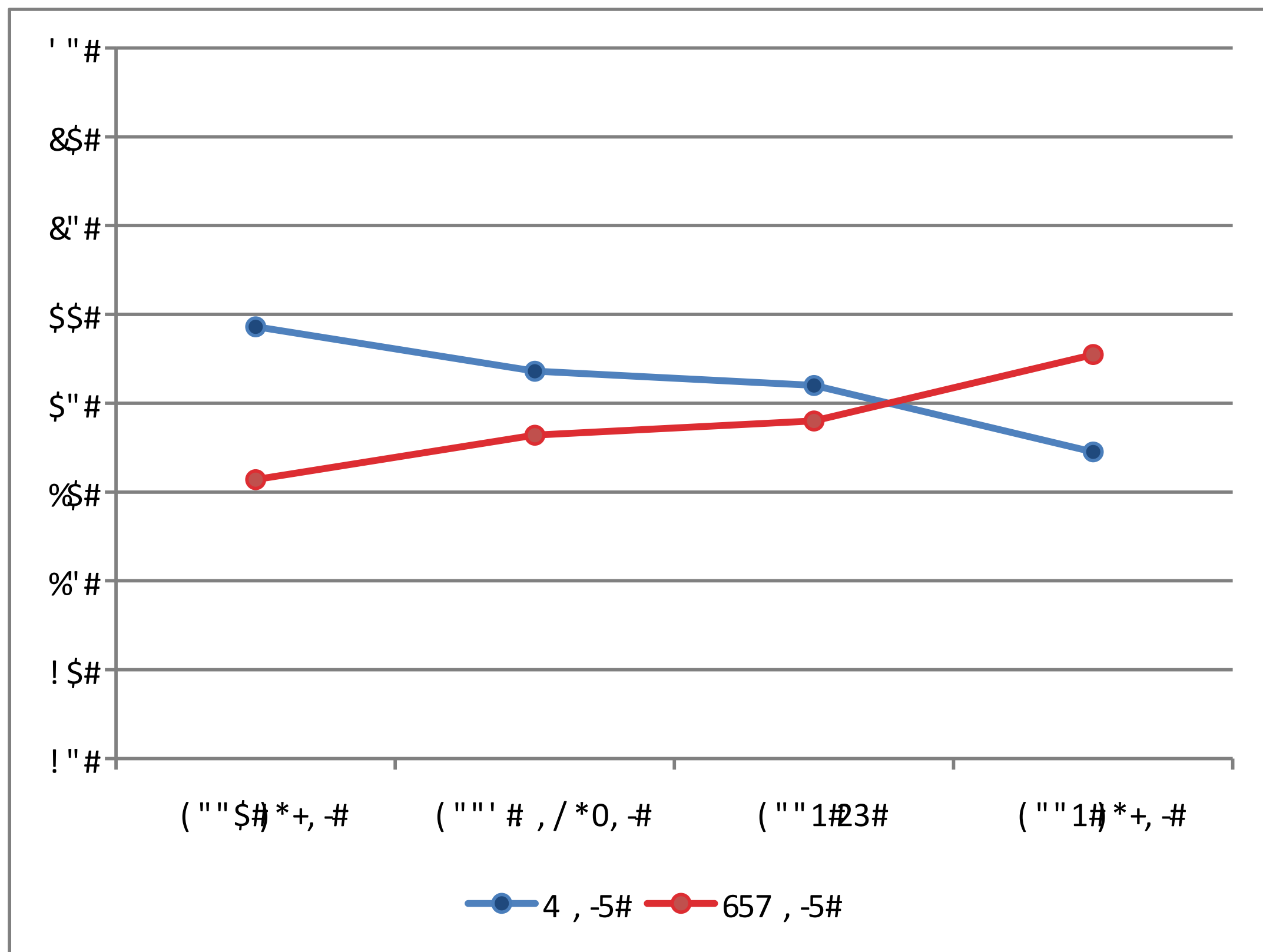
Traditional voters

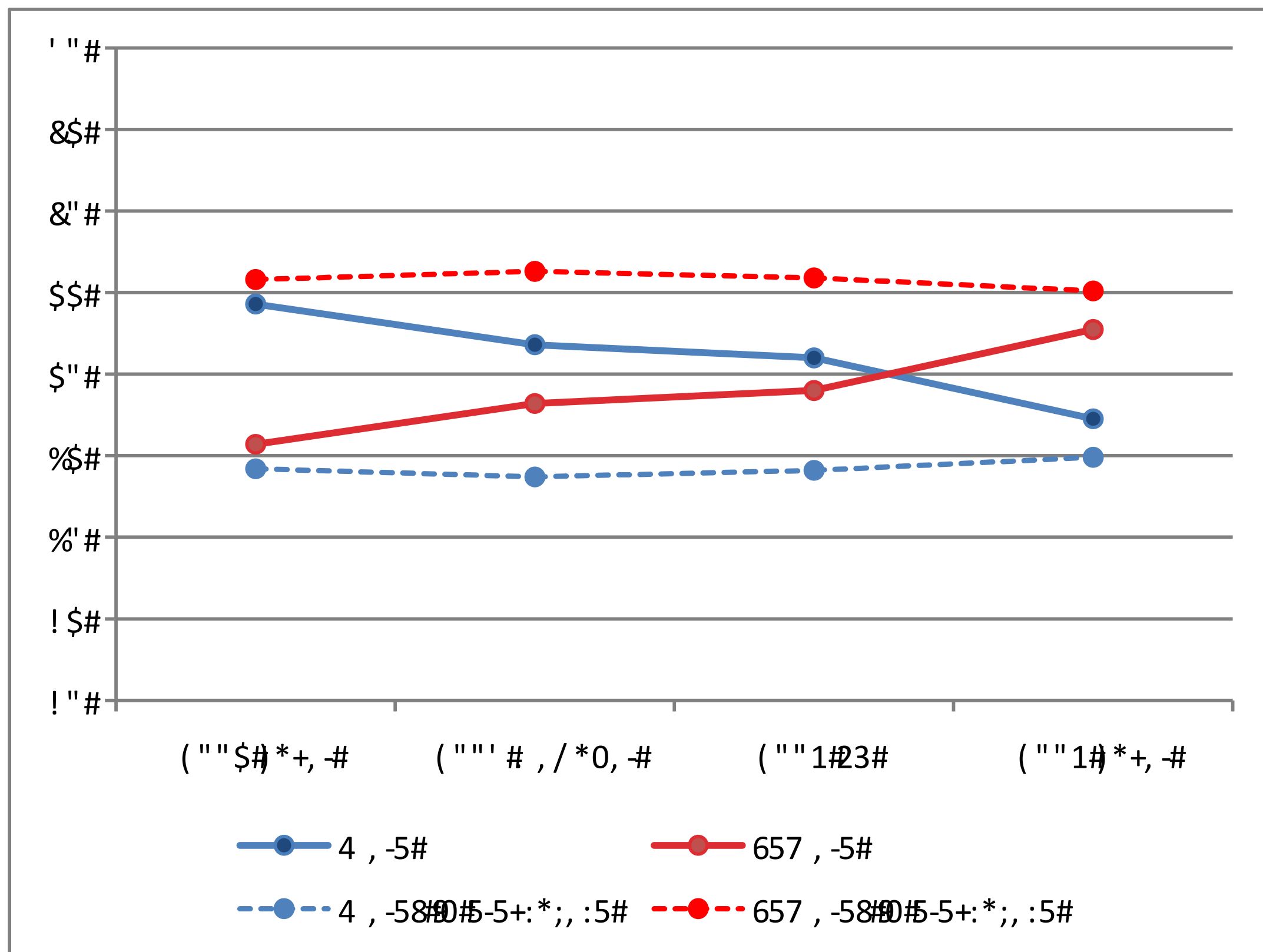
Non-voters

3

Main findings (a):
Age and gender







3

Main findings (b): Multivariate models

Socio-economic

Political

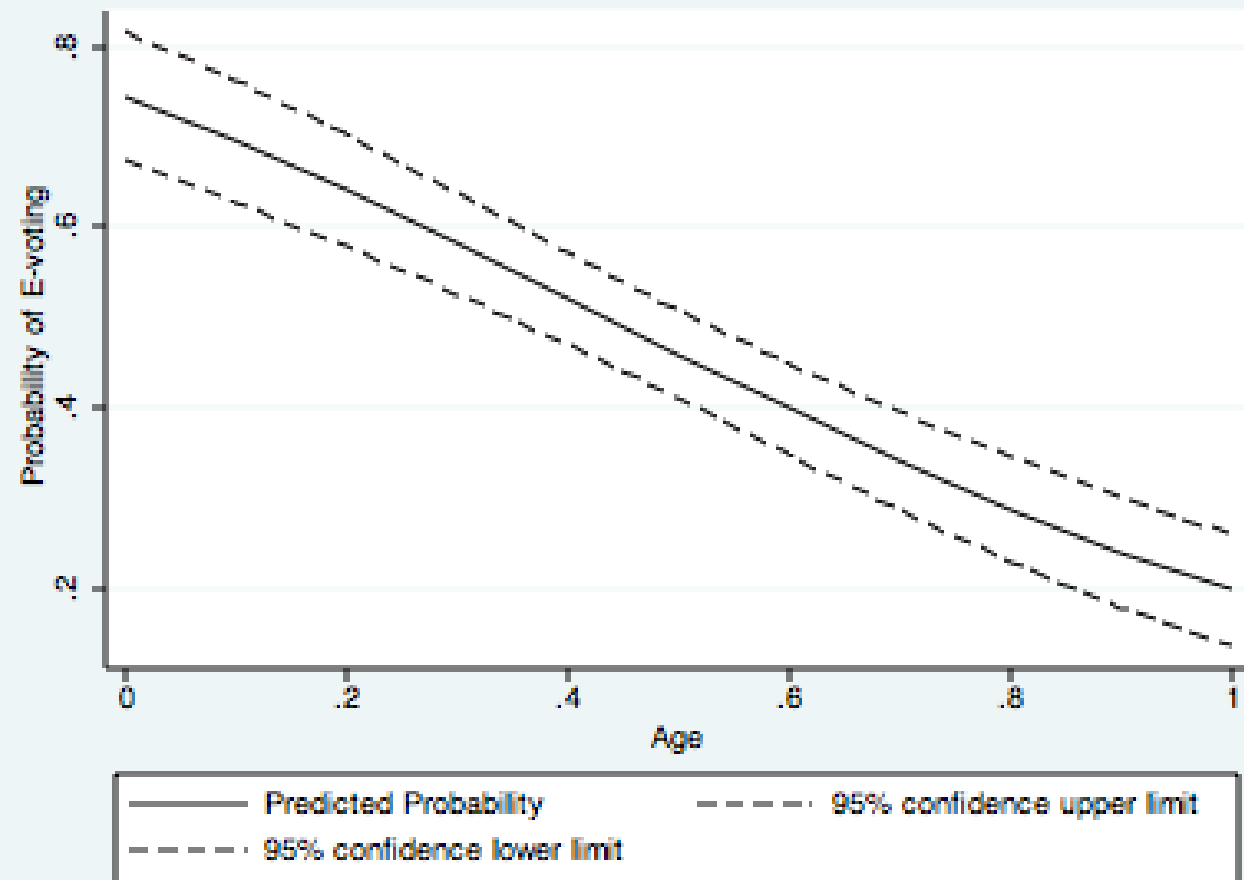
ICT

Global

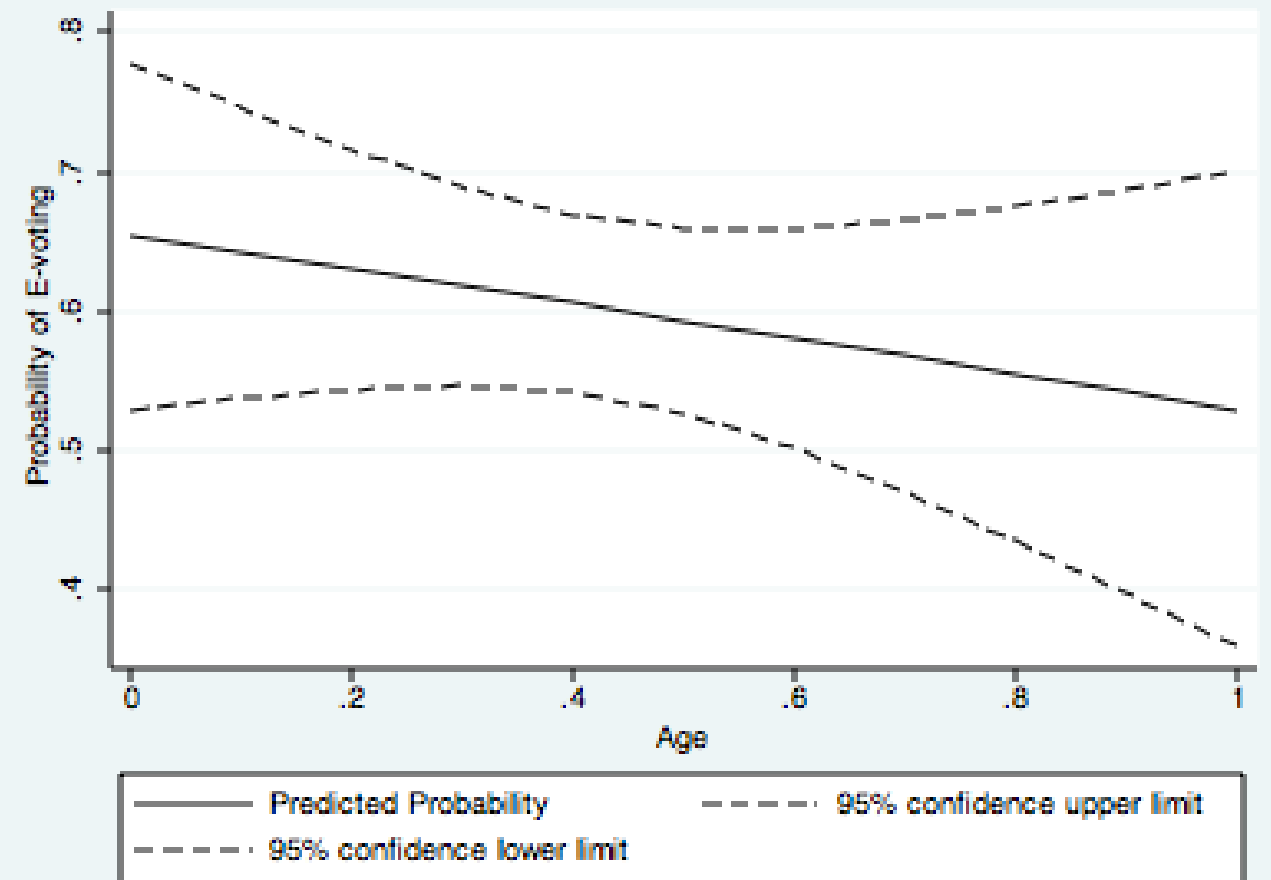
Predicting e-voting
over traditional voting

Coefficient	2005 Local	2007 National	2009 EP	2009 Local
Age	0.27** (0.12)	0.36*** (0.11)	-0.05 (0.12)	-0.10 (0.11)
Gender	0.41 (0.29)	-0.06 (0.26)	-0.43 (0.30)	0.08 (0.28)
Settlement	0.36 (0.32)	-0.01 (0.27)	0.30 (0.31)	0.56* (0.31)
Education	0.29 (0.18)	0.03 (0.15)	0.31* (0.19)	0.23 (0.17)
Income	-0.17 (0.14)	0.12 (0.12)	0.10 (0.11)	0.16 (0.10)
Language	-1.38*** (0.55)	-2.35*** (0.65)	-2.30*** (0.72)	-1.25*** (0.48)
Left-right scale	-0.01 (0.07)	-0.06 (0.07)	0.04 (0.08)	-0.08 (0.07)
Political discussions	0.27* (0.16)	-0.08 (0.16)	0.19 (0.17)	-0.15 (0.17)
