

ST4TE

NEWSLETTER #1

November 2024

As we embrace both green and digital transitions, the potential for long-term environmental gains and new avenues for economic growth is immense. Yet, to ensure a truly just transition, it is crucial that these benefits reach all Europeans, regardless of their socio-economic or geographic standing. The impacts of these transformations, both immediate and in the long run, will differ depending on regional and social contexts. Through the ST4TE project, we are committed to exploring the interconnected effects of green, digital, and twin transitions on inequality. Our goal is to better understand how these shifts affect individuals and communities across Europe, and to help shape policies that mitigate any negative outcomes and foster inclusivity in this new era of transformation. – Christina Kakderi, coordinator of [ST4TE](#).

ST4TE news

Kick-off in Brussels

ST4TE has been kicked-off together with European Commission Policy Officer Linda Kunertova, who introduced the policy context behind just and equitable transitions in Europe, and Project Officer Wolfgang Bode. Together with project partners and representatives from the sister projects READJUST and FITTER-EU, the potential synergies between projects were discussed.



Kick-off meeting in Brussels, January 2024.

ST4TE (Strategies for just and equitable transitions in Europe) is an EU-funded project that aims to provide a comprehensive view of the drivers of the twin transition (TT), the inequalities that emerge or are widened by it, and a set of policies to build greener, more equal, and more productive societies.

Over a three-year period ending in January 2027, the ST4TE project will perform research and outreach activities across Europe, targeting researchers, stakeholders, and policymakers.

In our first newsletter we share news related to the upstart of the project, recent project outputs and upcoming events.

Research results

Report on the green, digital and twin transition policies in Europe authored by Christina Kakderi, Eleni Kalantzi, Dionysios Latinopoulos, Anastasia Panori (AUTH) provides an in-depth analysis of Europe's pioneering Green, Digital, and Twin Transition Policies, offering valuable insights into their transformative impact on sustainability and technological



advancement – integrating strategies shaping Europe's path towards a greener, more digitised, and resilient future.

The report presents the main EU policies promoting the transitions and reveals their approach in dealing with inequalities. The report reviews more than 100 policy documents published after 2020 providing a comprehensive understanding of EU's policy landscape and its approach to ensuring an equitable transition. Below are some key findings of the report:

- Key policy documents across Europe consistently highlight a shortage of skills as a primary barrier to achieving these transitions. The need for upskilling and reskilling is evident, but there is a lack of specificity in green skills compared to digital ones. Importantly, there is little focus on "twin skills" that bridge both transitions.
- While indicators exist to measure inequalities resulting from the digital transition, there is a gap in metrics for green transition inequalities.
- Policies around skills and education are mainly implemented through established frameworks like the European Skills Agenda, but green and digital skills are treated separately, with little synergy.
- In terms of industry and regional impact, green transition policies tend to focus on specific territories, especially regions reliant on fossil fuels, while digital transition policies take a more general, sector-wide view. There is also a lack of reference to technologies that support both transitions (twin technologies).
- The role of consumers is critical in both transitions. Policies focus on empowering consumers to make sustainable choices, though little attention is given to the complexity of behavioural changes required.
- Overall, the research highlights a lack of coherence between green and digital policy frameworks. More recent documents are beginning to recognise interdependencies, but there is still limited understanding of the synergies and trade-offs between these two critical transitions.

In later steps of ST4TE project we seek to delve deeper into how these twin transitions interact with inequalities across different populations and territories, aiming to inform more integrated, inclusive,

and effective policymaking.

Stakeholder engagement

Policy Advisory Board

We are pleased to welcome five experts to join the policy advisory board for ST4TE: [Slavo Radosevic](#), [Arnault Morrison](#), [Maria Savona](#), [Ljubica Nedelkoska](#), and [Daniel Samaan](#). Their expertise will provide valuable guidance across project phases, contribute to analysis discussions, support policy feedback, and enhance the uptake of project findings, while playing a key role in refining our white papers and policy recommendations. We look forward to collaborating with them over the course of the project.

Recruitment for interviews

ST4TE is currently recruiting informants for interviews to gain insight into how the green and digital transition affect vulnerable groups and individuals in different regions.

If you would like to share *your* experience of the twin transition in your region, contact us:

North region

UGOT: transitions@socav.gu.se

South/ southeast region

AUTH: chinis@plandevel.auth.gr

South/ southwest region

EFIS: schreiber@efiscentre.eu

Meet the partners

Spotlighting the teams making ST4TE happen!

Aristotle University

Introducing our project coordinator, AUTH in Greece, and its team Urban and Regional Innovation Research Unit (URENIO) on the development of smart and intelligent cities, territories and systems of innovation. URENIO is part of the Department of Urban and Regional Planning and Development in the Faculty of Engineering, Aristotle University of Thessaloniki.

