SOUTH EAST EUROPE
Transnational Cooperation Programme

secovia
Public Administrations moving together on the Cloud

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# IaaS, PaaS and SaaS adoption in SEE
# Current status analysis


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# Main facts

- Conduction of 5 **surveys**
- Participation of 372 **respondents** from 10 SEE countries
- Additional information gathered through **desk research**, wherever necessary
- Main findings to be soon available at the website: www.secovia.eu

# Topics

- Comparative study and analysis in the virtual accessibility domain regarding **existing**:
  - infrastructures, platforms and services
  - strategies, policies, initiatives and projects
- Analysis of current **funding mechanisms** for public and private investments on virtual accessibility
- Assessment of the **organisational and technical needs** of public administrations regarding:
  - shared virtualised ICT resources and infrastructures
  - shared internet-based platforms and applications for digital public services

# Objectives

- Gather relevant data, and analyze the **current situation** and the **state of the art** in regard to virtual accessibility in the SEE area
- Fill in the **knowledge gap** on ICT policies, projects, facts and figures in the SEE area
- Set the basis for **common approaches and advanced ICT solutions** for virtual accessibility
- Roll out a plan for the **gradual adoption** of Cloud technologies in the SEE countries

# Scope

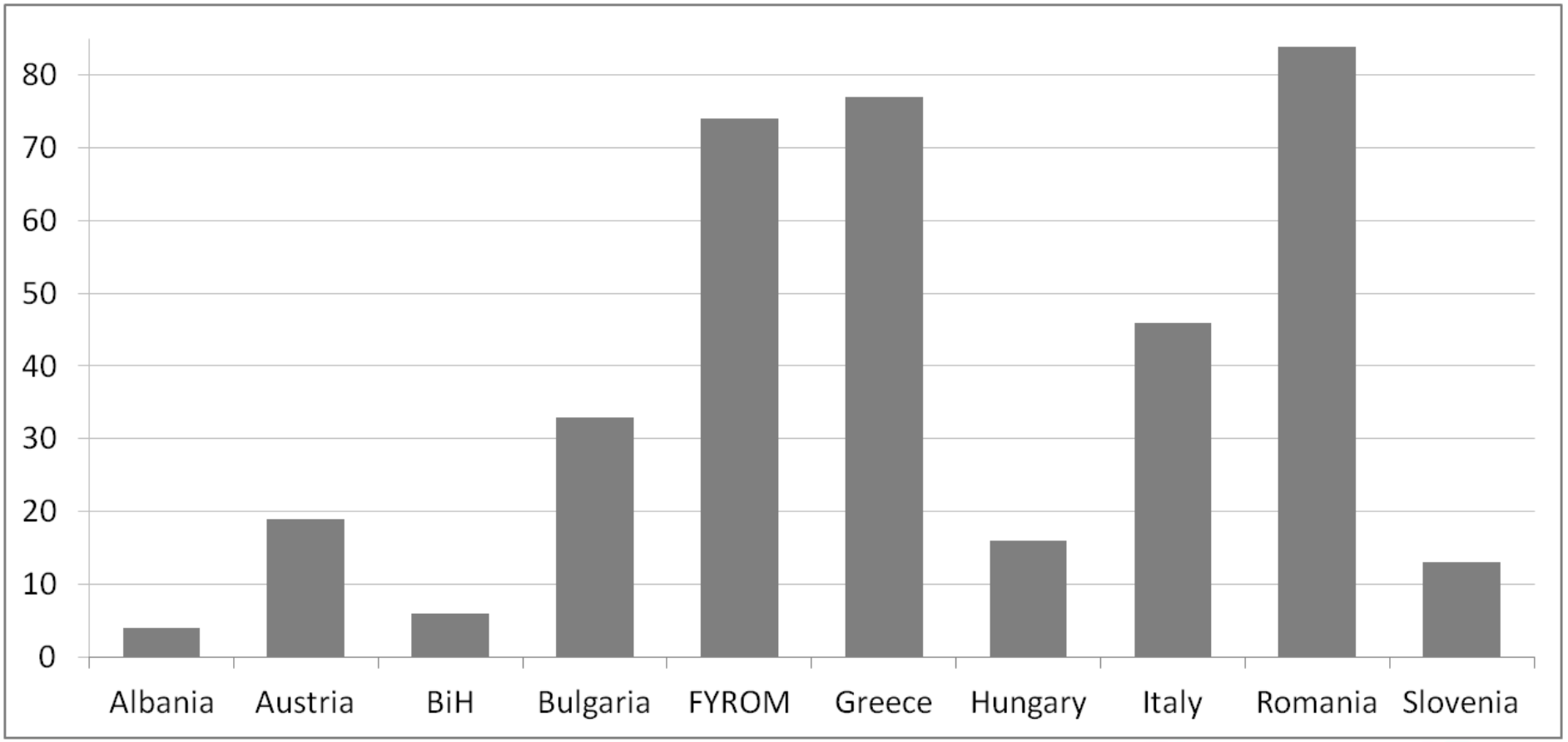
## Geographical scope:

