eSERVICE

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How can the interoperability for eGovernment be achieved?
What is the SAGA Framework?
Which are the twelve EU service domains for citizens?
How can the eight EU service domains for private companies be characterized?
Which service domains are missing in the EU program?
Which steps are necessary for a governmental portal?
Which main components has the model for benchmarking in EU27+?
SAGA includes **recommendations** concerning standards and architectures for eGovernment applications.

- Published by the Federal Ministry of the Interior, Germany.
- **Objectives:**
  - Standardized process models for public services
  - Standardized data models
  - Standards for security
  - Standards for data protection

SAGA pursues the following aims:
- Interoperability
- Reusability
- Openness
- Reduction of costs and risks
- Scalability
Minimum requirements with regard to the openness of standards

- The standard and documentation are published and “free” (nominal fee).
- The intellectual property must, if possible, be accessible without payment of a license fee.
- The federal administration must be able to use the standard without restriction.
- The standard must remain published and freely usable in the future.
Classifications of standards

- Under observation:
  - Finalized standard
  - Meet minimum REQUIREMENTS for open standards
  - May not yet have proven their worth or do not meet all AIMS

- Recommended:
  - Tried and tested
  - Meet minimum REQUIREMENTS for open standards
  - Used if there is no MANDATORY standard available.

- Mandatory:
  - Tried and tested
  - Meet all AIMS of SAGA
  - Highest priority of usage.

- In the case of existing of higher classification, lower classification could be used in justified and exceptional cases.

- Other classifications: List of suggestion, Right of Continuance List, Negative List
Life Cycles of Standards

SAGA DOCUMENT

- Mandatory
  - 6
  - 7
- Recommended
  - 5
- Under observation
  - 4

SAGA HOMEPAGE

- Negative List (former Black List)
  - 9
- Right of Continuance List (former Grey List)
  - 3
  - 2
- List of Suggestions (former White List)
  - 1
- New standards

Diagram connections:
- 6: Mandatory to Recommended
- 7: Recommended to Under observation
- 8: Under observation to Right of Continuance List
- 9: Negative List to Right of Continuance List
- 10: Under observation to Negative List
ARCHITECTURE MODEL FOR eGOVERNMENT

• Uses the Reference Model for Open Distributed Processing (RM-ODP), which was standardized as ISO/IEC 10746-3:1996
• Use of different viewpoints (complexity reduction):
Enterprise viewpoint:

- eGovernment interaction in Germany
Enterprise viewpoint:

- National and cross-border eGovernment interaction
• Levels of interoperability
  - Organizational interoperability
  - Technical interoperability
  - Semantic interoperability (XML used for data description)
The Deutschland-Online "Standardisierung" [Standardization] project (XÖV standards)

Examples of such XÖV projects are:

- "XMeld" (citizen registration services)
- "XBau" (building/construction)
- "XJustiz" (electronic legal communications)
- "XDomea" (workflow management)
- "XKfz" (vehicle registration services)
- "XFinanz" (finance)
Computational viewpoint:

• General requirements for software applications
  - Extendibility
  - Flexibility
  - Interoperability
  - Openness
  - Performance
  - Security
  - Scalability
  - Availability
  - Updating capability
  - Reusability
• **Service-orientated software architecture**
  - Architecture for defining, linking and integrating reusable business services.
  - Provides orchestration of business services
  - Service is a reusable component.
  - Suitable for interoperability and heterogenous environments
Engineering viewpoint: IT reference infrastructure

- Physical infrastructure (computer center) requirements:
  - Installing IT systems in suitable rooms
  - Controlling access to these rooms
  - Suitable fire detection and fire-fighting systems
  - Suitable power supply systems
  - Suitable air-conditioning systems
  - Data backup according to the related data backup concept
• Zone concept and communication relations (minimum requirements):
  - Information and services zone
  - Logic and processing zone
  - Data zone
  - Management zone
  - Data backup

