



# Global Overview of OCV

## The Use of Online Voting

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International IDEA

INE Seminar on External Voting for Mexicans Residing Abroad

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# The Global Case For Online Voting

- Increasingly mobile electorate world-wide
- Many countries with large diaspora
- Logistic limitations of in-person and embassy voting
- Economies of scale: additional voters create limited additional costs
- Voter expectations: convenience and online services
- Many countries increasingly interested



# The Challenging Comparison of E-Voting and Paper Ballots

## Technical:

- Need for opaque, complex technology
- Difficult to achieve transparency, observability, understandability
- Difficult to demonstrate secrecy of vote
- Cyber risks – from voters' devices to overall setup

## Electoral:

- Loss of election day ceremony
- **Voting in uncontrolled environment:**
  - limited possibility for EMB to protect integrity of vote cast:
  - family voting, vote buying, secrecy



# Out of Country Voting - A Tradeoff

Universal Suffrage

Inclusiveness

Accessibility

Convenience

vs.

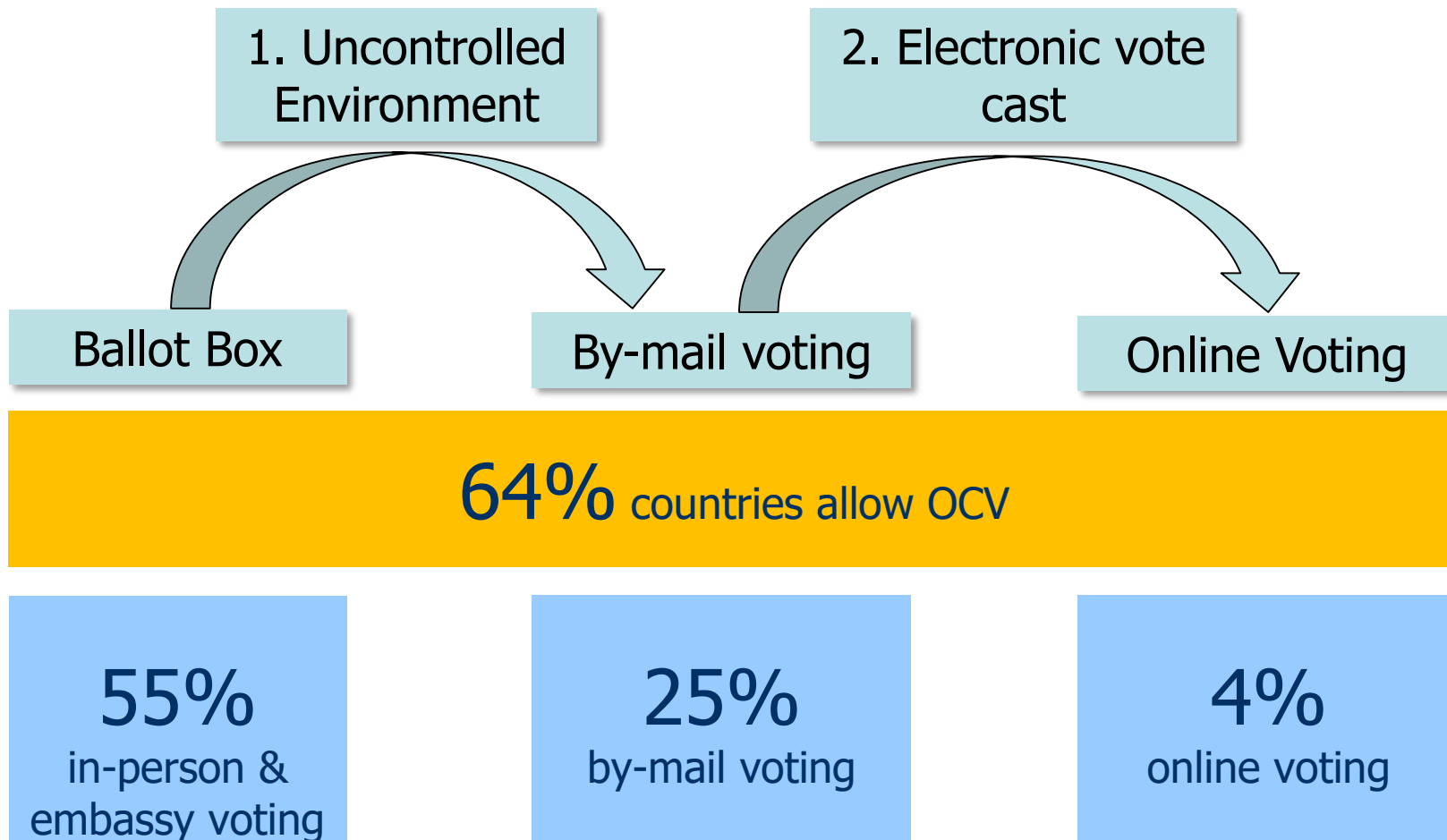
Secrecy

Transparency

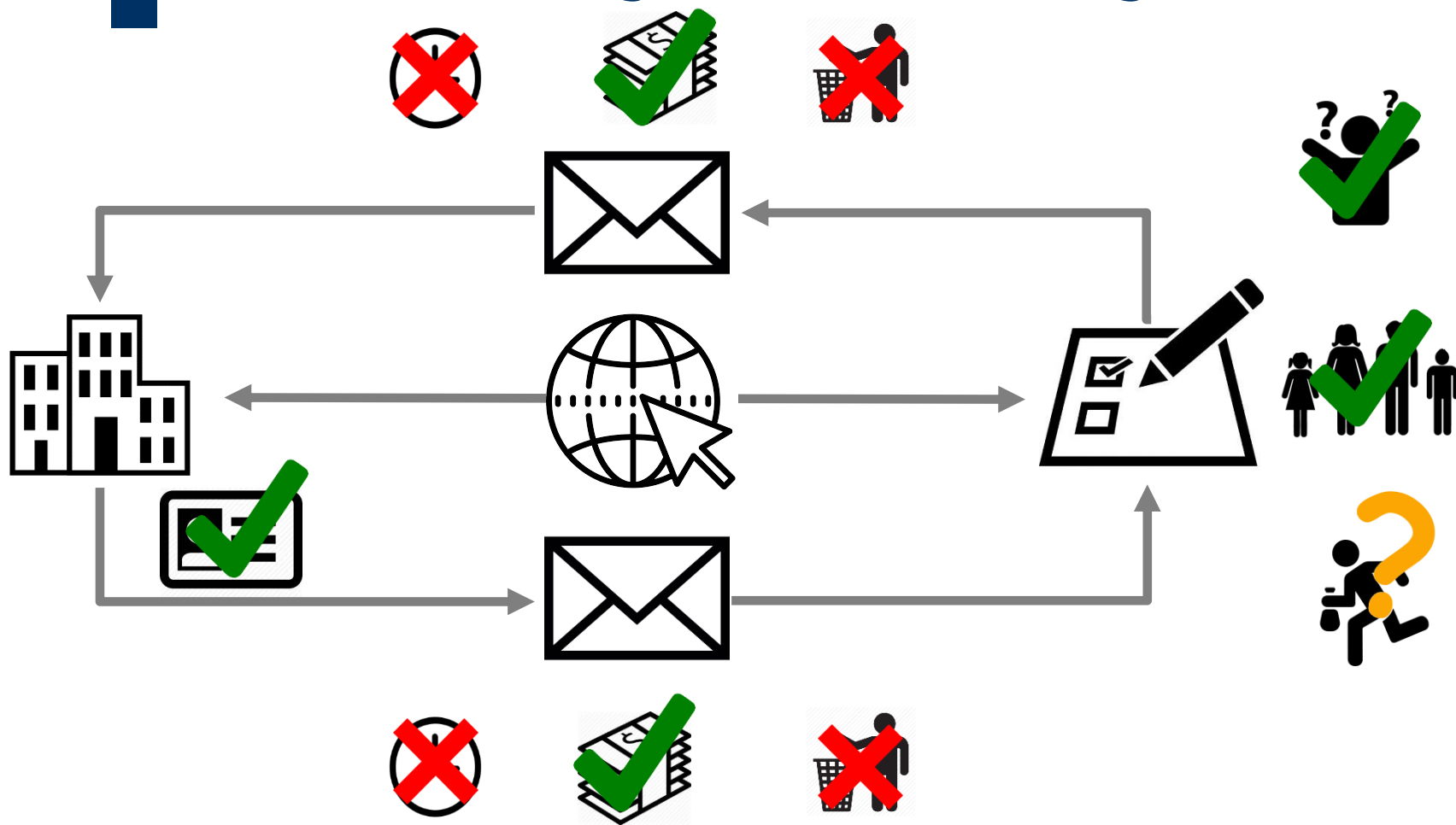
Integrity

Fraud prevention

# Two Steps from Ballot Box to Online Voting



# The More Favorable Comparison Postal Voting vs. Online Voting





# Highlights from Key global experiences and examples

The long established:

Switzerland, Estonia

The abandoners:

Norway, France

The newcomers

Pakistan, Bulgaria

Small implementations:

Canada, Armenia, Australia, ...



# Switzerland: Voter Number ■ Determines Security Requirements

- Very Frequent elections
- Online vote in and out of country
- Pilot use since 2004, gradual expansion
- Strict certification process
- More online voters -> stricter criteria
