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Arts and culture in transformation: A critical analysis of the national plans for the European Recovery and Resilience Facility

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Abstract

The understanding of resilience, and how the ability to respond or adjust to new situations can be implemented and evaluated, gained prominence in public policy. This study examines how European Union (EU) member states plan to support cultural and creative sectors (CCSs) within the Recovery and Resilience Facility (RRF) of the NextGenerationEU Program and how they plan the CCSs to contribute to the grand challenges of our time. Using mixed methods, it is found that the understanding of how structural deficiencies in CCSs can be addressed is not systematic and not all countries invest to make the cultural infrastructure more future-proof. Neither the budgets nor the mode of resilience (absorption, adaptation, and transformation) exposed in the plans consistently correlates with how countries intend to address key impact pillars. Countries with larger CCSs are more prone to transformation. The theoretical contribution lies in the elaboration of the concept of "ex ante resilience."

KEYWORDS

arts, culture, Europe, grand challenges, policy, Recovery and Resilience Facility (RRF), resilience, transformation

1 | INTRODUCTION

Being topical (again) during and in the aftermath of the COVID-19 pandemic, the concept of "resilience" typically refers to the capacity to recover quickly from a drawback. The question of how this capacity can be developed, implemented, maintained, and evaluated is of major interest in public life and has become a priority on the agenda of public policy (Gupta & Gupta, 2019; UNESCO, 2020). To help recover and increase resilience in various sectors (Buti & Fabbrini, 2022; Camous & Claeys, 2020), the European Commission created the European Union (EU) Recovery and Resilience Facility (RRF), the centerpiece of the €800 billion NextGenerationEU program. EU countries can submit their national recovery and resilience plans (NRRPs) with measures to improve public life, including the cultural and creative sectors (CCSs). Indeed, during the pandemic, the resilience of various sectors was questioned. In the CCSs, structural problems became apparent, like the dependence on limited sources of funding, weak relationships with key stakeholders, precarious labor market conditions, and more. As it is expressed in a recent OECD report (the Culture Fix): "As national and local governments reconsider growth models in the wake of COVID-19, cultural and creative sectors can be a tool for a resilient recovery if certain longer-term challenges in the sector are addressed" (OECD, 2022, p. 1). In this study, we examine precisely this: How can CCSs be helped to become more resilient? and How can CCSs foster a more resilient society? Data sets on the NRRPs were compiled at the country level and the measure level, and formed the basis for a mixed-methods approach. Two groups of questions are addressed:

(1) How do European countries aim to develop more resilient CCSs? Specifically, how can resilience be interpreted, and what kinds of measures are proposed within the NRRPs to reach resilience in the CCSs?
(2) How do European countries plan to contribute to a more resilient society through the CCSs? Which impact is intended by the measures and budgets?

Between-country differences will become observable and explained. In this manner, the study sheds light on the future evolution of the CCSs in and across Europe. The study contributes to European policy in several ways: its theoretical contribution is that it adds to the comprehension of resilience from an ex ante or forward-looking perspective; its methodological contribution is that it identifies (forms of) resilience in real-world tactics and strategies. Empirically, based on a meticulous data composition and rigorous analysis, the study assesses the role of CCSs in EU resilience plans. The analyses, findings, and discussion wish to make a timely and significant contribution to the current debates on, and forthcoming evaluations of, this very new engagement of policy in developing effective measures for resilient CCSs and including arts and culture in contributing to urgent challenges in society (such as those related to the environment, digitization, and more).

2 | RESILIENCE DEFINED AND STATE OF RESEARCH

The notion "resilience" typically refers to the ability to respond to, adapt to, and recover quickly from disturbances. Definitions in the social sciences apply to individuals, organizations, regions, or systems (Linnenluecke, 2017). A conceptual difference exists between resilience ex ante, or "in the face of potential disruptions," and resilience ex post, referring to the ability to

bounce back after hardship or recover from failure (Korber & McNaughton, 2017, p. 1129; Masten, 2014). These distinctions have been referred to as defensive and adaptive resilience, respectively (Mamouni Limnios et al., 2014). Having its origin in biology and socioecology, resilience is closely related to several concepts such as adaptability, transformability, and vulnerability, and is sometimes used interchangeably with notions of persistence, preparedness, or hardiness (Korber & McNaughton, 2017).

The literature on resilience covers various fields and perspectives (e.g., Frigotto et al., 2022; Linnenluecke, 2017), and takes into consideration different levels of analysis. In psychology, it relates to personal well-being, frequently concerning work, while in the entrepreneurship literature, it refers to individuals being flexible and accepting that change is a part of life (Davidson, 2000; Hedner et al., 2011). At the level of an organization, management studies articulate the qualities of adaptable firms to innovate and incorporate changes to fit new circumstances, which may contribute to the resilience of communities, regions, and economies (Glaeser et al., 2014; Korber & McNaughton, 2017; Williams & Vorley, 2014). Urban studies tend to associate resilience with how social ecologies are fostered (Arts Council England, 2018). Public policy literature with a resilience angle (e.g., Ager, 2013; Baker, 2009; Moore et al., 2012; Reid & Botterill, 2013) is concerned with themes such as the appropriate framework conditions for economic and social life, the maintenance of political–administrative systems, the survival and development of businesses, public and social organizations (Kim et al., 2021), and the prosperity and sustainability of economic sectors.

There is a growing recognition of the need for interdisciplinary and integrated approaches to resilience, which consider micro (individual traits and characteristics), meso (communities, organizations, and processes), and macro (economies and their subsectors) levels of analysis (Frigotto et al., 2022; Zhang et al., 2022). The outbreak of the COVID-19 pandemic tested the resilience of state institutions (Colfer, 2020) and made the scientific community gradually shift toward approaches of "ecological resilience" (Arts Council England, 2018; Frigotto et al., 2022). As a property of an entire system, rather than a quick mitigation of emergencies, resilience becomes related to a longer term, transformative process in which capabilities such as a willingness to learn, perseverance, the ability to innovate, and flexibility at the system's level come into play (Yue, 2022).

2.1 | Resilience in arts and culture

Shedding their light on arts and culture, scholars such as Pratt (2017) and Gupta and Gupta (2019) point to resilience as a mode of governance and policy in conjunction with severe cuts in public funding. For example, Pratt (2017) showed that the arts and cultural sectors were among the few sectors that were able to overcome the financial crisis of 2008/2009 in the United Kingdom, because of its multifaceted, complex forms of organization and finance ("nonnormative organizational structure"; Pratt, 2017, p. 136), but it "has been achieved by the socialisation of risk through temporary and unpaid labour, and through outsourcing innovation and training" (Pratt, 2017, p. 137). Further, resilience has been considered to be emergent (not emergency), iterative (not rebound), and transformative (not back to normal), entailing a promise to build "a wholistic cultural ecology that can nurture fair work, artistic innovation, economic growth and cultural vitality" (Yue, 2022, p. 362). The reawakened importance of resilience in the cultural domain during the pandemic conveys an image of resilience as "emergency preparedness" (Yue, 2022, p. 352). According to Yue (2022), through

the frequent use of keywords such as "disaster" and "shortage" as well as the narrative of unpreparedness, the discourse has socially constructed the impact of the pandemic on arts and culture as a crisis caused by the sector's lack of preparedness to withstand the economic shocks caused by COVID-19 and to protect jobs and social work security (OECD, 2022).

Scholars of arts and culture concur with research in other disciplines that concepts of resilience should be researched at the level of social systems or ecologies. For example, Koch (2022) sees the visual arts field as an adaptive and self-organizing system responding to its environment and producing emergent forms of freedom or meaning. Examining the reciprocal relationship between structure and agency in the visual arts in the United Kingdom, Virani and Orrù (2021) found that for freelancers relying on in-house production, peer networks, and collaborative working practices, self-steering and environmental embeddedness are important for their resilience and a resilient cultural ecology.

