Le trasformazioni istituzionali negli enti di ricerca per promuovere la citizen science

Cambiamenti organizzativi per promuovere la Citizen Science come metodologia di ricerca

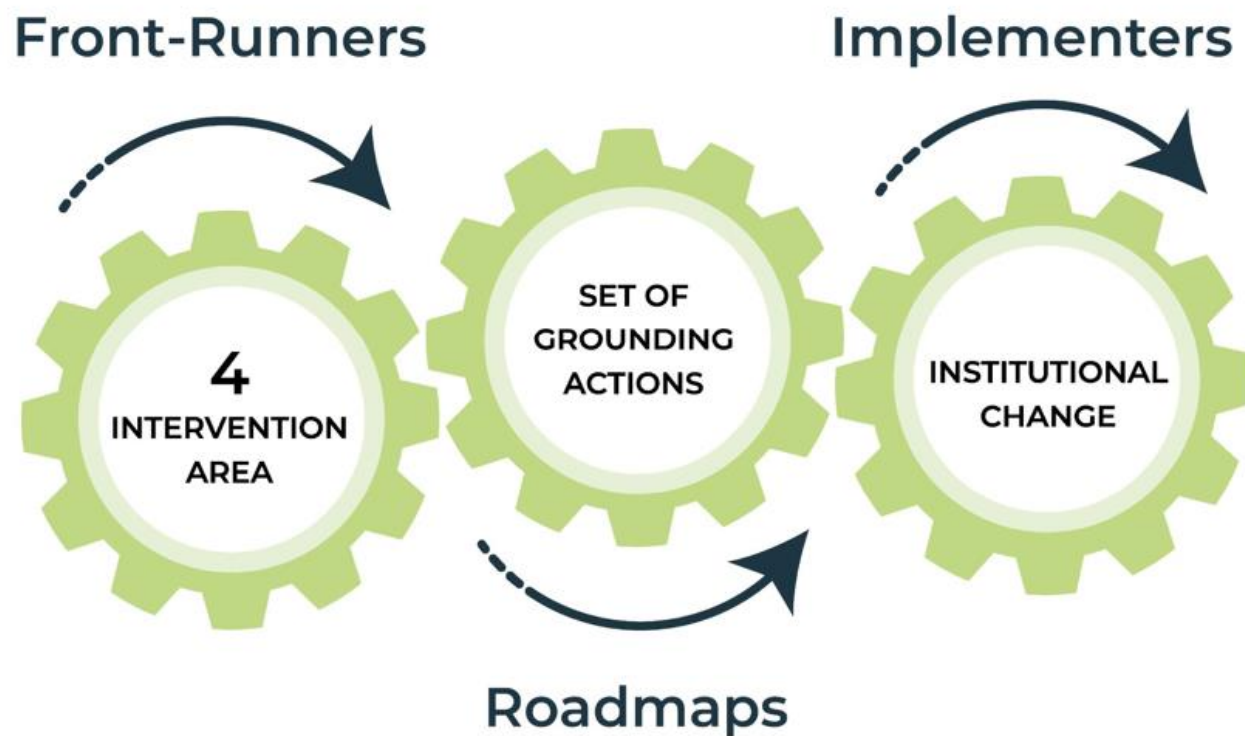Claudia Iasillo (APRE)

24/10/2023

Facilitare cambiamenti istituzionali: l'esperienza di TIME4CS

Facilitare cambiamenti istituzionali: l'esperienza di TIME4CS

The EU-funded TIME4CS project aims at closing the gap between the limited adoption of citizen science (CS) as a research methodology across European universities and Research Performing Organizations (RPOs) and the important benefits that can derive from it. We address this in a unique way, aiming to support sustainable Institutional Changes to promote CS in Science and Technology. We chose a distinctive paradigm, namely addressing this at the institutional level. The RPOs in the project are experimenting a concrete approach based on practical actions that can trigger long term Institutional Changes within their organizations so they will promote the effective implementation of CS.

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La teoria dietro il concept di TIME4CS

Facilitare cambiamenti istituzionali: l'esperienza di TIME4CS

- Universities should develop a programme of cultural change, which is necessary to support the changes in principle and practice which Open Science brings.

