**INSPIRE**

**Infrastructure for Spatial Information in Europe**

Harmonised and non-harmonised data sets in INSPIRE

MIG mini-Workshop

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| Description | Context-setter and report for the MIG mini-workshop on harmonised and non-harmonised data sets in INSPIRE. |
| **Requested actions:** | The members of the MIG are invited to:   * Take note of the document and share any feedback by 3 September 2021 close of day |
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# Context

This MIG mini-workshop will follow up on discussions that already took place in the MIG-T meetings on the topic of “Harmonised and non-harmonised datasets in INSPIRE”[[1]](#footnote-2) and will feed into the work of [MIWP Action 2.2](https://webgate.ec.europa.eu/fpfis/wikis/display/InspireMIG/Action+2.2+Roadmap+for+priority-driven+implementation) “Roadmap for priority-driven implementation” where this issue will be further picked up from a policy and legal perspective. Under MIWP Action 2.2 we will work together towards a proportionate harmonisation effort in line with the data prioritisation effort that has been kicked off under [MIWP Action 2.1](https://webgate.ec.europa.eu/fpfis/wikis/display/InspireMIG/Action+2.1+Need-driven+data+prioritisation) “Need-driven data prioritisation”. All this aims to create a clear and common understanding of minimal harmonisation efforts and interoperability requirements within the boundaries of the current legislative framework.

# Problem statement

Recently, several countries have had the reflex to limit the data and data services they bring into the INSPIRE infrastructure to minimize the possible negative impact of as-is data, especially on the monitoring indicator on data conformity (DSi2.x), and maximize their measured performance through the monitoring indicators. This is an unfortunate development and a trend that the Commission would like to turn around. The INSPIRE Directive was not specifically established to provide the Commission with environmental data, but to promote as much as possible the sharing of environmental data to support the development and implementation of environmental and related legislation at all levels of administration. This principle is more relevant than ever in view of the common European ambition for a transition to a more sustainable society and in the providing data only once. From a usage perspective, the question on how data should be made available (harmonised or as-is) depends largely on the quality and the richness of the data made available. E.g. if a harmonised INSPIRE address data set is three years old and the as-is address data set is richer and updated daily, then preference would go to the higher quality as-is data. In addition, today we have at our disposal a rich portfolio of easy to use software tools that can be used to combine harmonized, but also as-is data.

***Standing considerations and conclusions from previous discussions in the MIG-T are:***

* Considerations:
  + No transformation services are used, so the harmonized data is a separate data set.
  + In most cases the INSPIRE models are not extended so both the “as is” and the harmonized data set are provided through discovery services
  + This negatively affects the monitoring indicator on conformity of datasets (DSi2.x family), we never reach 100%, at best approximately 60%
  + The latest M&R 2020 clearly illustrates the negative side-effects of exposing both datasets
* Conclusions:
  + It should be avoided that as-is data is removed just to improve the conformity indicator as this goes against the core principles of INSPIRE as an infrastructure that facilitates the access to environmental information. This is a wider discussion on the level of ambition of the INSPIRE infrastructure and its relationship with national infrastructures that should be held in the MIG.
  + Three viable technical options have been suggested to tackle the negative impact on measured performance:
    - 1. One metadata record in the national CSW describing both "as-is" and INSPIRE harmonize data sets. Available spatial data services would reference this single metadata record.
    - 2. Two metadata records in the national CSW, one for "as-is" and one for INSPIRE harmonized. Available spatial data services would reference the relevant metadata record.
    - 3. Two metadata records in the national CSW, only one is collected with a specific OGC filter during the harvest by the INSPIRE Geoportal.

By law, the data scope of the INSPIRE Directive is not limited by neither the Annexes to the Directive nor by the commonly agreed data priorities. Article 4 of the Directive clearly defines the scope of the data that has to be brought into the INSPIRE infrastructure. This scope does not differentiate between harmonised or as-is data sets. Both have to be provided. Only in case of identical data sets, the reference version needs to be kept and the other versions can be omitted. The data prioritisation exercise we embarked on three years ago and that was initially based on existing regulatory reporting obligation (priority data sets) by no means limits the legal data scope of the Directive. It is an instrument to support countries in developing a common and interoperable minimal data offering across Member States, driven by existing environmental use cases (i.e. the environmental acquis). This instrument will now be gradually extended, in light of the new developments of the European Green Deal data space, and the Open Data Directive to also include core reference data and high-value data sets under MIWP Action 2.1.

