



---

# 2CENTRE Estonia

Gert Jervan

Anu Baum

Rain Ottis

Indrek Jakobson

Department of Computer Science  
Tallinn University of Technology



# 2CENTRE means...

---

**C**ybercrime  
**C**entres of  
**E**xcellence  
**N**etwork for  
**T**raining,  
**R**esearch and  
**E**ducation



# Focus on IT and security in Estonia

---

- NATO Cooperative Cyber Defence Centre of Excellence (2008)
- Cyber Defence Unit of the Defence League (2011)
- EU IT Agency (2012)
- Cyber security Master's study programme at TUT (2009)
- National electronic ID card infrastructure (2002):
  - identification and electronic signatures.
- Voting and E-census over internet (2005):
  - 11,45 % e-votes on European parliamentary elections (2014)



## 2 CENTRE Estonia

---

- 3-year project, started 01.01.2012
- Project budget 784 000 EUR
- EU support 80% (financial support from the Prevention of and Fight against Crime Programme of the European Union European Commission - Directorate-General Home Affairs)
- State budget 20%
- 3-year / 3-level development results:
  - 2013 I half – training started
  - 2014 II half – Master's programme started
  - After 3 years – Competence Centre is formed



# Project Partners

---

- **In Estonia:**

- Estonian Ministry of Justice
- Estonian Ministry of Internal Affairs
- Estonian Forensic Science Institute
- Estonian Policy and Border Guard Board

- **Abroad:**

- 2CENTRE network partners (Ireland, Belgium, France, etc)



# Project Activities

---

- Creating a cybercrime curriculum
  - starting to teach first Master's students
- Creating a training and course plan
  - 400 people will be trained by to end of 2014
- Creating a Cybercrime Competence Centre
- Networking, etc



# Training and Educational Activities

---

- 3-day courses for criminal police officers
- Basic education courses for digital forensics-related staff in LE and industry
- Advanced courses for digitaal forensics-related staff in LE and industry
- Additional main speciality for Cyber Security Master's studies curriculum at Tallinn University of Technology



# Basic courses for LE and industry

---

- Main target group: police officers (+ other LE officials)
- 3-day course, lectures and hands-on with computer
- Main topics:
  - Law issues, procedures (*identity, IP, personal data, business secrets, etc*)
  - Networks (*Wifi, VoIP, IPv6, P2P, TOR, social networks, clouds*)
  - File systems forensics
  - Digital device forensics
  - Application forensics (*browsers, office, mail client, chat, etc*)
  - Information in state registries



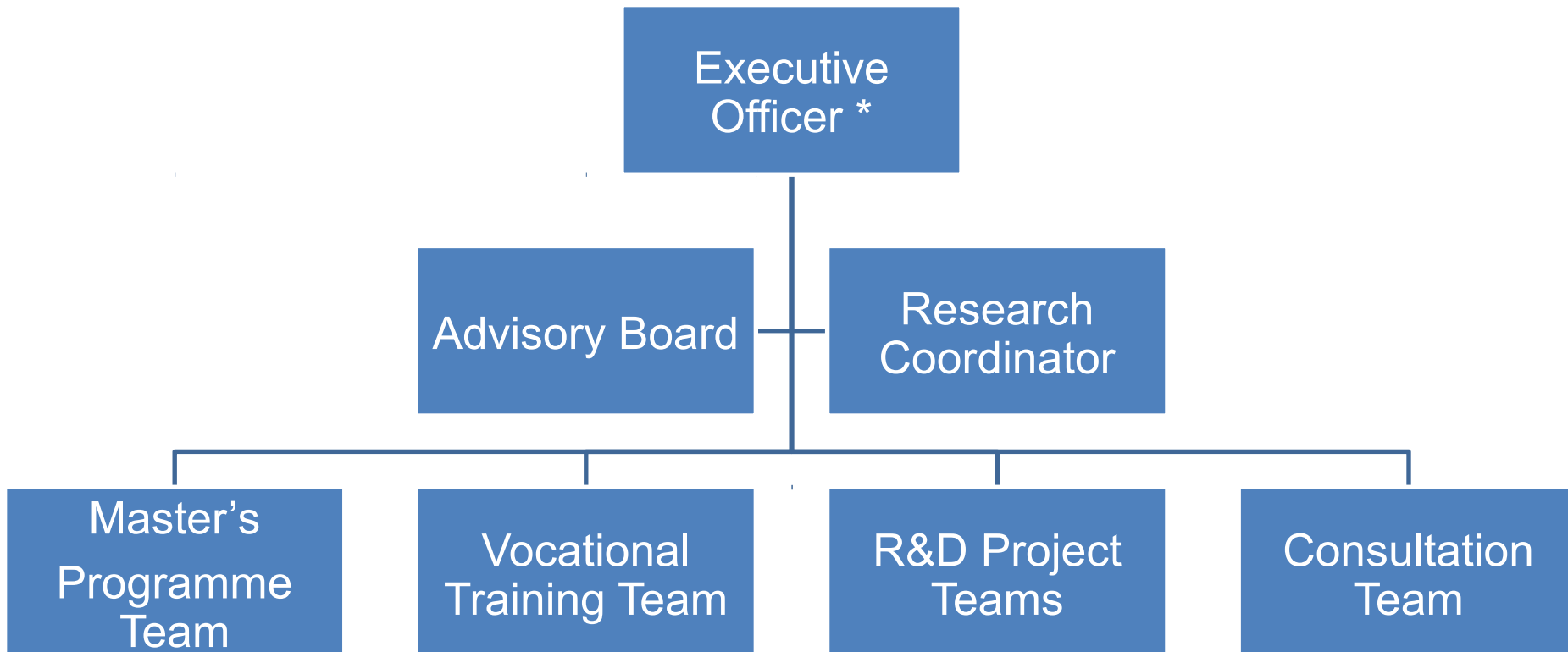


# Centre for Digital Forensics and Cyber Security

---

## Mission:

To raise Estonian cyber security competence and capacity through education, research and development.



\* reports to the Director of the Computer Science Department

---



# Centre's Activities (1)

---

## R&D

Applied research

Development projects

Fundamental research

## Technical consultancy

Network of associated domain experts (consulting on demand)

## Education

MSc programmes

- Digital Forensic MSc programme
- Cyber Security MSc programme

Supervising PhD students (state and industry funded)



# Centre's Activities (2)

---

## Vocational training

Courses on demand

## Raising awareness

DF&CS risks and solutions

## Policy input

Participation in DF&CS technical committees

Contribution to DF&CS technology normative documents



# Thank you for attention!

EESTI POLITSEI



## HARIDUS

...on vajalik, sest võim üksi põldu ei künna!

**EDUCATION is necessary, because power alone does not plow a field!**