

IRP 11: Individual Research Project

Topic

Applications of Agent-based Models (ABM) to analyse finance growth in a sustainable manner over a long-term period

Objectives

In **agent-based modelling**, a system is represented as a collection of autonomous decision-making units, or agents (ABM). Each agent evaluates its own situation and makes decisions according to a set of rules. Agents are capable of a variety of appropriate behaviours for the system they represent. ABM has been utilised in numerous financial investigations. The literature contains few ABM studies that model economies and markets while assuming the industry's adoption of **sustainable finance**.

Involvement

- IRP belongs to WP5 (Sustainability of digital finance)
- WP Leader: UNA (Naples)
- Two supervisors from secondments: INT, and ARC

Deliverables

This study aims to use agent-based models to simulate different market scenarios in which industry agents take sustainable actions. Long-term financial growth will be analysed, and the findings will aid in the **development and modification of industry policies and strategies**. A **public repository** containing a library of the developed **agent-based models** is another anticipated outcome.

