

# CDE4Peace

REVIEW | ASSESS | INNOVATE | RECOMMEND

## CONCEPT DEVELOPMENT AND EXPERIMENTATION FOR EU CONFLICT PREVENTION AND PEACE-BUILDING (CDE4PEACE)

### D1.2

### Data Management Plan



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 882055.

## Project Details

Acronym: **CDE4Peace**

Title: Concept Development and Experimentation for EU Conflict Prevention and Peace-building

Coordinator: SYNNO GmbH, Austria

Reference: 882055

Type: Marie Skłodowska-Curie Action (MSCA)

Program: HORIZON 2020

H2020-EU.1.3.2. - Nurturing excellence by means of cross-border and cross-sector mobility

Call: H2020-MSCA-IF-2019

Start: 01 September 2020 – 31 August 2022

Duration: 24 months

Website: <https://www.cde4peace.eu/>

## Deliverable Details

Number:	<b>D1.2</b>
Title:	<b>Data Management Plan</b>
Work package:	WP1
Dissemination level:	PU (Public)
Nature:	Other (O)
Date:	11/11/2020
Author:	<b>Nikolay Pavlov, SYNYO GmbH</b>

### Version History:

Date	Version No.	Author	Notes	Pages (no.)
06.11.2020	0.1	Nikolay Pavlov	first draft version	14
11.11.2020	final	Nikolay Pavlov	final version	14



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 882055.

**Disclaimer:** This deliverable reflects only the author's view and is his sole responsibility. The European Commission's Research Executive Agency is not responsible for any use that may be made of the information it contains.

## Table of Content

- Executive Summary ..... 5
- 1. Introduction..... 6
- 2. Data Summary ..... 6
- 3. FAIR Data ..... 7
  - 3.1. Making data findable, including provisions for metadata ..... 7
  - 3.2. Making data openly accessible..... 8
  - 3.3. Making data interoperable..... 9
  - 3.4. Increase data re-use (through clarifying licences) ..... 9
- 4. Allocation of resources..... 10
- 5. Data security..... 10
- 6. Ethical aspects ..... 11
- 7. Other issues..... 12
- Annex 1. CDE4Peace Information Sheet and Informed Consent Form..... 13
- Annex 2. Ethics opinions

## Executive Summary

The Data Management Plan is drafted pursuant to Art.29.3 of Grant agreement no.882055 (CDE4Peace) signed between the European Commission's Research Executive Agency and SYNYO GmbH on 24/03/2020. The Plan's main objective is to provide open access to research data generated in the project through depositing the research data in a research data repository. The Data Management Plan (DMP) outlines how the research data will be handled during the project and after it is completed. It describes what data will be collected / generated; what methodology and standards are used; whether and how this data will be shared and / or made open; and how it will be curated and preserved. The Plan describes the measures taken to enable third parties to access, mine, exploit, reproduce, and disseminate (free of charge for any user) the research data. The project's DMP is based on the template provided in the Guidelines on FAIR Data Management in Horizon 2020.

## 1. Introduction

The Data Management Plan aims at providing open access to research data generated in the project and making this research data findable, accessible, interoperable and reusable (FAIR). The DMP is designed to ensure sound research data management as a key conduit leading to knowledge discovery and innovation. The document describes the data management life cycle for the data to be collected, processed and / or generated by the CDE4Peace project. The DMP specifies the project's participation in the Open Research Data Pilot (ORD pilot) which aims at improving and maximising access to and re-use of research data generated by H2020 projects. The DMP refers both to the data needed to validate the results presented in scientific publications and other data generated by the project. In line with H2020 requirements the DMP of the CDE4Peace project is prepared and submitted in M3 of the project. This DMP is a living document which will be updated over the course of the project whenever significant changes arise.

## 2. Data Summary

Data collection and generation in the CDE4Peace project is closely related to one of the project's specific objectives – assessing the applicability and compatibility of Concept development and experimentation (CDE) with strategic and operational concepts in the area of EU conflict prevention and peacebuilding. In line with the work plan the empirical research work is focussed on CDE-related data collection, while data generation in the project is very limited. The project employs qualitative research methods from conflict and peace studies, hence only qualitative research data will be collected and generated. The project will not conduct surveys and will not develop datasets. In practical terms the research data in the CDE4Peace project will be structured textual data. The formats of the research data will be traditional docx. and pdf. files. Overall, the size of the data collected / generated is estimated to reach no more than 5000 KB.

