



**Africa-Europe BioClimatic buildings for
XXI century**

DATA MANAGEMENT PLAN

Update version

ABC 21 project

This document has been developed as part of the project titled “**ABC 21 – Africa-Europe BioClimatic buildings for XXI century**”.

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Executive summary

The data management plan (DMP) of the ABC 21 project includes information on how data will be handled within the project.

The basis is the European General Data Protection Regulation (GDPR), Regulation (EU) 2016/679, and other codes and guideline.

Definitions of terms and principles relating or processing of data are described to ensure a common understanding.

The purpose of collecting data within the frame of the ABC 21 project is to strengthen bioclimatic approaches for effective deployment in the African climate and urbanisation context with the goal of increasing energy performance, quality of life and sustainability by reaching main target groups such as policy or market actors but also students.

Primary & secondary data, as well as personal data is collected within the project, but no sensitive personal data. Personal data is collected but not processed. Primary data and secondary data will only be processed in accordance with ethical principles.

Personal data is stored mainly in computerised form on the servers of the respective project partner(s) and in the online storage “dropbox”. The liability for data protection remains with the consortium partners as data processors. Just authorized staff members and project team members have access to this data.

Personal data will be stored for 3 years after project completion; all other scientifically relevant data will be stored for up to 10 years. Personal data can be deleted upon request.

ABC 21 will make sure that data collection in Africa will also meets the provisions of the GDPR standards.

Further measures will support data protection:

- Introduction of a “ABC21 Data Protection Official
- Signing a Memorandum of Understanding (MoU) by each project partner
- Continuous training on data protection for all project partners.
- Involvement of external ethics expert if required.
- Involvement of an ethics committee upon request.
- Data collection after the project period will comply with necessary data protection issues.

The data management plan will form the basis for knowledge management, which will be prepared according to the FAIR principles.

Contact information for the project coordinator and the data management official is listed.

Abbreviations

Term	Name
COP	UN Climate Change Conference
CSA	Coordination and Support Action
DMP	Data Management Plan
MOU	Memorandum of Understanding
GDPR	European General Data Protection Regulation
POE	Post Occupancy Evaluation
Polimi	Politecnico di Milano

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1. Introduction

The project ABC 21 - 'Africa-Europe BioClimatic buildings for XXI century' addresses the topic of decarbonisation the EU building stock through innovative approaches and affordable solutions changing the market for buildings renovation.

The project is a Coordination and Support Action (CSA) within the EU Research and Innovation programme Horizon 2020 and consists primarily of accompanying measures such as collection of existing data and reports, recommendations for standardisation, dissemination, awareness-raising and communication, networking, coordination and support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure. It also includes complementary activities of strategic planning, networking and coordination between programmes in different countries.

This Data Management Plan (DMP) is

- A statement of Politecnico di Milano's (PoliMi's) commitment (the coordinator in the name of the whole ABC 21 consortium) to protect the rights and privacy of individuals and to carry out all action in compliance with ethical principles and applicable law.
- It outlines what the ABC 21 team is doing with data during and after this CSA.

2. Foundations

2.1. Applicable law and data protection official

PoliMi – and the whole ABC 21 consortium – is firmly committed to ensure personal privacy and compliance with the European General Data Protection Regulation (GDPR), Regulation (EU) 2016/679¹.

The GDPR defines rules about the way in which personal data and sensitive personal data are collected, accessed, used and disclosed, and also permits individuals to access their personal data and to have the right to have their data amended if found to be incorrect.

The ABC21 project will further follow the:

- European Code of Conduct for Research Integrity²
- Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020³ and the
- Guidelines on the Implementation of Open Access to Scientific Publications & Research Data in projects supported by the European Research Council under Horizon 2020⁴.

Based on the provisions of the GDPR, PoliMi provides a Data Protection Official in order to protect rights and privacy of individuals. (See also chapter 4).

2.2. Definitions

The GDPR defines an array of legal terms at length. Below are some of the most important ones that will be mentioned in this report:

- Personal data: Personal data is any information that relates to an individual who can be directly or indirectly identified. Names and email addresses are obviously personal data. Location information, gender and web-cookies can also be personal data.
- Sensitive personal data: This data is subject to specific processing conditions and includes:
 - Personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs;
 - Trade-union membership;

¹ European Parliament and Council (2016): Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation), Current consolidated version: 04/05/2016

² ALLEA - All European Academies (2017): The European Code of Conduct for Research Integrity, Revised edition, ISBN 978-3-00-055767-5.

