TITOLO E ABSTRACT RICERCA ASSEGNISTI DISEA

Angius Virginia

Project Title: Hell, Purgatory, or Paradise? Institutionalising Smart Working IN Governments (SWING)

Abstract: SWING – Smart Working IN Government is a PRIN-funded research project that explores the evolution of smart working within the Italian public administration. It examines how agile work is transforming organisational practices, decision-making processes, and governance models, with particular attention to digital technologies, organisational culture, monitoring systems, and the impacts on employee autonomy, motivation, and performance.

The research consortium includes several Italian universities: the University of Cagliari, the University of Siena, the University of Bologna, and Sapienza University of Rome. The project adopts a mixed-methods approach, including literature reviews, surveys, in-depth interviews and focus groups with public officials and managers, document analysis, and both national and international comparisons. Special attention is given to local governments, regarded as key laboratories for institutional innovation and administrative experimentation.

The University of Cagliari specifically coordinates the work package dedicated to analysing the technological aspects of smart working, with a focus on digital infrastructure, collaborative tools adopted by local administrations, and the monitoring and control mechanisms enabled by digital platforms.

Dr. Virginia Angius, research fellow in the project, plays a substantial role both independently and in coordination with the research team. She leads key aspects of methodological design and is actively engaged in the collection and analysis of both qualitative and quantitative data. She contributes to the drafting of interim reports and scientific publications and plays a key role in disseminating the project's findings across academic and institutional settings. Her work also includes literature review and the integration of empirical evidence with the operational needs of the participating public administrations, ensuring coherence between research outputs and practical applications.

Through a comparative analysis of different administrations, SWING aims to identify the enabling conditions (and limitations) for the effective implementation of smart working, promoting evidence-based recommendations for policymakers and public managers. The project's interim results have already been presented at workshops and international conferences and will be further developed in scientific publications and operational tools for the public sector. The ultimate goal is to contribute to a sustainable transformation of public

work, grounded in trust, accountability, technological innovation, and organisational well-being.

P.I.: Prof. Alessandro Spano

Ballicu Gabriele

Project Title: An experimental investigation of the Italian North-South divide in trust, cooperation and redistributive preferences

Abstract: This project will investigate experimentally the gap in trust, cooperation and redistributive preferences between Italian macro regions. Experiment 1 will investigate the role of expectations, norms and stereotypes in generating the geographical cooperation gap. Experiment 2 will study geographical differences in attitudes towards income redistribution. Experiment 3 will explore the geographical determinants of trust in market transactions. In this project, together with the research group, I am conducting the literature review, designing and programming the experimental tasks, and carrying out the experiments across all three stages. I will also manage data cleaning and statistical analysis, interpreting the results in line with the theoretical framework. Additionally, I will present the findings at conferences and workshops.

P.I.: Prof. Andrea Isoni

Bhutta Aamir Inam

Project Title: Managerial Ability and Sub-Optimal ESG Investments

Abstract: This research project investigates the relationship between managerial ability (MA) and sub-optimal Environmental, Social, and Governance (ESG) investments, focusing on how capable managers influence the efficiency of ESG resource allocation. While ESG initiatives are widely recognised as strategic investments that enhance firm reputation and long-term value, deviations from optimal ESG spending, whether overinvestment or underinvestment, can lead to agency conflicts and erode firm value. Drawing on agency theory perspectives, we posit that managers with superior analytical skills, forecasting abilities, and industry expertise are better equipped to align ESG investments with firm objectives, thereby mitigating ESG inefficiencies.
We regress a proxy for ESG investment inefficiency on alternative proxies of MA using a sample of 1,324 U.S. non-financial firms from 2002 to 2022. We find a statistically and economically significant negative association between MA and ESG inefficiency, both overall

