

A New Co-operative Activity Model for the Development of New Design Products in Creative Hubs

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This article analyses the important role of collaboration in creative hubs, examines examples of collaborative activities as best practices, and provides insights into how they bring creators, project managers, and implementers together to achieve breakthrough design innovations in new product development, following the 3C principles of the creative centre collaboration model. Creative hubs are a new practice of creative business models applied in creative industry organisations to develop new products. Today, design is described as a strategic tool for addressing social, cultural, economic, and environmental issues through creativity, and design thinking is a powerful strategy that increases the effectiveness and creativity of organisations by promoting a customer-oriented approach and facilitating the creation of innovative solutions tailored to customer needs. The shift from product design thinking to systems design thinking—where products, services, and organisational networks must be developed simultaneously—paves the way for new organisational models that meet complex requirements. In the dynamic environment of creative industry organisations, collaboration is becoming a key factor in the innovation and success of new design products.

Keywords: creative hubs, co-operation, 3C model, development, design products, innovation.

Introduction

Today, design is a tool not only for creating new products or services but also for shaping the world, fostering innovation, collaboration, and competitive advantage.¹ The question of “how should the design process be managed?” has evolved into “what added value is created through design thinking?” reflecting a more systemic perspective on the role of design. Increasing emphasis is placed on design-inspired transformation, encouraging multidisciplinary approaches to problem-solving. According to creative industries expert Patrick Parrish, the twenty-first century creative economy is redefining industrial-age stereotypes: today, the most valued products are ideas and meanings generated by imagination rather than machines.² Jobs that require social and creative skills—especially decision-making based on and generating new ideas—are least susceptible to automation.³

Creativity is now central to the success of many organisations across diverse industries, and this practice is not confined to creative industries alone. Firms and governments increasingly view creative industries as hubs of managerial innovation and experimentation.⁴ Consequently, research into the design and activity principles of creative hubs or innovation labs is essential for both researchers and company leaders seeking to adapt new organisational and business models.

Research problem: What forms the basis of new collaborative activities aimed at promoting the creation of new design products in creative centres?

The aim of the article is to analyse a new model of collaborative activities in creative centres, which are emerging business models used by creative industry organisations to develop new products.

Novelty: This article complements existing research by conceptualising collaboration as the micro-foundation of innovation in creative hubs.

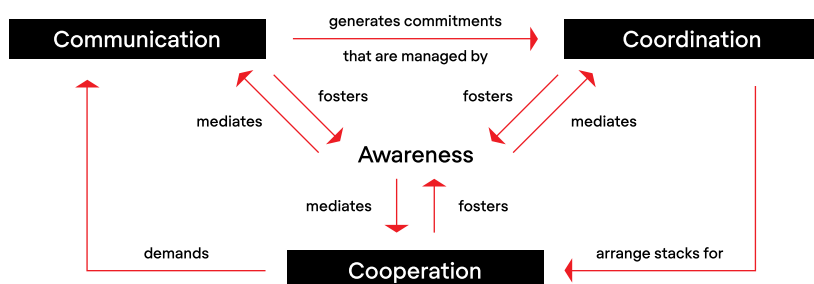
- 1 Kathryn Best, *Design Management: Managing Design Strategy, Process and Implementation*, 2nd ed. (London and New York: Bloomsbury/Fairchild Books, 2015).
- 2 Patrick Parrish, “Design as Storytelling,” *TechTrends* 50, no. 4 (2006): 72–82. <https://doi.org/10.1007/s11528-006-0072-7>.
- 3 Klaus Schwab, *The Fourth Industrial Revolution*, 1st U.S. ed. (New York: Crown Business, 2017).
- 4 Joseph Lampel and Olivier Germain, “Creative Industries as Hubs of New Organizational and Business Practices,” *Journal of Business Research* 69, no. 7 (2016): 2327–33. <https://doi.org/10.1016/j.jbusres.2015.10.001>.

Unlike previous works that examine collaboration in general terms, we identify seven specific collaborative activities (A1–A7) and incorporate them into the 3C+ Awareness cycle to explain how innovation outcomes arise.