Trust in Parliament/ government	0.27 (0.34)	-0.21 (0.34)	-0.92*** (0.33)	0.24 (0.29)
Trust in politicians	-0.19 (0.32)	0.85** (0.34)	0.63** (0.29)	-0.16 (0.28)
Trust in the State	-0.52* (0.28)	0.10 (0.26)	-0.70*** (0.28)	-0.16 (0.23)
Computing knowledge	0.41** (0.18)	0.65*** (0.17)	0.04 (0.19)	0.34** (0.17)
Frequency of Internet usage	0.15* (0.08)	0.19*** (0.06)	0.18*** (0.07)	0.07 (0.08)
Location of Internet access	0.25 (0.17)	-0.10 (0.10)	0.23 (0.19)	0.16 (0.19)
Trust in transactions on the Internet	0.32 (0.23)	0.16 (0.21)	0.29 (0.24)	-0.22 (0.22)
Trust in the procedure of e-voting	1.68*** (0.24)	1.22*** (0.25)	1.48*** (0.28)	1.49*** (0.25)
Constant	1.00 (1.72)	6.34*** (1.75)	0.72 (1.78)	2.21 (1.85)
Observations	399	425	419	374
Pseudo R ²	0.36	0.28	0.35	0.29
Standard errors in parentheses, significant at .1 ** significant at .05 *** significant at .01				