and across the individual environmental, social, and governance pillars. Specifically, a one standard deviation increase in MA leads to an 8.3% reduction in the standard deviation of overall ESG inefficiency, and reductions of 6.8%, 8.5%, and 3.7% in the environmental, social, and governance dimensions, respectively. These findings withstand a battery of various robustness checks, including firm fixed effects, propensity score matching, entropy balancing, and instrumental variable (IV) two-stage least squares (2SLS) to address potential endogeneity concerns. Our additional tests identify key pathways for reducing inefficiencies, including implementing specialized ESG governance structures, limiting harmful cross-pillar substitutions, and managing inconsistencies in ESG strategies. Moreover, MA is found to fully mediate the negative relationship between ESG inefficiencies and firm valuation.
Cross-sectional analysis further reveals that the negative association between MA and ESG inefficiency remains significant across different contexts, such as firms with CSR awards, those with sustainability committees, and firms operating in varying political environments (i.e., Blue vs. Red states). A Difference-in-Differences (DID) analysis shows that ESG inefficiencies increased significantly in carbon-intensive firms following the U.S. withdrawal from the Paris Agreement. However, capable managers were able to mitigate this effect, particularly in the environmental and social dimensions.

P.I.: Prof. Alessandro Mura

Carta Andrea

Project Title: Development of machine learning algorithms for the evaluation of territorial resilience and sustainability in the Italian regions

Abstract: The research is part of the GRINS (Growing Resilient, Inclusive and Sustainable) framework – Spoke 7, and aims to contribute to the broader understanding of how data-driven, transparent modeling approaches can support strategic planning for sustainable and inclusive territorial development. In line with GRINS objectives, the project emphasizes the alignment between regional policy design and measurable indicators of resilience, equity, and sustainability.
This research project focuses on creating interpretable nonparametric models for regression tasks regarding territorial sustainability in Italy, specifically oblique decision trees and oblique random forests. To improve the interpretability of predictions and the transparency of the model structure, a novel variable importance framework specifically designed for oblique models represents methodological innovation. Moreover, the models utilize a feature selection process to choose the most predictive features with the goal of surpassing the overfitting problem and increasing the interpretability of the model.

The empirical application focuses on analyzing regional differences in two important areas: tourism and STEM graduates' job market performance. To identify latent spatial patterns and provide evidence-based territorial strategies, the project integrates data on mobility, infrastructure, local economic conditions, and education-to-work transitions. My responsibilities include developing these models theoretically and computationally, paying close attention to interpretability, scalability, and policy relevance.

P.I.: Prof. Luca Frigau

Champeaux Hugues

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: Heatwaves, excess mortality and family systems (with Claudio Deiana, co-PI)
When I came here, I presented this idea to find some coauthorship (within the pool of CRENOS researchers), and during the CRENOS Annual Meeting at Santu Lussurgiu (Jan. 2024). I started to work on this idea with Claudio Deiana in February 2024. The idea is mixing aging economics, cultural economics and climate shocks. We investigate if there is any relationship between family systems (stem versus nuclear families) in Italy and excess of mortality during heatwaves in the last decade.
An interesting feature of Italy is the difference North/South that distinguishes cultural, political and economic development. This partition of Italy also characterizes the difference between two different family systems, stem or nuclear. Here, stem families can be considered as households where the elderly (grandparents) live with their children and grandchildren while nuclear families gather the type of households for which parents live with their children. Historically, in stem families, social links are strengthened due to the proximity but also the interdependence between generations. Even if families tend to be nuclearized with economic development in general, stem families persist nowadays in South Italy. We particularly observe that the average household size is larger in South than in North Italy, while the share households with elderly cohabiting with younger persons is also larger in South than in North. The idea behind this project is to use this difference at very local level (municipalities) as a proxy for cultural dependency in terms of specific family system. As elderly people are supposed to live with other people, we also expect that they stay longer in their home before going to retirement home. On the contrary, in nuclear families, elderly tend to spend more time in retirement home. In this paper, we assume that this difference shapes a pattern in terms of resiliency to heatwaves.
Combining demographic data on daily mortality at precise location and characteristics of deceased people, we can match information with cultural system proxied by the share of elderly living in large households at a very local level. We can also assess robustness of

estimates using other proxies for cultural differences between North and South, as such as religiosity, education etc.
This project will help public policymakers better understand the factors that undermine the healthcare system in the context of global warming. Italy is the suited case to study such a question. This work will help to understand how Italian households are resilient and if there exists any factors which can push or undermine public policies on elderlies. It also helps to drive policymakers when they intend to implement some specific laws, regarding climate change.