Collaboration and co-operation in the 3C model

The literature distinguishes between the terms of *co-operation*, *collaboration*, and *integration*.⁵ When enterprises align their objectives,⁶ they can reap benefits through combined approaches to planning, operations, and work.⁷ Collaborative efforts typically involve a minimum of two entities.

Researchers specialising in collaborative systems and groupware⁸ define collaboration as the collective action of members of a group in a



1. 3C collaboration model instantiated for group work, in Hugo Fuks, Alberto B. Raposo, Marco A. Gerosa, and Carlos J. P. Lucena, "Applying The 3C Model To Groupware Development," *International Journal of Cooperative Information Systems* 14, no. 02n03 (2005): 299–328, <https://doi.org/10.1142/S0218843005001171>

3C bendradarbiavimo modelis, pritaikytas grupiniam darbui, in Hugo Fuks, Alberto B. Raposo, Marco A. Gerosa ir Carlos J. P. Lucena, „3C modelio taikymas grupinio naudojimo programinės įrangos kūrimui“

- 5 Pierre Dillenbourg, *Collaborative Learning: Cognitive and Computational Approaches. Advances in Learning and Instruction Series* (ERIC, 1999); Kevin Kruse, "Gagne's Nine Events of Instruction: An Introduction" (2009).
- 6 Marilyn Friend and Lynne Cook, *Interactions: Collaboration Skills for School Professionals*, 6th ed. (ERIC, 2010).
- 7 James C. Anderson and James A. Narus, "A Model of Distributor Firm and Manufacturer Firm Working Partnerships," *Journal of Marketing* 54, no. 1 (1990): 42–58, <https://doi.org/10.1177/002224299005400103>; Jakki Mohr and Robert Spekman, "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques," *Strategic Management Journal* 15, no. 2 (1994): 135–52, <https://doi.org/10.1002/smj.4250150205>.
- 8 Hugo Fuks, Alberto B. Raposo, Marco A. Gerosa, and Carlos J. P. Lucena, "Applying the 3C Model to Groupware Development," *International Journal of Cooperative Information Systems* 14, no. 2–3 (2005): 299–328, <https://doi.org/10.1142/S0218843005001171>.

shared environment to accomplish tasks and create and manage collaborative objects. Unforeseen circumstances may require renegotiation and decision-making, initiating additional communication cycles and necessitating coordination to restructure tasks for further co-operation. Co-operation is defined as joint operation in a shared workspace.⁹

In this version of the 3C model, communication involves individuals engaging in negotiation and decision-making. During coordination, they manage conflicts and arrange their actions to avoid disruption in communication and cooperative endeavours. Co-operation is characterised by the collective effort of group members within a shared environment, aiming to accomplish tasks and to create and manage cooperative objects.¹⁰ At the centre of this triangle, the role of the **awareness** dominates, defined as human beings' capability to perceive the activities of others and their own activities in the context of collaboration¹¹ [Fig.1].

In this research, we adhere to the principle that in the 3C model of collaboration—communication, coordination, and co-operation—all three components are equally vital for a successful teamwork process in new product design development. However, our further investigations will primarily focus on cooperation, recognising its pivotal role in fostering a creative hub.

Co-operation allows two or more of individuals or organisations to put a task into practice. Table 1 conceptualises the construct of co-operation in the 3C model:

⁹ Fuks et al., "Applying the 3C Model to Groupware Development."

¹⁰ Ibid.

¹¹ Ibid.

Table 1.