2005



2009



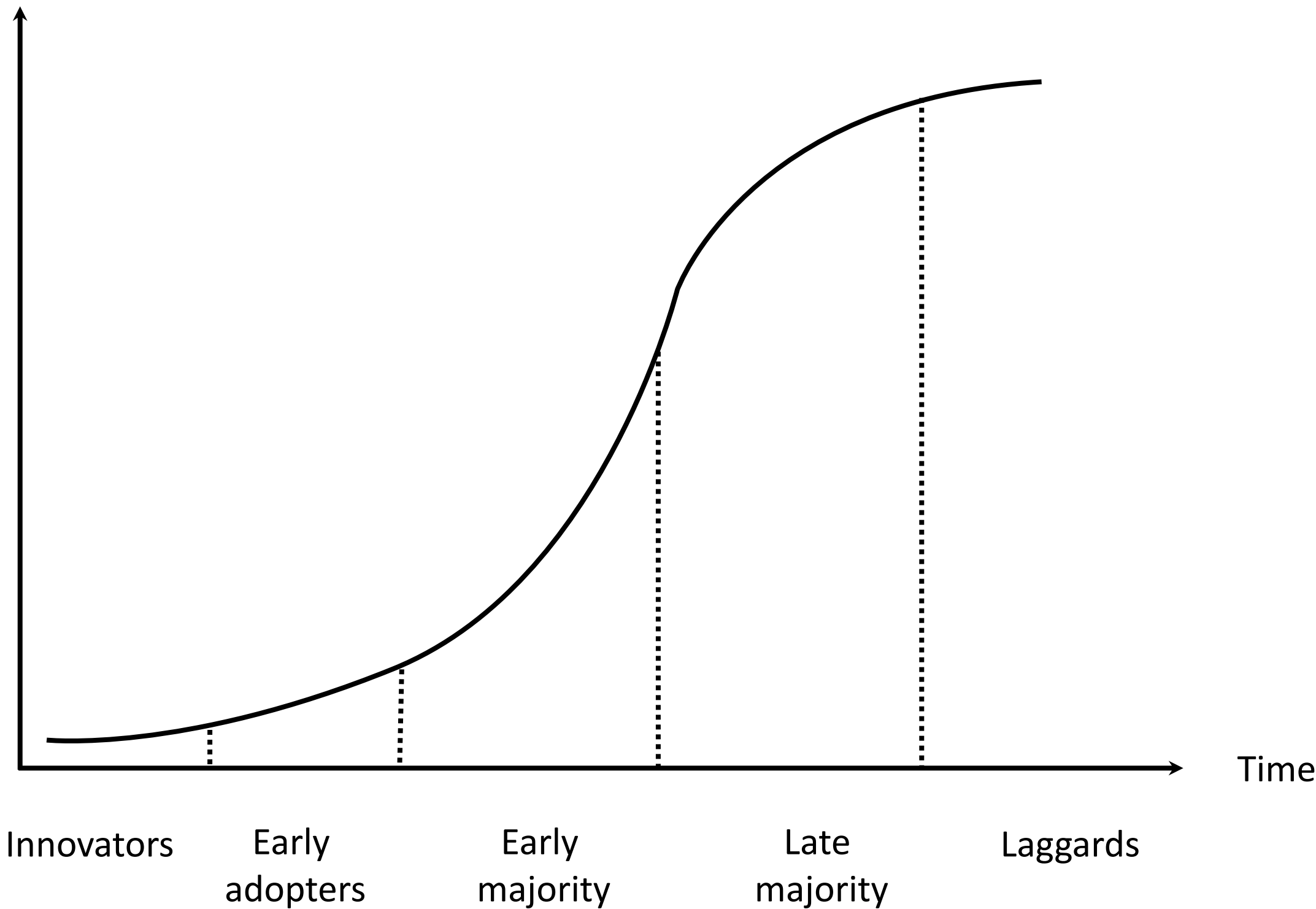
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Summing up

Age and other socio-demographic factors gradually lose power -> people “grow into e-voting”

Diffusion of Innovations
(Everett Rogers 1962)

Rate of adoption



Summing up (continued)

Age and other socio-demographic factors gradually lose power -> people “grow into e-voting”

Linguistic cleavage remains a problem

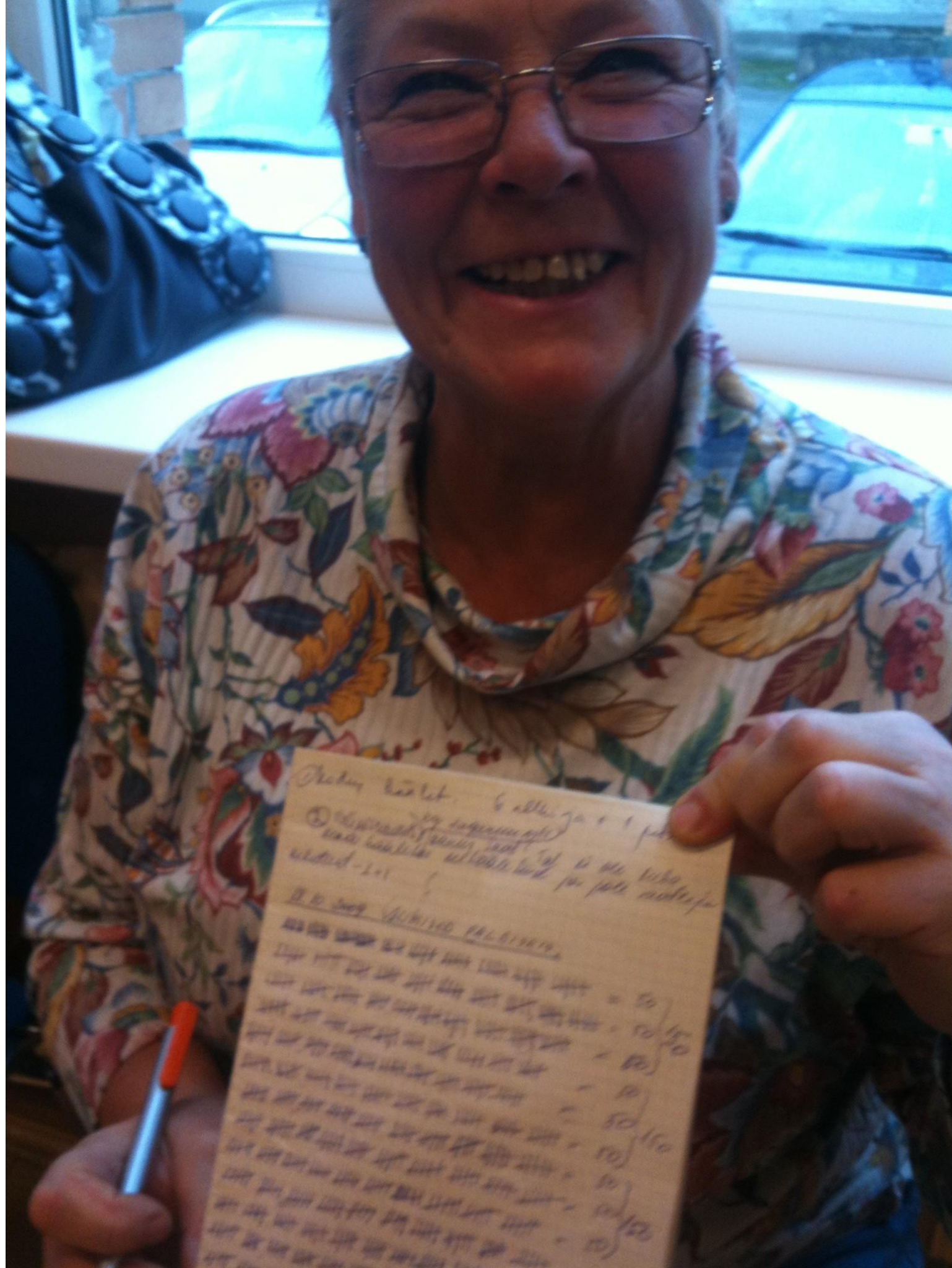
Political and ICT related variables become weaker over time

-> internet voting is predicted by PC-literate Estonians who trust in the procedure of e-voting

Future perspectives / new issues

- ◆ Auditing and Certification?
- ◆ Cyberterrorism?
- ◆ Diffusion?
- ◆ Inversion of security issue?

Paldiski, Local elections 2009



Paldiski, Local elections 2009





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Riigikogu (Parliamentary) Elections 2011



Heiki Sibul

Chairman of National
Electoral Committee

05.03.2011

Topics

- Electoral system
- Organizing elections
 - Electoral Committees
 - Tasks of NEC
 - Other Activities (Complaints, etc).
- Previous Riigikogu Elections
- Riigikogu Elections 2011
 - Statistics
 - Ways of Voting

Electoral system

- Simple quota and modified d'Hondt method is used
- Open and closed lists
- 5% national threshold
- 12 electoral districts

Elections as a National Event

4000 People organize elections in Estonia – as a side-job

625 Polling divisions across Estonia

Electoral Committees

- 625** Polling division committees
- 17** County electoral committees
- 1** National Electoral Committee

Tasks of NEC

- Issuing decrees about voting
- Training of electoral committees
- ICT solutions management
- Resolving complaints
- Informing voters
- Management and supervision of electoral processes

What does NEC not do?

- Voters' register is held by the Ministry of Internal Affairs
- Criminal/misdemeanor cases are investigated and prosecuted by the Police
- Election campaign costs are overseen by a special committee

Complaints

- There is a 3-day window for filing complaints
- Complaints can cover a procedure or resolution of an electoral committee
- The complaint is reviewed within 3 working days