Little reliable evidence exists on measures to foster resilience in the arts and cultural sectors during and after the COVID-19 pandemic. An exception is Plaisance (2022), who surveyed French art organizations and identified factors that support resilience: organizational persistence and the continuity of activities. The author highlights the need for reforms and specific assistance from partners in arts and culture. An Open Method of Coordination group of European Member States' experts formulated key recommendations for policymakers on strengthening cultural heritage resilience for climate change (European Commission, 2022c). Understanding resilience in the national plans within a public policy program can add to the understanding of this new field of research and policy.

2.2 | Resilience and change: Absorption, adaptation, and transformation

As the term "resilience" derives from the Latin verb *resilire* (jump back or recoil), concepts for resilience oscillate between stability and change and between adversity and novelty to fit in dynamic environments. An early inventory of the literature on resilience commissioned by the Arts Council England (2018) refers to the kangaroo symbol, with the hind legs bouncing back and forward like a rubber ball. Jumping back is about survival, endurance, strength, and return to the previous state, while jumping forward is about thriving, development, and flexible change. The current discussion is characterized by different ideas about if and how far-reaching changes are or would have to be to achieve resilience. At first glance, general literature on resilience mostly refers to two perspectives of resilience: (1) to get back to the state of normality and (2) to flexibly adjust to new situations without crossing a threshold (Frigotto et al., 2022). Frigotto et al. (2022) identify change as the bottom line: "Change is, therefore, the first fundamental constituent of resilience" (Frigotto et al., 2022, p. 13). As such, the authors propose three types of resilience reliant on three modes of change, which are characterized by different speeds, processes, antecedents, outcomes, and impacts. In doing so, they draw on a conceptualization by Manca et al. (2017), aimed at both establishing and triggering a more resilient European society, which proposes a distinction between absorptive, adaptive, and transformative capabilities that support resilience (Frigotto et al., 2022). In line with Frigotto et al. (2022), we interpret these distinct "modes of change" as three different approaches of policy-making with corresponding tactics (measures) and strategies (action plans) (Figure 1).

First, absorptive resilience attempts to maintain stability by deliberately limiting imminent change. Rather, the fundamental stability of an entity (individual, organization, system, or
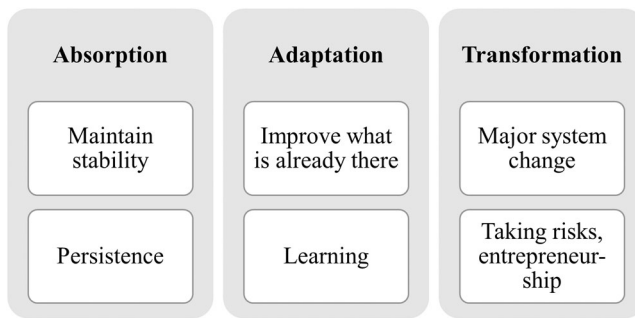
Absorption	Adaptation	Transformation
Maintain stability	Improve what is already there	Major system change
Persistence	Learning	Taking risks, entrepreneurship

FIGURE 1 Modes of resilience, based on Frigotto et al. (2022.)

ecology) is to be restored to its original state, for which absorptive capabilities are needed. Changes are not intended, and if so, the impact is barely recognizable: "Stability is not challenged; it is refreshed or refined by perfecting competencies, and the previous state is restored" (Frigotto et al., 2022, p. 15). Social entities act protectively and develop policy measures aiming to preserve the status quo. Disturbances or change triggers are temporary within a narrow range of well-known external conditions and low novelties.

Second, resilience that is adaptive is useful in situations that include "both change and stability at a consistent level" and "a consistent change of functioning within a stable context" (Frigotto et al., 2022, p. 20). Here, social entities attempt to withstand external shocks while transforming into a new state. Change is understood as a trigger within stable contexts (e.g., institutional settings). In this notion, the change can only be as strong as the existing contextual conditions of a social entity allow "robustness" (Frigotto et al., 2022, p. 15). Social entities are open to what is already there and gradually adapt to existing contextual conditions, fueled by an attitude that is open toward constant learning.

Third, transformative resilience reflects "the ability of the social unit to interact with disturbances and change the system" (Frigotto et al., 2022, p. 16), and is apt to address both unpredictable and unexpected adversities. When structures change in their essence and social units are challenged to face new realities, familiar concepts and ways of acting become ineffective, and social entities must undergo a profound renewal in responding to the changing context. Policy-making in these circumstances requires profound change and encompasses renewal, along with major changes in contexts (e.g., institutional setting). Social entities will only achieve resilience if they prove to gain transformability (Folke et al., 2010) by developing the capability to respond to the changed framework conditions and to use new knowledge for solutions distant from former experiences and conditions (Frigotto et al., 2022).

2.3 | CCSs within the EU program for recovery and resilience

Resilience has taken a prominent place in EU policy and has permeated several EU policy areas. The EU Annual Strategic Foresight Report has introduced resilience as a guiding principle for EU policy-making (European Commission, 2022a). Resilience in EU policy is defined as "the ability to face shocks and persistent structural changes in such a way that societal well-being is preserved without compromising the heritage of future generations" (Manca et al., 2017).

Already before the pandemic, in the context of the EU Strategic Agenda 2019–2024, it was articulated that: "Europe needs to further strengthen its resilience, to be able to be more prepared for future shocks and to emerge stronger by intensifying the transitions" (European Commission, n.d.). The RRF is the key instrument at the heart of NextGenerationEU, which is a more than €800 billion temporary reconstruction instrument that runs between 2021 and 2026 with the intention to make postpandemic Europe more resilient, greener, and more digital, and to improve the ability to withstand current and future challenges (Buti & Fabbrini, 2022; Domorenok & Graziano, 2023). The RRF entails a total budget of €723.8 billion to support reforms and investments in EU countries (€385.8 billion in loans and €338.0 billion in grants). Furthermore, the program encompasses funding for European programs or funds such as Horizon 2020, InvestEU, Rural Development, and the Just Transition Fund. To apply for funds from the RRF, member states draw up an NRRP. In line with some of the grand Challenges, the RRF Regulation sets out six impact areas of European relevance structured in six pillars: (1) green transition; (2) digital transformation; (3) smart, sustainable, and inclusive growth; (4) social and territorial cohesion; (5) health, and economic social and institutional resilience; and (6) policies for the next generation. In the plans, 37% of the budget must be invested in climate and 20% in the digital transition (European Parliament and Council of the European Union, 2021).

Within their plans, member states can, but do not have to, include specific initiatives for arts and culture. The EU has not indicated a minimum or maximum budget for arts and culture in their NRRPs. However, the #CulturalDealEU campaign of Culture Action Europe has called for at least 2% of NRRP budgets to be dedicated to arts and culture (Culture Action Europe, 2021). An evaluation by Culture Action Europe in 2021 concludes that while the 2% threshold has been met at an aggregated EU level, several of the member states either do not foresee any specific line for culture or spend around 1% (Culture Action Europe, 2021). Indeed, in 2022, the EU Committee on Culture and Education reported that the EU's pandemic response largely ignored CCSs and calls for earmarked funds and additional support. The same committee emphasizes the need for complementary actions at the EU, national, and local levels, taking into particular consideration the segments that have been most impacted, such as live entertainment, performing arts, exhibitions, heritage sites, museums, and cinemas. The Committee expresses concern that the CCSs will recover at different speeds due to the heterogeneity of public spending, which will widen the gaps within the EU's cultural ecosystem and endanger Europe's cultural diversity.

3 | METHODS

3.1 | A mixed-methods design

To collect, analyze, interpret, and report data, an embedded, two-level mixed-methods research design (Creswell, 2006) is applied (Figure 2). To be able to answer our research questions, two data sets were compiled from diverse sources: one at the level of the arts and culture measures in NRRPs, and one with pooled data from the NRRPs and specific contextual data at the country level.

