Task 2: NAP Common Features and Level of Service

Support Document

EU EIP SA 4.6: Monitoring of National Access Points

Version: 1.0

Date: 06 March 2018
Document Information

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Distribution

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Summary

This document has been drafted by the EU EIP SA4.6 group to support the development and utilisation of access points for information services as set out in the Commission delegated regulations of the ITS Directive, where an access point is specified.

The document describes a set of features intended to support good practice, help make existing and future National Access Point services available to a wider audience, facilitate data sharing, and promote the discovery of datasets. The features are not mandatory or binding in any way, and have no official link to the delegated regulations of the ITS Directive.

The features are grouped into five subsets:

1. Access - gaining access to the NAP and basic features
2. Communication – engaging with data consumers and publishers
3. Finding datasets – data consumers need to find datasets they want
4. Update and maintenance – ensuring information is current and the NAP is maintained
5. Dataset information – additional dataset information that should be provided by the NAP

A summary of the features is provided on the following page.

In Section 2 each feature is described, with the reasons for inclusion, examples, and benefits.

Section 3 provides a checklist to record current NAP implementation and comments with respect to the features described in this supporting document.

Section 4 provides links to useful online resources.

The following table lists the features titles and indicates if the feature is considered required or nice to have.

It should be noted this document is in draft and will be revised and updated as EU EIP, NAP implementer and Member State comment and feedback is received.

Comments, questions and suggestions should be directed to:
Jacqueline Barr, jbarr@ibigroup.com.
## NAP Common Feature List

<table>
<thead>
<tr>
<th>Feature</th>
<th>Required</th>
<th>Nice to have</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The NAP is available over the internet</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>2. NAP can be navigated easily and is design compliant with web design standards / accessibility</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>3. NAP is provided in the national language and commonly used language(s) of the Member State</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>4. NAP follows EU data protection and industry data security standards</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>5. NAP requires data publishers to register to add their data / metadata</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. NAP provides help for data publishers to register, add data / metadata</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>7. NAP provides Terms &amp; Conditions</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>8. NAP is promoted</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>9. NAP provides means for data consumers to contact NAP operator and / or data provider for assistance</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td><strong>Finding datasets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. NAP provides appropriate discovery services</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>11. Datasets can be searched using a metadata catalogue</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>12. The NAP provides machine readable metadata</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td><strong>Update and maintenance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The NAP service is maintained</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>14. The NAP content and metadata is maintained and makes best effort is made to keep content up-to-date</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>15. NAP monitoring and evaluation is undertaken</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td><strong>Dataset information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. NAP provides clear descriptions of each dataset</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>17. NAP provides dataset documentation (or links) where required</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>18. NAP datasets classified according to standard / controlled vocabularies</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>
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1. Introduction

1.1. Purpose

This document has been drafted by the EU EIP SA4.6 group to support the development and utilisation of access points for information services as set out in the Commission delegated regulations of the ITS Directive, where an access point is specified.

The document describes a set of features intended to support good practice, help make existing and future National Access Point services available to a wider audience, facilitate data sharing, and promote the discovery of datasets. The features are not mandatory or binding in any way, and have no official link to the delegated regulations of the ITS Directive.

The intended audience of this document are organisations responsible for National Access Points.

1.2. Context and definitions

This section provides supporting information and definitions used in the document.

National Access Point (NAP) as defined in the Commission delegated regulations of the ITS Directive, where an access point is specified. To date this is included in:

- (EU) No 885/2013 provision of information services for safe and secure parking places for trucks and commercial vehicles
- (EU) No 886/2013 provision of road safety-related minimum universal traffic information
- (EU) No 2015/962 for the provision of EU-wide real-time traffic information services
- (EU) No 2017/1926 with regard to the provision of EU-wide multimodal travel information services

In some contexts the NAP is called the Single Point of Access (SPA) or common access point, for the purposes of this project these are the same.