- 41 recommendations considering that Open Science represents a complex and multi-dimensional process of transition, different for every university
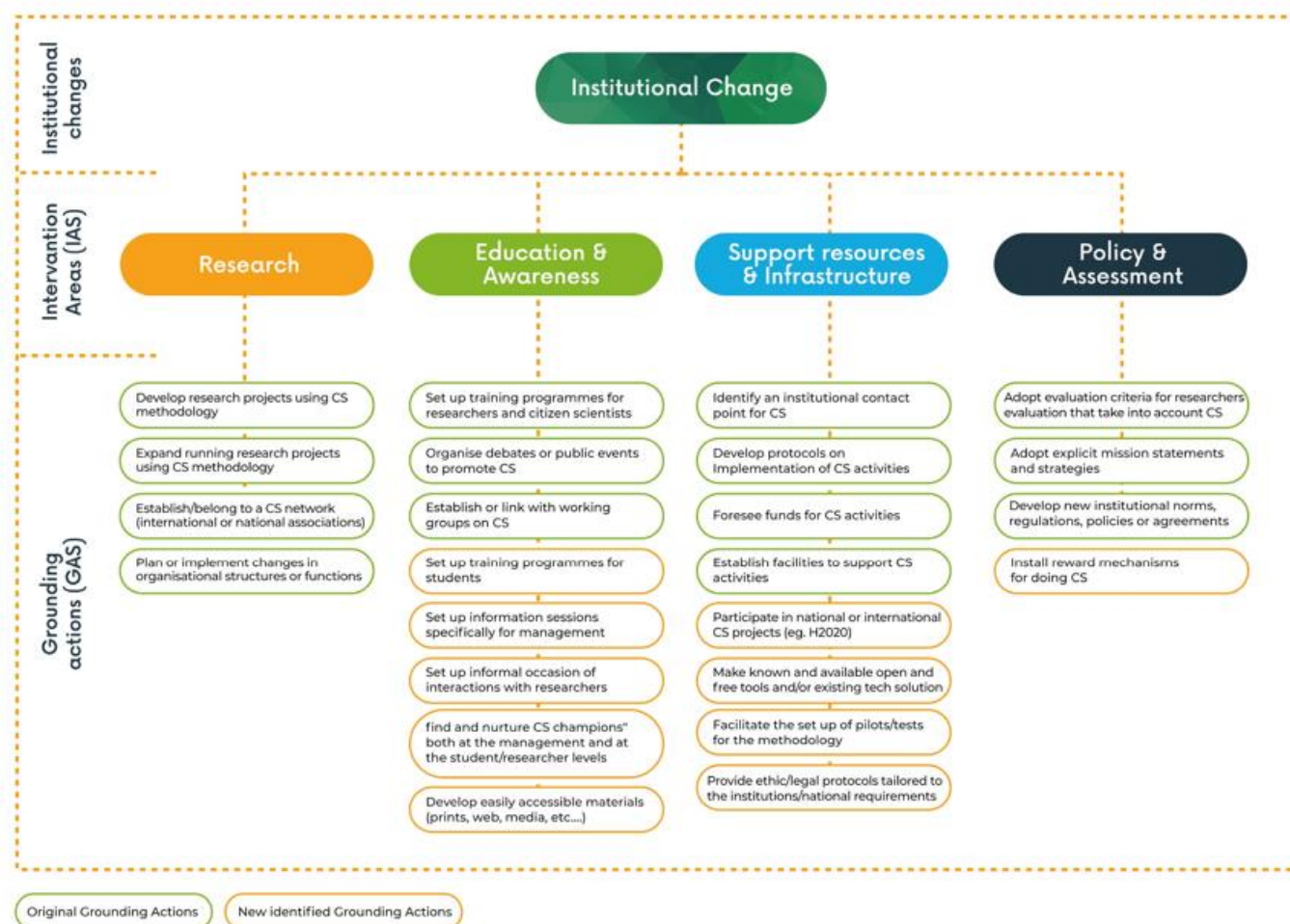
Sustainable institutional changes, essential features:

IRREVERSIBILITY

INCLUSIVENESS

COMPREHENSIVENESS

CONTEXTUALISATION

APRE

Esempi di Grounding Actions in TIME4CS

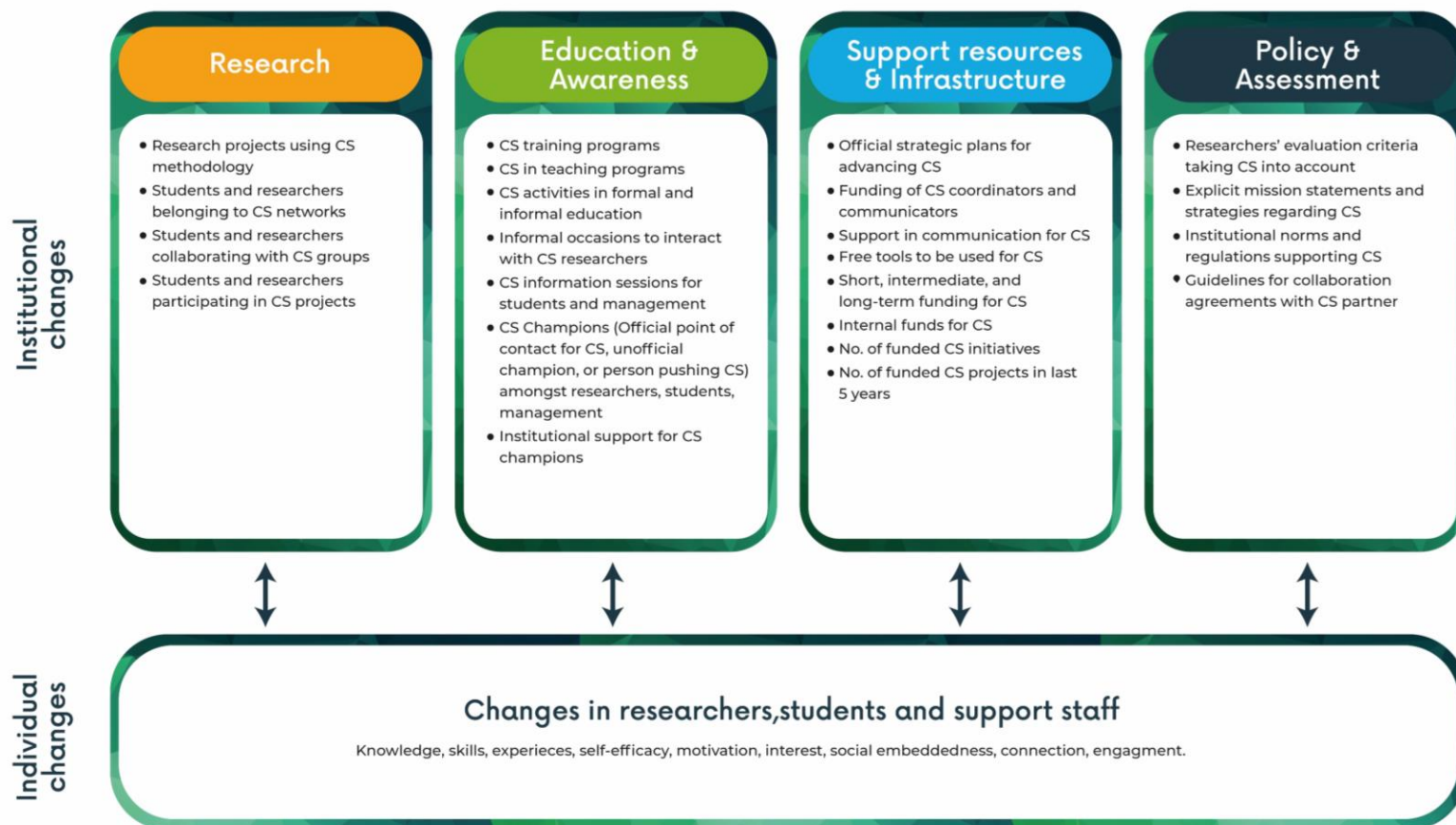| RESEARCH	EDUCATION & AWARENESS	SUPPORT RESOURCES AND INFRASTRUCTURES	POLICY & ASSESSMENT
• Promote and support incorporation of CS dimension into research projects • Participation in a CS network • Planning changes in organisational structures	• Training programs for researchers (e.g. postgraduate module on CS, non formal programs) • Raising internal awareness & train researchers on CS (e.g. information activities, informal opportunities of interactions, organize public events)	• Funding awareness/support • Establishing a virtual Hub and appointing a University Contact Point for CS Projects • Developing institutional guidelines on the implementation of CS projects	• Supporting the development of an engaged research strategy • Developing an institutional policy about CS projects • Exploring how to assess Citizen Science activities in researchers' internal evaluations (e.g. Adopt evaluation criteria for researchers' evaluation that consider CS)

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Facilitare cambiamenti istituzionali: l'esperienza di TIME4CS

