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THEORIZING CIRCULAR ECONOMY COMMUNICATION: A FRAMEWORK FOR THE PUBLIC SECTOR

Settore scientifico-disciplinare: ECONOMIA E GESTIONE DELLE IMPRESE (SECS-P/08)

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Abstract

English

The research investigates how public institutions can communicate the Circular Economy (CE) in ways that transform awareness into action. Transitioning to a CE requires complex behavioural changes, making the quality of communication a decisive factor. Following an initial exploratory phase analysing CE communication by Italian regions, the thesis presents four complementary studies that span theoretical analysis, empirical investigation, and conceptual development to propose an effective communication model.

The findings identify five operative principles—telling human stories, highlighting tangible benefits, connecting people through shared objects and places, building habits through repeated cues, and ensuring high technical and ethical standards—derived primarily from in-depth interviews with CE communication and sustainability professionals (Study 4). Additional empirical grounding comes from public-sector interviews and focus groups on storytelling feasibility (Study 2) and a cross-context qualitative investigation comparing CE communication challenges across institutional settings (Study 3), which also highlights the importance of human-centred narratives and tangible benefits. From these results emerges the Ouroboros Paradigm, a model that conceives communication as a regenerative cycle of meaning: a process that, like the CE itself, circulates ideas and values, restoring sense and participation.

The thesis contributes to establishing CE Communication as a new research field, shifting the focus from information transmission to the regeneration of meaning and social relationships.

Italiano

La ricerca analizza come gli enti pubblici possano comunicare l'Economia Circolare (EC) in modo da trasformare la consapevolezza in azione. La transizione verso un'EC richiede cambiamenti comportamentali complessi, rendendo la qualità della comunicazione un fattore decisivo. Dopo una fase esplorativa iniziale dedicata all'analisi della comunicazione dell'EC da parte delle regioni italiane, la tesi presenta quattro studi complementari che, attraverso analisi teorica, indagine empirica e sviluppo concettuale, propongono un modello efficace di comunicazione.

I risultati individuano cinque principi operativi—raccontare storie umane, mettere in evidenza benefici tangibili, connettere le persone attraverso oggetti e luoghi condivisi, costruire abitudini mediante segnali ripetuti, e garantire elevati standard tecnici ed etici—derivati principalmente da interviste in profondità con professionisti della comunicazione dell'EC e della sostenibilità (Studio 4). Ulteriore fondamento empirico proviene da interviste e focus group nel settore pubblico sulla fattibilità dello storytelling (Studio 2) e da un'indagine qualitativa cross-contesto che confronta le criticità della comunicazione dell'EC in diversi contesti istituzionali (Studio 3), che evidenzia anch'essa l'importanza di narrazioni centrate sulle persone e di benefici tangibili. Da questi risultati nasce l'Ouroboros Paradigm, un modello che interpreta la comunicazione come ciclo rigenerativo di significato: un processo che, come l'EC stessa, fa circolare idee e valori, restituendo senso e partecipazione.

La tesi contribuisce a fondare la Circular Economy Communication come nuovo campo di ricerca, spostando il focus dalla trasmissione dell'informazione alla rigenerazione del significato e delle relazioni sociali.

Table of Contents

Authors' Contributions

Following academic authorship conventions, the specific contributions to each work are detailed below:

- **Paper 1**:
  Elisabetta Pozzetto – Conceptualization, methodology, data collection, analysis, and writing.
- **Paper 2 (Book Chapter)**:
  Elisabetta Pozzetto – Conceptualization, writing (original draft and final revision).
  Maria Colurcio – Theoretical framing and critical revision.
  Donata Vianelli – Theoretical framing, supervision, and critical revision.
- **Paper 3**:
  Elisabetta Pozzetto – Research design, Data collection and analysis, writing (original draft and final revision).
  Luca Leoni – Discourse analysis and methodological validation.
- **Paper 4**:
  Elisabetta Pozzetto – Conceptualization, Research design, Data collection, Coding, Findings and discussion
  Matteo Dimai – Coding assistance, Findings and discussion critical revision

Overview

The transition towards a Circular Economy (CE) represents one of the most complex and urgent challenges of our time.

It is not solely a technological or regulatory transformation but a profound cultural and communicative shift.

While sustainability communication has progressively matured as an academic and professional field, research on how circular meanings are constructed, negotiated, and circulated remains fragmented and undertheorized. The communicative dimension of circularity—its capacity to generate shared meanings, collective identities, and regenerative practices—still lacks a coherent theoretical framework.

This doctoral research addresses that gap by developing a conceptual and empirical foundation for understanding CE communication as both *medium* and *metaphor* of circularity itself. The thesis proposes that communication does not merely support the transition to circularity but *enacts* it—transforming the material principles of regeneration, relation, and return into a communicative ontology. Building on the Constructivist Grounded Theory (CGT) methodology (Charmaz, 2006, 2014) and on Craig's (1999) metamodel of communication, the research constructs an interpretive paradigm that situates CE discourse within time, space, and relation.

The overarching aim of this work is twofold. Theoretically, it seeks to reimagine communication as a regenerative process that mirrors the cyclical temporality and relational logic of the CE. Practically, it identifies transferable communication strategies from private-sector practices—such as marketing, branding, and media storytelling—that can inform and strengthen public-sector engagement with citizens and stakeholders. The resulting framework, termed the Ouroboros paradigm, positions communication as a self-sustaining cycle of meaning through which ideas, like materials, circulate, transform, and return.

This is an article-based thesis that investigates how public bodies communicate Circular Economy (CE) concepts and how institutional communication can move from predominantly transmitting information to regenerating shared meaning that supports sustained engagement. To make the thesis-level contribution explicit, the work is organised around three overarching research questions:

- **RQ1.** How can Circular Economy communication in the public sector be theoretically framed, within an interpretivist epistemology and a social-constructivist perspective, as a form of communicative action through which meanings of circularity are socially constructed, negotiated, and legitimised, rather than merely transmitted as information?
- **RQ2.** How do public institutions communicate the Circular Economy across different institutional and national contexts, and how do specific communicative practices, narratives, and discursive configurations enable or constrain the social construction of citizen engagement?
- **RQ3.** How can insights generated through diverse empirical contexts, communicative practices, and qualitative methodological approaches be theoretically integrated into a coherent interpretive model for Circular Economy communication in the public sector?

Because CE communication in and around the public sector remains underexplored and is strongly shaped by institutional and contextual constraints, the thesis adopts a multi-study, sequential qualitative design. The research programme developed through progressive focusing: early empirical work problematised the feasibility of identifying effective practices as transferable templates, which required refining both the empirical focus (from benchmarking to mechanisms) and the empirical

vantage point (from public-sector-only perspectives towards cross-context and practitioner-informed perspectives). The studies are therefore not presented as a strictly stepwise, pre-planned pipeline; rather, they form a cumulative programme in which each paper contributes a distinct function to the overall explanatory and practical objective.

The thesis consists of four articles—three published and one submitted—which collectively trace the evolution of this conceptual framework, from empirical observation to theoretical synthesis. The four articles use complementary qualitative lenses to address different layers of the same phenomenon, aligned with the thesis-level research questions.

The first article, *Communicating Circular Economy: Implications of Habermas's Theory of Communicative Action in the Public Sector* (IFKAD 2023 conference paper), provides a theoretical and normative foundation for the research. It interprets public-sector CE communication as communicative action through which meanings of circularity are constructed, negotiated, and legitimised rather than merely transmitted, and it grounds this framing in an initial diagnostic of Italian regional communication practices (primarily addressing RQ1, with empirical elements relevant to RQ2). Applying Habermas's Theory of Communicative Action (TCA) to public-sector CE communication, the paper reframes institutional discourse in terms of communicative rationality, life-world interaction, and validity claims (truth, rightness, and sincerity). Through a case-based qualitative enquiry, it demonstrates how system-level instrumentalism can colonise the life-world and how dialogic, participatory communication can instead foster consent, trust, and meaningful engagement around circular practices. This theoretical anchoring clarifies why public communication should move beyond informational transmission and embrace deliberative, consensus-oriented modalities.

The second contribution, *Storytelling for the Faceless: A Tool for Communicating Sustainability and Circular Economy in the Public Sector* (IGI, 2024 book chapter), examines storytelling as a concrete communicative practice through which public institutions may enable engagement and meaning-making. Additionally, it analyses the specific institutional constraints under which such narrative resources can be deployed (primarily addressing RQ2). Drawing on exploratory qualitative research with regional administrations, the chapter highlights storytelling's capacity to make abstract CE concepts concrete, emotionally resonant, and memorable. It maps the affordances of SusTelling (storytelling for sustainability), including personalization, dramaturgy, transmedia deployment, and visual narrative, and it discusses practical constraints and ethical considerations when public bodies adopt storytelling practices.

The third article, *Communication of Circular Economy in the Public Sector in Bulgaria: A Study of Space, Agenda, Language, and Tools* (Springer, 2025 academic paper), provides an in-depth empirical test of the framework in a national setting. It extends the empirical diagnosis across institutional and national contexts and functions as a boundary probe, analysing how communicative practices and discursive configurations enable or constrain citizen engagement beyond the Italian case (primarily addressing RQ2). Employing Constructivist Grounded Theory triangulated with Critical Discourse Analysis, this study analyses institutional actors, media practices, and policy documents across ministries, municipalities, and public broadcasters. The findings reveal centralisation, fragmentation, and performativity in Bulgarian CE communication, together with specific linguistic and agenda-setting gaps that impede public engagement.

The fourth and culminating article, *The Ouroboros of Communication: Reimagining Circular Economy Discourse Through Time, Space, and Relation* (submitted), consolidates insights from diverse empirical contexts and practitioner-oriented material into a structured synthesis, integrating the cumulative findings into a coherent interpretive model (primarily addressing RQ3, while informing the practical dimension of RQ2). Based on 18 semi-structured interviews, three focus groups, and Gioia-style data

structuring, the paper advances the Ouroboros paradigm: a communicative ontology that reconceives CE messages as regenerative loops of meaning. The study identifies five operative principles—humanisation (narratives that centre on people), benefit framing (concrete present-value propositions), shared connection (objects and places as relational anchors), iterative habit-building (small, repeatable invitations), and ethical/technical excellence (craft and legitimacy)—that together produce a repeatable loop from attention to action. Two cross-cutting mechanisms—"I will listen to humans" and "Speak to what I need"—link affective-relational and institutional-technical registers, enabling public institutions to translate policy ambitions into sustained behavioural change. The Ouroboros paradigm thereby reframes communication as both instrument and instantiation of circularity.

Article / Research question	RQ1 - framing as communicative action (interpretivist / social - constructivist)	RQ2 - how institutions communicate across contexts; practices/narratives/discourses enabling or constraining engagement	RQ3 - integrate into a coherent interpretive model
Communicating Circular Economy: Implications of Habermas's Theory of Communicative Action in the Public Sector	Primary	Primary	Secondary
Storytelling for the Faceless: A Tool for Communicating Sustainability and Circular Economy in the Public Sector	Secondary	Primary	Secondary
Communication of Circular Economy in the Public Sector in Bulgaria: A Study of Space, Agenda, Language, and Tools	Secondary	Primary	Secondary
The Ouroboros of Communication: Reimagining Circular Economy Discourse Through Time, Space, and Relation	Secondary	Secondary	Primary

Table 1: Mapping between articles and research questions.

The rationale for combining different methods and contexts is therefore not "methodological variety for its own sake", nor a claim of statistical generalisation, but a fit-to-question strategy in an emerging field. The phenomenon of CE communication spans multiple analytic layers (normative legitimacy and validity claims, narrative form and audience engagement, institutional discourse and constraints, and practitioner sensemaking). Different qualitative approaches are used because they are suited to different layers of the overall problem, and because they allow iterative refinement of the explanatory model. Variation in contexts (national, organisational, and sectoral vantage points) is used as boundary

probing: it helps surface scope conditions and constraints under which particular communicative mechanisms plausibly operate, rather than supporting population-level inference.

To address quality/validity at thesis level, the thesis follows trustworthiness criteria appropriate to interpretive qualitative research. Credibility is supported through transparent reporting of sampling and data collection, systematic and iterative analysis (including coding with constant comparison where applicable), the use of illustrative empirical material (quotations/tables) linking claims to evidence, and—where applied—triangulation across sources (e.g., interview/focus-group material and documentary/secondary materials). Where claimed in the individual studies, saturation is treated as a stopping rule indicating diminishing analytic returns for category development. Dependability is addressed by providing a traceable account of the analytic process (coding procedures, theme/category development, and key analytic decisions) so that the inferential path from data to interpretation remains inspectable. Confirmability is strengthened through reflexive practices (making interpretive decisions explicit and acknowledging assumptions) and, where implemented, peer debriefing and/or collective coding practices that reduce reliance on a single analyst's idiosyncratic reading. Transferability is treated as bounded applicability rather than statistical generalisation: the thesis provides contextual detail and specifies scope conditions, aiming to support transfer of mechanisms and design principles across comparable institutional settings. Finally, reflexivity is addressed by acknowledging how researcher positioning and public-sector constraints (e.g., impartiality, transparency, accountability) shape both the production of accounts and their interpretation, and by using these constraints as substantive elements in understanding what communicative practices are feasible in public administration.

Together, this thesis-level framing makes explicit how the individual papers contribute to a cumulative doctoral argument: diagnosing institutional communication barriers (RQ1), identifying feasible operational resources for public-sector CE meaning-making (RQ2), and integrating cross-study insights into an explanatory and guiding model for circular, regenerative communication (RQ3).

Beyond the empirical findings, the thesis contributes to the theoretical maturation of CE communication as a distinct research field. It integrates sustainability studies, communication theory, and social semiotics into a unified conceptual frame. The Ouroboros paradigm advances an epistemological shift: from communication as dissemination to communication as regeneration; from information transmission to meaning transformation; from linear time to recursive continuity. By aligning communicative processes with the material and symbolic logic of the CE, this research provides both an interpretive lens and a practical guide for policymakers, institutions, and scholars seeking to foster systemic change through discourse.

Ultimately, the thesis argues that the future of the circular economy depends as much on *how we communicate* as on *what we produce*. Communication is not a secondary instrument but a constitutive practice of circularity—a living cycle of relation, reflection, and renewal.

Research design and epistemological positioning

This doctoral research is grounded in an interpretivist epistemology, within which a social-constructivist perspective is adopted. The study assumes that social reality is not a fixed or objective entity but is continuously produced and reproduced through social interaction and communicative practices. In this view, meanings are not discovered but constructed, negotiated, and stabilised within specific institutional, cultural, and historical contexts.

The architectural coherence of this research design is underpinned by a principle of reflexive adaptation. While the project's initial heuristic focus was centered on the public-sector communication of the CE—identifying Italian regional administrations as a critical empirical site due to their pivotal

intermediary role in governance processes—the early stages of fieldwork revealed a higher degree of discursive heterogeneity and context-dependence than originally anticipated. In accordance with interpretivist and social-constructivist traditions, which privilege the researcher's responsiveness to the field over rigid adherence to a pre-determined plan, the research programme underwent a process of iterative evolution.

A salient example of this adaptive logic is the transition from an exclusive focus on regional public institutions towards the strategic inclusion of private-sector actors and cross-sectoral practitioners in the later phases of the enquiry. This shift was analytically motivated by two factors: first, the attainment of empirical saturation within the regional public-sector discourse; and second, the recognition that the private sector constitutes a primary arena for the material and symbolic co-construction of circularity. Private actors play a decisive role in translating abstract policy ambitions into user-facing narratives, tangible products, and experiential interpretations of the CE. Consequently, this broadening of the empirical vantage point is presented not as a deviation from the original trajectory, but as a methodological strength—a manifestation of an exploratory, theory-building strategy that allowed for the refinement of the Ouroboros paradigm through a more robust, cross-contextual validation of its communicative mechanisms.

Communication is therefore approached not as a neutral channel for transmitting information but as a constitutive social practice through which realities such as the CE are made meaningful, legitimate, and actionable. This epistemological positioning is consistent with the theoretical foundations of the thesis, including Habermas' Theory of Communicative Action, Craig's constitutive metamodel of communication, and the CGT approach adopted in the integrative phase of the research.

The research design follows a cumulative and integrative logic, in which four studies contribute to different analytical levels of a single overarching research project. While each study addresses a specific research question and can be read as a standalone contribution, their primary function lies in their interrelation and progressive integration.

The first study establishes the theoretical and normative foundation of the research. The second and third studies provide empirical insights into communicative practices and discursive configurations across different contexts. The fourth study synthesises these theoretical and empirical insights through an integrative interpretive model. This design reflects a theoretical sampling logic, whereby each study informs the focus and analytical direction of subsequent investigations.

Different qualitative methodological approaches are employed across the four studies in order to address the specific analytical aims associated with each research question. Theoretical analysis is used in the first study to develop a conceptual framing of Circular Economy communication. Qualitative content and narrative analysis underpin the second study, enabling an in-depth examination of communicative practices and storytelling strategies. The third study adopts a qualitative case study approach, drawing on semi-structured interviews and the analysis of institutional communication materials within a national public-sector context.

The fourth study employs a constructivist grounded theory methodology to integrate findings across studies and contexts. This approach is particularly suited to the research objectives, as it allows theory to emerge from the systematic comparison and abstraction of qualitative insights, while remaining aligned with the interpretivist and social-constructivist orientation of the thesis.

The combination of multiple methods and empirical contexts does not aim at triangulation in a positivist sense, nor at validating findings through replication. Instead, integration is achieved at the analytical and theoretical level. Insights generated through different empirical materials and contexts are brought into dialogue through iterative comparison, conceptual abstraction, and reflexive interpretation.

This integrative strategy enables the research to move beyond context-specific findings and to develop a more general interpretive understanding of CE communication in the public sector, while preserving sensitivity to contextual variation.

In line with the interpretivist and constructivist orientation of the research, quality and validity are addressed through criteria appropriate to qualitative inquiry. Credibility is supported through the use of rich empirical material, including extended interview excerpts and detailed analytical descriptions. Analytical rigour is ensured through systematic coding procedures, constant comparison, and transparency in the analytical process.

Transferability is pursued through theoretical, rather than statistical, generalisation, whereby concepts and insights are developed at a level of abstraction that allows their relevance to be assessed across different public-sector contexts. Reflexivity is maintained throughout the research process, acknowledging the role of the researcher in shaping data interpretation and theory construction.

Beyond the individual methodological choices of each study, the thesis contributes methodologically by demonstrating how a plural qualitative research design can be coherently integrated within a single interpretivist and social-constructivist framework. By combining theoretical analysis, qualitative empirical research, and constructivist grounded theory, the doctoral project illustrates a pathway for studying complex and emerging communicative phenomena such as the Circular Economy in the public sector.

Integrative synthesis of studies, contexts, and methodological approaches

This subsection provides an integrative synthesis of the four studies that constitute the doctoral thesis. Its purpose is not to reiterate the individual findings of each article, but to demonstrate how different empirical bases, institutional contexts, and methodological approaches are analytically and theoretically integrated within a coherent research design.

By bringing the studies into dialogue, this chapter clarifies how the doctoral project moves from context-specific analyses toward a cumulative and interpretive understanding of Circular Economy communication in the public sector. The synthesis operates across three interconnected dimensions: empirical contexts and samples, communicative practices and analytical focuses, and methodological approaches and levels of abstraction.

The empirical studies included in the thesis are situated in different institutional and national contexts and draw on diverse qualitative samples. Rather than constituting a limitation, this diversity reflects the research objective of exploring CE communication as a socially constructed phenomenon that takes shape within specific contextual conditions.

Study 2 examines public-sector communication artefacts and narrative practices, focusing on how CE discourses are articulated and circulated through institutional storytelling. Study 3 is based on semi-structured interviews with public-sector actors and the analysis of policy communication materials within a national institutional context. These empirical bases provide complementary perspectives on the communicative construction of circularity, capturing both textual-discursive and actor-centred dimensions.

Integration across samples and contexts is achieved not through comparison aimed at identifying similarities or differences per se, but through analytical abstraction. Contexts and samples are treated as sites in which broader communicative dynamics become visible, allowing insights to be conceptually generalised beyond their immediate empirical settings.

Across the four studies, CE communication is examined through multiple but interconnected analytical lenses, including communicative action, narrative practices, discursive configurations, and engagement processes. While each study foregrounds specific dimensions, these analytical focuses converge around a shared concern with meaning-making and social legitimacy.

Study 1 conceptualises communication as a form of communicative action, providing a normative and theoretical lens through which subsequent empirical findings can be interpreted. Study 2 operationalises this perspective by examining storytelling as a communicative practice that structures how circularity is made intelligible and engaging. Study 3 further contextualises these practices by analysing how institutional discourses are shaped by organisational logics, policy frameworks, and national contexts.

The synthesis of these analytical dimensions reveals recurring patterns across studies, including the tension between informational and constitutive models of communication, the role of narrative in mediating abstract policy concepts, and the importance of legitimacy and participation in public-sector CE communication.

Methodological integration in this doctoral project operates across different levels of analysis rather than through methodological convergence. The use of theoretical analysis, qualitative empirical research, and constructivist grounded theory reflects a deliberate strategy aligned with the interpretivist and social-constructivist orientation of the research.

Theoretical analysis in Study 1 establishes the conceptual vocabulary and normative assumptions that inform the interpretation of empirical data. Qualitative methods employed in Studies 2 and 3 enable in-depth exploration of communicative practices and institutional discourses within specific contexts. Constructivist grounded theory in Study 4 provides the methodological mechanism through which insights from these different levels are systematically compared, abstracted, and integrated.

Through this layered approach, methodological plurality becomes a means of progressively deepening theoretical understanding, rather than a source of fragmentation.

The integration of studies within the doctoral thesis follows a cumulative logic of knowledge production. Insights generated in earlier studies inform the analytical focus and conceptual development of subsequent ones, creating an iterative research process.

Rather than treating findings as discrete outputs, the thesis approaches them as interconnected contributions to an evolving interpretive framework. This cumulative process culminates in the development of the Ouroboros paradigm, which synthesises empirical observations and theoretical reflections into a coherent model of CE communication in the public sector.

In this sense, integration is not limited to the final stage of the research but is embedded throughout the doctoral project, shaping research questions, methodological choices, and theoretical outcomes.

By integrating diverse empirical contexts, communicative practices, and methodological approaches, this chapter demonstrates how the doctoral thesis advances understanding beyond the scope of individual studies. The synthesis clarifies the internal coherence of the research design and establishes a foundation for the concluding chapters, which further develop the theoretical implications of the Ouroboros paradigm and articulate its contribution in relation to existing models of communication and CE governance.

The integrative perspective adopted here enables the thesis to bridge theory and practice, context and abstraction, and empirical insight and conceptual innovation.

Beyond the empirical findings, the thesis contributes to the theoretical maturation of CE communication as a distinct research field. It integrates sustainability studies, communication theory, and social semiotics into a unified conceptual frame. The Ouroboros paradigm advances an epistemological shift: from communication as dissemination to communication as regeneration; from information transmission to meaning transformation; from linear time to recursive continuity. By aligning communicative processes with the material and symbolic logic of the CE, this research provides both an interpretive lens and a practical guide for policymakers, institutions, and scholars seeking to foster systemic change through discourse.

Ultimately, the thesis argues that the future of the CE depends as much on how we communicate as on what we produce. Communication is not a secondary instrument but a constitutive practice of circularity—a living cycle of relation, reflection, and renewal.

Communicating Circular Economy: Implications of Habermas's Theory of Communicative Action in the Public Sector

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Abstract

PURPOSE - The study applies Habermas' Theory of Communicative Action (TCA) to expand research on public sector communication about the Circular Economy (CE).

DESIGN/METHODOLOGY/APPROACH - Theory guides the analysis of a case study of an Italian region ranked among the most advanced in terms of CE legislation. A qualitative study was conducted, with in-depth interviews with officials, communicators and information workers. The research is based on a narrative enquiry approach and uses guidelines to increase methodological accuracy.

THEORETICAL AND PRACTICAL IMPLICATIONS - The study is relevant from theoretical and practical perspectives. The conceptualisation of CE communication can provide analytical leverage and guide the operationalisation of social change programmes required by the CE paradigm, suggesting the benefits of incorporating the concept of interaction to promote circularity principles. From a practical point of view, the study identifies limitations and enabling factors of the current communication model and generates a set of indications that policymakers and communication/information professionals can use.

ORIGINALITY - The study lies at the intersection between communication and CE and fills a gap in the literature, particularly in the public sector.

Keywords - Communication, Circular economy, public sector, Habermas's theory of communicative action, qualitative research

Paper type - Academic Research Paper

1 Introduction

Although the literature on the Circular Economy (CE) has been growing in recent years, the debate around its theoretical delimitation is still ongoing, affecting the effectiveness of its communication process.

Much of the research has also so far focused on investigating the implementation of the CE in the private sector, neglecting the public sector, which instead has both a tangible impact as it purchases, consumes and disposes of resources and services and, above all, serves as a role model for social and economic actors.

This study uses Habermas' Theory of Communicative Action (TCA) as an analytical framework to evaluate the state of communication of the CE by the public sector.

As the CE is a concept on which there is still no unambiguous definition, applying a theoretical framework that sees its core in communicative rationality, i.e. a form of reason oriented towards social interaction and the process of mutual understanding and negotiation of meaning, seems the most suitable.

On the one hand, communicative rationality provides a model for understanding the mechanisms of involvement and information sharing; on the other hand, Habermas' theoretical framework on language allows for guiding the exploration of the intent and purpose of communication in the public environment to promote circularity.

It is possible to apply TCA in different ways in the context of communication and CE research. For instance, one can use the theory to study the communication dynamics between stakeholders, such as businesses, authorities and citizens, in promoting CE.

Furthermore, one can use TCA to develop effective communication strategies to promote CE by creating spaces for dialogue and participation to engage different stakeholders.

Finally, the theory of communicative action emphasises the importance of the active participation of citizens in the public sphere, which can foster the construction of a widespread consensus and the monitoring of public agency actions. In this sense, communicative action can foster a relationship of trust between the public body and citizens, promoting a culture of sustainability based on concrete actions and reinforcing the 'brand' of a public body understood as a capital of good reputation and reliability.

As a starting point, the study defines the concept of communication in the public sector and that of the CE.

The growing academic literature has proposed many definitions of CE (Geissdoerfer et al., 2017; Murray et al., 2015; Korhonen et al., 2018), and up to now, it has 114 different

versions (Kirchherr et al., 2017). Still, in this paper, we refer to the most comprehensive and widely used one, developed by the Ellen MacArthur Foundation: "An industrial system that is restorative or regenerative by intention and design [that] replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impairs reuse and aims for the elimination of waste through the superior design of materials, products, systems, and within this, business models" (EMF, 2013, p.7).

This study aims to analyse the communication model of CE in the public sector from the perspective of Habermas' communication concept. In order to achieve this, the research adopts a qualitative approach with exploratory purposes, carried out through the collection of secondary data published in institutional sources and primary data obtained through in-depth interviews. In particular, the results of the research applied to the Lombardia Region, indicated by previous reports (CER, Energy&Strategy Group Politecnico, 2021) as the most advanced among Italian Regions in terms of CE legislation, are presented here as the first phase of a broader multi-case study.

After an overview of the main concepts of Habermas' theoretical system, this article will describe the context of the application, pointing out that the regional aspects of CE are still little studied. However, they are a crucial dimension of the CE. In a later section, the paper will analyse the communicative components of the case study in light of the theoretical concepts. The rest of the paper will present the methodological approach adopted, a section with the main results of the in-depth interviews. Finally, results will present theoretical and practical implications, with an insight into the enabling factors, the research's limitations, and future perspectives on implementation.

2 Public Communication

This paper lies at the intersection of research in public communication and studies on implementing CE practices.

Theoretically, if understood as opposed to 'private' communication, public communication would be addressed to a more or less wide audience; thus, all mass communication would fall within the meaning of public communication.

In the literature, narrower meanings, which present both divergences and points of contact, have therefore come together: political, social, institutional, and general interest communication relating to the public sphere and communication relating to public

administrations (Gadotti, 1993; Grandi, 2001; Rolando, 1995, 2001, 2004; Mancini, 2015; Rovinetti 2000, 2005, 2007; Faccioli, 2000; Nieto, 2006; Mele et al., 2011).

In this study, public communication refers to public administrations and authorities (La Spina, 2007, p. 2).

Often in the literature, the definition of communication by a public administration overlaps with that of 'institutional communication', even though the latter, on the one hand, is also referable to non-profit organisations, associations, and companies that are not public bodies and, on the other hand, the objective - to disseminate identity - does not exhaust the communication purposes of a public administration.

This study focuses on the communication activities of public administrations, particularly those organised on the initiative of regional administrations. The literature identified three types of communication within public administrations: internal, external - addressed to individuals and associated citizens -and external communication - addressed to the mass media (Faccioli, 2000). This research considers external communication.

According to Mancini (2015), who in turn borrowed Luhmann's (1984) model, it makes no sense to distinguish between communication and information, as communication always implies an informational activity, and this, in turn, requires a correct understanding, hence the creation of an effective channel between sender and receiver, so that it is decoded and used according to the sender's intentions. (Mancini, 2015, p. 100).

2.1 Communication of Circular Economy

Numerous studies have highlighted the importance of communication for disseminating the CE (Hunka et al., 2021; Vehmas et al., 2020; Sawe et al., 2021). In Europe, the New Action Plan for the CE (2020), compared to the one adopted in 2015, has placed more emphasis on the importance of information and has challenged the private sector and the responsibility of national and local institutions to implement communication policies.

The Plan emphasises, in addition to ecodesign and sustainable design, the empowerment of consumers, who must be provided with reliable and relevant product information to make more sustainable choices. At the Italian level, the 'National Strategy for the Circular Economy' (Ministry of Ecological Transition, 2022) identifies actions, objectives and measures for defining institutional policies to ensure the transition to a CE. The Plan, starting from the conviction that the development of CE must concern both the

improvement of production efficiency and the change of consumption models, identifies the need to intervene in consumer behaviour: to this end, it indicates the need for the development of a national environmental education and communication plan, locally declined, which, starting from compulsory schools and reaching families, contributes to forming a generation of critical, aware and informed citizens. Among the indicators for monitoring and evaluating circularity, the Strategy indicates communication campaigns on CE.

3 Analysis of communication from the perspective of the Theory of Communicative Action (TCA)

3.1 Introduction aspects

In order to analyse the external communication of the Regions applied to CE, this study deemed valid to adopt the perspective of TCA. Since its elaboration in 1981, TCA has proved to be fundamental for contributing to philosophy and social theory. Subsequently, numerous interdisciplinary studies have also drawn on its theoretical basis.
It has been used both in general, as a moral framework for organisational and public relations communication (Burkhart, 2007) and to analyse the characteristics of the ideal discourse in communication and evaluate participative communication (Jacobson and Storey, 2004), and in applied terms also in the corporate field (Herda and Messerschmitt, 1991), e.g. in the field of marketing methods (van Toledo, 1986) and brand management (Kernstock and Brexendorf, 2009).
Habermas's TCA perspective (1997) is applied here to analyse the relationship between the public body offering information and the external stakeholders receiving this information about CE principles, processes and initiatives.
In order to understand the nature, effectiveness and complexity of communicative action, it is necessary to indicate the framework in which it takes place. For this purpose, it is the category of the world itself that needs to be clarified. Habermas takes up the one elaborated by Popper (1979), who distinguished the objective world of facts, the social world of norms and the subjective world of individual experience. These three meanings, which correspond to the dimensions of culture, society and person, constitute Habermas's different but communicating levels of explicitness of communicative action in the contemporary age. The three dimensions occur against the backdrop of common sense, the culturally handed

down background knowledge (Habermas, 1997, p. 725), constituting the life-world or vital world. Communication, the subject of the present study, is interpreted as coordinating the subjective and intersubjective worlds through dialogue and the sharing of meanings. The concept of the vital world thus becomes related to processes of understanding. Those who act communicatively integrate the three concepts of the world into a system and give, as intended, an interpretative framework that forms the background to the negotiation process to reach an understanding of a common meaning. Thus, communicative acting occurs within a vital world behind the communication participants. Based on this assumption, the consequences of the processes of social rationalisation and progressive reification of relations between people become manifest. Two strategies conflict: the 'system' and the 'vital world'.

Habermas identifies the reification of communicative relations as the cause of the 'colonisation' of the vital world typical in capitalist societies: the colonisation by the system over the vital world produces social pathologies. The reification occurs when subsystems of the Economy and state intervene with monetary and bureaucratic means in the symbolic reproduction of the life world.

Habermas expressly defines the 'green problems' as developments that blatantly undermine the organic foundations of the vital world and drastically bring to consciousness severe limits of the deprivation of basic aesthetic needs and sensibilities. The attack of large-scale industry on ecological balances, the scarcity of non-regenerative natural treasures and demographic developments present industrialised societies with major problems. Nevertheless, these challenges are abstract and require technical and economical solutions that must again be planned globally and implemented with administrative instruments (Habermas, 1997, p. 1075).

In the particular area of public communication, understood here as issued by a public administration, it is also interesting to consider the concept of communicative rationality. The concept considers communication as the foundation of society and that human reason develops through communication.