The construct of co-operation in 3C collaboration model, compiled by the authors Bendradarbiavimo konstruktas 3C bendradarbiavimo modelyje, sudarė autoriai

THE CONSTRUCT OF CO-OPERATION IN 3C MODEL	
Sharing information	Co-operation allows for the exchange of information, often through unofficial job regulations. ^{1,2,3}
Independent decision-making	It involves making decisions independently and solving problems without necessarily integrating systems. ⁴
Short-term and informal	The co-operation can be short-term, informal, and involve individual plans. ⁵
Responsibility	Each party involved in co-operation is independent and responsible for their behaviour and for achieving the task's goal. ⁶

- 1 Mary Lou Helfrich Jones, Sue Day, Janet Creely, Mark B. Woodland, and Jeffrey B. Gerdes, "Implementation of a Clinical Pathway System in Maternal Newborn Care: A Comprehensive Documentation System for Outcomes Management," *The Journal of Perinatal & Neonatal Nursing* 13, no. 3 (1999): 1–20.
- 2 S. L. Kagan and Guidance Institute Staff, *United We Stand: Collaboration for Child Care and Early Education Services* (New York: Teachers College Press, 1991).
- 3 Carolyn Parkinson, "Building Successful Collaborations: Guide to Collaboration among Non-Profit Agencies and between Non-Profit Agencies and Businesses" (2006).
- 4 Madeleine McNamara, "Starting to Untangle the Web of Cooperation, Coordination, and Collaboration: A Framework for Public Managers," *International Journal of Public Administration* 35, no. 6 (2012): 389–401, <https://doi.org/10.1080/01900692.2012.655527>.
- 5 M. Blank, S. Kagan, A. Melaville, and K. Ray, *Collaboration: What Makes It Work: A Review of Research Literature on Factors Influencing Successful Collaboration* (St. Paul, MN: Amherst H. Wilder Foundation, 1992), 59–61.
- 6 Insik Choi, "A Study on Effect of Trust, Relationship Commitment on Collaboration Orientation (3C's), Performance and Satisfaction—Focused on Communication, Cooperation and Coordination," *Journal of Marketing and HR* 4, no. 1 (2017): 202–15.

It is important to note the question of what the balance between co-operation and competition looks like in a project team with different participants, and to acknowledge that, in co-operation, not every participant performs at their best. Moreover, co-operation can be seen as a strategy for gaining a competitive advantage.¹²

Co-operation can be conceptualised as an interorganisational relationship that emerges among participants in a specific project. These participants, or entities, may not necessarily be bound by a common vision or mission, leading to the formation of a distinct project organisation characterised by independent structures. Within this framework, the prevailing

12 Leo Denise, "Collaboration vs. c-Three (Cooperation, Coordination, and Communication)," *INNOVATING* (reprint), 1999.

project culture is predominantly based on principles of control and coordination. This culture facilitates the independent resolution of problems, with the ultimate objective being the maximisation of value for each individual organisation involved in the cooperative relationship.¹³

Previous studies by Mimi Nguyen and Céline Mougenot¹⁴ examine the dynamics of multidisciplinary design collaboration, with a particular focus on teamwork strategies and behaviours in cross-functional teams pursuing creative outcomes.¹⁵ They suggest that the disciplinary background of team members can influence the breadth of decision analysis; for example, industrial designers may have a greater ability to break free from design fixations than engineers. Nguyen and Mougenot argue that “all team participants do cross their knowledge boundaries and synthesise practices from each other’s disciplines while solving complex problems, and refer to all layers of collaboration by the term *multidisciplinary*, given the importance of communication as a core concern in cross-disciplinary collaborations...”¹⁶ The theoretical synthesis presented by the authors highlights general cognitive patterns in design work and identifies them as an object of future research. Their methodological analysis reveals a gap in understanding how design collaboration impacts distributed work. They suggest that previous research may have provided an unbalanced assessment of the importance of team diversity for design collaboration. Future research should aim to better understand how diversity affects design outcomes, considering factors such as team composition, task complexity, and project context.¹⁷ Aligned with the research suggestions of Nguyen and Mougenot, the present study

