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D05.01.02: Report on the DCAT-AP workshop

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1 WORKSHOP MINUTES

1.1 The DCAT-Application Profile

The DCAT Application Profile for data portals in Europe (DCAT-AP)¹ is a specification based on W3C's Data Catalogue vocabulary (DCAT)² for describing public sector datasets in Europe. Its basic use case is to enable cross-data portal search for data sets and make public sector data better searchable across borders and sectors. This can be achieved by the exchange of descriptions of datasets among data portals. The DCAT-AP is intended to be a common layer for such exchange of metadata between data portals. It focuses on describing the exchange format independently from local implementations.

The DCAT-AP was developed by working group of experts following an open collaborative process. The DCAT-AP is a joint initiative of:

- the Directorate-General for Communications Networks, Content & Technology: DG CONNECT;
- the Directorate-General for Informatics: DG DIGIT; and
- the Publications Office of the EU.

Two extensions of the DCAT-AP for geospatial and for statistical datasets have also been created:

- GeoDCAT-AP³ for geospatial datasets.
- StatDCAT-AP⁴ for statistical datasets.

The workshop was organised in the context of the ISA Action 1.1⁵ on semantic interoperability and invites implementers of DCAT-AP:

- to discuss implementation challenges and good practices;
- to learn more about the DCAT-AP implementation guidelines that Action 2.1 of the ISA² programme⁶ is developing in collaboration with DCAT-AP implementers;
- to discover more about the status of the extensions of the DCAT-AP for geospatial and statistical data; and
- to discuss about tool and software support.

¹ DCAT-AP : <https://joinup.ec.europa.eu/node/63567>

² DCAT : <https://www.w3.org/TR/vocab-dcat/>

³ GeoDCAT-AP : <https://joinup.ec.europa.eu/node/139283>




⁴ StatDCAT-AP : <https://joinup.ec.europa.eu/node/147940>

⁵ ISA Action 1.1 : http://ec.europa.eu/isa/actions/01-trusted-information-exchange/1-1action_en.htm

⁶ ISA2 programme : http://ec.europa.eu/isa/isa2/index_en.htm

All the practical information, the agenda and the presentations given at the workshop are available on Joinup⁷.

1.2 Agenda

Start	Finish	Topic	Presenter
09:00	09:30	Coffee and registration	
09:30	09:35	Introduction <ul style="list-style-type: none"> Objectives of the meeting 	ISA
09:35	09:50	DCAT-AP the story for far <ul style="list-style-type: none"> DCAT-AP V1.1 GeoDCAT-AP StatDCAT-AP Who is using DCAT-AP DCAT-AP implementation guidelines [ download slides]	PwC
09:50	10:00	DCAT: update on the future plans of W3C [ download slides]	W3C
10:00	10:15	Discussion tables (3' introduction per table)	Moderators
		<i>Expressing relationships between datasets</i> [ download slides]	Norbert Hohn
		<i>Service-based data access</i> [ download slides]	Uwe Voges
		<i>Data licensing</i> [ download slides]	Giorgia Lodi
		<i>Software and tools</i> [ download slides]	Bart Hanssens
10:15	10:40	Coffee	
10:40	11:40	Discussion tables	Participants
11:40	12:00	Discussion tables debrief (3' introduction per table)	Moderators
12:00	13:00	Lunch	

1.3 Workshop introduction

VP welcomed everyone to the DCAT-AP workshop, and presented the objectives of the meeting: "The workshop is organised in the context of the ISA Action 1.1 on semantic interoperability and invites implementers of DCAT-AP:

- to discuss implementation challenges and good practices;

⁷ DCAT-AP workshop : <https://joinup.ec.europa.eu/node/149828>

- to learn more about the DCAT-AP implementation guidelines that Action 2.1 of the ISA² programme is developing in collaboration with DCAT-AP implementers;
- to discover more about the status of the extensions of the DCAT-AP for geospatial and statistical data; and
- to discuss about tool and software support.”


The workshop welcomed 48 participants in total. 15 Member States were represented, next to representatives from European Commission departments and services including DG Informatics (DIGIT), DG for Communications Networks, Content & Technology (CNECT), the Joint Research Centre (JRC), Eurostat (ESTAT) and the Publications Office of the European Union. The attendees list is reported in Annex II (

List of attendees 0).