In this case, it is a type of reasoning which aims to reach consensus through dialogue, a form of rationality oriented towards social interaction and the sharing of meanings. In other words, communication is a process that involves participants discussing 'validity claims' in order to achieve mutual understanding and reach a consensus. In the Habermas view, communication is a process in which each participant avoids egocentric calculations of

success and control and engages in acts of understanding, continually negotiating over meaning to reach a common definition of reality.

Communicative action applies to a background and three validity claims: truth, correctness and sincerity or authenticity. In addition, there is an underlying, necessary claim: comprehensibility.

The philosopher then distinguishes communicative rationality from other forms of reasoning, such as instrumental rationality, based on the logic of calculation and power. Instrumental rationality seeks to achieve a result or objective using the available resources without considering the consequences for society or the environment.

Therefore, it is possible to escape the reifying rationalisation through communicative reason and not stifle the living world.

Analysing in the dynamics of public communication the presence and role of instrumental reason and communicative reason, the presence or absence of a disjunction between the system and the vital world, thus allows us to understand whether the transformation of communicative action into controlled interactions and the initiation of pathologies of the vital world is taking place.

3.2 Applying the TCA perspective to the Regions' external institutional communication on CE

Habermas' concept of TCA can be useful in understanding how external communication by a public institution can become a tool to promote the CE.

The CE is a complex paradigm which requires major behavioural changes and whose economic and social benefits are only sometimes immediately extruded (Korhonen et al., 2018; Daae et al., 2018; Bertassini et al., 2021). Communicative rationality is a tool to promote the CE, as it is a process based on finding consensus and cooperation between different actors. External communication of a public authority can play an important role in promoting the CE by sharing information on policies, programmes and initiatives.

A further concept from TCA regards the consideration of language as a central tool in constructing the social world and creating meaning. This idea is important in conceptually grounding the analysis of public agency communication that we propose here. Habermas

(1997) argues that language has two main functions, the representative and the communicative.

The representational function refers to the way humans use language to describe reality and to give a representation of the world. Therefore, language's communicative function refers to language's ability to create consensus and facilitate cooperation between people. Habermas (1997) argues that communication occurs when participants in a linguistic interaction engage in mutual understanding and negotiation of meaning.

Furthermore, Habermas distinguishes between two types of language: action-oriented and life-oriented.

When analysing websites, press releases and other initiatives by a region, it is important to consider how language represents reality and creates meaning and facilitates cooperation and mutual understanding between participants in a language interaction. In particular, it is important to assess the type of language used, whether action-oriented or life-world-oriented, and whether or not the use of language contributes to consensus-building and facilitation of cooperation.

Life-world-oriented language refers to those discourses that aim to achieve intersubjective consensus based on mutual understanding and dialogue. On the other hand, system-oriented language refers to discourses that aim to achieve a specific goal, such as persuasion or political influence. In this case, language has an instrumental use; it serves to achieve a concrete result.

In CE, an example of life-oriented language could be a debate between experts to share knowledge and define shared solutions. On the other hand, an example of system-oriented language could be a press release that tries to convince the public of an authority's commitment to the CE without providing clear and verifiable information on their substantial impact.

An example of system-oriented language concerning the CE is the use of technical and bureaucratic terms that may need to be revised for the general public to understand and focus more on the economic and regulatory aspects of the CE. In addition, system-oriented language might emphasise mainly the institutional and legal aspects of the CE, without considering the involvement of stakeholders, such as citizens and businesses, in creating a culture of reuse and sustainability.

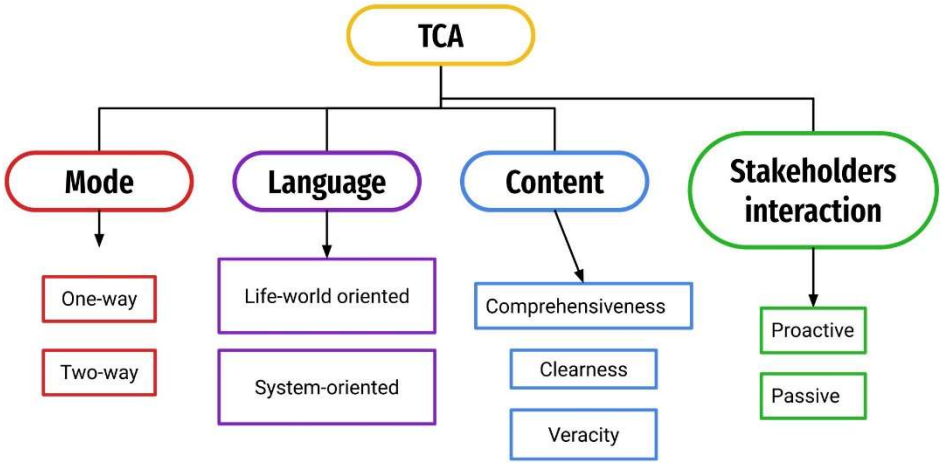

Figure 1. Personal adaptation from the TCA model

4 Application context and methodology

4.1 Application context: Regional administrations

In general, regional aspects of CE are still little studied (Dagilienė et al., 2021; Henrysson and Nuur, 2021; Scarpellini et al., 2019). The debate on how cities and regions should adopt CE strategies is ongoing (Sanchez Levoso et al., 2020). However, the literature agrees that regional issues are a key dimension of CE (Silvestri et al., 2020), and regions and their political institutions play a crucial role.

The Italian Regions are a significant example of how public policies can influence the adoption of CE practices. The Italian Constitution assigns them important competencies in various fields, including the environment and economic development. In particular, many Italian Regions have launched initiatives to promote the circular Economy, such as supporting enterprises that adopt circular business models, organising events to raise awareness among citizens and enterprises on the importance of the circular Economy, and promoting research and innovation projects. The Ministry for the Environment, Land and Sea - General Department for Sustainable Development, through Sogesid, has monitored the Italian Regions also from the point of view of EC regulations with the project

CReIAMO PA - Competences and Networks for Environmental Integration and Improvement of PA Organisations, and by re-elaborating data from the Circular Economy report drawn up by the Energy & Group of Strategy Politecnico di Milano (CER, 2021, p.116) has divided the regional administrations into three groups (Figure 2): “expectant”, “work in progress” and under strengthening.

The “expectant” Regions have yet to create legislation that is capable of spanning various sectors; the “work in progress” Regions are in the phase of transition and of greater affirmation of CE principles within their legislation; regions “under strengthening” are those where CE principles are more pervasive and explore various sectors.

LAW’S PERVASIVENESS	EXPECTANT	WORK IN PROGRESS	UNDER STRENGTHENING
HIGH	Sardegna	Campania, Emilia-Romagna, Lazio, Sicilia, Liguria	Lombardia, Toscana, Veneto, Trentino Alto Adige, Valle d’Aosta, Friuli Venezia Giulia, Piemonte
MEDIUM	Abruzzo, Umbria	Marche	
LOW	Basilicata, Puglia, Molise, Calabria		

Figure 2. Classification of Italian Regions based on CE regulations system.
Source: Circular economy Report Politecnico 2021/CReIAMO PA

4.2 Methodology

From a methodological point of view, the present study was based on qualitative research with exploratory purposes, carried out through the collection of secondary data published on institutional sources and primary data obtained through in-depth interviews.

The results reported are derived from a triangulation of primary and secondary data.

Archival data. Publicly available archival documents (websites, press releases, videos, reports) were collected and analysed to refine further the interpretations developed

in the interviews and validate them. This data was used to understand better the content and language used to communicate EC activities and plans.

In particular, the results deriving from the research applied to the Lombardia Region are presented here as the first phase of a broader multi-case study.[1]

4.2.1 Data collection

The criteria for selecting interviewees were role, i.e. covering administrative functions related to implementing circular economy initiatives, and operational relevance in communication processes. The study identified the first core of interviewees from the contact persons for the CE indicated as speakers at the conferences of the CReIAMO PA project by the regions themselves; from this initial group through a snowball sampling process (Noy, 2008), which envisaged the indication by each interviewee of other relevant potential interview candidates, 15 officials and managers were interviewed. Before the interviews, some pre-screening questions were administered to exclude irrelevant participants. The final group of 11 interviewees (Fig. 3) was formed when the materials began to show repetitive patterns, suggesting a saturation state. At this stage, documents were collected from public administration officials and available public sources as secondary data to provide a holistic understanding of the context. Using the Patton (2002) approach of the 'general interview guide', interviews were conducted by video conference or telephone between March and April 2023 and recorded with the participant's consent. Italian was used, and the transcripts were translated into English. They lasted between approximately 30 and 90 minutes each. Each respondent was assigned codes to refer to for quotes (e.g. A, B, C): this ensured anonymity.

[1]Later in the research, all the regions involved in the CReIAMO PA project will be analysed to cover the whole country.

SECTOR	SUBJECTS	FORMAT
Environment	1	Virtual conference
Economic development	2	Virtual conference
Sport	1	Phone interview
Foundation (subsidiary of Region)	1	Phone interview
Communication	4	Virtual conference, phone interview
Press office	1	Phone interview
Agriculture	1	Virtual conference
Total	11	

Figure 3. Personal elaboration

In order to answer the research question of what form of communication is adopted by the regions to disseminate CE, an inductive approach based on narrative enquiry was adopted (Pentland, 1999). The study considers it the most appropriate research method because it allows the collection of information from ordered sequences and the construction through the narratives of key interviewees of a coherent picture by identifying the mechanisms of content emergence, agenda setting, choice of channels and language.

4.2.2 Data Analysis

The process of analysis used is a thematic narrative, organised in five stages: 1) organisation and preparation of documentation, 2) emergence of a general sense of information, 3) coding process, 4) categorisation 5) interpretation.

The first phase started with transcribing the audio files, partly manually and partly through the sonix.ai software. All transcripts were reviewed manually to eliminate errors and non-narrative lines, such as random conversations. In the second phase, the narratives were re-read and recurring words and main ideas were highlighted.

In the next step, the data were coded manually. At the end of the coding of the first transcript, a code list was constructed; in subsequent transcripts, the codes from the list, when applicable, were extracted; conversely, new ones were created to be added to the main list. A final 43 codes were identified.
In the fourth stage, following the guidelines of Reissman (2008), the categories condensing the themes were identified. For this study, the codes were collected in two categories, the second of which was divided into five subcategories. The last step was the attribution of meaning to the data.

5 Results

In total, the data analysis identified 137 quotations and 43 codes. The codes were condensed into two main groups: respondents' perceptions and the communication model. The second category, i.e. the communication model, was subdivided into subcategories referring to applying the TCA (Mode, Language, Content, Stakeholder interaction, Transparency). Both categories made it possible to identify barriers and implementing factors for CE communication. Some quotations are given in Tables 6, 7, 8, and 9.

5.1 Barriers Limiting the Effectiveness of CE Communication

5.1.1 Confusion Sustainability/circularity

The interviewees mostly reported a personal definition of Circular Economy that brings the concept under the broader category of 'sustainability', particularly limiting its application to the environment and waste management. Of the three dimensions - environmental, economic and social - almost only the first two seem relevant. This aspect reflects the great regulatory and financial commitment that the public authorities have deployed to create and spread circularity chains in the business fabric and to act with a significant quantitative impact on reducing landfill; on the other hand, however, it also reveals vast unexplored space to act on the dissemination of models that are inclusive of all the components of circularity.

5.1.2 Perceived lack of appeal of the CE concept

In addition to an objective quantitative scarcity of news (press releases, videos, social media posts) dedicated by the information component to the CE detected in the secondary data, the interviewees negatively perceive the topic's attractive potential. Some interviewees highlighted its elitist, 'niche' character, which contradicts the consideration of a rather informed and aware public and the belief that the target audience of young people is receptive and curious.

One interviewee underlines that "often, many actions and experiences are elitist. For example, at the Ecomondo trade fair, I attended a talk by large luxury brands about the recovering service. A commendable initiative of commitment to circularity, but how many people can afford it? Perhaps these are examples that tend to make 'culture', but in my opinion, CE actions must be more within reach of the citizen, and there must also be a real relevance and economic return in supporting them on the part of the public sector" (C).

5.1.3 Attention Capture Time/Topic Complexity Ratio

According to a good number of communicators and information workers, the topic is difficult to understand at a time when the average person today is willing to hold their attention. The public's habituation to slogans borrowed from marketing and commercial communication, examples of greenwashing, has further deprived society of charge of the topic. Only some are willing to spend the cognitive energy and time to understand the paradigm shift and the disruptive effects of the CE. One interviewee stated: 'The discourse on CE is a subject on which there is a need for time and willingness to pay attention on the part of the recipient: you cannot get into it by dint of slogans. There is a need for opportunities to meet to make people understand that certain issues have dignity and value and that they cannot be slipped away in an advertising slogan' (F). This aspect is consistent with the TCA.

5.1.4 Technical Culture in PA Management

There is a prevailing opinion among communicators and informants that many important circular economy initiatives do not emerge in the storytelling of the public administration because the core of the actions and initiatives is the responsibility of every technical Department, which are attentive to the concretisation of results but do not consider

the communication aspect as incisive for public policy purposes. An official from the waste sector pointed out that "Our utmost concern as technicians is to communicate to institutional bodies, e.g. the Ministry" (C).

5.1.5 Lack of early communication activation

Technicians only sometimes activate communication experts in the preliminary stages of discussion tables and projects. This lack hampers the emergence of important content, the definition of clear communication objectives and targets, and a careful form of 'life-oriented' language.

A communications official pointed out that "when an initiative is born with the early involvement of the communication sector, it always takes on a clearer identity. Conversely, it remains vague; you struggle to make an impact". (B)

Very virtuous cases have emerged in the case study - for example, the communication model applied by the Fondazione Lombardia per l'Ambiente, which was set up by the Region as a meeting point between the political and scientific worlds and whose mission is precise 'science for policy' - or communication campaigns on specific topics - the fight against food waste - where activation was immediate and very fruitful, but the situation is not generalised.

5.2 Enabling factors

5.2.1 Focus on CE

An organisational structure dedicated solely to dealing with the CE, acting as a collector and coordinator of all policies, and creating a dedicated management unit in the organisation chart represents a strong communication implementation factor. In the case study analysed, the establishment of a CE Observatory and an organisational unit dealing exclusively with CE, separate from the one dedicated to 'Sustainability', expresses a desire to mark the difference and show the uniqueness of the circular model. We are strongly aware that we should aim to promote all its dimensions.

5.2.2 Measurement and Evaluation

There is a clear awareness that measuring communication actions is fundamental, all the more so for public authority. While this is a well-established practice on the part of

the communication structures that manage social media, the rest of the interviewees point out that there still needs to be more committed to this, albeit very important, aspect.

5.2.3 Target Segmentation

One of the major challenges that communicators have identified as necessary to get the circular message across is a policy that dares to identify precise, verticalised targets. Among those deemed strategic for disseminating circularity are young people, who are already curious about the concept and considered 'ambassadors' to their families and environments. This factor is consistent with the National Strategy for the CE and the Environmental Education and Communication Plan.

5.2.4 Emotional Message

There is no doubt on the part of both officials and information workers that resorting to normative messages or appealing to emergencies to produce behavioural changes required by the circular model on businesses and citizens is ineffective and, indeed, very often counterproductive. Experimentation with communication campaigns that have resorted to emotional messages, albeit based on in-depth information and quantitative scientific studies, has yielded good results in engagement.

5.2.5 Interaction with Stakeholders in Attendance

Consistent with the theory of communicative action, strong stakeholder involvement in both the policy-making and communication phases is one of the most enabling factors. Many interviewees emphasised that the organisation of in-person events, participation in trade fairs, and public presentations are valuable ways of cultivating dialogue and reaping the benefits of two-way communication.

Tab. 6-Barriers limiting the effectiveness of CE communication-first category opinion

Fusion of CE in the sustainability concept	"I consider CE as one of the pillars of sustainability" (A) "During the 'Sustainability Forum' wide space is for CE issues" (B) "The Region (…) has equipped itself with the tool of the Sustainability protocol to create an important community around the topic, with a focus also on the CE" (G)
Environment Predominance	"CE is one of the engines that must be started to achieve sustainability, first of all environmental, but also social" (A)
Economic Predominance	"Towards a CE in response to new economic and energy needs" (A)
CE model in the making	"The world of CE is still a reality in the making, often to be created" (A) "Start-ups with circular models are catching on, but we are still at the very beginning" (A)
Limited CE concept	"It is the theme that deals with prevention and reuse and what we consider waste, which becomes second raw material ... It is associated with the concept of waste, in which there is everything" (B) "For me, CE means making the most of waste and, above all, trying not to produce it and to re-introducing it into a production cycle in an economically sustainable way and on a large scale" (C) "I have in mind a virtuous process that allows a 360-degree look at everything related to the environment, and that can benefit citizens. I tend to link it to activities of the Environment Department" (H)
Regulatory contradictions	"There are often contradictions between recycling and reuse" (G)
Complexity	"CE issue needs time and willingness to pay attention: one cannot enter into it by force of slogans. There is a need for opportunities to meet in order to make people understand that certain topics have dignity and value and that they cannot be slipped away in an advertising slogan" (F)
Time/Attentiveness	"Culture is done not by slogans but by devoting time and energy, by paying attention to those who ask you to account for your initiatives, why you participate in a UE project that implies a certain kind of use of public resources" (F) "Slogans dominate the world of environmental communication and are not interested in understanding who is on the other side, what they think, what they have understood and how they can react" (F)
Technocratic culture	"Very technical departments, with a high number of engineering professionals, lack communication skills" (B) "Our utmost concern as technicians is to communicate to institutional bodies, e.g. the Ministry" (C)
Communication delegated	"We have communicated the circular supply chain call to the companies together with Unioncamere, which has concretely taken care of disseminating the information" (A) "The technical table "Plastic" of the CE Observatory relied heavily on the communication aspect of the European project structure" (C) "We made the call for the reuse centres known to the municipalities, and those financed were obliged to publicise the initiative. We relied on the communication of the municipalities because it was more incisive at the local level" (C)

Delay in Involvement Communication	"I know it exists, but I have never attended a CE Observatory" (B) "There is a bit of a lag in the involvement of the communication sector from the early design stages of public policies, in general" (B) "When an initiative is born with the early involvement of the communication sector, it always takes on a clearer identity. Conversely, it remains vague; you struggle to make an impact (B) "On the communication of the ReCycling project we are we are only at the beginning" (H) "Communication involvement depends on the topic we are dealing with. We should certainly be present right from the embryonic part of the projects, and for example, we should follow all the stages of the CE Observatory, but there, for example, we are present a little bit on the side. On other topics such as the Sustainability Forum, on the other hand, we are involved from the earliest stages" (I)
What matters is the doing	"In my opinion, communication has taken a bit of a back seat. It was certainly disseminated among those who put the lines into practice, but it was limited to that" (C) "The technical component of the administration is concerned with involving stakeholders, making policies concrete, but then the whole part that is to disseminate all this work is missing" (C)
Elitist-niche concept	"Often, many actions and experiences are very elitist. For example, at the Ecomondo trade fair, I attended a talk by large luxury brands about the recovering service. A commendable initiative of commitment to circularity, but how many people can afford it? Perhaps these are examples that tend to make 'culture', but in my opinion, CE actions must be more within reach of the citizen, and there must also be a real relevance and economic return in supporting them on the part of the public sector" (C) "It seems that the circular economy is still perceived as being quite remote from the citizens, a very niche thing" (M)
Poor newsworthiness	"In a year of news published on the Lombardy News website, there is a very low percentage of news on the circular economy, perhaps 1 per cent. The editor asks very little about it" (M)
Unattractive concept	"It is not a theme considered particularly attractive" (B) "There is no strong demand for information as on other topics" (B) 'These are still issues that do not warm the heart' (C) "In my experience, it is not a topic of strong appeal, and there is little engagement" (M)

Tab. 7-Enabling effectiveness factors-first category opinion

CE as distinct from sustainability	"We have two organisational units, one dealing with sustainability and one with CE" (B) "The CE is one of the communication focuses on which we have decided to keep a spotlight at all times" (F)
Extension of the concept	"The CE Observatory follows two sectors in particular, waste and energy. The waste component has thematic tables on plastics, aggregates, steelworks and foundry slag, sludge, food, and non-recoverable waste. We plan to activate one on textiles soon" (C) "On the one hand, the Region has indeed focused essentially on minimal landfilling, but I think it is a path that has begun and aims to achieve all the 'R's of the circular model one step at a time. It takes time, but the first steps have already been taken" (E)
Early involvement communication	"The National Waste Plan provides to reduce food waste. Among the actions identified are communication campaigns, which were considered important in the study's results commissioned by the university and in other literature. Our structure is technical, and we asked for collaboration with the communication staff of the Environment Department and the General Department" (D) "Communication is part of the project, not an optional aspect, precisely because the aim of the Foundation is the transfer of knowledge" (E)
The propensity for communicative innovation	"There are not many situations in which the campaigns go off the track of the institutional standard, but on this aspect, the Presidency of the Region has good attention and willingness to set out on new paths" (B) "We need to get to work on the site because there is much information, but it is scattered here and there and often difficult to find: we now have the idea of creating a page where we can collect all the prevention actions, correlating them with the results of studies, campaigns, and also 'showcase' what has been done not only by us as a Region but also by organisations and associations". (D) "We are developing a digital storytelling platform that will also be open to stakeholders where communication campaigns can be shared. We want to tell how they are created and upload the data" (G) "Region is trying to innovate a lot on the communication side, which from an overall point of view is already good" (I)
Emotional mood	"In promoting certain circularity actions, it becomes important to use emotional messages" (B) "The campaign against food waste played on the concept of 'loving' and therefore not throwing something away" (B) "The concept of a love affair with food is an emotional communication choice; the choice of influencers was also" (G) "We made an emotional video that followed the volunteers of an association on a typical day both to promote activities but also to make people understand how we have important impacts against waste" (G)
Cross-sectoral vision	"The CE Observatory is a table for comparing and sharing objectives with all players in the area" (A) "The CE Observatory is organised in coordination tables" (A) "We are not the only directorate dealing with CE because it is an issue that needs to be addressed in the round" (C) "For us, the CE is a cross-cutting policy in respect of which we have activated an initial communication and awareness-raising work concerning the campaign against food waste" (G)
Sharing with stakeholders	"The CE Observatory defines the expected results of the joint construction process of regional environmental and climate policies and strategies" (A) "Institutions, organisations and experts are invited to the tables of CE Observatory" (A)

	"Collaborative agreement with universities to promote CE transition based on reconditioning and recycling of existing materials and products, extending their life cycle as far as possible and minimising waste" (A) "Close cooperation with companies and stakeholders in the waste management chain and with citizens. Obviously, there is no good waste collection without the cooperation of citizens" (B) "In order to share policy choices on CE, an Observatory has existed for years, bringing together regional leaders and stakeholders" (B) "We interface with actors who then put CE policies into practice, so certainly trade associations, consortia, environmental and consumer associations, and then it is very important that there are researchers at the tables, so we involve the universities" (C) 'When we set up the thematic tables on CE, we launched an initial expression of interest through the Region's channels and so interesting parties were able to apply to participate" (C) "At the steelworks slag table, a precise proposal came from the trade associations to find common guidelines for disposal" (C) "We are very open to proposals that come to us from operators, and we never set out to do anything at all" (C) "The councillor for the Environment in the legislature that has just ended strongly wanted a CE Observatory, and in the table against food waste, all the actors involved (non-profit organisations, research organisations, environmental associations, representatives of the large-scale retail trade) participate, with whom all actions have been shared, including the communication campaign" (D) "In the table against food waste, we created a sub-table communication and in addition to suggesting the most important contents, many actors, such as non-profit organisations, expressed their willingness to make themselves known, and the communication campaign took this into account" (D) "The Region has an active table on regional policies 'Development Pact' at which various stakeholders sit, almost all the association acronyms, in which we have created a sub-table dedicated to communication to identify and share joint communication lines, which could act as a sounding board for regional activities but also deserving ones coming from the territory" (G) "Communication towards the stakeholder is the driving force behind all our actions". (I)
Time-tested involvement	"Regione Lombardia has been investing in CE and sustainability issues for years now" (A) "The call for CE supply chains is now a tried and tested instrument" (A) "For several years, the region has developed separate collection and re-use policies, such that it has excellent indicators even compared to European best practices in this area" (B) "In the 20 years that I have been dealing with waste in Regione Lombardia, in many respects, the approach has changed enormously" (C)
Proudness and awareness of results	"Around forty companies participated in the call for CE supply chains with very interesting initiatives" (A) "Last year, in 2022, 50 per cent of the funding dedicated to the CE by the Region went to the Economic Development Department." "The investment of Lombardia's entrepreneurs in green is a given compared to other areas of the country" (B) "We are the second largest directorate (Environment) for investments in communication in Regione Lombardia: this is because we believe that environmental issues as a whole and the effects of the CE are the times not of the future but of today" (I)

Tab. 8 Barriers limiting effectiveness-2nd category communication method

Language- System oriented	"Public administration is aseptic; it tells in a detached way. There is a problem with the public communication of emotions: yet there would be issues that could be profitably dealt with using an emotional mode, and this would touch the interlocutor better" (B)
Mode - One way	"We have communicated the calls to companies through the Region's website and the dedicated section Sustainability in Lombardia" (A) "In general, in Regione Lombardia, we are not used to thinking of communication as listening, which is fundamental" (B) "The work of the technical tables is published on the sustainable development online platform. This section is not always updated in real-time, but we try to keep up with it. Perhaps the platform does not give an organic view of the work of the CE Observatory" (C)
Transparency low	"As a citizen as well as an official, I think there is still some effort to be made" (B) "On data that are a systematic source of difficulties in public management, we do what the law prescribes, no more. In short, we keep silent profiles on certain topics" (B) "Slogans dominate the world of environmental communication and are not interested in understanding who is on the other side, what they think, what they have understood and how they can react" (F)
Discourse - System-oriented	"We need a policy about the CE more clearly: Look, we are doing this and this. Public money is being put here and taken away because this choice serves us all better. I am communicating a choice that is an attribution of value" (F) "Remove the compulsion to announce politics that the media world feeds tremendously" (F) "Information should be useful, but sometimes there is a quota of somewhat empty press releases. But for 85 per cent, they are all of the substance' (M) "Sustainability, CE, environment are words emptied of meaning by marketing communication" (F)

Tab. 9 Enabling effectiveness factors-2nd category communication method

Mode - Two-way	"The Sustainability Forum was an opportunity to disseminate initiatives and is open to all" (A) "The two-way interlocution is honestly sporadic and occasional, but there is a plan to move in that direction precisely because the topic of CE is not so attractive in itself" (B) "Our relationship with our stakeholders is not one of supplier-customer as much as a partnership, and even in communication, we try to set it up as one of participation and inclusion" (E) "We know that the most genuine dynamic of education is the one-to-one relationship, and it is a sowing that is worthwhile regardless of the numbers it can bring" (F) "Organising in-presence events such as the Environmental Education Fair or the Rimini Meeting is crucial because they always have the dimension of listening and meeting the target audience of our communication actions" (F) "The influencer we involved also relies heavily on relationships with her followers, which she translates into in-attendance moments where she often meets her audience: she has managed to engage with a large audience on the issue of waste and has fuelled a lively discussion"(G) "We planned a public presentation event during the Sustainability Forum where the moderator engaged the audience to participate" (G) "The communication of the ReCycling project will not so much be through social media as through the organisation of events in the various partner territories: we try to create a network of public administrations that already have reuse centres, stakeholders, associations and to organise events where young people can participate together with a wider public that may be interested in bringing their bike and exchange it" (H)
Language - Life world oriented	"On the Waste Plan, which among other things provides policy guidelines for waste prevention, reuse and recovery, a so-called 'pop-up booklet' has been produced, which is intended to be a simplification of data and information" (B) "I have a personal aversion to institutional and formal language" (B) "Political and scientific worlds are two very different worlds in terms of language, and the added value of the Foundation is precisely to work on academic, specific topics and make them understandable and communicable" (E) "We try to bring the scientific content to as accessible a formula as possible, without distorting it, without trivialising it" (F) "Language is relative to the medium and the target and is continuously modulated" (G) "I personally, when I write a news story, I aim to make anyone understand any topic, even very technical and vertical ones" (M)
Transparency	"An easily searchable database for citizens on all waste facilities in Lombardia, with geo-referenced maps, will soon be online (B) "If we are the project promoter, we usually make the data open access, but if we are commissioned, we only communicate the general data, and the decision on the complete data remains with the client" (E) "Since working with the Foundation, I have worked on re-designing the site to access content more easily and more immediately."
Content-based on veracity	"The Foundation is the place where policy and academia physically meet, and the mission is 'science for policy, the process by which information is transferred from the scientific community or individual researchers to policymakers, to produce evidence-informed policies" (E) "For the reduction of food waste, a study was commissioned to Università Cattolica in collaboration with the Fondazione Lombardia per l'Ambiente, which has expressed an environmental, social and economic assessment of the benefits of waste reduction" (D) "The study carried out by Cattolica ', Virtuous networks against food waste' showed how important it is to intervene also on communication to citizens in order to reduce waste at household level" (D) "Almost all areas of environmental communication are inflated, many concepts are empty words, or totems of commercial communication permeated with greenwashing: we need to restore scientific rigour to what we disseminate" (F)

Content clearness	"We have always used content with positivity-focused messages" (D) "For how many years have we been fed messages of catastrophism? We have become addicted to bad news, and they have no effect" (F) "The campaign created engagement because it succeeded in touching common points, moving away from the logic of the decalogue, which was there, but empathising with the suggestion of everyday domestic tricks" (G) "Emergency communication is very dangerous, and we realised this with Covid. You have to know how to manage it; otherwise, it does more harm than good" (M)
Stakeholders interaction-knowledge transfer	"Foundation acts as a bridge between politics and science to enable knowledge transfer" (E) "We work on a practical level with schools, with teachers and pupils, going into classrooms, organising events or training courses and developing teaching tools that we offer free of charge, and the topic of the circular economy is one of the most in-depth and developed for schools" (E)
Stakeholders interaction-training	"Tying in with the theme of communication, we develop tools on the topic of the circular economy for schools of all levels" (E) "We activate a mix of communication, education and training to spread environmental and circular economy culture" (F)
Channels	"The chosen channel for the campaign against food waste was exclusively social media because everyone is now communicating this way, and we asked four influencers with different personal follower bases to participate" (D) "The first channel we use for CE news is digital, website and social networks (Facebook, Youtube and Linkedin). The second channel is the editorial one, and the latest tool we are making available free of charge to schools and citizens are dedicated to the circular economy and are called 'The world is a wheel'" (F) "We use video a lot because we also operate in the big attention market where the real challenge is an irrelevance, and therefore, we look for an issue like the circular economy to deserve the attention and consideration it deserves" (F) "Instagram is our main channel, but we also use Linkedin to narrate the communication operation. In the case of the campaign against food waste, we also used posters in the main railway stations during Christmas' (G)
Target segmentation	"The target group of the campaign against food waste was exclusively citizens" (D) "The information level of the average citizen on circularity issues from our observatory is quite at a good level" (E) "The topic is one that young people can get involved with" (E) "One of the big challenges is to study and understand the target audience well, whom we are talking to, to identify them and 'lose' time in studying, getting to know the people we are addressing" (F) "Last year, we stayed on broad targets for the food waste campaign, but this year we are developing a campaign on a specific target, in particular middle schools, because during the working table meetings, we were very emphatic about the educational objective, so we are now verticalising on schools" (G) "We need to focus on target groups. Focusing on children is the right way to go: they are future decision-makers and potential educators in their families and environments. They are ambassadors" (G)

6 Discussion

The results suggest that the organisational structure and the public authority's communication model influence how information and content related to the CE are transferred externally. A model derived from the qualitative analysis summarising the main enabling factors is proposed in Figure 10.

