D4.4 – Protocol for Mobilizing Funding and Ensuring Sustainability – Preliminary Version

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Executive Summary

As Citizen Science (CS) initiatives grow and scale, they must move beyond short-term project funding cycles and develop sustainable financial models to ensure their ongoing impact. This **preliminary protocol** draws on insights from social entrepreneurship, expert interviews, and 1 mutual learning workshop to present initial strategies to help CS projects mobilize public, private, crowdfunding, and hybrid funding sources. **Key Insights from this deliverable include:**

Funding Landscape: CS projects rely on a mix of funding sources, such as:

- **Public/EU Grants**: The dominant source for larger CS projects, typically short-term and requiring detailed application processes.
- **Private Sector Funding**: Includes corporate sponsorships, philanthropic foundations, and industry partnerships.
- **Crowdfunding**: Though it promotes community engagement, crowdfunding typically raises smaller amounts and requires substantial effort in promotion and outreach.
- **Hybrid Funding**: A combination of public, private, and community-based funding, this model offers resilience and scalability but requires sophisticated management to balance multiple funding streams effectively.

Insights from Social Entrepreneurship: Principles of social entrepreneurship provide valuable guidance for CS projects looking to secure funding, such as:

- **Social Mission**: Clearly defining and communicating the societal or environmental impact of the project, ensuring it resonates with both funders and the community.
- **Innovation**: Developing innovative approaches to data collection, citizen engagement, and project implementation to differentiate the project and attract a broader range of funders.
- **Sustainability**: Developing long-term strategies for funding diversification to ensure financial stability beyond the life of the project.
- **Value Proposition**: Articulating the unique benefits of the project, not only in terms of scientific data but also in community empowerment, educational opportunities, and broader societal impact.

Tailored Recommendations (preliminary conclusions):

- **Public Funding**: Align CS projects with national or EU priorities while staying true to the project's core mission and ethical standards.
- **Crowdfunding**: Effective for smaller initiatives, crowdfunding requires a compelling narrative, clear goals, and ongoing engagement with backers to ensure success.
- **Private Funding**: Private funders should be approached based on alignment with the project's mission.
- **Hybrid Funding**: Blending public and private funding sources can provide financial stability, while engaging a wide range of stakeholders strengthens the project's reach.

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1 Introduction

Citizen Science (CS), the practice of actively involving the public in scientific inquiry and data generation, has gained increasing recognition for its ability to produce valuable data, strengthen the societal relevance of research, and foster public engagement in scientific processes. Despite these contributions, many CS initiatives face ongoing challenges in securing stable and diversified funding and in ensuring long-term sustainability beyond project-based funding cycles.

D4.4 Protocol for Mobilizing Funding and Ensuring Sustainability – Preliminary Version presents initial concepts and considerations to support CS projects in navigating these challenges. The protocol builds primarily on insights from the CS community, complemented by perspectives from related disciplines and practices concerned with sustainability and funding diversification. This deliverable draws on findings from literature, **10 expert interviews, and a mutual learning workshop involving 22 participants,** which explored existing funding practices, barriers, and opportunities for CS initiatives.

This document is part of **WP4 – Orchestration: Maximising Uptake and Sustainability when Upscaling CS**, contributing to **CROPS Objective #3**, which focuses on maximising the uptake of project outputs and strengthening the long-term sustainability of CS activities as they scale.

1.1 Scope and Approach

The insights from this deliverable were collected through a combination of expert interviews, 1 mutual learning workshop, and a supplementary literature review. These methods were employed to capture a wide range of insights from both CS practitioners and experts from related fields.

Literature Review: A review of existing literature and case studies on funding models, social entrepreneurship, and sustainability in CS was conducted to complement the primary data collected through interviews and workshops. This allowed for a broader understanding of the field and helped validate and support the findings. 30 sources comprising peer-reviewed academic articles, EU project deliverables (e.g. DITOs D6.6, COESO D4.1, IMPETUS policy briefs, MLE Report 2022); policy documents and position papers (including ECSA Position Paper 2024, EC reports) and grey literature established **D4.3 Mapping of citizen science funding models'** general taxonomy of funding models. This work, in addition to 10 academic sources, comprised the initial steps of the current deliverable **D4.4 Protocol for Mobilizing Funding – Preliminary Version.**

Expert Interviews: A series of 10 semi-structured interviews were conducted with experts in CS. The interviewees were selected based on their expertise and their experience with mobilizing funding for CS projects. The interviews aimed to gather qualitative insights on the challenges and opportunities for securing sustainable funding in CS initiatives, as well as to explore cross-disciplinary approaches from social entrepreneurship.

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Mutual Learning Workshop: In addition to the expert interviews, 1 mutual learning workshop was held at the Encontro Nacional de Ciência Cidadã (ENCC) (Nacional CS Event) in Oeiras, Portugal in November 2025,[1] with 22 participants from diverse backgrounds, including CS practitioners and researchers. The workshop provided a collaborative space for sharing experiences, discussing funding challenges, and identifying best practices for sustaining CS projects. Participants engaged in a 90 minute facilitated discussion and group activities that led to the identification of key strategies and recommendations for mobilizing funding in CS projects.

Figure 1. CROPS Mutual Learning Workshop at Encontro Nacional de Ciência Cidadã in Oeiras. November 2025

The inputs from the expert interviews, the workshop, and the literature review were analysed using a qualitative, thematic analysis approach. The analysis followed these key steps:

- Interview transcripts, workshop notes, and relevant literature were organized into categories based on key themes such as funding models, sustainability strategies, and social entrepreneurship concepts, to identify recurring themes and patterns related to how CS projects can mobilize funding and ensure sustainability.
- The findings from the interviews and workshop discussions were cross-referenced with each other to identify commonalities, as well as differences in perspectives.

1.2 Structure of this Deliverable

This deliverable is organised as follows:

[1] https://cienciacidada.pt/

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Overview of Current Funding Models in CS Initiatives: this section showcases the various funding models identified in the project.

Useful Insights from Social Entrepreneurship: this section explores how social entrepreneurship concepts and principles can help CS projects mobilize funding and ensure long-term viability.

Cross-cutting considerations for mobilising funding in CS: this section outlines practical steps for identifying funders, defining project value propositions, and developing sustainable business models. It also identifies key considerations for engaging potential funders and positioning CS projects for funding success.

Tailored Funding Recommendations (preliminary conclusions): presents preliminary conclusions to mobilize **Public Funding; Private Funding; Crowdfunding; and Hybrid Funding.**

Practical Resources and Tools: This section presents templates and frameworks to support projects and funding proposal development (Business Model Canvas, SWOT Analysis, Pitch Deck, etc.)

Conclusion and Next Steps: This section presents this delivery's summary of the findings and key takeaways. It also lists the future actions and areas for further development in the final version of the deliverable.

2 Overview of Current Funding Models in CS Initiatives

CS projects rely on a variety of funding sources to sustain their activities. The following funding models have been identified in **CROPS D4.3 - Mapping of CS Funding Models** and represent the most common approaches to securing financial support for CS projects. The mapping reveals that CS funding is dominated by competitive grants at the project level and member-based models for established organisations. Hybrid approaches characterise the most sustainable initiatives, combining grants with community-based revenue.