The research design consists of five steps. In the *first* step, based on three different data sources (see below), a data set of measures related to arts, culture, heritage, and creative industries was developed (henceforth data set 1: MEASURES). In the *second* step, a
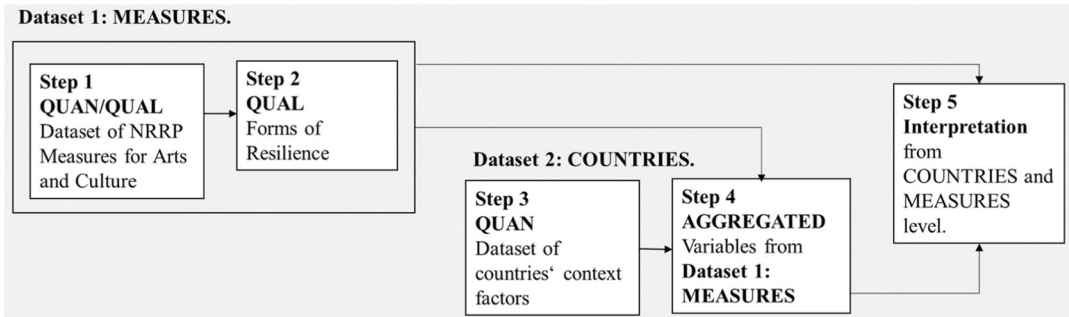
FIGURE 2   Mixed-methods research design.

content-interpretative approach was used to classify the selected measures into the three categories of resilience change modes: absorption, adaptation, and transformation. Based on coding rules (Supporting Information: Appendix 1), the three authors separately assigned the individual measures to these three modes. Adding this classification to the data set created a basis for a structured comparison of NRRP initiatives, also per country, and eventually, for advancing the understanding of resilience in the CCSs. *Third*, a second data set was developed in which contextual country-related data were included that could serve as potential explanatory factors of a country's choice for specific measures and allocated budgets. *Fourth,* aggregated data on NRRP measures for ACS (data set 1) were transposed to the second data set (henceforth: data set 2: COUNTRIES). This enables the comparison of policy priorities and budgets across countries and an analysis of relationships between country-accumulated data on measures and the selected contextual variables. *Fifth*, descriptive and correlational data analysis and interpretation along these analytical steps enable an initial frame for assessing the measures for art and culture within the framework of the EU program for recovery and resilience and deliver insights into their expected impacts.

3.2 | Data collecting and filtering

3.2.1 | NRRPs and measures for arts and culture (data set 1)

Data for the first data set were collected from three main sources: (1) The data set of Bruegel[1] served to identify diverse measures related to the arts and culture present in national plans. The data set was first released in June 2021 and has been updated since. The present study relies on the most recent update of June 2022. (2) The EU theme-specific report on NRRPs in the thematic field of CCSs providing brief descriptions of packages of measures of the individual member states was used to triangulate the Bruegel data (European Commission, 2022b). (3) To provide the most comprehensive picture, a related study by Culture Action Europe (2021) was reviewed for checking purposes.

   To capture all measures related to CCSs, the Bruegel data set was first filtered based on the Statistical Classification of Economic Activities in the European Community (NACE) Arts, Entertainment, and Recreation. Furthermore, all measures of each country were carefully inspected and selected in case they included keywords such as culture, arts, heritage, creative, media, and tourism, even though they were not identified in the NACE category. To calibrate

the measures across countries, it was decided to include measures related to tourism and cultural heritage for each country. Such harmonization of themes and data was needed because not all countries separate heritage from tourism activities, preventing the isolation of measures and partial budgets related to each theme. Furthermore, identifiable sports activities were excluded, even though some countries included them in NACE.

Other decisions were made about the inclusion or exclusion of specific measures. Natural parks were included when denoted as "cultural landscapes and parks." Initiatives for small enterprises and start-ups were included when specific budgets were allocated for CCSs.

Filtering and categorizing the data were subject to some difficulties recognized previously (Darvas & Tagliapietra, 2021): the national plans are structured differently with proper themes and nomenclature, and some countries include budgets other than those related to RRF (other subsidies, national contributions). An example is Austria (Supporting Information: Appendix 2). This causes inconsistencies in the data and information reported in co-existing sources.

The resilience measures were coded into three modes or forms (Supporting Information: Appendices 1 and 2), independently by the authors, after which a consensus was reached. Two key observations are worth sharing.

The first observation is that a distinction can be made between the type of beneficiary, with either individuals, organizations, or entire ecologies and systems addressed. In only some cases individuals are targeted, for example, with measures related to the status of artists (Czech Republic, Spain). Quite a few of the measures address specific cultural organizations, with renovation and energy efficiency projects or digitization projects as by Austria, Belgium, Greece, and Italy. Equally, organizations in cultural (France, Poland) and creative industries (Poland, Finland, Spain) are addressed. Some countries plan significant investments in buildings of cultural value. Other measures aim at the establishment of socioeconomic frameworks (e.g., copyright, social law, tourism in Romania, and Portugal) to revitalize cultural sectors. Digitization measures include strategic development projects to advance digitization (Austria, Sweden), building platforms and access to cultural goods and services (Italy, Belgium, Portugal, Spain, Croatia), and digitizing cultural heritage (Austria, Slovenia). Some countries invest in research, such as Romania with science and technology centers, Sweden with digitization research, Greece with research and innovation, and the Czech Republic with social science research.

The second observation is that the understanding of how CCSs should become resilient, and how resilient they should become, varies greatly among countries. As previously explained, *absorptive resilience* concerns the ability to return rapidly and efficiently to the original state (Frigotto et al., 2022). Absorption measures that attempt to stabilize the CCSs after the COVID-19 pandemic try to preserve the existing system, which includes measures that have an emergency aid character. For example, measures that are aimed at renovating buildings and maintaining heritage objects (France, Czech Republic, Portugal, Slovenia). Another example of measures taken to maintain the status quo is an aid to the cultural sector that does not aim to innovate or produce more than before, but rather to help organizations and workers keep their heads above water during or after stringent times (Finland).

Adaptive resilience refers to a system's potential to produce buffer capacity, endure shocks, and retain function during the transition to a new state. It encompasses stability as well as change at a consistent level (Frigotto et al., 2022). We identified three types of adaptation measures: related to digitization, sustainability, and accessibility. Countries wish to invest in the digitalization of cultural heritage, museums, libraries, and creative industries (e.g., Austria, Belgium, Bulgaria, Croatia, and Italy). In terms of sustainability, the focus of national plans is

twofold. Several countries wish to invest in making buildings with a cultural value more sustainable and energy efficient, for example, Austria, Bulgaria, and Greece. Additionally, some countries wish to invest in a green transition of sectors and workers (Austria, Italy, Bulgaria, Croatia, Finland). Making efforts for increased accessibility of cultural and creative goods and services is another approach that can lead to buffer capacity. In Italy, it is the plan to remove physical and cognitive barriers to various cultural institutions, which could lead to stronger and larger community involvement. In Greece, the program "arts on prescription" promotes health and active aging through the accessibility of arts, intending to foster social cohesion, tapping the silver economy. Creative vouchers in the Czech Republic can be used by small and midsize enterprises (SMEs) to purchase creative services, bridging the nonprofit and corporate environments, and helping companies to promote products and become more attractive on the market. The vouchers add to the resilience and buffer capacity of the SMEs as well as of artists who benefit from additional earnings. A key distinction between absorption and adaptation appears to be related to the sort of financing: a spending and an investment, respectively.