1.4 DCAT-AP the story for far

BW provided a summary of the activities and the work done on DCAT-AP since the SEMIC 2015 Conference in Riga, highlighting

- The publication of DCAT-AP v1.1⁸;
- The publication of GeoDCAT-AP 1.0⁹; and
- The creation and publication of practical implementation guidelines for DCAT-AP.

Moreover, he presented the ongoing work on StatDCAT-AP¹⁰ and noted that the specification will be published in September 2016. [ [download slides](#)]

1.5 DCAT: update on the future plans of W3C

PA presented DCAT as the foundation specification of DCAT-AP. During his presentation, PA mainly focused at W3C's future plans for DCAT. He presented identified missing features (such as versioning, subsets and API descriptions) and gaps to fill with future versions of DCAT. Moreover, PA referred to other work of W3C that is relevant for DCAT, such as the Data on the Web Best Practices and the Share-PSI Best Practices. He ended the presentation by inviting the audience to the Smart, Interoperable Data Descriptions (SIDDD) Workshop on 30 November and 1 December 2016 in Amsterdam. [ [download slides](#)]

VP mentioned that DCAT-AP is also published as an RDF vocabulary¹¹. DCAT-AP version 1.1 will soon be available on RDF.

⁸ DCAT-AP version 1.1 : <https://joinup.ec.europa.eu/node/146653>

⁹ GeoDCAT-AP version 1.0 : <https://joinup.ec.europa.eu/node/148281>

¹⁰ StatDCAT-AP : <https://joinup.ec.europa.eu/node/147940>

¹¹ RDF vocabulary: <https://joinup.ec.europa.eu/node/69559>

VP mentioned that ISA and the SEMIC team is promoting DCAT-AP by collaborating with the Member States and other countries (e.g. Japan, USA).

APe suggested that the SEMIC team should explore and establish agreements with working groups outside Europe for enhancing the promotion and the reuse of DCAT-AP.

1.6 Discussion tables

The workshop was organised following the concept of discussion tables. Each discussion table dealt with one out of four identified issues with implementing DCAT-AP: expressing relationships between datasets, service-based data access, data licensing and DCAT-AP tools. Participants were invited to choose one discussion table by sharing upfront their preference via an online survey¹².

The chairmen presented the topic of each of the discussion tables.

The participants drew several conclusions from the discussions, which are documented below. The conclusions are not endorsed by the working group, but all the working group members are invited to provide their feedback via the mailing list of DCAT-AP: dcat_application_profile@joinup.ec.europa.eu.

1.6.1 Expressing relationships between datasets

The participants discussed the different approaches for expressing relationships between datasets as proposed by the guideline on Joinup¹³.

Some participants expressed their concern that one of the proposed workarounds proposed by the guidelines, i.e. describing members of a group as different distributions of a dataset, might create confusion. Is this use of Distribution compliant to its definition in DCAT?

In the current situation, i.e. with the current DCAT and DCAT-AP versions, expressing relationships requires a lot of (manual) work.

Other workarounds proposed by the guideline might also create confusion. For example, the guideline proposes using the **hasPart** and **isPartOf** attributes on the Dataset class. For some participants of the discussion, this could create confusion if the difference between a dataset and a catalogue are not clear anymore.

Regarding versioning, the participants noted that there should be a possibility to link a new data set to a previous version of the dataset directly.

The participants think that the best solution would be to extend DCAT, to then also extend DCAT-AP, foreseeing an option to express relationships between data sets.

⇒ Continue the discussion via <https://joinup.ec.europa.eu/node/152002>

¹² Discussion tables Survey : http://pwc.qualtrics.com/jfe/form/SV_9GlctxVmF6fBgAR

¹³ Guideline for expressing dataset series: <https://joinup.ec.europa.eu/node/150348>

1.6.2 Service-based data access

In this discussion table, participants discussed the current limitations of the DCAT-AP with regards to creating descriptions of datasets that are available via service endpoints, and proposed an approach for overcoming these. The DCAT-AP and the GeoDCAT-AP working groups have been discussing this issue: https://joinup.ec.europa.eu/asset/dcat-ap_implementation_guidelines/issue/service-based-data-access

The participants argued that the preferred option is to model service-based access to datasets as a **dcat:Distribution**. The modelling must cover both SOAP-based web service and RESTful service, e.g. a SPARQL endpoint. For example, in the case of SOAP-based web services modelled as **dcat:Distribution**, the value of **dcat:DownloadURL** will include the link to the WSDL file.