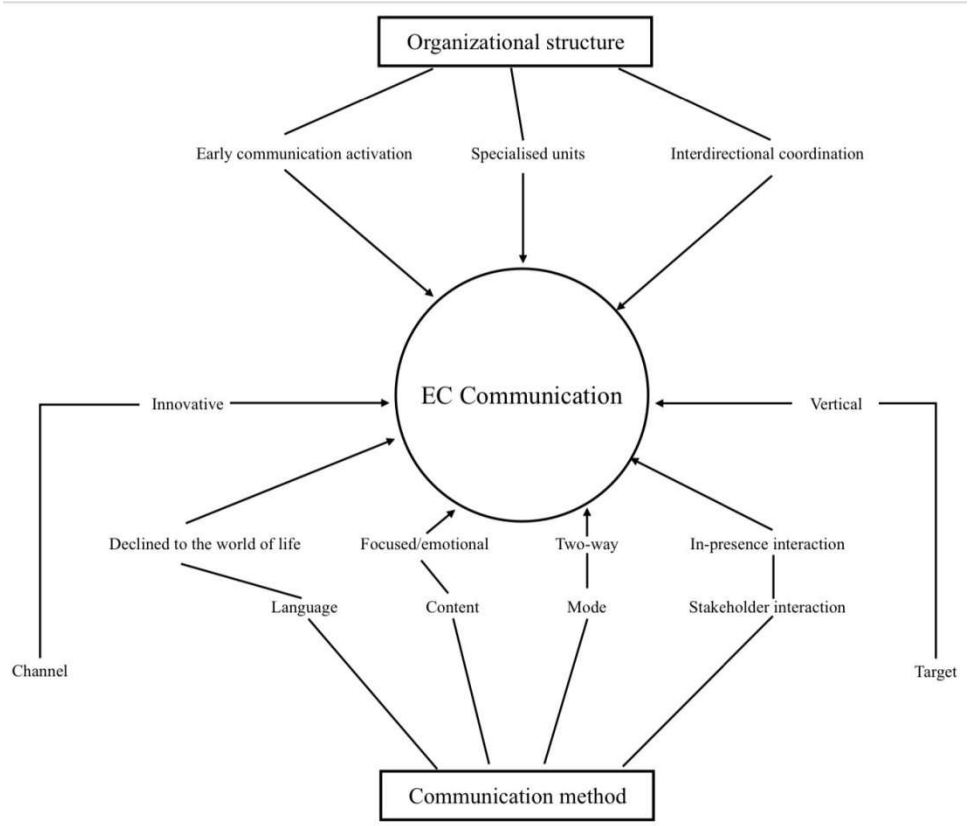

Figure 10. Enabling factors CE Communication: insights from qualitative analysis.

7 Conclusions

The study presents the research results applied to the Lombardia Region as the first phase of a larger multi-case study examining representative regions throughout Italy.

The research identified a first set of enabling factors and barriers for effective communication of EC concepts and activities. However, this research has many limitations, which can represent a starting point for investigating the topic in greater depth. A subsequent research step should compare geographically and demographically different regions. Future studies could analyse the differences between public communication strategies and those adopted by the private sector and include the view of stakeholders.

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Chapter 21
Storytelling for the Faceless:
A Tool for Communicating Sustainability and Circular Economy in the Public Sector

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ABSTRACT

Storytelling is a strategic tool for communicating sustainability and the circular economy (CE). So far, its effects have been analyzed mainly in the private sector, and its opportunities for application in the public sphere should be addressed. However, exploring its potential in the context of public communication can provide valuable suggestions for setting up an engaging narrative that can reach a broad audience and convey to society those principles that can activate the adoption of sustainable behaviour in line with CE principles. In this chapter, starting from explorative qualitative research on some Italian regional public administrations, best practices, peculiarities, barriers, and potentials of storytelling are illustrated. This analysis can lead to advancing knowledge and identifying functional managerial implications for communication experts and policymakers in the public sphere.

INTRODUCTION

Storytelling is a narrative strategy particularly suitable for addressing sustainability issues (Fischer et al., 2020). By drawing on archetypal models for transmitting knowledge, storytelling can provoke emotions that sharpen interest and understanding and make otherwise complex and abstract concepts tangible through examples (Wilson, 2005; Melia et al., 2013). The effect of storytelling on engagement has been

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demonstrated in the development of narrative marketing and storytelling management actions aimed at enhancing product awareness and brand knowledge (Bertetti, 2017; Godin, 2015; Salmon, 2014).

Empirical studies in political communication have shown that involvement makes attitude changes more likely (e.g., Aarts & Semetko, 2003; Guo et al., 2018; Vreese & Boomgaarden, 2006). Research has also long theorized that narratives have an advantage over expository texts when it comes to memory and comprehension (Bruner, 2017; Graesser et al., 1991), and a meta-analysis (Mar et al., 2021) confirmed the superiority of narrative text compared to an expository text for content comprehension and recall (as cited in Sundermann, 2022).

Conveying the content and improving comprehensibility by activating motivational aspects (Dahlstrom, 2014), the narrative structure provides interpretive frameworks that facilitate reframing and spreading shared understanding (Black, 2013).

This chapter will analyze the role of storytelling in communicating sustainability and circularity issues, focusing on perspectives developed by public sector communicators. Despite the importance of the public sector in promoting a culture of sustainability, the literature and the empirical research have so far mainly focused on the private sector, in particular on companies' sustainability strategies (Ghisellini et al., 2016), performance associated with the adoption of circular models (Mazzucchelli et al., 2022) and industrial symbiosis (Branca et al., 2020).

However, the public sector represents a relevant field of study since it acts as a "regulator of norms" and formulates strategic policies. Furthermore, it is also responsible for disseminating knowledge and creating awareness of issues that impact the common good.

As the visual dimension emerges, public communication has also started to draw on modalities from both corporate and political communication (Fontana, 2013; Scolari, 2017). An increased interest in storytelling accompanies the growth of the visual dimension, i.e., the adoption of narrative techniques that are influenced by contaminations from corporate communication and political communication (Ducci et al., 2019) to convey functional and normative communication topics (Mancini, 2002).

An example of this is the Community of Practice, which can be found on a dedicated platform of the Reflow project (https://reflowproject.eu/best-practices/). Reflow is an EU H2020-funded project that aims to "understand and transform urban material flows, jointly develop and test regenerative solutions at the level of businesses, administrations, and citizens to create a resilient circular economy." Administrations share their experience of engaging stakeholders (citizens, businesses, institutions, and different actors) in the process of circular transformation of cities (Klein et al., 2020). Reflow highlights the growing importance of storytelling for public organizations and the role of digital technologies as enablers for institutional communication and engagement around sustainability and the circular economy (Antoniazzi, 2021; Nham, 2022).

During the pandemic, mainly, the tendency in communication towards synchronization was detected in the public administration (Faccioli et al., 2020). Synchronization means using innovative and increasingly visual communication strategies aimed to achieve emotional engagement, such as storytelling (Antonioni & Ducci, 2016). However, such actions remain isolated cases and deserve to be explored to understand how storytelling can facilitate the communication of sustainability and circular economy models. The latter is referred to in the literature as SusTelling (Fischer et al., 2020).

Through case analyses based on in-depth interviews, the study will delve into some critical areas of investigation. First of all, it focuses on how storytelling is used in public administration concerning purposes, themes, and tools. Secondly, whether and how citizen engagement models are used to com-

municate sustainability. Finally, it investigates the limits encountered in adopting storytelling within public administrations.

After a literature review on storytelling and a summary of the state of the art of sustainability communication, including its differentiation from the circular economy paradigm and its declination in the public sector, the empirical research methodology and results will be presented. The discussion and processing of the data obtained will make it possible to systematize some contributions in advancing knowledge of the phenomenon and possible applications of storytelling in communicating sustainability and CE in public management strategies.

LITERATURE REVIEW

The literature review was approached with an interdisciplinary approach, structuring it according to the theoretical framework elaborated by CohenMiller & Pate (2019). The analysis focuses on the critical areas of the socio-economic context, the theoretical references on storytelling with particular reference to sustainability, and its role in communication in the public sector.

Storytelling in the Socio-Economic Context

The post-modern organization is characterized by polycentric and continuous formation, constant redefinition of roles, adaptation and survival, orientation towards the present, and the search for immediate fulfillment (Barone & Fontana, 2005). These changing social and organizational conditions produce four cardinal points in communication: the plural and complex dimension, the subjective and autobiographical dimension, the ethical-value dimension, and the aesthetic-affective dimension (ibid.). Storytelling responds to these four dimensions and can thus become a helpful tool for coping with social and economic transformations (Boje, 1991) in a context where organizational boundaries become increasingly permeable.

The power of storytelling is supported by research that validates the ability of stories to reach people. Narrative transport is a theory developed by Gerrig (1993), according to which people become travelers when they read a story because it transports them to a different place. The role of narrative transport in activating persuasiveness has also been explored in public narratives (Green et al., 2000). Transportation can change people by altering their beliefs, attitudes, and intentions. This power is recognized in several research areas. In public relations studies, it is an idea that has long roots (Heath, 1992) and remains an essential trend in practice (Coombs & Holladay, 2018; Kent, 2015).

In the corporate sphere, storytelling is proposed as a discursive form of the post-modern (Salmon, 2008) for a gaseous state, liquid, and plural, constantly changing enterprise, which declines its corporate communication according to the criteria of emotional branding (Gobé, 2001).

On the one hand, the development of brand-based narratives, which presuppose that the brand has a personality, a character, a temperament (Colurcio & Melia, 2017; Qualizza, 2009); on the other hand, the development of narratives is becoming increasingly linked to institutional communication, elaborated according to the concept of corporate branding (Hatch et al., 2001). The company's official communication was flanked by a different point of view that enriched the imaginative universe of the brand and the overall narrative universe (Castellano, 2020). Thus, communication disseminated through the usual channels (television commercials, press advertising, or billboards) has been joined by the communica-

tion from below, through social networks, and by storytelling enriched with additional elements in a different medium.

Since Jenkins (2006) introduced the concept of "transmedia storytelling" to describe how multiple, unique, yet integrated stories are told through various communication platforms by different voices, this mode and its influence have been explored in literature in many research areas. For example, transmedia storytelling has been identified as an ideal way to present CSR messages to overcome some of the critical challenges of CSR communication due to the engaging nature of transmedia storytelling and its ability to leverage multiple voices and platforms around a coherent set of values that are attractive to stakeholders (Coombs, 2019).

Storytelling in Communication

For centuries, stories have served to support humanity in communicating, entertaining, sharing knowledge, dreaming, and making sense of the world (Leinaweaver, 2017). Storytelling is a two-way interaction, written or oral, between a storyteller and one or more listeners (Sundin et al., 2018). It can become a complementary tool to traditional communication, as its use results in a constant interweaving of listening and dialogue, search and connection of meanings (Kaneklin & Scaratti, 1998).

Typical characters of narration, as identified by Fontana (2005), are sequentiality (succession of events along a temporal axis), particularity and concreteness (specific facts are narrated in stories), intentionality (actions carried out are always intentional), verisimilitude (neither truth nor falsehood can be spoken of, but only the listener's perception of verisimilitude), composability (stories can only be understood with the general context in which they are contained), pentadic composition (well-constructed stories always have five elements: actor, action, purpose, scene, instrument) and genre affiliation (each narrative can be placed within a literary genre, based on what is being narrated) (Fontana, 2005; as cited in Monzani, 2005).

Storytelling, also considered a tool for creating value for companies, has been addressed in the management literature from two different approaches that are not mutually exclusive but leave room for a broad set of intermediate variations.

The first is organizational storytelling, in which narratives offer individuals and groups a poetic space in which fantasy prevails over reality (Gabriel, 2000).

The second, which is the one taken into consideration in the present analysis, is that of storytelling management, which is based on a prevalently instrumental interest (Denning, 2012). In this sense, the art of storytelling is understood as a technique, an expedient that can be used to make communication more engaging and appealing (Fontana, 2009): everything that incorporates a narrative element, which in turn can be translated into an instrument capable of speaking to different audiences, becomes attractive (Fontana, 2016).

One of the reasons why stories are powerful is that they stimulate sensemaking and imagination (Dawson & Sykes, 2019). Sensemaking helps people understand the world around them by interpreting ideas through the specific experiences of characters in a story, in which listeners can immerse themselves and experience new situations and ideas (Fischer et al., 2020). At the same time, stories can create a new reality, even helping to imagine a desirable future (Polletta et al., 2011).

Storytelling is a strategic tool for communicating sustainability and circular economy. Until now, its effects have been analyzed mainly in the private sector, and its opportunities for application in the public sphere have been neglected (Dessart & Standaert, 2023). However, analyzing its potential in the

context of public communication can provide valuable suggestions for setting up an engaging narrative capable of reaching a broad audience and transmitting to society those principles that can activate the adoption of sustainable behaviors in line with the principles of CE. In this chapter, starting from qualitative exploratory research on some Italian regional public administrations, best practices, peculiarities, barriers, and potentials in the use of storytelling are illustrated, which can lead to an advancement of knowledge and the identification of managerial implications useful for experts of communication and policymakers in the public sphere.

Storytelling in Sustainability Communication

The analysis of storytelling about the communication of sustainability leads to considering the role of storytelling in science, where storytelling often takes on a negative connotation (Dahlstrom, 2014). By its very nature, scientific communication is abstract and it tends to take on an opposite character to storytelling, which uses the everyday language of people, which is rich in emotions, feelings, and nuances. What science tries to eliminate from its discourses is precisely what makes the narrative so interesting, because the world of abstraction "is an inhospitable place" (Denning, 2001). This is why storytelling is gaining increasing interest when communicating to non-experts complex topics (Dahlstrom, 2014) such as sustainability (Fischer et al., 2018; Polletta et al., 2011).

Sustainability as a concept is considered highly complex and ambiguous (Abson et al.,2017; Newig et al. 2013), and, to embrace it fully, one must engage in an understanding of debates involving technology, society, and politics; the concept of circular economy also has this characteristic (Korhonen et al.,2018). From this perspective, stories and narratives are easier to understand and engage people better than logical scientific facts (Dahlstrom, 2014; Geiger et al., 2018). This is because people think narratively rather than argumentatively. In general, "we organize our experience and our memory of what has happened mainly in the form of narrative" (Søderberg, 2003, p.8).

Sustainability communication is the commitment of an organization to disseminate information about sustainable goals, practices, and strategies to its stakeholders. Regarding sustainability-related storytelling, Stibbe (2014) argues that some oral storytelling activities can stimulate people's empathic capacity and pro-social and environmental behavior. Storytelling, evoking emotions, and increasing people's engagement, may be able to persuade such that it creates a high response and action (Fücker et al., 2022), even in the most resistant audiences (Dahlstrom, 2014). Precisely, the definition of storytelling for sustainability elaborated in the project SusTelling (Storytelling in Sustainability Communication) and funded by the German Federal Foundation for the Environment (DBU) between 2017 and 2020, aligns the key characteristics of storytelling with the normativity inherent in the idea of sustainability (Ehrenfeld, 2008).

Storytelling for Sustainability (SusTelling) is, in this sense, the telling of a story with a distinct arrangement of characters and courses of action (plot), which focuses on the characters and their experiences (personalization), and presents a configuration of conflicts, developments, and solutions (dramaturgy), has a recognizable beginning, middle, and end (chronology), provides information on the temporal, spatial or cultural context (context), creates internal tension through the use of stylistic devices (stylistics), using a distinct tone (tonality) and a more or less interactive and engaging presentation mode (mode), to facilitate public education and promote change towards sustainability (Fischer et al., 2020, p.7).

Storytelling in the Public Sector

While in the field of narrative marketing and storytelling management, the effectiveness of creating brand stories or building a world around products in terms of engagement has been discovered as early as the 1990s, in general, this approach remains mainly unexplored by the public administration, both at the central and peripheral level (Ducci et al., 2019), even though there are examples that are largely attributable to thematic institutional accounts and mostly linked to tourism or territorial marketing.

Storytelling is a fairly new mode of communication for public administrations and storytelling in public communication takes on different nuances that depend very much on the communication identities of administrations, and the creativity and skills of communicators (Sensini, 2019; as cited in Ducci et al., 2019).

As far as the Italian situation is concerned, for example, however ample space is given to this tool in the "Guidelines for the Promotion of Digital services", drawn up by Agid (Agenzia per l'Italia Digitale) in 2018, inviting public administrations to use the storytelling technique, primarily visual storytelling of the digital services that are provided to citizens, so far this approach for public communication still appears to be in the experimental phase. Even today, visual storytelling is a tool that is poorly known and understood in municipal administrations, leading to the need for greater specialization in the area of social media (Ducci et al., 2019) to bring a narrative universe to life in a non-improvised manner, based on a precise editorial strategy.

STORYTELLING IN PUBLIC COMMUNICATION OF SUSTAINABILITY: AN EMPIRICAL ANALYSIS

This study focuses on a specific dimension of communication, the public dimension. In the literature, numerous definitions have arisen to refer to the public sector, which presents both divergences and points of contact: political, social, institutional, general interest communication relating to the public sphere and communication relating to public administrations (Gadotti, 1993, Grandi, 2001; Rolando, 2004; Mancini, 2015; Rovinetti 2000, 2005, 2007; Faccioli, 2000; Nieto, 2006; Mele et al., 2011).

Often, in the literature, the communication of a public administration is erroneously equated with the concept of "institutional communication": the latter, which is, however present in many private companies, in non-profit organizations, in associations, i.e., not exclusively in the public sector, provides an objective - that of disseminating identity - which does not exhaust the communicative purposes of a public administration.

In this study, public communication refers to external communication "relating to public administrations and public authorities in general" (La Spina, 2007, p. 2), focusing in particular on the initiatives of regional administrations on sustainability and the circular economy. Through case analyses based on in-depth interviews and focus groups, the study will first investigate how storytelling is used in public administrations regarding aims, themes, and tools. Secondly, whether and how citizen engagement models are used to communicate sustainability. Finally, what limits are encountered adopting storytelling within public administrations?

In general, regional aspects of CE are still little studied (Dagilienė et al., 2021; Henrysson & Nuur, 2021; Aranda-Usón et al., 2019). The debate on how cities and regions should adopt CE strategies is ongoing (Levoso et al., 2020). However, the literature agrees that regional issues are a key dimension of

CE (Silvestri et al., 2020) and that regions and their political institutions play a crucial role. The Italian Constitution assigns important competencies to the regions in various fields, including the environment and economic development. In particular, many Italian regions have launched initiatives to promote CE, such as supporting enterprises that adopt circular business models, organizing events to raise awareness among citizens and enterprises on the importance of CE, and promoting research and innovation projects.

The Ministry of the Environment - Directorate for Sustainable Development monitored the Italian regions also from the point of view of EU regulations with the project CReIAMO PA - Competences and Networks for the Integration and Environmental Improvement of PA Organisations, and by re-elaborating the data of the Circular Report prepared by the Politecnico di Milano (2022) divided the regional administrations into three groups; "waiting" regions, which have yet to create legislation for the CE that encompasses various sectors; "work-in-progress" regions, which are in the process of transition and of more affirmation of the principles of the CE within their legislation; and "strengthening" regions, i.e. those in which the principles of the CE are more pervasive and explore various sectors (Pozzetto, 2023).

RESEARCH METHODOLOGY AND SAMPLE

Given the exploratory nature of the present study, the most suitable methodology for the research set-up was Constructivist Grounded Theory (CGT), which allows us to avoid the rigidity of quantitative/positivist research to adopt more flexible research structures that are more receptive to capturing meanings in human interaction (Black, 2006) and better suited to restoring the meaning of what is perceived as reality (Carson et al., 2001). The CGT is a methodology influenced by postmodernist and socio-constructivist ideas that fit for purpose for several reasons.

First of all, it is flexible and focuses on the spontaneity and adaptation of the interaction between the researcher and the study participant. In this approach, the researcher and his or her informants are interdependent and mutually interactive (Hudson & Ozanne, 1988). The interpretive researcher enters the field with prior knowledge of the research context drawing but assumes that this is insufficient to develop a predefined research design and thus remains open to new knowledge, which it develops with the help of informants.

Secondly, the CGT - in its original meaning - is a unique inductive research methodology because, drawing on the foundations of social constructivism, it does not assume that research begins with a hypothesis: meaning is co-constructed with participants through reflexive processes, bringing out a new theory from the data reflecting the lived experiences of practitioners (Charmaz, 2006; Fassinger, 2005). This characteristic seemed to be consistent with the objectives of our research, which does not assume to start from a hypothesis on the effects and effectiveness of storytelling applied to sustainability by the public sector, but to identify its peculiarities concerning the public environment, its limits, and potential.

Finally, CGT seemed the most suitable method because it is a methodology influenced by the ideas and principles of storytelling (Riessman, 2000). The same narrative theory of Bruner (Bruner, 1987, 1991) can be seen as a conceptual bridge that strengthens the links between Narrative Inquiry and constructivist applications of Grounded Theory. The relevance that narrative theory attributes to the symbolic systems that humans use to construct reality, such as language, suggests a theoretical compatibility between Grounded Theory and Narrative Inquiry, making it possible to consider it a 'combined methodological approach' (Lal et al., 2019)

In defining the sample, using the classification of regional public authorities mentioned previously, we chose to analyze the role of storytelling in the communication of sustainability and circularity issues in a high-pervasiveness region (Lombardia), a work-in-progress region (Lazio) and a low-pervasiveness, waiting region (Puglia).

The experts were selected by identifying their profiles on the institutional websites of the regional authorities, through the combined use of the keywords "communication", "press office", "journalist", "sustainability", and "circular economy".

The email and LinkedIn contacts resulted in a final sample of 20 interviewees, consisting of two types of experts: managers and officials of the environment and economics sectors and those of the communication and journalism sectors. In particular, the areas of knowledge and experience of the experts interviewed in the "communication area" concern the storytelling of services and products circulating to different interest groups, corporate and brand storytelling, campaigns, and inspirational storytelling.

DATA COLLECTION AND ANALYSIS

Primary data collection was based on exploratory interviews and focus groups, following a rigorous approach to qualitative research (Gioia, 2013; Patton, 2002; Leech, 2002) to gather detailed information on storytelling in the public sector, understanding how experts use it in communicating sustainability and circularity, sharing and creating stories in different contexts and with different targets, and what suggestions they might share. It was considered appropriate also to use focus groups, as they are particularly suited to bring out people's experiences, meanings, understandings, opinions, and views, or to explore how these are advanced and processed in a social context (Wilkinson, 2014).

The conduction of the focus groups and interviews followed the inductive mode envisaged by the CGT, i.e., open-ended questions that triggered discussion, which were not necessarily formulated in the same way for each participant, adapting them to the skills of the interviewees and their areas of work. In this way, participants, free to answer in their own words (Mack et al., 2005), produce more elaborate and detailed data than is usually the case with quantitative methods, albeit with smaller and more focused samples (Frühmann et al., 2016). Furthermore, the CGT lends itself to being a general research method that can also give 'voice' to visual data, which often deliver much greater richness than textual data alone (Ghirotto, 2016)

The interviews, conducted between May and June 2023, were half conducted by telephone or online, via Zoom, and half in person. The focus groups were all conducted in the presence of the interviewees' institutional locations. A total of 1,400 minutes of recordings were collected, based on an average duration of 60 minutes for the interviews and 80 minutes for the focus groups, which were then transcribed for subsequent analysis. Based on the literature review, the questions focused on storytelling, focusing on the structure and communication of the complex topics of the CE and sustainability. Finally, about the visual dimension, photo/video found images were used (Pauwels, 2010) and subsequently analyzed following the approach suggested by Denzin (2004).

DATA ANALYSIS

In the first phase of the analysis, the collected data were analyzed through CGT (Charmaz, 2006) searching for conceptual codes useful for answering the research questions. Specifically, concerning the analysis of the data from the focus groups, one of the two approaches that Morgan (1988) identifies as the main ones were used, namely "systematic coding through content analysis".

To refine and validate the interpretations developed in the interviews, a triangulation approach was used, also analyzing publicly available secondary data such as web portal content, press releases, images, videos, and posts to understand the content and language used to communicate sustainability issues and to analyze the contribution of storytelling techniques. Triangulation made it possible to "establish converging lines of evidence which will make your findings as robust as possible" (Yin, 2006, p.115).

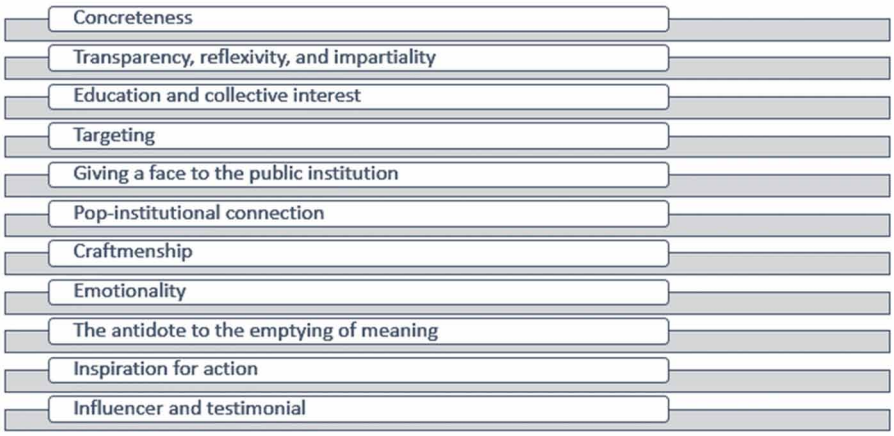
In the second focused coding phase, the objective was to identify recurring or particularly significant codes with "analytical momentum" (Charmaz, 2007) to isolate results that can be considered saturated by integrating the information gathered from interviews and documentary research. In the coding process, we remained adherent to the principle of flexibility suggested by the CGT, which insists that the researcher must learn "to tolerate ambiguity" and become receptive to creating emerging categories and strategies (Charmaz, 2008).

In the third level of analysis, we tried highlighting the links that connect the categories by integrating them into a coherent and unified conceptual model.

RESULTS

The data analysis leads us to establish that storytelling in the public sector presents some significant differences in objectives and communication context. The coding of the content of the interviews, the identification of concepts/themes, and the analysis of their connections led to the identification of several key dimensions summarised in Figure 1 and further elaborated on below by reporting some narratives.

Figure 1. Storytelling for CE and sustainability in public communication



Concreteness

Generally, the search for valuable communication goes through storytelling content that does not necessarily mention sustainability and the circular economy as keywords but brings out and highlights these two concepts to intercept the interest and involvement of stakeholders by leveraging concreteness (Du Preez et al., 2019).

"Sometimes one has the feeling that the concept of the circular economy is a principle that the multitude of citizens do not grasp because it is probably not accompanied by easily and immediately perceivable benefits: the easiest way of telling the story, for example, in the area of separate waste collection, is to leverage the effect in terms of urban decency and hygiene, but one should probably work in terms of economic reduction of the tariff to achieve even better results." (G)

"In recent times, everything has become sustainable, but this is a complex issue where we have to verticalize and look for depth. We want to create a community of stakeholders with a strong regional coordination brand. We have created a 'Sustainability in Lombardia' brand image with a 360-degree approach." (F)

Transparency, Reflexivity, and Impartiality

In the private sector, the use of storytelling is mainly driven by marketing strategy and corporate vision: the focus is on creating stories that enhance the company's identity and values, without the specific restrictions of the public sector (Escribano & Collaudo, 2021). Compared to the private sector, the public sector is subject to a regulatory framework that may limit the use of storytelling. In the public sector, narratives must be consistent with governmental objectives and strategies, respecting the principles of transparency and impartiality. Ethical norms and prescriptive regulations are experienced as an act of daily responsibility and impose deep reflexivity. In the public sector, storytellers feel more responsible for the stories they tell and how these affect people, feeling the responsibility to translate this knowledge to non-experts. In contrast to Ducci et al.'s (2019) analysis of municipalities, the analyzed regions showed a deep awareness of the different norms that must characterize public communication.

"We strive to apply the standards for institutional communication and information 200%. We tell the story we care about in the best and most impartial way possible: that is what we try to do". (L)

"For us, the cornerstone for communication campaigns is the partnership, but it is certainly a discriminatory tool because we are a public administration, therefore channeled into legal procedures". (F)

Education and Collective Interest

In terms of objectives, in the private sector storytelling is used to promote a company, product, or brand. The main objective is to influence consumer opinion and behavior, creating a positive image of the company and generating sales. The focus is on creating an emotional bond with customers and differentiation from competitors. In the public sector, on the other hand, the main objective of storytelling is often to raise awareness and engage the public on issues of public interest, such as sustainability, the

circular economy, or governmental programs. The focus is on promoting the common good, educating and inspiring citizens to participate in initiatives of collective interest.

"We are interested in developing a transparent narrative, which citizens can decrypt in its mechanisms. That is why we are creating a platform that will be called 'communication projects', a digital storytelling space on the communication of the Lombardia Region: the objective of this site is not to promote or raise awareness but to tell and explain the role of communication in dealing with certain issues." (F)

Targeting

Storytelling in general responds to a growing need in post-modern communication, namely to consider the target audience of the storyteller. Stories must be adapted to the characteristics of different groups of people, particularly their needs, desires, values, limitations, adapting language and background. In the private sector, the target audience consists of the company's current and/or potential customers, and the use of storytelling is aimed at producing communication focused on consumers' specific needs, desires, and values. In the public sector, on the other hand, the target audience is vast and diverse, including citizens, organizations, stakeholders, and other government institutions. In the public sector there was a lack of tools capable of achieving this, but thanks to storytelling, this is increasingly being explored and campaigns can be realized even with limited budgets using creative techniques.

"With experience, I have learned that to achieve goals with communication campaigns, especially those related to sustainability, which is a big and complex goal, you have to make clear target choices. Talking about combating waste in general in an always-on activity is fine, in order to achieve profound and long-term results, you have to focus only on one target. For sustainability and circularity, we in the region believe that the decisive target group is young people, both as future decision-makers also as educators in the environments in which they live: this is how I orientate the future and educate the present through sustainability 'ambassadors' in the family". (F)

Giving a Face to the Public Institution

If politics has a face and customizes its communication to the extreme, often even pushing it beyond the boundaries of institutionality, what communicators notice is that the entity, the public administration, does not have its face and voice, and this is experienced as a limitation (Czarniawska, 1997), especially when the concepts to be transferred are complex and abstract as in the case of sustainability and paradigms tending towards circularity.

"The public body must find a key to 'infrastructure' the spontaneity of people: they must speak for and on behalf of the body. This makes it possible to overcome two limits: the impersonality of public administration and the risk of being told that we are talking to ourselves when communicating announcements, measures, investments, and projects. The ability to mobilize people, to get them to speak on our behalf, is key to making communication itself circular. This is not an insignificant fact for us". (L)

"In the Puglia Region we are trying to overcome the limitation of communication in the public body, that is, the fact that the institution by definition has no face, as it cannot be squashed by political com-

munication. It is, therefore, necessary to strive to evolve towards the objective of brand communication: we are trying to give a face to the institution and this face is that of the people who in some way recognize themselves in the regional community, have been able to touch the benefits of this or that policy or project. Giving the institutions the image of people who have grasped this Region's opportunities is an important storytelling key". (L)

The "Pin - Pugliesi Innovativi" project, a public notice for young people under 35 for innovative projects with circular business models, followed the objective of putting a face to their stories. The storytelling campaign was based on protagonists' stories, who also wrote a chronologically ordered 'logbook' on the progress of their project. In some of these stories, videos appear of relatives who, filmed in their everyday lives, talk to the beneficiaries. In one of the videos, the grandmother of an entrepreneur in the upcycling sector, says, with the genuineness and immediacy of the public dialectal cadence, that she has kept aside for her some precious fabric garments, which she is fond of, that will be able to reuse to create new models.

"That kind of storytelling manages to encompass both formal communication, i.e., the technical explanation of the project, and emotional communication, creating a mirroring effect, drawing on the basics of the show, don't tell, which in the end took on an extremely captivating aspect." (C)

"The sector that most explores this type of communication is that of youth policies. In the project that is still being developed, 'Galattica', which identifies a network of nodes of physical places on the territory that will be able to support the 18-35-year-old segment of the population, communication will be all about the idea of storytelling." (G)

Pop-Institutional Connection

Achieving a hybridization between 'cold' service news and 'hot', pop communication is a goal that public communicators believe they can achieve by calibrating storytelling. What a press release cannot do, a storytelling can.

"Every day, we create a piece that holds together the institutional and the pop. In addition to the daily reconnaissance of in-house sources, which we try to involve and make feel like a diffuse editorial team, we retrieve interesting stories about our region. We put together the municipality's call for tenders and the start-up that is realizing something beautiful thanks to a regional opportunity, but we also add, trivially, the Lecce (n.d.r. local soccer team) maintains the A ranking: we consider it something to give back to the community". (L)

"Even the institutional portal Regione Puglia shows how important it is for the institution to tell its story in a certain way: on the home page, we have a section entitled 'Succede in Puglia' (Happening in Puglia), which I would say is unique among regional institutional portals because it gathers everything that happens, the good and the best, and presents it in the form of a story, a narrated page. Without videos and images, it is the quintessence of the story that is the protagonist". (T)

Craftsmanship

Compared to other forms of presentation, storytelling is regarded by public sector communicators as a refined tool, capable of providing an arrow in the bow that aims to make public sector communication more effective and heartfelt. The search for stories and protagonists and the care with which they are presented makes those interviewed say that this is a 'craft' path of the communicative proposal.

"Daily, we do a job that I call craftsmanship, content curation. We work autonomously, we create the mock-up; nothing is standardized, we work artisanally, always in dialogue with the internal structures and what we consider to be the stakeholders". (L)

Emotionality

According to the experts interviewed, the convenience factor and people's emotions are suggested to incentivize action. For example, a story can arouse positive emotions such as inspiration and hope that can catalyze action in people. While this lever has always been activated in the private sector, often producing all the dross of greenwashing, in the public sector communication has always shied away from expressing emotions, cloaking itself in "institutionalism" through detached concepts and technicalities. The challenge of behavioral change inherent in the circular economy concept requires us to tread new paths.

