Governance roadmap
for a citizen science network
A proposal for guiding the process
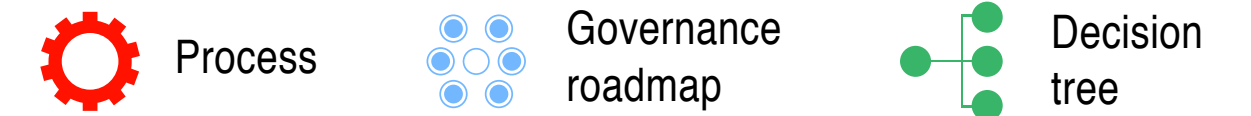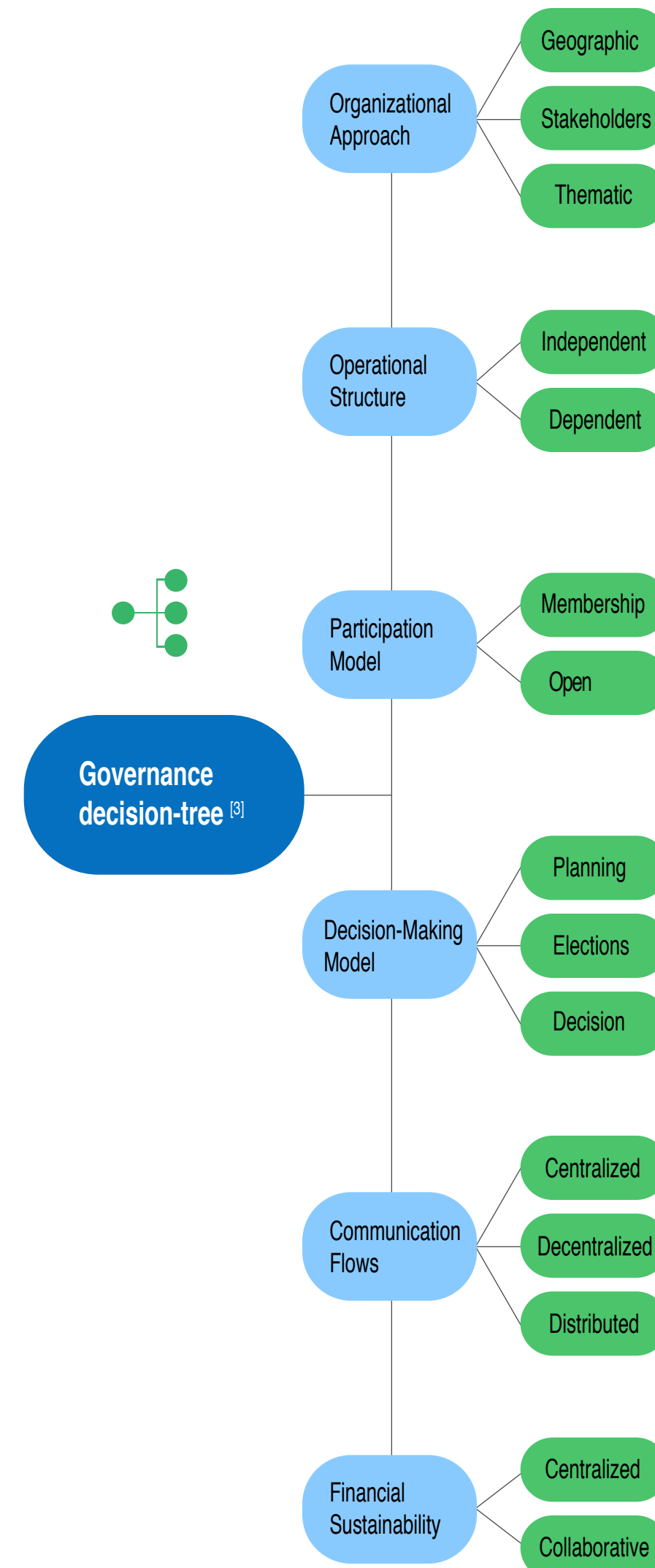
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What are the key agreements that need to be put in place while creating a citizen science network? What are the different forms that these agreements can take? We provide a roadmap, a decision tree, and a process for thinking about these questions that we hope can guide these conversations, in both existing and emerging citizen science networks, and enables them to arrive at a governance arrangement that suits their needs.

Governance refers to the collective processes of interactions, formal or informal, that determines the norms and decisions relating to a group's common interests [1].

There is no single model of governance that is desirable for networks to foster.[1] However, there are desirable characteristics of network governance, such as a dynamic and flexible structure, that in turn requires decentralization, pluralism, and cooperative relations.[2].

Based on these characteristics, we propose a process, a roadmap and a decision tree to guide people and organizations that wish to create or strengthen a network.