P.I.: Prof. Stefano Usai

Cocco Sonia

Project Title: The integration of sustainability criteria into executive remuneration contracts and their use in corporate decision-making

Abstract: This research analyzes how environmental, social and governance (ESG) criteria are integrated into CEO compensation systems, in order to assess whether and to what extent such remuneration mechanisms truly incentivize corporate behaviors oriented toward sustainability. It also aims to understand how this information is used in decision-making processes. The project is part of the GRINS – Growing Resilient Inclusive and Sustainable framework (SPOKE 4) and seeks to contribute to the debate on the role of executive compensation as a strategic lever for aligning corporate performance with ESG objectives.
The research fellow is involved in developing the empirical research design, starting with a systematic literature review on topics related to the integration of sustainability goals into managerial incentive systems. She is also collaborating on the construction of the dataset, which includes identifying the companies of interest, collecting data, and defining key variables related to incentive mechanisms, corporate governance, and performance.

P.I.: Prof. Andrea Melis

Cossu Fenicia

Project Title: Technological Unemployment and Robots

Abstract: This project investigates the emergence of technological unemployment resulting from the interaction between task-replacing technological change embodied in robots and barriers to occupational mobility due to rising training requirements. We document that labor

training requirements for high-skilled occupations increased in the U.S. from 2006 to 2019. These greater training requirements reduce the extent to which workers displaced from shrinking occupations can relocate to expanding (high-skilled) occupations, thus affecting both the equilibrium occupational structure and the unemployment level. We build a quantitative model in which labor is displaced by task-replacing technological change embodied in robots (\tasks shock") and the extent of occupational switching depends on the destination occupations' training requirements. We find that: (i) task-displacing technological change increases steady-state unemployment, but it *reduces* unemployment along the transition; (ii) in contrast, a comparable shock to capital embodied technological change produces larger unemployment rates with respect to the tasks shock, both in the transition and the steady state; and (iii) greater training requirements in high-skilled occupations increase steady-state unemployment and affects the occupational structure along the transition, but the shape of their effect depends on the size of the technological shock.
I was responsible for designing the empirical strategy, constructing the novel occupational-level measures of robot-task substitutability (based on O*NET and IFR data), and contributing to the theoretical development, model calibration, and quantitative analysis. The first research output is a working paper titled *"Training Time, Robots and Technological Unemployment"*, co-authored with Prof. Alessio Moro and Prof. Michelle Rendall, DP19343 Training Time, Robots and Technological Unemployment del CEPR.
The remaining months of the fellowship will be dedicated to a new research extension that builds a network of occupations based on input-output relationships. This will allow us to study how task-based technological shocks propagate across occupations through production linkages, potentially explaining how "immiserizing growth" can arise in a labor market.

P.I.: Prof. Alessio Moro

Ecca Viviana

Project Title: Peer influence and sustainability investments

Abstract: The objective of the research project is to examine the influence of peers on sustainability investments, with a particular focus on the spillover effects on sustainability investment efficiency.
Despite the growth in firms' sustainability investments and their economic and sustainability-related impacts, knowledge of their efficiency and the factors influencing it remains extremely limited. Against this backdrop, the research project investigates whether the information contained in, and conveyed by, peers' sustainability investments enrich the information environment within a peer group, ultimately leading other firms to make more efficient sustainability investments. Furthermore, it explores the potential substitutive nature of peer

and firm-specific information, investigating when and how peer information can substitute for internal information. In doing so, this research project contributes to the ongoing debates on the optimality of peer influence and the efficiency of sustainability investments.
I formulated the research question, performed the data analyses, and drafted the manuscript.

P.I.: Prof. Alessandro Mura

Elmi Malek

Project Title: Proof of Concept of the STOPme Project: An Interdisciplinary Approach