"For the campaign against food waste, we drew on the Italians' relationship with food, which is most often visceral. The background is not only that of an ancestral tradition, but also the habit of conviviality at the table that sets us apart. We identified this with a love story, and as a love story, it was not to be wasted. In the carousels, this idea was declined and we played with the language of love: 'So you make me cry', says the onion; it cost us so much, says the radish; give me another chance, says the risotto. It's all about the love affair with food, and the countryside touches a completely emotional chord". (F).

Storytelling was also a lever to tell how the Lombardia Region supports local authorities and associations to reduce waste.

"We made an emotional video that followed the volunteers of an association through a typical day, showing their interactions and to make understanding how the daily actions of these people can have a concrete and important impact both socially and economically. But beyond this aspect, we wanted to bring out all the senselessness of waste, the huge mistake one makes when one wastes without thinking about it". (F)

The Antidote to the Emptying of Meaning

The wear and tear of certain definitions, emptying of meaning, and 'rejection' are risks that many interviewees, both top management and communicators, have expressed when talking about sustainability and the circular economy. Because of its form, storytelling lends itself to a narrative that allows one not to speak in slogans and helps to build value around a concept.

"We have realized that there are themes and words that produce a repelling effect because they are perceived as distant, complex, and even divisive from a certain point of view. So the choice we make every day when we want to communicate the value sense of the circular economy is to tell people what the circular economy is all about, anchoring ourselves to examples of good practice close to the experience of the general population and avoiding terminology that we perceive as repelling. We try to implement a cultivation theory in the most sociological sense of the term, working on medium- and long-term impact". (L).

"Circular economy is an unfortunate expression, promising the closing of a cycle that is utopia. How do we communicate and activate the paradigm shift in citizens? We are already doing it and with the strongest communication method, I dare say ancestral, that is by example". (R)

"Social media are a very powerful communication vehicle, but the risk in working with them is to speak in labels. If I use Circular Economy and propose the concept nakedly complex, forcing the keyword, I don't arrive at the effect I want: the mission we all accepted when we came here was to get closer to the user and thus help him understand and promote change. Just offering them labels is not what we do". (T)

"Certainly, we do not often use the keyword circular economy in our content: on the one hand, we use concepts such as bio-economy or even make ourselves the creators of new terms. For example, the concept of decarbonization entered the institutional lexicon in Italy in 2019 thanks to an intuition of the then president of the Puglia region regarding the contingent need related to the former Ilva plant in Taranto. At first, it was a term greeted with derision, then it became a must at the Italian institutional level". (R)

Inspiration for Action

Most people would like to contribute to sustainable and circular lifestyles but often need help knowing where to start or are discouraged. There are few activists, transformers, visionaries. For those who are not, the stories provide a substratum of concrete descriptions of actions to consult that can help them change and act for a circular future. Some communication experts have found that the story works if it often has a concrete hook for a small domestic action.

"The little tips of domestic common sense proved to be an engagement factor. We associated the image with both the statistic and the scientific notion and the tip on using onion or pumpkin waste. Using everyday household tricks in the story is useful. On a landing page, we put decalogue". (F)

It has been pointed out, on the other hand, and this is consistent with the often highlighted need for targeting, that for other groups the call to action may create resistance: in this case, they need stories that stimulate reflection, imagination, and inspiration, so that they are motivated to decide how to act. This can also be achieved through the opportunities offered by digitization and artificial intelligence.

"I think artificial intelligence and digital tools that can show utopian and dystopian scenarios are a way forward to develop storytelling in the field of sustainability". (F)

Influencer and Testimonial

As recalled in the literature, sustainability as a concept is considered highly complex (Newig et al., 2013), and to fully embrace the concept, one must engage in debates involving technology, society, and politics. The sustainability communicator, therefore, must be creative, particularly in using appealing messages and images (Strother & Fazal, 2011). For example, celebrities or social media influencers who support green or sustainable programs can be included in both traditional and social media sustainability communication messages.

"Last year we launched a campaign on the waste that involved Boomdabash (i.e., musical band) and an actor well known in Puglia, Gianni Ciardo: they helped us convey the message that the environment is not a place to throw away what we no longer want or use. It is an advantageous operation in terms of engagement. However it has the risk that sometimes the image of the testimonial advances more, putting itself in the foreground than the value it is communicating: but it is certainly a good compromise to give visibility to the theme". (L)

"We used four testimonials to give positioning to the campaign. A green blogger, Lisa Casali, who has been dealing with the issues of sustainability and the circular economy for years, addressed the topic of food waste. Her legacy carried a more mature and aware audience. Flavio Montrucchio, host of "Primo appuntamento" (n.d.r. a television format) on a TV channel where he seats singles on a first date at a restaurant table, was the main testimonial. Valentina Barbieri, influencer and comedian impersonator, allowed us to reach people who never seek information on social media but only for entertainment. She tackled the theme with fresh, creative, spontaneous language: the doggy bag was prepared by Ferragni and imitated by Valentina. Finally, Matilde Silvestri, a travel blogger, took on a different theme and created a story set in her home, in a different location from the one her followers are used to on Instagram, putting her face in the foreground, telling all the data related to the food waste phenomenon. She has put much emphasis on relationships that she then expands into in-person moments; she meets with her groups and her audience and has therefore managed to engage her audience well on the issue, also fuelling a lot of the discussion on her channels". (F)

CONCLUSION

The analysis of storytelling as a tool for communicating sustainability and the CE and strengthening the reputational brand of the institution made it possible to highlight the peculiarities of its use in the public sector and to identify its limits and opportunities. The results of this study indicate that storytelling is widely used in the public sector to communicate sustainability (Dessart & Standaert, 2023; Nham, 2022). Public administrations take different approaches in developing narratives, but share the common goal of engaging and raising awareness of environmental and social issues. The themes addressed through storytelling include energy efficiency, waste management, sustainable mobility, and combating food waste. Respondents indicated that storytelling allows complex messages to be conveyed in an accessible, engaging, and emotional way. Tools include videos, multimedia campaigns, online publications, and public events. Indeed, ICT and digital technologies are important enablers of communication (and storytelling) in the public sector (Du Preez, 2019; Faccioli et al., 2020; Karagoz et al., 2020). In particular,

friendly apps are useful for emotionally involving and engaging stakeholders (citizens) on sustainability issues (Kang, 2019).

However, there are also some limitations to adopting storytelling in the public sector. Some interviewees cited need for more financial and human resources as a challenge in implementing storytelling projects. Others highlighted the need to address organizational fragmentation and improve collaboration between different directorates to create a coherent narrative. Furthermore, the effectiveness of storytelling in the public sector can be influenced by the political and regulatory environment, limiting the freedom of communication and the availability of data and information.

The managerial implications related to the use of storytelling to communicate in the public sector seem to us to be particularly relevant: instead of 'persuading' interlocutors by proposing an egocentric manifestation of corporate identity, as is often the case in the private sector, the public communicators can rely on the tool of storytelling to realize a more evolved model of interaction, which gives the interlocutor an active role, based not only on a more intense emotional involvement but also on his active participation as a partner in the communication process.

Although this study contributes to the advancement of knowledge on the phenomenon of storytelling in the public sector, it has some limitations. By its very nature, Grounded Theory seeks to understand how a given phenomenon unfolds but does not produce generalizable results that could be obtained with quantitative studies on representative samples. Furthermore, the study is limited to a particular geographical area: future investigations could be extended to other countries to understand how sustainability communication uses the storytelling tool, and analyze how different public sector regulations influence its use.

LIMITS

There are some limitations to this study. First, our data were collected from the Italian administration; therefore, they are valid only for this context. We invite further study to analyze the perspectives of the public sector in other constellations and contexts. Moreover, our paper only shows the perspective of public administration managers. Therefore, the next step should be to collect additional data on the perspective of other actors in the service ecosystem to get a holistic picture. Finally, the number of interviews is not very high. The interviews within the exploratory constructivist study of the paper are appropriate for gaining qualitative insights. However, expanding the sample base will be another necessary research step.

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REVIEW PAPER

Communication of Circular Economy in the Public Sector in Bulgaria: a Study of Space, Agenda, Language, and Tools

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Abstract
Transitioning to a Circular Economy (CE) is a global imperative with far-reaching environmental, economic, and societal implications. Effective public communication raises awareness, fosters stakeholder engagement, and enables behavioural change. This study investigates how CE principles are communicated within the Bulgarian public sector. Methodologically, it adopts a Constructivist Grounded Theory (CGT) approach applied to qualitative interviews with communication officers from ministries, municipalities, public institutions (including state-owned banks and universities), and editorial staff from national public radio and television. Through methodological triangulation, Critical Discourse Analysis (CDA) is also applied to a corpus of secondary data to examine dominant narratives and discursive framings. The analysis explores how CE is represented, which agendas it supports, the language employed, and the communicative tools mobilised. Findings reveal that CE discourse in Bulgaria is predominantly centralised, fragmented, and performative—prioritising institutional visibility over genuine public engagement. The paper identifies strategic orientations for improving CE communication, including decentralising communicative authority, enhanced inter-institutional coordination, the development of audience-specific narratives, and articulating long-term environmental objectives with short-term motivational incentives. Such measures are essential to advance from rhetorical commitment to effective and participatory implementation of CE principles.

Keywords Circular economy · Communication · Public sector · Bulgaria · Sustainability

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Introduction

Transitioning from a linear to a Circular Economy (CE) is a global imperative with far-reaching environmental, economic, and societal implications [1, 2]. The CE and sustainable development are closely linked [3]: circular practices are key components of many sustainable development goals [4] that balance economic [5], environmental and social interests to meet the needs of the present generation without compromising future ones. In addition to environmental benefits, such as reduced carbon emissions, conservation of primary resources and regeneration of natural capital, the CE contributes to improved energy security, management of critical materials, economic growth and quality of life, mainly with the potential of new technologies [6–9]. Thus, this concept has gained increasing relevance in public policy as governments seek sustainable solutions to address environmental and economic challenges [10–12]. The public sector plays a central role in guiding and promoting the adoption of the CE: governments are crucial enablers of CE transition [13–15]. As Kirchherr et al. argue, "targeted governmental interventions […] may provide a much-needed push for the linear to a circular economy should occur through a policy change to create a partnership between the business community, policy-makers and institutions [16] (p.271). Communication is fundamental to this transition [17]. So far, the literature on the interplay between communications and CE has been limited to city residents in some geographical regions, as in the case of the comparative analysis of the adoption of the CE among stakeholders in Lagos, Nigeria, and London [18] or the public perception of the CE in specific fields [19]. Analyses of how social media have developed the discourse on the CE have been conducted more recently [20]. However, there is a general lack of studies on communication about CE by public authorities. Only a few studies examine the positions taken on CE by public authorities: an analysis was carried out on opinion-forming political parties in Sweden [21], and a comparative study of the policies of two Swedish government reports focusing on circularity [22] and in the United Kingdom [23] through discourse analysis. There are few studies on this subject in the Balkan area, such as in Romania [24], or focused only on general circular discourse in Central and Eastern countries [25], but generally, the topic is understudied. Bulgaria was chosen as the study area as it is still at a preliminary stage of implementing circularity practices. This research addresses the lack of sufficient knowledge regarding how the public sector communicates about the CE issues and actions. Our study seeks to fill a gap in the literature since the current understanding of CE communication in the public sector is insufficient. Through a mixed approach combining CDA for secondary data and qualitative analysis conducted through semi-structured interviews, the research aims to answer the following questions:

RQ1 Do public institutions in Bulgaria communicate the principles of the CE?
RQ2, and if they do, with what tools, targets, and language?

The paper is structured as follows: the introduction presents a review of the CE concept and basic data on circularity for the European Union and Bulgaria. Section 3 describes the research methodology, and Section 4 is devoted to the findings. The final section focuses on the conclusions.

Theoretical Overview of the CE Concept

The first discussions on the negative impact of economic activity on the environment and the need for appropriate management of scarce resources date back to 1966 [26]. Subsequently, topics such as industrial ecology and industrial symbiosis [27] and the cradle-to-cradle concept [28] emerged, later captured in the concept of CE [29]. The term "circular economy" was first used in 1989, but since 2010, thanks to the work of the Ellen MacArthur Foundation [30], an initial definition has been widely accepted. Although much effort has been made in academia to reach an unambiguous and formally structured definition of circular economy [31, 32] isolating the key concepts of CE from other related concepts such as sustainability [33, 34] the concept is contested [10] and continues to be debated (Reike et al., 2018) without finding an umbrella concept dimension except in the definition of Blomsma & Brennan [35] who nevertheless state that the concept is in a phase of validity challenge.

State of the Art of CE in Bulgaria

The implementation plan of CE practices in Bulgaria is dispersed across several policy documents: the National Development Programme Bulgaria 2030 (Ndp) [36]; the Innovation Strategy for Smart Specialization of the Republic of Bulgaria 2021–2027 [37]; the National Waste Management Plan 2021–2028 [38]; the National Strategy for Small and Medium-Sized Enterprises 2021–2027 [39]; the Strategy and Action Plan for the Transition to a Circular Economy 2022–2025 [40].

In addition, Fund 2 "Green Transition and the Circular Economy" of the National Recovery Plan [41] envisages targeted support through grants and financial instruments to enterprises, facilitating their transition to a digital, low-carbon, and resource-efficient economy. Regarding environmental governance, no effective system currently exists in Bulgaria to monitor the implementation of policy plans nationwide. Bulgaria does not have a dedicated national or regional monitoring framework for the CE. However, the CE Council was recently established [42] and now serves as a permanent advisory body, tasked with coordinating public authorities on transitioning from a linear to a CE. The Council ensures cooperation with other state bodies—including at regional and local levels—as well as with non-governmental organisations, in defining the implementation of state policy in CE. The Council have to monitor and evaluate the progress of CE initiatives in Bulgaria and it is composed by the Ministers of Environment and Water; Economy and Industry; Innovation and Growth; Energy; Finance; Regional Development and Public Works; Agriculture and Food; Education and Science; Labor and Social Policy; two regional governors; and the Executive Director of the National Association of the Municipalities in the Republic of Bulgaria. The literature agrees that, although the CE appears to be a priority in long-term development policy, the country still ranks among the few European states that are not yet ready to implement CE. According to some studies, Bulgaria needs to adopt a more proactive approach to the transition [43], which is progressing sluggishly [44]. Among the main barriers to transforming Bulgaria's economy into a circular one, several studies identify the country's almost vertically integrated industrial system, which has developed over the years and in which inter-sectoral linkages are either absent or poorly developed [45]. The

municipality of Sofia is also facing significant obstacles in advancing its CE strategy, as highlighted in a recent OECD policy paper [46]. Key issues include the lack of clear performance indicators, an overly narrow focus on waste management rather than embracing a comprehensive circular model, and the absence of financial incentives for businesses to engage in circular practices. Adopting circular models is even more urgent for Bulgaria, given several factors: for instance, the Bulgarian economy consumes on average [41] 3.6 times more energy resources per unit of GDP than the EU average. Bulgaria reports the highest per capita levels of hazardous waste among EU countries. Bulgaria also remains the most carbon-intensive EU Member State: the intensity of greenhouse gas emissions in the Bulgarian economy is more than four times higher than the EU average. However, recent years have shown a positive—albeit modest—trend in narrowing this gap. Bulgaria has the potential to reuse reclaimed water due to increasing water scarcity and is willing to implement the Regulation [47] entirely. Only a few sectors, such as the mining industry or the water supply systems, have been studied [48, 49] along with topics such as circular consumer behaviour [50], which revealed a typical pattern among the predominant age group of 25 to 34 years old. A recent study of CE discourse in Central and Eastern European countries [25] finds that the development of CE discourse is correlated with overall economic development. Countries with higher GDP per capita, like Slovenia and the Czech Republic, have more developed CE strategies and are more optimistic regarding the possibilities of CE initiatives having significant positive impacts. Slovenia and Poland have enacted CE initiatives and coordinated various stakeholders to pursue CE goals. Bulgaria, the country with the lowest GDP per capita in purchasing power parity standards in the area, is lagging in discourse and implementation.

CE Communication: an Overview

In order to accelerate the transition to a CE, it is crucial to speak with a common voice, using a common language and definitions that all can use [30]. Only recently has the discourse on circularity been systematically analysed in the academic literature [51]. Overall, surveys assessing the level of understanding of the CE concept among consumers and citizens reveal that they are becoming increasingly familiar with the topic and are adopting more environmentally responsible behaviours in their daily lives [52, 53]. However, they generally avoid radically changing their consumption habits [54]. Only a limited number of studies have investigated the effect of social influence and psychological barriers on people's awareness of the CE [52, 55]. Nevertheless, there is still a lack of research on how effective communication strategies might enhance such awareness.

The Importance of Communication in the Public Sector in Bulgaria

Findings from a study on the level of circularity awareness among Bulgarian citizens have shown that relevant measures to be considered include "green education and green campaigns to involve producers and consumers and enhance circular practices among the population" [50] (p. 122). The role of public authorities in the widespread promotion and launch of campaigns, initiatives, and actions related to good environmental responsibility practices is a pillar in the Bulgarian scenario [44]. Several sections specifically highlight the importance of communication in achieving its goals. Under Specific Objective 1.2: A

Green and Competitive Economy, the strategy states the need to "conduct information and training campaigns for businesses to explain the benefits of the ecological quality label and its potential to influence the market share of producers positively" (p. 32). Strategic Objective 2.1: Less Waste, More Resources outlines that "measures will be adopted to provide information to consumers aimed at preventing unsustainable plastic consumption and promoting reuse and recycling opportunities through coordinated awareness-raising actions by the public sector" (p. 43). However, it is particularly Specific Objective 3.1: An Economy to the Benefit of Consumers that addresses communication as a key asset: the governmental document announces that "consumers will be informed about the rules for using eco-labels and certification systems to build trust and preference for green products. The information should be targeted at different age and social groups. This will allow the involvement of schools, universities, and consumer protection/NGO organisations in these activities" (p. 58). Finally, Objective 3.3: Social Green Economy identifies the need for awareness campaigns on green public procurement addressed to a broader range of experts within awarding administrations. Statistics show that the share of green public procurement in Bulgaria is only between 5 and 7%, and one of the main reasons is the limited awareness among contracting authorities, who are often unfamiliar with the requirements for green goods and services and environmental management systems (p. 62). In this area, it is also worth noting that in 2021, under the Interreg Europe programme project Smart Circular Procurement (CircPro), developed an action plan to establish initial guidelines for effective use of the circular concept by public contracting authorities, as an experiment and a step in the development and increase of the share of the public procurement in Bulgaria.

Methodology

In this study, public communication refers to external communication relating to public administrations and public authorities in general [56], focusing on the initiatives on sustainability and CE. The contributions of Merli et al. [57] and Kirchherr et al. [58] are the most comprehensive in defining CE: in the latter work, recently revised, the authors selected 221 definitions [59], thus increasing the 114 isolated in 2017 so "the trunk of the CE tree has strengthened, while various new leaves have appeared" (p. 9). The meta-definition proposed is adopted in this study: "[CE is] an economic system that replaces the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes" [58] (p. 229).

Given the exploratory nature of the present study, the most suitable methodological framework is Constructivist Grounded Theory (CGT), which enables us to avoid the rigidity of quantitative or positivist designs and to adopt flexible procedures capable of capturing meaning in human interaction [60] and of restoring the sense making processes that actors attribute to reality [61]. CGT, influenced by postmodern and socio-constructivist perspectives, is appropriate for several reasons. First, it is inherently flexible and privileges the spontaneity and adaptive quality of interaction between researcher and participant. In CGT, the researcher and informants are interdependent and mutually interactive [62]. The researcher enters the field with contextual knowledge, yet recognises this as insufficient for a predefined design, remaining open to new understandings co-constructed with participants. Second, CGT is a distinctively inductive methodology: it does not begin with a priori

hypotheses. Instead, meanings are generated through iterative and reflexive engagement with data, allowing theory to emerge from, and remain grounded in, practitioners' lived experience [63, 64]. This stance aligns with our objective, not to test a presupposed condition of CE communication in Bulgaria's public sector, but to uncover its specific features, limitations, and potential. In practical terms, semi-structured interviews with ministry officials, public communicators and journalists were conducted and added sequentially according to theoretical sampling. Journalists have been selected from the public broadcasting sector, and this is relevant because, as some studies noted, "they have a strong hold on public opinion" and in Bulgaria "the mass media system often operates as a Fourth Estate, influencing social attitudes, political opinions and decision-making on national priorities [65, 66]. Audio and video files were transcribed verbatim with Whisper (OpenAI) and manually verified. In two specific cases—the interviews with the Bulgarian National Television (BNT) journalists—data collection proceeded in two stages. First, both journalists provided their contributions in written form, directly in English; these texts were analysed as documents. Subsequently, a small face-to-face focus group was organised that included the two original respondents plus a third BNT journalist (recruited via snowball sampling through one of the initial interviewees). This session was designed to probe and elaborate on several issues in the written interviews, thereby adding interactive depth to the emerging categories. Transcripts were where line-by-line initial coding was kept very close to participants' language, followed by focused coding and constant comparison to cluster higher-level concepts. Throughout the process, analytic and reflexive memos captured links between data, codes and emerging categories while tracing the researcher's positionality. Categories were developed by examining their conditions, actions/interactions and consequences until further data no longer added substantial variation, indicating theoretical saturation. Rigour was enhanced through triangulation of data sources, and reflexivity was ensured by continuous memo writing. In this way, the study offers an empirically grounded explanation of how the Bulgarian public sector communicates the CE, illuminating structural fragilities and innovative trajectories without imposing predefined theoretical lenses.

Literature Review and Secondary Data

According to Glaser and Strauss [67], Grounded Theory Methodology (GTM) explicitly states against reading about the area under study before the beginning of data collection, and even during later stages of the research. Their advice was to ignore the literature of theory and fact on the area under study to ensure that the emergence of categories would not be contaminated [68]. This study reviewed existing literature, official documents, and media content related to the CE in Bulgaria's public sector according to a constructivist CGT [69]. In a Grounded theory approach, the researcher strives to be as data-driven as possible to minimise their own bias. Therefore, its practitioners should articulate their epistemological stance early in the research process, as this perspective will shape the relevance and potential impact of any literature review undertaken prior to data collection and analysis [70]. We adopt Kathy Charmaz's constructivist version, recognising that meanings are co-constructed by the interaction between researcher and participants, and situated in the Bulgarian socio-institutional context. Content analysis was performed on government press releases to assess the prevalence and tone of CE references. In-depth semi-structured interviews were conducted with key stakeholders within the Bulgarian public sector, including representa-

tives from government ministries, regional authorities, and academic institutions. Because the study relied primarily on semi-structured interviews, the design was exploratory. Understanding of the topic developed dynamically through interaction with participants rather than from pre-set assumptions. Semi-structured interviews were appropriate for this purpose: they combined a small set of guiding questions with the flexibility to pursue additional topics that emerged from the interviewees' responses [2]. The interviews explored their perspectives on CE communication, their challenges, and the digital strategies employed to enhance communication within the public sector. The interview protocol was constructed as a flexible guide rather than a fixed questionnaire. Each prompt was designed to elicit the respondents' definitions, experiences and evaluations of circular economy communication while leaving space for unanticipated lines of enquiry. We began with broad, experience-based questions (e.g., "How do you personally define CE and understand it in your daily work?" or "What is your opinion on the degree of interest and knowledge of circular economy in citizens, businesses and public sector actors in Bulgaria?") to anchor discussion in the participants' lifeworld; we then progressively moved to more tailored questions, like meso-level prompts about organisational practices and resource constraints (i.e. "Does the Ministry of Environment and Water have a communication strategy specifically for CE activities?"), before concluding with macro-level reflections on media agendas and policy coherence (i.e. "In a critical sector such as wastewater recycling, biological wastewater treatment in Bulgaria, what do you think would be the most effective communication approach to spread knowledge and awareness of the impact of circularity?"). This funnel structure mirrored the CGT logic of progressing from concrete narratives toward more abstract processes, enabling constant comparison across interviews while remaining sensitive to emergent themes. Furthermore, wording was deliberately non-technical to avoid imposing expert frames and to encourage participants to articulate their meanings—an essential condition for constructivist analysis.

Annex 1 Table of Sample Interview Participants

Code	Role (anonymised)	Sector	Collection details
A	Journalist, program author	BNT - National State Television	Interview in English + Focus Group
B	Journalist, program author	BNT - National State Television	Interview in English + Focus Group
C	Journalist	BNT - National State Television	Participant in Focus Group
D	Head of Communication Staff	Ministry of Environment and Water (Moew)	Interview in English, supported in some parts by a native Bulgarian speaker translation, present during the interview
E	Director of the Ecology Department	Municipality of Ruse	Interview in English
F	Communication and PR Expert	St. Kliment Ohridski University - Clean&Circle Centre of Competence	Interview in English
G	Journalist	BNR – National State Radio	Interview in English
H	Journalist	Department of Journalism, Sofia University	Interview in English
I	Head of Communication	BDB - Public Bank	Interview in Bulgarian (translated)

The interviews were conducted between October 2023 and April 2025. The number of professionals communicating CE concepts within Bulgaria's public sector and public media system is low. Furthermore, for historical and political reasons, in our experience, we found out that civil servants are wary of being interviewed, especially for research purposes and even more so if the interview is conducted in English. Fifteen organisations were contacted and invited for an interview, and 9 responded positively to contribute to sharing their opinion about the CE concept in the Bulgarian public sector. Nine in-depth interviews were conducted with key stakeholders within the Bulgarian public sector, including representatives from government ministries, regional authorities, and journalists of the public broadcasting system. The selection was based on experience working on CE issues and personal contacts obtained through the Transform4UE project in which the University of St. Kliment Ohridski participated. From an initial selection, a sample of respondents was selected by snowballing [9].

Findings

One of the central research questions of this study was whether public sector institutions in Bulgaria effectively communicate the principles and practices of CE. A critical consensus emerges across the sample of interviews conducted with journalists, institutional communicators, and public officials: the public sector's communication around CE is generally underdeveloped, sporadic, and insufficiently aligned with broader sustainability goals. This finding invites reflection not only on institutional practices but on the structural, cultural, and political factors that inhibit effective strategic communication in this domain.

During the interviews, the interviewees highlighted several important shortfalls and beacons of hope in the CE communications in Bulgaria. They are described in detail in subsections 4.1 to 4.7, with notable excerpts from the interviews and are as follows: performativity and compliance-driven communication; fragility and temporal disruption, fragmentation and lack of national coordination; institutional inertia and resource constraints; local-level innovation; contested necessity of communication strategies; and the languages leveraged for CE engagement.

Subsection 4.8 comprises critical discourse analysis (CDA) on ministerial press releases. Finally, the interviews are analysed according to Constructive Grounded Theory (CGT) in subsection 4.9, where the seven themes covered in subsections 4.1 to 4.7 are further broken down into codes and rearranged into concepts and themes. Some categories identified by the interviewees are confirmed in CGT analysis, while other themes emerge that had not been explicitly noted as important.

Performativity and Compliance-Driven Communication

Several experienced journalists working in public media organisations identify a profound misalignment between the urgency of sustainability transitions and the public sector's communication practices. Interviewee A, for instance, characterises the recent upsurge in CE-related initiatives as compliance-driven rather than ideologically grounded or strategically motivated:

In the last two years, the public sector and the media have spun in a vicious circle, just as they did 10 years ago. They are missing the opportunity to explain the advantages of the circular economy to the public […] The public sector prefers to demonstrate that it is working on projects to introduce the circular economy in various areas of life. Unfortunately, in most cases, it is not a question of real achievements, but rather a simulation of an activity following European requirements and directives. (A)

This comment reveals a performative logic underlying public CE communication. Rather than mobilising narratives that engage citizens in sustainability transitions, communication often mirrors bureaucratic obligations. This results in an 'institutional mimicry' of strategic communication: actions that simulate engagement without building a shared discursive space around CE values.

This orientation is also confirmed by the cancellation of the project that led to the broadcast of a successful programme on state television for eight years, which aired inspiring solutions for sustainable development in Bulgaria and various countries worldwide daily.

I can share the experience of the show, "Green Light", which we broadcast 3 times per day for 8 years. During our work, our team realised that for the program's messages to have an effect, it had to be broadcast often (that is why we chose "Green light" to be a 3-minute daily program) […]. The program has a huge rating, and our viewers have ranged from children, from kindergarteners to the very elderly. According to the "Green Light" team, this is the most successful model for presenting ideas related to sustainable development, including the circular economy topic. Unfortunately, this model is generally not followed in Bulgaria's media. Moreover, for this reason, many Bulgarian citizens may not recognise the CE as their philosophy. (B)

We had this programme called Green Light on BNT, which was a big success for eight years. It was organised in three-minute reports and covered a wide range of topics in the green economy and sustainable development. […]. The team worked with information and video materials from the international exchange, from Bulgarian and foreign institutions and non-governmental organisations, with representatives of start-up companies and municipalities that introduced the principles of the circular economy in their territory. Unfortunately, the show Green Light has not been broadcast for four years. However, to this day, the audience follows and comments on the video materials from Green Light on social networks. Many models and products presented only as ideas in Green Light are already operating successfully in world markets today. (A)

Fragility and Temporal Disruption

The pandemic has acted as a stress test for CE communication. The COVID-19 crisis reoriented institutional priorities, interrupting nascent CE narratives and highlighting their lack of institutionalisation.

COVID-19 has had a huge negative impact on green politics and their representation in the media. This trend has intensified with the outbreak of war in Ukraine and now in the Middle East. Before COVID-19, BNT broadcast many more reports on EU green policy, ecology and sustainable development. Then there was also the topic of the circular economy. Unfortunately, I can say that in the last 2 years, the public sector has not tried to familiarise the BNT audience with projects related to the circular economy. If such projects are presented, they are usually from abroad. (B)

Here, the pandemic acts as a critical juncture, revealing the precariousness of sustainability agendas when confronted with short-term emergencies. This fragility underlines the absence of institutionalised CE communication capable of withstanding political and social shocks. This also reveals how there is often resistance to the identification, valorisation, and dissemination of news and examples in Bulgaria, and the public sector relies on narratives that report the situation outside the national borders.

A typical pattern among the interviews was using European Union funding and regulatory initiatives as entry points for communication. As one Bulgarian National Radio journalist noted:

We talk about the green economy in our everyday broadcasts and special projects about the EU (G).

This reflects a reactive communication approach, where messages are shaped by external policy triggers rather than internal planning. Communication tends to follow the availability of EU resources or international obligations, rather than stemming from a proactive national communication strategy.

Fragmentation and Absence of Strategic Communication and Coordination

The lack of a coordinated national communication strategy emerges as a consistent theme.

I am not aware of a coordinated national effort to communicate initiatives related to the circular economy in general (F).

Targeted communication strategy is vital. (H)

Structural fragilities characterise the CE communication in the Bulgarian public sector. Still, it is crossed by a willingness to innovate and is fuelled by a growing desire for dialogue with stakeholders. Communication effectiveness is often hindered by a lack of structured strategies that guarantee objectives, identify targets and tools to implement them continuously, and avoid the adverse effects of a political situation suffering deep-seated instability problems.

The last two years have seen political changes in Bulgaria, and the situation has been unstable. If we look at one organisation like the ministry, we have been changing every six months, and we now have a cabinet ruling the ministry for eight months. (D)

This reflects a broader governance deficit, where strategic coherence does not accompany decentralisation. The fragmentation leads to inefficiencies and a lack of cumulative impact in communication efforts.

Institutional Inertia and Structural Constraints

Despite some awareness of the importance of communication within the public administration, change is hindered by institutional inertia and structural limitations. At the Ministry of Environment and Water, there is a declared intention to shift towards a more dialogic communication model:

> *"Here in the ministry, communication must be changed. We will develop our communication strategy in the next two months and are working on it. What is important for me is that we must try to change the communication model because six months ago, the dominant model was only distributing information. However, we seek to move in other directions, such as using Facebook more because it is a popular social network in Bulgaria. The goal now is to develop a dialogue, to hear some comments – most of which are negative – but to answer these comments and to try to start a dialogue. (D)*

However, such ambition is counterbalanced by internal constraints:

> *Only four people work for the Press Office in the Ministry. […]. However, the country has many structures, such as regional inspectorates and teams in which a colleague or a press officer prepares drafts for the media. However, everything comes here in the ministry because the public communication has to be the same, so we must approve every released report. (D)*

This centralised governance model, elsewhere outside Bulgaria, has proven to stifle innovation and responsiveness. For example, some municipalities' vibrancy could be usefully exploited in government reports.

Local Governments as Laboratories of Innovation

Municipalities appear as relatively more dynamic actors in the CE communication landscape. They show initiative and community-level engagement, as indicated by Interviewee E:

> *The ideas of the CE are not sufficiently disseminated among Bulgarian society compared to those of other European countries. As far as business organisations are concerned, knowledge of the circular economy is acceptable. The most developed processes are in municipalities. For instance, the Ruse Municipality spread the CE initiatives through planned information campaigns. (E)*

This suggests a distributed potential for CE communication, albeit one that remains underleveraged.

Sectoral and Institutional Divergences on Strategy

Some public institutions have developed organisations that deal specifically with projects and research in CE and represent an example of good practice, also for the level of effort devoted to communication.

