

# *Procurement Innovation for Cloud Services in Europe*

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**Focus:** cloud service procurement and the Digital Single Market

**DSM:**

14. propose a '**European free flow of data initiative**' to promote the free movement of data in the European Union. Sometimes new services are hampered by restrictions on where data is located or on data access – restrictions which often do not have anything to do with protecting personal data. This new initiative will tackle those restrictions and so encourage innovation. The Commission will also launch a **European Cloud** initiative covering certification of cloud services, the switching of cloud service providers and a "research cloud".

15. define priorities for **standards and interoperability** in areas critical to the Digital Single Market, such as e-health, transport planning or energy (smart metering).

Action 23<sup>1</sup> of the Digital Agenda aims to provide guidance on ICT standardisation and public procurement.

**Who benefits and how?**

Public sector organisations, cloud service providers and policy makers will benefit from the result of PICSE: how to overcome procurement barriers through the implementation of best practices, proposed model procurement processes and tools to facilitate procurement based on the checklists defined with procurement professionals and public sector stakeholders. A roadmap for future procurements and a call to action with recommendations for the key stakeholders.

**Topics**

National, European or international strategy/framework - explain how your work/initiative contributes in relation to the cloud, IoT or cyber security (this can also include facilitating the development of corporate strategies for adoption, resilience or trust-building)

Cloud contracts, service level agreements, privacy and security– explain how your organisation/work/project relates to challenges including but not limited to these topics. Address any contribution your work makes to international standards efforts are most welcome

**500 word abstract**

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<sup>1</sup> <https://ec.europa.eu/digital-agenda/en/pillar-ii-interoperability-standards/action-23-provide-guidance-ict-standardisation-and-public>

The acquisition of IT services is a key function within any public or private organisation. The advent of cloud computing requires innovation in the way IT services are procured.

While growing demand for computing power from the scientific community has resulted in initiatives such as Helix Nebula, procurement policies, processes and approaches in many research organisations are inadequate for addressing the on-demand model of cloud computing, introducing barriers to the procurement of cloud services.

PICSE has published case studies documenting how public sector organisations worldwide have either carried out a process to procure cloud services, or are considering doing so. The experiences vary in terms of success and offer insights into how the procurement of cloud services is impacting on their current processes.

Best practices have then been identified and documented in the areas of policy and organisation, processes, staff, tools and cloud service providers.

The result of this analysis has allowed PICSE to put together a first set of cloud procurement models, which describe the procurement steps in a cloud environment.

In addition, PICSE has developed Procurement Checklists. These checklists are the basis for the PICSE Wizard, a web-based application that can be used by public research organisations to obtain guidelines on the most suitable model for procuring cloud services and for the self-assessment and evaluation of their procurement procedures. The PICSE Wizard has been conceived to support IT managers & procurers in charge of the procurement of cloud services in public research organisations and is available online.

The procurement model and networking activities of PICSE has led to the formation of a joint Pre-Commercial Procurement (PCP) for innovative cloud services by 10 public research organisations across Europe called HNSciCloud.

PICSE is currently finalising a Roadmap on Cloud Service Procurement for public research organisations with a call for actions for the major stakeholders, notably public sector research organisations, cloud service providers and policy makers. Contributions to this roadmap are actively sought.

## **Paper**

The acquisition of IT services is a key function within any public or private organisation with the advent of cloud computing requiring innovation in the way IT services are procured.

While growing demand for computing power from the scientific community has resulted in initiatives such as Helix Nebula (<http://www.helix-nebula.eu>), procurement policies, processes and approaches in many research organisations are inadequate for addressing the on-demand model of cloud computing, introducing barriers to procurement of cloud services. Such barriers have been identified, described and analysed by PICSE (D2.1 and D3.2).

PICSE has published thirteen case studies (D2.2) documenting how public sector organisations worldwide have either carried out a process to procure cloud services, or are considering doing so. The experiences vary in terms of success and offer insights into how the procurement of cloud services is impacting on their current processes.