In this case however, one of the limitations relates to the cardinality of **dct:format**, which is currently 0..1. This does not make sense in the case of services, as every format returned by the service would have to be modelled as a different **dcat:Distribution**. Hence, the participants agreed to propose a change request, i.e. changing the cardinality of **dct:format** from 0..1 to 0..n. PwC will log this as a ticket on Joinup.

In order to model service-based access to datasets, the JRC are setting the value of **dct:type** to **WEB_SERVICE**, an authority code from the Distribution Types NAL¹⁴ of the Publications Office.

The Distributions Types NAL is not referenced in the specification of the DCAT-AP v1.1. The participants agreed to log the inclusion of a reference to it as a change request. PwC will log this as a ticket on Joinup.

Additionally, the participants suggested that the Distribution Types NAL can be extended to support service types, such as SOAP-based web service, RESTful service and end-user application. PwC will share this feedback with the Publications Office.

In order to describe service capabilities, the participants suggest reusing the metadata provided in the OpenSearch description document¹⁵. `void:openSearchDescription`¹⁶ can be used for this. The idea is to include a reference to the XML OpenSearch description document in order not to redefine all its elements in RDF. The participants agreed that the following basic metadata should be completed in the OpenSearch description document: service type, name, possible values or data type, service binding, type of output (media type for format) and compression (for geodata).

¹⁴ <http://publications.europa.eu/mdr/authority/distribution-type/>

¹⁵ <http://www.opensearch.org/Specifications/OpenSearch/1.1>

¹⁶ <https://www.w3.org/TR/void/#opensearch>

UW provided an example (see table below) of distributing a dataset ABC via a specific download service XYZ. It is a HTTP/GET/KVP based API which is described in an OpenSearch description document. Transferring the HTTP/KVP service description into an external file, requires the development of an RDF-based representation. PwC will log this on Joinup.

⇒ Continue the discussion via <https://joinup.ec.europa.eu/node/152004>

The DCAT-AP "Distribution part:

```

    <dcate:distribution>
      <dcate:Distribution>
        <dcate:type
rdf:resource="http://www.someServiceRegistry.eu/serviceTypes/XYZDownload/1.0"/>
        <dcate:title lang="en">Downloads parts of
dataset ABC via specific download service XYZ</dcate:title>
        <!-- the download service provides the data
in xml and json format -->
        <dcate:mediaType
rdf:resource="http://www.iana.org/assignments/media-types/application/xml"/>
        <dcate:mediaType
rdf:resource="http://www.iana.org/assignments/media-types/application/json"/>
        <!-- data compressed -> question: how to
express "not compressed" ? -->
        <ns:compression
rdf:resource="http://www.iana.org/assignments/media-types/application/gzip"/>
        <ns:httpService>
          <ns:HTTPService>
            <!-- The service is not
directly accessible but via the service endpoint described as URL-templates in an
OpenSearch Description Document -->
            <!-- we cannot currently
include these URL-templates directly here because for OSDD there is not an RDF-
model available -->
          <dcate:type
rdf:resource="http://www.iana.org/assignments/media-
types/application/opensearchdescription+xml"/>
          <!-- Access URL of the
OSDD via HTTP/GET -->
          <dcate:accessURL
rdf:resource="http://www.someXYZDownloadService.eu/OSDD.xml"/>
          <ns:binding
rdf:parseType="Resource">
            <rdfs:label>HTTP/GET</rdfs:label>
          </ns:binding>
        </ns:HTTPService>
      </ns:httpService>
    </dcate:Distribution>
  </dcate:distribution>

```

The OSDD part:

```

<?xml version="1.0" encoding="UTF-8"?>
<OpenSearchDescription xml:lang="en" xmlns="http://a9.com/-
/spec/opensearch/1.1/" xmlns:atom="http://www.w3.org/2005/Atom"
xmlns:time="http://a9.com/-/opensearch/extensions/time/1.0/"
xmlns:geo="http://a9.com/-/opensearch/extensions/geo/1.0/"
xmlns:parameters="http://a9.com/-/spec/opensearch/extensions/parameters/1.0/"