Transformative resilience challenges the essence of a social entity through changes in the institutional setting. To some degree, there is continuity, yet the social unit must go through a thorough regeneration and must possess the ability to do so (Frigotto et al., 2022). Transformation measures that strive for a structural change in the CCSs include, above all, a fundamental change in the framework conditions and a reorientation of the actors' actions. A distinction can be made between changes in socioeconomic framework conditions and major system changes. A renewal of socioeconomic framework conditions includes those in law and legislation. The labor reforms foreseen for arts workers (in Greece, Czech Republic, and Spain) are examples, even if such reforms may not be new to the world. Equally, strengthening copyright and related rights, for example, in Spain, and transforming the tourism sector by radically changing the administrative procedures that businesses incur and encompassing sustainable tourism models as in Croatia, serve as examples. Otherwise, an example of a major system change is proposed by Spain, which wishes to boost investment and development in the audiovisual sector, expected to lead to a systemic change.

3.2.2 | Country-level data and context factors (data set 2)

The second data set (COUNTRIES) includes two variables aggregated from the first data set (MEASURES) and various country-specific variables. Two metrics were calculated that serve as dependent variables in further analyses: (1) A metric was calculated reflecting the average resilience value (1 = *Absorption*; 2 = *Adaption*; 3 = *Transformation*; variable short name: AvResVal) by country, by adding up the resilience scores for each NRRP measure and dividing them by the number of measures. This metric reflects the transformational degree that a country wishes to pursue in its CCSs' resilience measures. (2) A metric named adjusted CCS budget (logarithm, LNAdjbud) was created that reflects the total amount of public funding for arts and culture (in billion EUR) relative to the standard of living measured as gross domestic product (GDP) at market prices (2018)[2] and population size, to reasonably compare the data between countries.

Additionally, a bundle of Eurostat national indicators (reference year 2018) was included in the data set, all presumably correlating with, or predictive of, a country's preference for specific arts and cultural resilience measures and budgets: Cultural employment by population (CuEmbyPo)[3] and Cultural enterprises by total enterprises (CuEnbyEu)[4] indicate sector size;

government expenditure to recreation, culture, and religion on total expenditure (%) (GoExCu18)[5] and government deficit relative to surplus (GoDbt18), and government spending to GDP (%) (GovSpe18) were chosen as measures for public policy priorities. We then used variables reflecting main targets of the European RRF: A variable Internet use (the percentage of individuals who used the internet in the last 3 months: listening to music [web radio, music streaming] in the reference year 2019) (IntUse) was taken from Eurostat as an indicator of a populations' digital adaptability,[6] and DESI rankings (integration of digital technology; DESIRank)[7] to reflect a countries' technical development. Finally, sustainable development report rankings (SusDRRan)[8] were used to indicate a country's state of sustainability (Figure 4).

3.3 | Analyses

The data sets containing 74 records at the MEASURE level and 18 at the COUNTRIES level endure the challenges of a Small-N analysis. Statistical analysis of Small-N designs has been a controversial topic and the debate has gone so far as the question whether statistics beyond descriptive should be used (Evans, 2014). The application of multilevel statistical methods was not pursued because the within-country component (the variance of the country-level residuals) is not in our research interest. Thus, the data sets were analyzed separately, first by descriptive analysis, and then by different correlational methods.

4 | RESULTS

4.1 | Measure-level analyses

4.1.1 | Descriptive statistics

The present section describes the MEASURES data set: the totality of measures that can be allocated to arts and culture, in terms of budget, and in relation to impact pillars and resilience forms. A total of 74 NRRPs measures for arts and culture from 18 countries (out of 27) were identified (Supporting Information: Appendix 2). In sum, €11.1 billion out of €723.8 billion (the total of all plans) is allocated to culture. Budgets for each NRRP range enormously (SD 277.1), from €0 up to €1.8 billion, with a mean of €150.0 million and a median of €38.9 million.

The measures have each been assigned by the EU member states to one (or two) pillars to indicate in which areas they are intended to have an impact. Almost half of the budget of the culture-specific measures (46.38%) is assigned to smart, sustainable, and inclusive growth; 23.22% of culture-specific budget is allocated to the pillar (5) of social and territorial cohesion; and 13.94% contributes to digital transformation, which is below the 20% put forward by the EU. Furthermore, 7.03% is reserved to achieve an impact in the green transition, putting the contribution by the culture-specific measures far from the 37% target that the EU wishes EU member states to invest in the green transition (European Parliament and Council of the European Union, 2021). Additionally, 7.21% can be ascribed to the pillar of "health, economic, social and institutional resilience," a small share of 0.42% to the pillar "policies for the next generation," and 1.80% is not allocated to any pillar (Supporting Information: Appendix 3).

Categorizing the measures according to resilience results in 22 measures that reflect absorption, 41 adaptation measures, and 11 transformation (Supporting Information:

Appendix 2). This result shows that the member states tend to focus on gradual changes and adjustments in the arts and cultural sectors and only a few prioritize transformative measures with the intention of more fundamental changes. A similar categorization according to the allocated budgets makes this trend even clearer. Of the NRRP budget, €2.73 billion (24.57%) is allocated to measures that are absorptive, €7.52 billion (67.77%) to measures that are adaptive, and €0.85 billion (7.65%) to measures that intend a rigorous transformation of the arts and cultural sectors to become more resilient (Figure 3).

4.1.2 | Associations between resilience, impact pillars, and budgets

Subsequently, the association between single-measure budget size, the six impact pillars, and modes of resilience is examined. The methods differ depending on the available data and variable characteristics as well as research questions at hand (Figure 4).

4.1.3 | Association between resilience and impact pillars

The first analyses wish to understand if the pillars and forms of resilience are related. In other words, are specific grand challenges typically associated with specific types of resilience measures? A contingency table ($N = 74$; Supporting Information: Appendix 3) depicts the pillars (Supporting Information: Appendix 2, fourth column) in the row and the forms of resilience (Supporting Information: Appendix 2, third column) in the columns. The Pearson χ^2 correlation coefficient (significance 0.921) indicates that it is highly probable that there is no significant association across cells. As 15 cells (71.4%) contain less than five items, this test may
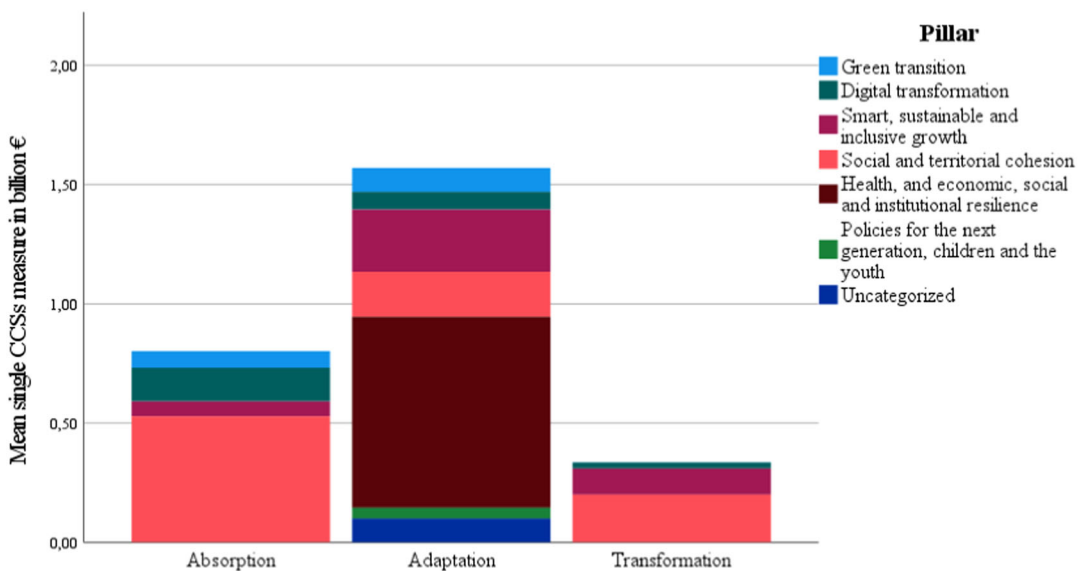
FIGURE 3 Mean of single cultural and creative sectors (CCSs) measure (in EUR billion), by form of resilience and pillar.
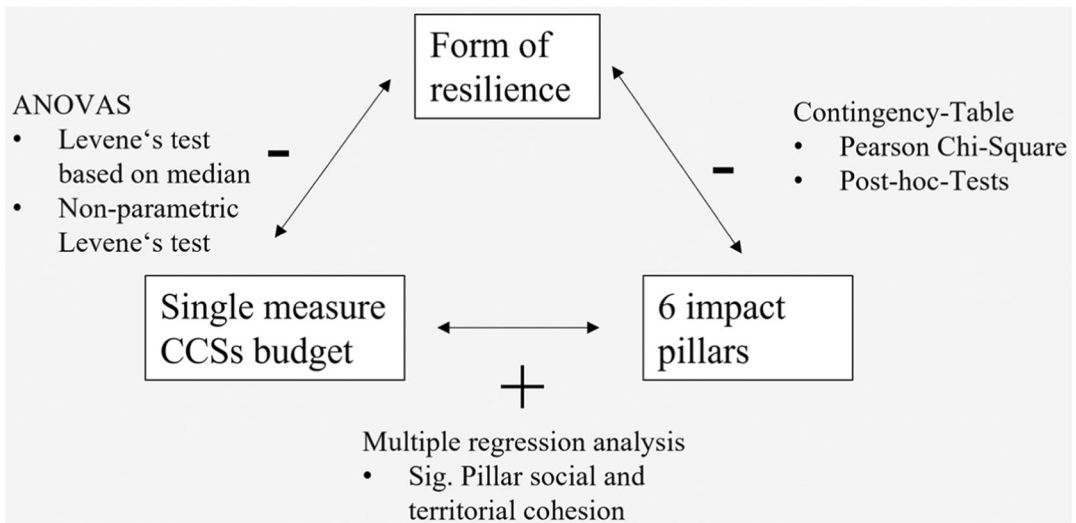
FIGURE 4 Relationships between variables on measure-level (data set 1). ANOVA, analysis of variance; CCSs, cultural and creative sector.