  - >30% online votes: individual verifiability
  - >50% online votes: universal verifiability





# Estonia: Continued Trust in Online Voting Despite Cyber Threats

- “E-stonia”
- Online voting pilots since 2005
- In and out of country
- Decade long exposure to international cyber threats (massive attack 2007)
- Continued trust in system, increasing use
- ~31% votes cast online



# France: Cancellation Due to Cyber Threats

- Online voting only for French abroad since 2012
- Global cyber threats against elections debate
- National Cybersecurity Agency sees “extremely high risk” in 2017
- Cancellation of online voting in order not to jeopardize elections
- Political will to bring online back in future



# Norway: Lack of Broad Political Support

- Technically very advanced system developed for trials in 2011 and 2013
- Mixed political support
- Cancellation after change of government in 2014, reasons given:
  - Need to invest more in improving, securing
  - No turnout increase
  - Fears about secrecy, undermining trust in democracy



# Bulgaria: Popular Demand for Online Voting

- Referendum about online voting in 2015
- 70.6% for online voting
- Tests in local elections 2018
- Full introduction planned for EP election 2019



# Pakistan: The 2018 Newcomer

- Large diaspora – expectations of great interest to vote
- Online voting for out of country voting only
- 7.9 million voters eligible in by-election October 2018
- 6.233 votes cast
- Cost 115 USD/voter



## ■ Canada – Local Elections Only, No Extension to Federal Level For Now

- Limited to municipal elections
- Dialogue about federal level started in 2010
- Electoral Reform Committee advised against online voting in 2017:

“secrecy and integrity of an online ballot cannot be guaranteed”

“voting technology should be of comparable security and integrity to that of the current voting process”



Thank you!