³ European Commission (2017): Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020. Version 3.2, 21 March 2017

⁴ European Research Council (2017): Guidelines on the Implementation of Open Access to Scientific Publications & Research Data in projects supported by the European Research Council under Horizon 2020

- Genetic data, biometric data processed solely to identify a human being;
 - Health-related data;
 - Data concerning a person's sex life or sexual orientation.
- Primary data: This is the type of data that is collected directly from main sources.
 - Secondary data: This is the data that has already been collected through primary sources and has been made available for further research.
 - Data processing: Any action performed on data, whether automated or manual, this includes collecting, recording, organizing, structuring, storing, using, erasing....
 - Data subject: The person whose data is processed. These can be customers, site visitors or interview partners or others.
 - Data controller: The person who decides why and how personal data will be processed.
 - Data processor: A third party that processes personal data on behalf of a data controller. The GDPR has special rules for these individuals and organizations. They can include cloud servers or email service providers.

2.3. Principles relating to processing of personal data

The processing of personal data in ABC 21 complies with the seven principles outlined in Chapter 2, Article 5 of the GDPR:

- Lawfulness, fairness and transparency: Processing is lawful, fair, and transparent to the data subject.
- Purpose limitation: ABC 21 processes data for the legitimate purposes specified explicitly to the data subject when it is collected.
- Data minimization: ABC 21 collects and processes only as much data as absolutely necessary for the purposes specified.
- Accuracy: ABC 21 keeps personal data accurate and up to date.
- Storage limitation: ABC 21 only stores personally identifying data for as long as necessary for the specified purpose.
- Integrity and confidentiality: Processing is done in such a way as to ensure appropriate security, integrity, and confidentiality (e.g. by using encryption).
- Accountability: The ABC 21 data controller is responsible for being able to demonstrate GDPR compliance with all of these principles.

3. Data collection in ABC 21

3.1. Purpose of the data collection and its relation to the objectives of the project

The purpose of collecting data within the frame of the ABC 21 project is to strengthen bioclimatic approaches for effective deployment in the African climate and urbanisation context with the goal of increasing energy performance, quality of life and sustainability.

For the ABC 21 project the collection of data is particularly important because Africa faces strong urban development and until now there are few compilations of bioclimatic design and local materials. The collection and further development of these bioclimatic approaches including recommendations for standardisation will influence the African market for building renovation leading to decreasing primary energy consumption and reduction of greenhouse gas emissions.

The main objectives of ABC 21 and the related purpose of the data collection are depicted in Table 1.

Table 1: Main objectives and related purpose of data collection

ABC 21 Objective	Purpose of data collection
Identify and document African and European affordable bioclimatic designs and local materials	Data is collected to: <ul style="list-style-type: none"> – Identify case studies and effective bioclimatic approaches – Share best practices – Promote measures to facilitate access to best practical knowledge for building professionals – Develop guidelines for adapting passive technologies
Promote exchange activities for policy makers on low-cost and effective bioclimatic construction	Data is collected to: <ul style="list-style-type: none"> – Promote exchange activities to strengthen cooperation between Europe and (NW-)Africa – Conduct information exchange activities – Identify conditions and tools (curricula, contract models) that will enhance the capacity of partners countries and stakeholders
Develop sustainable and cost-effective supply of local construction materials produced by local businesses	Data is collected to: <ul style="list-style-type: none"> – Review and promote existing training infrastructure in Africa and Europe – Support the development of certified local building material manufacturing – Promote actions to facilitate access to finance for investment projects
Promote innovation on state-of-the-art surface finishing and future weather files	Data is collected to: <ul style="list-style-type: none"> – Promote state of the art selective emissivity surface finishing that can be combined with bioclimatic solutions.

	<ul style="list-style-type: none">- Produce a database of mid and end of century weather files for West Africa- Test the resilience capabilities of bioclimatic solutions in different climate change scenarios- Provide a database of support materials and tools needed to design new buildings
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3.2. Target groups

The main target groups of ABC 21 are:

- Policy makers (EU & Africa)
- Market actors, such as architects, engineers, construction companies (Mainly Africa)
- Education sector (EU & Africa)
- Public sector (Mainly Africa)
- Development agencies (EU & Africa)
- International financing institutions (EU & Africa)

3.3. Tasks with data collection

Not all tasks within ABC 21 include data collection. Table 2 gives an overview on which type of data is collected in which task.