not be very robust. Subsequent post hoc tests evaluate the association between the two variables in each cell. Adjusted residuals with values of <1.96 in all cells show no single-cell associations. Based on the result that there are no cells in which single pillars and forms of resilience are associated, it can be concluded that the two variables are probably independent of each other. Within each pillar, different forms of resilience can exist, and inversely, absorption, adaptation, and transformation are not typically associated with specific impact domains.[9]

4.1.4 | Association between resilience and cultural budgets

Second, it was examined whether the size of measure-budgets correlates with the form of resilience. In other words, the analysis seeks to identify whether specific types of resilience systematically require more costly or less costly investments.

To test the assumption that the independent variable (the categorical variable of form of resilience) influences the dependent variable (the continuous budget variable), a between-groups analysis of variance (ANOVA) was performed ($N = 74$). In principle, it was tested as to whether it is appropriate to compare means of single measure CCSs budgets in the three independent comparison groups of forms of resilience.

Descriptive statistics report the highest mean value for adaptation ($M = 0.18$) and the lowest mean value for transformation ($M = 0.08$) (Table 1).

The data are nonnormally distributed with skewness and kurtosis of samples less than 2.0 and greater than 9.0, respectively (Schmid, 2010). Furthermore, group sizes are unequal (between 11 and 41). These conditions are a major challenge when testing group differences. The parametric Levene test and the median-centered Levene test of homogeneity of variance were applied, and the results were compared (Table 2). Both tests do not meet ideal conditions

TABLE 1 Descriptives of form of resilience, by single CCS NRRP in billion EUR.

	Single CCS NRRP in billion EUR					
	N	**Mean**	**SD**	**SE**	**Kurtosis**	**Skewness**
Absorption	22	0.12	0.22	0.05	13.69	0.22
Adaptation	41	0.18	0.33	0.05	14.09	0.29
Transformation	11	0.08	0.10	0.03	1.75	0.14

Abbreviation: CCS, cultural and creative sector; NRRP, national recovery and resilience plan.

TABLE 2 Levene test results.

	df 1 (between groups)	*df* 2 (within groups)	*F*	**Significance**
Based on the median	2	71	0.89	0.416
Nonparametric	2	71	1.162	0.319

but are generally considered to be relatively robust (Nordstokke & Zumbo, 2010; Shear et al., 2018).

First, the Levene test based on the median, also referred to as the Brown–Forsythe test, is proven to be more robust than the original standard Levene test based on mean values (Levene, 1960). It is still sensitive when groups are nonnormally distributed, but relatively robust concerning unequal group sizes (Nordstokke & Zumbo, 2010). The test reports no significant effects $(F(2.71) = 0.89, p = 0.416)$. Second, the nonparametric Levene's test ranks observed scores and then the original, mean-based Levene test (Levene, 1960) was conducted for equal variances on the ranked data. It is especially suited for nonnormally distributed samples, but sensitive to unequal group sizes (Nordstokke & Zumbo, 2010). The analysis did not yield a significant effect either $(F(2.71) = 1.162, p = 0.319)$. Both tests are not significant and do not confirm homogeneity of variance. It is therefore very likely that the forms of resilience cannot be significantly differentiated regarding the single-measure CCS budgets due to inhomogeneous variances.

4.1.5 | Association between cultural budgets and impact pillars

Third, we wish to understand if there are systematic associations between the cost of a measure and the impact domain it belongs to. To analyze the association between single CCSs measures' budgets and impact pillars, a multiple regression analysis is conducted ($N = 74$). The continuous dependent variable (single measure CCS budget) was logarithmized (ln) to obtain a normal distribution. Pillars were transformed into dummy variables: (dichotomous variables (0;1): green transition, digital transformation, smart, sustainable and inclusive growth, social and territorial cohesion, health, and economic, social, and institutional resilience, policies for the next generation, children and the youth). Stepwise methods were applied to predict the budgets based on impact pillars, and significance criteria were set to $p < 0.05$. The correlation coefficients between the independent variables are either weak or moderate (ranging from $r = -0.53$ to $r = +0.00$; Supporting Information: Appendix 4). A Durban–Watson test of autocorrelation resulted in a value of 1.827, which is within the acceptable range of 1.5–2.5. The

test suggests the absence of meaningful serial correlations (Durbin & Watson, 1950). The regression analysis was statistically significant (with $R^2 = 0.57$ and adjusted R^2 [adj. R^2] = 0.47, taking into account the sample size, $F(1.68) = 4.073$, $p = 0.048$). One pillar ("social and territorial cohesion") significantly predicts the single measures CCS budget variable ($\beta = 1.328$ and unstandardized $\beta = 0.238$, $p = 0.048$). In other words, there is a statistically significant relationship between the impact pillar "social and territorial cohesion" and the size of the measure's budget. This result suggests that budgets foreseen for measures that seek to foster the social and territorial cohesion are relatively high.

Jointly, the analyses fail to reveal systematic associations between the impact pillars, resilience forms, and budgets associated with the measures, apart from the positive relationship between "social and territorial cohesion" and the budget.

