## **Plan Overview**

A Data Management Plan created using DMPonline

**Title:** Development of low carbon 3D printed concretes

Creator: Abdoulie Faal

**Principal Investigator:** Ciaran McNally

**Affiliation:** University College Dublin

**Template:** Health Research Board DMP Template

## **Project abstract:**

This project focuses on the development of sustainable 3D printed concretes with low carbon emissions by optimizing the use of supplementary cementitious materials (SCMs), nano-clays, and alternative binders. The research explores the impact of attapulgite, bentonite, and sepiolite clay in achieving printable, low-carbon concrete with improved rheological properties, strength, and buildability. This study aims to reduce Portland cement consumption while enhancing the fresh and hardened properties of 3D printed concrete, thereby contributing to greener construction practices.

**ID:** 169546

**Start date: 01-04-2023** 

**End date:** 30-09-2025

Last modified: 07-02-2025

**Grant number / URL:** iCRAG-Phase 2 - Grant Code: 13/RC/2092\_P2

## **Copyright information:**

The above plan creator(s) have agreed that others may use as much of the text of this plan as they would like in their own plans, and customise it as necessary. You do not need to credit the creator(s) as the source of the language used, but using any of the plan's text does not imply that the creator(s) endorse, or have any relationship to, your project or proposal