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Excellence Hubs

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Experiences from project preparation

CYBER-SECURITY EXCELLENCE HUB IN ESTONIA AND SOUTH MORAVIA

Initiation

- What are the strengths of our region?
- Can we make connections to all (4) sectors?
- Who can coordinate?



Partnership

- Who are our (research) partners?
- Can they reach all (4) sectors?
- Do we have some interesting story?

The Return of Coppersmith's Attack: Practical Factorization of Widely Used RSA Moduli*

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COMPLETELY BROKEN —

Millions of high-security crypto keys crippled by newly discovered flaw

Factorization weakness lets attackers impersonate key holders and decrypt their data.

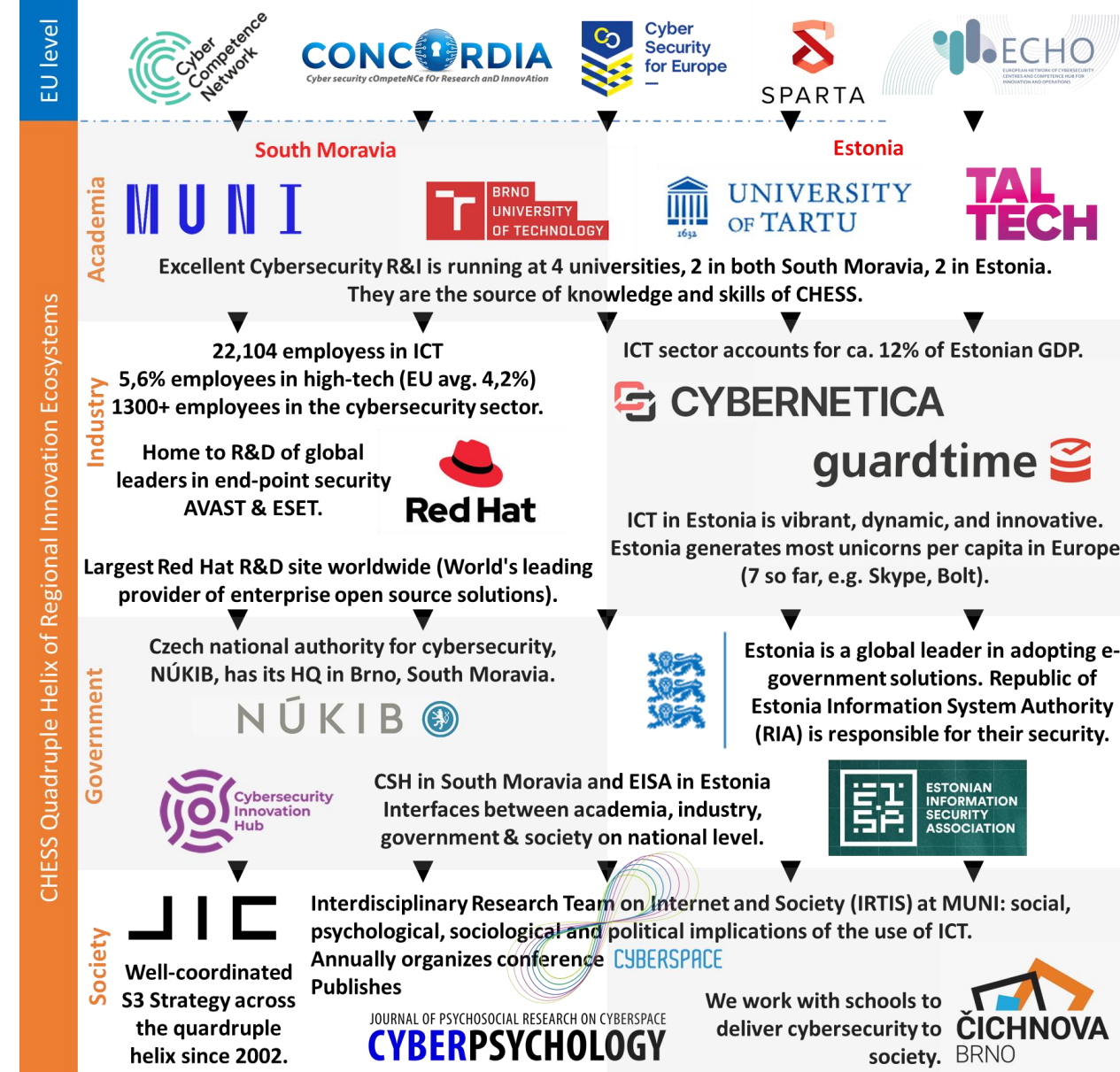
DAN GOODIN - 10/16/2017, 1:00 PM



Enlarge / 750,000 Estonian cards that look like this use a 2048-bit RSA key that can be factored in a matter of days.

