

Fervor and resistance in building the field of social technology in Brazil: the complex history of public policies in the two last decades

Felipe Addor^a

Andreia Ingrid Michele do Nascimento^b

Arquimedes Belo Paiva^c

^a Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

^b Brazilian Institute of Information on Science and Technology, Rio de Janeiro, Brazil

^c National Council for Scientific and Technological Development, Brasília, Brazil

Abstract

The aim of this work is to understand how social technology has developed from the programs, projects and plans of the Brazilian federal government over the last two decades (2003-2023) in interaction with its central actors, especially those located in universities and in social movements. In a markedly exploratory and qualitative approach, the Multiannual Plans (PPA), the National Science, Technology and Innovation Strategies (ENCTI), the Science, Technology and Innovation Action Plans (PACTI) and the Public Calls developed by federal institutions such as the Ministry of Science, Technology and Innovation (MCTI), the National Council for Scientific and Technological Development (CNPq) and the Financier of Studies and Projects (FINEP) were analyzed. A

periodization was constructed consisting of three phases (the Great Cycle, the Descent and the Resumption) of public policies to promote Social Technology that span the last seven (7) federal governments. Finally, we sought to assess the particularities and reciprocal links built up by the web of public policies in the field of social technology, as well as the possibilities for reconfiguring the area based on the reorganization around a renewed agenda for Social Technology in Brazil.

Keywords: social technology; science and technology policy; social movements; mcti; cnpq.

Introduction

In the field of economic policies, the debate about the prospects for economic development is well known. There are economists, with a more orthodox view, who say that we need to "grow the cake and then distribute it", in other words, we need to move forward with economic growth policies, which would naturally lead to an improvement in the general well-being of the population; following in the footsteps of the central countries, we will be able to achieve a general quality of life equal to theirs. This perspective, which is based on a linear view of economic development, as if it had a single path, has already been widely contradicted, reinforcing another perspective that complexifies the analysis of economic policies and argues that it is necessary to promote a reduction in inequalities and greater access to income for marginalized groups in order to move forward together as a country. Celso Furtado explores this clash of visions, arguing how the economic policies of peripheral countries (including Brazil) are justified based on the construction of a myth that makes deeper discussions impossible: the myth of economic development (Furtado, 1974).

Similarly, we can say that there is a prevailing understanding in the technology field that takes the same conservative and fetishist perspective, arguing that there is a single path to technological development, similar to that of the central countries, and the more Brazil advances in this direction, the more the majority of the Brazilian population will automatically have their problems solved by technology, generating generalized well-being and a reduction in poverty and inequality. We can say that intellectuals, researchers, public managers and businesspeople in the technological field have a structuring vision that is based on another myth: the myth of technological development.

However, a more careful and sensitive look at the reality of our country and the world will allow us to reach a different conclusion without too much difficulty. Although "technological advances" have enabled a series of improvements in quality of life, and this cannot be denied, what we can see is a society that is structurally moving towards the consolidation of an ever-widening gulf between its citizens, with the richest concentrating more and more of the wealth generated by the world's population, and the poorest seeing their lives improve very little or not at all. And technology plays a fundamental role in the construction of this chasm.

Just to make a quick and superficial reference, we can take one of the most recent UN reports (UN, 2022), and point out that we have around 3.5 billion workers in the world, with the majority of them (61%) working in the informal sector. In 2021, there were around 828 million hungry people (an increase of 6% compared to 2020, and 22% compared to 2019), and around 2.3 billion people in a situation of moderate or severe food insecurity, which means 29.3% of the population, almost a third of the world's population (with a higher incidence among women - 31.9% - and a lower incidence among men - 27.6%). The report also highlights that inequality is growing for more than

70% of the global population. Vijay Prashad points out, based on the International Labor Organization (ILO) report, that the exploitation of contemporary workers in the iPhone production chain is dozens of times greater than that of weavers at the end of the 19th century, at the beginning of the Industrial Revolution: "The most astonishing finding of the analysis is that the workers of our time, who manufacture iPhones, are 25 times more exploited than workers in 19th century textile factories in England. The exploitation rate of iPhone workers is 2,458%" (Prashad, 2019).