Table 2: Overview on tasks and data collection

No	Task No	Task title	Collected data	Type of data
1	T1.1	Map of interaction with the allies	Name, function, birth year, and location of contact persons from allies	Personal data
2	T1.1	Minutes of web-meeting with the allies	Name, function, email address, location of participants	Personal data
3	T1.1	Zotero Group for existing bibliography and publications of ABC 21	Name, function, email address and location of authors	Personal data
4	T1.2	Administrative and financial management – Progress reports	Name, function, phone number, email address and location of project team members	Personal data
5	T1.3	Minutes of project meetings	Name, function, email address and location of project team members and other participants	Personal data
6	T2.2	Review of training and regulatory infrastructure in NW-Africa and EU	Name, function, phone number, email address, location of contact persons from training infrastructure, institutional bodies, courses and initiatives	Personal data
7	T2.3	Review of infrastructure for production of local construction materials in NW-Africa and EU	Name, function, phone number, email address, location of contact persons from networks of small industries/manufacturers	Personal data
8	T2.4	Review of policies supporting passive and bioclimatic approach and development of local materials and production chains in NW-Africa and EU	Name, function, phone number, email addresses, location of persons in charge of / connected to policies	Personal data
9	T3.2	Indicator and weather files for future climate, as input for design of buildings and districts	Weather indicators, weather files, weather tools	Primary & secondary data

10	T3.3	Review and analysis of materials and construction practices (local and/or adapted local conditions)	Materials and construction practices	Primary & secondary data
11	T3.4	Case studies of European and African Bioclimatic buildings	Case studies: Environmental data, passive solutions, Post Occupancy Evaluation, and user feedback	Primary & secondary data
12	T3.4	Case studies of European and African Bioclimatic buildings	Anonymised user names	Personal data
13	T3.5	Technical guidelines and tools for future-proof passive design in warm climates	Technical guidelines, training tools (software, online tools, database, ...)	Secondary data
14	T4.1	Expansion and consolidation of stakeholder's network	Name, function, phone number, email address, location of contact persons of stakeholders and allies	Personal data
15	T4.2	Dedicated workshop session at COP 26	Name, function, email address, location of participants	Personal data
16	T4.3	Series of webinars (coupled with physical gatherings) on the topics developed in WP3	Name, function, email address, location of participants	Personal data
17	T4.4	Final international conference in Morocco & other conferences	Name, function, phone number, email address, location of participants	Personal data
18	T4.5	Technical dissemination, scientific communication	Twitter- and LinkedIn accounts of project partners and allies	Personal data

Table 2 shows, that in ABC 21 personal data, primary data and secondary data is collected, but **no sensitive personal data is collected**.

3.4. Processing of collected data

Personal data is collected but not processed.

Primary data and secondary data will only be processed in accordance with ethical principles. Data processing includes the aggregation, categorization and clustering of primary and secondary data. Plausibility checks and quality assurance of the processed data are performed by the respective task manager.

Processed primary and secondary data in the form of reports and protocols relevant to the entire consortium are stored in the **online storage "dropbox"** with limited access.

Some of these reports are distributed via the ABC21 **project website (<https://www.abc21.eu/>)**, the **websites of Construction21 and www.buildup.eu**, and **CORDIS, the Community Research and Development Information Service of the European Commission** only in compliance with ethical principles and applicable law.

If data is processed outside of the project by project staff for use within the project, this is considered **secondary use**, and appropriate consent is required unless the data in question is completely anonymized. In such cases, the required consent documentation will be provided.

Completely anonymous, aggregated data from **Post Occupancy Evaluation (POE)** and users' feedback forms will be published on the project website in reports for further use. Any users of these data are obliged to refer to the data source "ABC21" by noting "Source".

3.5. Storage of personal data

Personal data and information are collected by the respective author(s) in both automated and manual data format. They are **stored mainly in computerised form on the servers of the respective project partner(s) and in the online storage "dropbox"**. Manual data, if any, will be stored in a secure filing system, which will be kept in a secure room. This room will be locked when not in use.

The coordinator takes care that reasonable procedures are in place in order to provide data security; however, liability for data protection remains with the consortium partners as data processors.

3.6. Access to personal data

As for the personal data stored on the servers of the respective author, only authorized staff members have access to this data. A secured storage system is implemented, where access to physical data and the servers is only provided to authorized staff.

As for the personal data stored in dropbox, only project team members which have been added as users to dropbox by the coordinator have access to this data.

Personal data will not be shared with any other people outside of the project team.