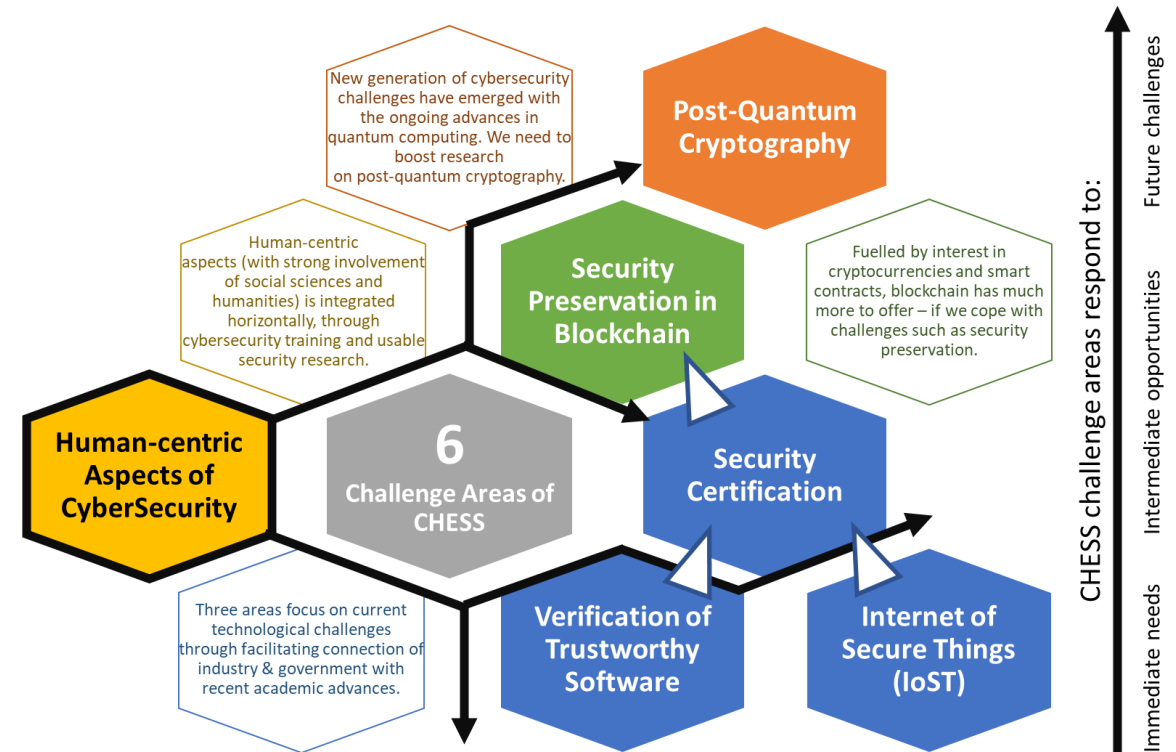
Consortium building

- Contribution to EU
- Academia
- Industry (established!)
- Government / Public
- Society