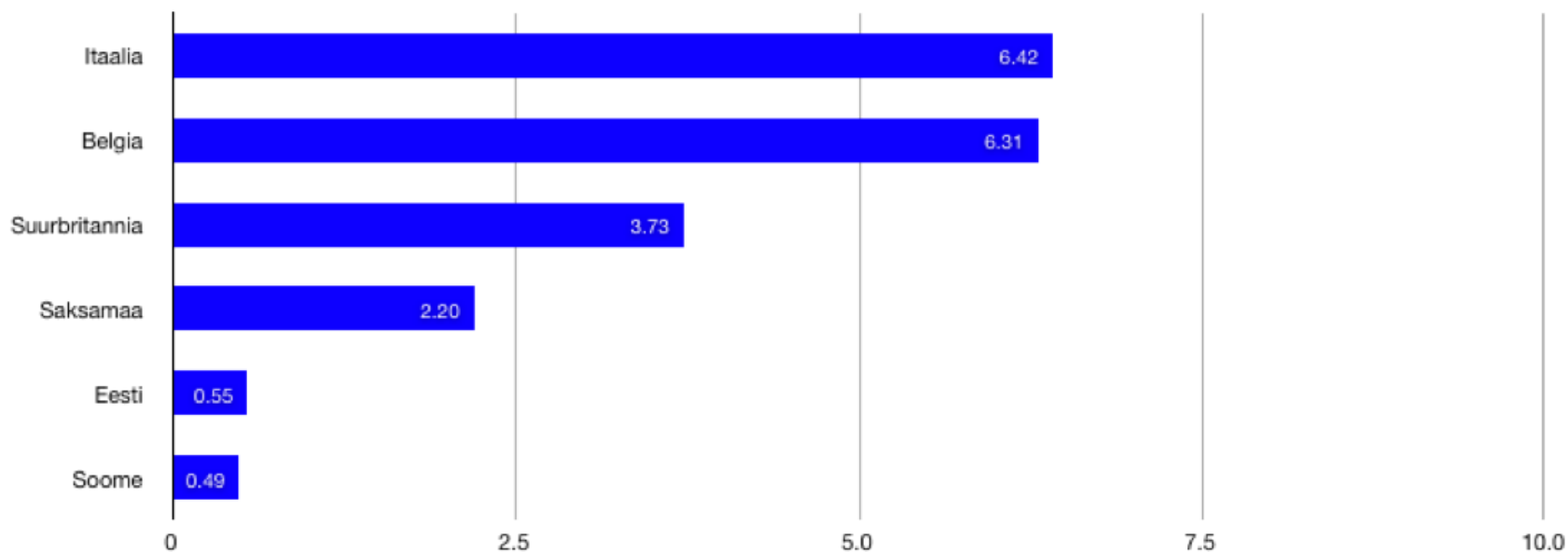
Supreme Court Decisions

67 / 9

that means

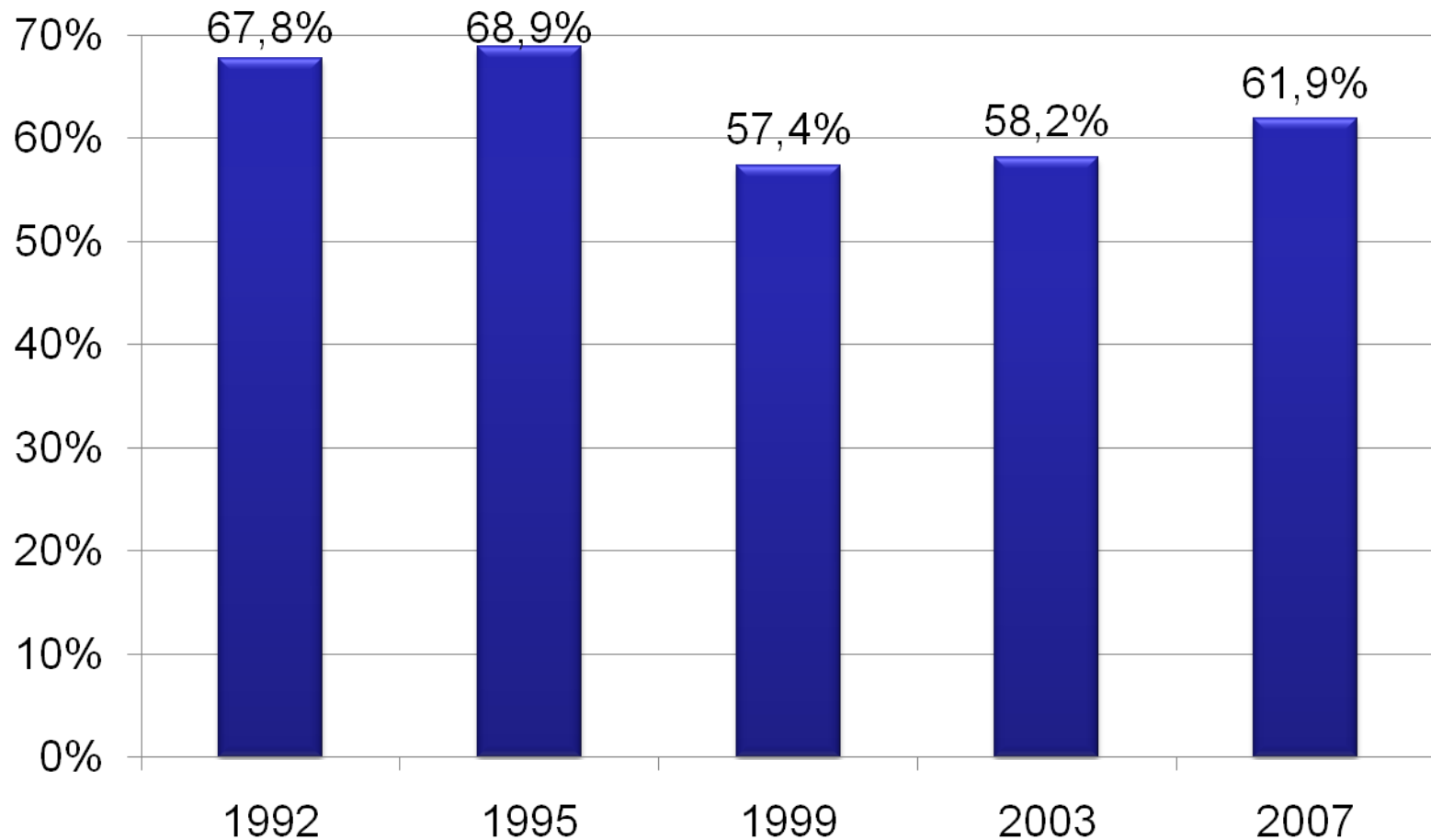
87% pro NEC

Invalid Ballot Papers



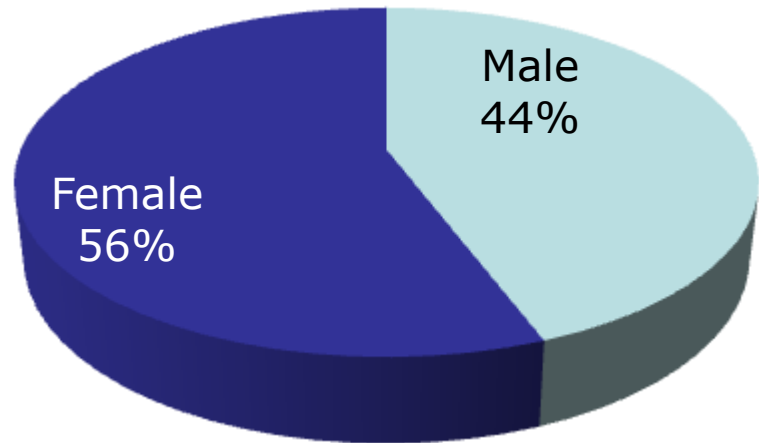
All data about EU Parliament elections 2009

Voter Turnout in Riigikogu Elections



Riigikogu Elections 2011

912 565 Eligible Voters



Riigikogu Elections 2011

789 Candidates

9 Parties

32 Independent
Candidates

13 Ways of Voting












Election Day

- In Polling Division
- At Home

Advance Voting

- In Local Polling Division
- In Another Polling Division
- In Prisons, Hospitals, Military Bases, etc.
- Internet Voting

Time of Voting

<u>E 21.02</u> -	<u>T 22.02</u> -	<u>K 23.02</u> -	<u>N 24.02</u> 	<u>R 25.02</u> 	<u>L 26.02</u> 	<u>P 27.02</u> 
<u>E 28.02</u>  	<u>T 1.03</u>  	<u>K 2.03</u>  	<u>N 3.03</u> -	<u>R 4.03</u> -	<u>L 5.03</u> -	<u>P 6.03</u> 



- Internet voting



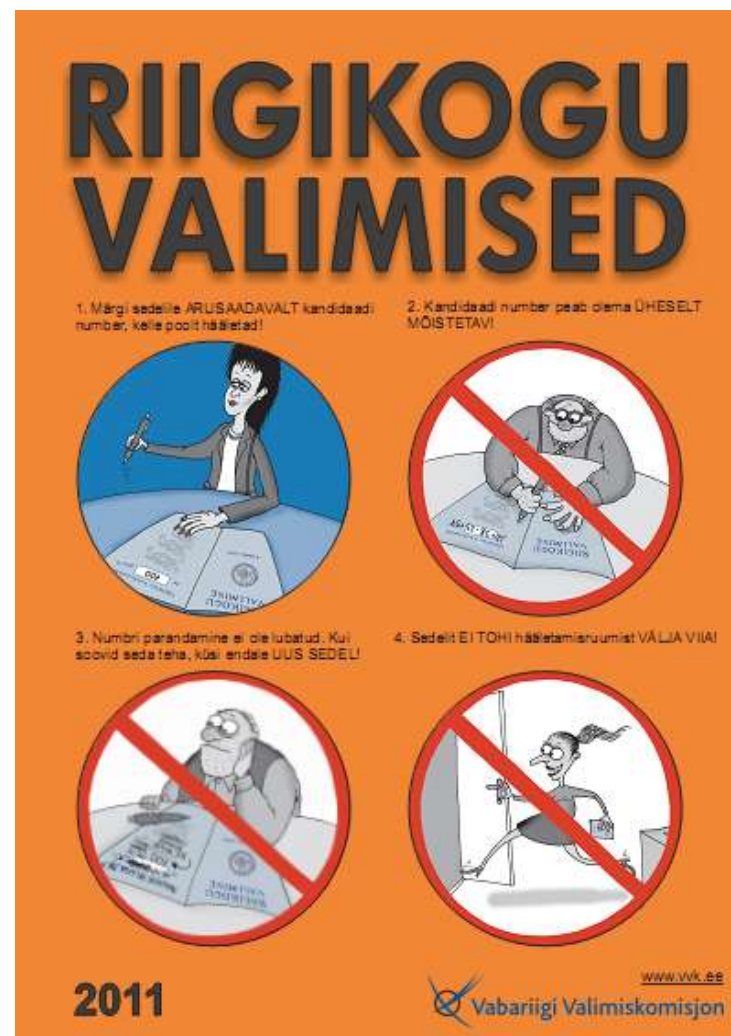
- Polling division voting

Innovation (spring 2011)

- Mobile-ID
- Updated I-voting environment
- New ballot boxes/Other electoral devices
- New Internet learning environment for the staff of electoral committee, observers and voters - koolitus.vvk.ee
- New training courses for the staff of electoral committee
- Media campaign: video clips (Valimiskool)

Media campaign (1)

- Traditional media (newspapers, radio, TV)
- Internet and new media (FaceBook, Twitter, YouTube)
- Posters, etc.