In this document the main NAP users are either data consumers or data publishers. Data consumers visit the NAP to find data (and / or information on available datasets), and data publishers use the NAP to ensure their services / datasets are included. It should be noted that these actors can have many other titles in different documents.
NAPs contain information on relevant datasets. A **dataset** is an organised collection of data, this can be many forms for example tabular, extended mark-up language (XML) file, a geospatial data file, or an image file.

The features described in this document **do not apply to any aspects of the datasets themselves**, such as data quality and data formats. The sole responsibility for data quality and the necessary updating/maintenance obligations remain with the organisation submitting the data. For information and guidance on ITS data quality, the [EUEIP Sub Activity 4.1- Determining the Quality of European ITS Services](#) group are working on this and have a suite of documents.

The features have been categorised as **required** or **nice to have**. The **required** features are considered to have higher priority to current NAP development. Each feature has a description, reasons for being included, examples, and benefits. The basis for the benefit definitions are described in section 1.2.1.

Some features described benefit either data consumers or publishers; others provide benefits to both.

The NAP can have several **structures**, it can be the location where data consumers access datasets (i.e. a database), or a searchable interface / portal with links directing data consumers to the location of the datasets elsewhere. The features described in the document are intended apply to any NAP structure.

### 1.2.1. **Benefits**

The features and services in this document are considered to have advantages and be beneficial. The advantages described are based on work undertaken by World Wide Web Consortium ([W3C](https://www.w3c.org)), this is an international community that develops open standards to ensure the long-term growth of the Web. The WC3 Group document: [Data on the Web Best Practices (DWBP)](https://www.w3.org/2011/dwbp/) have defined 8 benefits of applying their best practices. Each benefit represents an improvement in the way datasets are available on the web. The DWBP benefits have been applied to the NAP features in this document:

- **Comprehension**: humans will have a better understanding about the data structure, the data meaning, the metadata, and the nature of the dataset.
- **Processability**: machines will be able to automatically process (and manipulate the data within) a dataset1.
- **Discoverability**: data consumers will be able to find datasets / machines will be able to automatically discover a dataset or data within a dataset.
- **Reuse**: the chances of dataset reuse by different groups of data consumers will increase.

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1 For EUEIP SA 4.6 Task 2 this benefit refers to the ability of machines to process the metadata (not the datasets themselves)
Trust: the confidence that consumers have in the dataset will improve.

Linkability: it will be possible to create links between data resources (datasets and data items).

Access: humans and machines will be able to access up to date data in a variety of forms.

Interoperability: it will be easier to reach consensus among data publishers and consumers.

1.3. Document organisation

In Section 2 the features are grouped into five subsets:

1. Access - gaining access to the NAP and basic features
2. Communication – engaging with data consumers and publishers
3. Finding datasets – data consumers need to find datasets they want
4. Update and maintenance – ensuring information is current and the NAP is maintained
5. Dataset information – additional dataset information that should be provided by the NAP

Section 3 provides a checklist to record the current NAP implementation and comments with respect to the features described in this document.

Section 4 provides links to useful online resources.
2. Features and Levels of Service

2.1. Access

2.1.1. The NAP is available over the internet

*Description*

This means the NAP is available for immediate use on demand by a user without human intervention, the NAP homepage is available via a public weblink (http / https) without additional authentication. There are no restrictions to the NAP homepage, it is available to all interested parties.

This feature is considered **required**.

*Reason*

To maximise accessibility both data consumers and publishers should be able to access the NAP easily, unrestricted by time or location, without having to download or install additional software. Access restrictions to the homepage will be a barrier.

*Example*

Swedish NAP [https://www.trafficdata.se/](https://www.trafficdata.se/)

*Benefits*

Access

2.1.2. NAP can be navigated easily and is design compliant with web design standards / accessibility

*Description*

This feature refers to the **NAP usability**, the quality of a user’s experience when interacting with NAP. Usability is about effectiveness, efficiency and the overall satisfaction of the user (both data consumers and publishers).