Table 1. Comprehensive Mapping of CS Funding Models

Category	Model	Description	Prevalence	Sustainability	Best Suited For
Public/EU Grants	Competitive Grants (EU)	Peer-reviewed funding for defined project periods (H2020, HE)	Very High	Low: ends with grant; requires continuous reapplication	Research-oriented CS; university-led projects; technology development
	National/ Regional Public	Research councils, regional authorities, government programmes	Moderate	Variable: some ongoing programmes exist	Nationally-focused CS; environmental monitoring; policy-linked data
	Cascading Grants (FSTP)	Sub-grants from larger EU projects with simplified requirements	Growing	Low: project-dependent; but good entry point	New/small initiatives; grassroots projects; capacity building

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Private Sector	Corporate CSR	Corporate social responsibility programmes	Low	Variable: depends on corporate priorities	Tech-enabled CS; projects with visibility/PR value
	Industry Partnership	Commercial contracts or revenue-sharing arrangements	Very Low	High if established: recurring revenue possible	Data-generating CS; gaming integrations; sensor networks
Philanthropic	Foundation Grants	Grants from private foundations, often theme-focused	Low	Moderate: flexible but unpredictable	Thematically-aligned CS (environment, health); Global South
Crowdfunding	Online Campaigns	Campaigns for specific projects (Kickstarter, Experiment.com)	Very Low	Low: one-time; median ~$3,500; high effort	Pilot projects; community-embedded initiatives; bridge funding
Membership	Membership/ Subscription	Regular contributions from engaged community members	Low-Mod	High: predictable revenue if community established	Established NGOs; conservation CS; long-running programmes
Hybrid	Diversified Model	Combination of multiple funding sources	Low	High: resilience through diversification	Mature organisations; long-term initiatives
	Social Enterprise	Revenue from services (training, data products, consulting)	Very Low	High if viable: self-sustaining model	Technology providers; consultancy-capable organisations
In-Kind	In-Kind Support	Cloud computing, engineering time, equipment, volunteer labour	Supplementary	Variable: reduces costs but not standalone	Tech-dependent CS; partnerships with tech companies
	Institutional Base	University or research institute core funding	Moderate	Moderate: stable while institutionally embedded	Academic-led CS; teaching-linked initiatives

Source: D4.3 Mapping of Citizen Science funding models

Drawing on this context and the funding categories outlined above, this protocol simplifies the concepts mapped in **D4.3**, in order to consolidate the key steps for mobilizing funding. Thus, broader categories have been developed for the purposes of this Deliverables. These will be revisited in **Section 5 – Tailored Funding Recommendations.**

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Table 2.CS Funding Categories being considered in D4.4

Public Funding *(such as Awards |Grants | Government | National and local programmes | Research institutions)*	Public funding is a big enabler of CS projects and activities. It consists of financial support mainly provided by government agencies, national or local public institutions, and public sector organizations. This type of funding is usually distributed through grants, subsidies, and funding programmes.
Community Funding *(such as Crowdfunding | Crowdsourcing | Donations | Fundraising | Subscription | Membership fees | Self-funding)*	Community funding in CS refers to financial support originating from the local community, CS project participants, or crowdfunding platforms (eg. Kickstarter, GoFundMe). This funding stream is made up of individual contributions and donations. This type of funding allows projects to maintain a stronger level of institutional independence, and fosters deeper local engagement and sense of ownership.
Private Funding *(such as Industry partnerships | Commercial revenue/strategies | Consultancy | Philanthropy)*	Private funding in CS refers to financial support from private individuals, corporations, or philanthropic foundations. This type of funding can stem from direct donations, corporate sponsorships, grants from private foundations, or investments from socially responsible companies. Unlike public funding, which typically comes from government agencies or institutions, private funding offers greater flexibility and can be tailored to specific project needs or objectives
Hybrid Funding *(such as public and private)*	Hybrid funding in CS refers to a combination of public and private financial sources to support and sustain CS projects. This model blends the benefits of both public funding, which often comes from governmental or institutional sources with broader societal goals, and private funding, which may come from corporate sponsors, philanthropic foundations, or individual donors.

While these categories are presented separately, CS projects often combine multiple funding sources and encounter similar challenges across funding types, particularly regarding sustainability and long-term resource mobilisation. The qualitative analysis further highlighted a set of cross-cutting considerations relevant across all funding categories. Experts pointed to practices developed in adjacent fields concerned with mission-driven initiatives, such as articulating clear objectives, demonstrating societal impact, and planning for sustainability, as potentially informative for CS projects. Thus, expert interviews revealed that CS projects can draw valuable insights and practices from the field of social entrepreneurship to mobilize funding. By considering these concepts, CS practitioners can enhance their skills to better set up, describe, and present projects with a strong focus on impact.

Much like social entrepreneurship, CS projects typically focus on social or environmental missions, emphasizing the creation of positive change within communities. **Social entrepreneurship** is the

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practice of developing, funding, and implementing innovative solutions to address social, cultural, or environmental issues[2]. These solutions often operate outside traditional business models and focus on creating both social and financial value. Integrating key social entrepreneurship concepts, such as defining a clear social mission, ensuring sustainability, and developing strong value propositions, can enhance the ability of CS projects to mobilize diverse funding sources and ensure long-term success. To provide CS projects with practical tools and strategies for mobilizing funding and ensuring sustainability, while maximizing their societal impact, we present useful insights from social entrepreneurship in the next section.

3 Useful Insights from Social Entrepreneurship

In addition to traditional funding models, CS projects can benefit from strategies commonly used in social entrepreneurship. Social entrepreneurship's focus on addressing societal challenges through innovative, sustainable solutions that create social value, aligns closely with the objectives of CS projects.

Social entrepreneurship concepts can be used to support CS projects in clarifying their mission, articulating their value proposition, demonstrating societal impact, and planning for continuity beyond short-term funding cycles. By applying and reflecting on their own definition of these concepts, CS projects can improve dialogue with diverse funders, while remaining aligned with CS principles, ethical standards, and public-interest objectives.

Table 3. Useful concepts for CS found in Social Entrepreneurship

Concepts	Definition	What to consider for CS
Social Mission	Social entrepreneurship is centred on creating positive social or environmental impact.	When looking to mobilize funding, CS projects should prioritize addressing pressing societal or environmental challenges, such as climate change, biodiversity loss, or public health issues, while engaging the community in meaningful scientific work.
Innovation	Social entrepreneurs use creativity and innovation to solve complex social problems in ways that traditional approaches cannot. Social entrepreneurship works within and contributes to a broader ecosystem of social change, involving networks of organizations, movements, and individuals.	CS projects may develop new methods for data collection, citizen engagement, and collaboration. CS projects are part of a broader movement towards open science and public engagement in research, and by positioning themselves within this ecosystem, projects can contribute to new methods for data collection, citizen engagement, and promote wider trends, such as open-source data sharing.
Sustainability	Promotion of long-term viability of both the project and its impact.	When looking to mobilize funding, CS projects should be able to present financial and operational models that ensure the

