



JOINING UP GOVERNMENTS

EUROPEAN
COMMISSION



D5.1.2 The Vision for a metadata standard for and an enhanced catalogue of free and open- source software for public administrations

Presentation for vision workshop



Context

1

*A clear need for
sharing and reusing
free and open-source
software (F/OSS)*



The Digital Agenda for Europe and the EIF

interoperability

better administrative coordination

reuse

“Need for a better administrative coordination between public administrations and applications that are interoperable and based on open standards and open platforms”

share

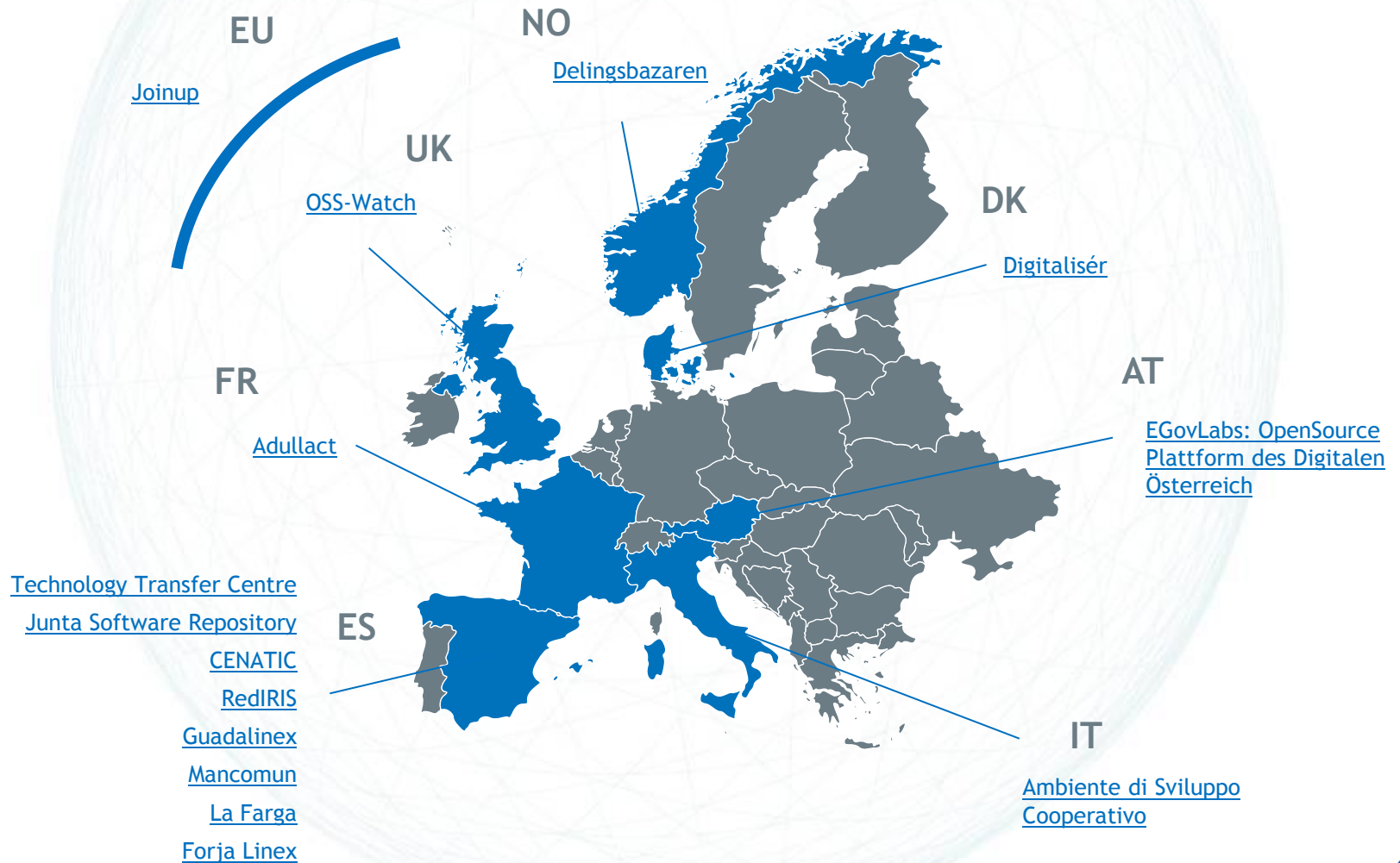
Open platforms

open standards

- *The European Interoperability Framework (EIF) recommends public administrations to “reuse and share solutions and to cooperate on the development of joint solutions when implementing European public services. In this context, the EIF encourages applying the principle of openness when jointly developing custom-made software systems.*



Software catalogues in the EU public sector





Software catalogues in the EU public sector



15 *software forges and repositories have been constructed in 7 countries to encourage the sharing and reuse of F/OSS for public administration system development*

[RedIRIS](#)
[Guadalinux](#)
[Mancomun](#)
[La Farga](#)
[Forja Linex](#)

IT
[Ambiente di Sviluppo Cooperativo](#)



General-purpose software catalogues

Google Code

Apache

GitHub

SourceForge



Stakeholder needs

ISA Programme

Encourage the sharing and reuse of interoperability solutions for public administrations across border an sectors.