The research focus of URENIO is on urban and regional development and planning, territorial systems of innovation, and smart and intelligent cities, along with the provision of technological services



related to these areas. The Lab also supports regions in the design of innovation strategies and strategies for the digital and green transition. In this context, it has developed a series of online applications and methods that facilitate the design and implementation of S3 strategies.

AUTH is responsible for several tasks that link the project results to policymaking such as the development of a twin transition index and the analysis of the territorial impact of the transitions.

Meet [Aristotle University](#).

EFIS Centre

The European Future Innovation System (EFIS) Centre leads on the policy implications of the project, along with the sustainability, impact, and exploitation dimensions. Through the development of six case studies from various European geographies, the project aims to analyse how existing inequalities inspire policies for the green and digital (twin) transitions, and how different forms of interventions (policy mixes) across the policy cycle can either widen or reduce inequalities. The policy analysis will employ a robust approach including policy landscape analysis, focus groups with relevant stakeholders, and analysis of logic models of impact pathways. EFIS Centre will also work, along with other partners, on narrative interviews to assess how both digitalisation and environmental concerns affects the lives of European citizens.

Meet [European Future Innovation System \(EFIS\) Centre](#).

University of Ferrara

The University of Ferrara aims to make substantial progress in understanding the complex relationship between the green and digital transition and its connection to socioeconomic inequality. This academic pursuit will primarily focus on thoroughly examining various aspects of the transition, including technological progress, changes in employment patterns, and shifts in educational approaches. With responsibility for overseeing two specific work packages, the university will concentrate on clarifying how European regions are affected by the green and digital transition and determining the influence of these factors on regional disparities. The work of the University of Ferrara involves diverse and interdisciplinary tasks, and it is carried out by a team made up primarily of economists, but also includes some computer scientists. The interdis-

ciplinary team is required to carry out specialized analyses, such as those involving natural language processing (NLP) and other data-driven analyses that require input from multiple specialized fields.

Meet [University of Ferrara](#).

Maastricht University UNU-MERIT

UNU-MERIT researchers will contribute to identifying the trajectories of emerging technologies that are related the green and digital transitions. They will then study the unequal impact of these technologies on employment opportunities among different workers, as well as the extent to which existing inequalities among households influence twin transition trajectories. This will provide some evidence on potential negative feedbacks leading to higher inequality, slower green transition, and unequal impacts of the two transitions. Finally, they will use some of this evidence to inform a theoretical model to study the impacts on inequality of different green and digital technology transitions scenarios.

Meet [Maastricht University](#).

University of Gothenburg

The Department of Sociology and Work Science at UGOT leads the qualitative research in ST4TE, implemented via 400 narrative interviews in different European regions, the stakeholder engagement and validation of research results, implemented via a series of four co-creation European workshops, and the research communication. In the context of ST4TE, UGOT's competence lies in its multidisciplinary approach and cutting-edge research on gender+ intersectional inequalities produced by the green and digital transitions, and on climate change, sustainability, democratic participation, and social innovations more broadly. The analysis of the interviews will provide a deeper understanding of the impact of the green, digital, and twin transitions on intersectional inequalities in different regions. The co-creation workshops will validate the qualitative and quantitative research results and facilitate the co-design of operational policy recommendations to empower stakeholders.

Meet [University of Gothenburg](#).

Gran Sasso Science Institute

Gran Sasso Science Institute brings together economists with a diverse set of expertise to investigate the impacts of the twin transition, focusing in particular on skills, occupations and labour. This serves to disentangle a series of effects that the green and



digital transformations have on the work content, the health of individuals and the interconnectedness of territories in today's global markets.

Meet [Gran Sasso Science Institute](#).

CLIMAFIN

CLIMAFIN is a spin-off from academic research on climate risks. The team has a unique expertise covering both the scientific and regulatory landscapes. It has developed reference models in the scientific community for the assessment of climate financial risks and played a key role in the IPCC work on the topic. It has piloted stress-testing and risk assessment exercises for key financial regulators in Europe and is currently leading the consortium that develops short-term climate stress-testing scenarios for the Network for Greening the Financial System (NGFS). Within ST4TE, CLIMAFIN's team will contribute to mapping and measuring financial risks and opportunities associated with the twin transitions. Building on its expertise in network-based models, CLIMAFIN aims to develop innovative tools for carbon footprint assessment and to design fair recommendation algorithms that support sustainable decision-making in the context of the twin transitions.

Meet [CLIMAFIN](#).