Usability is a combination of factors including:
Intuitive design: a nearly effortless understanding of the architecture and navigation of the site

Ease of learning: how fast a user who has never seen the user interface before can accomplish basic tasks

Efficiency of use: how fast an experienced user can accomplish tasks

Memorability: after visiting the site, if a user can remember enough to use it effectively in future visits

Error frequency and severity: how often NAP users make errors while using the system, how serious the errors are, and how they recover from the errors

Subjective satisfaction: if the NAP user likes using the system

W3C guidance Web Accessibility Initiative (WAI) should also be followed. This feature is considered **required**.

**Reason**

Providing high usability will help ensure that all users that interact with the NAP (both data consumers and data publishers) find value in the NAP. Poor or complicated user interfaces will lead to user frustration and they will not use the service. Following W3C WAI guidelines will make content accessible to a wider range of people with disabilities. This feature is part of User Experience (UX) and making the correct design decisions at the beginning of the NAP process can save time and resources in the future.

**Example**

The Polish NAP ([https://kpd.gddkia.gov.pl](https://kpd.gddkia.gov.pl)) facilitates accessibility and usability by providing a high contrast mode and options to easily increase the site text size in the top banner.

Page view in high contrast mode:
Benefits

Access  Comprehension  Discoverability

2.1.3. NAP IS PROVIDED IN THE NATIONAL LANGUAGE AND COMMONLY USED LANGUAGE(S) OF THE MEMBER STATE

Description

Text in the NAP is provided in national language and commonly used language(s) of the Member State. Providing NAP text in additional languages will further increase accessibility.

This feature is considered **required**.

Reason

The NAP will be easily understood and accessible by, at minimum, native speaking data consumers and data publishers.

By providing the dataset information and descriptions in multiple languages, the NAP is more accessible to the whole of Europe.

Example

Austrian NAP ([http://www.mobilitaetsdaten.gv.at/](http://www.mobilitaetsdaten.gv.at/)) provides information in German and English.
2.1.4. NAP Follows EU Data Protection and Industry Data Security Standards

Description

NAP providers need to follow EU data protections policies and relevant data security standards to ensure the protection of all information and data stored in the NAP.

This feature is considered required.

Reason

Where the safeguarding of personal data is involved, data security is based on national legislation. NAP providers need to be aware of and understand their responsibilities with respect to data protection.

How confidential data or data containing personal information are stored may need to be addressed during informed consent procedures. This ensures that the persons to whom the personal data belong are informed and give their consent as to how the data are stored or transmitted.

If data protection policies apply, NAP providers need to document their Data Protection or Privacy policy on the NAP.

The EU General Data Protection Regulation (GDPR) is an important change in data privacy regulation. The data protection reform package which entered into force in May 2016 and will be applicable as of May 2018 includes the General Data Protection Regulation ("Regulation"). The changes will give people more control over their personal data and make it easier to access it. They are designed to make sure that people’s personal information is protected – no matter where it is sent, processed or stored – even outside the EU, as may often be the case on the internet.

Physical security, network security and security of computer systems and files all need to be considered to ensure security of data and prevent unauthorised access and changes to data. Data security may be needed to protect intellectual property rights, commercial interests, or to keep personal or sensitive information safe.

Example

Data protection and data security in the MDM portal, Germany

- Most of the data managed by the German NAP is not personalised data (traffic data etc.).

- However, some data sets handled in the German NAP contain personal data, requiring a more rigorous data privacy regime: registered users, data publisher contact information, log data.

- During the implementation as well as the continuing upgrades of the underlying IT systems, relevant data protection and data security needs have been assessed to define the actual requirements for data privacy and data integrity.
In particular, an information security management system has been implemented, which describes processes and control targets in accordance to the ISO27001 standard. [https://www.iso.org/isoiec-27001-information-security.html].

Benefits

Access  Comprehension  Trust

2.1.5. NAP REQUIRES DATA PUBLISHERS TO REGISTER TO ADD THEIR DATA / METADATA

Description

The NAP requires data publishers to register to add their data / metadata. This feature is considered required.

