Communicating for Sustainable Consumption and Production WG: Scoping Document

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The authors of this paper work on the assumption that climate change and other pressing environmental and social issues cannot be solved by technologies alone; what we also need is changes in our consumption patterns and life styles. This is much harder to achieve than technological innovations, because it touches the lives of individual citizens and consumers. It is also hard because consumption and consumerism are not only individual but also cultural and systemic issues that cannot be managed by addressing individual consumers alone. For this communication and education are essential, but also challenging. Far from being mere academic challenges this requires a pragmatic approach and experimentation, including all stakeholders like business, government, civil society, and academia. The KAN Working Group on Communicating For Sustainable Consumption and Production addresses these issues.

1. Introduction and Objectives

This scoping paper of the Working Group on Communicating for Sustainable Consumption and Production (WGCoCo) of the Future Earth Knowledge-Action Network (KAN) on Systems of Sustainable Consumption and Production (SSCP) presents a Research and Action agenda on Communicating for Sustainable Consumption and Production as one of currently five issue-focused Working Groups currently contributing to the KAN (futureearth.org/future-earth-sscp). The activities around promoting and communicating about the KAN itself are handled by a separate Task Force.

Communicating for SCP is notoriously complex. The concept *sustainable consumption* itself is ambivalent, addressing consumption on all levels from individual lifestyles and aspirations towards the cultural notion of consumerism as embedded in the dominant culture of many countries [1]. *Consumption* is originally an economic term and coupled with production; it also refers to materials flows through society.

Communication itself is also complex activity. In the theoretical background provided in section 2 we distinguish three types of communication: mono-directional (communication of); bi-directional (communication about); and normative (communication for). Communication needs to address *what* is communicated (the content); *to* or *with whom* is communicated (the addressee; the target group; the stakeholder); and what is the *intended outcome* or *function* (e.g. change of thinking or behavior, change of structure). Communication can be manipulative, instrumental and coercive, e.g. when consumers are allured into buying goods they neither need nor can afford. But it can also be empowering and emancipatory, e.g. when it confronts people with different world views and problem definitions and stimulates higher-order learning processes that may ultimately make them reflect and change their initial problem definitions and frames of meaning. Re-orienting existing ways to consume and produce requires altering mindsets of how we use goods and services in the normative context of sustainability. These processes of challenging and changing mindsets and interpretations in and through communication are at the heart of the WGCoCo's agenda.

> The **mission statement** of this WG is thus: *The WGCoCo aims at exploring, evaluating and changing framings of Sustainable Consumption and Production in and through Communication, contributing to systemic changes towards Sustainable Consumption and Production.*

The **aims** of this WG thus are:

A. To contribute to better understanding the **conceptual and theoretical challenges** related to Communicating for SCP; to identify **knowledge gaps** and to formulate **research questions**.

B. To support **activities and experiments** in communicating for SCP by analyzing methods, activities, experiments, projects and their intended and unintended outcomes;

C. To **design and test** new ways of communication; and explore diverse means of communication like social media, games and interactive websites.

D. To contribute to the establishment of a **coherent conceptual framework**, a **set of methodologies**, and a **portfolio of actions and activities** that would support communicators around the world.

The WGCoCo will thus focus on the frames, topics, narratives, modes, formats, and instruments of communication, and explore their impacts on engagement, empowerment, and action for more sustainable systems of consumption and production. It seeks to address both:
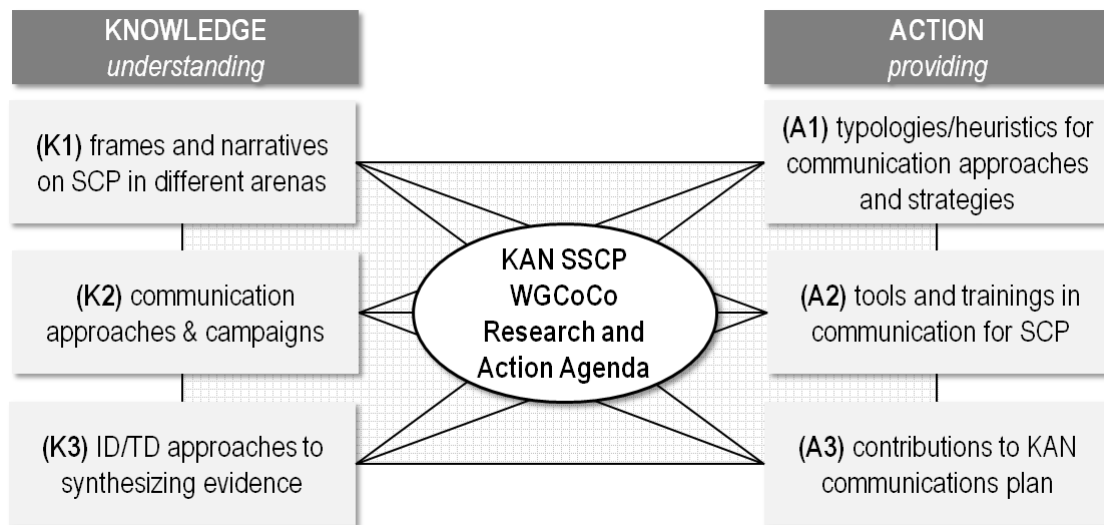
- The **knowledge side** of communication by:

