

# Winning with PKI

## - Experiences from Norway

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# Winning with PKI

## - Main topics



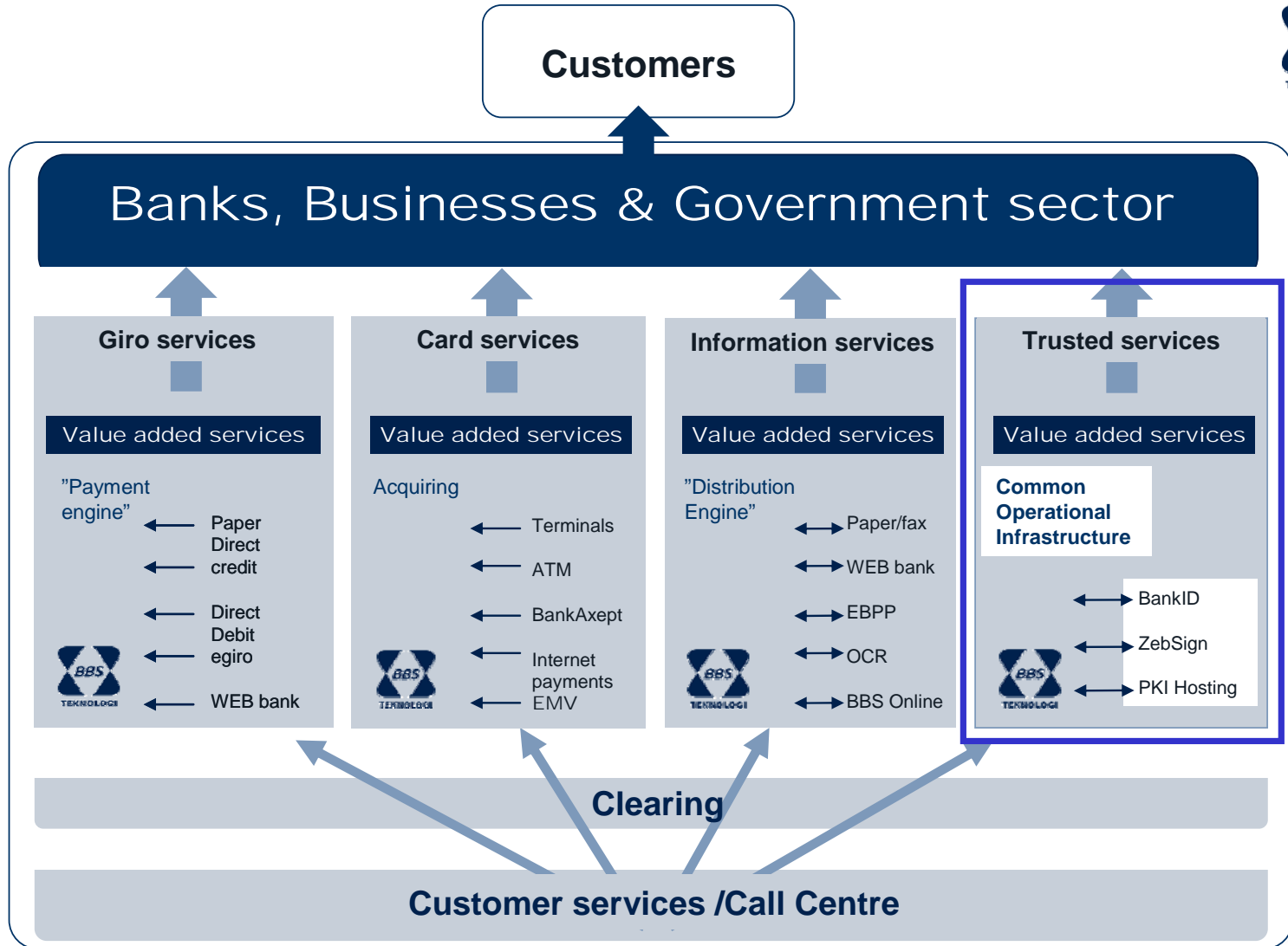
- **About ZebSign**
- **The PKI market**
  - Trends & Consequences
- **Making PKI pay**
  - Experiences from Norway
- **Looking ahead**
  - Challenges & Opportunities
- **Conclusion**



- One of the largest PKI environments in Europe
- Portfolio comprises PKI factory services, certificates and PKI products
- Customer base in all key market segments assure financial stability
- Owned 100% of BBS AS
- Certified by BS7799 and ISO 9001:2000
- Over 600.000 certificates issued so far...

