JUST2CE

A Just Transition to Circular Economy

Deliverable D6.4

Project title A JUST TRANSITION TO THE CIRCULAR ECONOMY

Version 1.0

Authors ARC-MEDWAVES

GUIDELINES TO OPEN SCIENCE AND OPEN ACCESS

JUST2CE PROJECT

The JUST2CE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003491

Document identifier: D6.4

Version: 4.0

Dissemination status: Public

JUST2CE

A Just Transition to Circular Economy

D6.4 – Guidelines to Open Science and Open Access

Grant Agreement nº: 101003491

Project acronym: JUST2CE

Project title: A JUST TRANSITION TO THE CIRCULAR ECONOMY

Topic: Understanding the transition to a circular economy and its implications on the environment, economy and society

Project Duration: 2021/09/01 – 2024/08/31

Coordinator: Universitat Autònoma de Barcelona (UAB)

Associated Beneficiaries:

1. UNIVERSITAT AUTÒNOMA DE BARCELONA
2. UNIVERSIDAD DE VIGO
3. THE UNIVERSITY OF SHEFFIELD
4. UNIVERSITA DEGLI STUDI DI NAPOLI PARTHENOPE
5. CENTRO DE ESTUDOS SOCIAIS
6. UNIVERSITY OF LEEDS
7. UNIVERSITY OF CAPE TOWN
8. KENTRO EREVNON NOTIOANATOLIKIS EVROPIS ASTIKI MI KERDOSKOPIKI ETAIREIA
9. AGENCIA DE RESIDUS DE CATALUNYA
10. MEKELLE UNIVERSITY
11. KUMASI HIVE
12. SCIENTIFIC AND INDUSTRIAL RESEARCH AND DEVELOPMENT CENTRE
13. AFRICAN CIRCULAR ECONOMY NETWORK
14. ENERGY@WORK SOCIETA' COOPERATIVA A R.L.

The JUST2CE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003491

JUST2CE

A Just Transition to Circular Economy

PROJECT No. 101003491

Just2CE will assess the current state of transition towards the circular economy in relevant economic sectors and analyse possible transition scenarios, as well as their outcomes and impacts. It will identify the key factors that can stimulate or hinder this transition. Natural resources are extracted and transformed into products, which are eventually discarded. As many natural resources are finite, it is important to keep materials in circulation for as long as possible. This makes the transition to circular economy more vital than ever but is a responsible, inclusive, and socially just transition to a circular economy possible or even desirable? What technical, political, and social factors can enable or hamper such transformation? The EU-funded JUST2CE project will answer these questions. It will explore the economic, societal, gender and policy implications of the circular economy paradigm. The project's findings will shed light on how to ensure democratic and participatory mechanisms when designing and managing such technology.

History Chart

Version	Date	Implemented by
V4.0		
V3.0		
V2.0		
V1.1	05/04/2023	Revised by Mario Pansera UAB
V1.0	03/04/2023	ARC-MedWaves

Disclaimer

Version: 2.0

Executive Summary

This document provides a guide to the EU Open Access policy for JUST2CE consortium partners. The document reviews the main requirements to publish the scientific outcomes of the project and the modalities to share the data produced by the partners.

Table of Contents

List of abbreviations

EU	*European Union*
APCs	*Article Processing Charges*
CE	*Circular Economy*
CCL	*Creative Commons Licences*
DMP	*Data Management Plan*
EU	*European union*
IP	*Intellectual Property*
IPR	*Intellectual Property Rights*
RRI	*Responsible Research and Innovation*
OpenAIRE	*Open Access Infrastructure for Research in Europe*
ORDPilot	*Open Research Data Pilot*

[1] Introduction – The EU's Open Science Policy

The aim of the European Commission is to **improve access to scientific information and to boost the benefits of public investment in research funded under Horizon 2020**. This means making **publicly-funded scientific information available online, free of charge**, to European researchers, stakeholders and the public, while ensuring that it is preserved in the long term.

In this context, the Europe 2020 strategy for a smart, sustainable and inclusive economy underlines the central role of knowledge and innovation in generating growth. Broader access to scientific publications and data therefore helps to:

- Build on previous research results (improved quality of results);
- Encourage collaboration and avoid duplication of effort (greater efficiency);
- Speed up innovation (faster progress to market means faster growth);
- Involve citizens and society (improved transparency of the scientific process);

Open science is a policy priority for the European Commission and the **standard method of working under its research and innovation funding programmes** as it improves the quality, efficiency and responsiveness of research.

When researchers share knowledge and data as early as possible in the research process with all relevant actors it helps diffuse the latest knowledge. And when partners from across academia, industry, public authorities and citizen groups are invited to participate in the research and innovation process, creativity and trust in science increases.

That is why the Commission requires beneficiaries of research and innovation funding to make their **publications available in open access and make their data as open as possible**. It recognises and rewards the participation of citizens and end users.