Public administrations

Increasing need for cross-border and cross-sector digital interactions with external parties

The sharing and reuse of F/OSS for public administrations across borders and sectors corresponds to an actual and increasing need of important stakeholders

F/OSS projects

Attract public administrations to reuse their software and want to build a community of contributors. Equal visibility, independent of the hosting location.

Governments

Encourage the sharing and reuse of F/OSS for e-Government.



Problem 2

How to overcome information barriers to the sharing and reuse of F/OSS for public administrations?



Information barriers to the sharing and reuse of F/OSS

Language barrier

Lack of quality assurance

Lack of information on standards and specifications implemented by an F/OSS

Lack of visibility

Lack of confidence in F/OSS solutions

Features are not well documented

Limited view of public administrations usage of existing F/OSS solutions



Problems with the federated forges on Joinup

joinup



Open-Source Software
Find, reuse and develop Open-Source Software

The current “federation” of software project descriptions on Joinup does not overcome all information barriers to the sharing and reuse of F/OSS.

It only federates 3 elements: name, description and URL

The screenshot shows the Joinup website interface. On the left is a sidebar with navigation links: Software, OSS on JoinUp, Find Software, My OSS Projects, Software I use, Recommended, Editor's choice, Legal Corner, License Wizard, and EUPL. The main content area features a search bar labeled 'Find a Software:' with a 'Search' button and a link to 'Advanced Search'. Below the search bar is a 'Latest Software' section with a 'Sort: Date' dropdown and an 'Apply' button. On the right side, there is a vertical stack of utility buttons: 'Propose your Software' (Request to create your OSS Project), 'Ask a legal question', 'Propose your...', 'Subscribe to Newsletter', 'Subscribe to RSS', and 'Share this on...'. At the bottom right, there is a 'Federated Forges' section with a link to 'view all' and a 'CENATIC' entry with '2 project/s'.

Dependent on a technology that is specific to GForge 4 and FusionForge. Software description metadata from other infrastructures cannot be automatically retrieved



Solution 3

1. Opportunities
2. An XML and RDF vocabulary to describe software assets
3. An enhanced, federated catalogue of F/OSS for public administrations



Opportunities

“Semantic Web” and “Linked Data”

Initiatives such as the “Semantic Web” and “Linked Data” are making it possible to integrate information from disparate information sources

DOAP specification

Several software catalogues provide or harvest software descriptions via the DOAP specification.

DOAP has become a de-facto standard to describe software projects on the Web.

Machine-readable format

Publication of software description metadata on the Web in an open, machine-readable format further enhances its visibility and reuse

ADMS

ADMS entails a opportunity for the ISA programme to relate (semantic) interoperability assets, to the sharing and reuse of, and free and open software for public administration system development.

Metadata harmonization

Several initiatives to harmonize metadata about software assets in the open-source community.



An XML and RDF vocabulary to describe software assets

Metadata category	Metadata property or relationship	Available in DOAP	Description	Explore	Find	Identify	Select	Obtain
descriptive metadata	title	name	the title of the software in multiple languages		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	description	description, shortdesc	descriptive text in multiple languages		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	identifier		identifier for the software		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	URI	location	uniform resource identifier		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	version	version	version of the software release		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	related software		related software		<input type="checkbox"/>			
	is replaced by		a newer version of the software		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	release	file-release	a release of the software					<input type="checkbox"/>
applicability	domain		the domain of the software (e.g. using EuroVoc descriptors)	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
	spatial coverage		geographic region in which the software can be used	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
	multilingual		whether or not the software can be configured to have a multilingual user interface				<input type="checkbox"/>	

The solution is twofold. On the hand, there is the enhanced software description metadata schema (ADMS.F/OSS)



Building an enhanced, federated catalogue of F/OSS for e-Government

With common metadata schema



EXPLORE
FIND
IDENTIFY
SELECT
OBTAIN

Software repository

Software catalogue

Software forge



On the other hand, there is the ADMS-enabled federation of the different national software catalogues, repositories, and forges which enhances the sharing and reuse of F/OSS solutions.