As specified in the proposal the collection and (limited) generation of research data will be carried out in Phase 2 of the project (Technology Assessment) starting from M7 and ending in M13. In this phase the project will identify available and emerging CDE tools and will evaluate their potential, applicability and compatibility with strategic and operational concepts in the area of EU conflict prevention and peacebuilding. The empirical research work will apply the 'technology watch' method<sup>1</sup> to commercial-off-the-shelf CDE tools taking into account the limitations for data collection in the commercial sector. The project will not aim at disclosing trade secrets as this is neither legal nor feasible. The acquisition of CDE software packages is costly and is not realistic for a project of this scale either. Moreover, companies are not willing to provide access to software for academic purposes. Hence, the project's empirical work will focus exclusively on open source data collection. A draft list of CDE technology providers in the EU has already been prepared and will be constantly updated. Desktop data collection will be conducted by monitoring company websites and CDE software reviews in specialized journals. Therefore, the project will make use of existing and publicly available information from company websites and specialized journals.

---

<sup>1</sup> Final recommendations towards a methodology for technology watch at EU level (STACCATO D2.2.1), European Commission JRC, 2009.

The Marie Curie Fellow will also carry out field data collection at two major European annual industrial exhibitions where the major CDE technology providers openly present their products and are available for contact. Industrial exhibitions offer the ideal opportunity for informal interactions and arranging interviews with company representatives. As part of the fieldwork a special questionnaire will be prepared and 25 qualitative interviews with representatives of relevant companies, developers and end-users will be conducted. The aim of the qualitative interviews will be to contextualize the data collected and to provide an in-depth insight into the European CDE technology field. Based on the data collected, as a final step in Phase 2 the project will assess the level of maturity of the available and emerging CDE tools and will assess their usability, applicability and compatibility with strategic and operational concepts in the area of EU conflict prevention and peace-building. Technological gaps and shortcomings in existing tools will be identified. In case data collection is affected by the COVID-19 pandemic appropriate measures will be taken. For example, data collection will also continue in Phase 3 of the project and all interviews will be carried out online.

The data collected and generated in the project will be packaged in two textual data files, as follows:

- o D4.1 Catalogue of available and emerging CDE tools in the EU (which is a public deliverable); and
- o Qualitative interviews with representatives of companies, developers and end-users (this document is not a project deliverable).

In addition, the project will produce three scholarly articles which will be published open access.

Data management will be carried out under WP1 Project management and the empirical research work (data collection) will be conducted under WP4 Technology assessment.

The research data might be useful to researchers in the area of EU conflict prevention and peacebuilding and CDE software developers. The research data will provide a reference source also for non-specialists who are interested in this EU policy area.

## 3. FAIR Data

### 3.1. Making data findable, including provisions for metadata

The research data and the publications from the CDE4Peace project will be deposited on the **Zenodo platform** (<https://www.zenodo.org/>), which is an EU-supported portal for big data management and extended digital library capabilities for open access and open data. More specifically, the research data and publications will be deposited on the Zenodo-curated OpenAIRE platform (<https://www.openaire.eu/>), which is the major EC-supported initiative for fostering open science in Europe. The CDE4Peace project is already registered on the OpenAIRE platform and has open access mandate for publications and research data.<sup>2</sup> Zenodo is integrated into reporting lines for research funded by the European Commission via OpenAIRE. The data on Zenodo / OpenAIRE is preserved via

---

<sup>2</sup> [https://explore.openaire.eu/search/project?projectId=corda\\_h2020::7899c410e93196f0ed7da8fec2e107bd](https://explore.openaire.eu/search/project?projectId=corda_h2020::7899c410e93196f0ed7da8fec2e107bd) (accessed 05/11/2020)

reliable and well-established means, including mirroring and periodic back-ups. Each research data deposited on Zenodo / OpenAIRE is assigned a DOI (Digital Object Identifier) number which is a unique and persistent identifier. It facilitates both tracing and referencing the data.