4.2 | Country-level analyses

4.2.1 | Descriptive statistics

The COUNTRY data set provides insights into each country's budget allocated to arts and culture. The 18 countries allocate a total budget of €452.64 billion to the RRF. An average of 2.45% of the budget has been earmarked for arts and culture, which exceeds the 2% targeted by Culture Action Europe (2021) for the countries analyzed here. Table 3 summarizes the descriptive statistics of the countries' NRRP measures. Overall, it is shown that member states have heterogeneous preferences and develop different budget structures. On average, member states propose 4.11 measures related to arts and culture, ranging from one to 14 measures (SD 3.79, median = 2). Ten member states propose one or two measure(s) related to arts and culture. The average budget allocated to arts and culture measures is €620 million, and the median is €220 million. Country budgets for arts and culture (in the following referred to as "NRRP measure package for CCSs") range from around €6 million (Latvia) to €6.68 billion (Italy) (SD 1.54). When comparing CCS budgets adjusted for a country's population and GDP, Italy has the highest value at 243.75 and Latvia has the lowest at 0.36. The average score of resilience form of change lies between 1.0 and 2.50, with a mean value of 1.84 and a median of 1.83, and thus a small standard deviation (SD 0.47) (Table 3).

Some countries allocate the entire cultural budget to one impact pillar. For example. Slovenia and Poland allocate it to smart, sustainable, and inclusive growth, and Slovakia to digital transformation. Belgium prioritizes digital transformation and the green transition. France prioritizes social and territorial cohesion, a domain to which Austria, Bulgaria, Greece, Italy, and Spain allocate money. The green transition appears the least popular pillar to be addressed with arts and culture measures (with only Belgium, Croatia, and Italy reserving money for pillar 1), and the digital transformation the most popular one (with 13 countries reserving budgets for pillar 2). Italy has the most fragmented budget, with fractions reserved for five of the pillars.

4.2.2 | Identification of determinants

Exploratory regression analyses were carried out to find out which of the selected context variables could be relevant explanatory variables for the two dependent variables: resilience

TABLE 3 Descriptive statistics of country-level variables.

	N measures	CCS budget (EUR billion)	Total RRP budget (EUR billion)	CCS budget as a share of total RRP budget (in %)	Total RRP budget as a share of GDP (in %)	Adjusted CCS budgets (LNAdjbud)	Average score of resilience form (AvResVal)
Austria	5	0.067	3.46	1.92	0.87	2.07	1.80
Belgium	5	0.087	1.24	7	1.24	2.17	1.60
Bulgaria	2	0.071	6.27	1.13	10.23	8.76	1.60
Croatia	7	0.367	6.3	5.83	11.61	28.31	2.14
Cyprus	1	0.008	1.21	0.66	5.15	0.32	1.00
Czech Republic	5	0.216	7.04	3.07	3.12	10.92	2.40
Finland	2	0.06	2.09	2.87	0.87	1.42	1.50
France	2	1.003	39.37	2.55	1.62	28.60	2.50
Greece	12	0.887	30.5	2.91	16.68	52.96	1.58
Italy	14	6.68	191.48	3.49	10.67	225.24	1.86
Latvia	1	0.006	1.83	0.31	5.15	0.37	2.00
Lithuania	1	0.031	2.22	1.37	4.56	1.87	2.00
Poland	2	0.295	35.52	0.83	6.66	22.44	2.50
Portugal	2	0.243	16.61	1.46	7.75	12.18	1.50
Romania	7	0.2	29.18	0.69	13.09	18.81	1.57
Slovakia	2	0.214	6.33	3.38	6.52	12.99	1.00
Slovenia	2	0.137	2.48	5.52	5.13	6.23	2.50
Spain	2	0.525	69.51	0.76	5.59	20.56	2.00
Sum	74	11.1	451.43				

(Continues)

T A B L E 3 (Continued)

	N measures	CCS budget (EUR billion)	Total RRP budget (EUR billion)	CCS budget as a share of total RRP budget (in %)	Total RRP budget as a share of GDP (in %)	Adjusted CCS budgets (LNAdjbud)	Average score of resilience form (AvResVal)
Mean	4.11	0.62	25.15	2.54	6.47	25.35	1.84
Median	2	0.21	6.32	2.23	5.37	11.55	1.83
SD	3.79	1.54	45.49	1.95	4.49	51.70	0.47

Abbreviation: CCS, cultural and creative sector; GDP, gross domestic product; RRP, recovery and resilience plan.

(score of resilience averaged across measures; AvResVal) and CCS budget (logarithm, LNAdjbud) (Figure 5). The exploratory approach is recommended for two reasons: first, inductive process modeling is particularly suitable for new topics that lack a clear understanding of causal relationships and predictors' relevance or dominance, and second, explorative regression models are suitable as a method to identify suitable predictors for correctly specified ordinary least-squares model (Braun & Oswald, 2011). The best sample regression technique was used, strongly endorsed by methodologists (e.g., Chatterjee & Hadi, 2012; Mendenhall & Sinich, 2012; Montgomery et al., 2021). Such a best subset analysis compares all possible models that can occur based on an identified set of predictors. In this study, two experiments were carried out in SPSS, one with each dependent variable, resulting in 511 possible variable combinations each.

The selection and evaluation of the best model heavily depends on the criteria chosen and the choices made by the researcher.[10] Also, the choices for specific predictors are determined by researchers' judgment, and evaluation criteria address different aspects for model fit. In this study, due to the Small N ($N = 18$), it was decided to more closely inspect the solution patterns of up to three predictors, and more roughly inspect solutions with >3 predictors, and to interpret results cautiously.

Before starting the procedures, correlation statistics were checked (Supporting Information: Appendix 5). All variables are fairly normally distributed. The resilience variable (AvResVal, a dependent variable in further analyses) significantly and positively correlates with two variables: CuEnbyEu ($r(16) = 0.547$, $p = 0.02$) and GoExCu18 ($r(16) = 0.534$, $p = 0.02$). The CCS budget variable (LNAdjbud, a dependent variable in further analyses) significantly and negatively correlates with CuEmbyPo (ln; $r(16) = -0.529$, $p = 0.02$). Some independent variables correlate. The correlation table does not reveal any spurious correlations or multicollinearity.[11]
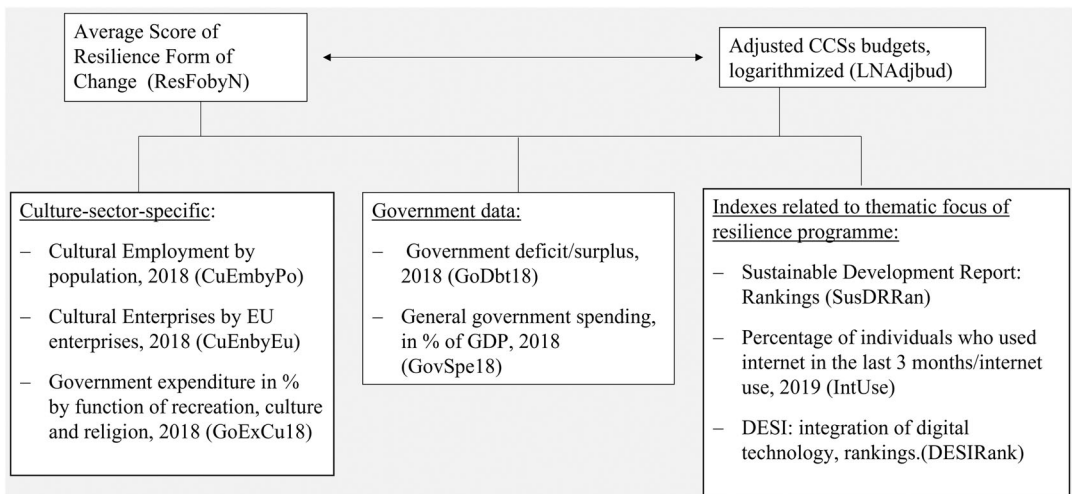

FIGURE 5 Dependent and predictor variables for best subset regression analysis on country-level (data set 2).

4.2.3 | Explaining the national arts and culture budget levels

The first set of exploratory regression analyses seeks the predictors of the national CCS budgets, among variables that relate to country characteristics. The exploratory regression analysis with LNAdjBud as the dependent variable yields the following results, based on variable combinations that contain one to up to four variables (seven would be the maximum).