The failure of the hegemonic technological development model to solve social issues and environmental problems fueled a movement that began to question this model, seeking to build other paths for the technological field. We won't go into the details of the historical process that took place in different countries in this search for another technological paradigm, but in this article we want to look at one of the examples of this reaction in Brazil, which was the emergence, from the 2000s onwards, and consolidation of the field of Social Technology (ST).

Born from the initiative of diverse groups and nurtured by experiences in different sectors and regions of the country, the field of Social Technology is gaining ground as a way of thinking about a technological practice that is viscerally linked to solving the problems of marginalized groups in Brazil and, more than that, as a strategy for strengthening community organization and the political training of workers in the fight for their rights. This movement is gaining momentum, which is beginning to reach public bodies and give rise to public policy proposals that value the perspective brought by ST.

In this article, we seek to review the history of the construction of public ST policies in Brazil, with the aim of raising relevant elements for thinking about a Science, Technology and Innovation policy focused on popular demands, fostering a resumption of these policies after years of neglect and lack of resources.

The creation of the *Secretariat of Science and Technology for Social Development* within the Ministry of Science, Technology and Innovation and, within it, the *Department of Social Technology, Solidarity Economy and Assistive Technology* (Brasil, 2023) in 2023, in President Lula's new term, represents on the one hand, a great opportunity to expand public policies for this field, which could strengthen its consolidation in the country's political and academic environment; and, on the other hand, a huge challenge to be able to recover the genesis of this whole process, as well as to get to the radicality (the root) of the ST proposal so that we can implement policies that effectively build alternative and transformative paths in the technological field.

This article presents a theoretical and conceptual overview of the field of Social Technology, looking at some of the authors who have contributed to the theoretical structure of the field. There are then three sections detailing the three major historical moments in the ST field: the Great Cycle (2003-2015), the Descent (2016-2022) and the Recovery (2022-present). Of course, we know that, as in most historical processes, there is no explicit and definitive landmark that divides these three moments, but we can see clear indications of trends from a series of elements that have led us to propose this division. We end the article with final considerations and prospects for the field of Social Technology.

Theoretical and conceptual presentation on the construction of the field of social technology

The Social Technology perspective is the result of a long historical process involving reflection and practice, which has resulted not simply in a theoretical concept, but in a proposal with values and methodological principles which, on the one hand, denotes the complete inability of the hegemonic model of technological development to promote a process of transformation that results in an improvement in the quality of life for the majority of the population, and, on the other hand, it proposes/promotes a new technological paradigm based on democratic relations, cooperation, community organization, valuing different types of knowledge, impact on the territory, technological emancipation and strengthening autonomy.

Rescuing the concept of social technology

The fundamental basis of the field of ST is the questioning of the idea of the neutrality of science and technology, highlighting the presence of values and principles in technological processes and artifacts, which can be deeply antagonistic to those that govern the demands of popular struggles. Conventional technology, in general, strengthens society's capitalist values and principles (individualism, competition, hierarchy, exploitation of workers and subjugation of nature) and has served as a tool to consolidate a project for society that increasingly widens the gap between the richest people and marginalized groups (Novaes & Dias, 2010; Dagnino, 2014).

Based on the criticism of the principles that guide conventional technological development, an approach is gaining strength that advocates the democratization of the technological process, i.e. the need to include other groups of workers in technological decision-making spaces. As Feenberg (2020, p. 12) argues: "Technical democratization in capitalist societies involves the resumption, under public pressure, of neglected issues. The demand for democratization consists of a demand for the expansion and formal recognition of the contributions of non-experts."

In order to do this, it is necessary to promote environments for the exchange of knowledge, expertise, cultures and opinions that allow for mutual education and enable decisions to be made based on the different points of view presented. From this perspective, universities and research institutes are no longer the ones with the capacity to generate technologies to be transferred to society, but rather one more actor to contribute to a broader and more diverse process that includes society in the analysis of the problem and the construction of solutions (Henriques, Alvear, & Oliveira, 2015).