1. Changes at an institutional level: these are structured along the four intervention areas and aligned with the set of indicators developed for the case study analysis. This alignment allows reflecting and presenting the TIME4CS Implementers according to the same framework as the other 30 international cases selected.
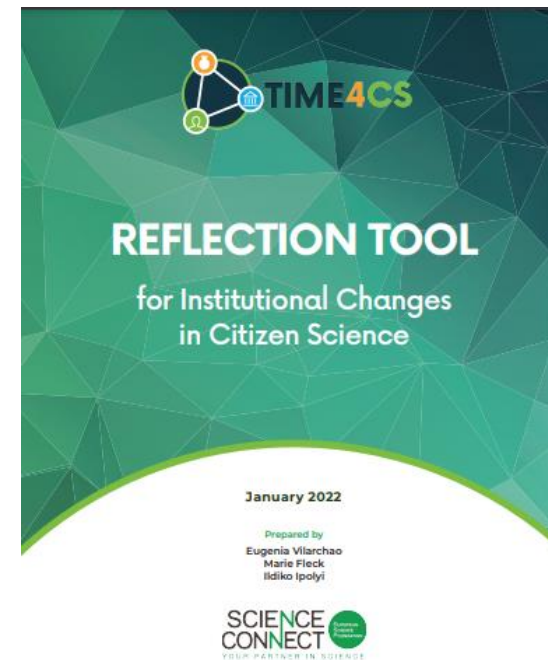
2. Changes at an individual level: these changes in researchers, students and support staff cannot be attributed to one specific intervention area only. Also, aspects in individuals, like knowledge, motivation and interest, might not only be a consequence of institutional changes but also a pre-condition to drive institutional change.

Indicators for Institutional Changes to support citizen science in RPOs

Institutional changes

Research
- Research projects using CS methodology
- Students and researchers belonging to CS networks
- Students and researchers collaborating with CS groups
- Students and researchers participating in CS projects

Education & Awareness
- CS training programs
- CS in teaching programs
- CS activities in formal and informal education
- Informal occasions to interact with CS researchers
- CS information sessions for students and management
- CS Champions (Official point of contact for CS, unofficial champion, or person pushing CS) amongst researchers, students, management
- Institutional support for CS champions

Support resources & Infrastructure
- Official strategic plans for advancing CS
- Funding of CS coordinators and communicators
- Support in communication for CS
- Free tools to be used for CS
- Short, intermediate, and long-term funding for CS
- Internal funds for CS
- No. of funded CS initiatives
- No. of funded CS projects in last 5 years

Policy & Assessment
- Researchers' evaluation criteria taking CS into account
- Explicit mission statements and strategies regarding CS
- Institutional norms and regulations supporting CS
- Guidelines for collaboration agreements with CS partner

Individual changes

Changes in researchers, students and support staff
Knowledge, skills, experieces, self-efficacy, motivation, interest, social embeddedness, connection, engagment.

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Facilitare cambiamenti istituzionali: l'esperienza di TIME4CS

- Development of the **Reflection Tool** to assist the Implementers in the definition of their Grounding Actions (GAs)
- The tool guided the Implementers through six main steps for each GA, helping to:
  1. define the **goals** and **big vision** along with the **success criteria** to monitor and evaluate the achievements;
  2. identify the main **stakeholders** that need to be involved or affected by these actions, the potential **obstacles** and the **needed resources**;
  3. delineate the **activities**, the **responsibilities** and the specific **timeline** of the actions.

Il ruolo di APRE a supporto dei cambiamenti istituzionali

Fornire supporto e facilitare cambiamenti organizzativi per promuovere la Citizen Science come metodologia di ricerca attraverso un percorso personalizzato (*roadmap*) basato sul modello TIME4CS

TARGET | Enti di ricerca che hanno intenzione/necessità di cambiamenti organizzativi per:

- integrare e promuovere nuove metodologie di ricerca, nuovi moduli formativi per i ricercatori e il personale di supporto alla ricerca e/o policy/guidelines interne sulla Citizen Science;
- sviluppare o aggiornare criteri di valutazione interna dei ricercatori per introdurre le attività di Citizen Science come criterio di valutazione
- definire figure interne come punti di contatto istituzionali e/o disporre di relative facilities sulla Citizen Science (e.g. citizen science hub) per supporto ai propri ricercatori

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Risorse utili e contatti

- Articolo APREmagazine: https://apre.it/citizen-science-trasformazioni-istituzionali-per-colmare-il-divario-tra-scienza-e-societa/
- Zenodo community: https://zenodo.org/communities/time4cs/?page=1&size=20
- Reflection Tool: https://zenodo.org/record/7022933#.ZFDrJHZBxD8
- Roadmaps: https://zenodo.org/record/5743299#.ZFDqtXZBxD8
- Open Science and its role in Universities: https://www.leru.org/publications/open-science-and-its-role-in-universities-a-roadmap-for-cultural-change

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