Following the spirit and the provisions of the INSPIRE Directive, any available digital data in support of environmental policy development (on all levels of administration e.g. environmental impact assessments, environmental permitting, policy impact assessment ), or related application domains (smart mobility, human health, climate adaptation, energy…) that contribute to a transition to a more sustainable society and economy should be documented and made accessible to maximize its reuse. At the same time, common understanding is that full, by default harmonisation of all this data to common models would be disproportional in the absence of clear use cases and seen the varying information needs of the different application domains. This principle is also embraced by the new MIWP 2021-2024, hence the use-driven data prioritization and prioritisation-driven implementation actions.

# Objectives of the workshop

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| Together with the Member State experts in the MIG, the European Commission is committed to exploring feasible pathways towards a proportionate, user-driven implementation within the current legal framework. The main question to be addressed and answered to improve a consistent INSPIRE implementation and provide the necessary guidance to the implementers is:   * How to mitigate the negative impact of as-is data on measured implementation performance through DSi2.X indicators (data conformity)?   The outcomes of the workshop will be used to define an agreed approach for the calculation of the DSi2.x indicators while ensuring that all available data (harmonized and as-is) are made available within the INSPIRE infrastructure. |

# Workshop survey

1. What is your country of origin?
2. Does the presence of both as-is and harmonized data negatively impact the INSPIRE indicator for data conformance (DSi2.x family of indicators) in your country?

Yes / No

1. Are you planning on limiting your INSPIRE offering to prioritised data sets only?

Yes/No

1. Are you planning on limiting your INSPIRE offering to harmonized data sets only?

Yes/No

1. Is a low value for the DSi2.x indicators (conformity of spatial data sets) an important driver for limiting your offering?

Yes/No

1. Would you make more as-is data available if this data would not be included in a data conformity assessment?

Yes/No

1. Would you support limiting data harmonisation efforts to clearly identified and prioritised as-is data sets (to be further developed under MIWP Actions 2.1 and 2.2)?

Yes/No

1. Would you support using the priority data set metadata keyword to select data sets for future calculation of DSi2.x indicators?

Yes/No

1. Would you support describing as-is and harmonized versions of a spatial data set through a single metadata record?

Yes /No

1. Are there any other monitoring conformity indicators that clearly have a repercussion on the data sets made available and accessible in the INSPIRE infrastructure?

Yes/No (in case “Yes”, which ones).

1. INSPIRE metadata already allows to declare conformity to different specifications. Would you support the possibility of optionally declaring conformity to all applicable specifications in metadata e.g. conformity with: national specifications / INSPIRE theme / EU reporting data flow?

Yes/No

This survey is accessible on EUSurvey: <https://ec.europa.eu/eusurvey/runner/13MIG_Workshop_Harmonised_vs_AsIs>

***You are kindly requested to take the survey in preparation of this MIG mini-workshop. To give the Commission the opportunity to process the survey results as input for the workshop, we would ask you to complete the survey by Wednesday 16 June 12:00.***

# Workshop organisation (75’)

(15’) Introduction and presentation of survey results

(30’) Split into 3 breakout groups to discuss the survey results and proposals for possible solutions

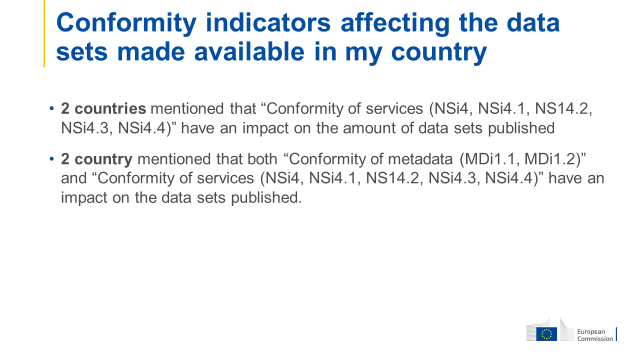
(20’) Report back from break-out groups + discussion

(10’) Conclusions

# Workshop proceedings

## Survey Results

On 5 July 2021, 21 experts from 20 countries had participated in the online survey: Austria, Belgium (x2), Croatia, Czechia, Denmark, Estonia, France, Germany, Greece, Hungary, Liechtenstein, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden.



