



Università  
Ca'Foscari  
Venezia

**PROJECT ACRONYM AND TITLE:** GRINS - Growing Resilient, INclusive and Sustainable

**FUNDING PROGRAMME** PNRR M4C2 Inv.1.3 PE- *Partenariati Estesi*

**HOST DEPARTMENT or CENTER:** Department of Economics - San Giobbe

**SCIENTIFIC RESPONSIBLE:** Monica Billio

**FINANCIAL DATA:**

Project total costs	Overall funding assigned to UNIVE
€ 115.900.000, 00	€ 4.135.000, 00

**ABSTRACT:**

The economic, financial and geo-political crises of the last two decades and the still ongoing pandemic have left a tangible imprint on socio-economic conditions in Italy, increased inequalities and put a shadow on the growth prospects of entire communities that are increasingly put under stress by socio-economic, political and health shocks. The negative impacts on communities and territories are compounded by ongoing long-term processes related to slow productivity growth, climate change and structural dynamics. Furthermore, the progressive intensification of economic and financial integration, the growing scale of migration and international conflicts transmission increasingly make politico-economic shocks more global, harder to foresee and more difficult to handle both at the national and at the local level. In this context, the National Recovery and Resilience Plan (NRRP) offers an unprecedented opportunity reduce important gaps and to make the system more resilient, inclusive, and sustainable in the face of shocks and long-term transformations. While the process of implementation of these plans is vital, it is fraught with challenges. The massive scale of investments involved in the process and the compressed time horizon available for its implementation is a further source of stress for the system and a potential risk for social cohesion and the sustainability of private and public debts. The depth of the required reforms associated to the green, digital and sustainable mobility transitions and the associated societal transformations require a far from trivial process of adaptation.

The actors of the system, firms, households and public administrations, face complex and changing environments and need to make choices under uncertainty, often under limited information and often facing limitations in their ability to process it and use it proficiently. For instance, households need to make financial, labour, and consumption choices that require an increasingly deep understanding of changing market conditions and public regulations and that often require the ability to use digital technologies effectively. Similarly, resilient firms, need to foresee future scenario and adapt their organization modes, adjust production strategies and make risky investments, among many others. An effective and sustainable provision of public services by the public sector rests on well working and transparent administrations, a careful design of policies, a clear understanding of citizens' needs and the ability to plan financial sustainability and debts over the long-run. The public and private research system can play a fundamental role in supporting actors in their choices by responding to these needs, by providing useful knowledge and support for the implementation of key enabling technologies, like financial sustainability instruments, strategies for innovative ecosystems and circular economies, and low carbon policies and support territorial

and social cohesion by offering evidence-based advices to policy makers. All this requires high quality, timely, easy to access and usable data from different sources as well as effective and user-friendly tools for data analysis and supporting knowledge transfers and the design of evidence-based public policies.

GRINS EP aims at developing **an integrated set of geo-referenced heterogeneous databases** for the study of the evolution of the economic and social conditions of the Italian local areas and of the economic system as a whole. In particular, the research focus will be around the following themes: a) environment, that is, the evolution of climatic conditions, the mapping of significant natural risks, and pollution data; b) economic-social and health, that is, the analysis of heterogeneous information on sentiment, mobility, consumption, health, as well as the performance of economic activities; c) finance, for the analysis of the relationship between environmental dynamics, evolution of risk profiles. Middle-term and long-term sustainability of the debt of different stakeholders (State, households, firms) will be tackled.

### **OBJECTIVES and EXPECTED RESULTS:**

The aim of the project is to make available to public and private actors an accessible **open data platform – AMELIA dAta platforM for the transfEr of knowLedge and statistlcal Analysis** – usable in real time, building integrated repositories and data analysis platforms from heterogeneous sources. It will offer tools to support fundamental and applied research for firms and households and for policy analysis and evaluation of the actions of public administrations. The GRINS AMELIA will create knowledge and transfer it to private and public actors as well as to the national system of research according to the guidelines and principles of the PNR. The project is designed following the priorities set by the Italian National Research Plan (PNR) and in strict adherence with the fundamental underline goals that inspire the whole EU-NRRP action: favouring resilient, inclusive, and sustainable growth. GRINS will also provide:

(i) accurate measurement and multi-disciplinary analysis of socio-economic conditions of the actors of the economic system: firms, households, and public administrations. Specific attention will be devoted to studying strategies for active engagement of consumers and innovative firms, and to the design of public policies aimed at supporting the quality and quantity of investment in education, labour force participation, and households' financial decisions. GRINS will also focus on strategies to improve the provision of local public services and the universal access to effective health care.