Sofia University "St. Kliment Ohridski" inaugurated the Clean&Circle Centre of Competence in December 2023 as a hub for sustainable innovation. Defined by the EU Commission as a "milestone in environmental sustainability" and "a project set to transform the landscape of clean technologies and circular economy practices", the Centre is developed under the Bulgarian Operational Programme "Science and Education for Smart Growth" 2014–2020 and co-financed with EUR 10.3 million through the European Regional Development Fund.

> *Sofia University generally has multiple departments that work on various research projects. About the CE, the Clean&Circle Centre of Competence is unique within the university and is an independent institution. We have our communication strategy. The project proposal outlines dedicated public relations, media, and publicity experts. The Centre maintains a website, profiles in various social media platforms and has signed cooperation agreements for media partnerships in Bulgaria (F).*

In a sporadic case in public sector institutions, the centre also monitored the effects of the media.

> *"Media monitoring that we have conducted shows that over the past 5 months alone, we have seen more than 100 publications in various media related to Clean&Circle and work on promoting the circular economy. (F)*

However, not all public sectors know the opportunity and added value of creating specific CE organisations or projects.

> *We do not need a separate communication strategy just for the circular economy. We already cover it within the broader framework of our Green Deal programs. (G)*

This position underscores a potential for message dilution, where CE risks being subsumed under broader categories without receiving the analytical or narrative specificity required.

In contrast, sector-specific awareness emerges from other quarters. Bulgarian Development Bank, a public partner for the green transition for several companies in Bulgaria, emphasises the importance of a dedicated strategy in CE Communication.

> *Given their extreme importance, I strongly favour a specific, active, effective communication strategy on CE issues. (I)*

This reflects a recognition that effective CE communication must be sectorally adapted and strategically framed to resonate with relevant stakeholders.

In sum, the empirical material supports a theorisation of CE communication in the Bulgarian public sector as characterised by institutional performativity, coordination deficits, centralised bottlenecks, local potential, and sectoral variability. The evidence suggests that

while individual awareness and institutional will exist in specific domains, a systemic, well-resourced, and decentralised communication infrastructure is still lacking. This gap prevents the circular economy from becoming a shared public agenda and limits its discursive integration into broader visions of sustainable development.

Communication Tools and Languages for CE Engagement

The findings reveal that Bulgarian public institutions employ traditional and digital communication tools. However, the strategic integration of these tools into a broader narrative on circularity remains fragmented. A typical pattern among the interviews was using European Union funding and regulatory initiatives as entry points for communication. As one senior official from the Ministry of Environment and Water noted:

> *Public sector institutions primarily rely on official websites, press releases, and social media channels (especially Facebook).*
>
> *We use traditional communications: the website and press release relating to something that happened or will happen, and we follow participation in different types of events by the representatives of the cabinet. (D)*

There is more experimentation in municipalities than in ministerial institutions.

> *We use a mix of communication techniques - press releases, interviews of municipal management and eco experts in the media, social media posts on separate garbage collection campaigns, promotion of green initiatives for urban beautification, various tree and bush planting campaigns in which we also give our personal example, making calls for keeping nature clean, sharing good stories. (E)*
>
> *We use television broadcasts, online articles, social media, YouTube videos, and participation in public discussions. Cross-media approaches allow us to reach different demographic groups. (H)*

At the same time, there is growing awareness among some communicators of the need to translate complex concepts into accessible formats.

> *As a television channel with national outreach and digital platforms, we consider ourselves an essential tool in communicating sustainable development. Visual storytelling is a powerful means to simplify complex issues like circularity. (H)*

The good practice represented by the Green Light project in this respect is emblematic of care for language, so much so that the authors describe themselves as translators.

> *I will step on our experience from Green Light. We chose to act as translators, speaking about technical terms and new concepts. We have noticed that this translation into an understandable language allows the terms to enter mainstream use quickly. I conclude*

that creating a media style based on understandable and accessible language is key to perceiving innovation topics. (A)

Information about CE products, opportunities, and initiatives must be communicated effectively and in an accessible language. In our communication, we avoid expert vocabulary and emphasise messages with clear, simple, and popular keywords. We strive to use explanatory and impactful visuals. Our aim is for this to be understood and 'embraced' by more people because the issue affects all of us, regardless of educational status, age or occupation (E).

However, the authors go beyond the role of mere translators and define the search for a "style" of presentation of ideas related to the CE as essential.

We developed a special style for those videos - dynamic, emotional, and did not hesitate to add some music. We were telling stories about ideas, failures, and success. Moreover, this tool worked well on the web, where short, inspiring stories are appreciated. (A)

It was essential for us to develop our own style, which allowed us to gain a vast audience. The program has a huge rating, and our viewers range from kindergarteners to elderly people. According to the "Green Light" team, this is the most successful model for presenting ideas related to sustainable development, including the circular economy topic. (B)

The authors also emphasise the importance of television products going beyond the mere informational sphere to the educational one.

As a journalist with over 20 years of experience in television, I am convinced that for a television product to be good, it must inform and educate. If this can be achieved in an attractive way, it could create a valuable TV product with a long-lasting effect. (B)

Our editorial policy aims to educate without overwhelming. (H)

Another key aspect concerns the dimension of the frequency with which a message is transmitted and the impact on its effectiveness in changing beliefs and behaviour.

I can share the experience of the show, "Green Light", which we broadcast 3 times per day for 8 years. During our work, our team realised that for the program's messages to have an effect, they had to be broadcast often (that is why we chose "Green light" as a 3-minute daily program. (B)

"Although we do not run a program solely dedicated to the circular economy, we frequently produce segments and documentaries within shows that address environmental innovation, green technologies, and EU policy alignment. (H)

The importance of example is another key in the interviews. The authors of Green Light have also tried to apply the rules of circularity at the production level.

We tried to implement the rules of sustainability in a media level by creating a product with added value and minimal carbon print (by using bicycles and electric cars, by using the videos and the information that we are receiving every day in EBU exchange, and it goes in the virtual bin, because there is no place for it in the news. (A)

I would say that the most effective way to communicate is to showcase the benefits of cooperation between business and science. For example, we presented a study only last year describing ways to find the SARS-COV-19 virus in wastewater. This is a particular benefit to communities. Also, we proposed a way to include residue silt from water treatment in fertilisers. Again, this has profound potential implications for agriculture and sustainable development. By providing specific examples to the media, we make the abstract terms of the "circular economy" much more tangible. (F)

Finally, the importance and effectiveness of integrated communication campaigns on circularity issues emerge. These campaigns aimed at increasing the tangible benefits of circular economy practices, using gamification strategies to encourage public engagement.

Green Light and the Credo Bonum Foundation created the Trash Books campaign with over ten annual editions. The idea of receiving a nice book from everyone who brought a kilogram of plastic for recycling still attracts thousands of people in different Bulgarian cities every spring. (A)

Ministerial Press Releases

The press releases present CE themes in the context of Bulgaria's catch-up development within the EU regulatory framework and its struggles with funding. Communication is top-down from the government, acting as a strict but supportive parent, to the municipalities and private citizens, presented as children. Three categories of press releases emerge:

1. Releases presenting the Minister's opinion on an issue. Content varies considerably, with detailed figures and funding issues reframed as a challenge with possible future positive developments.
2. Minister's interventions, highlighting possible future investment and funding, painting various possible developments. Figures are not detailed unless relative to projects already being implemented.
3. Reports on meetings, with a quote and a general opinion of the relevant official. No figures are presented; only future developments are hinted at.

Content is generally optimistic, and only high-technology and research investments are presented. Bulgaria's main environmental protection themes are the circular economy and waste disposal. Nonetheless, the excellences of the country are often underlined, and its shortcomings are rarely, if ever, mentioned. This narrative builds a optimistic view of Bulgaria and its future possibilities.

As far as CE is concerned, this is usually treated as one of many topics to be dealt with, but it is never the elective one. The Ministry of Environment and Water (MOEW) presents it as a critical development element, but the central policies regard waste disposal and

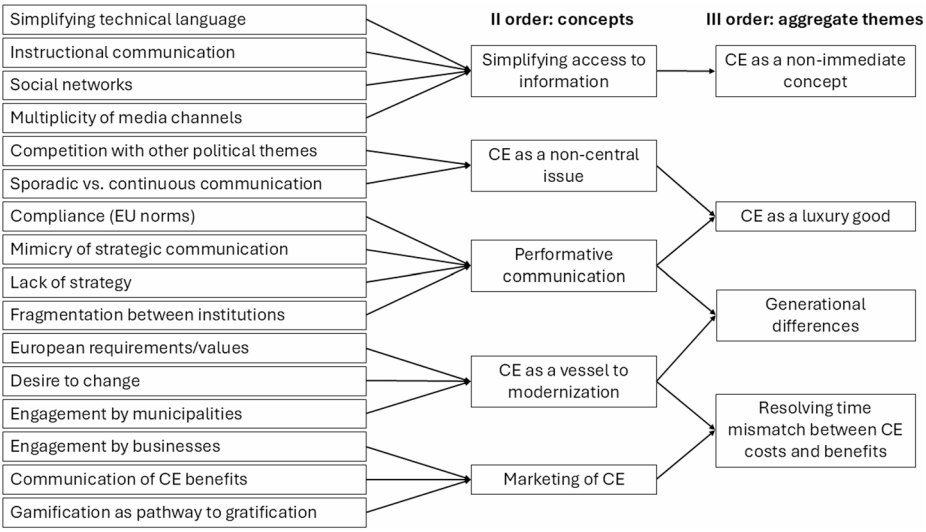

Fig. 1 Gioia's chart with codes (I order), concepts and aggregate themes

recycling. The Minister of Innovation and Growth lists it as one of the fields of interest for foreign investments, but no press release focuses on it specifically. In general, articles suggest that "Circular Economy" is treated more like a buzzword than a true issue to be delved into and developed critically.

CGT Coding, Concepts and Theme Extraction

The aforementioned categories have been recoded into 16 different codes according to the Constructive Grounded Theory (CGT), which have been grouped into five different concepts, which are linked to 4 different aggregated themes. They are presented in Fig. 1.

The concepts can be summarised as follows:

Simplifying Access To Information The interviewees recognise the need to simplify the often-technical language of CE, assuming the role of instructors and employing a multiplicity of media channels to access a diverse set of audiences.

CE as a non-central Issue Environmental issues such as waste streams (and CE as one of the solutions) compete with many other issues, which can be viewed as more pressing and important by the public.

Performative Communication A substantial part of the communication of CE themes by the public sector is performative, driven by compliance with EU norms and funding requirements. There is a lack of communication strategy; therefore, the communication mimicries strategic communication without a real strategic goal. Some examples of good practices emerge at certain institutions, but as the sector is somewhat fragmented, they do not easily spill over to other institutions.

CE as a Vessel To Modernisation CE is viewed as something that European countries update, with associated funding that can be employed to drive change. There is a widespread feeling among interviewees that CE practices are good and valuable and that an economy that aligns with the values of CE is an aspirational goal.

Marketing of CE The public is eager to participate in CE projects if they see their benefits, such as EU funding for businesses or more tangible benefits, like the Thrash for Books campaign, for the general public. Communication of CE benefits is therefore paramount to achieving positive results.

The concepts interweave into four aggregate themes.

The need to simplify access to information underscores the distance between the concepts of CE and everyday discourse. CE is a non-immediate concept that the public still must familiarise itself with. Communicators must act as instructors, paying special attention to the language used.

The non-centrality of CE issues and performative communication hint at CE being seen as a luxury good, an aspirational goal, but not an urgent, pressing matter. Communication is driven by compliance concerns to secure EU funding, with insufficient real commitment at the institutional level.

CE themes are more popular among the younger generation and in urban settings. This tension echoes the well-known generational differences in values between urban-rural settings observed in Eastern Europe [12]. Institutional communication struggles to reach a younger audience effectively, mirroring the generational differences.

Finally, the need to emphasise short-term benefits of CE when its long-term benefits are widely acknowledged shows the temporal mismatch between the short-term costs of CE practices and their long-term benefits. Efforts to resolve this mismatch, i.e. by introducing short-term benefits, strongly affect campaign success.

Discussion

This study has explored the communication of CE principles within the Bulgarian public sector, combining qualitative interviews with public communicators, journalists, and institutional representatives, and CDA applied to a corpus of secondary data. The findings highlight a paradox: although there is a growing awareness of circularity within public institutions and society, the communicative infrastructure needed to support this transition remains temporally fragmented, organizationally centralised, and inconsistently implemented.

At the systemic level, CE communication appears constrained by performative logics tied to EU compliance rather than genuine strategic engagement. Institutional communication mirrors administrative obligation, resulting in symbolic action rather than transformative discourse. This performativity is compounded by political instability, which prevents continuity in messaging and obstructs long-term planning. These issues are reflected in the difficulties we encountered in obtaining the interviews.

Furthermore, CE is not consistently treated as a priority in public discourse—it is often presented as an aspirational ideal rather than an urgent agenda. Thematic analysis suggests that CE occupies a marginal position within broader environmental communication, com-

peting with more immediate concerns and often framed through the lens of compliance rather than commitment.

CE agendas, like other environmental themes, are vying for the audience's attention, and competition from the numerous crises of recent years is fierce. This reinforces the need for communication anchored in simplified, accessible language that translates complex CE concepts into tangible and relatable terms. As interviewees noted, communicators must act as interpreters—not merely disseminators—of innovation. A long-term communication strategy where CE agendas are embedded in institutional communication would be preferable to avoid being eclipsed by the crisis du jour.

At the same time, municipalities, as service providers close to the citizenship, have emerged as relatively agile actors, showcasing campaigns and initiatives that foster localised engagement. Nevertheless, these remain under-evaluated and often disconnected from national strategies. Evidence from Ruse shows that cross-media campaigns—grounded in local relevance and repeated frequently—can generate stronger public recognition of CE practices.

Public communication remains primarily centralised, with limited autonomy and resources at the regional level. This centralisation inhibits responsiveness and the capacity for innovation. However, signs of change are emerging. Some ministries actively seek to shift toward dialogic communication models, experimenting with digital platforms and audience interaction.

However, these efforts remain uneven and under-resourced. The Clean & Circle Centre of Competence, a project spearheaded by Sofia University "St. Kliment Ohridski", demonstrates that when communication is embedded within organisational missions and paired with dedicated staffing, media partnerships, and monitoring systems, it can yield measurable public visibility and engagement.

Diverging perceptions persist regarding the need for dedicated communication strategies. While some institutions subsume CE within broader green frameworks, others advocate for tailored approaches that reflect the specificity and complexity of circularity. This divergence risks diluting CE's message or conflating it with general sustainability goals, potentially undermining clarity for audiences. A sector-specific, modular communication approach—linked to concrete benefits and outcomes—may be more effective.

Crucially, public media experience—especially the long-standing *Green Light* program—offers a model of sustained, narrative-rich communication that combines clarity, repetition, and storytelling to translate technical concepts into cultural knowledge effectively. This model illustrates how frequency, style, and accessibility—coupled with emotional resonance—can embed CE into public consciousness and normalise its practices.

In conclusion, Bulgarian public communication must undergo a structural and cultural shift for the circular economy to evolve from institutional rhetoric to public commitment. This includes decentralising communication authority, fostering inter-institutional coordination, investing in audience-tailored narratives, and leveraging successful models of translation and engagement. Efforts should also focus on bridging the temporal gap between long-term environmental gains and short-term behavioural incentives, highlighting immediate, tangible benefits to drive participation. Without such transformation, CE risks remaining one of the many environmental themes, subject to performative communication, with projects and initiatives listed sterilely instead of enacted as structural change, without triggering paradigm shifts in citizens' behaviour and business models.

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Data Availability The datasets generated and analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical Approval This study was conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethical approval was not required for this study in accordance with local/national guidelines.

Informed Consent Informed consent was obtained from all participants included in the study. Participants were informed about the aims of the research, their rights, and the voluntary nature of their participation.

Competing interests The authors declare that they have no financial or non-financial competing interests directly or indirectly related to the work submitted for publication.

Confidentiality and Anonymity All participants' identities have been anonymised, and any potentially identifying information has been removed or altered to ensure confidentiality and protect their privacy.

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The Ouroboros of Communication: Reimagining Circular Economy Discourse Through Time, Space, and Relation

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Abstract

The transition to a Circular Economy (CE) is not only a technological or policy challenge but a communicative one. While sustainability communication has matured, research on how circular meanings are constructed and transmitted remains fragmented. This study develops a constructivist grounded theory of CE communication based on interviews with private-sector communicators and journalists, whose experience offers transferable insights for public-sector practice. Findings highlight three dimensions: learning from marketing and media strategies, applying Circular Business Models (CBM) in communication, and emerging trends emphasising iteration, participation, and reflexivity. Building on these insights, the paper introduces the Ouroboros paradigm, framing CE communication as a regenerative cycle of meaning in which information, like material resources, circulates and transforms. This approach positions communication as both the medium and the metaphor of circularity and provides guidance for public institutions seeking to engage audiences effectively while fostering systemic behavioural change.

1. Introduction

Over the past decade, the Circular Economy (CE) has gained unprecedented traction in global sustainability discourse (Friant et al., 2020; Johansson & Henriksson, 2020; Lazarevic & Valve, 2017; Persson, 2015). Framed as a systemic alternative to the linear "take–make–dispose" model, it promises to reconcile economic productivity with ecological regeneration (Ogunmakinde et al., 2021). Yet despite its rapid diffusion across policy, industry, and education, the CE remains a concept more invoked than understood—particularly from a communicative perspective. Scholars widely agree that the transition to circularity is not merely technological or regulatory, but deeply communicative, involving the capacity to produce shared meanings, identities, and practices of regeneration (Blomsma & Brennan, 2017; Geissdoerfer et al., 2017; Korhonen et al., 2018). However, this communicative dimension remains the least researched within the expanding CE literature.

This omission contrasts sharply with the trajectory of Communication for Development and Social Change (CDSC), which for decades has explored how communication enables participation and collective transformation in domains such as health, agriculture, and environmental sustainability (Servaes, 2022). Within this tradition, environmental communication has evolved as a practice-based subdiscipline concerned with raising awareness, shaping public discourse, and mobilising behavioural change around issues like climate change. Yet the communicative requirements of circularity go beyond awareness or persuasion. They demand a semiotic and relational shift—from transmitting information about sustainability to co-creating narratives of regeneration.

In this sense, CE communication may represent the next evolution of environmental communication: a mode of discourse that does not merely describe circularity but enacts it, translating its material logic into a communicative one. While sustainability communication has matured into a rich field, combining narrative, psychological, and performative approaches (Dahlstrom, 2014; Stibbe, 2014; Fischer et al., 2020), studies on CE communication remain largely instrumental. They focus on what is communicated—policy messages, reporting formats, social media engagement—rather than how circular meanings are constructed, negotiated, and transmitted (Opferkuch et al., 2023; L'Abate et al.,

2023; Rödl et al., 2023). This fragmentation obscures the symbolic and epistemological implications of the circular paradigm itself.

To address this gap, the present study develops a Constructivist Grounded Theory of CE communication based on interviews with private-sector communicators and journalists, whose experience provides transferable insights for public-sector communication. It proposes that the CE should be understood not only as an economic model but as a communicative ontology—one that replaces linear temporality with recursive continuity, and sender–receiver transmission with reflexive co-creation. This conceptual reframing culminates in what we term the Ouroboros paradigm, a theoretical model describing CE communication as a regenerative cycle of meaning in which information, like material resources, continually transforms and returns.

Through this perspective, communication emerges as both the medium and the metaphor of circularity: a social process that sustains itself through participation, iteration, and renewal. In reconnecting CE discourse to the lineage of CDSC and environmental communication, the study seeks to contribute to a broader understanding of how communicative practices can not only support but also embody systemic transformation toward sustainability. This study addresses the following research question:

“How can public institutions effectively communicate the CE?”

Specifically, it investigates:

1. Which communication techniques, channels, and content strategies—already effective in private-sector marketing and media—can be adapted to the public context.
2. How communication can move beyond mere information provision to foster behavioural change among companies, citizens, and society at large.
3. How to develop a practical toolbox of strategies and approaches that renders CE discourse accessible, motivating, and aligned with the complexity of the topic.

The study therefore has a dual focus: theoretical, aiming to construct a conceptual framework for CE communication, and practical, generating guidance transferable to public institutions.

The paper is structured as follows. Section 2 reviews the relevant literature on the circular economy and communication, identifying conceptual and empirical gaps that justify a communicative reframing of CE. Section 3 outlines the methodological framework, based on Constructivist Grounded Theory and the Gioia approach to data structuring. Section 4 presents the findings from qualitative interviews with private-sector communicators and journalists, identifying thematic patterns that illuminate how circular ideas travel from attention to action. Section 5 discusses these findings through the interpretive lens of the Ouroboros paradigm, connecting emergent practices with broader theoretical traditions in communication. Finally, Section 6 concludes by proposing a research and policy agenda for developing circular communication as a field.

2. Literature Review and Theoretical Framework

2.1. Methodological Premise

According to Glaser and Strauss (1967), the Grounded Theory Methodology (GTM) recommends avoiding engagement with existing literature before and even during data collection, to prevent theoretical contamination and ensure emergent conceptualisation (Christiansen, 2011). However, the present study deliberately diverges from this prescription. While adhering to the constructivist spirit of

GTM, the research design recognises the value of a preliminary literature review as a heuristic exercise—to identify the conceptual and empirical gaps that persist in how the CE has been communicated, theorised, and enacted (Wisker, 2015). This choice is motivated by the observation that the communicative dimension of the CE, particularly within the public sector, remains underdeveloped and fragmented across disciplines.

The aim of this literature review is therefore twofold: first, to trace the evolution of CE as a concept and to situate it in relation to the broader field of sustainability; and second, to examine the extent to which communication research has engaged with CE discourse. By combining historical, theoretical, and philosophical lenses, the review ultimately seeks to propose a new interpretive paradigm for CE communication—one grounded in the symbolic and relational logic of circularity itself.

2.2. From Industrial Ecology to Circular Economy

The roots of the CE can be traced back to early discussions in the 1960s on the environmental impact of economic activity and the need to manage finite resources responsibly (Boulding, 1966). Subsequent decades saw the emergence of related frameworks such as *industrial ecology* (Frosch & Gallopoulos, 1989) and *industrial symbiosis* (Chertow, 2000), which promoted the idea that waste from one process could become input for another. The *cradle-to-cradle* design concept (McDonough & Braungart, 2002) later extended this logic, emphasising regenerative design and material continuity.

The term "circular economy" first appeared in 1989, but it gained wide recognition only after the Ellen MacArthur Foundation's work in the early 2010s, which offered a popularised, visually compelling narrative of regenerative cycles (MacArthur, 2013). Since then, numerous attempts have been made to formalise the CE concept (Winans et al., 2017), often by distinguishing it from related ideas such as sustainability, green economy, or bioeconomy (Awan et al., 2020). Yet scholars widely agree that the CE remains conceptually contested (Korhonen et al., 2018; Reike et al., 2018; Sardianou et al., 2024), with no universally accepted definition (Kirchherr et al., 2023) beyond its metaphorical framing as an economic system designed for restorative and regenerative functioning (Blomsma & Brennan, 2017).

The lack of conceptual clarity has tangible communicative consequences. As noted by Blomsma and Brennan (2017), the CE is still in a "pre-paradigmatic stage," where competing discourses coexist without shared criteria of validity. This polysemy may facilitate political consensus but hinders public understanding and coherent policy communication. To accelerate the transition toward a CE, scholars and institutions have repeatedly called for "speaking with one voice," developing a common language and definitions (Ellen MacArthur Foundation, 2021). Despite these appeals, empirical studies show that while public familiarity with CE is increasing, behavioural shifts remain limited: individuals express growing environmental awareness but rarely modify consumption patterns radically (Lieder & Rashid, 2016; Petruzzella et al., 2024). Furthermore, only a small number of investigations have explored the psychological barriers and social influences shaping CE awareness (L'Abate et al., 2023; Al Haj Eid et al., 2024).

These findings reveal a persistent communicative gap. The CE is widely discussed as a technical and policy construct, but less as a *communicative process* that generates meaning, legitimacy, and social engagement. This omission justifies the need for a deeper theoretical exploration of CE communication, not as a peripheral support activity but as a constitutive dimension of the circular paradigm itself.

2. 3. From Sustainability to Circularity: A Conceptual Transition

Sustainability has long been recognised as a complex and ambiguous concept (Abson et al., 2017; Newig et al., 2013). Its multidimensional nature—spanning technological, societal, and political domains—requires interpretive negotiation and continuous redefinition (Dos Santos et al., 2023) . The

CE inherits this complexity but transforms it. As Korhonen et al. (2018) argue, CE operates as an "umbrella concept" encompassing multiple, sometimes contradictory, logics of production and consumption. This conceptual flexibility (Homrich et al., 2018) has strategic value for policy mobilisation, but it generates communicative ambiguity. Unlike linear notions of environmental degradation or mitigation, CE is not intuitively visual nor temporally immediate—it refers to loops, delayed effects, and interdependencies that challenge conventional forms of representation.

From a communicative standpoint, this ambiguity demands interpretive tools capable of bridging abstraction and experience. Research in sustainability communication demonstrates that narratives and stories are more effective than factual exposition for promoting understanding and engagement As (Grant & Forrest, 2020; Uhrqvist et al., 2021; Veland et al., 2018). Storytelling, therefore, functions not as ornamentation but as a cognitive and social structure through which individuals and communities make sense of complexity (Peterson & Langellier, 2006).

Within sustainability studies, storytelling has evolved as a key communicative strategy. It enables organisations to present goals and practices in emotionally resonant forms, encouraging identification and empathy (Pozzetto et al., 2023). Narratives can mobilise prosocial behaviour even among resistant audiences (Polletta & Redman, 2020). The *SusTelling* project (Fischer et al., 2022), funded by the German Federal Foundation for the Environment, provided a comprehensive definition of storytelling for sustainability—one that integrates dramaturgic, stylistic, and contextual dimensions to support learning and behavioural change. This performative model aligns narrative coherence with sustainability's normative character (Ehrenfeld, 2008).

However, despite the growing body of work on sustainability communication, the communicative dimension of the CE has received far less theoretical and empirical attention. The literature on CE and on communication has developed largely in parallel, rarely intersecting (Carbonell-Alcocer et al., 2025). Existing research remains fragmented: studies focus on corporate reporting (Opferkuch et al., 2023), social media communication (L'Abate et al., 2023; Al Haj Eid et al., 2024), and the discursive management of ambiguity in professional contexts (Rödl et al., 2023). These contributions, while valuable, tend to analyse *what* is communicated rather than *how* meanings of circularity are constructed, negotiated, and shared.

This lack of integration becomes particularly evident when examined through metamodel of communication traditions (Craig, 1999). Each of Craig's seven traditions—rhetorical, semiotic, phenomenological, cybernetic, sociopsychological, sociocultural, and critical—offers interpretive potential for CE communication. Yet CE research rarely engages explicitly with these theoretical traditions. Consequently, communicative practices in CE remain undertheorized, despite their expanding prominence in public discourse.

A further discontinuity separates CE communication from sustainability communication more generally. While both aim to foster environmental responsibility, the CE introduces distinctive semiotic and temporal challenges. Practitioners in conceptual and visual communication frequently note that CE requires a unique communicative logic. Unlike sustainability, often represented through imagery of balance, preservation, or harmony, the CE demands metaphors of flow, transformation, and regeneration. Communicating circularity thus means representing *processes* rather than *outcomes*, cycles rather than endpoints (Giurca, 2023).

This distinction extends to institutional contexts. Sustainability communication typically targets corporate or consumer audiences, whereas CE communication must engage a wider constellation of actors—public institutions, regional authorities, and citizens as co-producers of value. The communicative function therefore shifts from private persuasion to public coordination. Despite policy

frameworks emphasising citizen involvement (European Commission, 2020), the academic study of CE public communication remains virtually absent (Marsh & Hafez, 2025).

2. 4. The Ouroboros Paradigm: Time, Space, and Relation in Circular Communication

Given this empirical and conceptual fragmentation, it becomes necessary to reconsider CE communication not only as a set of strategies but as an epistemology—a way of conceiving relationships between time, space, and matter. The CE differs from sustainability because it transforms linear temporality into circular continuity, introducing a communicative ontology grounded in regeneration. The ancient archetype of the Ouroboros (Uzlaner, 2024), the serpent devouring its own tail, captures this paradigm: the unity of beginning and end, destruction and renewal, consumption and creation. Jung described the ancient image of the ouroboros as the idea of devouring oneself and attuning to a cyclical process, as it was clear to the most astute alchemists that the Prima Materia of the art was man himself. The ouroboros is a dramatic symbol of the integration and assimilation of the opposite, or shadow. This feedback process is also a symbol of immortality, as it is said that the ouroboros kills itself and gives life, fertilises itself and gives birth to itself (Jung, 2015).

The circular ontology implicit in the CE also resonates with the Heraclitean principle *panta rhei* — "everything flows." According to Heraclitus, being exists only through becoming, and continuity arises through perpetual transformation (Heraclitus, Fragments 12 and 91, as cited in (Kahn, 1964). The CE operationalises this philosophical insight materially: it envisions production and consumption as ongoing fluxes of matter and meaning.

In contrast, the linear capitalist model depends on what we might term the *semiotics of novitude*—a system of value rooted in novelty, obsolescence, and discard (Baudrillard, 1970; Bauman, 2013). The CE inverts this symbolic order. It relocates value in continuity rather than rupture, in relation rather than replacement. Objects are valuable not because they are new, but because they embody histories of transformation—because they are *already connected*. This reversal has profound communicative implications: every circular process entails a narrative of relation, linking a past and a present, one user and another, one form and its next.

From this perspective, communicating CE means narrating *relations of becoming* rather than *acts of consumption*. The narrative logic shifts from progress to return. Nietzsche's (Honneth, 2004) notion of the eternal return (*ewige Wiederkunft*) in *Thus Spoke Zarathustra* captures this ethos: existence as an endless recurrence of transformation, where affirmation lies not in novelty but in repetition consciously embraced. The CE materialises this principle by transforming waste into potential, residue into resource, and obsolescence into renewal.

In communicative terms, the CE replaces unidirectionality with reciprocity. It dissolves the sender–receiver dichotomy characteristic of linear models and introduces reflexivity as its organising principle. Communication becomes co-creative, iterative, and participatory—a cycle of meaning production akin to the regenerative cycles of material production. The metaphor of the Ouroboros thus extends beyond material processes to communicative ones: messages, like matter, circulate, transform, and return, generating coherence through repetition rather than rupture.

This ontological view reframes CE communication as a *theory of return*: an ecology of meaning that sustains itself through continuity, interaction, and reflexive renewal. Such a framework can illuminate not only how CE is currently being communicated but how it *ought* to be communicated—especially in the public sphere, where transparency, participation, and trust are constitutive of legitimacy.

3. Methodology

3.1. Research design and epistemological framework

This research adopts a Constructivist Grounded Theory (CGT) approach (Charmaz, 2016) to build a substantive theory of CE communication, interpreted through the lens of Craig's (1999) Metamodel of Communication Theory.

The study seeks to develop a conceptual framework that explains how different communicative traditions—rhetorical, socio-cultural, phenomenological, and critical—interact in the professional construction of circularity.

CGT provides the epistemological foundation for this project because it recognises meaning as socially co-constructed and knowledge as contextually situated (Black, 2006). It allows the researcher to move flexibly between empirical material and conceptual abstraction, engaging in constant comparison, memo writing, and iterative theorisation (Charmaz, 2006, 2017).

In this framework, reasoning followed an abductive logic (Timmermans & Tavory, 2012), which complements the grounded theory tradition by allowing the researcher to infer the most plausible theoretical explanation for surprising or recurrent empirical patterns. Abduction thus bridges the inductive observation of communicative practices and the deductive refinement of emerging theoretical categories, enabling the integration of empirical findings with Craig's dialogical metamodel.

3.2 Research context

The empirical field concerns the CE communication, analysed as a dialogical process where different professional actors construct meanings, metaphors, and communicative rationales. Fieldwork was conducted between 2024-2025 across both private and public communication environments, including media agencies, journalists, and institutional communicators. The diversity of settings reflects the dialogical nature of Craig's metamodel: communication theories—and communicative practices—evolve through tension and interaction among traditions and contexts.

3.3. Data collection

Data were collected through 18 semi-structured interviews and 3 focus groups with 6 participants, following the principles of theoretical sampling.

Applying a Grounded Theory methodology, we inductively developed codes based on the data; as the coding and revision processes unfolded, the codes became increasingly aggregated and abstracted to form new insights or "theories" (in the sense of Charmaz, 2006, (Glaser & Strauss, 1965).

The initial sample included communication professionals, journalists, and strategic consultants engaged in sustainability and circular economy topics across private and public sectors. Journalists were selected based on how prominently they cover circular economy issues.

New participants were added iteratively until theoretical saturation was reached—when additional data no longer yielded new conceptual insights.

Interviews were conducted both online and in person between July 2024 and August 2025, lasting between 30 minutes and 2 and a half hours, depending on participants' availability and the depth of discussion.