[2] https://www.uschamber.com/co/start/startup/what-is-social-entrepreneurship

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		continuity of projects over time, such as diversifying funding sources, and cultivating partnerships.
Value Proposition	Unique benefit a social enterprise offers to its target audience, which distinguishes it from other solutions.	CS projects should clearly state and highlight their value proposition when reaching out to potential sources of funding. This can include: empowering communities to contribute to real scientific research, enabling access to data or findings that might not otherwise be available, or providing learning and skill-building opportunities for participants.
Blended Value	Creating both financial value and social value, ensuring that both are considered in decision-making and performance measurement.	It can be difficult to measure impact in CS. Thus, projects must capture both their social impact (e.g., community empowerment, environmental benefits) and financial sustainability (e.g., funding, donations, partnerships).
Impact Measurement	Using various frameworks to assess social, environmental, and financial impact.	Establishing metrics building on existing ones to measure the impact of CS projects, such as the volume of data collected, community engagement levels, behavioural changes, or environmental improvements can make CS funding proposals more attractive and convincing. Established frameworks, such as **MICS** (Measuring the Impact of CS)[3], can help measure the impact of CS projects. Such frameworks assess factors like the volume of data collected, community engagement levels, behavioral changes, or environmental improvements[4]. Additionally, other frameworks such as **SROI** (Social Return on Investment) provide structured assessments of both social and financial returns on investments[5].
Ethics	Social enterprises must operate transparently, ethically, and with accountability to their stakeholders, particularly the communities they serve.	CS projects must carefully take into account ethical considerations, including ensuring that CS data is collected, used, and shared in ways that are respectful of participants' privacy, and follow established principles such as **ECSA's 10 Principles of CS[6].**

[3] https://mics.tools/
[4] https://link.springer.com/article/10.1007/s11625-021-00959-2
[5] https://www.ebsco.com/research-starters/religion-and-philosophy/social-return-investment-sroi
[6] https://www.ecsa.ngo/10-principles/

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		Additionally, ensuring compliance with GDPR is essential for protecting participants' rights and privacy, which helps maintain public trust and directly impacts the ethical handling of personal data in CS projects.

Taken together, the concepts summarised in Table 3 provide a structured lens for understanding how CS projects can strengthen their approaches to funding mobilisation and sustainability without departing from their core objectives. CS can be combined with social entrepreneurship by using business models that simultaneously generate social and economic value, often via platforms, commons-based governance, and value co-creation. Table 4 presents a suggestion of social-enterprise business models that may be applicable to CS, and which highlight the following core elements:

1. **Value Co-Creation & Engagement**: CS projects increasingly adopt a service-dominant logic, treating citizens as co-creators of value (data, knowledge, advocacy) rather than passive volunteers. Multidimensional engagement (cognitive, affective, behavioural, social) sustains participation and underpins long-term value creation. Science-based co-creation frameworks stress aligning the diverse goals of citizens, firms, NGOs and policymakers, and designing incentives so that social and business value are produced together. [7][8][9]
2. **Citizen Entrepreneurship & Commons Logic:** Citizen entrepreneurship reframes citizens as users, producers and providers in polycentric ecosystems, drawing on commons theory and capabilities approaches. Citizen Entrepreneurship projects typically:
    a. Address local manifestations of global issues (climate, inequality, urban challenges)
    b. Collaborate with municipalities, companies and education institutions
    c. Treat innovation and entrepreneurship as social goods, not only profit engines[10][11]

Table 4. Social-Enterprise Business Models Applicable to CS

Model/Tool	Key idea for CS
Social Enterprise Model Canvas (SEMC)[12]	Adapts the Business Model Canvas to foreground social value, governance, non-targeted stakeholders, mission & impact metrics; helps avoid mission drift in hybrid ventures

[7] Marques, D., Silva, J., & Machado, R. (2024). CS: Exploring the underlying dimensions of citizen engagement and value co-creation through the lens of marketing. *Biological Conservation*. https://doi.org/10.1016/j.biocon.2024.110711.
[8] Liñán, S., Salvador, X., Álvarez, A., Comaposada, A., Sánchez, L., Aparicio, N., Rodero, I., & Piera, J. (2022). A new theoretical engagement framework for CS projects: using a multi-temporal approach to address long-term public engagement challenges. *Environmental Research Letters*, 17. https://doi.org/10.1088/1748-9326/ac939d.
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[10] Mitra, J., Sokołowicz, M., Weisenfeld, U., Kurczewska, A., & Tegtmeier, S. (2020). Citizen Entrepreneurship: A Conceptual Picture of the Inclusion, Integration and Engagement of Citizens in the Entrepreneurial Process. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 6, 242 - 260. https://doi.org/10.1177/2393957520936884.
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[12] Sparviero, S. (2019). The Case for a Socially Oriented Business Model Canvas: The Social Enterprise Model Canvas. *Journal of Social Entrepreneurship*, 10, 232 - 251. https://doi.org/10.1080/19420676.2018.1541011.

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Social-business / social-cooperative / entrepreneurial nonprofit models[13]	Typology of social enterprises mixing trading income, cooperative governance, and nonprofit logic – all compatible with CS platforms charging fees, selling services, or running as co-ops
Sustainable hybrid Social Entreprise framework[14]	Focus on managing tensions between social mission and commercial activities in long-term sustainable models
Digital "platforms for the common good"[15]	Volunteer platforms that maximize social impact via network effects and feedback loops, not profit; relevant for tech-based CS platforms with partners (corporates, NGOs)
Regenerative Business Model in Social Entrepreneurship[16]	Participatory stakeholder roles where users are also collaborators; collaboration in early stages drives scaling of social impact

The business models presented in Table 4 may offer actionable pathways for CS projects to balance social missions with sustainable financial strategies, and these considerations will be further explored in the **Final Version** of this Deliverable through expert validation.

[13] Defourny, J., Nyssens, M., & Brolis, O. (2020). Testing Social Enterprise Models Across the World: Evidence From the "International Comparative Social Enterprise Models (ICSEM) Project". *Nonprofit and Voluntary Sector Quarterly*, 50, 420 - 440. https://doi.org/10.1177/0899764020959470.
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[15] Katsamakas, E., Miliaresis, K., & Pavlov, O. (2022). Digital Platforms for the Common Good: Social Innovation for Active Citizenship and ESG. *Sustainability*. https://doi.org/10.3390/su14020639.
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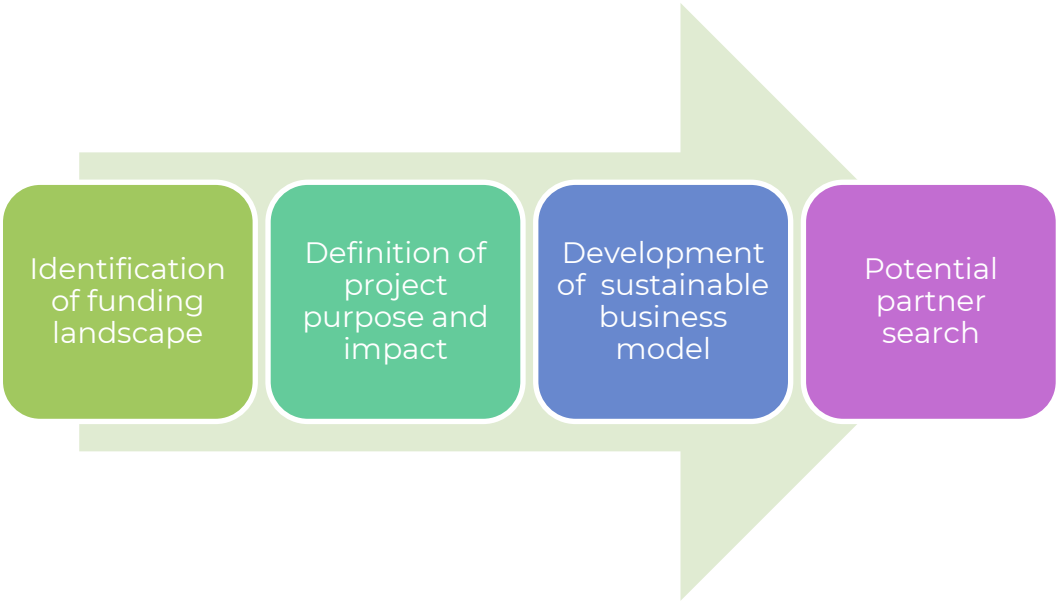
4 Cross-cutting considerations for mobilising funding in CS

