



# CELTIC-NEXT

## Online Proposers Day

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Pitch of the Project Proposal

# Secure and Efficient Key Management for IoE



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# Teaser



- Internet of Everything (IoE): a networked connection of people, process, data, and things.
- IoE comprises many technology transitions (including IoT).
- IoE will provide a great revenue (\$4.6 trillion) and increase productivity.
- Key management is still a major issue in IoE.
- We look for secure and efficient key management and decentralized PKI for IoE.

# Organisation Profile



- Lund University is one of the northern Europe's oldest universities (since 1666)
- Consistently ranked among the world's top 100 universities.
- We have a strong group in cryptography and information security.
- We have had relevant projects about cloud security, IoT security, smart cities, key management, cybersecurity for next generation factories, etc.

# Proposal Introduction (1)



- Key management involves creating, renewing, accounting for, and managing cryptographic keys. Secure and efficient key management for IoE is still a challenge.
- Central role of certificate authorities (CA) can cause security and privacy concern. Maintaining CAs and revocation lists is demanding. New solutions can be provided based on blockchain technology and ledger.

# Proposal Introduction (2)



- **Expected outcome:** Secure and efficient key management and decentralized PKI for IoE
- **Impacts:** cost savings, increased productivity, new revenues, and enhanced citizen experiences.
- **Project duration:** 36 months

# Partners



Potential Swedish partners:

- Ericsson
- T2Data

Looking for European academic and industrial partners with relevant experience

# Contact Info



**For more information and for interest to participate please contact:**

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**Presentation available via:**