```

```

xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  <ShortName>XYZDownloadService</ShortName>
  <Description>The XYZDownloadService.....</Description>
  <Tags>DownloadService XYZ</Tags>
  <Contact>u.voges@conterra.de</Contact>
  <Url type="application/xml" rel="results"
template="http://www.someXYZDownloadService.eu/datasetABC/download.xml?lang
={language?}&&box={geo:box?}&&startDate={time:startDate?}&&
;endDate={time:endDate?}">
  <parameters:Parameter name="lang" value="{language}" title="Two
letters language code according to ISO 639-1">
    <Option value="en" label="English"/>
    <Option value="de" label="Deutsch"/>
  </parameters:Parameter>
  <parameters:Parameter name="box" value="{geo:box}"
title="Defined by 'west, south, east, north' coordinates of longitude, latitude, in
decimal degrees (EPSG:4326)" pattern="^[0-9\\.\\,\\-]*$"/>
  <parameters:Parameter
name="startDate"
value="{time:startDate}"
title="Beginning of the time slice. Format should follow RFC-
3339"
minInclusive="2016-05-11T00:00:00Z"
maxExclusive="2016-05-13T00:00:00Z"
pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}(T[0-9]{2}:[0-
9]{2}:[0-9]{2}(\\.[0-9]+)?(Z|[\\+\\-][0-9]{2}:[0-9]{2}))?$"/>
  <parameters:Parameter
name="endDate"
value="{time:endDate}"
title="End of the time slice. Format should follow RFC-3339"
minInclusive="2016-05-11T00:00:00Z"
maxExclusive="2016-05-13T00:00:00Z"
pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}(T[0-9]{2}:[0-
9]{2}:[0-9]{2}(\\.[0-9]+)?(Z|[\\+\\-][0-9]{2}:[0-9]{2}))?$"/>
  </Url>
  <Url type="application/xml" rel="results"
template="http://www.someXYZDownloadService.eu/datasetABC/download.json?llang
={language?}&&box={geo:box?}&&startDate={time:startDate?}&&
;endDate={time:endDate?}">
  <parameters:Parameter name="lang" value="{language}" title="Two
letters language code according to ISO 639-1">
    <Option value="en" label="English"/>
    <Option value="de" label="Deutsch"/>
  </parameters:Parameter>
  <parameters:Parameter name="box" value="{geo:box}"
title="Defined by 'west, south, east, north' coordinates of longitude, latitude, in
decimal degrees (EPSG:4326)" pattern="^[0-9\\.\\,\\-]*$"/>
  <parameters:Parameter
name="startDate"
value="{time:startDate}"
title="Beginning of the time slice. Format should follow RFC-
3339"
minInclusive="2016-05-11T00:00:00Z"
maxExclusive="2016-05-13T00:00:00Z"
pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}(T[0-9]{2}:[0-
9]{2}:[0-9]{2}(\\.[0-9]+)?(Z|[\\+\\-][0-9]{2}:[0-9]{2}))?$"/>
  <parameters:Parameter
name="endDate"
value="{time:endDate}"
title="End of the time slice. Format should follow RFC-3339"

```

```

minInclusive="2016-05-11T00:00:00Z"
maxExclusive="2016-05-13T00:00:00Z"
pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}(T[0-9]{2}:[0-9]{2}:[0-9]{2})(\.[0-9]+)?(|Z|[\+\-][0-9]{2}:[0-9]{2}))?$"/>
</Url>
<Developer>Uwe Voges</Developer>
<SyndicationRight>open</SyndicationRight>
<AdultContent>>false</AdultContent>
<Language>en</Language>
<Language>de</Language>
<OutputEncoding>UTF-8</OutputEncoding>
<InputEncoding>UTF-8</InputEncoding>
</OpenSearchDescription>

```

1.6.3 Data licensing

The current licence type vocabulary (<http://purl.org/adms/licencetype/1.0>) was established in agreement between W3C and the Commission's legal services. However, this list was not based on practical considerations. It did not take into account the main questions that the users want to see answered, for example searching for open data versus non-open data, and did not try to match the types to the most commonly used licences, e.g. Creative Commons.

Agenzia per l' Italia Digitale (AgID)¹⁷ tried to map the commonly used licences to the ADMS licence types but found out that it is difficult to establish a one-to-one correspondence. In some cases, it might be possible to link one licence to two ADMS licence types, but DCAT-AP only allows one licence type.

The European Data Portal (EDP)¹⁸ has the problem that licence information is received from data providers in text and not in a normalised form, so they can get all kind of variants, e.g. "CC-by", "cc-BY", "Creative Commons Attribution", or even with typos in the text. It is agreed by the group that the use of URIs, required by DCAT-AP, solves this issue. This allows the use of well-known URIs for common licence and may require the creation of URIs for specific local licences.