No pilot interviews were conducted, as the aim was not to calibrate a fixed questionnaire but to allow for flexibility and conceptual exploration.

All participants were asked a set of common open-ended questions addressing their personal experience with circularity; their perception of how the topic is treated in public and private communication; their approach to a hypothetical public campaign on circular economy (content, target, quality); common pitfalls or elements to avoid in sustainability communication; current practices and tools used in marketing, visual, and digital communication; the possible transfer of lessons from the private to the public sector.
Audio recordings were transcribed verbatim using Whisper (OpenAI) and manually verified. In three cases, journalists provided written responses directly in English. Additionally, a face-to-face focus group was organised in three agencies (Trieste and London) to explore the interpretation of key issues emerging from individual interviews and to encourage interactive sense-making among participants.
Field notes from these sessions were integrated into the analytic process as supplementary material.

3.4. Interview Structure

The interviews were designed as semi-structured (Gubrium & Holstein, 2002, 2003; Turner III & Hagstrom-Schmidt, 2022), organised into thematic blocks corresponding to the main theoretical traditions of communication identified by Craig (1999).

Each block was associated with a guiding question and an expected type of response, as summarised in the following table:

Theoretical Perspective	**Conception of Communication**	**Guiding Question**	**Expected Type of Responses**
Rhetorical	Communication as persuasive art	How can the topic of circular economy become more persuasive for the audience?	Reflections on narrative strategies, use of ethos/pathos/logos, and the construction of credibility and emotional appeal.
Technical	Communication as efficient message transmission	What techniques and languages are most suitable for communicating the circular economy?	Insights on media formats, tone of voice, lexical choices, and digital or visual tools.
Psychological	Communication as individual expression and interpretation	How can communication deeply resonate with its target audience?	Responses focusing on empathy, perception, motivation, and behavioral levers.
Sociocultural	Communication as shared construction of meaning	How can a campaign be adapted to local characteristics?	Reflections on cultural adaptation, linguistic codes, and territorial specificities.
Cybernetic	Communication as a system of feedback and adaptation	How can public engagement be incorporated?	Suggestions about interaction, co-creation, listening, and iterative communication design.

Theoretical Perspective	Conception of Communication	Guiding Question	Expected Type of Responses
Critical	Communication as a tool to reveal power dynamics and transformation	What ideology underlies the discourse of the circular economy?	Analyses of ideological framing, dominant narratives, and contradictions in public discourse.
Phenomenological	Communication as lived and authentic experience	How can circular economy communication be made authentic?	Responses centred on authenticity, personal experience, values, and message consistency.

3.5. Sample and Selection Criteria

The sample was intentionally heterogeneous to explore a broad spectrum of communication concepts and practices applicable to the circular economy. Given the limited number of professionals working exclusively on circular economy communication, participants were selected to ensure diversity of backgrounds and expertise, allowing for a wider range of perspectives and even unexpected approaches.

The sample included both specialised/orthodox communicators (e.g., journalists and practitioners directly engaged in circular economy topics) and non-specialised/heterodox professionals (e.g., marketing and behavioural experts, social media managers, web and information architecture specialists). It also covered public and private sector journalists, communication and marketing agencies, and professionals in visual and textual communication, integrating multiple tools and perspectives.

Interviews were conducted in Italy, Lithuania, Sweden, and the United Kingdom. Italy — identified as the second-ranking EU country for circularity according to the *2025 Report of the Circular Economy Network (CEN)*, promoted by the *Fondazione per lo Sviluppo Sostenibile* in collaboration with ENEA and presented at the Seventh National Conference on Circular Economy — together with Lithuania and Sweden, represents two medium-advanced countries in the circular economy transition. The United Kingdom was included as a non-EU reference country, selected for its historical and conceptual role as the birthplace of the notion of circularity.

3.6 Data analysis and theory construction

Data analysis followed the iterative, comparative, and abductive procedures characteristic of Constructivist Grounded Theory.

Analytical work unfolded in three progressive stages of abstraction, each representing a distinct level of theoretical construction:

1. First-level coding (initial coding) – Each transcript was analysed line by line, staying close to participants' language through *in vivo* codes that captured situated meanings and communicative practices (e.g., "making circularity relatable," "translating complexity," "balancing ethics and branding").
2. Second-level coding (focused/axial coding) – Related first-level codes were clustered into more abstract conceptual categories through the method of constant comparison. This phase

marked a shift from description to conceptualisation, highlighting core processes such as *narrative translation*, *symbolic mediation*, and *strategic reframing*.

3. Third-level coding (theoretical coding) – Higher-level categories were then integrated into theoretical dimensions that reflect or extend Craig's communicative traditions. For example, *strategic reframing* resonates with the rhetorical and critical traditions, while *narrative translation* links to the socio-cultural and phenomenological dimensions of communication.

Throughout the analysis, abductive reasoning guided movement between data and theory, seeking the most plausible interpretive connections rather than purely inductive generalisations. Analytic memos were systematically used to record evolving hypotheses, interpretive tensions, and theoretical linkages, ensuring transparency and reflexivity in the construction of meaning.

The research team conducted independent rounds of coding, followed by iterative discussions to compare interpretations, merge insights, and refine the emerging theoretical framework. This dialogical process contributed to consolidating categories into a coherent model and mitigating individual bias through collaborative interpretation.

3.7 Reflexivity and researcher positionality

In line with the constructivist epistemology, reflexivity was maintained throughout the entire process (Subramani, 2019). The researcher's prior knowledge of sustainability communication was acknowledged as both a source of insight and a potential bias. Continuous memo-writing and peer debriefing were used to ensure transparency in interpretive choices and to trace the evolution of theoretical reasoning. The abductive stance itself reinforced reflexivity: each theoretical inference was treated as a provisional interpretation, open to revision in light of new empirical cues.

3.8 Ensuring theoretical rigour

Rigour was ensured through multiple strategies: triangulation of data sources (interviews, focus group, written materials, field notes); peer debriefing and collective coding within the research team to validate category construction; audit trail documenting the abductive reasoning and iterative theoretical refinements; and theoretical saturation confirming the stability of the conceptual model.

These procedures ensured that the emergent theory is both empirically grounded and conceptually coherent within Craig's dialogical perspective.

3.9 From data to theory: articulating Circular Communication Theory

The analytical process culminated in the development of a substantive theory of Circular communication (the Ouroboros paradigm), grounded in empirical data and situated within Craig's metamodel of communication theory.
This emergent framework conceptualises how communicators co-construct the meaning of *circularity* through dialogical interaction among rhetorical, socio-cultural, and critical traditions.
The next section (*Findings*) presents these theoretical categories in detail, illustrating how they converge to form a communicative model capable of explaining and guiding the public communication of the circular economy.

4. Findings

This study examines how public institutions can communicate CE principles in ways that are intelligible, credible, and capable of mobilising action. Across the interviews, participants advanced a wide—and

at times internally inconsistent—range of positions concerning: (a) whether CE messaging should be treated as conceptually distinct from broader sustainability or "green" communication; (b) which communicative mechanisms plausibly shift understanding and behaviour (e.g., narrative, exemplars, metrics, participation); and (c) how institutional role, public identity, and capacity condition what "good" CE communication can be for public bodies. Two major constraints emerged from these debates: communicating CE is hard because of its abstractness and the relatively little familiarity of the public with it; and that trying to affect change through communication campaigns can only work gradually over time. Given these constraints, several interviewees argued that institutions should either pursue CE communication at uncompromising standards of clarity and execution or refrain from it entirely, since half-hearted attempts would risk alienating the public.

This section is structured into seven subsections. Subsections 1–5 elaborate on the five aggregate themes derived from the data gathered through the Constructivist Grounded Theory (CGT) approach. Each subsection pairs the dominant logics observed with counter-logics where present, and they illustrate the practical trade-offs for public bodies (e.g., breadth vs. depth; standardisation vs. localisation; metrics-first vs. meaning-first). Subsection 6 makes the analytic scaffolding explicit by presenting the coding architecture—the linkage from first-order codes to second-order concepts and their consolidation into themes through the Gioia chart.

Subsection 7 explores the extent to which CE communication warrants a framework distinct from general sustainability communication, specifying where differentiation is theoretically justified (e.g., systems substitution, material circularity, actor interdependence) and where existing sustainability communication principles remain sufficient.

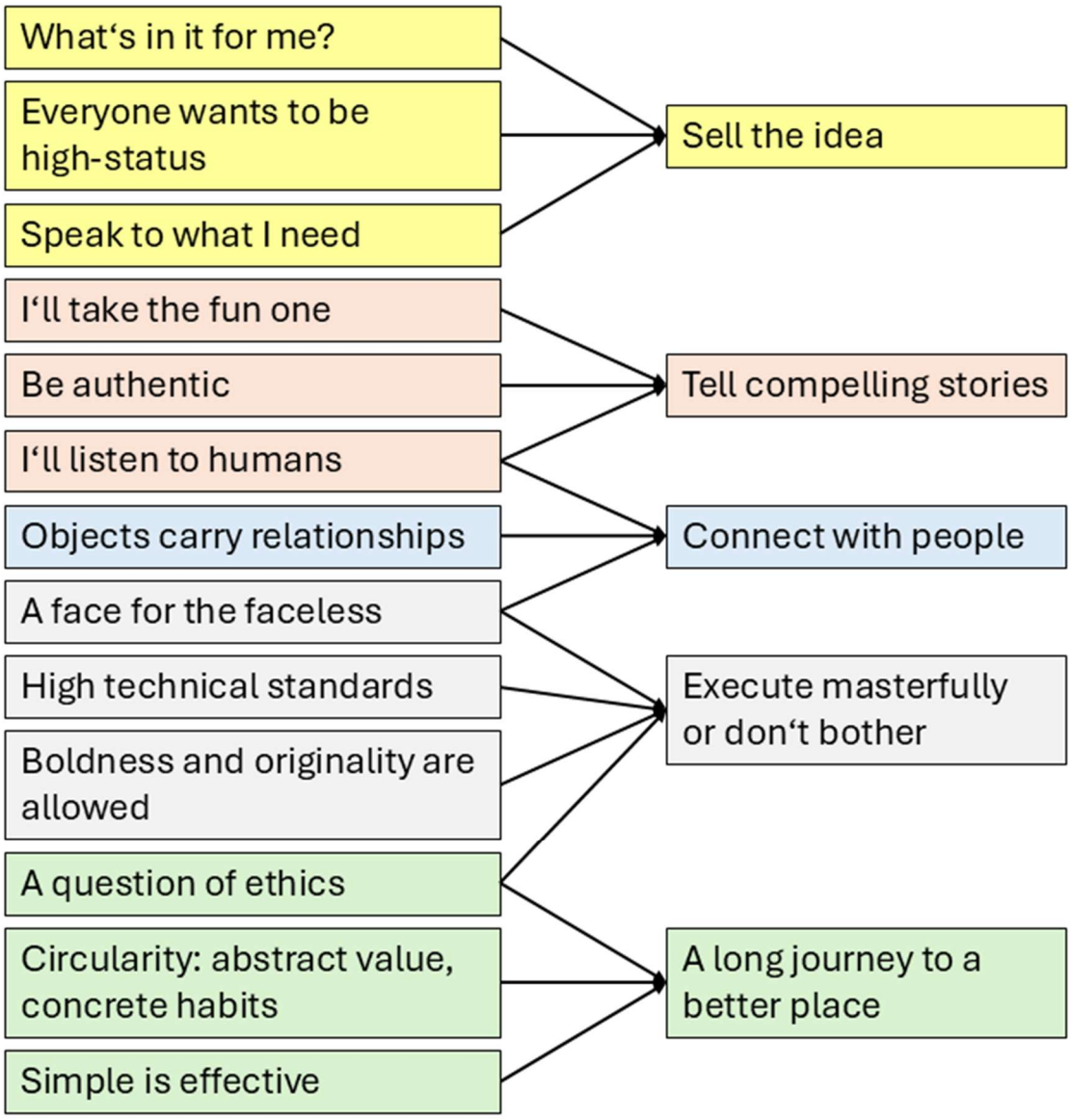

Figure 1 Overview of five aggregate themes derived via a constructivist grounded theory/Gioia approach

4.1 Tell compelling stories

Across interviews, effective communication emerges as relational at its core. Stories make CE intelligible because they translate systems into relationships. CE presupposes coordination across actors and time; turning that coordination into a narrative anchors abstraction in human experience. Facts and figures are necessary to keep the narrative grounded, but insufficient to mobilise people; what moves audiences is a *humanised* account that makes roles, stakes, and pathways legible. It’s the human side that counts: the audience wants to hear a real story from real people that they can relate to. Theory itself, facts and figures, don’t connect emotionally. But it’s more than that: CE concepts require collective action, and collective action is about humans working together for the benefit of humankind; hence, the human element helps the audience make sense of the concept.

“What's very important is humanizing the story, humanizing the idea, the concept, the theory, the terminology. As humans, we love stories from the beginning of time. […] we love stories, and I think with journalism, they are true stories. Humans are centred on a story around a human being, which is a way

of reaching people who might not otherwise be reached by simply information, facts, or data. The power of storytelling is to humanize. I think that's a really important way, especially when you have these theories, like circular economy or where you have this science of climate change: you have to break it down to the human level so it's understandable." (Giles Trendle)

"There is no doubt that it helps to humanize complicated science ad CE or climate stories – to explain what impact they will have on ordinary people, and to give examples that viewers and readers can relate to." (Nigel Dacre)

"CE is not a top-down process. It's a collective transformation that depends on people working together across sectors. At Cradlenet, we often say: "No one can be circular alone." (Elin Bergmann)

In Gioia's terms, this is the second-order concept "I'll listen to humans". Audiences attend to a message when it is voiced by a recognisable person and is situated in everyday life. This concept underpins the other two, authenticity and fun, which specify how to make that human presence persuasive rather than performative.

Participants repeatedly warn that perceived inauthenticity blocks processing altogether. Where the messenger appears scripted, transactional, or opportunistic, audiences disengage or even harden pre-existing attitudes (backfire effects). This is especially salient in paid partnerships and formulaic influencer content.

"Sometimes you can really tell that someone has been paid to say certain things, which can actually have the opposite effect and trigger a backfire effect in people, another cognitive bias that makes us even more convinced of our position when we feel that someone is trying to persuade us using crude techniques or methods." (Michele Grotto)

[Q: Are influencers effective?] *"No, not anymore. In Veneto, they hired 500. Even if there was no Ferragni case. Since 2019, many have been using nano or micro influencers. The big ones have lost their appeal, and we didn't need the Ferragni case to realise that."* (Giorgio Lazzaro and Marco Di Galia)

Others see creators as necessary *activators*—but still as people first, not distribution tools. What matters is whether the messenger fits the message and the audience.

"Basically, technicality is not appealing. Everything must be done well, of course, but that's not where the change lies. Activation is not done by a tool but by a person. There must be someone who somehow activates and triggers people to engage with your project. Today, it is influencers and creators who spread the message or product that make the difference." (Marco Pilia and Enrico Marchetto)

Scepticism remains high for public-sector use of celebrity endorsement, with some interviewees favouring named institutional figures (mayors, councils) as more credible messengers:

"For the government bodies, no, everyone is too cynical. People aren't severe enough. And don't respect. Someone in the Council rather than an influencer." (Sarah Street)

"Now we have Lime bikes everywhere, but before that, the Mayor, and then Prime Minister, Boris Johnson, introduced the bikes, and they got sponsored by Santander Bank. They were the first shared bikes to come to London. Now it's turned from something public and shared by everyone in Lime bikes, which is in the private sector. But that, as well as doing good. It felt like a good thing for the city, a good campaign. It was very positive. […] they became known as "Boris bikes", so everyone called them Boris bikes. It was funny." (Sarah Street)

Interviewees disagree on which type of humans should front CE narratives. Some argue that influencers have lost salience (crowding, scandals), with micro-messengers or institutional figures outperforming

celebrities in trust and fitness. Others maintain that creators are indispensable to trigger networked diffusion. The apparent contradiction resolves under a fitness criterion: choose messengers whose lived identity, voice, and audience match the CE action being promoted. The "Boris bikes" story illustrates how a named public official can personify a policy in ways that are both memorable and, crucially, ownable by the institution.

The analytic implication is that the public body needs a messenger strategy. An identifiable face and an accountable voice will make the message credible, but the choice of the individual(s) who will represent the institution is crucial. Authenticity here is not a property of the content alone but of institutional self-presentation.

A second mechanism concerns affective entry points. Humour, playfulness, and levity work as *rewards* that reduce the cognitive cost of engaging with complex ideas. "Fun" does not trivialise; it *enables* uptake and can coexist with rigour.

"How do you make sustainability and circularity the most important? [...] with personalities you can relate to with real people with real challenges, inspiring people, people that are humorous and funny. Funny always goes far as well as shocking, but funny, human-focused storytelling." (Charlotte Ager)

"One example [...] called 'My climate science breakthrough' [...] using comedians to tell the story of climate change. [...] clever jokes, not in a silly way but in a smart way... Science breakthrough, they use scientists, and comedians, so they get a scientist to say something about climate change, and then they have a comedian translate it into a funny but serious, still serious but in a funny way... [...] I think it's very effective." (Giles Trendle)

Empirical examples range from gamified recycling to humorous visual cues that enable understanding without moralising:

"[How do you know if something can be recycled?] It was a new machine, and you just put your recyclables in it and then it works and goes down the right. [...] It's like gaming your recycling. That is more fun, and you could have an event where you bring your bit and see if it can guess if it puts it in the right bit. That would be a more engaging local campaign than just that." (Charlotte Ager)

"I worked with https://gounpackaged.com to help them communicate a complex system to reduce single use packaging waste [...]. We homed in on the ugly carton that you won't forget to put out for collection and this mix of the visual, the humour and a non-judgemental tone helped explain the process and why it matters." (Lisa Mangan)

"We made a video in which each of us brought an absurd object, with an ironic tone so as not to be repulsive. [...] Green shifting is transferring responsibility to others. If you have created something that has an impact, why should I be the one to solve the problem, perhaps with behaviour that requires effort on my part, such as taking it to a recycling centre?". (Raffaele Lupoli)

"Geopop is [...] the perfect example of 'hard', complex information, disseminated effectively and perfect for applying [...] to abstract topics such as the circular economy: they explain very complex concepts in an extremely vivid way, in the form of curiosities." (Michele Grotto)

"When communicating individual cases, humour and irony work well: the plastic in the turtle's nose had more impact than all the papers published since 1972." (Emanuele Bompan)

"We prefer a positive, approachable tone. We often use humor and "good vibe" narrative [...] rather than moralizing or shaming them. People are increasingly fatigued by over-educational messages and prefer brands to communicate with them in a more down-to-earth, relatable way." (Kristina Kukarevičiūtė)

“First intrigue, raise awareness and then motivate them to take action. […] behavioural economics and […] behavioural design. […] it's not manipulation […] It's about understanding what motivates people deeply and then stimulating them. In my opinion, gamification works and doesn't work. […] For circularity, the message that I believe can work is: I will reward you if you make a small effort." (Enzo Cesanelli)

Following the hero's journey works [but] creativity could lead us to different solutions and language: from comedy to black humour, where there is no need to construct a message of rebirth or communicate a sense of belonging. These are different paths, less travelled and more risky. (Davide Bertozzi)

‘If there is irony and provocation, or signs of rupture, it is possible to build a community that truly believes in certain values.’ (Davide Bertozzi)

“Fun” is a reward in itself, and immediate rewards are scarce when communicating CE. Therefore, they’re even more crucial. The necessity to “add lightness”, borrowing a term from automotive design, to turn an abstract, technical, and value-ridden concept like circular economy appealing and fun hinges on what should be avoided: accusations and doom stories.

“If you only show catastrophe, people close the screen, change channels, defend themselves. The human brain does not want to suffer: it wants to hope." (Luca Locatelli)

“Catastrophism certainly attracts attention, but it discourages action.” (Emanuele Bompan)

“Moralistic communication does not work. We must invite, not blame.’ (Luca Locatelli)

“Start with shared values do not blame. Use stories not stats. […] Hope and agency are more motivating than doom.” (Lisa Mangan)

“CE should feel like a creative revolution, not a punishment.” (Elin Bergmann)

If attention is a scarce resource, an affective hook that confers immediate experiential value (amusement, curiosity, relief from guilt) is a rational design choice.

Several interviewees argue that CE has been narrated primarily through an environmental lens, which narrows its coalition and limits resonance with audiences motivated by security, competitiveness, or convenience. Reframing around strategic impacts (materials provisioning risk, supply chains, national resilience) broadens appeal and reduces ideological barriers.

“It was done very late [..] It was wrong to choose an environmental narrative on the circular economy, […] the circular economy is one of the most bipartisan elements of the transition […], because it primarily affects the national security of the raw materials supply chain. […] this […] narrative […] worked where it was implemented." (Emanuele Bompan)

“CE must be presented as a possible response: the alarm linked to communication about the climate crisis […] carries with it the risk of annihilation. […] We must also evoke possible responses, and one of the possible responses […] was precisely that of the circular economy.” (Raffaele Lupoli)

Within this wider theme, our interviewees also discuss the newsworthiness of CE stories. With such a steady flow of 'breaking' and 'urgent' news, it's difficult for stories about climate change and the CE to get into the news agenda. The strategic reframing also helps counter newsroom selection biases: CE is rarely “breaking news”, so strategic frames tied to current risks can lift salience.

“*To be frank, the main problem is that […] examples of good practice […] are unlikely to make the front pages […]. Opinion polls show that people care about climate issues and subjects like the circular*

economy and sustainability [...]. The news media [...] tends to be dominated by more traditional 'breaking' or 'urgent' news stories [...].” (Nigel Dacre)

Finally, participants note that CE stories can challenge entrenched interests and dominant narratives, which shape what gets covered and funded. This is not only a *newsworthiness* problem but an agenda-setting one.

“There is a mainstream [...] that decides and defines the agenda [...] certain practices find less space [...] they would enrich and diversify the offer and therefore could also guarantee the birth of new businesses, I am thinking of reuse and recycling. They go against big business. [...] they should be seen as other worlds [...].” (Raffaele Lupoli)

“There are those who, with the help of funding, make their point of view mainstream [...] then there are those who try to report objectively and are opposed [...] It is hard to find a space.” (Raffaele Lupoli)

The implication for public bodies is that storytelling must be designed around media-platform incentives (what can reasonably get published, and where), partner alignment (NGOs, utilities, contractors), and political-cycle risks (appearing partisan, shifting priorities).

4.2. Sell the idea

Interviewees draw a clear line between informing and persuading. Communication is judged by whether it changes what people do, not by whether they have seen a message. The task is to translate circular economy into outcomes that feel valuable enough to act on.

“It’s going back to the principles of communication. It’s about appealing to what is going to change the behaviour. What is going to affect that change? What do people believe in or think, or where do you get the heart into the head? I am trying to filter whatever it might be into that message.” (Sarah Street)

Value must be immediate and legible. For firms, this often means financial gains or risk reduction. One case illustrates the point: a steel company began for reasons of cost savings, then built a “Zero Waste” programme and communicated through numbers at first, showing tangible results rather than abstract commitments:

“Acciaierie Pittini started well ahead of schedule. [...] They were motivated by economic savings [...] their approach to communication has always been less emotional and more focused on highlighting the numbers [...] They start from an economic necessity and then develop it further.” (Marco Pilia and Enrico Marchetto)

For citizens, stacked benefits tend to work best. Campaigns that combine personal savings, social contribution and environmental gain are more likely to move people than virtue alone.

“Both, together. That's why it's a strong incentive for people to do it. I think sometimes just doing good for the planet, unfortunately, is not enough, it feels too worthy. It's also that they partnered with a charity, Oxfam, so you're doing good for the planet, saving yourself money, and helping others have affordable clothes.” (Charlotte Ager)

Several interviewees stress a timing problem. Costs arrive now, while many CE benefits, like the reduction of waste streams and less future scarcity of raw materials, arrive later. Therefore, the cost of achieving meaningful change is also something that the public body should be addressing. Effective messages either bring the benefit forward, for example through rebates, discounts or faster service, or convert it into a present reward, such as recognition, convenience, or status. In this context, CE

behaviours, being interpreted as a high-status signal and a positional good, are especially effective. Behavioural nudges and social comparisons are often cheaper and more durable than cash incentives alone.

"When the incentive ends, the person stops taking circular actions. […] nudging […] is a low-cost intervention […] it has a significant impact […] and brings more benefits in the long run." (Michele Grotto)

"[…] to ensure that people made more energy-efficient choices, a door-to-door campaign was launched […]. The information provided, for example, stated: did you know that you are using 20% more energy than your most efficient neighbours? This tiny variation […] increased [participation] by 4-5%." (Michele Grotto)

Positioning matters. Circular choices should be seen as smart and aspirational, not as sacrificial. One interviewee invokes Lakoff to argue that people act in line with who they want to be, which suggests framing circular practices as in their own interest and as signals of competence.

"We should also apply this to communicating circularity. […] Convince them that applying circularity is in their best interests?". (Enzo Cesanelli)

Personal relevance and tangibility move the idea from attention to memory. Initiatives that solve a concrete problem for the individual tend to outperform generic awareness.

Another way to create value is to provide solutions that are deeply personal and therefore resonate very strongly:

"You can touch it with your own hands. Communication becomes tangible, which is one of the three fundamental steps (personal, emotional and tangible). You solved a problem for me by repairing my bicycle, […]. Personal, […] you touched […] a need of mine, it is tangible because you made something abstract very concrete, and it is also emotional […] because they experienced it and this is remembered in the longer term. We work not on quantity but on quality." (Michele Grotto)

The same logic appears in the suggestion to anchor messages in what people already care about, such as children, wallets, or local shops.

"The gleaming detail is what turns an idea into a memory." (Lisa Mangan)

As another interviewee puts it, value should be shown, not only told.

"It's about building a narrative that demonstrates the value of a circular product, not just by talking about it, but by making it tangible." (Davide Bertozzi)

Personalisation can also work through loss avoidance. When risks are framed around what people love and want to protect, attention and care increase.

"In 20 years your five-year-old daughter […] will have to leave Rome or London because it will be too hot […] you have appealed to something that they love and that they want to protect". (Giles Trendle)

Implications for a public body follow directly. Lead with the benefit that arrives now, then add wider gains. When benefits are delayed, convert them into present rewards through defaults, feedback and small acts of recognition that make the desired choice feel easy and sensible. Use money carefully, and pair any subsidy with features that help the habit persist once payments stop. Treat status as part of the value proposition, since people want choices that feel competent and modern. Finally, prefer actions that let residents experience the gain first-hand, for example repair pop ups, return and save stations,

or simple service improvements that make circular options faster and that require less effort than the alternative.

4.3. Connect with people

Although circular economy is often presented as material flows and technical loops, interviewees describe something more personal. Objects carry traces of people and places. Repair, reuse and passing things on are not only environmental practices. They are ways of maintaining relationships and meaning. This social register is where circularity becomes tangible.

"[The British] spread the concept of charity [...] We need to humanise. [...] the aura of things that had a history behind them. Knowing that someone had used it before you. [...] This [...] extends to circularity. This allows for 'relationship', it could take root more deeply." (Enzo Cesanelli)

"Circularity can't be achieved alone it's inherently relational. People are more likely to change behaviour if they see others doing it too and share stories whether that's repair cafes, tool libraries or food shares that create belonging and momentum." (Lisa Mangan)

"The key is to move from communication based on ideology to communication based on transparency, value and human storytelling." (Davide Bertozzi)

Two ideas recur. First, objects that move between people accumulate stories. Second, participation creates belonging. Television formats about repair and vintage, charity shops, sewing and mending communities, and local markets make these ideas visible in everyday life. Objects become the medium, the bridge between different people at different points in time, allowing a reconnection with older habits and values, which gives them cultural depth.

"There's a very successful TV show about reuse and repair called The Repair Shop. [...] they do upcycle, and so on. They communicate circular economy issues in a different way. And there's also [...] vintage clothing [...], Facebook marketplace. The idea of people passing things on or finding another home for them rather than just chucking them [...] going back to maybe values that grandparents used to have." (Sarah Street)

"Shepherd's Bush Market [...] have a long tradition in the textile sector and organize a weekly event in collaboration with the local Sustainability and Circularity Council: [...] They teach people how to recycle old things to avoid discarding them and forgetting them. [...] Many of the market vendors [are] very traditional, old-school, work a lot, and don't always fully understand the role of social media [...]. We try to build a relationship with them [...] over time." (Tara Goldsmith)

[Q: I was talking to a writer in London, [...] of Sicilian origin. I explained what I did, and she said to me: 'You're telling me about new things, but they're things I've always done'.] *"That's right: my grandmother did it. It's post-war Italy, the Italy of the 'sixth sense' for reuse."* (Luca Locatelli)

"And it still happens in poor or developing countries. [...] Cars are not thrown away, they are repaired. They are dismantled, the doors are changed, and what already exists continues to be used." (Luca Locatelli)

"Vintage has had a huge boom [...] it has been [...] a value-based response to the impact of fast fashion." (Emanuele Bompan)

A narrow efficiency lens would ask why repair matters when replacement is cheaper. Interviewees answer that craft and attention are themselves sources of value and point to the explosion of vintage

clothing. Even outside of circular practices, the value proposition is the same as for handmade objects. Doing or commissioning repair can be a mindful practice, a way to step out of passive consumption and to express care for an object and its history.

"If you're talking about the repair, [...] there's also a mindfulness in doing something crafted. [...] You go back to your hands. People are realizing that value." (Sarah Street)

Several participants add that physical experiences communicate more strongly than abstract appeals. Touching an object, seeing it repaired, or giving it a second home produces a memory that a slogan cannot match. This is why local markets, repair cafés, tool libraries, swap events and similar formats matter. They turn a general idea into a social moment that people can feel part of, satisfying an otherwise unmet need for connection.

The language used to describe circularity also matters. Some prefer "circular society" because it names the social and cultural dimension explicitly, not only the economic one. Naming helps people see what is possible.

"In Swedish, we sometimes use "cirkulärt samhälle[1]" ("circular society") instead of "circular economy," because it includes the social and cultural dimensions, not only the economic ones. Language matters: it shapes what people think is possible." (Elin Bergmann)

The implication for public bodies is to treat connection as part of the value proposition, not as a side effect; institutions should build communication around settings where people already meet and share; they should use programmes that create contact through objects in motion: repair corners at municipal events, library-style lending for tools, school or museum collections that can be borrowed, and simple channels for passing items on locally. As per the previous themes, it's important to put names and faces on these activities so that residents know who is inviting them and who will be there when they show up. Where markets or vendors are wary of filming or publicity, invest in slow relationship work and consent, then document the results with care. Finally, choose words that recognise the social meaning of circular practices. Doing so aligns the technical side with the human one and helps the idea travel.

4. A long journey to a better place

Interviewees report a recurring difficulty: circular economy feels abstract even when it refers to concrete material flows. People agree with the idea in principle, yet everyday routines cut against it. Bridging this gap requires changes that are small and easy to try, but they must be repeated often enough to become habits.

Several participants suggest starting with language. If "Circular Economy" sounds like something for experts, people do not see themselves in it. Substituting it with simpler terms such as reuse, repair, sharing and good design helps bring the idea within reach.

"[...] CE is a very abstract concept. We should communicate with people based on their irrationality or, rather, their rationalising nature. Therefore, a classic model based on communication focused on pros and cons [...] does not really make much sense [...] given how it is perceived, it becomes essential to work on behavioural dynamics, which are often unconscious." (Michele Grotto)

[1] As a side note, the etymology of the Swedish word samhälle is "to keep together", which beautifully emphasizes how connections – mediated by objects – keep people together.

"When you say 'circular economy', people often think you're talking about something for economists or scientists, not for them. It's too conceptual. We try to use simpler words – 'reuse', 'repair', 'sharing', 'smart design'." (Elin Bergmann)

"It has to feel real and relevant. The circular economy is big and conceptual, but people live small detailed lives." (Lisa Mangan)

Another strand concerns how people picture production. With much manufacturing now out of sight or out of Europe altogether, it's harder to picture what production means in terms of lived experience. Even if we can imagine a factory, the materials coming in and finished products coming out, the finer details of the impact of industrial production on everyday life can easily be lost. Several interviewees argue that selling the idea of circularity also means showing that production can be clean, careful and part of a good life. Sensory memories and local examples bring this to life more effectively than abstract claims.

"I had a client who worked in the oldest factories of the former Lanerossi. This craftsman [...] remembers that in Valdastico there was this smell of chocolate that came from the canteen areas [...]. I can use these sensory experiences to immediately convey what is being lost. I think of children and show them a sky without light pollution." (Lazzaro-Di Galia)

When messages become practical, their design matters. One participant mentioned the EAST framework, designed to make the desired action Easy, Attractive, Social and Timely. The point is not theory for its own sake, but friction reduction and good timing.

"The EAST framework is a tool developed [...] by the Behavioural Insights Team [...] interventions must be simple, [...] attractive and desirable, [...] normal or desirable in a social context [...]. The intervention must be presented at the right time [...]. The simpler the change I have to make, the more likely I am to try to change a habit." (Michele Grotto)

Consistency then turns small actions into culture. People need to encounter cues often enough, and in enough places, that circular practices begin to feel normal. This calls for patient repetition, and not for a single message on a loop. Cultural change spreads when institutions seed it and citizens carry it. It cannot be imposed: cultural communication is bottom-up, not top-down.