- Countries of the South Eastern Europe
- Primary focus on the countries represented in the SECOVIA project consortium
- Secondary focus on neighbouring countries (in the extent this is possible)

## Target population:

- **Policy makers** who take part at decision making regarding funding mechanisms in the public sector and/or regarding infrastructures, platforms and services
- **Experts** and people who are involved with or knowledgeable about projects tendered or undertaken by local authorities
- **IT managers**, data centre operators, software analysts, service provider representatives, system integrators in the public domain

# Participation per country



# Existing virtual accessibility infrastructures, platforms and services

# Study and survey structure

- Infrastructures
- Platforms
- Services
  - Finance sector
  - Health sector
  - Social Security sector
  - Education sector
  - Public Administration sector
  - General

# Key findings

- Main concerns:
  - Non-obvious **need** for migrating to new IaaS infrastructure / PaaS environment
  - Insufficient **information** about Cloud
  - Limited **financial benefits**
  - Significant **effort required** for the migration of current applications
  - Concerns regarding **security**, **data protection** and **ethical** issues

# Key findings

- **Low adoption** of Cloud technologies by public administrations
  - IaaS: 22%
  - PaaS: 19%
  - SaaS: 0-27%

  Finance: 0-7%
  Health: 0%
  Social security: 0-13%
  Education: 10-13%
  Public administration: 2-27%

- **Lack of information**

  Most respondents were unaware of the current maturity of Cloud technologies and their true potential

# Key findings

Level of **service provision** and **ease of use**

- With the exception of some services in the finance and education sectors, most services are **quite difficult to use**, according to their end users
- The level of service provision is generally **low**, with only the smaller percentage of services offering **full electronic case handling** or **personalisation capabilities**, independently of the sector

**Security methods** for accessing the Cloud

- Even though there are advanced methods and technologies available for securely accessing Clod services, security is not always given the **proper attention**
- According to the answers provided for IaaS, 94% of the respondents use username and password for accessing the services. This type of credentials offers the lowest possible security levels when compared to other available methods

# Virtual accessibility strategies, initiatives, policies and projects

# Study and survey structure

The **comparison** of the collected data was based on three areas of e-government support:

- **Policy support:** Availability of published strategic documents regarding e-government
- **Legislative support:** Availability of legislative support / legal framework (e.g. e-government Act)
- e-government **Infrastructure support**: Accordance with relevant EU directives and e-government infrastructure components

# Total cases collected

- Strategies and Policies: **27**
  - Primary survey: 18
  - Desk research: 9
- Projects and Initiatives: **26**
  - Primary survey: 20
  - Desk research: 6