a)   identifying different frames and narratives featuring in discourses about SCP in different societal arenas,

b)   collecting and systematizing existing examples of communication approaches and campaigns (including the potential of social media),

c)   using inter- and transdisciplinary approaches to synthesizing existing scientific evidence and practitioners' experiences with regards to effects and effectiveness of such different communication approaches and strategies.

- and the **action side** by:

d)   providing typologies/heuristics that offer an overview and guidance on different communication approaches and strategies to advance more integrated understandings, impacts, and a 'strong view' of SCP,

e)   developing tools and giving recommendations for effective approaches and strategies to communicate SCP and respective dissemination plans (communications, but also education/training/capacity building) to equip practitioners with these tools and the competencies needed to use them effectively,

f)   contributing to a strategic communications plan for the KAN on SSCP (including

strategies for overcoming obstacles to the uptake of strong SCP approaches and positioning to take advantage of fortuitous circumstances when they arise).

The objectives of the WGCoCo are displayed in Figure 1.

Figure 1: Objectives of SSCP KAN WGCoCo

2. Theoretical Background

2.1. Conceptualizing Sustainable Consumption

Since the 1990s a considerable amount of research has been conducted on understanding consumption and lifestyles. The initial understanding of consumption as individual choice-making – and therefore calling for frugality [2], voluntary simplicity [3], and sufficiency [4] – has been replaced with a much more systemic and complex picture. People consume in order to satisfy such basic material needs as shelter, mobility, clothing and food; but also to satisfy immaterial needs in a search for a meaningful life, self-realization, status, belonging, and security [5]. As first described by Baudrillard [6] and Bourdieu [7], many consumer goods signal status, power, success and identity. Peer pressure is an important driver of consumption. For these reasons explorations of human well-being and happiness have become part of sustainable consumption research. Max-Neef [5] made an important distinction between (material and immaterial) human needs and ways to satisfy them, which he calls

satisfiers. Human needs are universal, but satisfiers are culturally determined and can, at least in principle, be influenced [8]. For instance, mobility is a basic human need, but the private car is a satisfier, not only for transportation, but also for status, independence and "freedom". Research into possibilities to fulfill needs with less material goods through services or through various forms of sharing has also become part of the sustainable consumption research field [9, 2].

A transition to sustainable consumption and lifestyles presents a very difficult challenge. First, in consumer societies the prevailing business models, political priorities and dominant culture all work in tandem to encourage more consumption. Macro level forces, such as global trade, the monetary system, and the debt-driven need for economic growth in a capitalist economy also translate in practice to fostering more consumerist lifestyles [10]. Second, there is the lock-in phenomenon. People find themselves locked-in into unsustainable lifestyles for reasons beyond their control. For instance, in the US a search for affordable housing usually leads to increasingly distant suburbs; suburban lifestyles and inadequate public transport lead to car-dependency; and the housing stock in more affluent communities (which in the US signify better schools) favors large dwellings and other high-footprint consumption practices; and so on.

Third; the rebound effect: most effective are campaigns in which consumers are promised financial gains (for instance saving energy costs). These financial gains are then often spent in ways that are more environmentally damaging like transcontinental flying and additional holidays. Energy saving through efficient LED lights are used to install more lights. Estimates about the magnitude of rebound effect range from 10 to about 60%, depending on the type of rebound effect [11, 12].