"We need communication that builds something every day to create a culture of circularity, a culture of sustainability, a deep understanding." (Marco Pilia, Enrico Marchetto)

"It's a question of spreading culture [...]: but it starts from the bottom up." (Marco Pilia, Enrico Marchetto)

What are the habits to build, concretely? Interviewees recommend framing circular practices as a sensible, smart lifestyle rather than as a rulebook. Optimism helps, provided it remains grounded and specific.

"CE needs to be communicated as a lifestyle, not as legislation. If people can see how it connects to what they eat, wear, buy, or throw away, it becomes real." (Elin Bergmann)

[The tone that works best?] "*Optimistic, without being naive. People are tired of fear-based messages. We've had decades of "the planet is dying," and it hasn't mobilized enough change."* (Elin Bergmann)

"*Simplicity, repetition, emotional connection work."* (Lisa Mangan)

Simplicity applies to form as well as to content. Overdesigned pieces can get in the way of the point. What matters is a clear message that solves a real problem.

"Communication on these issues must be simple. And here there is often a mistake [...], namely this constant search for beauty. [...] We designers and communicators are not artists, but we have to solve

problems for our clients, not aesthetic ones. We need a good message. Not a lot of superstructure." (Stefano Rovai)

To make simplicity interesting, some propose two complementary tactics. The first is to offer a picture of a better near future, close and realistic enough to be felt as reachable.

"That's why I create images that show possibility, not the end. The "what if" [...] is an extraordinary key. If I show you what a better future could look like, I'm offering you a concrete dream, not a condemnation." (Luca Locatelli)

The second is to place useful information at the exact moment of choice. A small piece of evidence, shown at checkout or on a shelf, can shift preference with minimal effort.

"[...] they had a plan to integrate a kind of environmental impact card with various levels of objectives. Some items were classified with these values, and it was very effective because it was a message that came up just as you were making your purchase decision. [...] when you are about to make a purchase, it becomes a decisive factor [...] objective data communicated at the right time." (Enzo Cesanelli)

Public bodies have a particular challenge here. Their default modes are policy documents and strategy pages, which most people will not read. To support habit formation, institutions need to simplify, localise and repeat across potential friction points, while keeping the offer concrete:

"[Public institutions] should simplify the message and make it more relatable. Too often, public communication is full of jargon, long policy documents, and complicated strategies that people don't read or understand." (Elin Bergmann)

Taken together, the interviews suggest a sequence that is patient and practical: use plain words; show production and repair as part of a good life; design tasks that are easy to try, and place them where choices are made; repeat across everyday settings until the practice feels normal; present the future as a near possibility rather than a distant ideal. In this register, circularity stops being an abstract doctrine and becomes a set of small, reliable habits that add up over time. Success will feel small at first, but small changes will accrue over time.

4.5. Execute masterfully or don't bother

Interviewees return to a practical point. Communication about circular economy fails when it is distant, faceless, or written in a register that people do not use. Public bodies have a jargon of their own, expressed through laws, plans, and strategy documents, yet those formats rarely connect with daily life. Competence, clarity and craft are not accessories. They are the work.

"The public administration communicates very little about its circular actions (...) often because those responsible for strategies lack expertise." (Emanuele Bompan)

"Overloading with jargon, assuming a level of knowledge or concern that doesn't exist, cramming in too much or trying to sound too clever. People don't remember bullet points they remember a moment, a turn of phrase, a feeling and they respond to people not institutions. If you're not showing why you care they won't either." (Lisa Mangan)

Several participants describe circularity as culture. Culture spreads through people who have standing in their communities, not through anonymous voices. Institutions can catalyse and support the

message, but they need recognisable messengers and real stories. A message cannot be imposed: it won't stick.

"It also depends on who this message about circularity comes from. In my opinion, it is unlikely to come from an institution. It is a question of spreading culture and how cultural messages are disseminated: but it starts from the bottom up." (Marco Pilia. Enrico Marchetto)

One route is to bring real stories that live on their own to journalists and creators. We've discussed creators in the previous themes, but journalists can be the face of the story as well. The job is to prepare clear language, disciplined messages that link economics and well-being, and narratives centred on everyday life

"It's simple language and like not using jargon and never assuming that your audience, whether it's a journalist or the general public, knows your topic. [...] focused and disciplined messaging that links economics with people's happiness, a good story to tell that's centered around people's lives [...]. Stories need to cut through with both politicians and the general public." (Liam Collins)

Tone and voice matter. Interviewees suggest that the public sector can be more human and direct without losing neutrality. Honesty and sincerity beat cold detachment.

"One of the key elements that the private sector does well is using a bold, vibrant tone of voice [...]. The public sector [...] takes a more cautious, formal approach. However, shifting toward a more engaging, human-like tone could help [...]. Another thing is the use of honesty and sincerity in communication [...], rather than cold, detached, or moralizing tones." (Kristina Kukareviciute)

Putting faces into the work helps. It can be as simple as showing the people behind processes, not only the processes.

"Explain the processes, of course, but above all show the people who work behind the scenes." (Davide Bertozzi)

Good spokespersons translate, rather than transmit. Journalism can play that role when relationships are built on substance.

"A good spokesperson isn't just a messenger they are a translator. They connect dots, add texture and reflect back what people already feel but haven't yet named. Journalism at its best does this too, putting human faces on systemic issues." (Lisa Mangan)

"In some ways, we also have to put ourselves out there: [...] the other aspect is to link our profession to our identity as people who [...] also try to practise circularity and, in any case, put ourselves out there when we talk about things, [...] telling stories in the first person, [...] we will try to give an account that is objective in terms of content but subjective in terms of its presentation." (Raffaele Lupoli)

Some interviewees touch on the question of ethics. Communication carries responsibility, and especially so in settings with high trust in public institutions. People listen, so the standard must be high.

"[Public institutions] play a huge role, especially in the Nordic region, where trust in public institutions is generally high. People listen when ministries, cities, or public agencies speak. But that also means there's a big responsibility to communicate in the right way." (Elin Bergmann)

Values should be explicit, and value to citizens should be front and centre.

"Communication by a public body should convey values and concepts." (Stefano Rovai)

“However, it is easier to reach citizens by communicating a value: EC is beneficial. EC is good for the city.” (Emanuele Bompan)

Credibility rests on consistency between words and actions. Institutions are expected to show what they ask others to do. It’s a form of respect for the audience.

“Another thing governments can do better is to lead by example. Communication is not only about words—it’s about what you show. If a city promotes circularity but its own procurement system is linear, the message loses credibility.” (Elin Bergmann)

“What works here is when the message is consistent and supported by real action. […] If you promote circular principles but keep buying disposable products for public offices, people notice the contradiction.” (Elin Bergmann)

Partnerships can supply both reach and a recognisable face. Collaboration with companies and NGOs broadens audiences and adds voices that people already know.

“Collaboration between public and private sectors is key. Public institutions often partner with companies and NGOs to reach broader audiences. The more diverse the voices, the more credible and engaging the message becomes.” (Elin Bergmann)

It’s this credibility that will restore a face to the faceless. Execution then returns to craft. High-quality design and production reduce friction and hold attention. If the internal team lacks the tools, it is legitimate to seek help.

“Senza strumenti adeguati non ottieni quell’eccellenza tecnica che cattura lo sguardo e lo trattiene.” (Luca Locatelli)

“Elegance, style and quality of communication always help.” (Emanuele Bompan)

“To create images that resonate, you need the right structure.” (Luca Locatelli)

“I would recommend seeking help from external agencies. Public bodies have a certain workflow structure. […] External parties bring ideas that you hadn't thought of.” (Lazzaro-Di Galia)

Clarity of purpose matters as much as craft, and it is linked to the concepts of credibility and authenticity mentioned above. Interviewees describe screening for genuine intent before accepting public clients.

“I always start by challenging my interlocutor […]: why do you want to embark on this path? […] whether the client truly believes in CE or whether they have purely image-related ambitions. In which case, I advise against continuing.” (Davide Bertozzi)

Experimentation is welcome when it is careful and well-made. Audiences reward originality when it is rooted in service and truth. Do it well, or do not do it at all.

“The public sector should use unconventional methods of communication, […] and experiment with these campaigns.” (Lazzaro-Di Galia)

Modern tools allow for possibilities unheard of in the past for a relatively small cost. Hence, there’s no excuse not to experiment.

“There have never been more tools […] small, high-quality cameras and drone cameras […], computer graphics are low-cost and highly engaging, and there is a high volume of user-generated content.” (Nigel Dacre)

At the same time, the line is clear. Manipulation, slickness without substance, or borrowing the logic of disinformation will damage trust. Even though the ultimate goal – to promote CE – is ethical, it doesn't mean that all lines can be crossed with impunity.

"It can backfire if it feels manipulative superficial or tone deaf to the deeper issues at stake. [...] if the message feels slick but hollow it breeds mistrust. Authenticity must lead." (Lisa Mangan)

"Misinformation and disinformation rely on untruth, [...] as journalists you can't you rely on bad information or untruth or lies or falsehoods." (Giles Trendle)

In sum, the interviews point to a simple rule with demanding implications: do less, but better; speak in clear language; put names and faces to the work; align voice with action; borrow reach through credible partners; invest in craft, and bring in help where needed; experiment within ethical bounds. If these conditions cannot be met, it is better not to launch a campaign at all.

The interviewees gave us a wealth of examples of successful campaigns, providing valuable insights into the new tendencies of CE communication, as well as reflections on the way that the new tendencies in communication would apply to CE themes. While a detailed study of implemented campaigns is beyond the scope of the present study, the examples are presented in Appendix A.

Furthermore, we probed some of the interviewees about whether they apply CE practices in the context of their jobs or companies. While CE practices are more relevant for the industrial sector, some interesting concepts have emerged, which we briefly present in Appendix B.

4.6. The Gioia chart

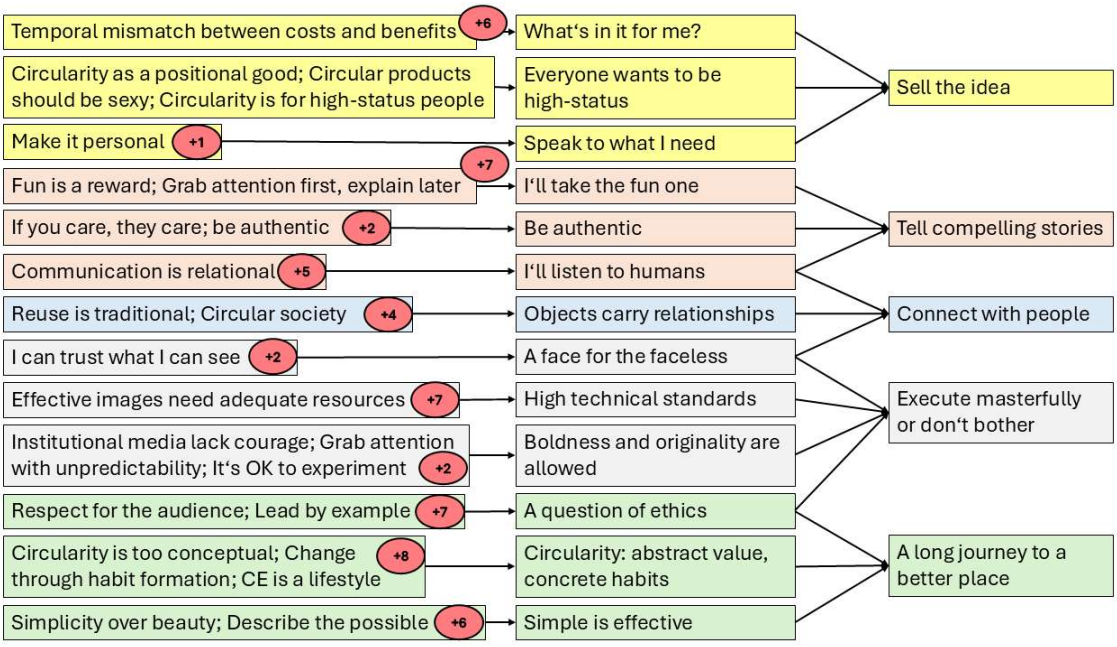

Figure 2: Gioia chart with the most relevant codes and the number of additional codes, concepts and themes

There is a strong asymmetry of evidence across the five themes: the interviewees discussed at length how public institutions should promote CE – building trust, practising what they preach, and with technical excellence. As a result, the "execute masterfully or don't bother" theme has a total of 25 codes. They also delved extensively into questions related to whether CE can be effectively communicated at all: the concept "Circularity: abstract value, concrete habits" has 11 codes, the most

of all, and the theme “A long journey to a better place” has a total of 28 codes. This suggests a field where theoretical discussions abound, but general rules about what’s practical and effective are hard to define – the two applied-on-the-ground themes, “sell the idea” and “tell compelling stories”, comprise 12 and 19 codes, respectively. The content of the latter two themes is, by itself, hardly exclusive to circular economy, and that’s expected. But between those two dimensions, a fifth theme emerges, with 12 codes, but only 6 exclusive ones: the social/relational dimension of circularity, a conceptually original vein.

Two aspects came out multiple times during the interviews: the disconnect between the need to humanise stories and institutional anonymity, as well as the need to embody the values behind CE and avoid performative communication. The three related concepts, “I’ll listen to humans”, “A face for the faceless”, and “A question of ethics”, act as connectors between themes.

The mapping embodies a latent two-dimensional structure: on the one hand, we have the affective-relational axis (“Tell compelling stories”, “Connect with people”); on the other, the normative-technical one (“Execute masterfully or don’t bother”, “A long journey to a better place”). The first answers the question “Who are we doing this for?”, and the answer is “The people”, the second “Why should we be doing this?”, and the answer is “Because we firmly believe it will lead to a better future”, and if we don’t firmly believe in CE, we shouldn’t bother.

The time dimension is present both in the concept “What’s in it for me” under the “Sell the idea” theme and in the “Circularity: abstract value, concrete habits” concept within the “A long journey to a better place” theme. Read together, the chart encodes a sequence: capture value now → reduce friction → repeat until it becomes normal.

In several concepts, we can find negative cases and boundary conditions, namely, in the “Boldness and originality are allowed” concept, there are limits to experimenting, as well as the contrasting views on influencers in the “Tell compelling stories” theme.

The full chart with all codes is available in Appendix C.

4.7 Communicating CE vs. communicating sustainability

Interviewees converge on one starting point: “Circular Economy” is not yet a lived category for most people. It sounds technical and remote, and it is easily absorbed into generic “green” talk. When that happens, the audience hears virtue signalling or broad sustainability claims, not a practical account of how value, materials and people move. Several participants describe this as a problem of recognition: if CE is filed under sustainability by default, the distinctive choices it requires remain invisible.

“Yes, but it’s not easy to find a different model. […] It’s very difficult to make them understand that you’re not just talking about sustainability, but that you’re talking about circularity […]. (Marco Pilia)

When I talk about the communicative dignity of the CE, I mean that it has specific elements that require an ad hoc communication framework, but the recipient must be prepared. […]" (Marco Pilia)

“I think the term Circular economy itself is still unfamiliar to many people […]. Most people get recycling but circularity is a much broader concept and it's not intuitive unless it's illustrated. […] The term is inaccessible and in danger of feeling elitist in my view.” (Lisa Mangan)

Two reasons for a CE-specific frame emerge from the data.

First, the mechanism of change is different. Sustainability communication often rests on the awareness, targets and aggregate impacts of the problem. CE communication must show how loops are designed, who participates, and what tangible benefit arrives now. That calls for a language of reuse, repair, sharing, product-service models, and design for longevity, and for settings where people can try these practices. Behavioural design becomes central because CE uptake depends on repeated, low-friction actions rather than one-off declarations.

"A specific framework for CE makes sense because it is a very abstract concept. [...] A classic model based on communication about pros and cons [...] doesn't really make much sense [...] It becomes essential to work on behavioural dynamics, which are often unconscious." (Michele Grotto)

Second, the stakes can be framed more broadly than "environmental good." Several interviewees emphasise national resilience, supply security and public health. This strategic point of view widens the coalition and helps CE cut through news agendas that privilege urgency.

"The ontological difference in the CE communication is that you are future-proofing society. [...] it is still only the economy, especially in terms of decoupling development from its impact on nature, which is seen as a threat to social, political and economic stability, that takes priority over everything else. When I give lectures, I start by saying: I am not talking about nature, but about national security, the health of citizens and economic stability." (Emanuele Bompan)

What follows from these two points is not a total departure from sustainability communication, but a different emphasis and sequence. Where sustainability often starts with harms and goals, CE communication starts with use cases and roles. It locates a person or a firm inside a loop, shows an immediate gain or relief, and then scales the meaning. This is consistent with our themes: tell a human story, sell a concrete benefit, connect through shared objects and places, make small actions easy and timely, and uphold high standards so that trust can form.

"I think one of the problems of today is that we have too much information [...] we don't just operate from information and data; we also operate from behaviour, not from the head, but from the heart." (Raffaele Lupoli)

"I see the idea of building communities and participatory mechanisms that promote accurate communication about the circular economy as feasible [...] many people [...] really need to experience the process of communicating a response to their anxieties [...]." (Raffaele Lupoli)

A CE-specific framework would therefore differ on four practical dimensions.

Language and categories. Replace umbrella terms with verbs people already use: repair, keep, lend, refill, return, redesign. Use "circular society" or similar when you need to name the social layer, and do not refer only to the economic component. Keep policy terms for accreditation and audits, not for public-facing copy.

Narrative frames. Pair environmental gains with strategic benefits: supply risk, price stability, local jobs, and public health. Show production and maintenance as part of a good life. Offer near-future pictures that are concrete enough to feel reachable.

Mechanisms and places. Design habits with EAST principles, and situate messages at decision points: checkout pages, service desks, return stations, municipal events. Prefer formats where people touch and move objects: repair corners, lending libraries, swap days, take-back schemes. These are communication acts and services at once.

Messengers and proof. Put named roles and frontline staff in view. Borrow additional faces through credible partners, while keeping authorship and contact points traceable. Show how much you can do with small numbers that relate to the setting. Avoid over-production if it eclipses the practical invitation.

There are also limits. If the audience is not prepared, generic sustainability frames will reassert themselves. Several interviewees warn of cognitive shortcuts and bias. The answer is not to push harder on abstraction, but to build recognition gradually through simple, repeated offers that work. Where policy language is unavoidable, translate it into a service step the person can complete.

"Yes... the average user is increasingly distracted... Biases are always present... either you meet the user's expectations, or it's difficult... It's clear that if we don't do this, there will be no growth, no communication." (Marco Pilia, Enrico Marchetto)

On balance, the interviews support a modest but clear claim. CE benefits from its own communication framework because the path from message to action runs through different gears: design choices, shared artefacts, repeated small decisions, and coalition frames that reach beyond "the environment." The overlap with sustainability remains large, and the ethical spine is the same. What changes is the unit of persuasion. It is less a slogan about the planet and more an invitation to join a loop that someone can see and try, with people and institutions they can name.

5. Discussion

The transition to the circular economy is a systemic transformation that hinges on changing individual and collective behaviour. Even at the individual level, change is not easy; it's even more difficult at the collective level and even more so when the costs are borne now and the benefits are to be harvested in the more or less distant future. So much of this gargantuan task hinges on getting the message right, and our interviewees all agree both on the need for the transition and on the difficulties in getting the message across.

We've explored how public bodies can communicate circular economy ideas in ways that travel from attention to action. The findings identify five themes that work together: tell human stories, sell a concrete benefit, connect people through shared objects and places, build habits through simple repeated cues, and execute to a high technical and ethical standard. These themes are not parallel tips. When read through the Gioia structure, they form a sequence: capture value now, reduce friction, repeat until normal. The messenger strategy (who should lend a face to an otherwise faceless institution) and the ethical spine underpin the whole path.

Two cross-cutting mechanisms link the themes. First, "I will listen to humans." Humanised narration and identifiable messengers translate systems into relationships. Relationships are important; therefore, the messages become worthy of attention. Second, "Speak to what I need." Benefit stacking and well-timed cues move people from recognition to behaviour. These hinge concepts connect the affective-relational register with the institutional-technical register that public bodies control.

The Gioia chart also shows an asymmetry. Practical "execution" and "habit" codes dominate in volume, while the social-relational register is leaner but distinctive. This suggests that motivational and craft guidance are well elaborated in practice, whereas the idea that objects carry relationships is emergent and promising.

Advice received on how to execute well a difficult task like CE communication is not, by itself, surprising: meeting the audience on the channels where it is, selling the positives, being authentic - those aren't revolutionary suggestions, but common-sense ones. The suggested courses of action are, however, in

stark contrast with how part of the discourse about sustainability and the green transition has been unfolding. Our interviewees explicitly reject narratives of doom, high-stakes urgency, and catastrophic scenarios. Because they don't work. Banal? Compare it to Greta Thunberg's public scolding, or to the negative reactions to disruptive protests like the “Just Stop Oil” campaign. Our interviewers generally agree that communicating environmental themes should not resolve to scolding the audience, and to moral grandstanding against a supposed out-group depicted or perceived as immoral, because this ultimately leads to rejection of the ideas being communicated altogether.

The difficulty in communicating the CE is reflected in another emerging theme – the need for a large institutional buy-in and technical excellence. In the competition for attention, it is difficult to communicate complex and abstract concepts like CE, with behavioural changes that are hard to make sense of. Half-hearted attempts are going to fail, our interviewees suggest, and shouldn't be attempted at all. This requires an honest assessment by the public body of its behaviour, its values, and its willingness to go all the way in promoting CE, even against possible entrenched interests and managing the risk of appearing partisan - even though CE can easily be framed as a bipartisan theme.

A new framework is needed to communicate CE, this is something our interviewees agree on. We believe that it is essential to fight the information overflow that runs counter to the basic frugality in material flows advocated by CE. Because unnecessary information is a waste, and distraction is a waste as well. It must be relational, because circularity means that the objects and the stories within are endlessly retold within the community, gaining new meaning as the materials get new uses. It must break free of linear time with its anxiety of obtaining everything all at once in an eternal present. It should give back value to the human effort and toil of production and repair, connecting the head and the heart. It should liberate the concept of value from the shackles of newsworthiness

Our findings show that circular economy communication fails when it stays abstract and linear. Messages are broadcast, not tried; benefits are delayed; execution is weak; trust erodes. Yet successful cases in the interviews share a repeatable pattern: a human invitation creates a small try, the try produces value in the present, that value is shared socially, repetition turns it into a habit, and craft and ethics raise the bar for the next invitation. This is not a line. It is a loop.

We call this the Ouroboros of CE communication, shown in Figure 3: a circular process where communication “feeds” on the effects it generates and renews itself through them. Circularity in materials is mirrored by circularity in meaning. The loop is not self-referential rhetoric. It is a mechanism that turns stories into practices and practices back into new stories, with standards and ethics as the guardrail.

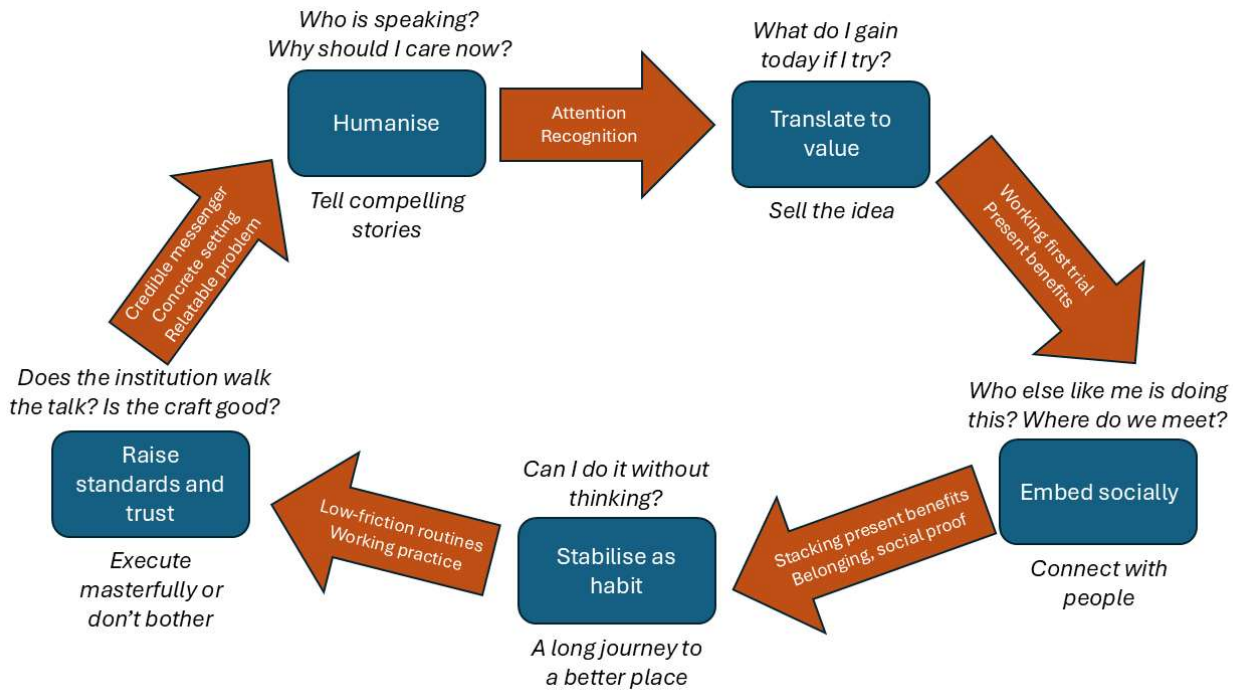

Figure 3: A schematic representation of the Ouroboros paradigm, with the five stages (main question(s); main action, corresponding theme name) and the inputs/outputs between them.

The loop then closes and renews. Higher standards make the next human story easier to tell and believe, because there is something real to show. The snake feeds itself again, but on better material.

What does the Ouroboros add beyond a metaphor? Reflexivity is part of the design, not poetry. Communication is specified as a cycle of conversions: attention → present value → social embedding → habit → trust → renewed attention. Each conversion is observable and can be measured.

A time operator. The loop pulls future benefits into the present through rewards, then pushes present practices toward the future through habit and standards. This directly addresses the cost–benefit time gap that saturates the data.

A place operator. The loop privileges decision points and shared spaces: checkout pages, return stations, repair corners, markets, schools, libraries, museums. These are where phases two to four happen.

An ethics operator. The fifth phase is not polished. It is the condition for the loop to keep turning without burning trust.

6. Limitations and Future Research Agenda

We have introduced an interpretive model of Circular Communication—the Ouroboros paradigm—conceived as a regenerative cycle of meaning in which information, like material resources, circulates and transforms. While the model advances theoretical understanding and provides practical insights for public institutions, several limitations and prospective directions warrant acknowledgment.

The study is based on the information gathered through 18 structured interviews and 3 focus groups. While we strived to maximize diversity both in geographical terms and in terms of the participants'

professions, the overall sample remains exploratory rather than representative. Further research could incorporate voices from the Global South, where regenerative practices are often embedded in informal economies and traditional knowledge systems.

The results reflect the perspectives of professional communicators, journalists, and consultants with advanced awareness of sustainability and CE issues. Consequently, the findings highlight expert meaning-making processes rather than public interpretations or behavioural responses. Future research could expand the scope to include citizen audiences, educators, and policymakers, testing the transferability of communicative mechanisms across actor groups.

Following the CGT and Gioia methodology, data were analysed abductively to identify patterns and construct theory iteratively. This approach privileges conceptual richness and interpretive depth but inevitably embeds researcher subjectivity. Reflexivity and peer debriefing were used to mitigate this bias; nonetheless, theoretical saturation should be viewed as provisional. Future work should triangulate the results with observation and quantitative measurement of circular communication campaigns to bridge the gap between theory and practice. Ideally, the Ouroboros paradigm should be empirically tested and compared to other communication paradigms.

The underdevelopment of the field of circular economy communication means that our study could not properly reference and compare results with previous studies, hence the temporal evolution of CE communication is a theme that has not been explored. With the rapid changes in the media landscape and shifting attitudes towards environmental themes, this remains a promising area for future work.

Finally, the intended recipients of the advice collected in this study, public institutions, would benefit from dedicated capacity-building initiatives within their communication departments. Researching and developing the best practices to improve institutional CE communication is an important area that we are set to work on in the future.

In sum, this study provides an initial map for theorizing and enacting Circular Communication. By framing meaning itself as a regenerative resource, it invites future scholarship and policy innovation to design communicative systems that, like the circular economy, renew rather than exhaust their conditions of existence.

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Appendix A: New tendencies in CE Communication

Real vs. Artificial

"We are coming to the end of a period in which we sought the real image, video without post-production, as genuine as possible, and we are moving towards the complete opposite: let me show you something different. There have already been phases like this in the history of imagery. Pictorialist photographers in the early 20th century manipulated images enormously, and then street photography emerged, completely without filters. It was created to counteract fiction. So yes, I believe that now the trend will be towards the totally unreal." (Giorgio Lazzaro)

VR

"There is a risk of only reaching a segment of the population with the use of VR, but it is an important segment, that of young people. Using it in schools would be interesting to help people understand what can happen. It can change perceptions. Practical, concrete work with young people is essential, and VR can help to better show the impact. "(Giorgio Lazzaro)

Guerrilla Marketing

'It can work to go back to classic guerrilla marketing, going into the city centre, putting up things that don't make you understand what you're talking about at first, but then lead you to an event that leads to a sustainability/circularity project. First, I hook you with a simple concept.' (Giorgio Lazzaro)

"The 'fun' aspect of the experience encourages citizens to change their behaviour, which fits in well with the needs of the circular economy. The goal of guerrilla marketing is always to attract attention, because if there is no attention, there is no emotional connection. (...) Then there are certainly examples of guerrilla marketing that are perhaps a little too extreme, but in reality they in no way compromise the value of the communication itself. Perhaps what I mean is that they make it too dissonant with the authoritative and institutional role that a public institution should have. If you stray too far from the norm, people won't recognise you, and that's the potential problem. They think it's just any old brand communicating. The only thing is to find the right balance because they have to recognise you, i.e. there has to be attention, but there also has to be authority." (Michele Grotto)

However, to borrow persuasive techniques from commercials or even populist communication tools to promote fact-based messages like those around the CE could be dangerous.