- 13 Annett Schöttle, Shervin Haghsheno, and Fritz Gehbauer, “Defining Cooperation and Collaboration in the Context of Lean Construction,” in *Proceedings of the 22nd Annual Conference of the International Group for Lean Construction*, ed. Bo Terje Kalsaas, Lauri Koskela, and Tarcisio Abreu Saurin (Oslo, 2014): 1269–80.
- 14 Mimi Nguyen and Céline Mougenot, “A Systematic Review of Empirical Studies on Multidisciplinary Design Collaboration: Findings, Methods, and Challenges,” *Design Studies* 81 (2022): 101120. <https://doi.org/10.1016/j.destud.2022.101120.4p>.
- 15 Marine Agogu   et al., “The Impact of Type of Examples on Originality: Explaining Fixation and Stimulation Effects,” *The Journal of Creative Behavior* 48, no. 1 (2014): 1–12. <https://doi.org/10.1002/jocb.37>.
- 16 Nguyen and Mougenot, “A Systematic Review of Empirical Studies on Multidisciplinary Design Collaboration.”
- 17 Ibid.

introduces a new model of diversity of activities affecting design results in creative hubs. This research focuses specifically on a new co-operation activity model for developing new design products.

Creative hubs

In recent years, the concept of a work organisation hub has emerged across various sectors and organisations. The “hub” symbolises the dynamic fusion of diverse talents, disciplines, and skills, serving as a catalyst for greater innovation.¹⁸ Creative hubs are rapidly expanding and becoming a global phenomenon, as well as a new way to communicate creative economic innovation and development. Table 2 shows how the definition of the Creative Hub has been presented by different authors over time. [Table 2]

Table 2.

Definition of Creative Hub, compiled by the Kūrybinio centro apibrėžimas, sudarė autoriai authors

THE AUTHOR	DEFINITION OF CREATIVE HUB
European Creative Hubs Network	'...a physical or virtual place that brings enterprising people together who work in the creative and cultural industries.' ¹
Andy C. Pratt	'...as spaces of the interaction of users and building managers: a forum in which informal information exchange, learning, and social exchange of ideas takes place.' ²
The British Council	'... is a place, either physical or virtual, which brings creative people together. It is a convenor, providing space and support for networking, business development and community engagement within the creative, cultural and tech sectors.' ³
J. Pickford	'...an infrastructure or venue that uses a part of its leasable or available space for networking, organisational and business development within the cultural and creative industries sectors.' ⁴

1 European Creative Hubs Network, *The European Creative Hubs Network Value Proposition* (2022), https://creativehubs.net/ECHN_value_proposition.pdf.

2 Andy C. Pratt, "Creative Hubs: A Critical Evaluation," *City, Culture and Society* 24 (2021): 100384, <https://doi.org/10.1016/j.ccs.2021.100384>.

3 British Council, *Creative Hub Toolkit* (2015).

4 J. Pickford, "Specialist Hubs Spring up around London," *Financial Times*, 2013.

Hubs function as facilitators, offering an environment and support for networking, business growth, and community involvement in the creative, cultural, and technological sectors. While hubs vary in size, structure, and the concentration of their activities, they all generate cultural and creative significance for both their local ecosystem and the broader creative network.

According to the European Creative Hubs Network, creative hubs are multi-layered structures that share different governance models and organisational structures. “Creative hubs come in all different shapes and sizes and can be described in many different ways—collectives, co-operatives, labs, incubators—and can be static, mobile, or online.”¹⁹ A creative hub is defined as multifaceted entity that serves as a physical space for creative industry activities, a flexible and supportive environment managed by a hub manager, and a platform for informal knowledge exchange and social support among residents. Furthermore, Andy C. Pratt highlights the importance of two crosscutting factors: first, on the objectives of the hub managers, funders (who may be public, private, or third sector), or policy agencies; and second, the precise mix of residents, including their expertise and domain of activity.²⁰

Similarly, a more recent report on creative hubs issued by the British Council identifies “a wide range of impacts including start-up ventures, jobs, new products and services, future investment (public and commercial), talent development, regional talent retention, informal education and engagement, training, urban regeneration, research and development, new networks, innovative models of organisation, quality of life enhancements and resilience.”²¹ To realise the potential of hubs in promoting the unity of cultural workers, reducing instability, and improving working conditions in this sector, a change of attitude is needed, with greater focus placed on the needs of workers rather than solely on industry and companies.