This complex nature of consumption is recognized in a definition of sustainable lifestyles provided in a recent report by the United Nations Environment on fostering and communicating sustainable lifestyles: *"A sustainable lifestyle minimizes ecological impacts while enabling a flourishing life for individuals, households, communities, and beyond. It is the product of individual and collective decisions about aspirations and about satisfying needs and adopting practices, which are in turn conditioned, facilitated, and constrained by societal norms, political institutions, public policies, infrastructures, markets, and culture."* [13]

2.2. Differentiating between communication *of*, *about* and *for* SCP

The work of this WGCoCo is underpinned by a wide perspective on communication that goes beyond the often narrowly confined notion of communications as a strategic, instrumental, and marketing-oriented approach. In contrast, communication in its broadest sense

refs to processes in which representations of the social and natural worlds are exchanged and shared (and therewith: change) [14]. Approached in this way, sustainability-related communication is not only understood as instrumental and transmissive (communication *of* a particular understanding of SCP by means of 1-way communication) but also as focusing on fostering public deliberation, participation, and discourse, stimulating communication *about* what SCP could mean by means of 2-way communication. With the latter more expansive mode come different objectives (e.g., communication *of*: persuasion vs. communication *about*: social learning) [15]. The WGCoCo will review both communication *of* and communication *about* SCP, but ultimately our emphasis is communication *for* SCP and its potential impact for changing systems of production and consumption into more sustainable ones. This mode of sustainability communication focuses on processes of individual and social sense-making that seek to empower people to take an active role in transformation processes to SCP [16].

Such understanding of communication reflects the normative assumptions underpinning the idea of sustainability which entail capacity-building for reflexive, adaptive, and participatory decision-making. This means that it is insufficient to merely make people act in what experts/political leaders have set out to be a 'sustainable' way.

2.3   Communication as *social learning*

Communication plays a crucial role for changing attitudes, from passive, yet aware, individual/community into an active and informed agent of change, starting by taking actions to shift one's lifestyles. Given the magnitude of systemic changes needed to realize sustainable systems of consumption and production, it is crucial that we not only seek to foster a better *understanding* of SCP in societal groups or to promote public *acceptance* of respective interventions in people's lives through communication. Moreover, what communication needs to contribute is *to enhance individual and collective capacities to learn* "our way together to a more sustainable future in dynamic multi-stakeholder situations of uncertainty and complexity." [17, p. 229] Such processes of "learning collectively to foster systemic change" [18, p. 47] have been vividly discussed in recent years as social learning or higher order learning.

By higher order learning we mean *reframing* the problem definition and changing the interpretive frame among the diverse participants in an initiative. In an earlier paper we defined higher order learning in an interactive project as *"……participants re-examine, and possibly change, their initial perspectives on the societal needs and wants … as well as the approaches and solutions; examine and place the particular project in a broader context of pursuing a sustainable society; examine, and possibly change, their own perceived roles in the above*

problem definitions and solution; change views on the mutual relationships among each other relative to the specific project or the broader societal context, including mutual convergence of goals and problem definitions; change their preferences about the social order as well as beliefs about best strategies for achieving them.” [19]. Such reframing and reconceptualization may be conducive for translation into different contexts and different situations.

In a social learning perspective, communication in the context of SCP is challenged to overcome two often contested modes of traditional communication approaches: first, to extend traditional mono-directional forms of communication that focus on conveying issues around SCP defined by experts, scientists and elites to broader lay audiences. To stimulate social learning, communication is challenged to stimulate *discourses* about a range of issues that concern diverse social actors and provide different perspectives on societal transitions [19]; and second, to take a broader perspective on the *interrelatedness* of individual behavioral change and societal transitions. In such perspective, social experiments where various social actors with different worldviews collaborate on the local level in concrete projects and engage in processes of deep and mutual social learning could possibly provide powerful examples that may be diffused through peer-to-peer exchanges rather than traditional 'communications' [13].

3. Review of Research

Communication, including education and information, traditionally features prominently in approaches to promote SCP [21]. The practical utilization of communication has also attracted the interest of researchers from a diversity of disciplinary backgrounds. In our view of the field three approaches to study communication in the context of SCP can be distinguished that broadly reflect the aforementioned distinction between three types of communication.