Abstract: The research activity currently underway focuses on the development and monitoring of a Proof of Concept (PoC) within the scope of the STOPme project. STOPme aims to develop an innovative wearable system capable of detecting, in real time, respiratory alterations and motor stereotypies in patients affected by Rett syndrome, as well as, at a later stage, interrupting self-injurious motor stereotypies in a non-invasive manner. To this end, the system incorporates the use of vibrations and ambient intelligence, by integrating light and/or sound signals. Rett syndrome is a rare genetic neurodevelopmental disorder that impacts brain development and mainly affects girls (approximately 1 in 10,000 females and 1 in 40,000 males), requiring comprehensive and multidisciplinary care.
As part of the project, the development of a smart diary is also envisaged, designed as a support tool for doctors to facilitate providing more accurate and personalized diagnoses through the collection of data on the patient's respiratory irregularities and motor stereotypies. In parallel, the PoC analysis includes a technical and economic feasibility study, along with the identification of potential market opportunities. This represents a crucial exploratory phase to assess the technical robustness of the proposed solution, its potential for technological transfer, and its practical relevance for end users. Methodologically, the project adopts the PoC Canvas as a guiding tool, particularly, the Concept Positioning and Concept Activation phases. In addition to employing the PoC Canvas, the team at the Department of Business and Economics at the University of Cagliari conducted a series of semi-structured interviews with the stakeholders involved in the STOPme project. Moreover, the design thinking methodology was integrated. This approach, inspired by project methods and innovative product design techniques, enables the development of user-centered models and is structured into five key phases: empathize, define, ideate, prototype, and test. To ensure a holistic and inclusive perspective, the research team has involved all key project stakeholders in this phase: administrative representatives of the Italian Rett Syndrome Association (AIRETT), caregivers, families of patients, and researchers engaged in developing the prototype.

P.I.: Prof. Maria Chiara Di Guardo

Ghinami Francesca

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: The research project aims at exploring the economic and territorial implications of the circular economy within the broader context of the green and digital transitions. This research is part of the GRINS project, which investigates the environmental, economic, and social dimensions of territorial sustainability and resilience.
A key component of my research activity has been the design, development, and application of an innovative method for identifying relevant patents, with the aim of analysing the geographical, sectoral, and temporal patterns in the adoption of circular economy technologies across European regions. Building on a critical review of existing classification approaches, I have developed a flexible and fully automated framework that combines rule-based seed identification, citation network expansion, and advanced natural language processing techniques. In particular, the framework leverages a pre-trained PaECTER BERT model for generating topic-based embeddings and employs cosine similarity pruning to ensure accurate and replicable selection of patents. This methodology is scalable and open-source, designed to enhance transparency and comparability in empirical analyses of innovation dynamics. Importantly, the framework has been designed to be readily exploited by local authorities, policymakers, and other stakeholders, enabling them to conduct their own targeted analyses of technological specialisation and innovation performance in specific domains of strategic interest.
The developed framework is now being applied to examine how circular economy innovations diffuse across territories and industries, generating new evidence on their expected economic impacts and informing policy recommendations to support sustainable and inclusive growth. By integrating robust identification techniques with place-based evaluation, the research contributes to a deeper understanding of how regional conditions shape the opportunities and challenges of the circular economy transition.

P.I.: Prof. Stefano Usai

Isola Francesca

Project Title: Behavioral **cha**nges in the aftermath of the Covid outbreak

Abstract: The BEHCHA project investigates the relationship between health and socioeconomic conditions in the aftermath of the shock posed by the outbreak of Covid-19 in

Italy. The project examines the impact of the pandemic on mental health, socio-economic well-being, and labour market outcomes, focusing on how behavioural changes - such as increased anxiety, stress, and loneliness - affect different socioeconomic groups. Key factors include remote work, job demands, and health risks, each of affects productivity, work-life balance, and inequality differently. The project draws on both survey and administrative data to evaluate these effects and inform policy recommendations, aiming to improve the labour market's response to such shocks. It will provide insights into the role of non-monetary job attributes and the heterogeneous effects of emergency policies on labour market transitions, taking into account differences across occupation, sector, and geographical areas.
Within the project, my current work involves analysing the raw data from the *ad hoc* "*Italian Workers Meaning, well-being Survey (IMWS*)" and building indicators of time use and work-life balance. My research activity focuses on the descriptive analysis of the data, with particular attention to patterns of missing values and the relationship between the meaning of work, mental health, and work-life balance. The analysis also contextualizes the results within the existing empirical evidence on these topics. The research outcome will be a technical report that presents the main results of the survey and highlights its potential for addressing future research questions.