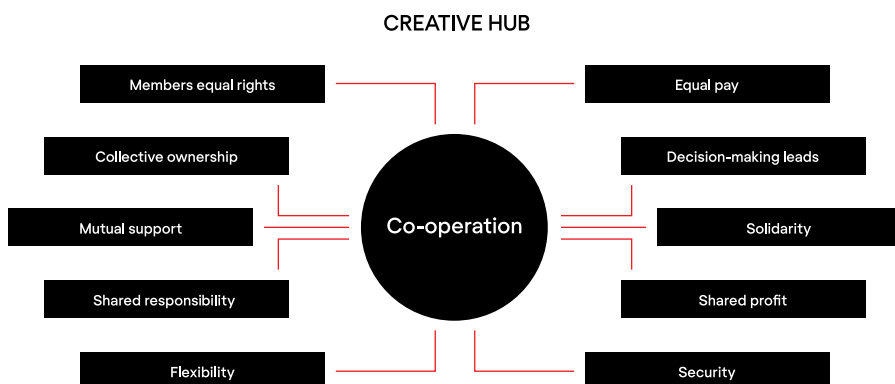
On the other hand, authors Marisol Sandoval and Jo Littler argue that while proximity and interaction are necessary, they are not sufficient.

19 European Creative Hubs Network, *The European Creative Hubs Network Value Proposition* (2022). https://creativehubs.net/ECHN_value_proposition.pdf 51p

20 Andy C. Pratt, “Creative Hubs: A Critical Evaluation,” *City, Culture and Society* 24 (2021): 100384. <https://doi.org/10.1016/j.ccs.2021.100384>.

21 Dovey et al., *The Creative Hubs Report*, 5.

They identify “Creative Hubs as a Co-operative Space.”²² The real work lies in building a community, in which co-operation plays a central role. The concept of a creative hub as a cooperative space is illustrated in Figure 2.



2. Creative hubs as a co-operative space concept model, compiled by the authors according to Marisol Sandoval, and Jo Littler, “Creative Hubs: A Co-Operative Space?” in *Creative Hubs in Question: Place, Space and Work in the Creative Economy*, edited by Rosalind Gill, Andy C. Pratt, and Tarek E. Virani, 155–68. Cham: Springer International Publishing, 2019, https://doi.org/10.1007/978-3-030-10653-9_8

Kūrybiniai centrai kaip bendradarbiavimo erdvės koncepcijos modelis, sudarė autoriai pagal Marisol Sandoval ir Jo Littler, „Kūrybiniai centrai: bendradarbiavimo erdvė?“

The concept of “co-operation”—a common feature of these hubs—can cover a wide range of practices, from corporate industry renting common spaces to cultural workers, to workers’ co-operatives where responsibility and profit are shared.²³ In co-operatives, unlike most workplaces, all members are given equal rights and often equal pay. This collective ownership and decision-making fosters a sense of agency in everyday work. Instead of competitiveness and individualisation, co-operators experience mutual

22 Marisol Sandoval and Jo Littler, “Creative Hubs: A Co-Operative Space?” In *Creative Hubs in Question: Place, Space and Work in the Creative Economy*, ed. Rosalind Gill, Andy C. Pratt, and Tarek E. Virani (Cham: Springer, 2019), 155–68, https://doi.org/10.1007/978-3-030-10653-9_8.

23 Greig de Peuter and Nicole S. Cohen, “Emerging Labour Politics in Creative Industries: How Newspapers Are Adapting to the Digital Era,” in *The Routledge Companion to the Cultural Industries* (Routledge, 2015).

support and solidarity. Co-operatives also provide a balance between security and flexibility.²⁴ However, due to their desire for operational independence, they may face difficulties in obtaining funding and resources. In this context, cultural policy can offer opportunities to support co-operatives, improve working conditions in the cultural sector, and strengthen foundations for creative projects. Finally, co-operatives emphasise that large-scale structural change is necessary to create a truly co-operative economy and society. Further research into the concept of co-operation cultivated by creative hubs is important for identifying good practices in new creative product development.