Importing one variable results in nine single regressions with only CuEmbyPo delivering a significant ($p < 0.05$) solution (Table 4): The regression is statistically significant with $R^2 = 0.28$ and an adj. $R^2 = 0.34$ ($F(16) = 6.208$, $p = 0.024$). A visual inspection of the scatterplot of standardized residuals and standardized predicted values shows a regular distribution. AIC (16.29) is considered as high, and Mallow's cp (47.71) is far from 2 ($k + 1$). This indicates that solutions with more variables are likely to display better model fits.

After conducting analyses with sequentially two, three, and four variables (Supporting Information: Appendix 6), the first solution with four variables (AvResVal, CuEmbyPo, GoExCu18, SusDRRan) displays good criteria for the best model fit, with a negative AIC (-4.32) and Mallow's cp (6070) close to the ideal of five ($k + 1$). R^2 is high and explains 84% of the variance ($R^2 = 0.836$). Variance inflation factor and Durban–Watson indicators are inconspicuous. Thus, of the 511 displayed solutions, this solution proves the best; also, considering the fewer variables, it proves to be the better solution. Still, with a small N (N = 18), multiple regressions with four variables run the risk of violating R^2 and β values.

Based on the analyses, the dependent variable of LNAdjBud is negatively correlated with CuEmbyPo, which suggests that the lower the employment in the cultural sector is, the higher the cultural budget in the resilience plans. Concretely, the analyses suggest that the CCS budgets are best predicted by the variable combination of AvResVal, SusDRRRan, CuEmbyPo, and GoExCu18.

4.2.4 | Explaining the resilience level of a country's CCS measures

A second series of exploratory regression analyses seeks to explain which variables determine a country's average score of resilience (AvResVal) (Supporting Information: Appendix 7). Here, the importation of one variable results in two significant solutions: CuEnbyEu and GoExCu18 are found to be positively correlated with the countries' level of resilience (Table 5). In other words, the higher the cultural activity in a country is (in terms of enterprises and public budgets), the more prone the government is to a structural change in the arts and culture sectors (transformation).

Best samples of linear regressions result with three variables (Table 6 and Supporting Information: Appendix 6) display combinations of LNAdjbud and GoExCu18, with either

TABLE 4 Best sample linear regressions with one variable, dependent variable = LNAdjBud.

Predictor	Standard coefficient B	ANOVA (significance)	SE	R	R^2	Adj. R^2	AIC	SBC	Mallow's cp
CuEmbyPo	−0.529	0.024	1.492	0.529	0.280	0.235	16.294	18.075	47.710

Abbreviation: adj, adjusted; AIC, Akaike information criterion; ANOVA, analysis of variance; SBC, Schwartz's Bayesian criterion.

TABLE 5 Best sample linear regressions with one variable, dependent variable: AvResVal.

Predictor 1	Standard coefficient B	ANOVA	SE	R	R^2	Adj. R^2	AIC	SBC	Mallow's cp
CuEnbyEu	0.547	0.019	0.402	0.547	0.299	0.255	−30.931	−29.150	20.503
GoExCu18	0.534	0.023	0.406	0.534	0.285	0.240	−30.577	−28.797	21.187

Abbreviation: adj., adjusted; AIC, Akaike information criterion; ANOVA, analysis of variance; SBC, Schwartz's Bayesian criterion.

CuEnbyEu, CuEmbyPo, or GoDbt18. The values of the AIC (−39.976, −35.597, −35.510) further improved, as did Mallow's cp (6.715; 11.319; 11.423). The first sample with three variables shows Mallow's cp values close to $k + 1$ and can be considered a good, perhaps even best model fit.

However, solutions with four variables combine LNAdjbud and GoExCu18 with GoDbt18, GovSpe18, SusDRRan, and DESIRank with almost perfect criteria for best model fit, with adj. R^2 values between 0.657 and 0.649, low CCS values (−42.627, −42.469, −42.231), and very good indicators of Mallow's cp (4.909, 5.023, 5.196). It still has to be considered that multiple regressions with four variables run the risk of violating R^2 and β values.

Taken together, the dependent variable of AvResVal is positively correlated with two predictor variables: CuEnbyEu and GoExCu18. The best model fit that is sensitive to the requirements in the case of small numbers is reckoned to be that with the three variables LNAdjbud, CuEnbyEu, and GoExCu18. However, other relevant variable combinations seem to be GoDbt18, GovSpe18, SusDRRan, and DESIRank. Best model fits seem to be displayed with combinations of four variables, but a small sample size is restrictive to this solution.

5 | DISCUSSION, CONTRIBUTIONS, AND LIMITATIONS

The aim of the study is twofold: to establish whether and how European countries engage in developing plans for a future resilient arts and culture sector, and to examine how far the creativity that CCSs typically display is acknowledged to play a transformative role in society. Out of 27 countries, 18 countries seek to strengthen the resilience of their CCSs by including arts and cultural measures in their NRRP plans and allocating a budget in this direction, on average 2.54% of their total budget. If we consider all countries eligible to take part in the program, the average CCS budget is around 1.5% below the recommendation of Culture Action Europe (2021), and not suggestive of great efforts on behalf of countries to take this opportunity and strengthen the resilience of their CCSs.

A series of analyses were performed, resulting in several key empirical findings. These findings include, first, that a systematic understanding of how the structural deficiencies in the broad arts and cultural field can be addressed, for example, by means of digital and ecological initiatives, appears to be lacking in European member states. It may have been the case that the setup of the RRF (time window or scale of measures) may have led to national priorities for a specific type of project, either very concrete (renovation of a building) or very integral (digitalization of tourism). It may well be that the analysis of first-stage interventions will lead to a better understanding of how individuals, organizations, and systems achieve "transform-ability" (Folke et al., 2010) and a more consistent policy process with logical connections

TABLE 6 Best sample linear regressions with three variables, dependent variable: AvResVal.

Predictor 1 LNAdjbud standand coefficient B	Predictor 2 CuEnbyEu standand coefficient B	Predictor 3 GoExCu18 standand coefficient B	ANOVA	SE	R	R^2	Adj. R^2	AIC	SBC	Mallow's cp	Durban–Watson	VIF (max.)
0.537	0.414	0.532	0.001	0.299	0.813	0.66	0.587	−39.98	−36.41	6.715	2.32	1.35

Abbreviation: adj., adjusted; AIC, Akaike information criterion; ANOVA, analysis of variance; max, maximum; SBC, Schwartz's Bayesian criterion; VIF, variance inflation factor.

between inputs, actions, and outputs in the future. Hence, at present, no sensible or systematic association exists between modes of resilience and impact pillars. More concretely, this means that digital transformations or green transitions, to name just two impact pillars of the EU monitoring system, are not typically associated with specific types of resilience (e.g., absorption or transformation) across countries. This finding may be grounded in a few explanations, including one that stipulates that arts and culture are not believed to be a vehicle in some major transformations ahead, such as that toward a greener and cleaner society, as well as digitization. Put differently, national decision makers seem unaware of the capacity of the arts and culture, which by "redefining storytelling, changing stereotypes and giving a voice to the voiceless" have been attributed to such transformative power.[12] Furthermore, policy departments are challenged by formulating and implementing transition tasks (Braams et al., 2022).

This brings up a second finding: in line with the Culture Action Europe Report, our analyses underline that vast support is devoted to "easily reportable" interventions that can justify meeting milestones and targets (i.e., the strict criteria to unlock the payments from the EU), such as the renovation of heritage sites and cultural spaces, and digitization of cultural products. The predominant paradigm supports some larger cultural and creative industries, including the audiovisual industry and heritage, and often prioritizes big institutional players, leaving aside the independent cultural scene consisting of microenterprises and small organizations. Countries invest least in measures that are truly transformative including increased sustainability of tourism and strengthened competencies in cultural and creative industries including labor reforms. Changes like these can make the existing cultural and creative infrastructure fit for the future.