*Our Vision:*

*”To be the market leading vendor of customized PKI-services in all key segments”*

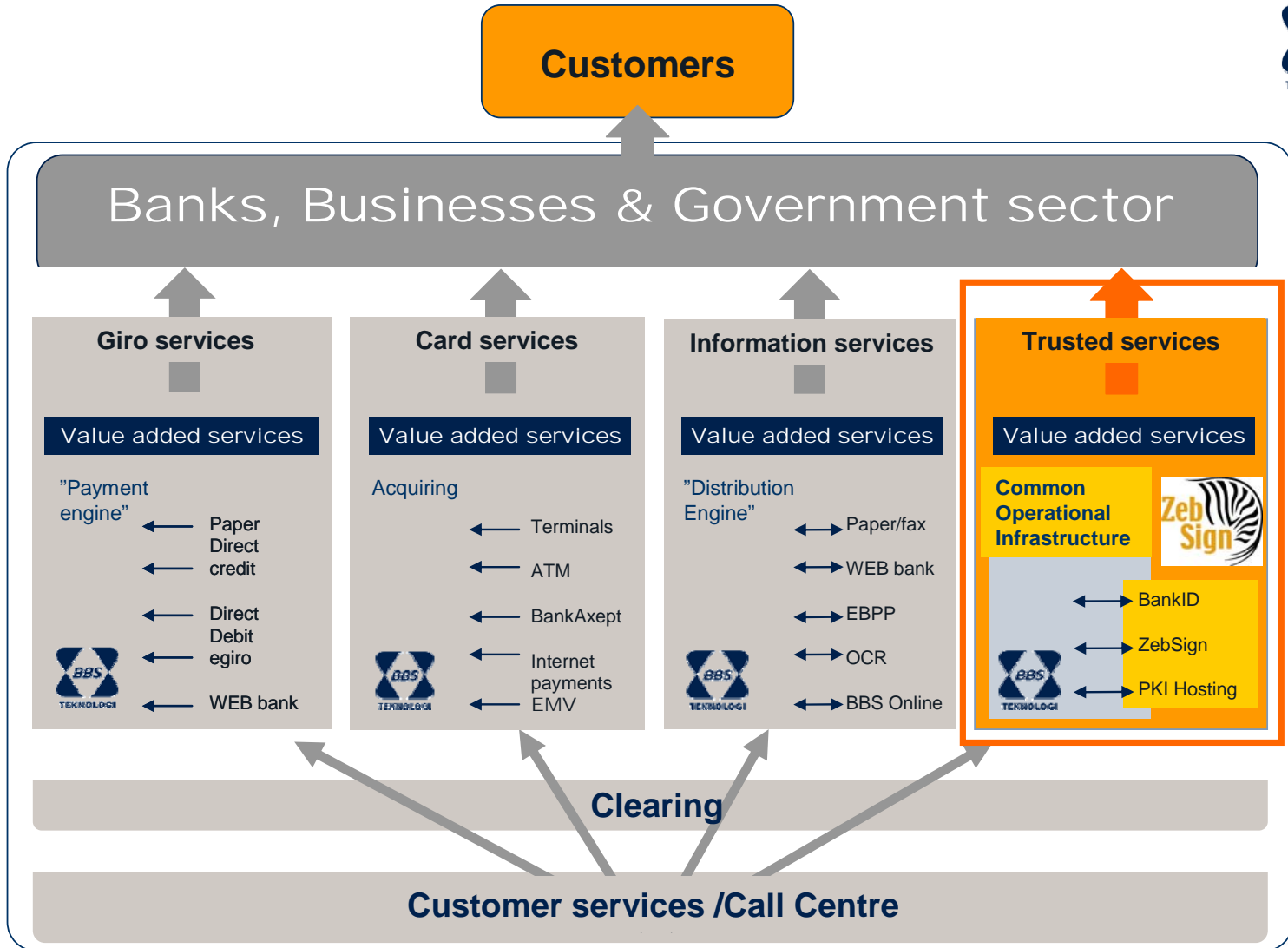




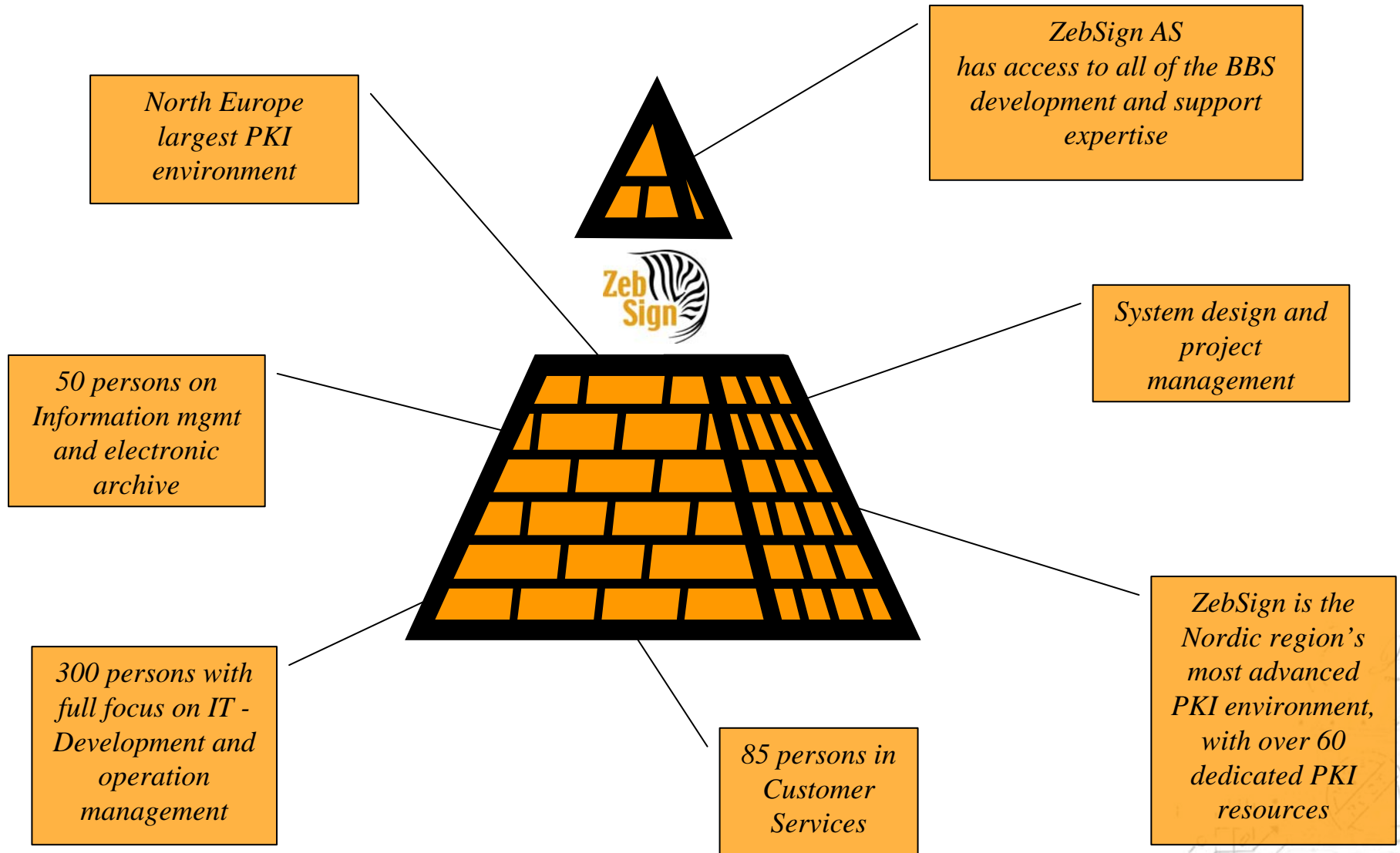
# About ZebSign - Key Business Area – ZebSign