Framework of co-operative activities and innovation outcomes

To consolidate the theoretical insights developed above, we propose a **framework of co-operative activities and innovation outcomes**. This framework delineates seven core activities that constitute the micro foundations of co-operation in creative hubs, the mechanisms through which these activities shape innovation processes, and the outcome dimensions they are expected to influence. Presenting these elements as structured categories highlights how co-operation can be conceptualised as a **set of recurring routines and practices** that generate innovation capacity. This framework thus crystallises our theoretical argument and provides the basis for the subsequent model and discussion [Table 3].

Table 3.

Analytical Framework of Co-operative Activities, Mechanisms, and Outcomes, compiled by the authors

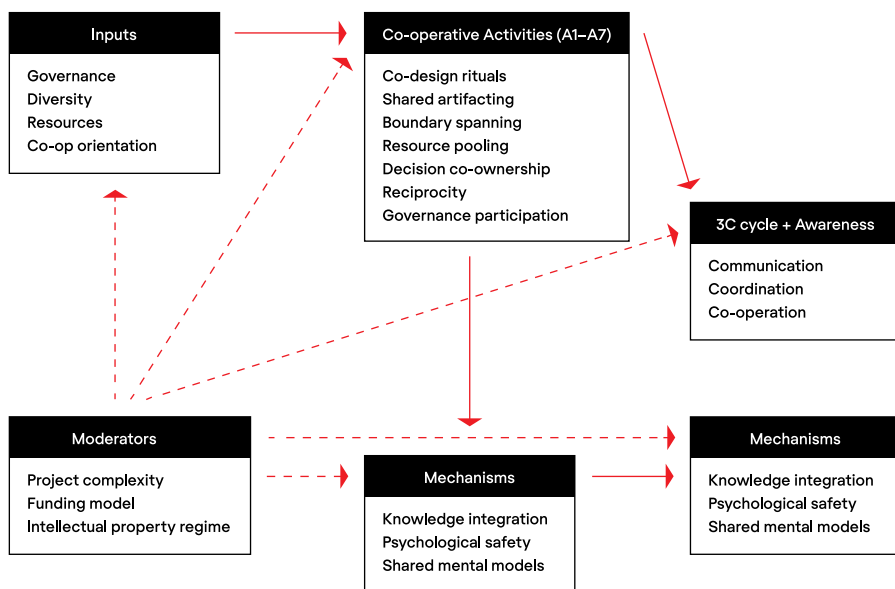
Bendradarbiavimo veiklų, mechanizmų ir rezultatų analitinė sistema, sudarė autoriai

DIMENSION	ANALYTICAL FRAMEWORK	DESCRIPTION
CO-OPERATIVE ACTIVITIES	A1. Co-design rituals	Structured recurring sessions for joint ideation and critique.
	A2. Shared artifacting	Use of common design artifacts and tools to support collaboration.
	A3. Boundary-spanning brokerage	Individuals or roles bridging disciplines and teams.

	A4. Resource pooling	Shared use of physical, financial, or human resources.
	A5. Decision co-ownership	Collective involvement in go/no-go and rights/IP decisions.
	A6. Reciprocity & mutual aid	Informal exchange of skills, help, and troubleshooting.
	A7. Governance participation	Member involvement in rule-setting and hub management.
3C + AWARENESS	Communication, Coordination, Co-operation + Awareness	Quality of interaction and meta-knowledge of tasks/roles.
MECHANISMS	Knowledge integration	Combining insights from diverse disciplines.
	Psychological safety	Willingness to share tentative ideas without fear.
	Shared mental models	Collective understanding of goals, constraints, processes.
OUTCOMES	O1. Novelty	Originality and distinctiveness of product design.
	O2. Usefulness/feasibility	Practical value and implementability of designs.
	O3. Speed to prototype	Efficiency from idea to functional demo.
	O4. Adoption/traction	Uptake and real-world application of outcomes.