3.7. Duration of storage

The collected personal data and all related information are stored for the duration of the project and for an appropriate period (3 years) after project completion. After this period, all personal data will be deleted.

All other scientifically relevant data will be stored for up to 10 years.

3.8. Deletion of personal data

Upon request by data subjects, personal data can be deleted at an earlier point in time.

3.9. Collecting personal data in non-EU countries

ABC 21 is collecting data not only in EU countries, but also in Africa and will ensure that processing, notification, consent and accountability of personal data meets the provisions of the GDPR standards.

Through training on data protection (see chapter 4) all consortium partners and their research participants understand the regulations for personal data. Consent to export personal data to an EU Member State or a non-EU country can be given by the informed consent forms provided in ANNEX A.

3.10. Transferring personal data out of the EU

ABC 21 ensures that any international data transfers fulfil at least one of the relevant conditions in Chapter V of the GDPR.

Any third-party services that is used e.g. survey tools, data analytics, cloud storage, etc. are incorporated in an EU Member State or legally represented in the EU in accordance with the GDPR.

In case partners or service providers are involved, legally binding and enforceable agreements are adopted prior to data transfers.

The onward transfer of personal data by members of the ABC 21 consortium and any other recipients to the outside of the framework of such agreements is prohibited.

4. Protection and safeguarding of information

Besides compliance with the key ethical principles the following actions will be taken:

- Introduction of a “ABC21 Data Protection Official”: Susanne Kuchar of e7 energy innovation & engineering was assigned “ABC21 Data Protection Official” for the ABC21 project and is regularly updating the consortium in regard to data protection issues.
- Signing a Memorandum of Understanding (MoU): At the beginning of the project each project partner has to sign a MoU on data protection rules. (See ANNEX A)
- Training on data protection: All partners were trained in the basics of data protection within the frame of a Partners Meeting 01 on 25 January 2021. Minutes and a recording of the meeting are available. A training on the updates in the Data Management Plan for all project partners will be part of the Monthly Web Meeting 08 in Mid-September 2021. Minutes and recording will be available in dropbox.
- Involvement of external ethics expert: The coordinator will take care that an external ethics expert, who is free from any conflict of interest, will be involved in the project, if required.
- Involvement of an ethics committee: Upon request by CINEA, an independent opinion of an ethics committee will be submitted by the coordinator, respectively the ABC21 Data Protection Official.
- Data collection after the project period: The coordinator and project partners ensure that appropriate procedures will be in place, so further users / authors will comply with necessary data protection issues.

5. Knowledge management in ABC 21

Knowledge management will be prepared according to the FAIR principles⁵.

The data management plan will form the basis for knowledge management and defines amongst others the following elements:

- **Findable:** The discoverability of data on the project webpage <https://www.abc21.eu/> will be ensured through the definition of search keywords, which are added for each page. Published data can be found on the project webpage under “Knowledge centre”, and on the website of Construction21 and www.buildup.eu. The ABC 21 project website is being developed with the content management system Wordpress.
- **Accessible:** The project webpage is live and will be supported for three years after the end of the project (31/08/2025). Personal data which cannot be made fully anonymous will not be published; it will be available only for project partners and neither processed, nor shared or published. Furthermore, all public reports elaborated during the course of the project will be available as pdf on the ABC 21 website.
- **Interoperable:** All public reports elaborated during the course of the project will be available as pdf on the ABC 21 website.
- **Reusable:** Processed data can be downloaded from the project webpage by third parties. This is free of charge with the restriction that users need to reference to “Source: ABC 21”. No licensing will be necessary.

⁵ European Commission (24/11/2020): https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm

6. Contact information

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7. References

European Parliament and Council (2016): *Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation)*, Current consolidated version:

04/05/2016,

- English Version: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>
- French Version: <https://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:32016R0679&from=EN>

ALLEA - All European Academies (2017): *The European Code of Conduct for Research Integrity*, Revised edition, Berlin, ISBN 978-3-00-055767-5.

European Commission (2017): *H2020 Programme Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020*, Version 3.2,

https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

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European Commission (2016): *H2020 Programme Guidelines on FAIR Data Management in Horizon 2020*, Version 3.0,

https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

ANNEX A

Memorandum of Understanding on data protection rules for ABC 21 consortium partners

Informed consent form for cases studies

To be defined. Including the export of the personal data they provide to an EU Member State or a non-EU country.

Informed consent form for POE and user's feedback

To be defined. Including the export of the personal data they provide to an EU Member State or a non-EU country.