

# New Voting Technologies in the Digital Age



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# How can we hold elections in a digital age?

# Content

- OSCE/ODIHR
- Election Observation
- Standards
- Reasons
- Context
- Secrecy of the Vote
- Certification/Training
- Observation of NVT
- Further Areas of Concern



# The OSCE/ODIHR

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- Established in 1990 as the Office for Free Elections (Paris 1990)
- Received additional functions in 1992 as the Office for Democratic Institutions and Human Rights – ODIHR (Prague 1992)
- And since 1992 the ODIHR is the OSCE's main institution for the Human Dimension (Helsinki 1992)

## The OSCE/ODIHR cont.

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- Established in 1990 as the Office for Free Elections
- Since 1991 in Warsaw
- Some 150 staff members from some 30 OSCE States
- Budget 2010: approx. EUR 16 Million plus about EUR 4 Million extra-budgetary contributions

# Election Department - Overview



- 11 Professional staff:
  - Head of Department
  - Deputy Head of Department
  - 2 Senior Election Advisers
  - 1 Senior Adviser on NVT
  - 6 Election Advisers
- 5 General Service Staff
- 4 Finance Assistants

## Election Department - Overview

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- Network of more than 2,000 international experts (database)
- More than 3,500 election experts and observers deployed every year
- Since 1996: more than 200 election observation activities, involving approx. 35,000 observers
- ~ 15 missions per year

# Why do we observe elections?

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- To assess compliance with the international standards, OSCE commitments (not to certify or validate results)
- Create confidence for contestants and voters to participate in election process
- To enhance the integrity of the process
- To deter possible fraud and intimidation
- To recommend ways in which the electoral process can be improved
- Process oriented – only interested in results to the degree that they are reported honestly and accurately

# New Voting Technologies - Definition

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- **Voting Technologies:**

“using tools for conducting elections”

Examples: *pull-lever-machines, mechanical registers.*

- **New Voting Technologies:**

“voting technologies making use of information and communication technologies in casting, counting, and tabulating votes”

Examples: *electronic voting machines, Internet voting procedures, but also electronic poll books, tabulation and election information systems.*

- **Note: CoE Rec(2004)11:** uses a narrower definition of e-voting:

“electronic means in at least the casting of the vote”

## Some arguments

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- With NVT it is not possible to reach the same level of universal acceptance, trust and confidence to understand as with paper voting.
- NVT can help offer additional functionalities to elections, i.e. counting complicated and large volume elections, supporting handicapped or very remote voters to participate in elections.

# Forms of Electronic Voting

Place Medium	Controlled (Polling Station)	Uncontrolled (At Home)	Optical Scanner
Paper	Ballot Sheet	Postal Voting	
Electronics	DRE Electronic Voting Machines	Internet Voting	

Kiosk Voting

# Standards

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- Copenhagen 1990 Commitments
- Council of Europe Recommendation on Legal, Technical and Operational Standards on Electronic Voting
  - Guidelines on Transparency, Certification
- OASIS Election Markup Language (EML)
- Protection Profiles (Gesellschaft für Informatik)
- Several national standards: VVSG, ...

# ODIHR Experience To Date

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- **Meetings**
  - Supplementary human dimension meetings 2004, 2005
  - Chairmanship meetings Brussels 2006, Helsinki 2008 & Vienna 2010
- **Discussion Paper**
  - Chairmanship Non-Paper 2005
  - Two expert meetings in 2006, 2007
  - Discussion paper on NVT in 2008
- **Missions**
  - 17 missions with NVT focus: Belgium (2006, 2007), Bulgaria (2009), Estonia (2007, 2011), France (2007), Kazakhstan (2004, 2005, 2007), Netherlands (2010), Norway (2011), Russia (2011), Switzerland (2011), and the United States (2004, 2006, 2008, 2010)

