Initiative
Citizen-centric approach to data: Privacy-by-design

Antonio Kung
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- CTO Trialog / 30-year experience ICT
- Coordinator PRIPARE
  - Support action Privacy-by-design
  - Commitment 7001
- Active in standardisation
  - Rapporteur ISO SC27/WG5 Privacy in smart cities
    - Discussion on future standard: privacy management guidelines for smart cities
  - Editor ISO 27550 Privacy engineering
  - Active participation to
    - ISO SC27/WG4 Guidelines for security and privacy in the IoT
Initiative

• Citizen Centric Approach to Data: Privacy-by-design
  – Snowden revelations
  – Something must be done to protect a citizen's right to privacy

• Initiative leaders
  – Antonio Kung (co-chair)
  – Chris Cooper (co-chair)
Achievement

• Context
  – June 2014. PRIPARE Commitment 7001 on privacy
  – Sept 2014. EIP-SCC Kickoff
  – May 2015. Initiative proposal at GA Berlin

• Three webinars
  – April 2016. Webinar for demand side
  – May 2016. Webinar for supply side
  – April 2017. Espresso webinar

• Six workshops
  – Nov 2015. AC Brussels – World café
  – May 2016. GA Eindhoven - Workshop
  – Sept 2016. ERRIN workshop on privacy
  – Nov 2016. AC Brussels workshop « offer »
  – March 2017. Sharing Cities workshop 1
  – July 2017. Sharing Cities workshop 2

• One document
  – August 2016. PRIPARE recommendation document
Smart Cities Authorities Must Deal with

Ecosystems
- Smart Cities
- Big data

Domains
- IoT
- Transport
- Health

Concerns
- Smart grid
- Security
- Privacy
- Safety

Big data

IoT

EIP-SCC Citizen Focus
They Must Take into Account

• General Data Protection Regulation (GDPR)
• May 25th 2018

• Data controllers
• Data processors
• Data Protection Officers
  – All public authorities
  – Companies processing a large number of data subjects e.g. 5000

• Sanctions for breaches
  – up to 20,000,000 EUR
  – up to 4% of the annual worldwide turnover
They Must Manage Privacy in such Ecosystems

- **Municipality stakeholder**
- **Requests**
- **PIA**
- **Agreements For data exchange**
- **Data Controller**
- **Data processor**
- **Integrator**
- **Supplier**

Citizen:
- **Give consent**
- **Comply**

Privacy Obligations:
- **Apply**
- **PIA and PbD Purpose known**
- **Requirements Purpose unknown**

Contracts:
- **Apply**

Give consent:
- **Agree**

Purpose:
- **known**
- **unknown**

Agreements:
- **For data exchange**

Consent:
- **Give consent**
- **Agree**
IoT Vision: Supply Chain

Smart City Officer

Privacy impact assessment 1

Operator
Smart City Application 1

Privacy impact assessment 2

Operator
Smart City Application 2

Integrator - Purpose known

Supplier - Purpose unknown

Sensor
Device
Smart device
Cloud solution
Electronics
Security module
OS
Middleware
Big Data Vision: Sharing Chain

Data collecting

Data sharing agreement

Data transformation

Data sharing agreement

Data analytics

Sharing Chain

Smart City Officer
**Several Types of Concerns**

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Legal Compliance Concern</th>
<th>Management Concern</th>
<th>System Lifecycle Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand side</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Policy maker</td>
<td>Compliance Check / Follow standards</td>
<td>Privacy Impact</td>
<td>Privacy-by-Design PbD</td>
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<tr>
<td></td>
<td>Transparency</td>
<td>Assessment PIA</td>
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<tr>
<td><strong>Operator Data Controller</strong></td>
<td>Regulation GDPR</td>
<td>Sharing Agreement</td>
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<tr>
<td><strong>Supply side</strong></td>
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<tr>
<td>Operator Data processor</td>
<td></td>
<td>Operators Requirements</td>
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<tr>
<td>Supplier</td>
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</tbody>
</table>
A Possible Standard Landscape

General Privacy Standards
- Privacy framework 29100
- Privacy impact assessment 29134
- Privacy engineering 27550 (new)
- Code of practice 29151
- Privacy Information management systems 27552 (new)

OASIS-PMRM

Privacy Standards for Smart Cities
Management oriented

Privacy Standards for Big Data
Sharing chain oriented

Privacy Standards for IoT
Supply chain oriented
Towards Guidelines for GDPR Compliance

- Privacy management plan
  - Governance scheme
  - Roles and duties
  - Resources and staff

- Management
  - GDPR Registry
  - Interaction with citizens
    - Transparency (dashboard)
    - Complaints
  - Breach management
  - Continuous improvement

- Templates
  - PIA
  - Data sharing agreement
  - Privacy notice
  - Supplier privacy support description

- 2017 SharingCities workshops
  - H2020 lighthouse project
    - http://www.sharingcities.eu
    - London, Milan, Lisbon, Bordeaux, Burgas, Warsaw
  - March 2017 – Use cases
  - July 2017 – Privacy Impact Assessments

- 2017 Contribution to standardisation
  - ITU Focus group on IoT and Smart cities (July 2017)
  - CEN-CLC-ETSI SSCC meeting (July 2017)
  - ISO SC227/WG5 meeting (October 2017)
Thanks

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