Media campaign (2)

Bilingual video clips and posters...



Thank You!

www.vvk.ee

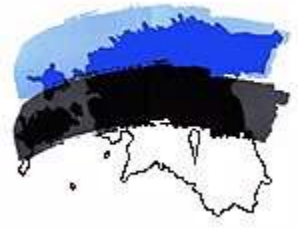
www.facebook.com/valimiskomisjon

twitter.com/valimiskomisjon

info@vvk.ee



Internet Voting in Estonia



Tarvi Martens
I-Voting Project Manager

National Electoral Committee

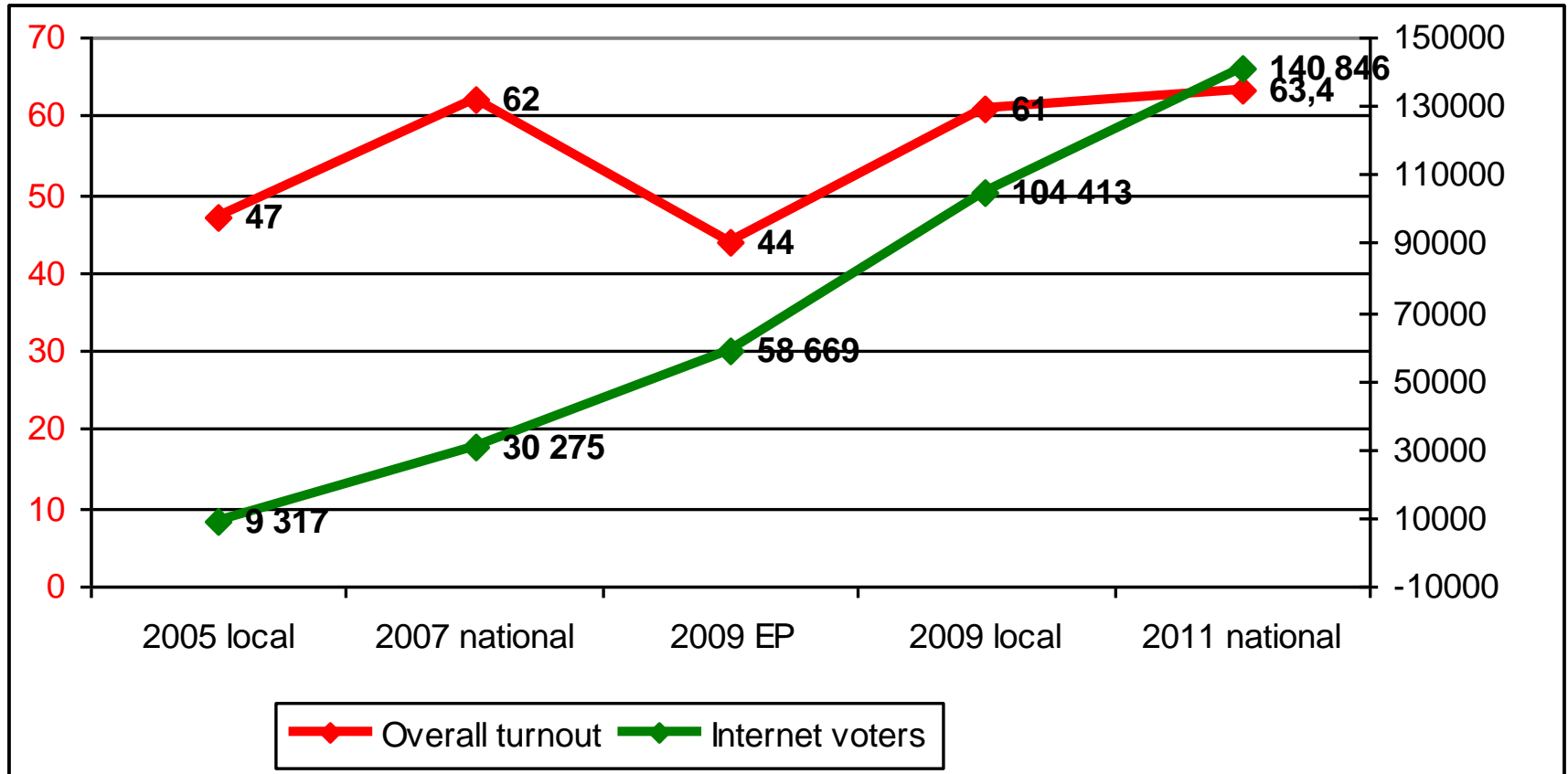
Internet Voting?



- In October 2005 Estonia had first-ever pan-national Internet Voting **with binding results**
- Ever since, i-voting has been used in **five** elections in total (last one closed 2 days ago)



The spread of internet voting



E-stonia ?



- Population: 1.35M
- Everyday Internet usage: 63%
- Internet banking: 88%
- Mobile penetration: >100%
- 1000+ Free Internet Access points
- Member of EU and NATO since 2003
- Electronic identity delivered: >90% (age 15+)





ID-card Project

- Started in 1997
- First card issued: Jan 28, 2002
- October 2006: 1 000 000th ID-card was issued
 - “rollout completed”

The Card



- “Compulsory”
for all residents
- Contains:
 - Personal data file
 - Certificate for authentication
(along with e-mail address
Forename.Surname@eesti.ee)
 - Certificate for digital signature





Usage of the ID-card

- Major ID-document
- Replacement of
 - (transportation) tickets
 - library cards
 - health insurance card
 - driver documents
 - etc...
- **Authentication token for all major e-services**
- **Digital signature tool**



Internet Voting ?

- Not a nuclear physics
- Just another application for ID-card
...with some special requirements & measures...



I-voting Main Principles

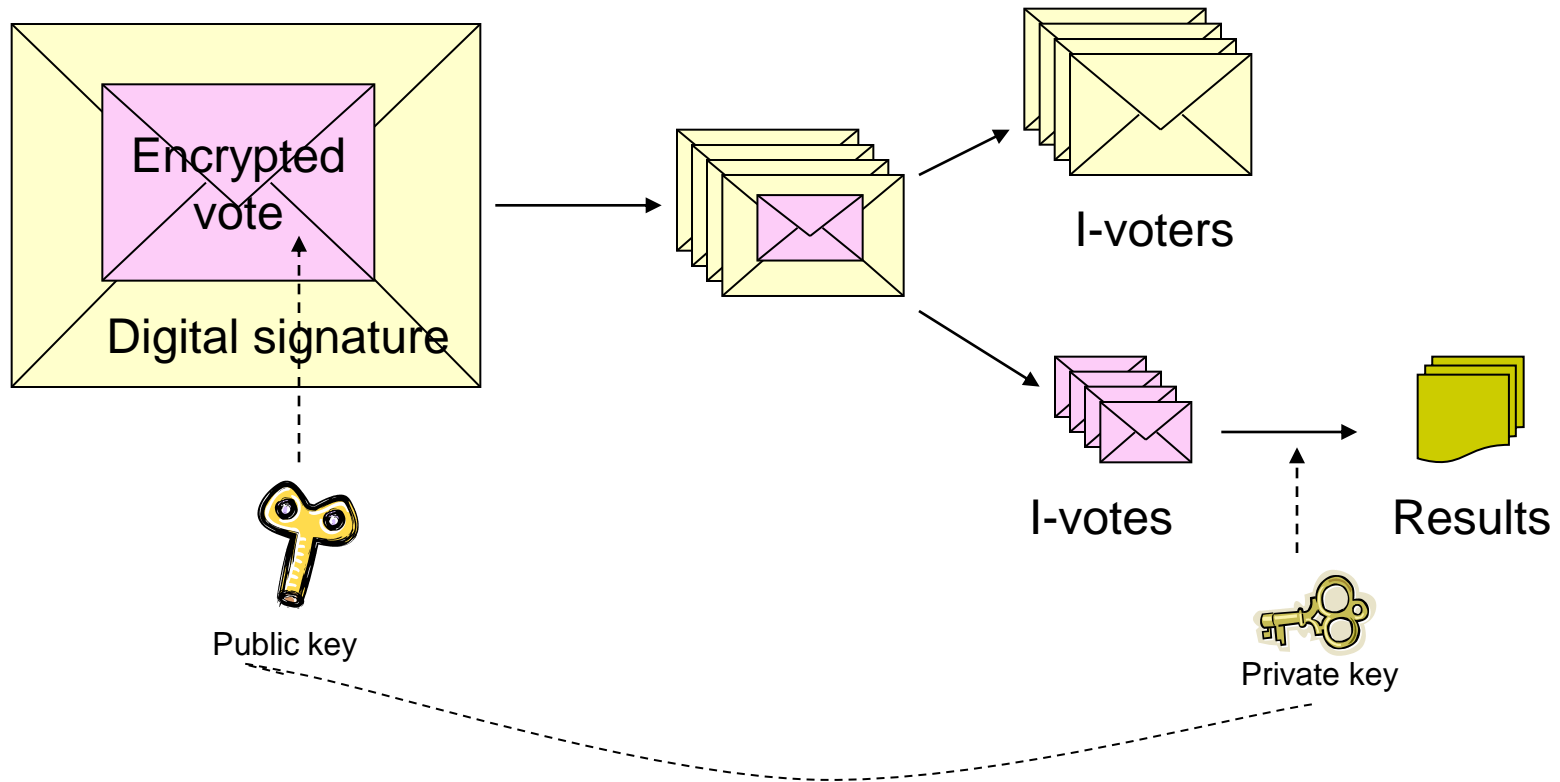
- All major principles of paper-voting are followed
- I-voting is allowed during 7-day (was: 3-day) period before Voting Day
- The user uses ID-card or Mobile-ID
 - System authenticates the user
 - Voter confirms his choice with digital signature
- Repeated e-voting is allowed
 - Only last e-ballot is counted
- Manual re-voting is allowed
 - If vote is casted in paper during pre-voting days, i-vote(s) will be revoked