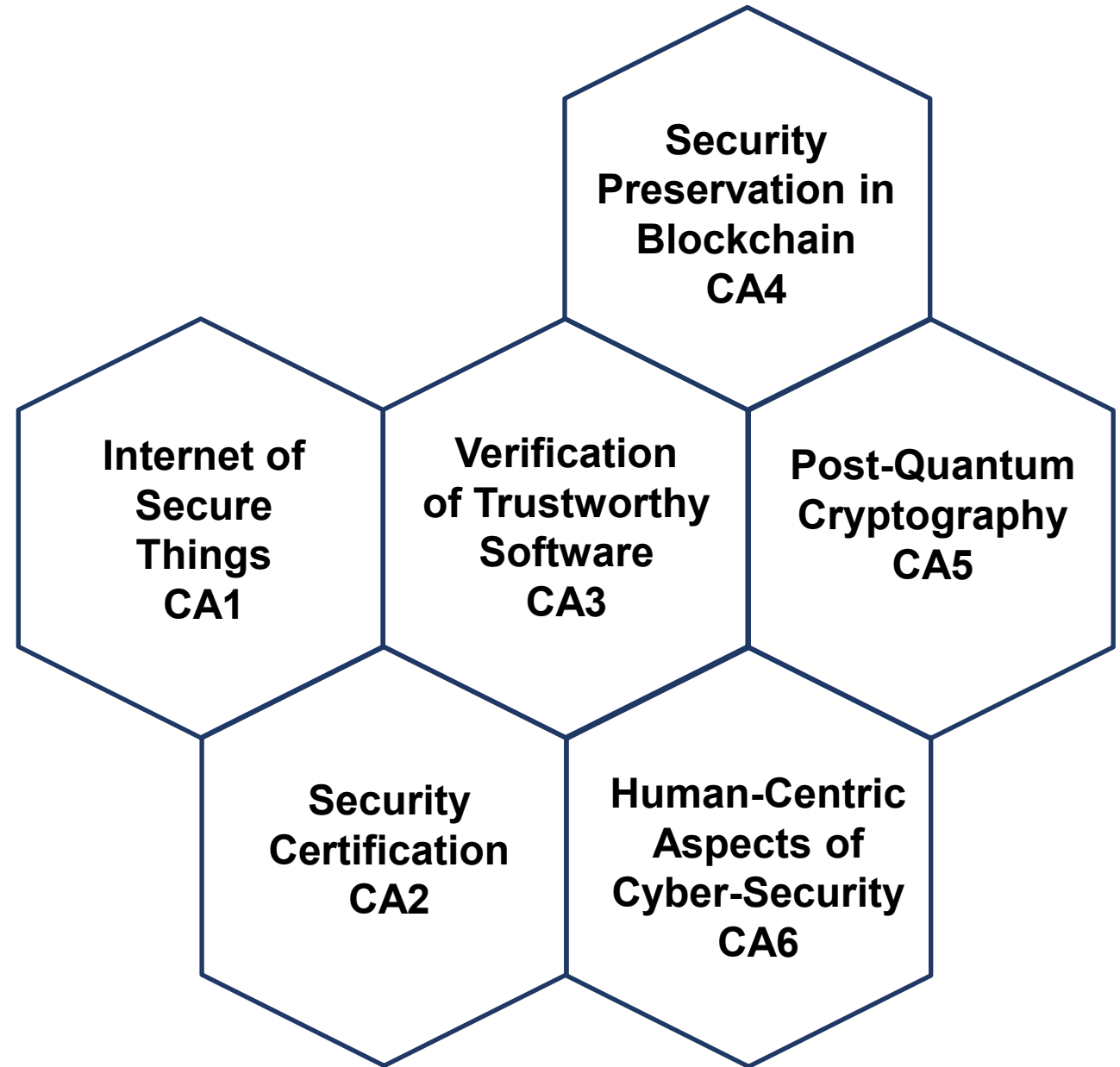
Project design

- Target areas based on common research interests (6)
- Work plan as simple as possible (5 WPs)
- All WPs / research areas co-led by both regions