(ii) analysis of strategies and policies to improve the adaptation to the green, digital and mobility transitions and the resilience of firms, households and regions to economic and financial shocks. A specific attention will be devoted to key enabling strategies supporting the development of green and sustainable finance, ecosystems for the circular economy and low carbon policies fostering climate transitions.

(iii) measurement of the factors underlying regional divides and gaps (in terms of infrastructure, human capital, entrepreneurship, quality of public services and efficiency of local public administrations), and the design of policies to favour territorial sustainability, the development of stagnant and peripheral regions, the reduction of the centre-periphery divides within cities. The project will devote specific attention to analysis, policies and interventions supporting local development across and within regions and cities, reducing the North-South divide and increasing social inclusion and cohesion.

GRINS is thus an ambitious project that has the potential to exert long-standing impacts on the research community, the public administration sector, individuals, households and firms. We present here the main expected results and illustrate the direct impacts that GRINS is likely to activate in the short and medium run. The main result of GRINS is the **release of the AMELIA platform**. AMELIA will be the result of the collective efforts of academic and technical partners taking part to the initiative (and described in detail in Section A). Motivated by the challenges faced by economic actors to develop sustainable growth solutions based on accurate and reliable data analysis-processing, AMELIA guarantees interactivity, replicability, and scalability and it is centred around three major core themes: (i) resilience of key economic actors (households, firms,

public administrations), (ii) territorial and (iii) social sustainability and the related enabling strategies. Its main value added is to allow accurate data integration of several heterogeneous data sources to build new knowledge for all relevant decision-making activities. GRINS will also implement pilot initiatives as a first step to address long-standing problems both for researchers and decision makers, namely the integration of different existing administrative data with external information coming from *ad-hoc* surveys that will complement the existing (but partial) information from administrative sources.

The platform will make several important contributions. First, AMELIA will significantly contribute to **data collection and integration**, with special emphasis on integration of geo-referenced data. By combining competencies from a wide range of domains, which are typically not readily available in single institutions and/or firms, GRINS is in a unique position to successfully achieve this goal. Differently from other data-related initiatives, AMELIA will collect and **integrates primary and secondary data sources**. Its main value added will be to integrate different data sources **into a single platform that can be used for research and policy analysis and decision-making**. **AMELIA will be oriented to the final users** (the research community, the public administration, households, firms, companies and investors) with a threefold mission:

- Provide new data and release existing data in open form whenever possible;
- Develop tools to process these data and to build accessible knowledge to stakeholders;
- Promote a culture of evidence and science-based policy decisions and a close interplay among public administration, academia and research institutions and firms.

Through AMELIA, GRINS will produce **high-quality and statistically validated data, research and tools** by combining methods from different disciplines. More specifically, it will combine data on firms, households and institutions with state-of-the-art econometric and statistical methods in order to evaluate the determinants of different stakeholders' sustainability and resilience in Italy.

Through theoretical, empirical and experimental research, GRINS will produce a **sound methodological framework** to analyze the consequences of environmental and economic shocks on households, firms, investors and the public sector, and how policies can mitigate the impact of these shocks and those that arise from the digital and green transition as well as ongoing critical situations (pandemic and conflicts). This framework will also include behavioural approaches and social impact evaluation methodologies for new interventions. GRINS emphasizes its innovation potential also thanks of one of its main outcomes in the medium term that is the design of sustainable business models to strengthen the use of digital data, data analysis and the role of empirical methods in decision making.

GRINS will invest substantial resources to create easily accessible dashboards and graphical interactive interfaces and web-APPS to make data and output from data easily accessible to final users, which differ in their objectives and training needs, and have substantial implications on the assessment of the potential medium- and long-term impact of the project. In the medium run, the technical resources in computing power and data integration, will reach the community of researchers and trained professionals, the new generation of students, PhD students and Postdoctoral fellows. Access to these additional resources (which would require a scale of investment that individuals would not be able to undertake, will foster new policy relevant research under the heading of the socially relevant themes that GRINS has identified.