Reason

This allows NAP providers to improve security and control data publisher activity. Registration / creation of user accounts allows validation of data publisher details, controls permissions and can monitor their NAP activity. Data publishers can also save preferences and settings.

Example

Swedish NAP webpage explaining that users need to register (create an account) in order to publish their metadata.
Benefits

Trust

2.2. Communication

2.2.1. NAP PROVIDES HELP FOR DATA PUBLISHERS TO REGISTER, ADD DATA / METADATA

Description

NAP provides help facilities for data publishers to register, add data / metadata.

Examples of this include online guidance text / document, helpdesk email address, and instant messaging service.

This feature is considered required.

Reason

Initially data publishers may be unsure of the processes and requirements, needing additional assistance. Registration guidance documentation can help ensure data publishers supply the required information and can correctly complete registration with minimal additional assistance, and avoid aborted or invalid registrations. Provision of a point of contact could help engage with, and support, data publishers in adding data / metadata to the NAP.

As the NAP develops previous questions and responses could form the basis of a Knowledge Base or Frequently Asked Questions section.

This feature could also be applied to data consumers, to further assist them in using the NAP.

Example

The German NAP, the MDM, provides several layers of support for data publishers and data users, especially during the registration process and the initial phase. This support includes administrative and technical issues. The different support layers during the registration process are explained below.
1. Throughout the entire process, a user support team overviews the processes and user interactions. This user support team is available by email and phone in case of questions and problems.

2. After registration, the user receives an email with a link to validate the email address. Next to the activation link, this email contains a link to the user manual (in case the user has not yet seen this resource) as well as the email address and phone number to the support team.

3. After confirming the email address via the confirmation link, the user is directed to a page containing again the information on the next steps of the registration process.

4. The email containing the authorisation certificate provides technical guidance on configuring the user’s system for authorised access.

5. In addition, a 64-page user manual is available that explains the registration process among others. A dedicated help page lists all relevant documents and has a list of frequently asked questions. The registration page also contains valuable information on the initial steps.

**Benefits**

**Trust**

**Comprehension**

2.2.2. NAP PROVIDES TERMS & CONDITIONS

**Description**

The NAP terms and conditions are provided online.

This feature is considered required.
**Reason**

Data consumers and publishers need to be aware, understand, (and in some cases agree) to the terms and conditions. These can include access information, highlighting specific licensing issues, site traffic limits and what happens to any information NAP users submit.

**Examples**

For the German NAP, official Terms & Conditions are available at [http://service.mdm-portal.de/doc/MDM-Nutzungsbedingungen.pdf](http://service.mdm-portal.de/doc/MDM-Nutzungsbedingungen.pdf) (German) and [http://service.mdm-portal.de/doc/MDM-T-and-C.pdf](http://service.mdm-portal.de/doc/MDM-T-and-C.pdf) (English). These have to be agreed to using a checkbox when registering as a user. Next to defining the rights and obligations of the users and the operator, the Terms & Conditions also contain the Service Level Agreement with a definition of service operating times, uptime and availability guarantees, as well as response times for incident reports.

**Swedish NAP**

![Swedish NAP Contact Information](image)

**Benefits**

2.2.3. **NAP is Promoted**

**Description**

The NAP is promoted to potential data consumers and data publishers. The NAP provider should consider a plan to promote NAP. How NAP promotion is carried out is up to the NAP provider or MS; this could be, for example, a formal communication strategy, web or media stories, or stakeholder events.

This feature is considered **required**.
**Reason**

One of the key aims of the ITS Directive and delegated regulations is to improve availability and accessibility of ITS datasets. If potential data consumers and data publishers are to use and engage with the NAP they need to be made aware of the service and the benefits to them.