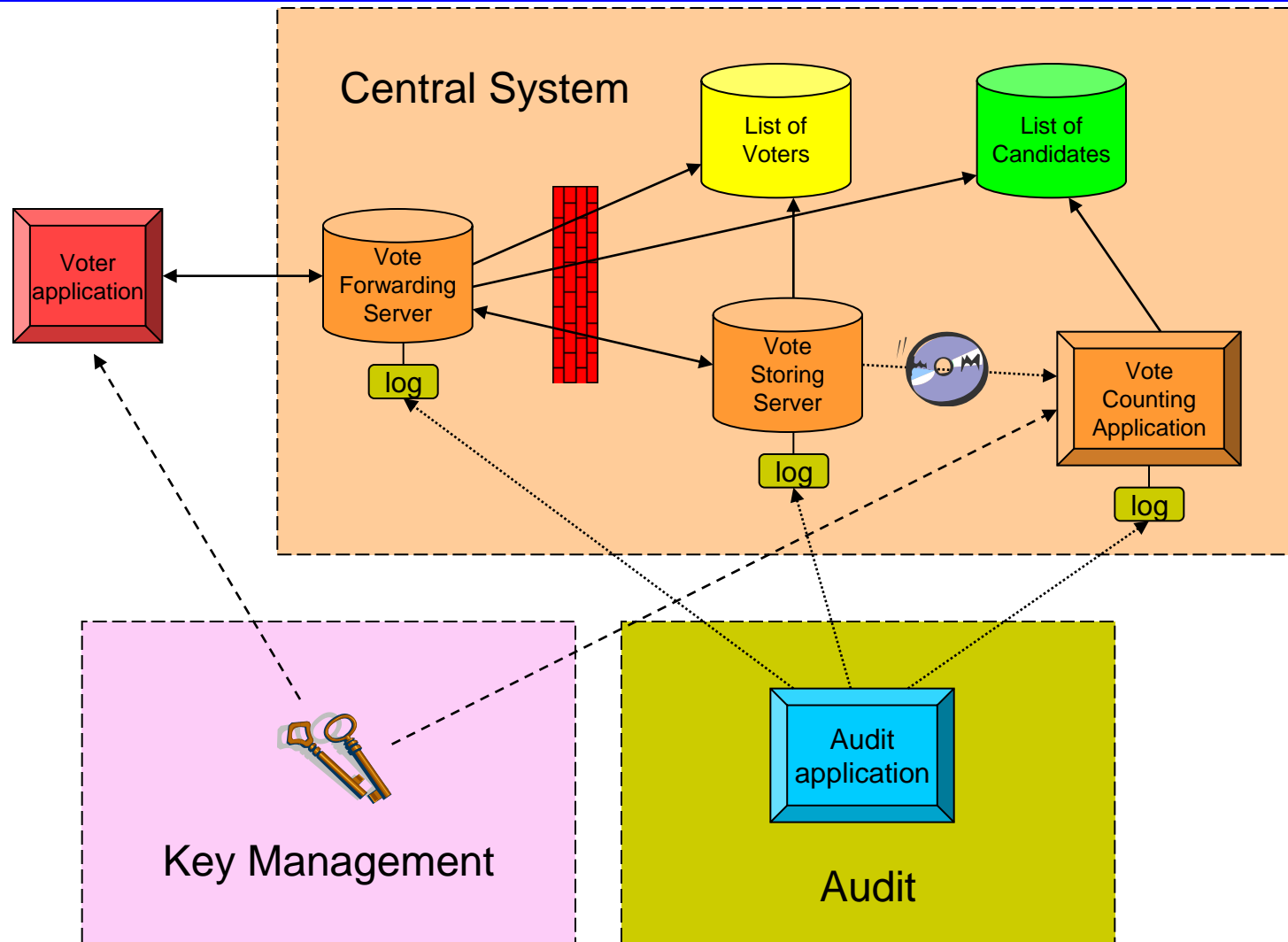
Voter registration

- Missing
- All citizen (residents) should register their place of living in central population register
- Only voters with registered addresses are eligible
- Population register is used

Envelope scheme



Architecture



Cancellation of i-votes



All Internet Voters' lists are printed and sent to polling stations two days before Election Day

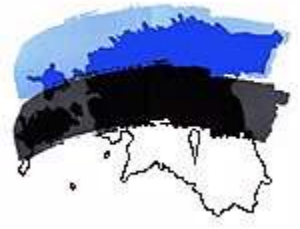


Polling stations check the polling lists for possible Internet Voters who voted in the polling station on paper and mark all Internet Voters in the polling station list with "E"



If a double voter is found a note of cancellation is drafted in the Election Infosystem by the polling station and the I-vote is cancelled centrally

User view



Website for voting



www.valimised.ee

E-hääletamine on käimas!

Hääletamine algas 24. veebruaril kell 9.00 ja lõpeb 2. märtsil kell 20.00.

E-hääletamiseks tuleb alla laadida valijarakendus ning see käivitada.

- [Laadi alla valijarakendus Windowsi jaoks](#)

Tehniline abi **e-hääletamisega** seotud teemadel telefonil **1777** või e-posti aadressil abi@valimised.ee. Teave valimistega seotud küsimustes: info@wk.ee või www.wk.ee.

Otsid lisateavet valimiste kohta?



Run the Application

- Select your eID



In case of ID-card... ****



- Put your card into card reader
- Insert PIN 1



In case of Mobile-ID...



arandus

Sisenemine Tutvustus Valiku tegemine Hääletamine

Sisestage enda telefoninumber.

Telefoninumber

Valijarakendus

Sisenemine Tutvustus Valiku tegemine Hääletamine

Sõnumit saadetakse, palun oodake. Mobiil-ID-ga sisenemiseks tuleb Teil oma telefoni sisestada Mobiil-ID PIN1 kood pärast seda, kui olete saanud SMS-i sama kontrollkoodiga, mida näete siin:

7030

Valimised
kontrollkood
7030
Sisenen?

Go to Menu Names

Sisesta PIN1

Go to Menu Names

You are identified



Valijarakendus

Sisenemine Tutvustus Valiku tegemine Hääletamine

TERE TULEMAST!

Nimi: **PEETER HÄÄLETAJA**
Isikukood: **37012021234**

Olete hääletamas 2011. aasta Riigikogu valimistel. Tegemist on ametlike valimistega, kus elektroonilist häält arvestatakse samamoodi kui pabersedeliga antud häält. Järgnevalt teete valiku ühe oma elukohajärgse valimisringkonna kandidaadi poolt.

Katkesta Otsustama

Ballot completion



- Choose a candidate

Valijarakendus

Sisenemine Tutvustus **Valiku tegemine** Hääletamine

659: PAUL HIMMA
660: TÕNIS RÜÜTEL
661: AARE KITSING
662: IRINA STELMACH
663: ÜLO RUSSAK
664: TOIVO EENSALU
665: TIINA MÄGI
666: EBBA RÄÄTS
667: VANDA SOKOLOVA
668: LOIT RÕUK
669: PIRET SAAT

Eesti Pensionäride Erakond
821: HELMI LOOPMANN

Erakond Isamaaliit
924: TOIVO JÜRGENSON
925: TIINA VALLIKIVI
926: VENNO LAUL
927: OLEV REMSU
928: AILI KOGERMAN
929: ANNA-GRETA GUTMAN
930: VIIDO POLIKARPUS
931: EPP REBANE
932: ÜLO RUUBEL
933: RIINA ENKE
934: MARE RÄIS

Klõpsake soovitud kandidaadi nimel.

Kelle valite Riigikogusse?

Teie valimisringkond:
Tallinna Kesklinna, Lasnamäe ja Pirita linnaosa - Valimisringkond nr 2

Minu valik on:

kandidaat nr. 821
HELMI LOOPMANN
Eesti Pensionäride Erakond

Katkesta Valin

Confirmation (ID-card)

- Confirm your choice with PIN2



Valijarakendus

ID - kaart

Sisesta PIN-kood digiallkirjastamiseks (PIN 2)

OK Katkesta

Valikute tegemine

Hääletamine

Hääle kinnitamisel küsitakse teie ID-kaardi PIN2 koodi digitaalseks allkirjastamiseks.