The European Commission promotes the adoption of open science practices, from sharing research outputs as early and widely as possibly, to citizen science, and developing new indicators for evaluation research and rewarding researchers. In this context, the **FAIR (Findable, Accessible, Interoperable and Re-usable data) and open data sharing is per default the main practice for the results of EU-funded scientific research.**

For Horizon 2020-funded projects, the legal basis for open access is laid down in the Framework Programme and its Rules for Participation. These principles are translated into specific requirements in the Model Grant Agreement and in the Horizon 2020 Work Programmes. Moreover, the European Commission has produced a comprehensive document of Guidelines to rules on Open Access to Scientific Publications & Open Access to Research Data in Horizon 2020.

These brief guidelines build on these documents.

[2]. Open Access

Open access can be defined as the practice of providing on-line access to scientific information that is free of charge to the reader. In the context of research, open access typically focuses on access to "scientific information" or "research results", which includes two main categories:

- **Peer-reviewed scientific research articles and publications**

- **Research data**

2.1. Open access - Peer-reviewed scientific research articles and publications

According to article 29.2 of the Model Grant Agreement, all projects receiving Horizon 2020 funding are required to make sure that any peer-reviewed journal article and scientific publication published is openly accessible, free of charge. Each beneficiary must ensure such open access by disseminating the results and disclosing them to the public by appropriate means. Open access includes not only the right to read, download and print for the final user, but also the right to copy, distribute, search, link, crawl and mine.

The open access mandate thus comprises two steps:

1) **Depositing publications in online repositories or archives**

   As soon as possible and at the latest on publication, beneficiaries must deposit a machine-readable electronic copy of the published version or final peer-reviewed article accepted for publication in a **repository for scientific publications**.

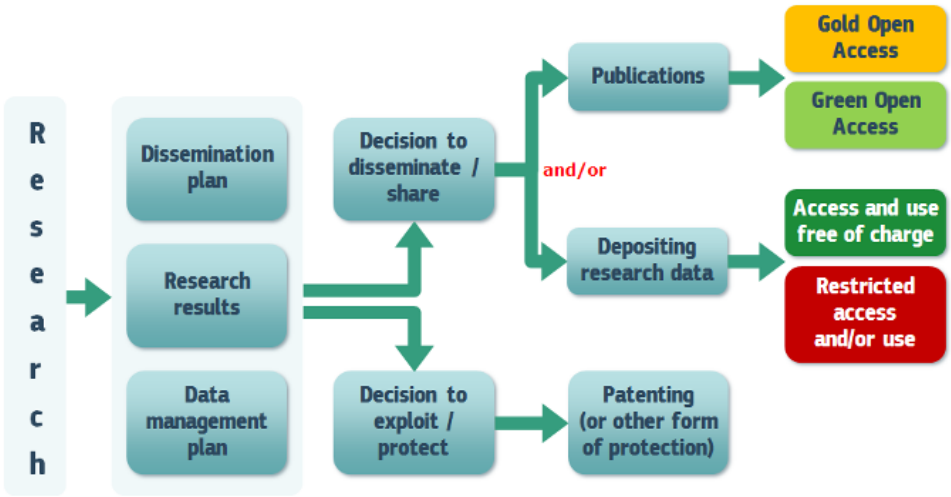
2) **Providing open access to them**. Beneficiaries can freely choose between the most appropriate channel to provide open access for them:

   - **Green open access** – **Beneficiaries can deposit the final peer-reviewed manuscript in a repository of their choice before, alongside or after its publication.** Repository software usually allows authors to delay access to the article ('embargo period'). If this route is chosen, **beneficiaries must ensure open access to the publication within a maximum of six months, and twelve months for publications in the social sciences and humanities.**

   - **Gold open access** – **If the article is immediately published in open access journals or academic journal websites.** Publishers sometimes charge so called Article Processing Charges (or APCs), and such costs are eligible for reimbursement during the duration of the project, as other costs defined in article 6.2.D.3 of the Model Grant Agreement. However, the costs of gold open access publications incurred once a project is completed cannot be refunded from that project's budget.

     In this case, beneficiaries must also have to deposit a copy of the article in a repository upon publication (step 1). This step applies even where gold open access is chosen to ensure that the article is preserved in the long term.

Figure 1. Graph: Open access to scientific publication and research data in the wider context of dissemination and exploitation



Source: European Commission. Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020

Despite the fact that the **dominant type of scientific publication** is the journal article, yet grant beneficiaries are also strongly encouraged to provide open access to other types of scientific publications such as monographs, books or conference proceedings, among others.

Moreover, beneficiaries must also provide open access through the repository to the **bibliographic metadata** identified through the deposited publication, specially to make it easier to find publications and ensure that EU funding is acknowledged. Information on EU funding must therefore be included as part of bibliographic metadata so that Horizon 2020 can be properly monitored, statistics produced, and the programme's impact assessed (article 29.2.a Model Grant Agreement).