## Survey conclusions

* Presence of both non-harmonised and harmonised data does impact the data conformity indicator negatively in most countries.
* 25% of the respondents has adapted or is planning to adapt their offering to harmonised/prioritised data sets.
* 50% of the respondents would make more non-harmonised data available if this would not impact the data compliance indicator.
* 81% of the respondents indicated their support for only harmonising priority data sets.
* 19% indicated that network service conformity also impacts data availability.
* 9,5% indicated that metadata conformity also impacts data availability.
* 66% of the respondents were in favour of using a metadata keyword to identify data sets for compliance testing.
* 57% of the respondents expressed the need for a mixed approach to the documentation of harmonised and non-harmonised data sets in metadata.
* 81% would support the possibility of declaring conformity to other specifications than INSPIRE.

## Break-out groups

The MIG experts were automatically assigned to one of the three break-out sessions. In the break-out session, participants were asked to share any reflections on the background document, the survey and the way forward to a possible solution that would remediate the negative impact of non-harmonised data on the data compliance indicator.

The following input was gathered in the roundtable discussion in the break-out groups:

* Experts acknowledged that there is a problem with the monitoring indicators and the negative impact of non-harmonised data.
* Some countries are already limiting their offering to harmonised[[2]](#footnote-3) data only. Non-harmonised data is still made available to the national stakeholders through a separate infrastructure.
* At the same time the experts see the monitoring as an important tool to communicate on the national level and stimulate data providers to share more data. In general there was no appetite to hide data in order to improve indicators.
* The appreciation of non-harmonized data came through strongly. This data is the richest and is important for national use cases.
* A majority of experts agreed that both harmonised and non-harmonised data should be made available under the INSPIRE Directive.
* Regarding the technical options, the discussion confirmed the findings of the MIG-T that converging around one single approach is problematic. Some countries already use filters, while others are inclined towards the use of individual metadata records for as-is and harmonised data. Besides different approaches at national level, several countries are also coping with different approaches at regional level.
* Another argument for using different metadata records was that in some cases, different organisations are responsible for the harmonised and non-harmonised datasets, which in turn requires different metadata records.
* A more flexible calculation of the data conformity indicators (DSi2.x) could facilitate different technical solutions, limiting the possible impact on existing implementations. Moreover, fine-tuning of the indicator could also be used to introduce a more meaningful assessment of the conformity of spatial data sets (e.g. priority data) and take in consideration that conformity might never reach 100% (e.g. by introducing a star-based appreciation system).

# Main takeaways and next steps

The discussion has shown that countries are already using/preferring different technical solutions for documenting harmonised and non-harmonised versions of data sets. Support for a mix of proposed technical solutions is recommended.

The appreciation of non-harmonized data is strong. Some data cannot be harmonized and is needed for national use cases. INSPIRE harmonized data have limited national/regional/local use. It would be appropriate to limit the harmonisation burden to selected data sets.

It was proposed to make the calculation of the indicators more flexible to avoid the need for choosing between the identified technical solution options.

This flexibility could come from revising the current definition of the data conformity indicator in the Commission Implementing Decision on monitoring and reporting 2019/1372 and from applying a proportional harmonisation for prioritised data sets by further exploring the “where practicable” condition.

Next steps:

* The discussion will continue in the MIWP Action 2.2 subgroup and technical options for publishing non-harmonised datasets can be further elaborated in MIWP Action MIWP 2.3.2 on data-service linking simplification after reaching consensus on a remediation.
* Discussion boundaries
  + Rich non-harmonized data for national/regional/local use cases should be published under INSPIRE.
  + Impact on Member States, Tools and infrastructure should be minimal.
  + Need for technical flexibility supporting different approaches.
  + Look for a legally sound solution (compliant with the current legal framework) supporting a proportionate harmonisation effort in line with the data prioritisation under MIWP Action 2.1.
  + Possible options to explore: change calculation of the data compliance indicator in the reporting decision (legal change) / use “where practicable” for more targeted data harmonisation (build common understanding)

1. See e.g. <https://webgate.ec.europa.eu/fpfis/wikis/pages/viewpage.action?pageId=712606761> [↑](#footnote-ref-2)
2. Harmonised data = data that follows INSPIRE data specification guidelines ; non-harmonised data = data in its original structure [↑](#footnote-ref-3)