P.I.: Prof. Silvia Balia

Javaid Hafiz Mustansar

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: As a post-doctoral researcher under Spoke 5 of the GRINS project, my research investigates governance mechanisms that promote sustainable corporate practices within European Union firms, focusing specifically on the role and impact of sustainability committees in driving environmental, social, and governance (ESG) outcomes.
Since beginning my research in December 2024, I have worked to develop a conceptual and empirical understanding of how sustainability committees contribute to resilient and inclusive corporate governance. This research aligns closely with GRINS objectives by addressing organizational transformations that support sustainable development and socio-economic resilience. Over the past six months, my work has progressed from theoretical foundations to empirical validation and dissemination, substantially advancing knowledge on governance mechanisms that underpin corporate sustainability. The submitted paper contributes novel insights into how sustainability committees and its characteristics foster resilience and ESG improvements in European firms, directly supporting the GRINS project's mission to drive sustainable and inclusive organizational transformations.

P.I.: Prof. Maria Chiara Di Guardo

Khalfaoui Mariem

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: The GRINS Project investigates how and to what extent companies disclose the integration of environmental and/or social (E&S) criteria into executive remuneration design. Building on my PhD dissertation, this project explores corporate disclosure practices, particularly during the initial adoption phase of sustainability-linked executive pay, and examines the underlying drivers of these practices.

Based on a multi-theoretical framework that combines economic incentives, legitimacy theory, and institutional perspectives, the study draws on a unique, hand-collected dataset covering 540 non-financial listed companies across 17 European countries from 2010 to 2022. This dataset includes the main dependent variable—level of E&S disclosure in executive compensation, consists of 10 items to capture potential variations in executive environment and socially related criteria in executive pay disclosure levels in 17 European countries: the environment and/or social criteria adopted (DI_Criteria), The rationale of the criteria adopted (DI_Rational), The performance measure (DI_KPI), Relative or absolute performance measure (DI_Measure), the performance weight (DI_Weight), the performance target (DI_Target), the Time horizon (DI_Time), external compensation consultant (DI_Remco), Sustainability assurance (DI_Assurance), Disclosure Document (DI_Document). The findings reveal significant heterogeneity in disclosure levels, shaped by both firm- and country-level factors.

This research contributes to the ongoing debate on CSR contracting and responsible governance by highlighting how information is disclosed and used in shaping sustainable, inclusive, and resilient executive pay systems. The results have direct implications for policymakers, investors, media professionals, and other stakeholders aiming to enhance corporate accountability and ESG integration.

P.I.: Prof. Andrea Melis

Kochkina Nataliia

Project Title: Gluten-free Typical Products in War-Torn Economies: Strategic Market Positioning and Opportunities

Abstract: This project explores the strategic introduction of a gluten-free version of *Pane Carasau* into Ukraine's war-affected market. It addresses two intertwined challenges: the surging demand for gluten-free foods, driven by the rising prevalence of celiac disease and gluten sensitivity, and the persistent food insecurity that afflicts conflict-disrupted regions. Viewed through an integrated economic, cultural, and humanitarian lens, the study evaluates *Pane Carasau*'s potential as an innovative, affordable, long-shelf-life, and nutritionally valuable product. It combines desk research, focus groups, and expert interviews to understand the needs of key consumer segments (celiac patients, health-conscious consumers, and vulnerable populations), assess opportunities for including the product in humanitarian supply chains, and develop effective strategies for positioning it within emerging markets. By weaving together insights on cultural branding, country-of-origin effects, perceived authenticity, and socioeconomic sustainability, the project fills a notable gap in the literature on introducing traditional foods into crisis-driven markets. The study will produce a replicable framework for bringing traditional foods into crisis contexts, illustrating how food innovation can deliver social impact while safeguarding cultural heritage. The researcher leads the study design and supervises fieldwork, gathering and analyzing qualitative data from focus groups and expert interviews. Additional duties include shaping strategic positioning pathways for *Pane Carasau* across both commercial and humanitarian distribution channels.