"Carefully. You can borrow techniques, but you must stay rooted in truth and authenticity. People are savvy, they can tell when they are being sold to." (Lisa Mangan)

Unconventional methods

"The forest room was an installation for the campaign 'Rustle'. It mimicked a reverse vending machine (RVM). The idea was to invite people to donate their deposit bottles using an RVM at events, but instead of receiving money, they got a short sample of the song 'Rustle' from the campaign. Next to the RVM, a promo team shared facts about preserving forests, such as how much forest area could be saved by returning just one bottle, etc. This hands-on, immersive experience mirrored the real-world action of using an RVM while also encouraging people to connect emotionally with the cause. By making the experience memorable and engaging, we helped reinforce this message in a way that felt personal and impactful. And it worked as a reminder while using real RVMs and deciding to donate deposit to Ancient Woods Foundation." (Kristina Kukarevičiūtė)

Distopian storytelling

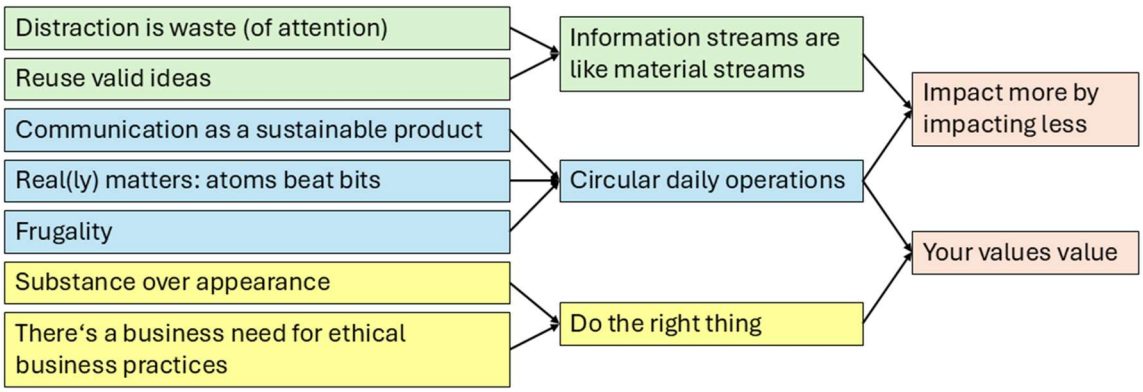
"Yes, you could use it that way to talk about the future and to imagine what the future might look like and you're clearly saying that this is generated by artificial, but that could be very powerful because you're imagining the future and having images, for instance, of Paris underwater or Rome or the Colosseum under so much water would be very powerful." (Giles Trendle)

Posters as a non-invasive, old, non-mainstream medium

"Posters are the voice of the street, and I believe they still have a lot to say. Graphic design ultimately originated with poets such as Mallarmé and the Futurists." (Stefano Rovai)

"The primary tool for a public body is posters on buses, at bus stop, affiches." (Sarah Street)

Appendix B: Circular business models in the communication industry



Frugality

“Our approach is to never be convinced that we have to reinvent the wheel, and this is a kind of circularity in the workflow. Reinventing something from scratch every time is a hassle and produces pollution, if nothing else, cognitive and mental pollution.” (Marco Pilia, Enrico Marchetto)

Real(ly) matters: atoms beat bits

“We don't produce much; the output is mainly digital. AI is a big question now, because everyone wants to use it, but the cost to the ecology is the water being used.” (Sarah Street)

“The UK government website strictly applies a communication ecology that we embrace: when designing it, they asked themselves whether that image or video loop was really necessary. Since it wasn't, they considered it a waste of energy, so everything looks clean and loads faster. All this puts much less strain on the servers and also becomes materially “circular” as it consumes less energy.” (Marco Pilia, Enrico Marchetto)

Distraction is waste (of attention)

“The user is increasingly distracted, and it is becoming more and more difficult to get them to follow cognitive paths that go beyond what they imagine.” (Marco Pilia, Enrico Marchetto)

Communication as a sustainable product

“I worked for a big Italian fashion company on the communication for an exhibition on sustainability in fashion. This exhibition focused mainly on materials, from the choice of materials in installations that had no impact on pollution to the possibility of recycling. Working on these elements, it becomes clear that not everything is sustainable and that sustainability requires considerable economic capacity. Let me give you an example: if I have to design an outdoor banner for this exhibition and I choose to use sustainable materials, they will not last over time. If I use PVC, it will last. Let's ask ourselves this simple question: what is more sustainable? Using PVC for banners or materials that have to be changed every month, which means moving a truck with a crane and reprinting with more ink waste." (Stefano Rovai)

Service CE communication business model

“We do co-working and sharing. Because it's a service business, it's in how we conduct ourselves, but it's also because of the nature of our clients. But all our co-working is using technology rather than paper. We walk everywhere or we use public transport. We don't take cars.” (Sarah Street)

Businesses' need for ethical business practices

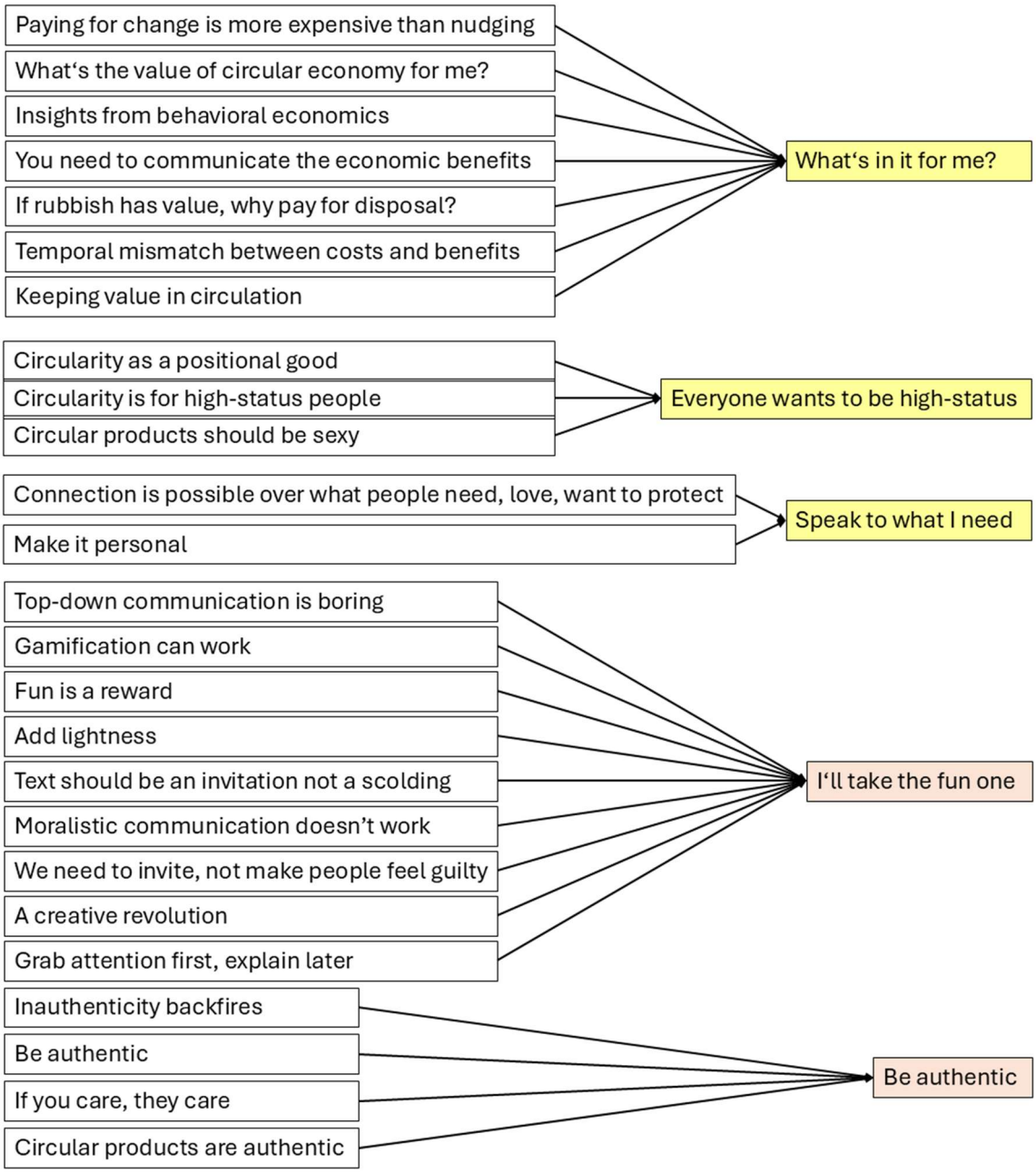
"We follow the value, not a sort of standard or a certification. We don't have a lens on that, and we're making sure you're calling it out when you see it. So, not accepting if a client says: "Oh, just say it's green and just say it's equal". But most of our, it's about behaviour as well." (Sarah Street)

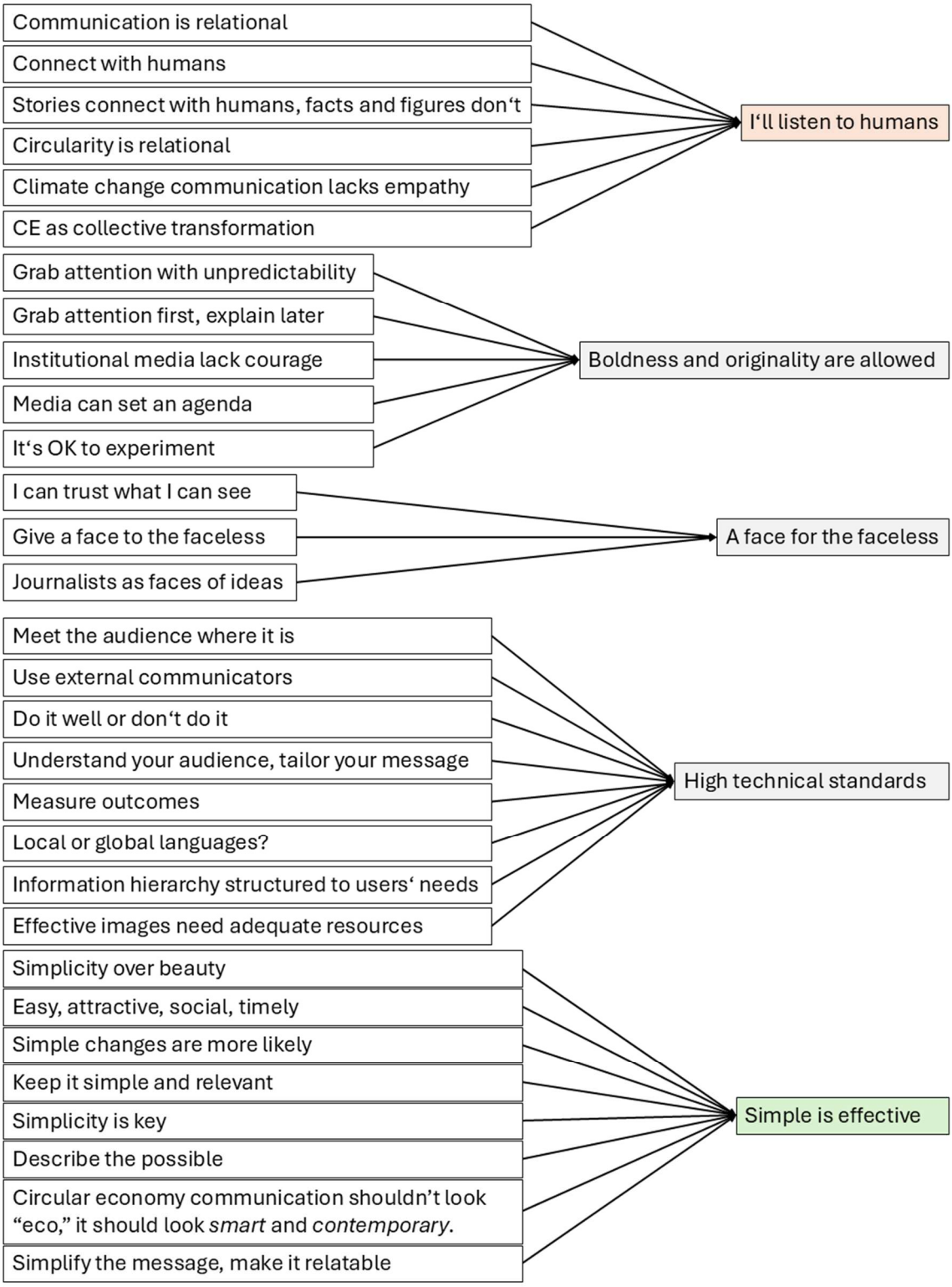
Substance over appearance

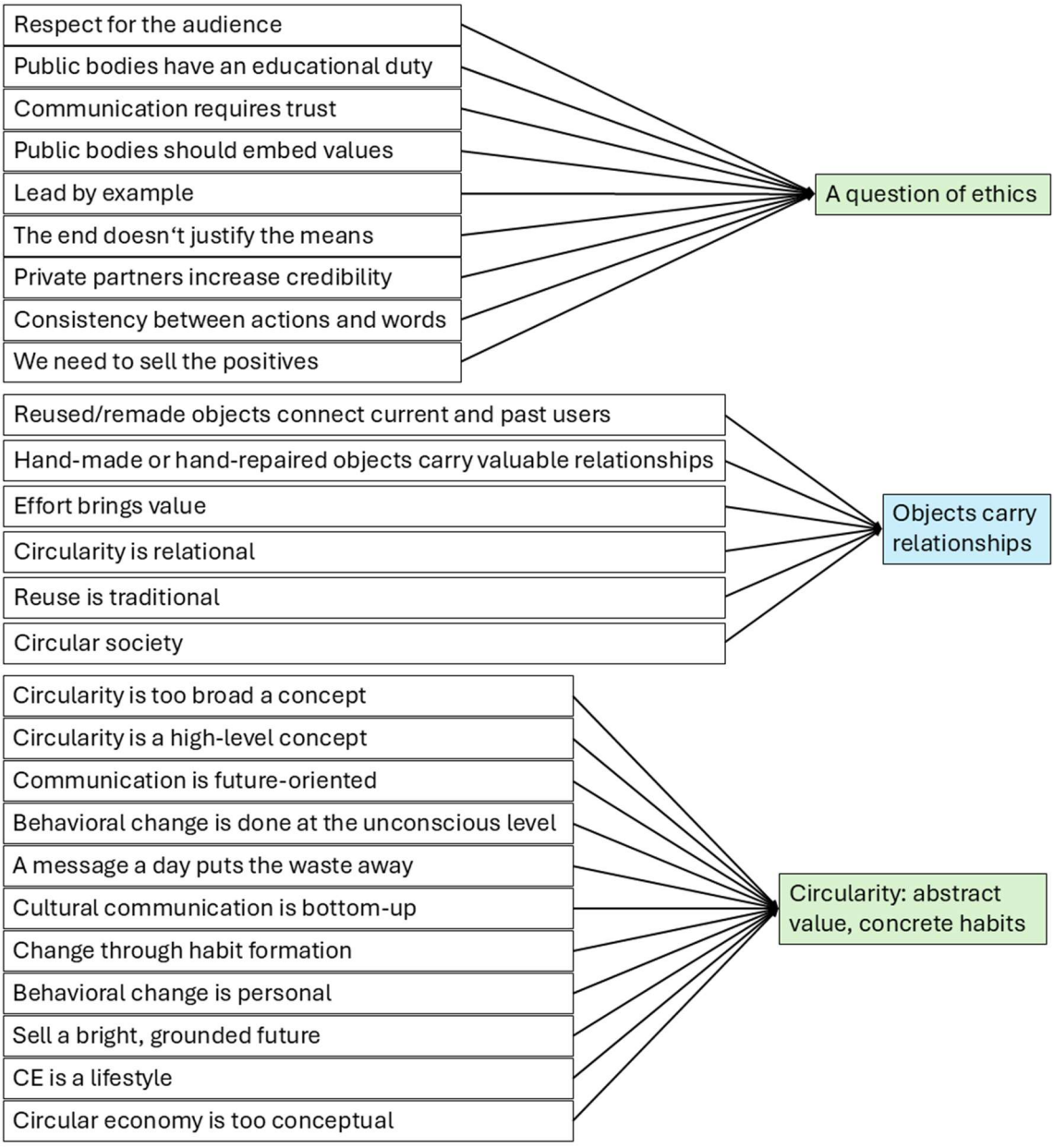
"Communication is an important part of our lives, and public bodies should not use it to glorify themselves." (Stefano Rovai)

"Without a vision, there can be no communication, which today is a hit-and-run dynamic with no projection into the future." (Stefano Rovai)

Appendix C: Full first- and second-level Gioia chart




Communication is relational
Connect with humans
Stories connect with humans, facts and figures don‘t
Circularity is relational
Climate change communication lacks empathy
CE as collective transformation
I‘ll listen to humans
Grab attention with unpredictability
Grab attention first, explain later
Institutional media lack courage
Media can set an agenda
It‘s OK to experiment
Boldness and originality are allowed
I can trust what I can see
Give a face to the faceless
Journalists as faces of ideas
A face for the faceless
Meet the audience where it is
Use external communicators
Do it well or don‘t do it
Understand your audience, tailor your message
Measure outcomes
Local or global languages?
Information hierarchy structured to users‘ needs
Effective images need adequate resources
High technical standards
Simplicity over beauty
Easy, attractive, social, timely
Simple changes are more likely
Keep it simple and relevant
Simplicity is key
Describe the possible
Circular economy communication shouldn’t look “eco,” it should look *smart* and *contemporary*.
Simplify the message, make it relatable
Simple is effective


Respect for the audience
Public bodies have an educational duty
Communication requires trust
Public bodies should embed values
Lead by example
The end doesn‘t justify the means
Private partners increase credibility
Consistency between actions and words
We need to sell the positives
A question of ethics
Reused/remade objects connect current and past users
Hand-made or hand-repaired objects carry valuable relationships
Effort brings value
Circularity is relational
Reuse is traditional
Circular society
Objects carry relationships
Circularity is too broad a concept
Circularity is a high-level concept
Communication is future-oriented
Behavioral change is done at the unconscious level
A message a day puts the waste away
Cultural communication is bottom-up
Change through habit formation
Behavioral change is personal
Sell a bright, grounded future
CE is a lifestyle
Circular economy is too conceptual
Circularity: abstract value, concrete habits

Discussion

This doctoral thesis set out to investigate how the circular economy (CE) is communicated within the public sector and to assess whether existing models of communication—particularly those developed within sustainability and environmental communication—are adequate to capture the specific communicative logic of CE. Rather than adopting a predefined theoretical framework, the research followed an inductive and cumulative design articulated through four empirical studies. Together, these studies address the overarching research objective and provide coherent answers to the three research questions guiding the thesis: (RQ1) how the circular economy is conceptualised and communicated in the public sector; (RQ2) which communicative mechanisms enable understanding, engagement, and action; and (RQ3) whether the communication of the circular economy justifies the development of a distinct theoretical paradigm.

Addressing RQ1: Conceptualising and Communicating the Circular Economy in the Public Sector

The first study directly addresses RQ1 by examining how the circular economy is communicated at the regional level, a governance layer that plays a pivotal role in translating supranational policy frameworks into concrete strategies and public-facing communication. The findings show that CE communication at this level is predominantly shaped by administrative rationality, institutional caution, and an information-oriented logic. Communication is primarily conceived as the transmission of plans, strategies, and technical content, with limited attention to interaction, dialogue, or shared meaning-making.

This empirical configuration is interpreted through Habermas' Theory of Communicative Action, which emerges inductively as a particularly suitable analytical lens. The analysis reveals a persistent gap between communicative action oriented toward mutual understanding and strategic communication oriented toward compliance and implementation. While the circular economy is formally framed as a transformative and participatory project, its communication largely remains instrumental, privileging procedural correctness over legitimacy and inclusiveness. In doing so, the first study establishes a baseline diagnosis: CE communication in the public sector is structurally aligned with linear transmission models and struggles to engage publics beyond informational awareness.

Addressing RQ2: Communicative Mechanisms Beyond Information

The second study builds directly on this diagnosis and addresses RQ2 by focusing on storytelling as a specific communicative mechanism. Using the same empirical context, it analyses storytelling as an institutional attempt to respond to the limitations of purely informational communication. Storytelling is mobilised to humanise abstract policy concepts, to introduce temporal continuity, and to reconnect circular economy strategies with lived experience.

The findings demonstrate that storytelling has the potential to reframe CE as a relational and processual phenomenon rather than a technical policy domain. However, they also show that storytelling in public-sector contexts is heavily constrained. Risk aversion, lack of narrative ownership, and concerns about institutional legitimacy often lead to diluted narratives that remain subordinate to informational content. As a result, storytelling frequently operates as an ancillary device rather than as a genuine reconfiguration of communicative logic. This study refines the answer to RQ2 by showing that communicative mechanisms capable of fostering engagement exist, but their effectiveness depends on deeper institutional shifts in how communication is understood and legitimised.

Extending the Analysis Across Contexts

The third study extends the empirical scope by examining CE communication at the state level in a national context characterised by a post-communist administrative culture and an early-stage adoption

of the circular economy. This comparative shift makes it possible to distinguish between context-specific factors and structural communicative dynamics. The findings reveal that the limitations identified in the first two studies—abstraction, informational overload, weak public identification—are not only reproduced but intensified.

In this context, CE communication appears highly technocratic and top-down, reinforcing the tendency to subsume the circular economy under a generic sustainability or "green" discourse. Public communication prioritises formal compliance and policy visibility over meaning-making or engagement. This study thus reinforces the answers to RQ1 and RQ2 by demonstrating that the challenges of CE communication are not merely stylistic or national, but systemic and deeply embedded in prevailing communication models.

Addressing RQ3: The Need for a Distinct Communicative Paradigm

The fourth study marks a conceptual turning point by explicitly addressing RQ3: whether the communication of the circular economy requires a distinct theoretical paradigm. Drawing on professional perspectives across communication, design, and policy-related fields, the study identifies two structural constraints that characterise CE communication across contexts: systemic abstraction and temporality.

The circular economy unfolds through cycles, delayed benefits, and repeated practices. It cannot be effectively communicated through episodic campaigns, isolated messages, or linear awareness-building strategies. The findings converge on the idea that CE communication must be conceived as a long-term process oriented toward habit formation rather than short-term attitude change. Immediate experiential value, reduction of friction, and repetition emerge as key mechanisms enabling engagement. Crucially, the study challenges the dominant assumption that more information leads to better outcomes, showing instead that informational saturation often produces disengagement.

Positioning the Ouroboros Paradigm within Communication Theory

To understand the theoretical contribution of these findings, the Ouroboros paradigm must be positioned in relation to existing communication models. Linear transmission models (Shannon & Weaver, 1949; Lasswell, 1948) conceptualise communication as the transfer of information from sender to receiver and underpin many of the institutional practices analysed in the first study. Transactional models (Schramm, 1954; Barnlund, 1970), pragmatic and systemic approaches (Watzlawick et al., 1967), and semiotic models (Eco, 1976; Fabbri, 1998) progressively introduce feedback, relationality, and meaning production.

While these models illuminate important aspects of communication, the empirical studies demonstrate that their isolated application in public-sector CE communication results in fragmented practices, where information, persuasion, and participation are treated as separate rather than interconnected processes. Craig's (1999) constitutive metamodel offers a pluralistic framework for organising these traditions, understanding communication as a practical discipline concerned with the constitution of meaning in social interaction. However, Craig's framework remains primarily descriptive and reflexive.

The normative dimension is supplied by Habermas' Theory of Communicative Action (Habermas, 1984; 1987), which foregrounds mutual understanding, legitimacy, and democratic participation. Yet, as the empirical findings show, neither sustainability communication models nor deliberative frameworks alone adequately capture the temporal and recursive logic of the circular economy.

The Ouroboros Paradigm as a Theoretical Contribution

The Ouroboros paradigm responds to this gap by conceptualising communication as a cyclical, regenerative, and socially constitutive process. Drawing on Craig's metamodel, it integrates rhetorical, semiotic, phenomenological, and sociocultural dimensions of communication. Informed by Habermas, it incorporates normative criteria related to legitimacy and mutual understanding. Crucially, it foregrounds temporality as a constitutive dimension of communication.

In contrast to the linear capitalist model, which relies on a semiotics of novelty, obsolescence, and discard (Baudrillard, 1970; Bauman, 2013), the circular economy inverts the symbolic order by relocating value in continuity, relation, and transformation. Objects are valuable not because they are new, but because they embody histories of use and connection. Communicating the circular economy therefore means narrating relations of becoming rather than acts of consumption, shifting narrative logic from progress to return.

Within the Ouroboros paradigm, informational communication, behavioural orientation, and participatory engagement are re-situated as interdependent moments within a communicative cycle. Meaning is stabilised through repetition, trust is built through coherence, and action emerges from reduced friction rather than persuasion. Communication is no longer an input preceding action, but the temporal infrastructure through which circular practices become socially viable.

Integrative Answers to the Research Questions

Taken together, the four studies provide cumulative and coherent answers to the research questions. RQ1 is addressed by empirically demonstrating how CE is currently communicated in the public sector and why this communication remains predominantly informational and instrumental. RQ2 is answered by identifying mechanisms capable of bridging the gap between abstraction and action, while clarifying their institutional constraints. RQ3 is resolved by showing that the communication of the circular economy justifies the development of a distinct paradigm that reconceptualises communication as recursive, relational, and temporally grounded.

Overall, this thesis contributes to communication theory by demonstrating that communicating the circular economy requires more than improved messaging or enhanced participation. It requires a fundamental shift in how communication itself is conceptualised: from transmission to recursion, from persuasion to habit formation, and from episodic interventions to sustained communicative cycles.

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Practical Implications for Public-Sector Circular Economy Communication

This thesis advances the Ouroboros paradigm as a constitutive and integrative framework for Circular Economy communication in the public sector. The practical implications outlined in this chapter emerge cumulatively from the four empirical studies and reflect the progressive shift observed across the research from information-centred communication to meaning-oriented and participatory practices.

Rather than offering prescriptive guidelines detached from empirical evidence, the implications presented here translate the analytical insights of the individual studies into practice-oriented principles for public institutions, policy communicators, and sustainability practitioners.

Findings from Studies 1 and 2 show that public-sector Circular Economy communication is predominantly framed around information provision and awareness-raising, often relying on linear or deficit-based assumptions. Communication effectiveness in these contexts is frequently equated with clarity, consistency, and behavioural compliance.

A first practical implication is therefore the need to reframe communication objectives. Public institutions should move beyond an exclusive focus on transmitting correct information or encouraging predefined behaviours and explicitly address how meanings of circularity are constructed and interpreted by citizens.

In practice, this entail defining communication goals in terms of shared understanding and legitimacy, not only behavioural indicators; acknowledging ambiguity and contestation as inherent features of Circular Economy concepts; designing communication outputs that allow for interpretation and sense-making rather than prescribing action.

These implications directly respond to the limitations observed in Studies 1 and 2, where information-heavy communication strategies struggled to generate deeper engagement or durable understanding.

Studies 3 and 4 highlight the potential of visual and participatory communication practices to support iterative meaning-making processes. Unlike one-off information campaigns, these approaches reveal how communication can evolve through feedback, reinterpretation, and relational engagement.

The Ouroboros paradigm translates these findings into a second key implication: public-sector communication should be designed as a cyclical and iterative process rather than as a linear sequence.

Practitioners are encouraged to incorporate structured feedback loops into communication initiatives; treat communication as an ongoing dialogue rather than a campaign with a fixed endpoint; allow communication strategies to adapt in response to citizen interpretations and institutional learning.

These implications build directly on the empirical evidence from Studies 3 and 4, where communication effectiveness emerged not from message control but from openness to reinterpretation and relational continuity.

Across the four studies, a recurring pattern emerges: informational, behavioural, and participatory approaches are often implemented separately, leading to fragmented communication practices. Study 1 foregrounds informational strategies, Study 2 emphasises behavioural orientation, while Studies 3 and 4 introduce participatory and interpretive dimensions.

The Ouroboros paradigm offers a practical response to this fragmentation by proposing integration rather than substitution. Public institutions should avoid choosing between communication models and instead embed them within a coherent communicative cycle.

In practical terms, this means using informational communication to establish shared reference frames (as seen in Studies1 and 2); employing behavioural tools as supportive mechanisms rather than dominant strategies; embedding participatory practices throughout the communication process, as illustrated in Studies 3 and 4.

This integrated approach enhances coherence, reduces communicative contradictions, and supports more robust meaning-making processes.

Drawing on Habermas' Theory of Communicative Action and supported empirically across all four studies, the thesis highlights the importance of legitimacy, inclusiveness, and reason-giving in public-sector Circular Economy communication.

Studies 1 and 2 reveal the limits of strategic communication when legitimacy is assumed rather than constructed. Studies 3 and 4 demonstrate how dialogical and participatory practices contribute to trust and shared ownership of sustainability narratives.

A key practical implication is therefore the need to create communicative spaces where citizens can question, reinterpret, and contest Circular Economy narratives; make explicit the normative assumptions underlying policy choices; shift from persuasive messaging toward communicative practices oriented toward mutual understanding.

Such practices are particularly relevant in contexts where Circular Economy policies directly affect everyday behaviours and where institutional trust cannot be taken for granted.

The methodological diversity of the four studies—spanning discourse analysis, qualitative interviews, visual analysis, and interpretive approaches—reveals the limitations of traditional evaluation metrics focused solely on reach, recall, or behavioural change.

A further practical implication concerns how communication effectiveness is evaluated. Public-sector practitioners should complement quantitative indicators with qualitative criteria aligned with a constitutive understanding of communication.

These include evidence of shared understanding and narrative coherence (Studies 1 and 2); signs of interpretive engagement and appropriation (Studies 3 and 4); institutional learning and adaptability across communication cycles.

These criteria resonate with the quality and validity principles discussed in the methodological chapter and reflect the integrated logic of the Ouroboros paradigm.

Finally, the cumulative insights of the four studies point to the need for sustained capacity building within public institutions responsible for Circular Economy communication.

This includes training communication professionals in interpretive and participatory approaches (Studies 3 and 4); fostering collaboration between policy experts and communication practitioners (Studies 1 and 2); developing organisational cultures that value dialogue, reflexivity, and learning across communication cycles.

By adopting the Ouroboros paradigm as a guiding framework, public institutions can strengthen both the effectiveness and the democratic quality of Circular Economy communication.

Conclusion

This doctoral thesis has examined how the circular economy is communicated within the public sector and has questioned whether existing communication models are adequate to support its societal uptake. Through a multi-study, inductive research design, the thesis demonstrates that the communicative challenges surrounding the circular economy are not merely practical or stylistic, but epistemic and theoretical in nature. The central argument advanced is that the circular economy cannot be fully understood, nor effectively communicated, within the conceptual boundaries of existing sustainability communication frameworks. Rather, it calls for the consolidation of a distinct field of inquiry within communication studies: circular economy communication.

While sustainability communication has developed as a recognised applied domain, the findings of this research show that the circular economy introduces specific communicative demands that remain under-theorised. These demands concern the role of time, the visibility of material and social relations, the interdependence of actors, and the gradual stabilisation of practices through repetition rather than through isolated behavioural interventions. Across the four empirical studies, communication emerges not as an ancillary support to circular policies, but as a constitutive condition for their intelligibility, legitimacy, and durability.

The first study provides an inductive exploration of public-sector communication on the circular economy at the regional level, a governance tier that is particularly suited to observing the translation of policy into practice. The analysis reveals a predominant reliance on linear and strategic communication models oriented toward information provision and awareness raising. By mobilising Habermas' Theory of Communicative Action as an interpretive lens, the study demonstrates that such approaches privilege compliance over understanding and instrumental effectiveness over legitimacy. This mismatch highlights the limits of transmission-oriented models when applied to a transformative agenda that presupposes collective coordination and long-term engagement.

The second study builds on these findings by focusing on storytelling as a communicative strategy increasingly adopted by public institutions in response to these limitations. Storytelling is shown to function as an attempt to humanise abstract policy content, introduce relational meaning, and move beyond purely informational communication. However, the analysis also reveals that, when deployed instrumentally or episodically, storytelling remains constrained by institutional norms and does not in itself resolve the fragmentation between information, persuasion, and participation that characterises public-sector CE communication.

The third study extends the analysis to a national context marked by an early-stage adoption of the circular economy and by a historically rigid administrative communication culture. This comparative perspective confirms that the challenges identified are not contingent on a specific institutional setting, but reflect structural features of public communication systems. In such contexts, the abstraction of CE communication is further amplified by formal registers, hierarchical communication practices, and limited space for participatory meaning-making.

The fourth study synthesises and advances the insights of the previous analyses by shifting the focus toward temporality, practice, and social meaning. It demonstrates that communicating the circular economy cannot be reduced to increasing awareness or persuading individuals to adopt isolated behaviours. Instead, CE communication must support repeated, low-friction actions over time, enabling habits, norms, and shared understandings to emerge gradually. The findings show that information overload, moralising narratives, and short-term campaigns tend to undermine engagement rather than foster it, particularly in institutional contexts characterised by high expectations of credibility and ethical responsibility.

Taken together, the four studies delineate the contours of circular economy communication as an emerging field of research. This field is characterised by a temporal orientation that foregrounds continuity and repetition, by an emphasis on practices and social relations rather than abstract principles, and by a normative concern with legitimacy, trust, and participation in public communication. Within this perspective, communication is no longer conceived as a unidirectional transfer of information or as a tool for behavioural steering, but as a socially constitutive process through which circular practices become meaningful and viable over time.

On the basis of these cumulative insights, the thesis introduces the Ouroboros paradigm as its principal theoretical contribution. The paradigm conceptualises communication as cyclical, regenerative, and relational, mirroring the logic of the circular economy itself. Drawing on Craig's constitutive metamodel, it integrates rhetorical, semiotic, phenomenological, and sociocultural dimensions of communication, rejecting the primacy of any single theoretical tradition. Informed by Habermas' Theory of Communicative Action, it incorporates normative criteria related to mutual understanding, legitimacy, and democratic participation, which are particularly salient in public-sector contexts.

The Ouroboros paradigm represents a deliberate departure from dominant sustainability communication models, which tend to conceptualise communication instrumentally and evaluate success primarily in terms of predefined behavioural outcomes. Instead, it reframes communication as the temporal infrastructure through which circular practices are stabilised and reproduced. Meaning is not transmitted once but consolidated through repetition; value is not asserted but experienced; persuasion gives way to participation; and novelty is replaced by continuity.

This shift also entails a symbolic inversion of the semiotics underpinning linear capitalist communication. Whereas linear models locate value in innovation, obsolescence, and replacement, the circular economy relocates value in continuity, relation, and transformation over time. Communicating the circular economy therefore entails narrating relations of becoming rather than acts of consumption, and enabling individuals and institutions to recognise themselves as participants within ongoing material and social loops.

The thesis thus makes a twofold contribution. Empirically, it provides a systematic and comparative analysis of how the circular economy is communicated across different public-sector contexts and governance levels. Theoretically, it contributes to communication studies by articulating circular economy communication as a distinct and necessary field of inquiry, and by proposing the Ouroboros paradigm as a conceptual framework capable of integrating informational, behavioural, and participatory dimensions within a coherent, temporally grounded, and normatively informed model.

In conclusion, this research argues that the transition to a circular economy requires not only new policies, technologies, and organisational arrangements, but also new communicative imaginaries. By conceptualising communication as a cyclical, relational, and time-sensitive process, this thesis lays the theoretical foundations for the study of circular economy communication and opens new avenues for research at the intersection of communication theory, sustainability studies, and public governance.