**Example**

Public relations is an area alongside system development, operation and customer support, where the German NAP has dedicated teams. The contracted PR firm is responsible for:

- helping define and execute a communication strategy including monitoring new trends and topics relevant for potential user growth,
- creating graphics and other material in accordance to the German NAP design,
- content creation and hosting of the NAP website ([http://www.mdm-portal.de](http://www.mdm-portal.de)),
- creating regular newsletters for MDM users and all who have signed up for the newsletter,
- actively maintaining the official internet forum at XING professional network site, and organising a regular professional conference, such as the MDM conference (below):

**Benefits**

![Access and Reuse icons]

**Access** **Reuse**

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EU EIP SA46 Task 2 Support (v1.0)
2.2.4. NAP PROVIDES MEANS FOR DATA CONSUMERS TO CONTACT NAP OPERATOR AND/OR DATA PROVIDER FOR ASSISTANCE

Description

Providing an NAP enables data sharing on a large scale to a wide range of audiences with different levels of expertise. Data consumers should have a way to contact the NAP operator (for example to request account assistance, or search help), and/or data publishers (for example to provide feedback, specific dataset queries). Some NAP structures may prefer to limit or control direct contact between data consumers and data publishers.

This feature is considered **required**.

Reason

This helps publishers understand the needs of their data consumers and can help them improve the quality of their published data. It also enhances trust by showing consumers that the NAP provider and data publisher care about addressing their needs. Specifying a clear contact mechanism removes the barrier of having to search for a way to contact the required party.

Example

In the German NAP all datasets have a link to their publisher and named contact details are given on the NAP website.

<table>
<thead>
<tr>
<th>E-mail to supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact: Peter Lubrich</td>
</tr>
<tr>
<td>Function/Dept.: Bundesamt für Straßenwesen</td>
</tr>
<tr>
<td>Address: Dolderstraße 53</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:lubrich@bast.de">lubrich@bast.de</a></td>
</tr>
<tr>
<td>Phone: 02204 43-644</td>
</tr>
</tbody>
</table>

Benefits

- Comprehension
- Trust

2.3. Finding datasets

2.3.1. NAP PROVIDES APPROPRIATE DISCOVERY SERVICES

Description

The NAP provides data consumers with search tools to assist dataset discovery.
Reason

Data consumers may know the exact dataset they are looking for or may be browsing datasets. Discovery services are typically search tools, a search box like an internet search engine where data consumers type a keyword. Pressing Enter returns the results. When using keyword search, you can use advanced operators to enhance your query, quotation marks, minus sign, AND, OR etc. search by date, publisher, location, filters (license, theme etc.) Discovery services may also be offered via search masks (comparable to Open Data portals), where a data consumer can look up datasets by selecting categories, locations of interests etc.

An Advanced Search allows for a more targeted search by using different indexes (author, title, subject, etc.) and limits such as date range, material type.

Metadata can be used to help dataset discovery.

This feature is considered **required**.

Example

UK NAP ([https://data.gov.uk/](https://data.gov.uk/)) search and discovery:

Search tips are also provided:
Benefits

Discoverability

2.3.2. Datasets can be searched using a metadata catalogue

Description

Data consumers can search for datasets based on their metadata records using discovery services.

This feature is considered required.

Reason

Data will not be discoverable or reusable by anyone other than the data publisher if insufficient metadata is provided. Metadata provides additional information that helps data consumers better understand the meaning of data, its structure, and to clarify other issues, such as usage rights and license terms, the organisation that generated the data, data quality, data access methods and the update schedule of datasets.

Data publishers are encouraged to provide human-readable information in multiple languages, and, as much as possible, provide the information in the language(s) that the intended data consumers will understand. Metadata for both human data consumers and computer applications provides even greater benefit.