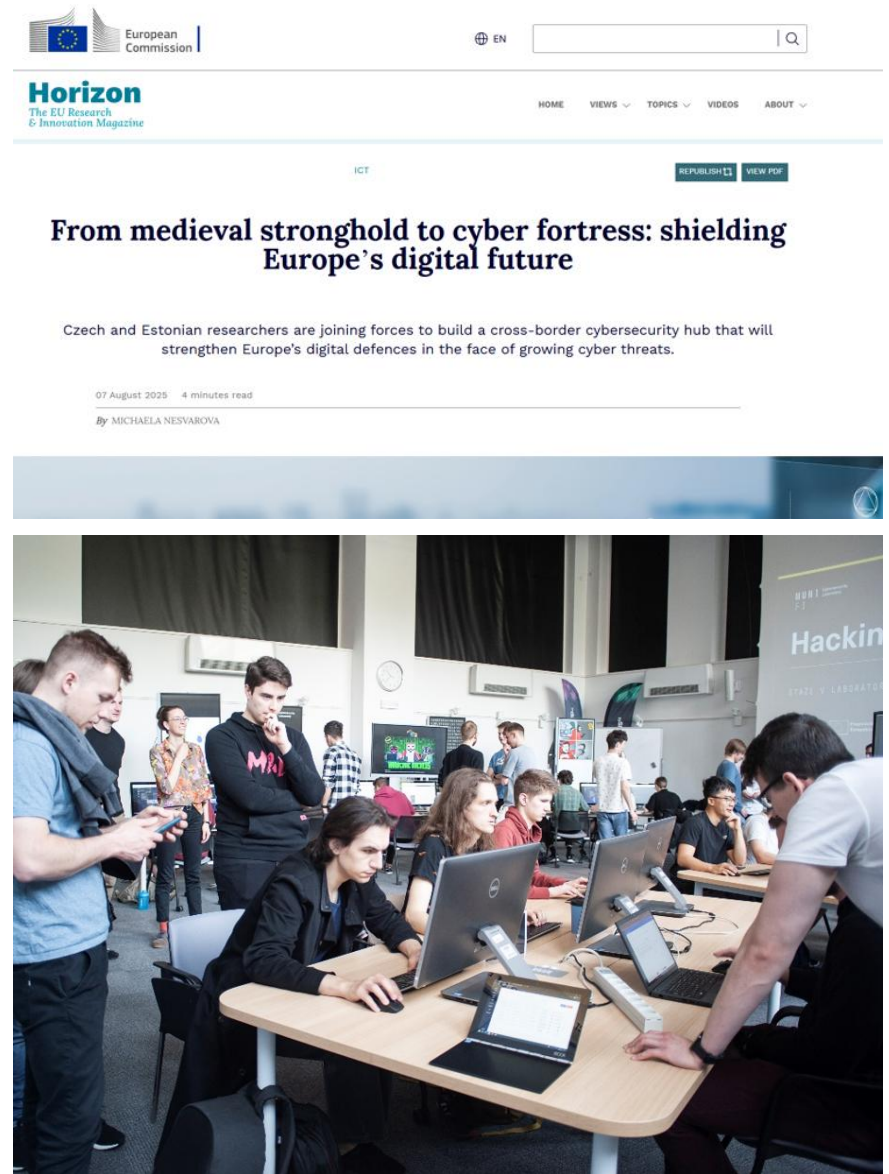
Challenge Areas

- Include people from both regions and various sectors
- Work on R&I mini-projects
- Centres of all project activities
- Contribute to all WPs
- High degree of autonomy and flexibility



CHESS Achievements I

- 25 R&I mini-projects initiated
- 31 fellowships supported
- CHESS results presented or trained different sectors at 153 events training events: workshops, conferences, brokerage events, meetings with stakeholders..
- A range of tools and methods with direct practical applicability



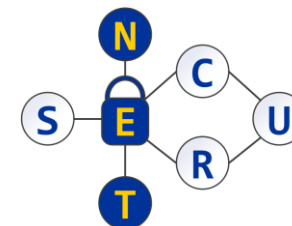
CHESS Achievements II

- Contributed to policy discussions on cybersecurity certification, organisational cybersecurity assessment and post-quantum transition strategies
- Built a strong community that will continue working together
- Won 3 follow-up HEU projects to continue our work



Three follow-up projects

- Successful submission of follow-up projects in highly competitive Horizon Europe calls (within top 5%)
- 2 **in Cluster 3** coordinated from Brno, Masaryk University (and Brno region) are becoming a **Central European cybersecurity hub**
- CCAT: 9 institutions, coordinated by Masaryk University (Czechia, Estonia, Italy and Germany)
- QARC: 18 partners from 12 European countries, coordinated by BUT
- SECURE-NET: ERA Talents project including 11 partners, coordinated by the University of Tartu (Czechia, Estonia, Lithuania, Netherlands and Ukraine)



Lessons learned: Tips from our PO

- Excellence hubs are not traditional research projects but **seed funding** for the implementation of long-term partnerships and strategies
- Use research component primarily to test and **deepen collaboration between sectors**
- Think about **sustainability** of the initiative from the very beginning
- Seriously integrate '**non typical**' **actors** from local government and civil society, etc.
- Seek collaboration with other **related European initiatives**
- Strengthen **local outreach**
- **Upskill** your staff (e.g. entrepreneurial training, secondments, study visits)
- Strengthen your communication activities, **be visible**
- Stay flexible and adapt to new technological developments as the project evolves

Lessons learned: What has worked for us

- Specific focus (challenge) areas defined ahead worked wonders.
- Well-planned fellowships proved to be highly effective.
- Working with existing alliances, platforms and ecosystems significantly increased participation and visibility.
- Event formats, content and communication channels had the greatest impact when carefully tailored to the target audience.
- Active involvement of public authorities enhanced both the relevance and potential uptake of results.
- Knowledge sharing in research management know-how has been of great value.

Thank you for your attention...



... and good luck with your projects!



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