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3	STMICROELECTRONICS SRL	ST-I	Italy
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EXECUTIVE SUMMARY

This document defines the Data Management Plan for the DREAM project. The purpose of this document is to provide the plan for managing the data generated and collected during the project; The Data Management Plan. Specifically, the DMP describes the data management life cycle for all datasets to be collected, processed and/or generated by a research project. It covers:

- ✓ the handling of research data during and after the project
- ✓ what data will be collected, processed or generated.
- ✓ what methodology and standards will be applied.
- ✓ whether data will be shared/made open and how
- ✓ how data will be curated and preserved



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Abbreviation

DMP	Data Management Plan
GA	General Assembly
NDA	Non-Disclosure Agreement
PC	Project Coordinator
PSG	Project Steering Group



1. Introduction

This document is the DREAM Data Management Plan (DMP). The consortium is required to create the DMP because the DREAM project participates in the Open Research Data pilot. The DMP describes the data management life cycle for all datasets to be collected, processed and/or generated by a research project. It covers:

- ✓ the handling of research data during and after the project
- ✓ what data will be collected, processed or generated.
- ✓ what methodology and standards will be applied.
- ✓ whether data will be shared/made open and how
- ✓ how data will be curated and preserved

The present document is the Deliverable “D7.7 – Data Management Plan” of the DREAM project. The main objective of D7.7 is to provide the plan for managing the data generated and collected during the project. According to the EU’s guidelines regarding the DMP (European Commission, 2016), the document may be updated - if appropriate - during the project lifetime (in the form of deliverables).

The intended audience for this document is the DREAM consortium and the European Commission.

2. Dataset description

The research data of the project include design and simulation files of the circuits, design rules for fabrication process, measurement results, reports, project deliverables and publications from the project. Research material for the project include physical circuits and circuit boards and demonstrator units.

The integrated circuits, circuit housings, demonstrator units will be designed with appropriate simulation software (e.g. Agilent ADS, Cadence, HFSS) and are saved as schematic files and layouts with specific file format of the software. The measurement results are saved in touchtone (.s2p), excel (.xlsx), Mathcad (.mcd) and Matlab (.mat) formats. The designs, measurements and measurement setups are also reported and documented in word processing programs and saved with .doc and .pdf formats.

Estimated volume of data will be 20 GB.

3. Processing, standards and metadata

Variables and value names of data will be constructed following general data processing principles. Common metadata schema (e.g. Dublin Core) will be used describing the data to aid data discovery and re-use. Once ready and checked a copy of the dataset will be deposited in VTT’s server. In addition, also a common repository service (e.g. CERN’s Zenodo) could be used, if it’s use will enhance long-term data accessibility.

Possibility for follow-up utilization of the data will be ensured by documenting data collection methods as well as the contents of the datasets.

4. Ethics and privacy

The research data does not include personal, or other data that should be confidential due to ethical reasons. The collaboration parties have agreed that the research results will be published in scientific journals and conferences and are thus freely available for everyone. All documents to be published will be checked prior to publication for information that they do not contain any confidential information. Specific data on the MMIC manufacturing process including simulation models for MMIC design is provided by the manufacturers. These data have restricted access under (nondisclosure agreement) NDA which is signed for each party when needed.



According to the guidelines of the Finnish Advisory Board on Research Integrity the project does not need an ethical review by ethic committee.

5. Data sharing and ownership

Project coordinator (PC) in collaboration with project steering group (PSG) will take all the appropriate measures to make the data openly available and usable for third parties for study, teaching and research purposes via licensing or other means. Primary focus in data sharing will be on the data underlying prospective scientific publications ensuring the validation of results presented in publications.

During the project, the data will be used by the research consortium members. After a project is closed all requests for further use of data will be considered carefully and whenever possible approved by the General Assembly (GA). Permission for data use will be granted providing there are no IPR or confidentiality issues involved or any direct overlap of research questions with the primary research. Ownership of datasets will belong to project consortium.

The collaboration parties have agreed that the research results will be published in scientific journals and conferences and are thus freely available for everyone. Both the gold open access and green open access will be used. The publications will be made available in public free database hosted by VTT Technical Research Centre of Finland and corresponding member of the consortium according to the guidelines of the publisher. All documents to be published will be checked prior to publication for information that they do not contain any confidential information. Specific data on the MMIC manufacturing process including simulation models for MMIC design is provided by the manufacturers. These data have restricted access under NonDisclosure Agreement (NDA) which is signed for each party when needed.

MODEM and some related parts (including software) are not developed inside the DREAM project but are provided by Alcatel-Lucent Italy for allowing tests. Therefore data on the MODEM and some related parts (including software) may have restricted access or no access at all. Specific data on the MODEM and its related parts (including software) are provided by Alcatel-Italy. Part of these data, identified by Alcatel-Italy only, may have restricted access under NonDisclosure Agreement (NDA) which is signed for each party when needed.

6. Data retention and preservation

The datasets generated will be archived at the premises of VTT for data security reasons and in addition archived in a common and – if feasible – open data repository (e.g. CERN's Zenodo) depending on the decision of project steering group. VTT is responsible for curating, preserving, disseminating and deleting the datasets in its possession. Retention time for curated datasets is the same as other project materials at VTT, by default twenty years.

7. Conclusions

The document provides the plan for managing the data generated and collected during the project: The Data Management Plan. Specifically, the DMP described the data management life cycle for all datasets to be collected, processed and/or generated by a research project. It covered:

- ✓ the handling of research data during and after the project
- ✓ what data will be collected, processed or generated.
- ✓ what methodology and standards will be applied.
- ✓ whether data will be shared/made open and how
- ✓ how data will be curated and preserved

Following the EU's guidelines regarding the DMP, this document may be updated - if appropriate - during the project lifetime (in the form of deliverables).