P.I.: Prof. Giuseppe Melis

Mahmoudvand Rahim

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: As a postdoctoral researcher involving the GRINS project, I am affiliated with *Spoke 4 – Sustainable Finance*. This spoke is dedicated to improving analytical frameworks for sustainability metrics, performance, and risk evaluation. I am developing **advanced statistical methods** that support the design of robust and interpretable analytical tools. Specifically, I am working on the theoretical foundation of **Singular Spectrum Analysis (SSA)** as a non-parametric method for time series analysis. This method is suitable for applications in financial time series, ESG metric trends, and sustainability performance monitoring. In addition, I have developed a **new probability distribution for the Risk Priority Number**, which can be used to formalize expert-based assessments of risk — a key aspect in evaluating complex systems and potentially relevant for ESG-related risk profiling. I have also introduced a **Periodic Poisson Distribution** to model both single and bulk purchasing behavior, offering insights for consumer finance analytics and service planning.

P.I.: Prof. Luca Frigau

Mednikova Tatiana

Project Title: Sardinian Diaspora and Roots Tourism

Abstract: The aim of this research is to explore the sense of attachment that second- and third-generation Sardinian migrants feel toward Sardinia, as well as their aspirations to engage in roots tourism. The project specifically investigates the motivations behind their (grand)parents' migration, their own emotional and cultural ties to Sardinia, experiences of travel to the island, sense of belonging, participation in diaspora-related activities abroad, and any aspirations to maintain or strengthen their connection with Sardinia. The study employs qualitative methods (interviews with second- and third-generation Sardinians living abroad). My responsibilities include research design, participant recruitment, conducting interviews, literature review, data analysis, and preparation of both preliminary and final reports, as well as academic publications.

P.I.: Prof. Ivan Etzo

Opizzi Matteo

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: My research focuses on the intersection of entrepreneurship education (EET), migrant entrepreneurship, and empowerment, with particular attention to inclusivity and contextual relevance. It explores how entrepreneurship can serve as a means for migrants to achieve economic participation, personal agency, and social integration within host communities. Through a systematic literature review, I analyze how identity, acculturation, and human capital shape migrants' entrepreneurial paths. These dimensions act as both barriers and potential enablers, offering unique insights into how educational programs can better support migrant entrepreneurs. I investigate how EET programs can be designed to help migrants navigate these complex dynamics. Tailored educational approaches that acknowledge and work with migrants' lived experiences—such as managing identity tensions, adapting to new cultural environments, and drawing on prior knowledge—can enhance their capacity to act effectively as entrepreneurs. This work results in a conceptual framework that outlines how such programs can better align with migrants' specific needs and circumstances, promoting empowerment through more responsive and meaningful forms of learning.
In parallel, I critically examine the assumptions of the EET field as universally applicable intervention. Using a problematization approach, I highlight the limitations of dominant

theoretical models that tend to treat entrepreneurship education as a universal construct. These models often overlook the socio-cultural and institutional challenges encountered by specific groups such as migrants. My research confronts these limitations by integrating insights from migration studies, development theory, and education research, proposing a rethinking of EET as a practice shaped by diverse learner contexts.

P.I.: Prof. Francesca Cabiddu

Rasool Faisal

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: The GRINS project, funded under Italy's National Recovery and Resilience Plan (PNRR), aims to investigate sustainable development and resilience across systems and territories, with a focus on socio-economic and organizational transformations.
As a post-doctoral researcher under Spoke 5, As a Research Fellow under Spoke 5, I explore how government policies, organizational strategies, and digital infrastructures influence sustainability transitions in the manufacturing sector. My primary research focuses on how firms adapt to and implement Circular Economy (CE) principles, particularly in response to institutional pressures and regulatory frameworks within the context of the GRINS project.
My work involves developing a conceptual and empirical understanding of how CE practices are integrated into manufacturing operations. This includes examining how firms restructure their processes, supply chains, and business models to align with sustainability goals. A key focus is on how digital technologies — such as data analytics, monitoring tools, and automation — support the implementation, tracking, and optimization of CE-related practices.
In addition to this core research, I investigate how open innovation mechanisms — including collaborations with universities, startups, and other external partners — support the development and diffusion of sustainable innovations in the manufacturing sector. These collaborations are analyzed both as enablers of CE and as part of broader innovation management strategies. Across these dimensions, my work blends policy analysis, organizational theory, and empirical research. I have been involved in developing theoretical frameworks, conducting literature reviews, analyzing sectoral case studies, and preparing scholarly outputs for conferences and publication. This work is conducted in close collaboration with my supervisor and aligned with the strategic objectives of the GRINS project to enhance both academic knowledge and policy relevance.