Kelle valite Riigikogusse?

Kandidaat nr. 821
HELMİ LOOPMANN
Eesti Pensionäride Erakond

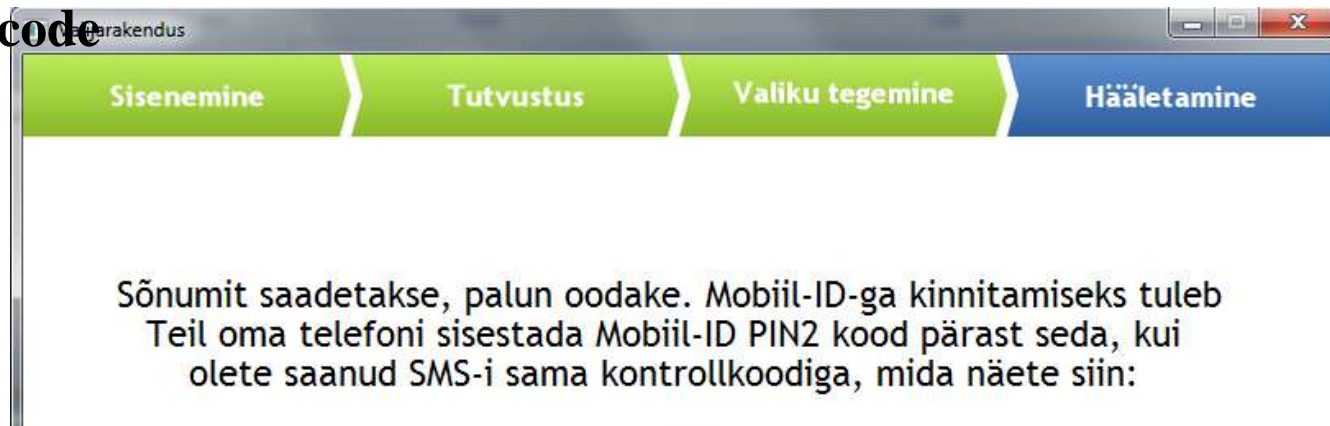
Tagasi

Hääletan

Confirmation (mobile-ID)



- Confirm your choice by signing digitally
- Verify verification code
- Insert PIN 2



3654



Vote received



Valijarakendus

Sisenemine > Tutvustus > Valiku tegemine > Hääletamine

Teie tehtud valik läks arvesse

Soovi korral saate häält muuta eelhääletamise ajal uuesti elektrooniliselt hääletades (24. veeb kuni 2. märts) või valimisjaoskonnas pabersedeliga hääletades (28. veeb kuni 2. märts). Valimispäeval (6. märts) oma häält muuta ei saa!

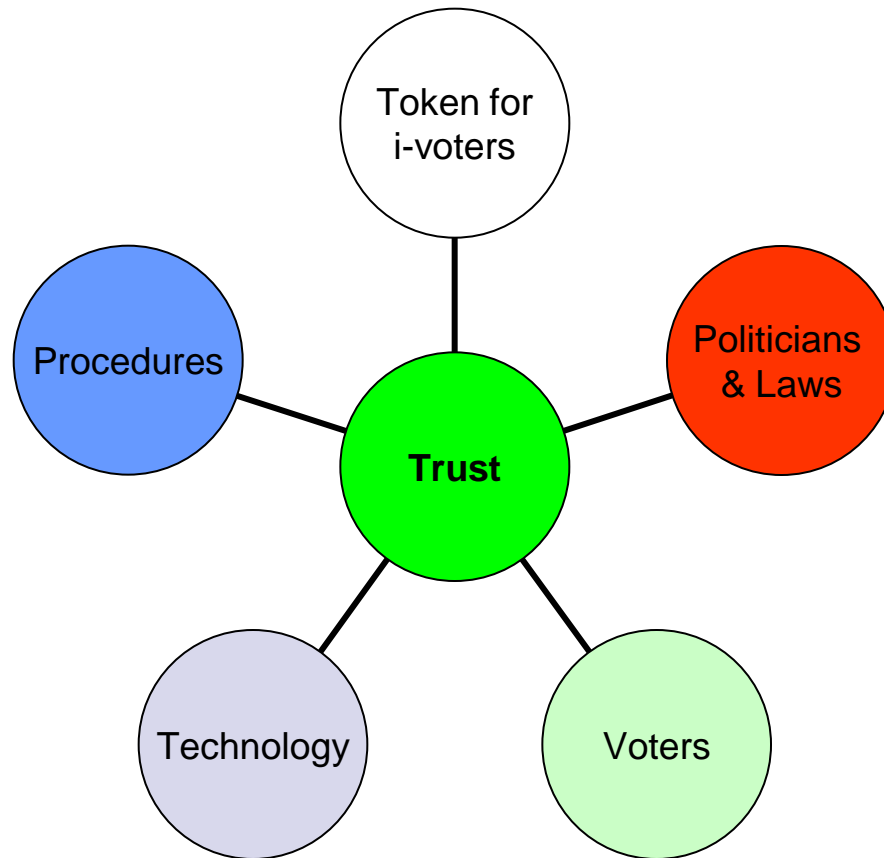
Kui olete hääletanud mitu korda elektrooniliselt, võetakse arvesse viimane hääl. Kui olete hääletanud valimisjaoskonnas pabersedeliga, arvestatakse seda ja elektrooniline hääl tühistatakse.

Märge Teie antud elektroonilise hääle arvestamise kohta tehakse 6. märtsiks elukohajärgse valimisjaoskonna valijate nimekirja.

Palun sulgege rakendus. Suurema turvalisuse huvides eemaldage ID-kaart lugejast!

Valmis

What it takes ?



Principle of Transparency



- All system components shall be transparent for auditing purposes
- No “black boxes” are allowed
 - No use of 3rd party-controlled authentication mechanisms or services
 - No components without source code



Technology Selection

- Keep it as simple as possible
- Build it on secure & stable platforms (Debian)
- Use widely known programming languages
- No fancy user interfaces for server operations



Managing Procedures

- All fully documented
- Crash course for observers-politicians & auditors
- All security-critical procedures:
 - Logged
 - Audited & observed
 - Videotaped



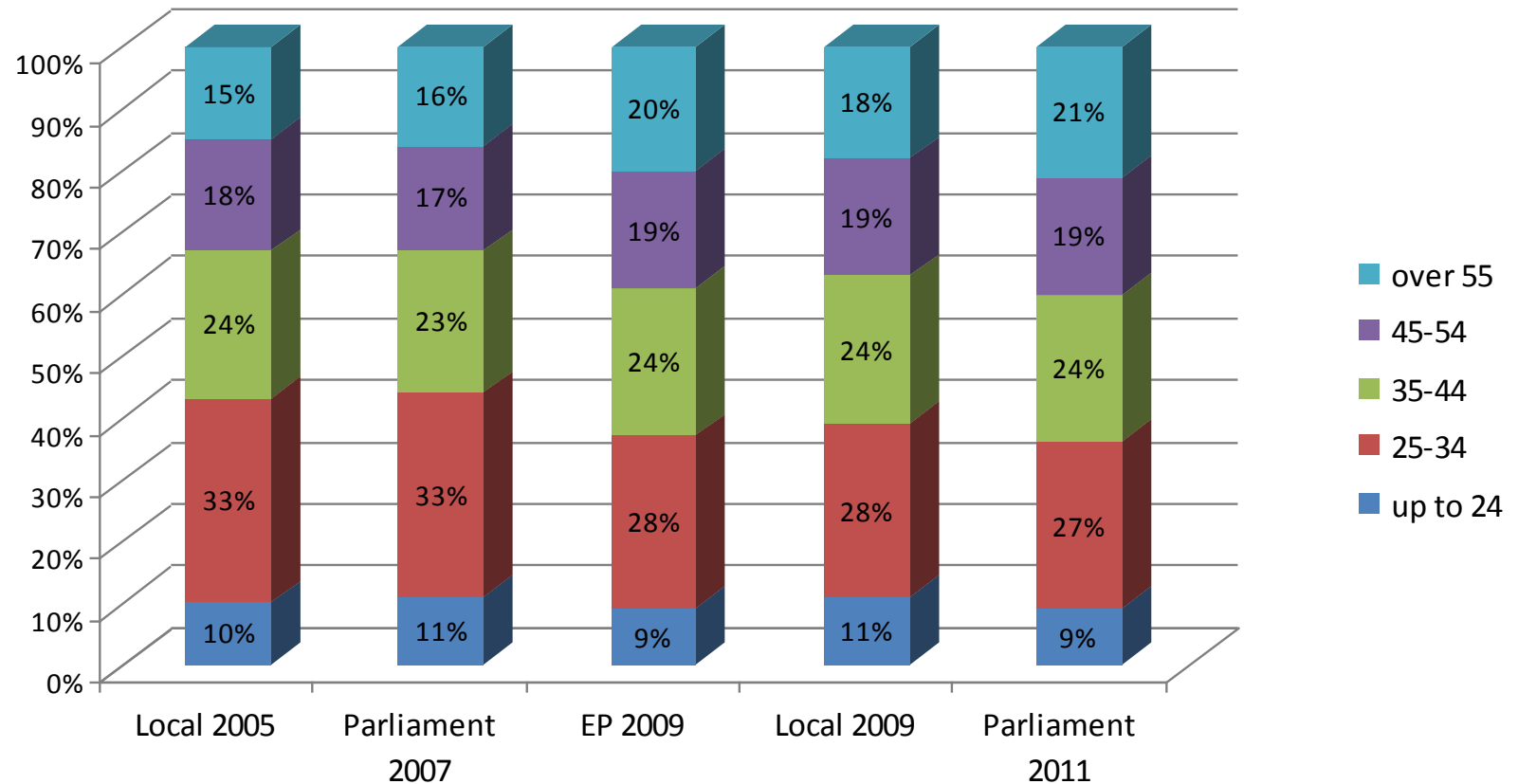
Hosting and Monitoring

- Governmental security hosting
- Strict requirements for entering the server premises
 - Auditor(s), cam-man, operator(s), police officer
- Sealing of hardware and data carriers
- Large number of network security specialists involved in network-monitoring 24/7 for dDOS or trojans in voluntary basis

Is it for young people?