Utrecht University

At Utrecht University, the Economic Geography Team is dedicated to mapping the pathways toward Europe's green and digital transformation. The goal is to investigate the strengths and challenges that each European region encounters in developing green, digital, and twin technologies. The focus is on how regions either leverage or struggle with their technological and scientific knowledge capabilities to facilitate twin transitions. The research highlights the impact of these twin transitions on regional inequality: while some regions successfully utilize their existing technological capabilities and well-established local and regional networks, others face difficulties in integrating their technological and scientific capabilities during the incubation and development of the twin transition. Understanding these dynamics is crucial for providing valuable insights to foster a more inclusive transition across Europe.

Meet [Utrecht University](#).

News from sister projects

MOBI-TWIN: Twin Transition and changing patterns of spatial mobility: a regional approach

MOBI-TWIN aims to comprehend the intricate patterns of mobility and leverage this knowledge to foster regional prosperity. MOBI-TWIN key areas of focus include analysing the factors that shape human mobility behaviour, considering the influence of Twin Transitions on regional attractiveness. The project also examines the evolving equilibrium among different forms of spatial mobility and its implications for EU regions. Through advanced modelling techniques, the project assesses the consequences of changing mobility patterns on demographics, society, welfare systems, and the labour market. Additionally, the project envisions tailored strategies that capitalise on positive outcomes, promoting sustainable development and maximising benefits for EU regions.

Read more [here](#).

FITTER-EU: Fair and Inclusive Twin Transitions for a Stronger Social Europe

FITTER-EU is aimed at contributing to existing research on the origins, dynamics and determinants of inequalities and enable anticipatory governance to support a fair and inclusive twin transition in Europe. The project innovates through the formulation and development of an ecosystem that includes an interactive and gamified Digital Platform powered by an Intelligent Predictive Decision Support System. Through a Co-Creation methodology, the ecosystem aims to enable policymakers to better predict which social groups may be at risk of being adversely affected by the twin transition policies under different scenarios.

Read more [here](#).

Synergies between FITTER and ST4TE projects highlighted in upcoming ICE Conference Paper

The FITTER project's paper, titled "Inclusive Sustainability: Strategies for Sustainable Digital Solutions in the Twin Transition for Vulnerable Communities," presented at the ICE - International Conference on Engineering, Technology and Innovation in Madeira, underscores the vital synergies between the FITTER and ST4TE projects. Both projects are



dedicated to addressing the socio-economic challenges posed by the digital twin transition, with a special focus on vulnerable communities. FITTER's strategy for co-creating mitigation policies benefits significantly from ST4TE's comprehensive analysis of the drivers and inequalities associated with the twin transition. This collaboration enhances FITTER's ability to propose robust and inclusive policy measures, aligned with broader goals of fostering greener, more equitable, and productive societies. The interconnection between these projects exemplifies how interdisciplinary efforts can drive innovative and sustainable digital advancements, reinforcing the importance of collaborative approaches in tackling systemic inequalities.

READJUST: Just Transition to a Green and Digital Future for all

Policies driving green and digital transitions, the so-called twin transitions, are intended to level the field to achieve the European Growth Model and attain the EU Green Deal and the UN's Sustainable Development Goals. Indeed, generating zero negative effects on the climate can be efficiently achievable by twining green and digital transitions. However, these policies have had unintended effects such as creating new inequalities and aggravating existing inequality gaps. Social groups already at risk in the EU's most vulnerable regions are primarily affected. Therefore, public authorities and policy-makers at local, national and European levels need an evidence-based understanding of these inequalities and concrete ways to prevent and mitigate them. The READJUST project strives to address the inequalities created or exacerbated by the twin transitions policies and it aims to suggest policy options for overcoming the potential trade-offs between efficiency and equality in twin transitions in the key sectors of mobility and agri-food.

Read more [here](#).

About the ST4TE project

The importance of the green and digital transitions is evident in addressing the impacts of climate change. As a result, there is a growing need for more data to assess the potential perpetuation or exacerbation of inequalities. Various sectors undergoing the twin transitions (TT) are currently experiencing disparities that could persist, or worsen, during this transformative period.

Therefore, the EU-funded ST4TE project has been designed to comprehend the impact of the twin transitions on green goals and vulnerable European regions. The project will also study the forces behind these transitions, understand potential inequalities and their causes, and collaborate with policymakers. The final objective is to ensure that the green and digital transitions contribute to a more equitable and sustainable future.

The ST4TE consortium has extensive knowledge in the fields of twin transitions, inequalities, and research and innovation (R&I). This expertise, along with experience in participative methodologies, green and digital mapping and various other methodological tools will guarantee sound scientific evidence on TT in Europe towards a just and equitable transition.

Find out more

- Further information about [ST4TE](#).
- Explore our research results on [Zenodo](#).
- Find out more and register [LinkedIn](#)

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