Examples

A specific effort of EU EIP Sub-Activity 4.6 is the harmonisation in the field of Metadata of European NAPs. A first agreement was found in form of the “Coordinated Metadata Catalogue”. It allows the description and discovery of the most relevant features of NAP datasets, but also allows the freedom to add other features when necessary. It has been fully implemented in the NAPs in Austria and the Netherlands. Some other countries follow it at least partially. The Catalogue can be downloaded at: https://www.its-platform.eu/filedepot_download/1701/5355

The following table shows an overview of Metadata elements, as defined by the Coordinated Metadata Catalogue:
<table>
<thead>
<tr>
<th>Category</th>
<th>Data field</th>
<th>Data type</th>
<th>Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata information</td>
<td>date of metadata</td>
<td>DateTime</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>metadata language</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>contact point for metadata (name, company, address, email, website, phone)</td>
<td>specific text</td>
<td>yes</td>
</tr>
<tr>
<td>Content information</td>
<td>name of publication</td>
<td>free text</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>description of publication</td>
<td>free text</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>dataset type category</td>
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<td>yes</td>
</tr>
<tr>
<td></td>
<td>dataset detailed type</td>
<td>predefined</td>
<td>yes for self-validation</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>end date of publication</td>
<td>date</td>
<td>no</td>
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<tr>
<td>Geographical coverage</td>
<td>area covered by publication</td>
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<td>yes</td>
</tr>
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<td></td>
<td>network coverage</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td>Responsibilities / Contact information</td>
<td>Publisher (name, company, address, email, website, phone)</td>
<td>specific text</td>
<td>yes</td>
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<tr>
<td></td>
<td>data owner (name, company, address, email, website, phone)</td>
<td>specific text</td>
<td>no</td>
</tr>
<tr>
<td>Conditions for use</td>
<td>contract or license</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>conditions for use</td>
<td>URL</td>
<td>yes if con/lic is used</td>
</tr>
<tr>
<td>Access information</td>
<td>structure of dataset</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Access interface</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>communication method</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>access URL</td>
<td>URL</td>
<td>yes</td>
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<tr>
<td>Quality information</td>
<td>update frequency</td>
<td>predefined</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>quality indicator</td>
<td>URL + free text</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>National body validation date</td>
<td>Date</td>
<td>no</td>
</tr>
</tbody>
</table>

*Overview table of Metadata elements from the Coordinated Metadata Catalogue*
Another example is DCAT:
The Data Catalog Vocabulary (DCAT) defines a standard way to publish machine-readable metadata about a dataset. DCAT is the Metadata standard for open data, DCAT also conforms to the ITS-directive. [http://www.w3.org/TR/2014/REC-vocab-dcat-20140116/](http://www.w3.org/TR/2014/REC-vocab-dcat-20140116/)

### 4.1 Basic Example

This example provides a quick overview of how DCAT might be used to represent a government catalog and its datasets.

First, the catalog description:

```sparql
:catalog
  a dcat:Catalog ;
  dcat:title "Imaginary Catalog" ;
  foaf:homepage <http://example.org/catalog> ;
  dcat:publisher : transparency-office ;
  dcat:dataset :dataset-001 , :dataset-002 , :dataset-003 ;
```

**Benefits**

- **R**: Reuse
- **C**: Comprehension
- **D**: Discoverability
- **P**: Processability
2.3.3. **THE NAP PROVIDES MACHINE READABLE METADATA**

*Description*

The NAP provides metadata that can be processed by both humans and computer applications.

This feature is considered **nice to have**.

*Reason*

Some human-readable formats, such as PDF, are not machine-readable as they are not structured data. Information should be provided that helps both humans and computer applications to understand the data as well as other important aspects that describes a dataset.

When defining machine-readable metadata, reusing existing standard terms and popular vocabularies are strongly recommended. Interoperability or standardisation ideally should be balanced with the need for simplicity and low barriers to entry for new publishers.

*Example*

Machine-readable metadata may be provided in a serialisation format such as Turtle and JSON, or it can be embedded in the HTML page using [HTML-RDFA] or [JSON-LD].

*Benefits*

- Reuse
- Comprehension
- Discoverability
- Processability

2.4. **Update and maintenance**

2.4.1. **THE NAP SERVICE IS MAINTAINED**

*Description*

The NAP service has to be maintained; this can include aspects such as IT trouble shooting, software maintenance and updates, backups, and hosting. Long-term commitment to NAP funding and maintenance should be considered.

This feature is considered **required**.