The naming convention will reflect the contents of the respective research data (catalogue; interviews) and the year of publication. For example, "Catalogue\_CDE\_tools\_EU\_2021.pdf."

Search keywords will be provided to optimise possibilities for re-use. Search keywords will include the name of the project (CDE4Peace) as well as keywords relatable to the project's subject matter, such as: concept development and experimentation; CDE; tools; conflict prevention; peacebuilding etc.

Clear version numbers will be provided, when applicable.

CDE4Peace is an interdisciplinary project linking conflict and peace studies with concept development and experimentation tools. Presently, no metadata standards exist in this interdisciplinary crossover area. Therefore, the type of metadata to be created will follow the requirements for depositing research data on Zenodo, such as: type of publication, DOI, title, authors, description, version, keywords etc.

### **3.2. Making data openly accessible**

The CDE4Peace project will collect and generate only qualitative research data. This data will be packaged in textual data files, which will be made openly available as the default. The qualitative interviews will be fully anonymised. The data collected in the project will be deposited on the Zenodo platform. Moreover, the link to the repository will be provided on the project website (<https://www.cde4peace.eu/>). The project will follow the conditions, rules and regulations from the Zenodo repository with regard to accepted way of depositing the data, format, and size of the research data.

The Zenodo platform fully complies with the principle of accessibility of the research data. All metadata are retrievable by their identifier using a standardized communications protocol (OAI-PMH). The protocol is open, free and universally implementable. The protocol allows for an authentication and authorization procedure, where necessary. Metadata are accessible, even when the data are no longer available. Data and metadata will be retained for the lifetime of the repository. This is currently the lifetime of the host laboratory CERN, which currently has an experimental programme defined for the next 20 years at least.

There are no restrictions on data use. The research data from the CDE4Peace project will be deposited for open access on Zenodo. The research data will be made available in pdf. format for which free software tools can easily be downloaded. No additional documentation is needed to open the research data.

The Marie Curie Fellow has already created a Zenodo account.

There is no need for a data access committee. There are no conditions for access.



### 3.3. Making data interoperable

The data produced in the project is fully interoperable as it is packaged in standard pdf. files. Anyone with minimum computer skills will be able to open and use the data (append, record etc.). All of the metadata will be given in a word document format which is easily readable on any computer.

Zenodo follows DataCite Metadata Schema (<https://schema.datacite.org/>) which is a list of core metadata properties chosen for an accurate and consistent identification of a resource for citation and retrieval purposes, along with recommended use instructions. Hence, the CDE4Peace metadata will be fully interoperable.

No project-specific ontologies or vocabulary will be generated.

### 3.4. Increase data re-use (through clarifying licences)

The project aims at publishing three open access articles under the Creative Commons licence in order to allow for a possibly widest re-use of the research output. As outlined in p.3.1 and 3.2, the research data from the CDE4Peace project will be deposited on Zenodo for open access. The research data and metadata will be freely available on Zenodo without any restrictions. Any other research output (such as leaflet, policy and business briefs) will be made available online on the project's website and twitter account and widely shared. Their re-use will be encouraged and there will be no restrictions on copying or distributing the materials.

The research data (D4.1 Catalogue of CDE tools and Qualitative interviews) will be made available for re-use after the end of Phase 2 of the project (Technology assessment, M7-M13) when data collection will be most intensive. Having in mind possible delays with the interviews connected with the COVID-19 pandemic (some industrial exhibitions have already been postponed) it is realistic to make the final versions of the research data available for re-use at the beginning of 2022. The exact time when the data will be deposited on the platform depends on the amount of time that will be required to prepare the data, the documentation and to make sure that the final research data does not allow for identifying particular interviewees. The metadata will be published together with the research data. Users will be able to use the research data and metadata without any restrictions other than the general terms and conditions for the use of data on Zenodo.

The data will remain reusable without any specified time limit under the Creative Commons licence. As per Zenodo policy, items deposited on the platform will be retained for the lifetime of the repository.