ELECTRONIC SIGNATURE and PKI



# About ZebSign - Competence and Expertise



# About ZebSign - PKI Expertise



## More than 60 PKI resources

- Extensive experience with large-scale PKI deployments & rollouts
- Operational experience with multiple PKI policies and schemes
- PKI enabling of services in all key market segments
- Can delivery very high service levels with quality, due to experience within the financial sector
- Test & Activation site
- Offer multiple PKI clients: Net-centric, SIM, Soft-local, Smartcards
- Developed Certificate Order, Distribution and Management System
- Offer value added services: Payments, Archive, Multi-ID integration ...

*Competence to deliver a full PKI is an assumption to understand market needs and make a profitable case!*

# About ZebSign

## - Product range



### ID Services

- ZebSign Person ID QC\*
- ZebSign Community ID – QC\*
- ZebSign Standard ID – Standard PKCS#12 certificates
- ZebSign Enterprise ID – Security level high

### Additional services

- Repository services
- Validation of certificates
- Control of social security numbers
- Consultancy

### High availability security operations

### PKI hosting Services

- \* Security level declared consistent with EU Qualified Certificates

*Readiness to deliver different  
PKI services and certificate-types is a must!*

# The PKI market – Trends & Consequences



## Requirements to Efficiency & Mobility gets PKI forward

- Working processes are changing
- Information technology are changing

## Value Added Services increases market demands for Basis PKI

- Additional Information through VA services
- PKI Service for the Government
- Signing / Encryption/ Decryption/ Archiving
- Mobile PKI and PKI enabled services

*Efficiency, Mobility and Value Added Services are a must!*

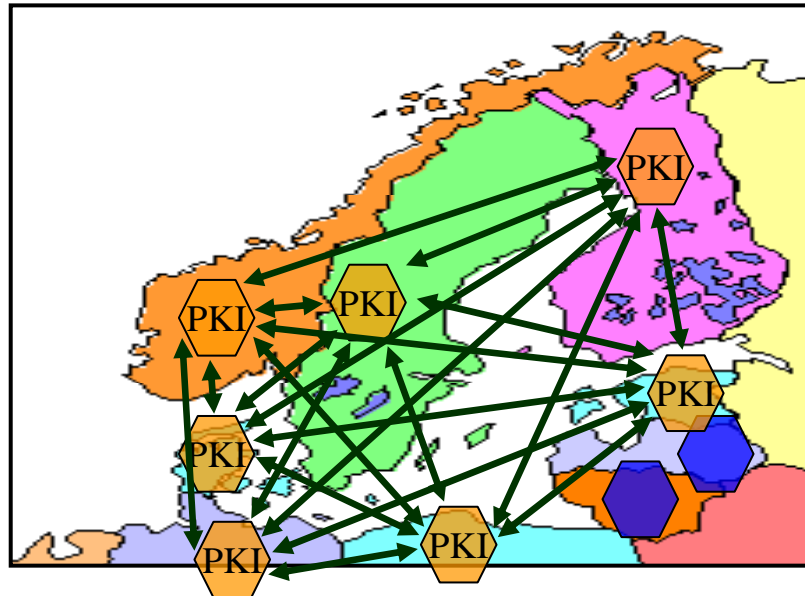
# The PKI market

## – Trends & Consequenses



### Requirements to Interoperability; national and cross boarder

- A lots of technical standards, both national and International, are already established
- Regulatory frameworks to avoid undesirable risk cross boarder are missing



*Interoperability is a must –  
Standards and regulatory frameworks has to be established!*