EDP uses its own type list and tries as much as possible to map incoming information, identifying gaps in the list, and then adding terms to it. Sometimes they need to contact the data providers to understand what a licence means. They are building an Excel table in which they map licences to their characteristics, e.g. identifying the permissions, obligations, restrictions and prohibitions a licence entails. Based on that analysis, they can also identify 'similar' licences. The Excel table can be shared.

A question was asked about the liability for the mapping, e.g. if you say that licence A is similar to licence B, and a user does something that is permitted under A but not under B, can they sue?

The user is responsible to verify the exact licence. The European Data Portal (EDP) does not replace the licence given for a particular piece of data. It is not a good

¹⁷ AgID : <http://www.agid.gov.it/>

¹⁸ EDP : <http://www.europeandataportal.eu/>

practice to replace licence information. In some national environments (e.g. Austria) a single licence is mandated but it may be difficult to enforce that on a local level.

A mapping table could make clear that two URIs represent the same set of permissions and obligations, e.g. <https://creativecommons.org/cc0/> and <http://publications.europa.eu/resource/authority/licence/CC0>.

Identify licences: It was agreed that URIs should be used instead of text strings to identify licences, and that it would be good if there were tools for data providers that helped them to identify the right licence, e.g. with a drop-down list in the user interface that generates the right URI in the metadata.

Classify licences: It was agreed that the current ADMS licence type vocabulary is not fit for purpose. A simpler model should be considered for DCAT-AP, based on an analysis of user requirements. There could be a mix of a simple approach (open/not open) for the majority of cases and an additional, more detailed approach such as ODRL¹⁹ when necessary.

The participants agreed that DCAT-AP should provide more guidance on licensing.

⇒ Continue the discussion via <https://joinup.ec.europa.eu/node/152005>

1.6.4 **Software and tools**

The following topics were discussed in this discussion table:

Transformation tools for mapping: There should be a transformation tool for mapping INSPIRE to DCAT-AP. A tool for serving the need of the public administrations has been developed by GeoDCAT-AP.

Eliminating transformation errors: If developers/users use DCAT-AP from the very beginning, they facilitate the transformation process and eliminates the mapping problems.

DCAT-AP conformance and validation: In Sweden, every public organisation is responsible for providing its metadata in DCAT-AP. The central portal is using unique identifiers for every dataset for the validation. The datasets are validated, and if needed, support is provided to the public organisations to get aligned with the conformance statement.

Validating the validators: DCAT-AP validators are crucial to ensure that the input provided by publishers is correct. However, the participants agreed that the validators themselves should be validated. The input provided by the publishers is crucial, and it should be validated. For the moment, the development of a validator for RDF is in progress.

¹⁹ ODRL: Open Digital Rights Language: <https://www.w3.org/TR/odrl/>

Training: In order to create well formed, compliant metadata following the DCAT-AP specification, there is the need for providing clear guidelines. E.g. in Sweden, they provide an explanatory editable online form.

Tools repository: For better organising and sharing the available tools, the participants are invited to share their tools, and reuse ones that are available on Joinup: <https://joinup.ec.europa.eu/node/150350>. It would be useful to document the tools under specific groups (e.g. authoring environment, validators, harvesting solutions, mapping, transformation and portals).

Concluding, the participants can contribute and share their experiences via the mailing list of DCAT-AP: dcat_application_profile@joinup.ec.europa.eu.

- ⇒ Share your tools via <https://joinup.ec.europa.eu/node/150350>
- ⇒ Continue the discussion via <https://joinup.ec.europa.eu/node/152006>

1.7 Conclusions

VP thanked all the participants for attending the DCAT-AP workshop, and invited them to continue working on DCAT-AP by providing their ideas and sharing their experiences by:

- introducing new issues, and participating in the discussions that take place on the issue tracker²⁰;
- providing their feedback on the DCAT-AP implementation guidelines²¹;
- sharing tools²² that they are using, or/and they have implemented; and
- providing any comments and ideas for future work, and initiating discussions via the DCAT-AP mailing list: dcat_application_profile@joinup.ec.europa.eu, or directly via the Joinup contact form: contact@semic.eu.

VP mentioned that all the suggestions and recommendations that were discussed during the workshop, and documented in the report will be taken into account for supporting DCAT-AP, and for further developing the DCAT-AP implementation guidelines.