Data quality assurance is provided in line with the principles of research integrity and responsible research. Data management will be overseen by the host organization which has considerable experience with EU-funded FP7 and H2020 projects. The data collected by the 'technology watch' method will be compared with data from the qualitative interviews to ensure data verification.

## 4. Allocation of resources

Costs related to open access to research data are eligible costs as part of the Horizon 2020 MSCA grant as specified in the Grant Agreement. The project will provide easy access to the research data using Zenodo which is a free online repository. Depositing materials on Zenodo will not generate any costs, and all materials will be prepared and checked by the Marie Curie Fellow.

All publications resulting from the project will be published as open access articles in peer-reviewed journals. The costs related to open access publications (article publishing charges – APC) are eligible costs for Horizon 2020 MSCA grants under budget category Research, training and networking costs. The costs for printing and preparation of the hardcopy version of the project's leaflet are also eligible under the Horizon 2020 MSCA grant.

All output generated in the project will be open for re-use and sharing without any restrictions. The project's main dissemination and communication objective is to popularize its findings and outcomes among the general public.

Data management will be the responsibility of the Marie Curie Fellow and project coordinator, Dr. Nikolay Pavlov.

There will be no further costs related to preservation of the data beyond the funding period.

## 5. Data security

All data is securely stored on two secure drives: the notebook of the Marie Curie Fellow and the host organization's Google drive. The project is hosted by SYNYO GmbH which uses state-of-the-art technologies for secure data storage and transfer, as well as for managing the rights of the users (e.g. individuals downloading information from the website). The content of the project website is managed only by an authorized person and based on well-defined rights.

The data collected for the project will be fully anonymised and no potential data user will be able to identify interviewees based on the information recorded in the data.

The data will be stored in minimum two separate locations to avoid data loss. The data will not be transferred on USB drives. Any data will only be stored on password-protected device. All data will be labelled in a systemic way in order to ensure coherence and transparency.

Depositing the data on Zenodo is free of charge and allows for long-term preservation and curation in compliance with the EU guidelines.

## 6. Ethical aspects

The project will be implemented in full compliance with the relevant European and national legislation and the fundamental ethical principles, including those reflected in the Charter of Fundamental Rights of the EU and the European Convention on Human Rights and its Supplementary Protocols. All ethical aspects will be handled by WP1 Management. The Marie Curie Fellow will be in charge of data protection and ethical issues in the CDE4Peace project. Informed consent will be obtained from the interviewees to maximize the benefits and minimize the risks of research involving work with human beings. Special Informed Consent Forms and Information Sheets have already been prepared and will be used throughout the project to ensure informed consent of the interviewees (see: Annex 1).

As a general rule the project will not collect any sensitive personal data as this is not necessary for achieving the research objectives. Wherever personal data is being collected – mostly in connection with interviews - it will be duly protected fully in line with the EU General Data Protection Regulation (GDPR) and other relevant EU and national legal acts. The choice of interviewees will be done with a view to achieving the project's principal objective – to explore the potential of CDE tools for EU conflict prevention and peace-building. The qualitative interviews on CDE tools will not result in any discriminatory practices or unfair treatment. The interviews will focus on CDE technology assessment and will not cause any harm to the research participants. Personal or sensitive topics are not relevant for the project and will be carefully avoided in the questionnaire for the interviews. The research does not involve any potentially vulnerable categories of individuals. Agreement on data sharing and long-term preservation is clearly stated by the interviewees in the informed consent form.

The CDE4Peace project involves the collection of personal data. The data collection, storage, protection, retention and destruction protocols fully comply with national and EU legislation. All hard copies of research data and, specifically the informed consent forms will be kept in a secured locked facility in the host organization (SYNYO GmbH) premises. Research data will be made anonymous by use of a reference number at the outset including at the interviewing stage to ensure that the privacy and security of participants is maintained in all records. Data will be processed only if it is really adequate, relevant and limited to what is necessary for the research. None of the research data to be generated by the project will include any personal data. No personal data collected in the project will ever be shared publicly. No personal data will be kept after the end of the project's reporting period; until then the signed informed consent forms will be kept on file as required by the European Commission's Research Executive Agency for reporting purposes. The personal data will only consist of signed consent forms and no personal identifiers could be matched with the research data. It will be impossible to connect personal data on the consent forms to the anonymised research data, and after the end of the project's reporting period, the informed consent forms will be securely destroyed and no personal data will remain. The final research data will only be made available in a repository in a fully anonymised version.