(1) **Formation**: This strand of research focuses on identifying key concepts, terminologies and discursive figures, as well as unpacking contested meanings and conflicting interest behind them. In this vein, the object of analysis is not so much on effects or effectiveness, but rather on the deconstruction of how different narratives and discourses evolve and compete, and on how they are framed in and through communication. Examples for this strand of research are critical analyses of the conceptualizations of sustainability transition narratives in the academic literature [22, 23], green jobs and green economy discourses in print media [24], the construction of sustainability in integrated reporting [25] or communicative

framings of normative ideals with regard to consumers' food consumption choices in school textbooks [26].

(2) **Deliberation**: A second strand of research is concerned with how different stakeholder groups can be motivated to engage with SCP. Here, the emphasis is on fostering open deliberation and collective meaning-making rather than on persuasion towards predetermined ends. Of particular importance is social mobilization and clarification of desirable futures (also considered as target or orientation knowledge). Examples for deliberation-oriented research comprise capacity building efforts in education [27], real-world laboratories, living labs or socio-technical experiments [19, 28], but also stakeholder engagement approaches in the corporate sector [29].

(3) **Transformation**: In this strand, a plethora of studies has looked into how communication can be utilized as a means to achieve specific ends proposed as conducive to advancing SCP. Given the strong normative tenets underpinning the definition of such particular ends, approaches in this domain are often highly contested (e.g. on the question of what type of growth should be promoted). Examples for this type of research are behavior change interventions [30], (social) marketing campaigns [31, 32] or the use of choice editing in policy design [20, 33].

Further insights on the potential contributions of a communication perspective to SCP research can be gained from the analysis of recent agenda setting works in the field. Future Earth's strategic research agenda [34] describes nine research priorities across three themes (dynamic planet, global sustainable development, and transformations towards sustainability). Consumption and production feature in a number of different priorities (A3, B3, C1, C2, C3). Communication is explicitly referred to in the priority C2 on identifying and promoting sustainable behaviors, where the question is raised how "communication and networking technologies [can] facilitate information exchange, collaboration and collective action for promoting systemic change towards sustainability" [34, p. 24]. In their review of the field, Reisch and colleagues suggest to transcend traditional silo research in future research on SSCP by strengthening inter- and transdisciplinary research, forging multi-actor collaboration, and using experimental approaches (testing and evaluating) [21]. While not explicitly mentioned by the authors, the challenges in this boundary-breaking work called for clearly has implications for a systematic utilization of communication in future SCP research.

Summing up, we find that communication is today widely considered as an indispensable element of SCP research. We also showed that it contributes to SCP research in different perspectives (formation, deliberation, transformation). However, in comparison to

other sustainability related domains such as climate change or public health, where communication is today well-established as a distinct field of research and practice [35, 36], communication in the context of SCP remains a rather fragmented field. We also find that the contributions of a communication perspective in engaging with key challenges in SCP research yet remain underexplored and that a more strategic endeavor to systematize, utilize and advance communication expertise across different SSCP contexts is still outstanding.

4. Review of Practices and Policies

Communication plays a crucial role for changing attitudes, from a passive, yet aware, individual or community into an active and informed agent of change. It thus features as a key approach in several policy initiatives and activities seeking to seed social mobilization for SCP. The common assumption or normative foundation of many of these approaches can be characterized by a few key concepts: agency and empowerment. Individual agency is often defined as a sense of ownership that relates to the "ability to imagine and affect desired change" [35, p. 357] and is intrinsically related to the ways individuals make their lifestyle choices.

Empowerment is another outcome of a latent sense of agency, the belief "yes, we can!" represents the conviction of being capable to drive change, both individually as a consumer and systemically as a citizen, as well as awareness of the implications that one's actions have and could have. In our view of the field, three distinct avenues emerge that have been prominently addressed and targeted as breeding grounds for driving social innovation towards SCP: bottom-up innovation in real-life contexts (social experiment and real-world laboratories), traditional formal and informal contexts for consumer learning (media, advertisement and education), as well as new possibilities of transcending traditional boundaries in communicating for SCP that come along with the development and maturation of new media (information and communication technologies).