To integrate these insights into a coherent theoretical structure, we extend the analysis of co-operative activities (A1–A7) by embedding them within the **3C framework** of communication, coordination, and co-operation, with **awareness** as its central integrative element. The 3C+ Awareness layer ensures that co-operative practices are not treated as isolated events, but as part of an iterative process in which information is exchanged, roles are aligned, and joint action is sustained. Building on this, we specify three **mechanisms**—knowledge integration, psychological safety, and shared mental models—that explain *how* co-operative activities translate into innovation performance. Finally, we identify four **outcomes**—novelty, usefulness/feasibility, speed to prototype, and adoption—that represent the measurable dimensions of design product development.

Together, these elements are consolidated in Figure 3.



3. Co-operative Activity Model for Creative Hubs (CAM-CH), compiled by the authors

Kūrybinių centrų bendradarbiavimo veiklos modelis (CAM-CH), sudarė autoriai

Figure 3 illustrates the flow from inputs → activities (A1–A7) → 3C + awareness → mechanisms → outcomes, with contextual moderators (project complexity, funding model, intellectual property regime) indicated by dotted lines. This schematic provides a structured lens through which co-operation can be conceptualised as the micro foundation of innovation capacity in creative hubs.

Inputs such as governance structures, team diversity, available resources, and the overall orientation toward co-operation create the **initial conditions** for collaboration. These conditions make possible a set of **co-operative activities** (A1–A7), including co-design rituals, shared artifacting, boundary-spanning brokerage, resource pooling, joint decision-making, reciprocity, and participatory governance. These are **concrete routines** through which collaboration becomes visible and repeatable in practice.

The final stage of the model specifies four **innovation outcomes**: **novelty** (originality of ideas), **usefulness/feasibility** (practical value and

fit to constraints), **speed to prototype** (time taken to produce a working prototype), and **adoption** (traction through pilots, users, or partnerships).

The dotted arrows indicate the role of **moderators**: project complexity, funding models, and IP regimes can either strengthen or weaken the impact of activities and mechanisms on outcomes. For example, high complexity makes boundary-spanning more critical, open funding encourages reciprocity, and restrictive IP rules may hinder decision co-ownership.

Taken together, the model provides a structured lens for understanding creative hubs as **distinct organisational forms where co-operation operates as the micro foundation of innovation capacity**, transforming diversity and shared resources into measurable outcomes.

Discussion

The CAM-CH model demonstrates that innovation in creative hubs emerges from the interaction between individual awareness and environmental micro-interventions. The traditional 3C model explained collaboration as a sequence of communication, coordination, and co-operation, but in today's context of intense, fragmented, and often digital interaction, this sequence alone is insufficient. To avoid misinterpretation or information loss, innovation requires conscious reception, interpretation, and creative application of information. Awareness thus becomes an essential individual responsibility, ensuring that messages are not only transmitted, but also understood and transformed into actionable outcomes.

At the same time, creative hubs function as organisational laboratories where awareness is supported by micro-interventions embedded in the environment. Practices such as regular co-design sessions, the use of shared prototypes, mentoring and brokerage, resource pooling, or community assemblies establish structures that make collaboration repeatable rather than accidental. In this way, awareness is not merely an individual trait but also an organisationally enabled practice, sustained through routines that encourage participants to absorb, apply, and iteratively develop information.

This dual perspective allows us to refine and extend the 3C model. In contemporary creative environments, the micro foundation of innovation

lies in a double mechanism: awareness as the capacity to receive and apply information, and micro-interventions, as environmental conditions that ensure this capacity is enacted consistently. Future research should examine how these two levels interact under different conditions—for instance, whether awareness becomes more critical in synchronous versus digital communication, or whether micro-interventions play a stronger role in highly complex projects. It will also be important to identify which types of micro-interventions are most effective depending on funding models or intellectual property regimes, and whether such practices can be adapted beyond the hub context.

Future research should examine how awareness operates across different communication modes—face-to-face, digital, asynchronous—and whether it mitigates the risks of fragmented electronic communication. Further evidence is also needed on the effectiveness of environmental micro-interventions, such as co-design rituals, shared prototypes, and participatory governance, in shaping innovation outcomes. The role of contextual moderators—project complexity, funding models, and intellectual property regimes—requires systematic investigation across cases and countries. Finally, it is important to test whether the micro foundations identified in hubs are unique to this organisational form or can be transferred to firms, incubators, or public innovation labs.