²⁰DCAT-AP implementation guidelines issue tracker : https://joinup.ec.europa.eu/asset/dcat-ap_implementation_guidelines/issue/all

²¹ DCAT-AP implementation guidelines: <https://joinup.ec.europa.eu/node/148075>

²² DCAT-AP: Overview of tools: <https://joinup.ec.europa.eu/node/150350>

Annex I. WORKSHOP ORGANISATION

I.1 Workshop overview

Topic	Description
Date	13 May 2016
Venue	Rome
Duration	Half-day event – 09:00 to 12:00
Webpage	DCAT-AP workshop ²³
Target audience	<ul style="list-style-type: none"> - ISA member states representatives - Interoperability experts from public administrations, standardisation organisations, private sector, and academia. - DCAT-AP implementers in the public sector
Registration list	The registration list is presented in Annex I
Dissemination of the Event	The event is disseminated via the Joinup event page, LinkedIn and Twitter. All documents, links and information related to the workshop are available and updated using the Joinup event page.
Registration	This workshop was a closed event. Participation was by invitation only and registration was necessary.
Agenda	The agenda is presented in Section 1.1.
Catering	Lunch & Coffee break was provided and organised by the ISA Programme.

I.2 List of attendees

The table below lists the workshop attendees:

²³ DCAT-AP workshop : <https://joinup.ec.europa.eu/node/149828>

Name	Abbreviation	Organisation
Athanasios Karalopoulos	AK	ISA – DG DIGIT - European Commission
Agis Papantoniou	AP	Coginizione (BE)
Andrea Perego	APe	Joint Research Centre - European Commission
Antonio Rotundo	AR	Agenzia per l'Italia Digitale (AgID) (IT)
Bart Hanssens	BH	Fedict, Belgian Federal Public Service for ICT (BE)
Brecht Wyns	BW	PwC – EU Services
Chris Nelson	CN	Metadata Technology Ltd (UK)
Dita Gabaliņa	DG	Ministry of Regional Development of Latvia (LV)
Deirdre Lee	DL	Derilinx (IE)
Daniele Rizzi	DR	DG CONNECT - European Commission
Eva Cobos Cortina	ECC	PwC - EU Services
Enric Staromiejski-Torregrosa	EST	Everis (ES)
Giorgia Lodi	GL	Agenzia per l'Italia Digitale (AgID) (IT)
Giovanni Paolo Sellitto	GPS	ANAC (IT)
Hubertus Cloodt	HC	ESTAT - European Commission
Hans Overbeek	HO	Kennis- en Exploitatiecentrum Officiële Overheidspublicaties (KOOP) (NL)
Irina Svensson	IS	The National Agency for Public Procurement (SE)
Ine de Visser	IV	Geonovum (NL)
Jim J. Yang	JJY	Agency for Public Management and eGovernment (Difi) (NO)
Jakub Klímek	JK	University of Economics in Prague and Ministry of Interior of the Czech Republic (CZ)
Miguel Alvarez	MA	ISA – DG DIGIT - European Commission
Marco Combetto	MC	Informatica Trentina S.p.A. (IT)
Mario Cabellos	MCa	Everis (ES)

Makx Dekkers	MD	AMI Consult SARL (ES)
Marco Pellegrino	MP	ESTAT - European Commission
Matthias Palmer	MPa	MetaSolutions AB (SE)
Michalis Vafopoulos	MV	NCSR Demokritos (GR)
Norbert Hohn	NH	Publications Office of the EU
Nikolaj Malkov	NM	KL (DK)
Nikolaos Loutas	NL	PwC - EU Services
Øystein Åsnes	ØÅ	Agency for Public Management and eGovernment (Difi) (NO)
Phil Archer	PA	W3C
Peter Burian	PB	ISA – DG DIGIT - European Commission
Pierre Dumas	PD	Swiss Federal Archives SFA (CH)
Peter Falkenberg	PF	KL (DK)
Patrocinio Nieto Moreno	PNM	Ministry of Finance & Public Administration (ES)
Paolo Starace	PS	Sciamlab (IT)
Peter Winstanley	PW	The Scottish Government (UK)
Raul M. Abril	RMA	ISA – DG DIGIT - European Commission
Simon Dutkowski	SD	Fraunhofer (DE)
Stefanos Kotoglou	SK	PwC - EU Services
Tuende Czink	TZ	ISA – DG DIGIT - European Commission
Uros Milosevic	UM	Tenforce (BE)
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