In this section, we synthesize our findings to present key considerations for mobilizing funding in CS projects across various funding types. Successfully mobilizing funding requires careful planning, strategic alignment with funders' priorities, and effective communication of the project's value. Drawing on insights from expert interviews and the mutual learning workshop on CS funding models, we have identified crucial steps to support CS projects in attracting funding.

Figure 2. Cross-cutting considerations for mobilising funding in CS – preliminary findings

Source: own elaboration based on expert interviews and mutual learning workshop



In general, CS projects should:

- **Research potential funders and their priorities**, so as to align their projects to funding expectations. As a first step, projects may look into national frameworks supporting CS activities, (for example: Federal Ministry of Women, Science and Research in Austria[17], Dutch Research Council[18], or Scivil in Belgium[19]) However, it's important for CS projects to carefully balance the funders' priorities with the core mission of the project and the needs of the community it serves. While aligning with funders' goals may be necessary for securing funding, projects should ensure that their commitment to community engagement and participant needs remains intact. In some cases, it may be necessary to seek funders whose objectives naturally align with the project's social mission, ensuring that both the funding requirements and the community's needs are addressed. A successful approach may involve striking a balance between meeting funding expectations and maintaining the ethical foundation of the project, which focuses on inclusivity, transparency, and community involvement.
- **Clearly define the problem, social mission, and aim of the project,** and clearly show how the project will solve this problem, what impact is expected, and how it will be measured. This

[17] https://www.bmfwf.gv.at/en/research/research-public/citizen-science.html
[18] https://www.nwo.nl/en
[19] https://www.scivil.be/en

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may include the number of citizens involved, or the volume of data collected, and the participant and community needs addressed.

- **Understand and convey the value and impact the project brings to organizations or funders.** Projects should make a statement for how the initiative not only generates data but also adds social, educational, or corporate value, and contributes to social and behavioral changes in the participants involved. This includes measuring outcomes like increased environmental awareness or changes in local practices.
- **Set up a sustainable business model:** CS projects may explore sustainable business models based on providing consulting services, service fees, or offering training workshops. Projects should seek to diversify their funding sources, which could include diversifying across grants, crowdfunding, corporate partnerships, and public funding. This could also include sharing costs for technology and data collection. Instead of viewing CS projects as a one-time activity, it is recommended to view them as a continuous service that generates value over time. Projects should explore sustainable business models that allow for financial resilience without compromising the principles of community engagement and accessibility. As mentioned in **Section 3 Useful Insights from Social Entrepreneurship,** while some models may include providing consulting services or offering training workshops, it is important that such activities do not impose financial barriers on participants. Instead, consulting services and training workshops should primarily target external stakeholders or organizations (e.g., governmental bodies, research institutions, NGOs) that can benefit from the expertise and data generated by CS projects.
- **Projects should aim to diversify their funding sources,** potentially combining grants, crowdfunding, corporate partnerships, and public funding to create a robust financial base. Another approach could include exploring shared costs for technology and data collection, ensuring that resources are used efficiently.
- **Partner search:** At the early stages of mobilizing sustainable funding for CS projects, experts suggest that collaborating with reputable organizations, networks and platforms can enhance the impact of a project. Experts also suggest that successful established CS projects and networks, should bring in smaller projects as official partners to their future funding projects and proposals. In the following table, we suggest a few platforms for projects to get started looking for networking opportunities:

Table 5. Platforms for networking opportunities

Platform	Description	Link
European CS Association (ECSA)	A good entry point for establishing contacts with expert CS actors	https://www.ecsa.ngo/projects-2/
EU Funding & Tenders Portal Partner Search	Partners interested in participating in EU funding programmes such as Horizon Europe	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/partner-search

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CS Global Partnership (CSGP)	Regional and national citizen-science organisations, research groups, NGOs, businesses and policy actors	https://citizenscienceglobal.org/
SciStarter	Showcases projects and resources and allows posting of new projects seeking contributors and collaborators	https://scistarter.org/
Anecdata.org	Web portal focused on environmental science, biology, public health and similar fields, that allows people to join existing projects or start their own.	https://www.anecdata.org/
EU-Citizen.Science	Hosts a large directory of projects, tools, training material, resources and organisations across Europe	https://www.citizenscience.eu/
CitSci-X Explorer	Platform listing many citizen-science projects, including their scope, domain, geographic coverage, and links. Good for surveying existing efforts and finding potential collaborators or inspiration	https://ec-jrc.github.io/citsci-explorer/
Scivil	Matchmaking resource offered by the Flemish knowledge centre for CS that enables project teams to find and connect with organisations and stakeholders (research centres, NGOs, education groups, etc.) active in CS	https://www.scivil.be/en/partners

The general considerations outlined above apply across different funding contexts and provide a shared foundation for strategic decision-making in CS projects. Building on these cross-cutting insights, the following section translates our findings into funding-specific preliminary recommendations, including: **public funding, private funding, crowdfunding, and hybrid funding.**

5 Tailored Funding Recommendations (preliminary conclusions)

5.1 Public Funding

Public Funding (such as Awards | Grants | Government | National and local programmes | Research institutions)	Public funding is a big enabler of CS projects and activities. It consists of financial support mainly provided by government agencies, national or local public institutions, and public sector organizations. This type of funding is usually distributed through grants, subsidies, and funding programmes.

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Projects should:

1. **Develop a strong Value Proposition** for the project. This outlines the unique benefits the project offers to stakeholders, participants, and society. A key part of this process involves identifying gaps in data, targeted activities, and potential areas where the project can inspire positive shifts in awareness or actions. For instance, a CS project focused on environmental monitoring might aim to raise awareness about air quality and encourage more sustainable practices within the community. By defining these areas and how the project can contribute to broader change, it demonstrates its relevance and impact, making it more appealing to funders and collaborators.
2. **Highlight inclusivity and accessibility,** allowing projects to be accessible to diverse communities, ensuring equitable participation and benefit.
3. **Seek training and guidance in proposal writing and financial planning**, ensuring that the projects account for unforeseen expenses in project planning. For instance, mobilizing volunteers entails additional costs, which should be included in the budget. **Useful resources:**
    1. **ScienceUS Best Practices in Citizen Science:** https://scienceus-project.eu/best-practices-in-citizen-science/
    2. **ECS academy:** https://moodle.citizenscience.eu/
    3. **IMPETUS:** https://impetus4cs.eu/
4. **Look for ways to internalize costs,** for example by sharing responsibilities and resources across departments or teams.
5. **Establish clear metrics** to measure the social, environmental, and financial impact of the project, ensuring that both social and financial outcomes are tracked effectively. Tools like MICS and SROI, introduced in **Section 3: Useful Insights from Social Entrepreneurship**, can provide valuable frameworks for this process.
6. **Identify and apply** to relevant government grants, research councils, and innovation funds that support CS, by strategically aligning the CS project with public policy and societal goals. Public funding may support actions whose results enhance public priorities.
7. **Develop strategies for sustainability in the event that the project is not fully funded.** Private funding has proven to be a valuable source of complementary support for ongoing projects rather than new ones. The following strategies have been identified as ways to tap into private funding:
    a. **Corporate Social Responsibility (CSR) and ESG programmes**: CS projects can approach companies whose sustainability priorities align with their mission, proposing partnerships that emphasise mutual value (e.g. community engagement, data generation, awareness raising). CSR and ESG priorities are often published in company sustainability reports, annual reports, or dedicated CSR webpages. Reviewing these documents helps CS projects identify alignment before approaching companies.
    b. **Philanthropic and corporate foundations**: Private and corporate foundations support applied research, environmental action, education, and citizen engagement. These funders tend to favour projects with demonstrated impact and continuity, making them particularly suitable for sustaining or expanding existing CS initiatives.

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c. **In-kind and service-based partnerships**: Private actors may contribute non-financial resources such as cloud computing, sensors, software licenses, staff time, or communication support. These contributions can significantly reduce operational costs and increase resilience in underfunded scenarios.
d. **Revenue-adjacent activities**: Without compromising openness or inclusivity, mature CS projects may generate complementary income through services aimed at external stakeholders (e.g. training for public authorities, consultancy, data interpretation services, or educational materials), supporting long-term sustainability.

8. **Develop commercial models related to the provision of public services,** such as creating platforms or tools that can be adopted by government agencies or local municipalities. This could include providing data access or consultation services related to public needs, ensuring that the project remains financially viable and impactful.
9. **Ensure transparency and accountability** through robust reporting mechanisms to demonstrate outcomes and responsible use of public funds

5.2 Private funding

Private Funding *(such as Industry partnerships | Commercial revenue/strategies | Consultancy | Philanthropy)*	Private funding in CS refers to financial support from private individuals, corporations, or philanthropic foundations. This type of funding can stem from direct donations, corporate sponsorships, grants from private foundations, or investments from socially responsible companies. Unlike public funding, which typically comes from government agencies or institutions, private funding offers greater flexibility and can be tailored to specific project needs or objectives

Projects should:

1. **Identify and assess the relevant funding landscape of private funders.** To map and assess the private funding landscape, projects can draw on a combination of philanthropy directories, corporate CSR/ESG information, and partner-search tools.
    a. At European level, networks such as Philea (Philanthropy Europe Association) provide entry points to philanthropic and corporate foundations and link to national foundation directories. For corporate funding, reviewing company sustainability or CSR/ESG reports and webpages helps assess alignment with project objectives and partnership priorities. In addition, the EU Funding & Tenders Portal (Partner Search) can be used to identify private-sector actors already active in EU research and innovation projects and potential co-funding partnerships.
2. **Develop a strong Value Proposition for the project,** articulating the benefits for private partners, such as brand visibility, data access, or community engagement. Identify data, service, or activity gaps to contribute to.

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3. **Establish clear metrics** for measuring the social, environmental, and financial impact of the project, ensuring that both social and financial outcomes are tracked.
4. **Reach out to reputable** institutions for building strong partnerships, which may be attractive to private funders.
5. **Strategically align project objectives with the social responsibility and innovation goals of potential private funders**. Private funding may reward high risk projects, and may prioritize impact related to individuals. However, projects should engage with private funders only where there is a clear alignment with the project's objectives and CS principles. CS Aprojects should ensure that scientific independence, ethical standards, and openness are maintained.
6. **Look to co-design** the project with the private funder, by aligning shared goals, setting up collaborative governance structures, and involving the funder in research design to integrate their expertise.
7. **Seek partnerships** with corporations and organizations willing to offer in-kind resources such as technology, platforms, or computing power, helping reduce costs.
8. **Focus on building a commercial model that ensures the long-term sustainability of the project.** This could include diversifying funding sources, developing revenue-generating activities, or forming strategic partnerships to support the project's financial health.
9. **Apply targeted marketing strategies**, including stakeholder analysis and tailored messaging, to engage private funders.
10. **Address legal and ethical CS considerations** to ensure compliance with intellectual property, and data privacy.

5.3 Crowdfunding

The analysis of expert interviews and workshop discussions identified a gap between project-based public funding cycles and the need to maintain ongoing CS activities and communities. Thus, Crowdfunding emerged as a **complementary mechanism** that allows CS projects to mobilise resources.

Community Funding (such as Crowdfunding | Crowdsourcing | Donations | Fundraising | Subscription | Membership fees | Self-funding)	Community funding in CS refers to financial support originating from the local community, CS project participants, or crowdfunding platforms (eg. Kickstarter, GoFundMe). This funding stream is made up of individual contributions and donations. This type of funding allows projects to maintain a stronger level of institutional independence, and fosters deeper local engagement and sense of ownership.

Projects should:

1. **Compare and choose the right platform.** Platforms like Kickstarter and GoFundMe can be used to raise funds for specific projects or purchase materials. Platforms such as Patreon enable CS projects to receive regular, small contributions from supporters, which can be used to sustain operations over time.
2. **Craft a compelling story**, and clear value proposition.

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3. **Set realistic and transparent timelines**, goals, budgets, and systems for rewards and recognition. Crowdfunding may be demanding for project communication teams and volunteers due to the need to provide incentives like early access, behind the scenes, and exclusive content.
4. **Set up social media campaigns** to support and disseminate the crowdfunding campaign.
5. **Promote offline outreach** such as events, and talks with local groups
6. **Maintain regular communication and updates**. When setting up a crowdfunding campaign, it is important to honour the ownership of the backers, by keeping them informed through regular updates on main milestones and progress towards project goals, and acknowledgement of contributions.
7. **Set up a commercial model around project materials** to ensure project sustainability. Consider how the project can generate ongoing revenue beyond the crowdfunding campaign. For example, if the project involves creating scientific tools, sensors, or educational materials, CS practioners could consider developing a model to sell or license these materials once the initial funding goal is achieved. This allows the project to continue operating beyond the crowdfunding phase, potentially generating additional funding or partnerships.
8. **Ensure Post-Funding Engagement** after the crowdfunding campaign by keeping supporters updated on the progress of the project, by showing them how their contributions have been utilized and the impact they've helped to create.

5.4 Hybrid funding

Hybrid Funding *(such as public and private)*	Hybrid funding in CS refers to a combination of public and private financial sources to support and sustain CS projects. This model blends the benefits of both public funding, which often comes from governmental or institutional sources with broader societal goals, and private funding, which may come from corporate sponsors, philanthropic foundations, or individual donors.