# Making PKI pay – Experiences from Norway

## Governance Model and national PKI

- **Previous challenges...**
  - No national PKI standard established
  - No Governmental responsibility for national PKI "roll-out"
- **Superior Initiatives:**
  - Co-operation between Business, Banking and Public sector
  - eLandet Norge 2009
    - The Government IT Strategy on how to increase efficiency in public sector is based on dissemination of a national PKI
- **Concrete results:**
  - Establishing the Norwegian Standard, **The technical specification for PKI in public sector**
  - Within healthcare, both The National Insurance Administration and Norwegian Hospitals are PKI users
  - BankID roll-out
  - The Norwegian Security Portal
  - PKI vendors changing their product range to fulfil the technical specification for PKI in Public sector

*Co-operation is needed –  
It gives efficient and concrete results!*

# Making PKI pay – Experiences from Norway

## Solve Marked Needs:

- **“Security Portal”** offers one-point integration of diverse authentication solutions to web services. This is very useful for governments which want competition in ID markets and multi-national businesses, who need reuse or co-exist with different authentication solutions.
- **ZebSign Security Portal** also offers additional value added services
  - Electronic ID/ authentication
  - Single sign on
  - Digital signatures
  - Encryption/decryption
  - Trusted archive (10-30 years)
  - RA-service for “light” certificates

*Government standardization are required –  
Mandatory in Public sector!*

# Making PKI pay – Experiences from Norway



## Offer high performance

- **Norwegian BankID Scheme –**
  - 120 banks using BankID for authentication and signing in Net banks
    - 480.000+ BankIDs issued, increasing by 3500/ day
    - 85.000 Authentications/ day
    - 75.000 signings/ day
    - Actual VA transactions close to 350.000/ day
    - 150+ merchants using BankID
    - 23 banks issuing EMV cards to access PKI services
- **Business and Public Scheme**
  - 100.000 qualified ID's on smart cards from Norsk Tipping (gaming)
  - 9.000 IDs for Telenor employees on smart cards
  - 8.000 IDs for employees at Norway's most IT modern hospital
  - 4.000 qualified IDs for employees smart cards at Ergo Group, Norwegian Post and Norsk Tipping
  - 1.500 Enterprise customers

*More than 600.000 certifications issued by our PKI factory!*

# Making PKI pay

## – Experiences from Norway

### Lessons learned in Norway

- PKI is mature enough to be used
  - But not mature enough to be “shrink wrapped”
- National PKI’s is different to enterprise PKI’s
  - Business models with multiple stakeholders
  - Level of technical coordination
  - Risk management and agreements
  - Operational Quality requirements
- PKI is a complex technology
  - Reduce complexity with software and simple interfaces
- Consumers are their own IT managers
  - You need to support many platform combinations

*PKI is mature enough to be used -  
But not mature enough to be “shrink wrapped”*

### Market Needs

- **Flexibility** to choose one or more key stores based on their existing customer base
- **Ability** to serve customers using different authentication solutions (PKI or non-PKI)
- **Control**, ownership and business model flexibility
- **Price** models that don't delay the break-even for ever
- **Value Added Services**

### Challenges

- Interoperability: Across schemes, Across borders
- Over conditioned by PKI Technology Vendors
- “The Either-Or” problem Government or Banking or Telecom or ...?

*Since PKI markets are evolving, these challenges should be seen in a time perspective!*

## Success Factors for ZebSign

- **Usability**
  - Efficient enrolment and deployment
  - Roaming solution
  - Uniform client-server model
  - High performance & reliability
  - Extensive platform support

## Achieve lowest possible costs for TTPs & Relying Parties

## Wide Ranging Value Propositions

- Scale and Skill Economies
- Complete PKI solution with flexible business models
- Wide ranging PKI services

*Success factors must be matched with high quality products and services.  
This is ZebSign's Story*

## Winning with PKI:

- **Choose a PKI Solutions that** offer managed PKI services for new scheme owners
- **Choose a complete PKI solution that:**
  - **Assures** the TTPs and scheme owners the flexibility in business model
  - **Supports** different client scenarios & technologies as they emerge or mature
  - **Addresses** key requirements from all stakeholders (incl. the government)
  - **Reuses** expertise in PKI enabling of key e-services (payments, archiving ...)
  - **Combines** huge scale & skill economies assuring quality and cost effectiveness

*It is possible for you too -  
To win with PKI!*

# Thank you!

**For further information, please contact:**

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