No data transfers of personal data from Austria to other EU or non-EU countries are foreseen. Participation in the research as an interviewee is voluntary and anyone has the right to refuse to participate and to withdraw their participation or data at any time – without any consequences.

The project was ethically cleared in the ethics evaluation phase as evidenced by the Ethics summary report for proposal no.882055, dated 20.01.2020. Nevertheless, following the Grant agreement signature the Marie Curie Fellow and the host organization requested ethics opinions from ethics

committees and competent authorities to ensure compliance of project activities with the applicable EU and national law. Ethics opinions were requested before the project's start from 4 (four) institutions, as follows:

- Commission for Science Ethics of the Austrian Academy of Sciences;
- Ethics Committee of the University of Vienna;
- Commission for Personal Data Protection of the Republic of Bulgaria; and
- Austrian Data Protection Authority.

The received opinions with English translations are annexed to the Data Management Plan. The documents clearly demonstrate that neither ethics approvals nor authorizations for the CDE4Peace project are required under national and/or European law. No ethical issues with regard to the project's activities were raised by the said institutions.

## 7. Other issues

The project does not make use of other national / funder / sectorial / departmental procedures for data management.

## Annex 1. CDE4Peace Information Sheet and Informed Consent Form

### Summary of the project

The CDE4Peace project seeks to explore the potential of Concept Development and Experimentation (CDE) for enhancing the EU's conflict prevention and peace-building policy. CDE is seen as a promising tool for the transformation of complex security systems, especially in NATO context but its potential for EU policies is under explored. First, the project aims at assessing the applicability and compatibility of the CDE methodology and tools with strategic and operational concepts in the area of EU conflict prevention and peace-building. Secondly, the project will seek to introduce and adapt CDE to EU conflict prevention and peace-building by defining the requirements for an innovative CDE tool tailored for this specific policy area. Finally, the project aims at defining actionable policy recommendations for implementing the CDE methodology and tools in the complex EU policy-making process. The project's research and innovation objectives are both very timely and relevant for the current developments in the EU's Common Security and Defence Policy (CSDP) which forms the political framework of EU conflict prevention and peace-building. The project will contribute to the European Research Area by linking the academic and policy analysis on EU conflict prevention and peace-building with experimental research and CDE in particular.

#### Data Management Procedures:

The CDE4Peace project involves the collection of personal data. The data collection, storage, protection, retention and destruction protocols fully comply with national and EU legislation. All hard copies of research data and, specifically the informed consent forms will be kept in a secured locked facility in the host organization's (SYNYO GmbH) premises. Research data will be made anonymous by use of a reference number at the outset including at the interviewing stage to ensure that the privacy and security of participants is maintained in all records. Data will be processed only if it is really adequate, relevant and limited to what is necessary for the research. None of the research data to be generated by the project will include any personal data. No personal data collected in the project will ever be shared publicly. No personal data will be kept after the end of the project's reporting period; until then the signed informed consent forms will be kept on file as required by the European Commission's Research Executive Agency for reporting purposes. The personal data will only consist of signed consent forms and no personal identifiers could be matched with the research data. It will be impossible to connect personal data on the consent forms to the anonymised research data, and after the end of the project's reporting period, the informed consent forms will be securely destroyed and no personal data will remain. The final research data will only be made available in a repository in a fully anonymised version. No data transfers of personal data from Austria to other EU or non-EU countries are foreseen. Participation in the research as an interviewee is voluntary and anyone has the right to refuse to participate and to withdraw their participation or data at any time – without any consequences.

For any further questions about the project, please contact the CDE4Peace project coordinator and Marie Curie Fellow, Dr. Nikolay Pavlov at: [nikolay.pavlov@synyo.com](mailto:nikolay.pavlov@synyo.com)