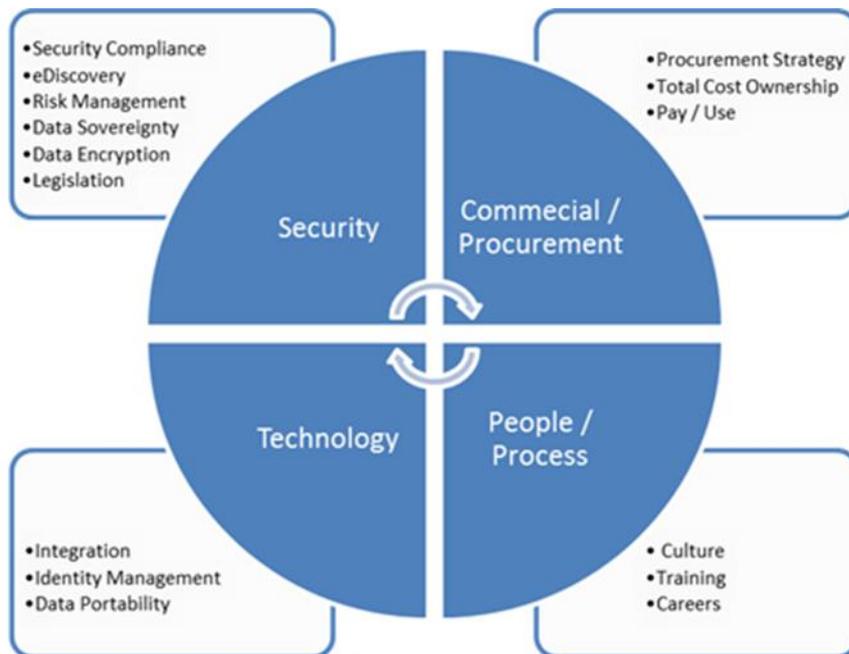
PICSE has identified and documented best practices in the areas of policy and organisation, processes, staff, tools and cloud service providers (D3.2).

The PICSE case studies are designed to improve the learning experience of European public research organisations in procuring cloud services. Among the key lessons learned from the case studies are the following:

- Having the right skill set is fundamental for managing a successful procurement process.
- Legal aspects and Data Processor Agreements are fundamental for public entities procurement.
- Exit strategies when moving to the cloud should be carefully defined to avoid vendor lock-in.
- Writing an effective tender is of paramount importance: when writing tender specifications it is recommended to have some pre-discussions with potential providers to better understand the solutions they can offer.
- Standard and well-defined specifications work best.
- Marketing the tender is the first step to ensure that at least the minimum number of responses are received.
- Joint procurement actions can reduce the cost of developing specifications & contracts and improve purchasing conditions due to combined capacity.

In addition, at least five wishes shared by all the procurers emerge from the case studies:

1. More transparency in cataloguing services.
2. Catalogues of cloud service providers available for procurers' consultation.
3. A standalone test that could be used to verify the suitability of the services offered by the suppliers.
4. Sample templates and guiding graphs to write public tenders.
5. Accounting of cloud resources and comparing costs supported by standards.



PICSE has carried out extensive desktop research and has consulted with the main European public research organisations in order to identify the five main steps that characterise the standard process for procuring ICT services for the research sector:

1. Planning & Preparatory phase (including the market consultation).
2. Selection of the most appropriate procurement approach.

3. Implementation of the procurement approach – such as by tender, RFQ<sup>2</sup> or RFP<sup>3</sup>.
4. Contract Award & Negotiation.
5. Contract & performance management/monitoring.



The result of this analysis has allowed PICSE to put together a first set of cloud procurement models, which describe the procurement steps in a cloud environment:

- Commercial procurement
- Joint procurement & pre-commercial procurement
- Public procurement of innovation for procurement of innovative services

The procurement checklists are the basis of the PICSE Wizard, a web-based application that can be used by public research organisations to obtain guidelines on the most suitable model for procuring cloud services and for the self-assessment and evaluation of their procurement procedures. The PICSE Wizard has been designed to support IT managers & procurers in charge of the procurement of cloud services in public research organisations and is available at [wiz.picse.eu](http://wiz.picse.eu).

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<sup>2</sup> Request for quotation

<sup>3</sup> Request for proposal

### Cloud service procurement made easy

Public research organisations and digital libraries are among the largest consumers of cloud services. Now more than ever, procurement officials, IT managers and procurement initiators need to know how best to procure cloud services. The PICSE wizard is an easy-to-use service to help you make informed decisions about how to procure cloud services.



#### Find the best cloud procurement model for you

Answer just 8 questions and find out which cloud service procurement model is most suitable for you. Be it pre-commercial, commercial or public procurement of innovation, the PICSE wizard will equip you with the right information to make the best choices.

[Start Now](#)



#### Assess how suitable your current procurement process is for procuring cloud services

Use our tool to identify gaps and ways to improve your organisation's cloud procurement process.

[Start Now](#)

The tools have been developed by the PICSE consortium ([www.picse.eu](http://www.picse.eu)) with the support of recognised experts ([www.picse.eu/picse-task-force](http://www.picse.eu/picse-task-force)). The tools include references to consolidated literature documents and existing tools. The results of the tool have to be considered as guidelines in the procurement process of cloud services for public research organisations and libraries. The information, views and tips set out in the PICSE Wizard are those of the PICSE Consortium and its experts and cannot be considered to reflect the views of the European Commission. These guidelines are not meant to be exhaustive and cannot replace the legal & procurement advice provided by experts.

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PICSE is currently finalising a Roadmap on Cloud Service Procurement for public research organisations with a call for actions for the major stakeholders, notably public sector research organisations, cloud service providers and policy makers. Contributions to this roadmap are actively sought by email request, find out how you can make your contribution: <http://www.picse.eu/>.