Organizational approach
How the network is structured; the approach depends on the type of stakeholders that are its constituents

Operational structure
How the network decides to address operational issues, mainly administrative and financial, such as whether it is an independent legal entity, housed within another, or some alternative arrangement

Financial sustainability
The guidelines for managing financial resources that allows a network to seek to further its purposes, and to do so sustainably

PURPOSE [3]

Communication flows
The internal and external communication channels of the network, as well as the prioritization of actors targeted and messages transmitted

Decision-making model
What are the negotiation spaces and the rules or norms that guide the network's decisionst

Participation model
The forms of participation of network members. Options for collaboration models and arrangements are made explicit in this component

The purpose and the process: The purpose behind the network depends on whom and how the network seeks to have influence or impact.
The purpose is usually expressed through statements on objectives, principles and values. Networks should first define their purpose and only then start navigating the six areas of the roadmap and the associated decision tree.

The six areas —organizational approach, operational structure, participation model, decision-making model, communication flows, financial sustainability— of the governance roadmap are closely related among each other, but they are not sequential; they can be addressed in the order that best responds to the needs of the network.

A collaborative process navigates between chaos and order. The roadmap should make it easier to find the right balance between the two states.

The roadmap is exactly that: a map. It is not a checklist that indicates how complete or not a governance model is.

Legend
- Process
- Governance roadmap
- Decision tree

Governance decision-tree [3]

- Organizational Approach
  - Geographic
  - Stakeholders
  - Thematic
- Operational Structure
  - Independent
  - Dependent
- Participation Model
  - Membership
  - Open
- Decision-Making Model
  - Planning
  - Elections
  - Decision
- Communication Flows
  - Centralized
  - Decentralized
  - Distributed
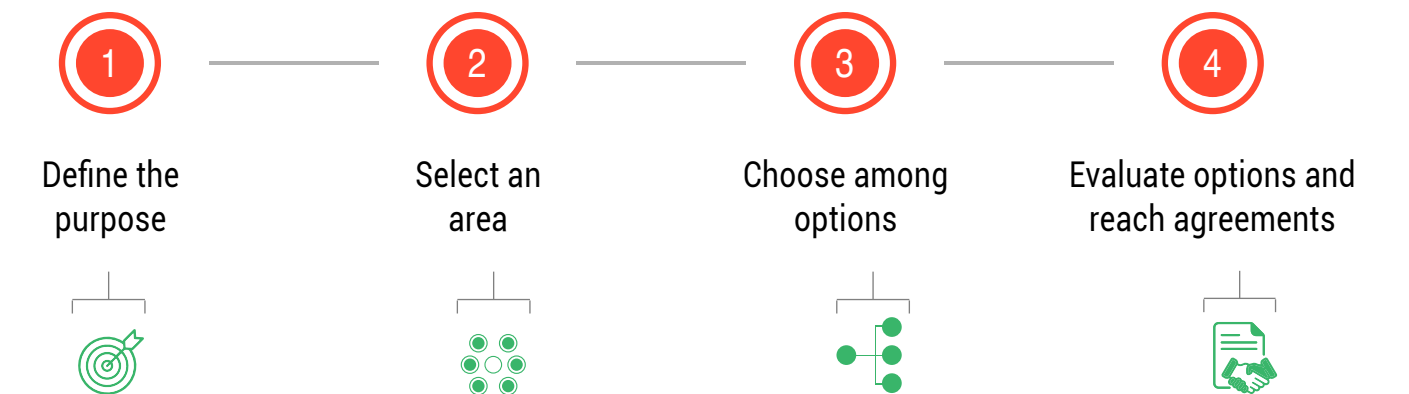- Financial Sustainability
  - Centralized
  - Collaborative

For each one of the areas of the governance roadmap, the decision tree provides a preliminary set of divergent options. These options facilitate making decisions about specific aspects of a network's governance. Your network may choose to opt for an "in-between" option as well.

This tool, which will continue evolving and improving, provides a structured and organized decision-making tool for networks in the process of creating, revising or consolidating governance agreements.
The choices should be evaluated by the network in the most collaborative way to ensure their legitimacy going forward.

Governance is also about achieving the greatest-possible balance and representation of interests of the different stakeholders. This is key when evaluating and selecting the most desirable or viable options.

How does one use the governance roadmap and the decision tree?

1. Define the purpose
2. Select an area
3. Choose among options
4. Evaluate options and reach agreements

We took into account the governance analytical framework (GAF) [1] while building the roadmap. We also undertook a comparative analysis of the governance arrangements of multiple citizen science networks, including the European Citizen Science Association (ECSA) and the Australian Citizen Science Association (ACSA).

This roadmap was tested and improved in 2019, while developing governance models for the Citizen Science for the Amazon Network (CC Amazonía), the Iberoamerican Participatory Science Network (RICAP) and in 2020 for the Women in Conservation Network.

Want to contribute?
Share with us your opinions and comments about the governance roadmap and decision tree in the poster's web page.

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References
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[2] Provan, K. & Kenis, P. (2008). Modes of Network Governance: Structure, Management, and Effectiveness', Article in Journal of Public Administration Research and Theory doi: 10.1093 / jopart / mum015.
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More information
The description of the roadmap is available in the article (in prep.): Governance roadmap for citizen science networks, a proposal for guiding the process. Soon available on the poster's web page.