4.1 Social experiments and real-world laboratories

A recent report for UNEP [13] has developed a new approach taking successful experiments in sustainable living as case studies to learn how to frame and to communicate sustainable lifestyles. In the report, 16 lifestyle experiments and campaigns are described and analyzed. From the analysis and through literature research, a 4-step strategic approach emerged based on eight principles that need to be observed in order to create a successful experiment. These principles are, summarized: Engage in participatory, relevant, and grounded ways; Focus

on aspirations; Set clear goals and demonstrate sustainability results; Consider the systemic nature of lifestyles; Take advantage of life stages and transitions; Accommodate the diversity in lifestyles; Show that lifestyles extend beyond individual action; Learn and adapt to changing conditions. In the report these principles are grounded and illustrated by examples from the case studies. The case studies themselves show the principles in operation and show that application of most, if not all principles enables a successful experiment. In addition, the case studies provide messages for communicating to a wider audience.

In one of the most interesting case studies Kislábnyom (small footprint) in Hungary, involvement of community members in interactive activities aimed at promoting long-lasting behavior changes resulted in higher order learning. The participants were low and medium income community members who have traditionally – mostly out of economic necessity – lived low carbon footprint lifestyles: growing their own foods, sharing, swapping, bartering, reusing, repurposing, and so on. But they did not think of themselves as green, because they associated the term with more expensive specialized goods and services. When asked about it, the community members said that they were not sufficiently affluent to be green. The small scale initiative consisted of interactive training sessions with groups of families around the country, small footprint competitions for households, celebratory community events, planting of native fruit trees, and taking collective responsibility for emissions associated with program-related events. The organizing NGO Green Dependent identified many behaviors that households were already taking that could be expanded on, and reframed how participants thought about the issue by promoting the idea that low income lifestyles are inherently sustainable. The effort created a feeling of pride among participants and reframing of their view on their frugal lifestyles as green and ecologically sustainable. This is a prime case of higher order learning through a small-scale initiative. This approach to communicating SCP through evaluating and promoting existing sustainable lifestyle practices needs to be further developed and tested, but it provides potentially a fruitful alternative to more traditional campaign for promoting sustainable consumption or lifestyles.

Another approach to foster social learning and collective sense-making is visioning as a means of communication. It has often been claimed that a strong positive future vision is mobilizing for individuals and social actors to develop strategies how to realize such a vision in practice. *Dragon dreaming* is a method that is often used in grassroots movements or transition towns to mobilize people and enact ideas for change (t1p./kh9h). So far, however, it remains unclear how visioning can be effectively used to intervene towards SCP. Herein lays a challenge for future work in the field.

4.2 Learning through media, advertisement and education

Despite rapid changes in communication technologies and practices in the 21ˢᵗ century, the media (especially advertisement) and formal education still function as two key avenues for consumer learning and socialization. SCP policy has placed much emphasis on promoting Education for SCP that has established itself as a distinct field of practice and study. Prominent international examples are the 10-year Framework of Programmes on SCP (unep.org/10yfp) and the activities of networks such as PERL (Partnership for Education and Research about Responsible Living) (e.g. active learning methodology toolkits; eng.hihm.no/project-sites/living-responsibly) or SCORAI (scorai.org/teaching). Even though advancements made in the past decades in re-orienting educational systems towards sustainable development (including the formation of thematically focused networks, production of educational resources and development of curricula and policies), education for sustainable development in general and education for SCP in particular still remain largely marginalized in educational systems across the world. Progress is impeded by the inter- and transdisciplinary nature of SCP that transcends the traditional boundaries between subjects and professional communities and networks. Herein lays a challenge for communication.

The role of media in all forms strongly influences systems of SCP. The advancement of hyper-targeted advertisement, the inseparability of digital life and advertising, the comparisons engendered by social media, and much more are critical questions that communication studies can address. Social media will give the WG opportunity to experiment with online-communication tools. There is an increasing amount of information about sustainability and its relation to lifestyles, nonetheless, commercial media still fail to integrate the content of sustainability messages with "normal" content, preserving the notion that sustainability is only for just a few (tree huggers, hippies, etc.) or is something too radical that the average citizen has no role to play. Advertisement is at large still endorsing consumption traits based on acquisition of more material goods rather than thinking about sufficiency. It is important that communicators, either as media makers, producers, marketing organizations and advertisers harness the message of sustainable lifestyles through the use of efficient existing formats that raise aspirations (i.e. soap operas) as well as exploring new formats (bloggers, via social media, etc.) that bring sustainable lifestyles to different type of audiences, making the topic more inclusive and tailored to the different aspirations and contexts of the consumer. Examples showcasing how SCP can be weaved in to these media formats are entertainment-education [38] or movies/documentaries [39].