*Reason*

The IT (systems, software and hardware) underlying the NAP need to be maintained to ensure data consumers and data publishers have confidence in the service. Unexpected periods of unavailability, error messages, and slow processes will have negative impacts. The NAP service needs to be secure, functional, have sufficient speed, and be resilient.
Additionally, making future provisions for the funding and maintenance of the NAP will help ensure service continuity in the long term.

**Example**

The role of NAP service maintainer is be defined with a designated owner. Agreed and documented service levels can help describe specific services, conditions, standards, timelines, and escalation procedures.

**Benefits**

| Reuse | Access |

2.4.2. **THE NAP CONTENT AND METADATA IS MAINTAINED AND MAKES BEST EFFORT IS MADE TO KEEP CONTENT UP-TO-DATE**

**Description**

NAP content and metadata contained needs to be maintained and best effort is made to keep content up-to-date.

This feature is considered **required**.

**Reason**

Data can change over time therefore it is important to have a maintenance regime in place. This process includes maintaining data and metadata regularly, and checking links.

If metadata becomes obsolete discoverability will reduce and data consumers will experience lower quality search results. It is important to regularly check that all URIs and URLs (from and to datasets) are still working to avoid redirecting data consumers to non-existing pages.

**Example**

The “contents” (i.e. the data sets as such) are usually the responsibility of the data suppliers, so they have to make sure their data is up-to-date. This may be enhanced by quality assurance methods, systematically assessing data quality criteria, such as “Timeliness” for example (definitions for relevant quality criteria have been elaborated in EU EIP sub-activity 4.1.).

The functioning of URIs and URLs, or the compatibility with specific data models (e.g. DATEX II), can be also checked by the IT systems of the NAP operator.
Benefits

2.4.3. NAP MONITORING AND EVALUATION IS UNDERTAKEN

Description

Evaluation or monitoring of the NAP is undertaken. This includes:

- performance of the data (for example: downloads, page views, re-use)
- performance of the system (for example: downtime, consequences for other systems)
- data consumer and publisher feedback – collection and preparation performance of the NAP and measures usefulness of the data (for example: qualitative feedback, re-use rating of quality, surveys)

This feature is considered nice to have.

Reason

It will be important to monitor and evaluate the success and impact of the NAP by calculating metrics and gathering feedback. This data can be used to ensure the objectives and goals are met and help improve the NAP service.

Example

The Swedish NAP uses Google Analytics for site monitoring:
2.5. Dataset information

2.5.1. NAP PROVIDES CLEAR DESCRIPTIONS OF EACH DATASET

Description
The NAP provides a human-readable description for each dataset. This feature is considered required.

Reason
The description (e.g., an abstract) has sufficient detail to enable a data consumer to quickly understand whether the dataset is of interest.

Example
The Swedish NAP provides additional information on datasets; the description for Safe and secure truck parking areas is shown:

https://www.trafficdata.se/dataset/safe-and-secure-truck-parkings:

Benefits

Comprehension
2.5.2. NAP PROVIDES DATASET DOCUMENTATION (OR LINKS) WHERE REQUIRED

Description

The NAP provides explanatory information on datasets or links to dataset documentation, where required.

This feature is considered required.

Reason

Data documentation can explain how data were created or digitised, what data mean, sharing and reuse conditions, what their content and structure are and any data manipulations that may have taken place. Documenting data should be considered best practice when creating, organising and managing data and is important for data preservation.

Clear and detailed data description, annotation and contextual information helps ensure datasets can be understood and interpreted by any data consumer.

Example

The Irish NAP (www.data.gov.ie) provides a description of Real-time Passenger Information (RTPI) datasets for Dublin Bus, Bus Eireann, Luas and Irish rail, the interface, guidance on using the interface and links to additional documentation.

Benefits

Reuse Trust

2.5.3. NAP DATASETS CLASSIFIED ACCORDING TO STANDARD / CONTROLLED VOCABULARIES

Description

Use terms from shared vocabularies, preferably standardised ones, to encode NAP datasets.