# Main results

| Country | Policy Support | Legislative Support | e-Government Infrastructure Support | | | | |
|---|---|---|---|---|---|---|---|
| | Strategic documents | Legal framework (e-Gov Act) | Adoption of infrastructure components foreseen by EU directives | | | | |
| | Yes/No | Yes/No | Portals | Single Point of Contact | Open Standards | Open Data | Cloud Computing |
| **Albania** | Yes | No | N/A | No | No | No | No |
| **Austria** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **BiH** | Yes | No | No | No | No | No | No |
| **Bulgaria** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **FYROM** | Yes | No | No | Yes | Yes | No | No |
| **Greece** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Hungary** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Italy** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Romania** | Yes | No | Yes | Yes | Yes | Yes | Yes |
| **Slovenia** | Yes | No | N/A | Yes | Yes | Yes | No |

# Key findings

- Most countries have developed **strategic frameworks** for the promotion of virtual accessibility through the development of Information Society and/ or Digital Society policies
- National ICT strategies usually come in the form of **formal strategic documents**, accompanied by Action Plan papers and Roadmaps
- **Common characteristics of success** are:

  (a) Consolidation of e-government **institutional structures**

  (b) Accordance with EU **directives and standards** with regard to e-government, and

  (c) Development of a supportive **legislative framework** in the form of a simple, accurate and functional e-government Act

# Funding mechanisms of public and private investments on virtual accessibility

# Key findings

- A significant part of e-government investments involve some level of **funding by the European Union**. Of course since not all countries are eligible for all funds, financing can originate from different EU instruments
- Most projects are implemented through **grants from public authorities to private stakeholders**
- Although plagued by bureaucratic rigidities, the **outcome** of the project is considered to be **in accordance with prior expectations** and of **good quality**

# Organisational and technical needs of public administrations regarding shared virtualised ICT resources and infrastructures

# Key findings

- **Organisational** issues are considered, in most cases, more important than **technological** issues
- When migrating to Cloud infrastructures the most important organisational issue is the associated **cost** and the most important need is its **funding**. In this respect, Cloud technologies outmatch traditional approaches
- The most important technological needs are **scalability** and **elasticity** of resources. Additionally, **responsiveness to computing load peaks**, which are usually observed over short periods of time, is considered of high importance

# Key findings

- Existing critical issues are distinguished to **structural**, which pertain to infrastructures, **regulatory**, **investment-** and **security- related**. Some others are related to the **know-how** and **building of trust** towards embracing the new technologies and exploiting their potential
- The basic needs in order to migrate towards Cloud infrastructures include a thorough **information campaign** on Cloud computing, greater **willingness for economic investments**, higher **professional expertise**, and fast **internet connection** availability
- The main reasons that hinder the rapid adoption of Cloud technologies are the lack of **harmonised policies** among member states, the existing level of **digital divide** in Europe, the non-uniform **coverage of network infrastructures** and **unreliable internet connectivity**

# Organisational and technical needs of territorial administrations regarding shared internet based platforms and applications for digital public services

# Key findings

- There is need for **increasing the awareness** about Cloud computing and **familiarisation** with the concept. Its essence and impact need to be explained
- Public administrations are generally expected to operate **more efficiently** in terms of providing improved public services and allocate more appropriately the **available funds**
- Cloud computing is considered as a positive step towards the adoption of innovative technologies

# Key findings

- The adoption of the PaaS and SaaS models is not just an issue of **technology,** but also a matter of **organisational infrastructure**, which contributes to the consolidation and full realisation of new technologies
- Upon defining the **main barriers** towards the adoption of PaaS and SaaS, the following factors have been assessed by the survey participants as the most important: lack of **expertise**, limited **resources**, lack of **knowledge** on available platforms, non-existent or limited **state support**, lack of **motivation** for the transition, inability to understand the **added value** of PaaS/SaaS, existing **culture** of manpower.

# Conclusion

- Technological maturity
- Technological limitations, and issues regarding security and personal data protection
- Information and education
- Decision making on political level

# Questions

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