# NVT Election Activities 2010/2011



**Estonia EAM**

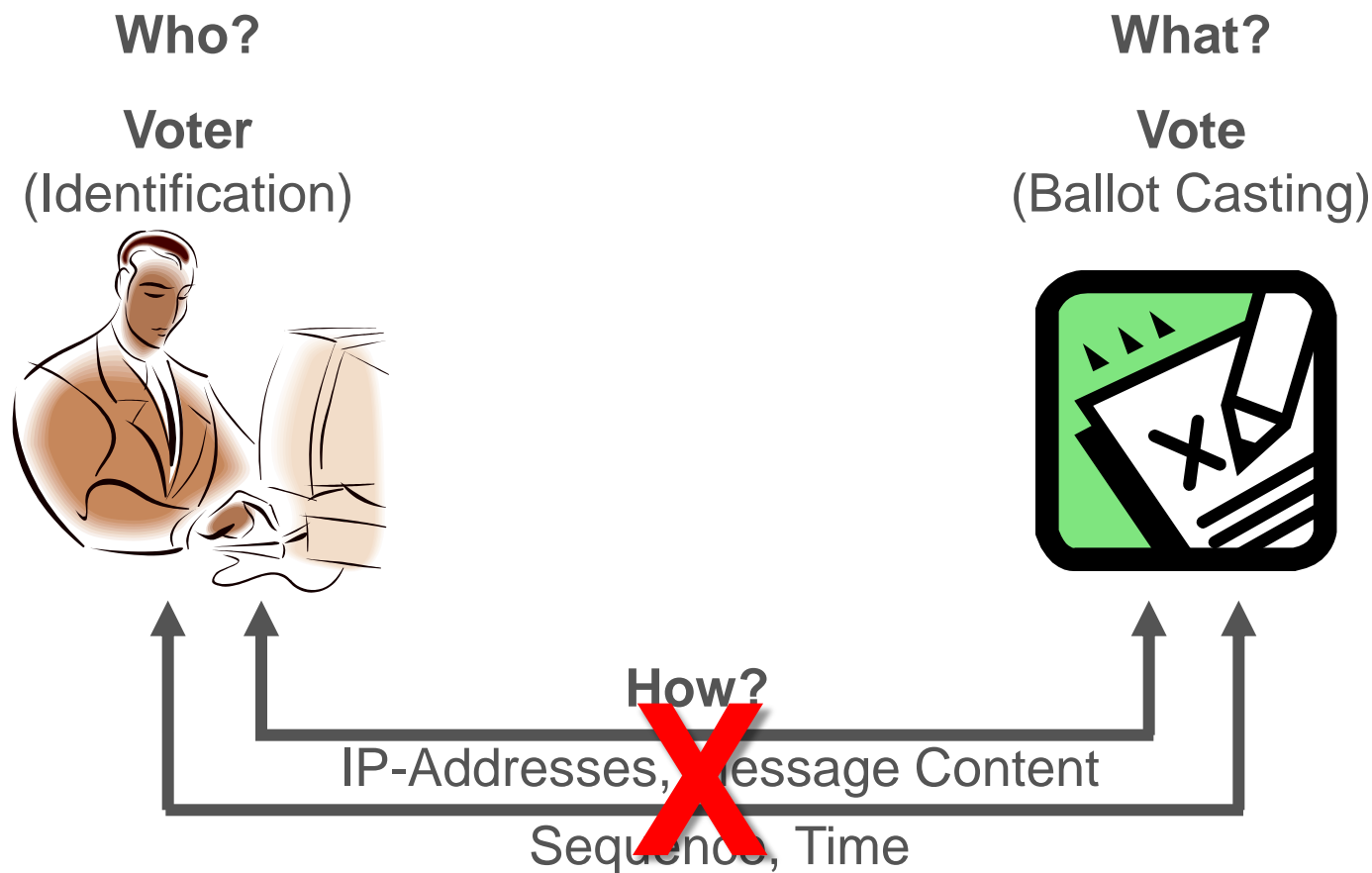
**Norway EET**

**Russia EOM**

**Switzerland EAM**

**United States EAM**

# Secrecy & Integrity of the Vote



# Legislation

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- Proportionality?
- Needs to cover all the steps of the whole electoral process
- Same treatment for electronic voting channels as for paper based channels
- Adding accountability to the process

# Accountability

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- Is the operator capable of saying what happens, when, where, how, and by whom?
- Description of processes, procedures, use cases, ...
- Worst Case Scenarios – Disaster Recovery Plan (dDoS Attacks)
- Independent and competent third party?

# Transparency

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- Is a cornerstone of election observation
- End-to-end verifiability to the process – individual & universal
- Access to documentation
- NDA

# Certification

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- Ex-ante analysis of systems against norms and standards by competent national bodies
- Happening within a framework (regulation, evaluators)
- Non-disclosure Agreement
- Valid for certain period (incl. possibility for de-certification)
- Needs extended period of time
- General availability of results
- Purpose of “Certificate” to check which version of a software is able to fulfill the requirements of a norm

# Training

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- IT literacy needed by
  - Election Management Bodies to operate  
=> internal training
  - Voters to use the system to cast votes  
=> Voter education programs

# Oversight & Management

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- Which institutions are involved?
- Who is the person in control?
- How are decisions taken?
- Who controls whom?

# Summary

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- **Proportionality?**
- Role separation, principle of non-interference
- New Voting Technologies **can** be applied in many ways
- While they are **new** they still have to **fully fulfill** the **existing commitments** and standards
- Not a uniform trend, it is not a **must**
- Trust needs to be established by **maximum transparency**

# Contact

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