P.I.: Prof. Maria Chiara Di Guardo

Sanna Alice

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: The research project focuses on analysing the role of the Circular Economy and its indicators in European regions, with a particular emphasis on Italy. Moreover, it explores how circular economy principles are integrated into regional Smart Specialisation Strategies (S3). Throughout the project, I have played a central role across several key areas. I conducted an extensive literature review on circular economy frameworks and indicators at international, European, national and regional levels (which informed the creation of a comprehensive database containing 238 regional circular economy indicators). I also led the analysis of Italian regional S3 strategies from both the 2014–2020 and 2021–2027 programming periods, examining how circular economy concepts are reflected in policy documents through textual and keyword analysis. In parallel, I contributed to the design and development of the GRINS project survey targeting Italian firms, aimed at identifying risks and opportunities related to the circular transition. My involvement included reviewing existing surveys, drafting survey questions, analysing qualitative responses, and participating in stakeholder meetings, such as the pilot results discussion at ISTAT. Furthermore, I co-authored academic papers and policy briefs and collaborated in the development of key project deliverables, supporting both analytical and strategic aspects of the research.

P.I.: Prof. Stefano Usai

Serafini Luca

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: The research examines the economic implications of the green and digital transitions (Twin Transition) across multiple levels, focusing on the effectiveness of EU regional and cohesion policies. It is part of Spoke 7 of the GRINS project, which investigates territorial sustainability and resilience in its environmental, economic, and social dimensions. At the regional level, it investigates how Smart Specialisation Strategies (S3) have incorporated green and digital priorities, and how these influence productivity dynamics across European regions. At the firm level, it evaluates the impact of ERDF-funded projects targeting sustainability and digitalisation on firm performance in Italy. The findings highlight the importance of integrated strategies and place-based approaches, showing that the benefits of the Twin Transition are shaped by local conditions and vary significantly across territories and sectors.

P.I.: Prof. Raffaele Paci, Prof. Emanuela Marrocu

Tunis Silvio

Project Title: GRINS - Growing Resilient, INclusive and Sustainable

Abstract: This line of research focuses on constructing a dataset covering Italian provinces (NUTS-3 level) aimed at supporting empirical analyses on migrant entrepreneurship and integration. The dataset combines economic, labour market, social, and firm-level indicators from multiple official sources. Particular attention is given to migrant-led enterprises and the inclusion of variables capturing diversity and inclusion dynamics. Current work involves integrating data from the IDOS immigration database, which is being cleaned, harmonised, and matched with additional territorial indicators to enable a consistent longitudinal analysis. In parallel, work has been undertaken to define the methodological framework for future empirical applications. A systematic review of the literature on spatial econometrics—particularly in the context of migration and regional studies—has guided the selection of suitable models. Preliminary implementation has focused on testing the Spatial Lag of X (SLX) and Spatial Durbin Models (SDM), with code developed in both R and Stata. Different spatial weight matrices are being explored to assess robustness and sensitivity to geographical structure

P.I.: Prof. Stefano Usai

Witt Andrew

Project Title: Public Policy and Firms

Abstract: Our research project analyzes the impact of public policy on firm-level decisions with particular attention paid to emissions. Using data from the EU Emissions Trading System (EU ETS), ORBIS Europe, and the European Union Institute's LIFE COASE project I analyze entry and exit trends of firms in the EU ETS to find the impact of how emission caps impact carbon emitting firms' decisions. Firms are included in the EU ETS when they have MWh greater than 20 and have physical installations. The LIFE COASE data provide comprehensive entry and exit data of installations which I connect to ORBIS firms using their BVDiD number. This allows me to see the financial trends associated with the opening or closing of an installation. The research is ongoing, and our goal is to find causal relationships between public policy and firm emissions. In addition to the research regarding the EU ETS, we are working to match gas stations throughout Italy to their parent company in ORBIS to

find patterns in the ownership and pricing of gasoline. Using name-matching tools we are working to create a replicable way of matching each station to its parent company.

P.I.: Prof. Marco Giovanni Nieddu