This feature is considered nice to have.

Reason

Standardised sets of terms — also known as 'dictionaries' or 'controlled vocabularies' — within datasets reduces the ambiguity associated with data mark-up and also enables records to be interpreted by computers. These dictionaries, or controlled vocabularies, control the terms used in describing, and supporting descriptions. This also opens up more possibilities for discovery, distribution and long term reuse.
In certain areas, it is not always possible or agreeable for data publishers to use the same terms. In such cases, controlled vocabularies can be used as a medium to which data centres can map their equivalent terms.

High quality data are well organised, structured, named and versioned.

**Example**

The DCAT vocabulary expresses metadata concerning datasets [VOCAB-DCAT] and re-uses elements from several pre-existing vocabularies: Dublin Core, FOAF, SKOS and vCard. Reusing Dublin Core properties like `dct:title` instead of creating new ones (say, `dcat:title`) enables DCAT-based metadata to be consumed by any application that can read and manipulate Dublin Core statements.

**Benefits**

- **R**: Reuse
- **C**: Comprehension
- **P**: Processability
- **I**: Interoperability
- **T**: Trust
3. NAP Checklist

The checklist below can be used to record and comment on current NAP deployments. Comments, questions and suggestions should be directed to: Jacqueline Barr, jbarr@ibigroup.com.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Organisation:</th>
<th>Email/tel:</th>
<th>Date:</th>
<th>Country:</th>
<th>SRTI</th>
<th>RTTI</th>
<th>Truck Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Access

1. The NAP is available over the internet
2. NAP can be navigated easily and is design compliant with web design standards / accessibility
3. NAP is provided in the national language and commonly used language(s) of the MS
4. NAP follows EU data protection and industry data security standards
5. NAP requires data publishers to register to add their data / metadata

Comments:

Communication

6. NAP provides help for data publishers to register, add data / metadata
7. NAP provides Terms & Conditions
8. NAP is promoted
9. NAP provides means for data consumers to contact NAP provider / dataset owner for assistance

Comments:

Finding datasets

10. NAP provides appropriate discovery services
11. Datasets can be searched for using a metadata catalogue
12. The NAP provides machine readable metadata

Comments:

Update and maintenance

13. The NAP service is maintained
14. The NAP content and metadata is maintained and makes best effort is made to keep content up-to-date
15. NAP monitoring & evaluation is undertaken

Comments:

Dataset information

16. NAP provides clear descriptions of each dataset
17. NAP provides dataset documentation (or links) where required
18. NAP datasets classified according to standard / controlled vocabularies

Comments:
4. Useful resources

Below is a list of resources related to NAP features:

  Open Knowledge International - Guides, case studies and resources for government & civil society on the "what, why & how" of open data.

  Guidelines on recommended standard licences, datasets and charging for the reuse of documents 2014/C 240/01

- **The World Wide Web Consortium (W3C)** - [https://www.w3.org/](https://www.w3.org/)
  W3C is an international community that develops open standards to ensure the long-term growth of the Web.

- **European Commission General Data Protection Regulation (GDPR)**
  Information and related documents on the GDPR

  This website is a resource to educate the public about the main elements of the General Data Protection Regulation (GDPR)

- **CKAN** - [https://ckan.org/](https://ckan.org/)
  Open source software tool for making open data websites. Data and metadata in CKAN can easily be harvested into a different system.

- **DCAT** - [https://www.w3.org/TR/vocab-dcat/](https://www.w3.org/TR/vocab-dcat/)
  DCAT is a standard vocabulary for describing datasets in data catalogues. By using DCAT, publishers make their data more discoverable and enable applications to combine or search across multiple data catalogues.

- **EUEIP Coordinated Metadata catalogue** - [https://www.its-platform.eu/filedepot_download/1701/5355](https://www.its-platform.eu/filedepot_download/1701/5355)

- **EU Publications Office Metadata Registry**
  Harmonise and standardise the codes and the associated labels used in the Publications Office