Given their immense power, turning the media, advertisers and marketers into allies to

communicate sustainable lifestyles is of critical importance for the advancement of a more impactful communication for SCP. First examples of how media makers' expertise in presenting content in ways that speak the target audience's language and appeal to it can be used for strategic communication have been piloted (see e.g. [40]), but need to be carried further.

4.3 New information and communication technologies

"We are sitting at the edge of a new world full of amazing possibilities, potentials and risks as human interaction moves from face - to – face communication to a virtual one."

In the search for approaches to tap into the sense of agency of individuals and spur change towards SCP, new information and communication technologies are considered to bear great potentials. The latest developments on new technologies from the areas of augmented reality (AR) and virtual reality (VR) are described as a groundbreaking technological revolution, with socio-cultural effects, possibilities and risks that are comparable with the introduction of the Internet. The current scientific literature reaches from well-argued warnings (further intensification of the consumer society, new dependencies of young people, increasing addictions to games and pathological gambling, commercialization of free-time) to the description of the enormous potential that mixed realities or use of AR and VR hold, e.g. for the communication of environmental and social responsibility and sustainable lifestyles. The potential for new learning processes, intercultural communication or awareness building is yet to explore.

A good example for potential positive impacts are interactive experiments of gamification in which a critical play model [41] can serve not only to entertain the users but actually trigger social critique and even become an intervention itself to help the users understand larger, more complex, issues that attain them in the "real" world. In light of this controversy, more research and practical explorations are needed to better understand the applicability of newly designed formats and tools using latest technologies already used on other fields of communication for strategies for social impact towards SCP.

5. Research Questions, Fields of Action and Target Audiences

The design of research conducive to the objectives of this KAN SSCP requires the appreciation of different bodies of knowledge and modes of knowledge production, within academia and beyond. It is also characterized by a transformative orientation, spurred by the purpose to contribute to the advancement of strong SCP and to lead to action. The work of the

WGCoCo thus resonates with some overall characteristics of sustainability science [40] and will seek to combine disciplinary with inter- and transdisciplinary research approaches to investigate in the frames, topics, narratives, modes, formats and instruments of communication for more sustainable systems of consumption and production. Based on the review of research, the review of practices and policies, as well as on an assessment of knowledge and action gaps the WGCoCo identified so far the following *research questions* and *fields of action* relevant for the advancement of SCP through communication. This list is under development and work in progress and should not be considered as encompassing or limiting.

On the **knowledge** side, the WGCoCo pursues three aims:

➢ The first aim is to identify different frames and narratives featuring in discourses about SCP in different societal arenas (**K1**). Of particular importance in this realm are strongly anchored root concepts like *economic growth*, *social justice*, or *well-being* and their resonance in different societal subsystems. A key challenge in this endeavor is to critically reflect the formation of dominant narratives in the context of power relations, coalitions of interest groups and political structures (including, among others, governments, trade unions, business organizations, faith-based communities).

➢ A second aim is to collect and systematize existing examples of communication approaches and campaigns (including the potential of social media) (**K2**). A seminal interest of the WGCoCo is to develop a heuristic that an inter- and transdisciplinary audience can connect to and that can serve as a reference framework for synthesizing research from different scholarly fields and disciplinary communities. The main aspiration underpinning this objective is to contribute to overcoming the fragmentation of research and make it salient for future work in the field of SCP. Of particular interest are new opportunities in social media and through innovative information and communication technologies. It includes the possibilities of interactive tools and film making, such as VR for interactive, real-life based E-Learning Games (like *Choose Your Own Sustainability Adventure*, sustainability-adventure.org), web documentaries and cinematic VR (interactive and immersive narratives), like *Highrise* (http://highrise.nfb.ca/) and *Clouds Over Sydra* (t1p.de/anih). The idea is to understand their potential as part of wider strategies of communications that include multiplatform and social media outreach. Another particular interest of the WGCoCo is to explore the potential of visions and visioning activities for fostering social learning and supporting social change towards SCP.

