Cloud for Europe – trusted Cloud Services for the European market for public administrations
Public sector challenges

- active participation
- establishing key enablers
- user needs
- access to public information
- reduced administrative burden
- seamless e-government services
- strengthening citizens and businesses
- improved organisational processes
- increased transparency
- sustainable low-carbon economy

Establishing a Trusted Cloud Europe
A policy vision

The European Commission's strategy 'Unleashing the potential of cloud computing in Europe'

Adopted on 27 September 2012, it is designed to speed up and increase the use of cloud computing across the economy.

Cloud strategy's key actions

Cutting through the jungle of technical standards

Development of model 'safe and fair' contract terms and conditions

A European Cloud Partnership to drive innovation and growth from the public sector.

DG CONNECT working groups for the implementation of the strategy

ETSI: Cloud Standards Coordination
Launched on 4-5/12/2012

The Cloud Select Industry Group on Certification Schemes
Launched on 21/02/2013

The Cloud Select Industry Group on Service Level Agreements
Launched on 10/04/2013

Research: The Cloud Expert Group
Now completed.

Steering Board
Launched on 19/11/2012

The European Cloud Partnership
To be launched in 11/2013
Cloud for Europe launch event Nov 2013

This project is partially funded by the European Union’s Seventh Framework Programme: FP7-ICT-2013-10 and Grant agreement no: 610650
Cloud Computing

Obstacles (right from the beginning)

Security

- Safety and privacy protection
- Control over access rights, sharing
- seamlessly beyond EU/EEA eID
- need legal certainty on the identification and authentication (eIDAS Regulation)
Cloud Computing

Legal Uncertainties

Legal barriers in moving to (public) clouds

- Avoidance of service discontinuity and vendor lock-in
- Data protection and security of information
- Access rights, service continuity, service migration
- Seamless change of providers e.g. after contract termination
Cloud Computing

GAPS

Interoperability

- Migration between Clouds
- Interoperability between Clouds - SSO
- Cloud Standards

- Avoidance of service discontinuity and vendor lock-in is built-in
- Seamless change of providers e.g. after contract termination
Our Mission

Cloud for Europe brings together public authorities and industry to support public sector cloud use.

- Identify **obstacles** for cloud use in the public sector
- Define **services** that overcome those obstacles
- Procure research from industry to find **innovative solutions** for cloud services
Who we are
This project is partially funded by the European Union’s Seventh Framework Programme: FP7-ICT-2013-10 and Grant agreement no: 610650

Pre-Commercial Procurement (PCP)

PCP is one particular approach for **procuring R&D** solutions which are not available/ready for the market:

- **Develop solutions** for concrete public sector needs, whilst comparing/validating alternative solution approaches
- **Share risks and benefits** with participating companies in a way that does not involve State Aid
- **Create optimal conditions for wide commercialisation** of R&D results
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PCP Operation

- Tendered through functional specification
- Framework contract governs all 3 phases
- Industry keeps IPR

1. Solution design (~2 months)
   - Consortium A
   - Consortium B
   - Company C
   - Company D

2. Prototype (~7 months)
   - Consortium A
   - Consortium A
   - Company C
   - Company D

3. Test Products / Pilot (~5 months)
   - Consortium A
   - Consortium A
   - Company D
   - Company C

Tender prep (14 months)

PCP operation (18 months)

Sharing (6 m.)
Benefits

FOR INDUSTRY
- International leadership in new markets
- Shorter time to market
- Wider market size
- Shared risks and benefits
- IPR

FOR PUBLIC PROCUREMENTS
- Better quality products
- Opportunity to share development risks with suppliers – license free use for procurers

FOR CITIZENS & POLITICIANS
- Quality and efficiency of public services
- Highly qualified employment
- Attracting foreign investment
- Optimising public R&D spending