Third, the sizes of the requested budgets are not significantly associated with preference for either specific resilience modes or forms, or specific impact pillars, with one exception: measures associated with the pillar "social and territorial cohesion" gain the highest budgets across countries. Furthermore, the compulsory minimum thresholds of budgets that some impact pillars should comply with at the country level are not exceeded within arts and culture. For example, the EU requires that 20% of the solicited budgets is allocated to digital transformation, which in CCSs reaches 19%. These sectors are particularly suited for digitalization purposes: not only because many of the goods and services produced in CCSs are digitally born, stored, preserved, communicated, or experienced but also because they acquaint individuals with digital skills. A more pertinent example is the 7% dedicated to measures in the green transition, which is far distant from the 37% that the EU prescribes. This shows that countries are far from ready to switch to a green alternative at the industry level and that the role of CCSs in sustainability transitions is insufficiently recognized by the politicians developing the plans.

Based on the analysis, the following associations between country-level characteristics and national plans are identified. First, there is a positive association between a country's cultural economic activity (indicated by the rate of cultural enterprises to total enterprises) and cultural public support (indicated by government expenditure on recreation, culture, and religion to total expenditure) with the average resilience value. Consequently, countries with a solid cultural ecosystem envision a more transformative form of resilience, perhaps owing to the greater infrastructure and resources available, or an outspoken cultural lobby during the NRRPs′ creation. In other words, the higher the cultural activity in a country is, the more prone it is toward structural changes in the arts. Otherwise, this could also indicate that the need for more radical approaches to resilience may be warranted in countries with many small-scale

enterprises and self-employed individuals with needs for systemic transformations of social security and taxation. Inversely, countries with low entrepreneurial activities in arts and culture and low public support have a small cultural infrastructure and their national plans are relatively less ambitious, since they prefer to save and restore the current ecosystem and status quo. A second significant association is between cultural employment (the proportion of cultural employment to total employment) in a country and NRRP budgets for CCSs, with more workers active in these sectors concurring with lower budgets in the plans. This could mean that countries that already have a larger proclivity toward the arts prefer to invest less in the arts vis-à-vis other domains, or that countries with relatively less cultural activity consider the RRP facility as a means to leverage their cultural budgets.

In terms of theory, the study disentangles the resilience concept into an ex ante or forward-looking, and ex post or backward-looking meaning, as well as in three forms (absorption, adaptation, and transformation), which were recognized in concrete tactics and strategies in the cultural domain. Absorptive resilience refers to preserving existing systems, which in arts and culture is typically associated with the heritage sector, and in the aftermath of a pandemic with the emergency support to single organizations. Adaptive resilience is reactive as well as proactive and entails learning to prepare a system for change, mostly by foreseeing buffering capacity. Increasing the accessibility to arts and culture is typically an adaptively resilient form of policy-making because it focuses on existing systems (stability) and entails some adaptation (change) beyond the single unit. Transformative resilience challenges the essence of a social entity through regenerative requirements and fundamental changes in the framework conditions. Reforms in legislation and radically new approaches to existing systems (labor, tourism, entertainment) may require transformative resilience, also in arts and culture. Even if resilience can be epitomized by restoration, preservation as well as change, all three forms can have a forward-looking connotation, which is the case in the present study that relies on plans.

The methodological contribution is that the study identifies (forms of) resilience in real-world tactics and strategies and presents operationalizations that could be applied in other contexts. First, a new data set was developed based on three types of data sources: primary data (national statistics), secondary data (Brueghel and Culture Action Europe), and coded data based on a quantitative content analysis of the plans. This data set is available for further investigation. Second, a mixed-methods research design was used combining interpretative methods and relational, quantitative data analyses. This approach enabled the development and operationalization of the concept of resilience with respect to the CCSs, making associations between resilience, budgets, and impact pillars leading to insights into the effect of the program, and the identification of relevant national framework conditions. Third, such a triangulation of methods to analyze *objective* quantitative data proved to be a worthy complement to qualitative research designs that would rely on interviews with the policy-makers who were found to experience difficulties merging public administration and transition policies (Braams et al., 2022). Based on our approach and corresponding results, researchers and policy-makers are invited to continue developing criteria for the selection, retention, and evaluation of resilience measures in various (policy) contexts.

Limitations of the study include its focus on one sector and the interpretative approach: categorization of the three resilience modes by the authors could become validated by policy-makers. Primary data in the form of reports in the original languages were used in a limited way. Also, the quality of the RRPs has been divergent, with some remaining slightly abstract and requiring more interpretation efforts from the researchers. Inferring the capabilities needed to achieve resilience at the sector or societal level falls beyond the scope of the present paper.

6 | CONCLUSION

The present study contributes to the comprehension of resilience, typically defined as bouncing back and moving forward, by classifying it into three levels: absorption, adaptation, and transformation (Frigotto et al., 2022). It identifies how these three modes of resilience manifest in different tactics and strategies. While it does so for the arts and culture sectors, the three modes are expected to apply to other domains as well, such as energy or health. The classification relies on the sample of the measures within the framework of the EU Recovery and Resilience plans and serves to better comprehend how EU member states intend to strengthen resilience of and through their CCSs (cf. OECD, 2022). The study highlights that European countries still lack a shared understanding of how the arts and culture sectors can become more resilient after the COVID-19 pandemic (cf. Betzler et al., 2020), and how arts and culture can contribute to a more resilient society by taking up roles in urgent challenges such as digital transformation, the green transition, inclusive growth, and social and territorial cohesion. Absorptive, adaptative, and transformative resilience are all recognizable in the RRF plans to different degrees and reflect a heterogeneous range of activities. Countries with larger private and public cultural sectors are most prone to transform and change the status quo; countries that lack a strong cultural field use the RRF plans and budgets to catch up. If and how the notion of "resilience" will lead to learning and transformation, or if it is a buzzword that will cease to be used because it is not practical or concrete, remains to be seen.

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ENDNOTES

[1] Bruegel is a European think tank on economics, with members including EU Member State governments, international corporations, and institutions, and has the mission "to improve the quality of economic policy with open and fact-based research, analysis and debate."

[2] See https://ec.europa.eu/eurostat/databrowser/view/tec00001/default/table?lang=en.

[3] See https://ec.europa.eu/eurostat/databrowser/view/cult_emp_n2/default/table?lang=en.

[4] See https://ec.europa.eu/eurostat/databrowser/view/cult_ent_num/default/table?lang=en.

[5] See https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_recreation,_culture_and_religion.

[6] See https://ec.europa.eu/eurostat/databrowser/view/isoc_ci_ac_i$DV_649/default/table?lang=en.

[7] DESI by components—Digital Scoreboard—Data and Indicators (digital-agenda-data.eu).

[8] See https://dashboards.sdgindex.org/rankings.

[9] To avoid type I error, we followed the procedure described in (all >0.067), where we calculated individual p values of the cell, and compared each of them with the adjusted (adj.) p value of 0.003 (Beasley & Schumacker, 1995; García-Pérez & Núñez-Antón, 2003). This procedure has shown that Ho cannot be rejected and that there is no cell in which single pillars and types of resilience are associated.

[10] The main indices for evaluating the results are: (1) adj. R^2, specifically in the case of small N (the larger, the better), (2) Mallow's cp (Mallow & Mallow, 1973, the best choice is a model in which CP is closest to $k + 1$), and (3) Akaike's criterion information (AIC) (Akaike, 1974, the smaller, the better).

[11] Moreover, Pearson's r is supposed to be highly sample-specific (Pedhazur, 1997). Since the study contains only 18 cases, in addition to the Pearson correlation, the nonparametric Spearman's ρ value was calculated for a cross-check and indicated the same significant correlations.

[12] See https://www.weforum.org/agenda/2020/10/how-arts-and-culture-can-serve-as-a-force-for-social-change/.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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