In sum, creative hubs generate innovation by combining individual awareness with organisational micro-interventions. Collaboration in this setting is therefore not merely an exchange between people but an environmentally structured, repeatable practice that constitutes the true micro foundation of innovation.

Conclusions

This study highlights creative hubs as distinctive organisational contexts where collaboration is not a secondary process but the very foundation of innovation. The review of prior research shows that hubs differ from traditional organisations in their openness, interdisciplinarity, and participatory governance. These characteristics make them particularly fertile

environments for the development of co-operative routines, positioning hubs as organisational forms in their own right rather than as temporary or peripheral arrangements.

Building on this insight, the study conceptualises co-operation as the micro foundation of innovation capacity. The proposed Co-operative Activity Model for Creative Hubs (CAM-CH) specifies seven co-operative activities (A1–A7) that sustain collaboration and are enacted through the 3C+ Awareness cycle. These activities activate mechanisms of knowledge integration, psychological safety, and shared mental models, explaining how collaboration translates into innovation outcomes. The model identifies four key outcome dimensions—novelty, usefulness, speed to prototype, and adoption—and demonstrates how contextual moderators such as project complexity, funding models, and intellectual property regimes influence these relationships.

The CAM-CH model offers a structured framework that consolidates existing insights while providing a new lens for theorising co-operation in creative hubs. For management theory, it extends the 3C model by integrating awareness as a central generative force and linking it directly to innovation outcomes. For practice, it offers hub managers a diagnostic tool to cultivate specific activities and routines that enhance innovation capacity. For policy, it highlights how contextual conditions can enable or constrain collaboration, pointing to the need for supportive funding regimes, open governance structures, and balanced intellectual property frameworks.

As a conceptual contribution, this study opens several directions for future research. Empirical studies are needed to validate the proposed relationships and to assess which micro-interventions and co-operative routines are most effective in different contexts. Comparative research across countries and organisational types could further clarify the distinctiveness of creative hubs as an organisational form. Longitudinal and mixed-method approaches would also be valuable in tracing how co-operative practices evolve over time and how they impact innovation performance in the long term.

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Santrauka

Naujų dizaino produktų plėtros kooperatyvinės veiklos modelis kūrybiniuose centruose

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Reikšminiai žodžiai: kūrybiniai centrai, bendradarbiavimas, 3C modelis, plėtra, dizaino produktai, inovacijos.

Straipsnyje nagrinėjama bendradarbiavimo reikšmė kaip fundamentali inovacijų prielaida kūrybiniuose centruose ir pristatomas Kooperatyvinės veiklos modelis kūrybiniams centrams (CAM-CH). Remiantis 3C struktūra, apimančia komunikaciją, koordinaciją ir kooperaciją, modelis papildomas sąmoningumo dimensija, kuri įtvirtinama kaip esminis veiksnys. Jame identifikuojamos septynios bendradarbiavimo veiklos: bendro dizaino ritualai, išteklių dalijimasis, bendroji sprendimų nuosavybė ir dalyvaujamasis valdymas. Šios veiklos užtikrina žinių integracijos stiprinimą, psichologinio saugumo kūrimą ir bendro supratimo formavimąsi, o tai sudaro prielaidas inovacijų rezultatams, tokiems kaip originalumas, įgyvendinamumas, spartesnė prototipų plėtra bei jų diegimas.

Tyrimas konceptualizuoja kūrybinius centrus kaip savitas organizacines formas, kuriose kooperacija nėra antrinis, bet centrinis inovacinės pajėgos elementas. Straipsnyje pateikiamos teorinės išvalgos, kurios praplečia bendradarbiavimo modelių sampratą, ir siūlomos praktinės rekomendacijos kūrybinių centrų vadovams. Be to, aptariamos politikos formavimo implikacijos, susijusios su finansavimo mechanizmų tobulinimu, valdymo procesų stiprinimu ir intelektinės nuosavybės sistemų plėtra.