Projects should:

1. **Align project goals with Public and Private interests, addressing societal needs and private sector priorities,** ensuring that the project tackles pressing societal challenges (e.g., climate change, health inequities, or education access) while appealing to the financial or innovation-driven motivations of private actors. Public funders may be interested in how the project contributes to the public good and meets policy priorities. Private funders may be interested in insights regarding opportunities for innovation, and that enhance their CSR impact.
2. **Develop a tailored value proposition highlighting the long term impact of the project, as well as the strategic outcomes for private funders.** The value proposition should clearly outline the social returns and the financial benefits, ensuring that each funder understands what they stand to gain.

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3. **Establish clear metrics** for measuring the social, environmental, and financial impact of the project, ensuring that both social and financial outcomes are tracked.
4. **Nurture strategic networks to bridge public and private funding streams.** Actively engage with cross-sector networks that align with the project's mission to build a coalition that strengthens the case for hybrid funding. By involving different types of stakeholders early on, the project can tap into a broader pool of resources, insights, and influence, helping to increase both its scalability and replicability across sectors.
5. **Diversify funding strategies, for example,** by seeking long-term funding from both public grants and private sponsorships, alongside other forms of support such as in-kind contributions, partnerships, and revenue-generating models (e.g., data access, licensing) to ensure operational sustainability, even in cases of funding gaps.
6. **Develop scalable and replicable models that can attract ongoing support.** Hybrid funding models thrive when the project can be adapted and expanded over time. Focus on building systems that are flexible and adaptable to various contexts, ensuring that the model can evolve to meet future needs.
7. **Implement reporting and evaluation systems that relate to different stakeholder needs.** Public funders are typically focused on social outcomes, environmental benefits, and alignment with policy, so reporting should highlight metrics such as community engagement, environmental improvements, or health outcomes. On the other hand, private sector funders are likely more concerned with return on investment, data-driven outcomes, and innovation.

6 Discussion

In this section, we explore key considerations for CS projects when navigating the funding landscape.

Funding landscape

In the process of securing funding, CS projects must be mindful of the ethical implications of aligning their goals with those of potential funders. While it is important to meet funders' expectations to secure financial support, this should not come at the expense of the project's commitment to community needs, participation, and engagement. Projects that prioritize funding over the community's objectives risk undermining the trust and collaboration that are at the heart of CS. Therefore, it is critical for CS projects to identify funders whose values and objectives align with the social mission of the project, ensuring that community involvement and ethical considerations remain central to the project. Striking this balance not only fosters trust and respect within the community but also enhances the sustainability and authenticity of the project in the long term. Ethical decision-making should guide funding strategies to maintain the integrity and inclusivity that CS inherently seeks to promote.

Private Funding

When assessing potential private funders, projects should consider alignment with the project's social mission and CS principles, thematic and geographic fit, funding scope and flexibility, ethical and data-governance requirements, and the extent to which the partnership supports long-term sustainability without creating barriers to participation.

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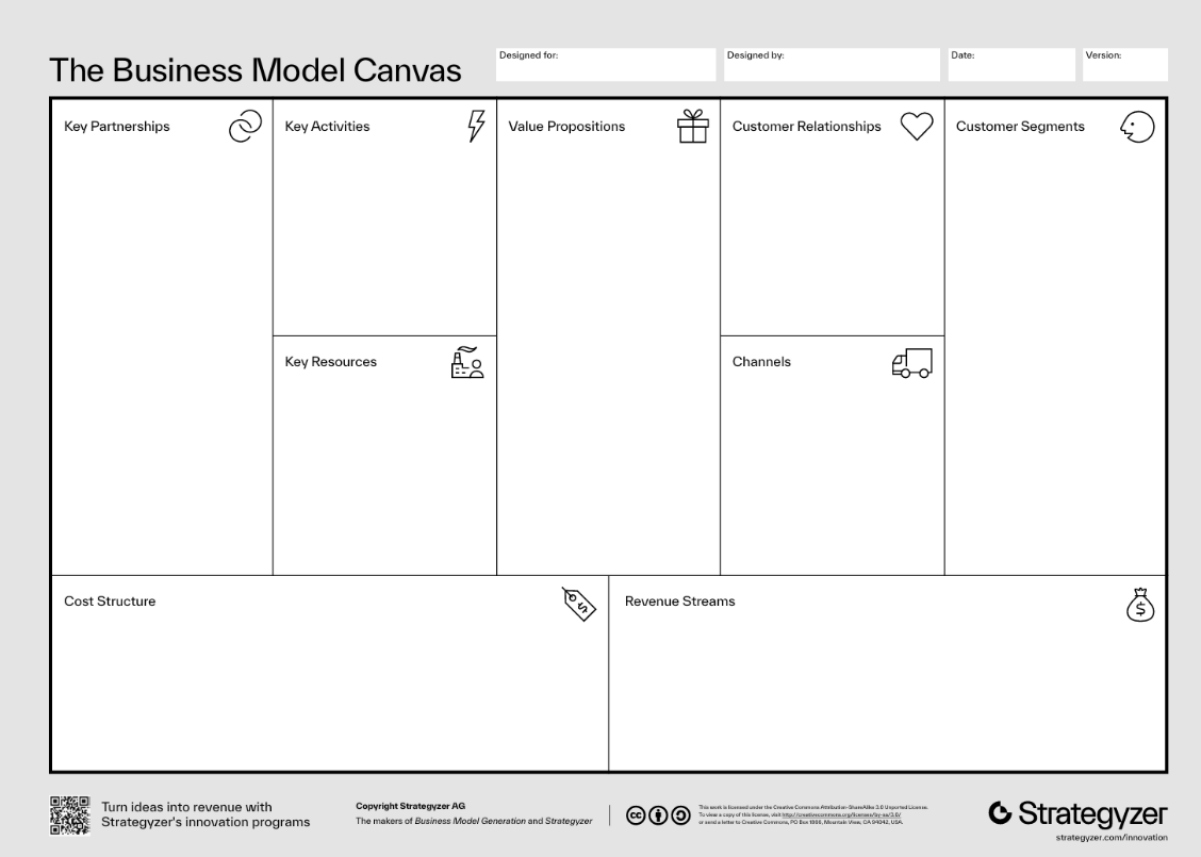
Sustainable business models

When exploring sustainable business models for CS, it is essential to ensure that financial strategies do not conflict with the inclusive and participatory nature of the field. Charging participants directly for training workshops or services may inadvertently create barriers to entry, particularly for underrepresented or marginalized groups. CS is built on principles of open access and community-driven research, and as such, any approach that introduces financial obstacles can undermine these principles. Additionally, finding innovative ways to share costs for technology and data collection can alleviate financial pressures without detracting from the accessibility of the project for all participants. Ultimately, a sustainable CS funding model should balance the need for financial sustainability with the project's core ethical commitments to inclusivity, transparency, and community empowerment.

7 Useful resources to support the development of projects and funding proposals

Business Model Canvas: The Business Model Canvas is a strategic management tool that provides a visual framework for developing, describing, and analysing a business model. It covers key areas such as customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. This template helps projects identify and clarify the essential elements that drive your project's financial sustainability and value creation.