➢ A third aim on the knowledge side is to synthesize existing scientific evidence and

practitioners' experiences with regards to effects and effectiveness of such different communication approaches and strategies, using inter- and transdisciplinary approaches (**K3**). In this perspective, the narratives and framing as well as communication approaches and practices explored will be assessed with regard to their effects and their potential for replication. The emphasis here is not only on the impacts, but also on the process by which communication has resulted in specific impacts: what works, what are criteria for success and failure, and what can be learned from examples? The ambition here is to learn from the available body of evidence to eventually develop new projects that effectively communicate for SCP. Exemplary questions in this domain are: How can the power of social media be harnessed to target audience groups, bring people together on specific issues related to SCP, and form and endorse intentional communities? What forms of social organizing and network building for SCP have demonstrated sufficient capacity to overcome structural barriers in communication? What can be transversally learned from other cases of political mobilization (from the past for today? From elsewhere for here?)?

On the **action** side, the WGCoCo pursues three aims, too:
- ➢ The first aim is to draw on the insights gained in K1 and K2 and provide typologies/heuristics that offer an overview and guidance on different communication approaches and strategies to advance more integrated understandings, impacts, and a 'strong view' of SCP (**A1**). A major interest in this domain is to enable actors in the field of SCP to adopt a broader perspective of the discourse landscape and to forge new alliances and collaborations across traditional camps. At the same time, the typologies and heuristics delivered will be purposive in the sense that they make transparent that they are informed by a 'strong view' of SCP. By providing clearly contoured mapping products, the WGCoCo aims to challenge and engage actors in the field in exchange and discourse.
- ➢ A second aim is to develop tools and give recommendations for effective approaches and strategies to communicate SCP and implement respective dissemination plans (communications, but also education/training/capacity building) to equip practitioners with these tools and the competencies needed to use them effectively (**A2**). This ambitious project involves the realization of an online interactive toolbox, materials for communication students and practitioners as well as communication material to engage the average consumer with SCP.

➢ A third aim, finally, is to service the KAN SSCP as a whole with the knowledge gained and expertise gathered in the WGCoCo by contributing to a strategic communications plan for the KAN SSCP (including strategies for overcoming obstacles to the uptake of strong SCP approaches and positioning to take advantage of fortuitous circumstances when they arise) (**A3**).

Clearly defined target groups are a crucial prerequisite of successful communication. The approach to defining target groups for the work of the WGCoCo acknowledges the embeddedness of individual consumer practices in broader societal contexts and cultural structures. In recognition of such conditions, it is critical to acknowledge the complexity inherent in consumption practices when conducting communication research and formulating policies. Hence, the WGCoCo considers the tailoring of communication efforts solely to end-use consumers to be an overly narrow approach. Instead, we adopt a multi-stakeholder and multi-layered perspective that accounts for the richness of factors influencing consumer choices.

The WGCoCo thus considers communication to be a two-way effort. On one hand, appeal to the end- user and unlock the individual agency for change that will ultimately catalyze changes in legislation, production processes, and products on the shelves—this is to enable a bottom-up approach. On the other hand, communication efforts should be focused on decision makers, policy makers, institution builders, and multi-stakeholder alliances to build partnerships that include these actors as well as end-use consumers. Consequently, audiences for this work will include:

I. Segments of the public: studying and using milieu specific communication approaches to promote changes in public understandings and mindsets to trigger mobilization, political engagement, and positive lifestyle changes. Of particular interest are youths and young adults living in urban settings [37].

II. People in power: targeting people and institutions at key leverage points in different societal subsystems (e.g., politics/government, business, education, media).

6. A Ten-Year Time Line Including Outcomes

The work of the WGCoCo will build on earlier and ongoing activities by its members as well as knowledge and expertise that is available through networks, e.g. through the UNEP project on communicating sustainable lifestyles [13], the international SCORAI network, and the PERL partnership. The following table represents an initial conceptualization of this work. It illustrates how the objectives of the WGCoCo may be addressed with specific research and/or

action approaches. It also sketches the scope of possible outputs that may result from this group. The first 3 entries refer to Knowledge development; and the latter three to Actions to be undertaken and/or analyzed by the WGCoCo:

Objectives: K=Knowledge; A=Action		(Possible) Research / Action Approaches	(Possible) Output(s)
K1	*Identifying frames:* identifying different frames and narratives featuring in discourses about SSCP in different societal arenas	**Discourse analysis** of narratives underpinning communication regarding SSCP (e.g. strong vs. weak sustainable consumption); **gaming and exercises** with stakeholders to reframe their views on SSCP Identification of **key concepts** in SSCP (e.g. through thematic analysis of documents, mind mapping, graphic facilitation)	Scientific paper, policy paper. **Discourse map** for media-makers; **Mind map** to communicate key concepts in SSCP Reframing business and governance strategies to include SSCP elements
K2	*Collecting examples:* collecting and systematizing existing examples of **communication approaches and campaigns** (including the potential of social media) and making them broadly accessible/known by using different communication channels	**Comparative case** studies across different media; **experiments** with communicating various examples through (combinations of) communication tools; engage in **collaborative processes** with stakeholders to test new communicative approaches	**Online database**; (giving an overview over examples such as interactive/VR-) **documentaries**; vlogs/YouTube clips (potential to also include outcomes of collaborative experiments) Serious games for deepening understanding and enabling creative thinking
K3	*Reviewing effectiveness:* using inter- and transdisciplinary approaches to synthesizing **existing scientific evidence** and **practitioners' experiences** with regards to effects and effectiveness of such different communication approaches and strategies	Systematic literature review, focus group / expert interviews (academics / practitioners), stakeholder dialogues, inter- and transdisciplinary knowledge integration and synthesis; interviews with selected or random end-consumers or members of intentional communities	Scientific papers, policy paper, inter- and transdisciplinary conference/ workshops, game(s), living lab simulations, live vlogs

A1	**Creating typologies:** providing typologies/heuristics that offer an overview and guidance on different communication approaches and strategies to advance more integrated understandings and a 'strong view' of SSCP	Literature review of existing typologies, expert review, interviews with "users", user-experience focused approaches	Scientific overview paper; materials for communication students; communication material for the average consumer (as a test for awareness raising), serious games
A2	**Providing a Tool-Overview:** Reviewing existing tools tools such as vlogs, VR, blogs, etc. and giving recommendations for effective approaches and strategies to communicate SSCP and respective dissemination plans (communications, but also education/training/ capacity building) to equip practitioners with these tools and the competencies needed to use them	Development of a toolbox, conducting usability studies with target groups (future user of the toolbox to identify their needs) Opening a YouTube channel for story sharing	Online interactive toolbox; materials for communication students and practitioners; communication material for the average consumer (tested previously) - this material could be a set of flashcards or a game of sorts
A3	**Develop an integrated strategy: based on K1-K3 and A1-A2,** contributing to a strategic communications plan for the KAN SSCP (including strategies for overcoming obstacles to the uptake of strong SCP approaches and positioning to take advantage of fortuitous circumstances when they arise)	Identify key communities of researchers and practitioners with aligned missions Strategic communications guidance for communicating the work of the all work groups in the KAN	Tbd Games!!!

7. Capacity Building and Funding Opportunities

To implement the Research and Action Agenda as proposed in the previous sections the WgCoCo will need to identify researchers and research projects and institutes, as well as activists and organizations that are willing and able to engage in the above-described activities. We aim to identify and build on ongoing research projects and activities and initiatives as well as to develop new projects and plans. Crucial for this is to identify funding and funding opportunities.

We identified the following two opportunities for funding of our work:

1) KAN services

With our prospectus we laid out how the work of the WGCoCo could "serve" the communication purposes of all the KANs of Future Earth. This could mean that any time a Future Earth-KAN member writes a research project proposal, we can be hired to take over the *dissemination* and *exploitation* WPs. Continuous and consistent co-development of communication output will be our specialty. Based on our communication expertise (e.g. published working-paper-series, useful mind maps, design-thinking expertise, videos and toolkits), we can also offer relevant insights and networks to existing projects of KAN members (if funds are available, financial returns for our services are welcomed).

By channeling different KAN based projects into one communication stream, we can contribute to building a recognized Organizational Identity for KAN as well as a collection of lessons learned and practical tool kits for Future Earth members. For the latter there might be also additional and external third party funding available.

2) Self-initiated projects (third-party-funding)

Beyond this, we continuously look for opportunities to apply for external grants that offer the opportunity to implement the agenda outlined in section 5.

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