However, it is important to remark that open access requirements do not imply an obligation to publish results. The decision to publish is entirely up to the grant beneficiaries. **Open access becomes an obligation *only if* publication is chosen as a means of dissemination**. Moreover, open access does not affect the decision to exploit research results commercially (patenting).

2.1.1. Open Access and the JUST2CE Project

JUST2CE will fully embrace the open access publication policy of Horizon 2020 by providing online access to scientific information that is free of charge to end-users (***"Gold Open Access"***), taking care not to have this diluted by publishers' licenses which result in "bronze" open access (only for reading but does not enable further use).

Open access will be provided to publications emanating from the project and featuring in peer-reviewed journals. The decision on which route to open access will be taken is dependent on the publisher selected, the article and the partners who have contributed to the publication. In general, the project has agreed on measures related to each route leading to the provision of open access:

- **Publication via the 'gold' route**, whereby the material is published as open access immediately, often after the authors pay a fee to the publisher. Sufficient resources have been set aside to ensure this

route is available, if needed. A copy of publications will be deposited in the UAB's institutional repository.

- **Publication via the 'green' route**: the final peer-reviewed publication is deposited in an online repository of choice, often after an embargo period set by the publisher. The consortium members have agreed that the material will be deposited immediately upon publication and that the article will be open for access after the shortest embargo period allowed by the respective publication.

  The coordinator's institutional repository will be used as a default for publications using the green route, unless a more specific repository is assessed by the consortium to be more suitable for the material and/or is more consistent with the partner's institutional norms and requirements. The project's deliverables will also be deposited in a publicly accessible archive to maximise their reach and ensure their preservation.

2.2. Open access - Research Data

To begin with, **open access to research data** refers to the **right to access and reuse digital research data** under the terms and conditions set out in the Grant Agreement. In this context, the **term research data** encompasses the notion of **information, in particular facts or numbers, collected to be examined and considered as a basis for reasoning, discussion, or calculation.** For instance, some examples would be statistics, results of experiments, measurements, observations resulting from fieldwork, survey results, interview recordings or images, among others.

The European Commission's ambition is of ***"open research data per default"*,** but it allows for opt-outs for some datasets, for instance in cases of intellectual property rights (IPR) protection, personal data or national security issues.

Open access of research data is addressed in article 29.3 of the Model Grant Agreement by underlining that **beneficiaries must deposit and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate, free of charge for any user** two types of data:

1) **Data needed to validate the results presented in scientific publications** (also known as *underlying data*);

2) **Other data as specified by the beneficiaries in their Data Management Plan** - For instance curated data not directly attributable to a publication or raw data.

However, not all data can be open. The European Commission recognizes that some research data cannot be made open and applies the principle of ***"as open as possible, as closed as necessary".*** It is therefore possible to opt out of research data sharing at any stage (before or after the signature of the grant agreement) and free beneficiaries retroactively from the obligations associated with the conditions. Nevertheless, reasons have to be given on the following grounds: 1) Intellectual property rights (IPR) concerns; 2) Privacy/data protection concerns; 3) National security concerns; 4) Incompatibilities with the project's main aim; 5) If the project will not generate / collect any research data; 6) Other legitimate reasons.

2.2.1. Extended Pilot on Open Access to Research Data

The Commission has enabled access to and reuse of research data generated by Horizon 2020 projects through the **Open Research Data Pilot (ORD Pilot).** The pilot aims to improve and maximise access to and re-use of research data generated by Horizon 2020 projects, taking into account the need to balance openness and protection of scientific information, commercialisation and IPR and privacy concerns.

Projects must meet the abovementioned requirements and follow these two steps to include the research data in the ORD Pilot:

1) **Beneficiaries must deposit the research data described above, preferably in a research data repository**. These are online research data archives, which may be subject-based/thematic, institutional or centralised. The Registry of Research Data Repositories offers useful listings of repositories. The Open Access Infrastructure for Research in Europe (OpenAIRE) provides additional information and support on linking publications to underlying research data.

2) **Beneficiary projects must take measures to enable third parties to access, mine, exploit, reproduce and disseminate (free of charge) this research data.** An effective way of doing this is to attach Creative Commons Licences (CCL) to the data deposited.

[3]. Data Management

Data Management Plans (DMPs) are a key element of good data management. A DMP describes the data management life cycle for the data to be collected, processed and/or generated by a Horizon 2020 project. Participating projects will be required to develop a Data Management Plan (DMP), in which they will specify what data will be open: detailing what data the project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how it will be curated and preserved. The DMP for JUST2CE has been published on the Participant Portal as D7.2.

The JUST2CE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003491

JUST2CE

A Just Transition to Circular Economy