• Network access and access control:
  - Use of secure gateways (e.g. IPV4, NAT, VLANS, etc)
Technology viewpoint:
Standards for IT architecture and data security

• Set of standards accepted by SAGA such as:
  - **Management systems for information security**
    ‣ **Mandatory**: BSI-Standard 100-1: Managementsysteme für Informationssicherheit (ISMS) v1.0
      [BSI standard 100-1: Management systems for Information Security]
  - **IT baseline protection approach**
    ‣ **Mandatory**: BSI-Standard 100-2: IT-Grundschutz-Vorgehensweise v1.0 [BSI standard 100-2: IT baseline protection approach]
  - **Risk analysis**
    ‣ **Mandatory**: BSI-Standard 100-3: Risikoanalyse auf der Basis von IT-Grundschutz v2.0 [BSI-Standard 100-3: Risk analysis on the basis of IT baseline protection]
  - **Implementation of the security concept**
    ‣ **Mandatory**: Industrial Signature Interoperability Specification – MailTrusT (ISIS-MTT) v1.1.
  - **Exchange formats for documents**
    ‣ **Mandatory**: Portable Document Format (PDF) v1.4
    ‣ **Recommended**: Portable Document Format (PDF) v1.5
    ‣ **Under observation**: Portable Document Format (PDF) v1.6
THE TWENTY SERVICE DOMAINS OF THE EU

12 Service Domains for Citizens

8 Service Domains for Companies

Source: Digitizing Public Services in Europe: Putting ambition into action, 9th Benchmark Measurement, Dec 2010.
# Public Services for Citizens by the EU Program

## Public Services for Citizens

1. Income taxes: declaration, notification of assessment
2. Job search services by labour offices
3. Social security contributions:
   - Unemployment benefits
   - Child allowances - Medical costs (reimbursement or direct settlement)
   - Student grants
4. Personal documents (passport and driving license)
5. Car registration (new, used and imported cars)
6. Application for building permission
7. Declaration to the police (e.g. in case of theft)
8. Public libraries (availability of catalogues, search tools)
9. Certificates (birth, marriage): request and delivery
10. Enrollment in higher education / university
11. Announcement of moving (change of address)
12. Health related services (e.g. interactive advice on the availability of services in different hospitals; appointments for hospitals)
<table>
<thead>
<tr>
<th></th>
<th>Public Services for Business</th>
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<td>15</td>
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<td>Environment-related permits (incl. reporting)</td>
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<td>Public procurement</td>
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Missing Service Domains?

- eCollaboration for citizens
- eParticipation for citizens and companies
- eDemocracy (eVoting, eElection)
- eCommunity (community building processes)
The EU27+ Benchmark

- EU27+ consists of all EU countries plus Island, Norway, Switzerland and Turkey

- The benchmarking model includes the following layers:
  - Information
  - Interaction (i.e. 1-way and 2-way interaction)
  - Process (i.e. the 12 process domains for citizens and the 8 for companies)
  - Personalization (such as online order tracking, customized push and others)

- On a regularly basis the benchmark will be performed
Maturity model and benchmark for government services

EU27+ average 2003

EU27+ average 2007

EU27+ average 2009

EU27+ average 2010

Information

One-way interaction

Two-way interaction

Process Management

Personalization

Full availability

100%

75%

50%

25%
COUNTRY RANKING REGARDING ONLINE AVAILABILITY OF ADMINISTRATIVE SERVICES

Source: Digitizing Public Services in Europe: Putting ambition into action, 9th Benchmark Measurement, Dec 2010.
COUNTRY RANKING REGARDING ONLINE AVAILABILITY OF ADMINISTRATIVE SERVICES

* Survey not implemented in 2009. The score of 2007 is used in the graph.

Source: Digitizing Public Services in Europe: Putting ambition into action, 9th Benchmark Measurement, Dec 2010.
COUNTRY RANKING REGARDING ONLINE AVAILABILITY OF ADMINISTRATIVE SERVICES

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