Template: https://www.strategyzer.com/library/the-business-model-canvas



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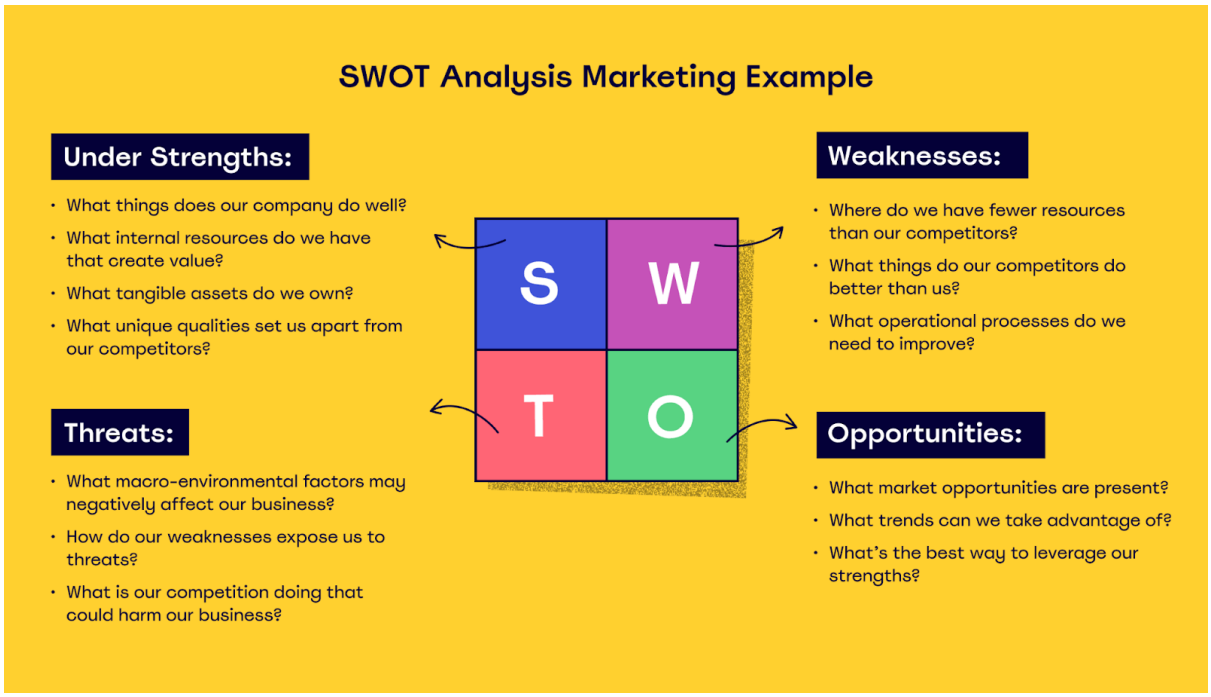
SWOT Analysis: SWOT analysis is a framework used to assess a project's or organization's strengths, weaknesses, opportunities, and threats. This analysis helps identify internal and external factors that can impact the success of the project. Strengths and weaknesses refer to internal capabilities and challenges, while opportunities and threats are external factors that could influence the project's development. The template helps projects systematically evaluate these areas to inform decision-making and strategy development.



Templates: https://miro.com/templates/swot-analysis/

Pitch Deck: A pitch deck is a brief, visually engaging presentation that provides an overview of the project or business to potential investors, partners, or funders. It typically includes key information such as the problem the project addresses, the solution, market opportunity, business model, team, financial projections, and the funding ask. The pitch deck template helps structure these elements into a compelling narrative that grabs the audience's attention and encourages support.

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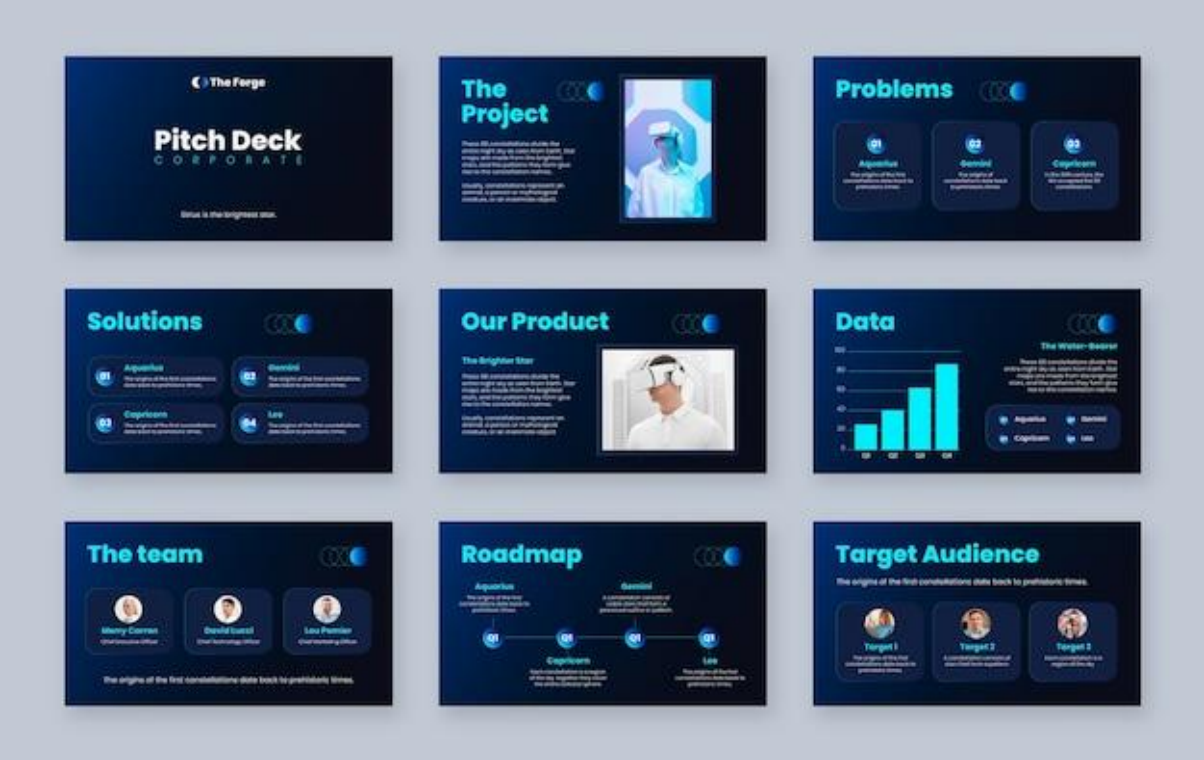

Templates: https://powerpoint.cloud.microsoft/create/en/pitch-deck-templates

Theory of Change Template: The Theory of Change (ToC) is a framework that outlines the pathway through which a project aims to achieve its long-term goals. It identifies the steps, outcomes, and activities necessary to bring about change, along with the assumptions that underlie the project's logic. The Theory of Change template helps articulate how the project's activities lead to the desired impact, making it easier for funders and stakeholders to understand the project's objectives and strategies.