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## Challenges addressed

<table>
<thead>
<tr>
<th>Phase</th>
<th>No.</th>
<th>Challenge Summary</th>
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<tbody>
<tr>
<td>Design, Procurement</td>
<td>1</td>
<td>Interoperability for cross-country federated cloud service selection and competition</td>
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<tr>
<td></td>
<td>2</td>
<td>Matching customer requirements with cloud service specification</td>
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<td>3</td>
<td>Assessing the legislation compliance of a cloud storage service to its contractual and functional description</td>
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<td>Transition, Delivery</td>
<td>4</td>
<td>Defining means of assuring service compliance with legislation of EU countries</td>
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<td>5</td>
<td>Digital archiving and preservation</td>
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<td></td>
<td>6</td>
<td>Federated cross-border workflow engine</td>
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<tr>
<td>Operation</td>
<td>7</td>
<td>Legislation-aware data provision and access</td>
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<tr>
<td></td>
<td>8</td>
<td>Overcome, or address legal barriers to cloud computing</td>
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<td></td>
<td>9</td>
<td>Enable the cloud development community to create and maintain legislation execution</td>
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<td></td>
<td>10</td>
<td>Legislation awareness, dynamic management, and propagation</td>
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<td></td>
<td>11</td>
<td>Cloud service SLA assessment and monitoring</td>
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<tr>
<td></td>
<td>12</td>
<td>Seamless change of service provider</td>
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</table>
Services as solutions to be procured

• Federated Certified Services Brokerage for EU Public Administration Cloud

• Secure Legislation-Aware Storage

• Legislation Execution Cloud Services
<table>
<thead>
<tr>
<th>Status quo</th>
<th>Issues to be solved</th>
</tr>
</thead>
</table>
| • Cross-border cloud services must be secure in terms of country and EU legislation, privacy protection and security | • **Interoperability**  
(service governance, data portability, identity propagation) |
| • Current fragmentation can be overcome by federated EU public administration cloud | • **Service certification**  
(architecture of components, automated certification) |
| • Dynamic real time cross-border service certification monitoring         | • **Legislation awareness**  
(legislation compliance, definition and assessment, interface for legislative changes propagation) |
Secure Legislation-Aware Storage

Status quo

- Limited service offers for legislation awareness and security mechanisms to ensure integrity
- Encryption performed by the user or cloud provider claims to encrypt
- Cloud storage offering often not clearly perceived as legislation compliant
- Multi-legislation requirements difficult and expensive to satisfy

Issues to be solved

- Establish trust by contractual means
- Simplify selection/procurement of legislation compliant cloud (storage) services
- Create tools to manage citizen access rights to personal data in a legislation compliant way
- Tackle multiple regulations concerning the storing of data: archiving, disclosure, and restricted access to backups
**Status quo**
- Some legal barriers lead to no go decisions for cloud adoption
- For sensitive data only private or community clouds are used
- Example: no automatic notification of unauthorised access to data owner and service provider

**Issues to be solved**
- Developing a cloud service that meets requirements imposed upon cloud actors by national or international legislation

**Possible solutions**
- A framework (methodology, guidelines, specifications)
- Generic services to be combined with business services
- Services, integrated with business services
### Tender Info

| Tender web page | [http://www.agid.gov.it/cloudforeurope](http://www.agid.gov.it/cloudforeurope)  
Agenzia per l'Italia Digitale (AgID) |
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<td>Tender language</td>
<td>English</td>
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<td>Legal framework</td>
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<td>Duration</td>
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<td>Time limit for requests for clarification</td>
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<tr>
<td>Fax</td>
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How to engage C4E?

• Visit www.cloudforeurope.eu
• Join Cloud for Europe stakeholder mailing list www.cloudforeurope.eu/stakeholder-area
• Send questions to info@cloudforeurope.eu
• Follow us and engage in discussions @cloudforeurope
  group: Cloud for Europe
Major Public Deliverables (1/2)

• Legal studies
  • Legal implications of cloud computing on public authorities (May 2014)
  • Legal conclusions of the PCP process (November 2016)

• Gap analyses
  • Standards, Normalisation and Certifications Associated (May 2014)
  • Public sector study (coming soon)
  • Study of market vendors’ offering and public administrations’ requirements (coming soon)
Major Public Deliverables (2/2)

- PCP tender
  - Services catalogue (March 2014)
  - Tender pre-information notice (May 2014)
  - Public cloud PCP tender documentation (December 2014)

- Valitation
  - Certification framework & evaluation methodology (2015)
  - Evaluation reports for solution selection, prototypes and test products (2015-2016)

- Dissemination
  - Communication packages for industry and public sector (October 2014 + yearly updates)
Thank you for your attention!

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