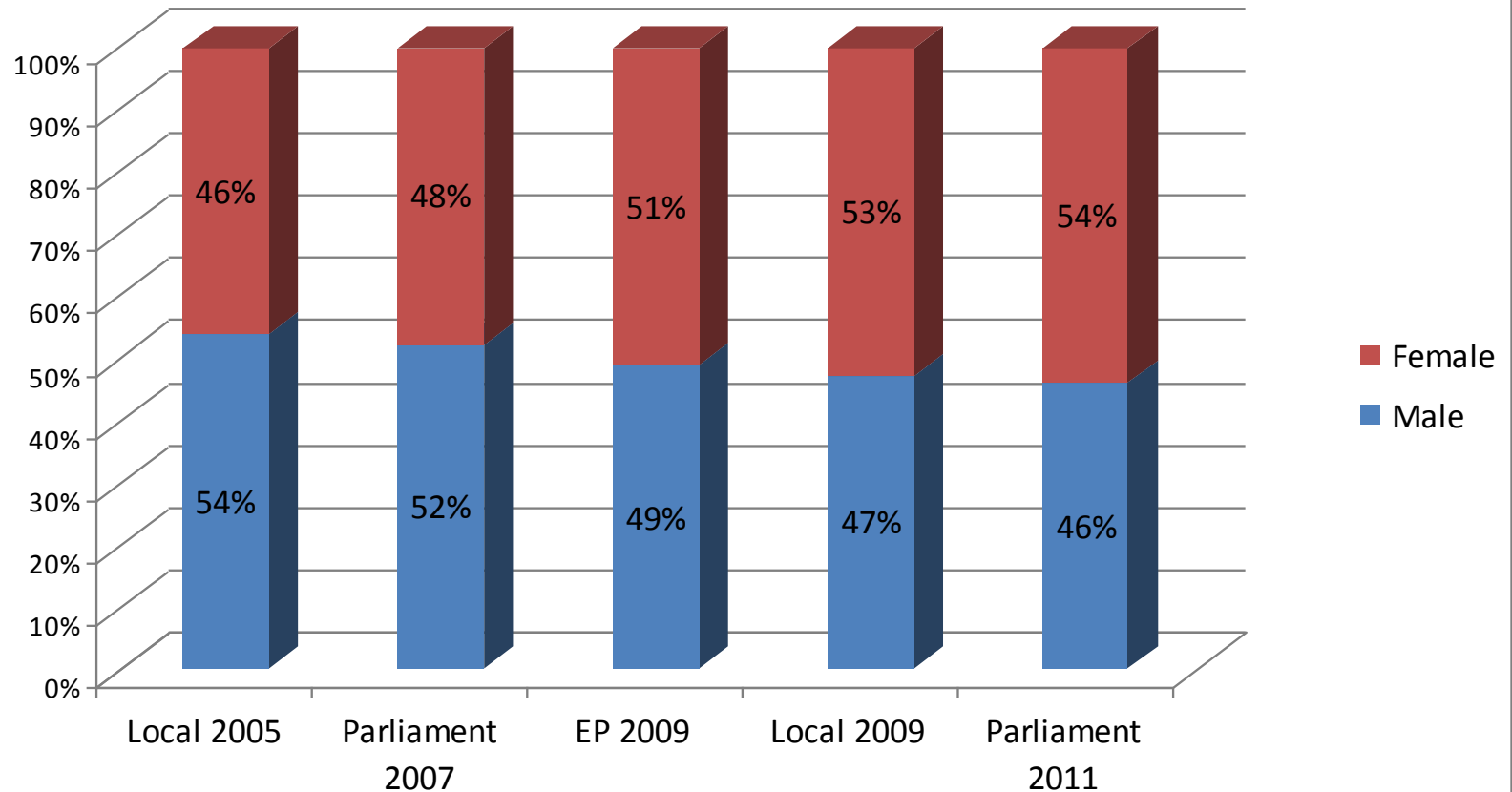
I-Voters by Age, 2005-2011



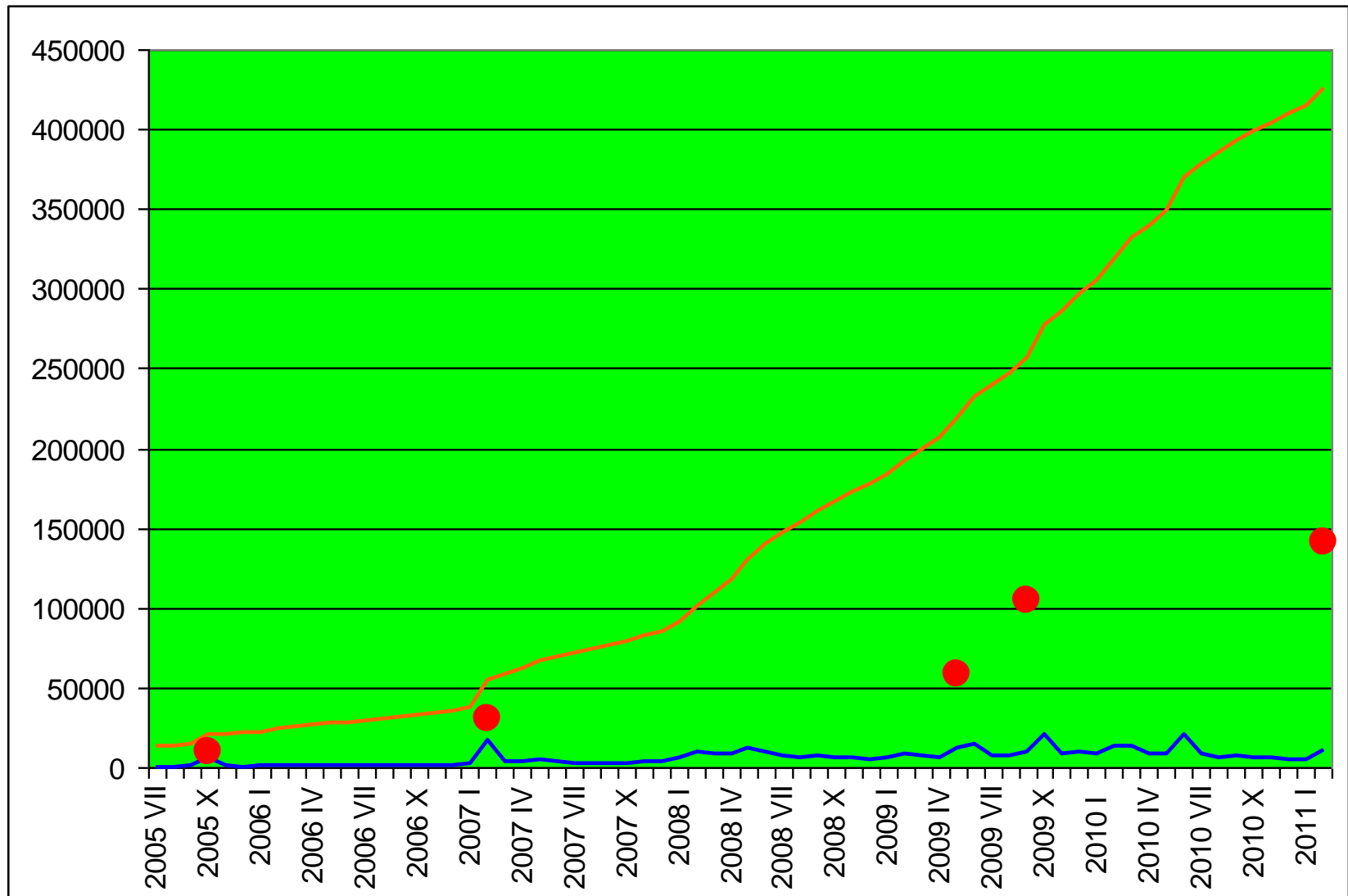
Is it for brave men?



I Voters by Gender, 2005-2011



ID-card usage vs. I-voting

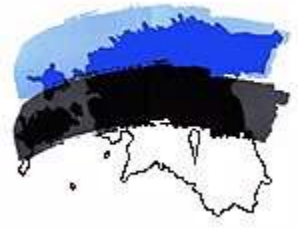




Lessons learned

- I-voting is not a killer-application.
It is just another way for people to vote
- People's attitude and behavior change in decades and generations, not in seconds
- I-voting is as natural as Internet-banking but even more secure
- Internet voting is here to stay

More information



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