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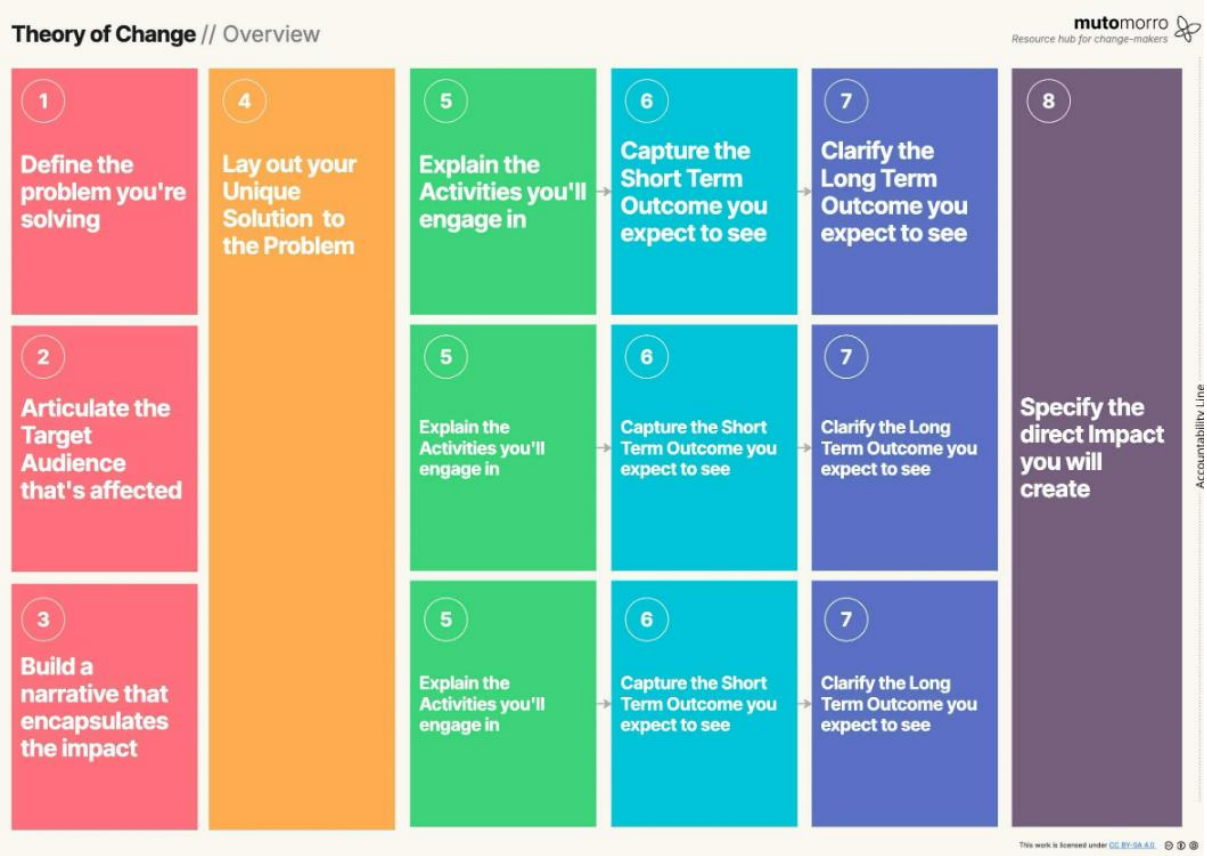

Templates: https://mutomorro.com/tools/theory-of-change/

Sustainability Plan Template: A sustainability plan is a document that outlines how a project will continue to operate and thrive over time after the initial funding or support is exhausted. It includes strategies for securing long-term funding, building partnerships, generating revenue, and ensuring that the project's impact and activities are sustained. The sustainability plan template helps identify and plan for the financial, operational, and social elements required to keep the project sustainable in the long run.

Templates: https://www.template.net/plan/sustainability

8 Conclusions and Next Steps

D4.3 and **D4.4** reveal that CS is a field dominated by short-term public grant funding, with significant sustainability challenges and underutilised alternative models.

8.1 From Preliminary to Final Version

In the continued development of this deliverable towards its final version, CROPS will:

- **Organize Roundtables**: Building on the initial insights provided by current experts, we will facilitate roundtable discussions to review and validate the findings, ensuring a

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comprehensive and collaborative approach. These sessions are expected to take place from **March to May 2026**.

- **Conduct Expert Interviews (second round)**: We will interview experts from fields that complement or contribute to citizen science (CS), such as social entrepreneurship, nonprofit management, CSR, business development, etc, to inform the final version of the deliverable, including considerations on business models applicable to CS.
- **Refine Funding Landscape Guides**: With input from the newly engaged experts (as well as the previous interviewees), we will further refine the guides for navigating the funding landscape, ensuring they are practical.
- **Provide recommendations for funders and policymakers.**

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Annexes

Annex 1: Interview Protocol (semi-structured interview script) (first round)

Introduction

- About CROPS project
- Goal of interview
- Consent request

Questions

1. Could you briefly tell me about your experience with CS initiatives and your role in relation to funding?
2. Based on your experience, what would be the key elements of an ideal protocol to help CS initiatives mobilize sustainable funding? What usual steps and recommendations do you usually take to mobilise funds?
3. What funding models have you observed in CS initiatives:
4. What are, in your opinion, the best practices of in-kind contributions or non-monetary resources in CS (e.g., volunteer work, data sharing)?
5. Could you describe the most successful and effective sustainability approaches and strategies you have encountered to keep a CS project running?
6. What are the most significant challenges when securing funding for CS projects?
7. Have you observed links between RRI and funding acquisition?
8. Do you believe that existing funding policies/programmes, both at the EU and national levels, adequately support CS initiatives?
9. In your opinion, how accessible is the existing funding landscape to CS?
10. What recommendations do you have for improving the current funding landscape for CS initiatives, keeping in mind project sustainability (i.e. ensuring that necessary resources are available in the long term)?
11. Are you familiar with any emerging funding or sustainability approaches that are innovative, and you consider particularly promising?
12. Do you think that private funding could be leveraged for CS? If so, how?
13. Is there anything else about funding models or sustainability practices in CS that you think is important for us to consider as we develop this protocol?

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Annex 2: Survey Instruments: CROPS Case Study Survey

Which CS project are you representing? Please provide name(s) and website(s)

1. Which funding sources have been most critical to the success of your CS initiatives?

2. How would you rate the adequacy of your current funding model in supporting the long-term sustainability of your CS project? Very Inadequate to Very Adequate

2.1. Justify.

3. What are the main challenges you face regarding your CS project's funding model? Select as many as applicable to your case.

- Calls that are too generic (not specific for CS)
- Lack of dedicated funds for CS
- Lack of long-term sustainability (project continuation)
- Lack of private funding (commercialisation)
- Dependence on public funding
- Lack of competences, skills, knowledge
- Language Barriers (mother tongue not being EN)
- Difficulty in assessing opportunity related information (knowing about calls and deadlines)
- The need to anticipate costs
- Lack of trust between the candidate and the funder
- Uncertainty about the continuity of funding (budget)
- Funding is constrained by external factors (economy, wars, changes in politics, etc.)
- Other:

3.1. Please elaborate on your answers in question 3, by providing comments and justifications about your selections. We want to understand better the scope and specifications of the challenges faced by your projects.

4. To what extent does your current CS funding mechanism encourage or hinder accessibility/inclusiveness (who can access it) and community ownership?

Strongly hinder to Strongly encourage

4.1. Please justify.

5. What improvements or innovations would you suggest to enhance your current funding model and sustainability for CS initiatives?

- Create dedicated funding for CS
- Foster funding for ongoing projects (not new ones)
- Prioritize RRI

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- Make projects scalable (revenue generation attached to project)
- Address different target groups
- Making sure a project can go on after the end of the funding
- Focus on communities that are already built (network)
- Other:

5.1 Please justify your answer in question 5, allowing us to have a better understanding of your suggestions.

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