The gains from initial investment in AMELIA are likely to grow exponentially as linkages and scientific collaborations grow in the academic and business research communities. The infrastructure of AMELIA is designed to be scalable, and the governance structure of GRINS is well suited to let new members join the consortium within the same structure of control and decision-making process. At the same time, the extended partnership may offer career opportunities to a new generation of trained professionals that can have positive spill-overs on firms R&D and on the public administration capacity and performance.

AMELIA is not designed to serve just the research community since it will host a dedicated showcase section where estimates, indicators, simulations, and scenarios, as well as sample software can be made available to final users within accessible GUI interfaces. These tools will enable also final users (policy evaluators, analysts and advisors, regulators, managers, investors and single individuals) to access the data, even in simplified format

AMELIA and related spill-overs will have also the subtler impact of improving the ability to read, understand and communicate data, which may in turn increase the consensus towards evidence-based policy making and contrast the negative consequences of the rapid spread of fake-news.

Finally, the relatively short time-frame in which GRINS operates within the ambitious targets set above, necessarily imply that some initiatives will be tested in **pilot studies**. These pilot studies relate to a variety of actions: technical and procedural innovations in data handling, creation of Laboratories, training initiatives, capacity building programs, new networks of research and policy analysis.

As a main medium/long term impact, GRINS will also **increase the private sector awareness** of the transformative role it can play in driving and financing the transition to a more inclusive and sustainable economy. These efforts will reduce the gap between societal sustainability objectives and the necessary reforms and investments for the ecological transition. This is an important legacy of the project along with the increased awareness of all stakeholders to mainstream sustainability in their choices and investments' considerations.

More specifically for the Spoke coordinated by Ca' Foscari, aims and expected results are the following.

#### **SPOKE 4 SUSTAINABLE FINANCE**

##### **Abstract**

*Mobilize sustainable investments for the green transition of the economic system. Define sustainable financial instruments and offer sustainable funding access to firms, especially SME. Define ESG scores targeted for SMEs and improving firms and financial institutions' alignment to EU Green Taxonomy.*

*Improve financial inclusion and funding to individuals, families and SME leveraging the complementarity among different funding and lending channels (digital and traditional).*

*Make public debt and financial system resilient in the face of economic, social and climate shocks.*

##### **Work Packages**

**WP1. ESG risk dimensions and their impact on investors and SMEs.** Assess and measure the relevant risks and impact of sustainable investing as to mainstream sustainability considerations in investors' risk management (both retail, company and system levels) and in the use of new sustainable finance instruments.

**WP2. Digital finance, inclusion and green/young entrepreneurship.** Improve financial inclusion and funding to individuals and SMEs, measuring risks and leveraging the inclusionary nature of digital finance, as well as the complementarity among different funding and lending channels (digital and traditional). Improve participation to capital markets in line with the EU Capital Markets Union with attention to new green/young enterprises.

**WP3. Assessment of climate change impact, physical and transition risks.** Innovate financial and quantitative approaches to climate change impact by coherently including complexity, uncertainty, and ambiguity dimensions to properly deal with financial and sustainability risks. Deal with physical and transition risks both for investors, firms and the whole system.

**WP4. Public debt and the financial system under Compounding Risks.** Public debt management and sustainability monitoring. Assess long-term debt vulnerability under stress scenarios: from pandemic to climate-related events also under compound risk. Evaluate the effects of fiscal rules and unconventional monetary policies in crisis times.

##### **Main Deliverables**

New datasets (firms ESG scores); New sustainability indicators at macro-financial level, also accounting for compound risks; Physical and transition risks mapping at geographical and sector level; Capacity building

programs for firms, financial institutions and households; Capacity building labs for ESG disclosure and sustainable finance access devoted to SME; New competencies for financial consultancy to support financial choices in the medium/long run combining sustainable finance and hedging instruments; Three practice oriented research observatories.

**PARTNERSHIP:**

<b>UNIVE</b>	<b>SPOKE 4 Coordinator</b>
<b>UNIBA</b>	<b>Affiliated</b>
<b>UNIBG</b>	<b>Affiliated</b>
<b>UNIBOCCONI</b>	<b>Affiliated</b>
<b>UNIBO</b>	<b>Affiliated</b>
<b>UNICA</b>	<b>Affiliated</b>
<b>UNICT</b>	<b>Affiliated</b>
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