Software catalogue



Advantages

overcome information barriers

Help overcome the information barriers related to the sharing and reuse of interoperability solutions among public administrations

Better search

Allows searching for software from a single point of access

A common specification to describe software assets on the Web will give better visibility, better search, help overcome information barriers and provide a better linking

Better visibility


Increased and equal visibility, independent of the hosting location.

Better linking

Build and explore semantic networks of people, free and open software, and open standards



Example 1: Simal - The software catalogue of OSS Watch



Simal Project and Community Registry Framework

Simal
Person Browser
Category Browser
Project Browser
DOAP Form
Reports
Tools
Add Project

Project List

Name:

Showing 1 to 7 of 1915 << < 1 [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) > >>

Name	Description
14-19 prospectus pilot in the East Midlands	The project will aggregate 14-19 Area Prospectus course advertising information from at least four different areas into Aim Higher East Midlands' Progression Pathways database, as part of a wider pro
157 Group	An examination of cloud computing opportunities through action research in 157 Group colleges.
18th Century parliamentary papers	The 18th century printed British parliamentary papers proposal originated from the community consultation carried out in early 2003. The aim of the project is to digitise up to 900,000 pages 18th century House of Commons and House of Lords reports and bills. creating a

People List

Name:

Showing 1 to 7 of 1399 << < 1 [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) > >>

Name	Email	Project
Aaron Burrell	Aaron.burrell [at] create...suffolk...ac...uk	The East of England's Educational Resource Network
Adam Mannis	a.mannis [at] liverpool...ac...uk	Supporting Personalised and Collaborative E-learning in Foundation Degrees
Adam Rusbridge	A.Rusbridge [at] hatii...arts...gla...ac...uk	UK LOCKSS Pilot Programme
Adele Edgar	adele.edgar [at] gmsa...ac...uk	Supporting Ongoing Learning in Vocational Settings
		ASPIS Architecture



Example 2: The Software Catalogue of the Apache Software Foundation



Home

Indexes

- [Alphabetical](#)
- [Categories](#)
- [Language](#)
- [PMC](#)
- [Project Listing](#)
- [Releases](#)
- [Standards](#)

Feeds

DOAP Files

- [Guidelines](#)
- [Create a DOAP File](#)
- [DOAP File FAQ](#)
- [Categories](#)
- [Programming Languages](#)
- [PMC](#)

Documentation

- [Dependencies](#)
- [PMC Data](#)
- [Standards](#)

References & Thanks

Apache Batik



Batik is a Java-based toolkit for applications or applets to use images in the Scalable Vector Graphics (SVG) format for various purposes, such as display, generation and manipulation.

Programming Languages

[SVG](#)

Categories

[xml, graphics](#)

Mailing Lists

<http://xmlgraphics.apache.org/batik/mailling-list.html>

Bug/Issue Tracker

http://issues.apache.org/bugzilla/buglist.cgi?query_format=specific&order=relevance+desc&bug_status=_open_&product=Batik&content=

License

[Apache License Version 2.0](#)

Project Website

<http://xmlgraphics.apache.org/batik/>

PMC

[Apache XML Graphics](#)

Project Release Information

Releases can be downloaded from <http://xmlgraphics.apache.org/download.cgi>

Most recent releases:

Release	Version	Date
Batik 1.6	1.6	2005-04-11
Batik 1.7beta1	1.7beta1	2007-03-29
Batik 1.7	1.7	2008-01-09

Access to the source code:

Browse <http://svn.apache.org/viewcvs.cgi/xmlgraphics/batik/>

SVN Direct <http://svn.apache.org/repos/asf/xmlgraphics/batik/trunk>



Part of a bigger solution

1

The provision of legal advice related to the sharing and reuse of F/OSS

2

The creation of procurement policies, regulations, guidelines, and processes to support the procurement of F/OSS

The maintenance of a software catalogue for public administration system development is not an isolated measure. Policy makers and public administrations need to continue to invest in a combination of measures:

4

The construction and maintenance of a catalogue of open-standards and a software catalogue for public administration system development;

3

Guidance with the effective support of a community of developers and users.



Annex 4



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Get involved: Join ISA Initiatives on Joinup

ADMS

ASSET
DESCRIPTION
METADATA
SCHEMA

CESAR

COMMUNITY OF
EUROPEAN
SEMANTIC ASSETS
REPOSITORIES

eGOVERNMENT
CORE
VOCABULARIES

CORE
PERSON
VOCABULARY

CORE
BUSINESS
VOCABULARY

CORE
LOCATION
VOCABULARY

ADMS
F/OSS