It is worth noting that there is a dispute over the concept of Social Technology according to the different perspectives and institutional interests involved. Duque and Valadão (2017) provide a qualified exploration of the diversity of understandings of the term and the principles carried by each approach. Based on an extensive bibliographical analysis, the authors conclude that there are two main strands in the definition of ST:

The first view considers Social Technology to be not just an artifact or a technique, but a social construction that provides growth for the community. (...) The second identified view uses the term social technology to identify technologies for the social, that is,

techniques, programs and procedures used to repair social ills in communities, whether in the field of health, education or public safety (Duque & Valadão, 2017, p. 13-14).

The concept of ST is mainly about moving away from thinking about technology for workers, as is often the case in the technological world, towards thinking about technology *with* workers. In other words, rather than solving immediate and specific social problems, we can define the central objective of experiences in the field of social technology as: democratizing the process of technological development, with a view to building a collective, participatory and cooperative process that allows for horizontal exchange between the different types of knowledge present, that is appropriate to the socio-cultural and environmental values of that community/territory and that guarantees collective ownership by the people involved, strengthening their autonomy and emancipation from external actors in the development and maintenance of technologies that affect their reality (Addor, 2020).

In this way, what centrally characterizes the ST proposal is not the technological product that is built, but the process of analyzing problems and building technological solutions. As Addor and Santos (2022, p. 331) state:

The identification of a solution, a machine, a tool, a system, as ST is not linked to the product itself or to the problem it has solved. It's not the fact that a technology has solved a social problem that identifies it as ST. Nor is it simply because a technology is low-cost or comes from popular knowledge that makes it identifiable with this field. What characterizes the field of Social Technology is the process, not the product.

It is for this reason that one of the main references for the field is Paulo Freire and his advocacy that workers have the ability to develop a critical analysis of their reality in order to transform it (Addor & Franco, 2020). In this sense, it is inseparable from the development of a project in the field of ST that a process of emancipatory training is promoted for the people involved, so that they expand their technical and organizational capacity to promote positive impacts on their living and working conditions (Addor, Eid, & Sansolo, 2021). Rodrigues and Barbieri (2008) reinforce this perspective by arguing that a ST experience presupposes a process of collective and autonomous construction by the people who are experiencing that reality and who will be impacted/benefited by the innovations/technologies generated.

Other works also highlight the territorial perspective of the ST concept. Souza and Pozzebon (2020) point out that Social Technology can be seen as a process that takes into account the context of its development. The authors present five key mechanisms that are related to a local perspective of valuing territoriality. The territory and its actors advance a *socio-technical reconfiguration of technology*, "through which social practices mobilize methods and tools developed with the aim of promoting social transformations that help solve problems and meet needs related to exclusion and poverty" (Souza & Pozzebon, 2020, p. 234).

It is not within the scope of this article to take a position on which concept of Social Technology we are defending or addressing in this work, since the main objective is to provide a historical overview of the construction of public policies for the field, with greater emphasis on

government initiatives to strengthen the agenda. However, we would like to state that, in our understanding, the main difference between the field of ST and the conventional model of technological development lies in its defense of greater participation by workers in the entire technological process, from the analysis and diagnosis of the reality in question, valuing their experiences and knowledge, to the process of developing technological innovations, which must be built from that reality and be appropriate to that culture and environment. We are therefore aligned with what Duque and Valadão (2017) define as the "first vision". We understand the idea of democratization as a fundamental factor in the field of ST, which should be a structuring element in the construction of public policies for this field.

The institutional construction of the field of social technology

In the early 2000s, the field of ST began to feature in government programs, institutions and policies that sought to strengthen the prospect of generating work and income for grassroots groups, building technological solutions to meet their demands in a participatory and interdisciplinary way. A number of links were forged, most notably the Social Technology Network (RTS), which involved various institutions from civil society and the state and helped to promote policies to support the field. According to the Banco do Brasil Foundation (FBB), one of the Network's protagonists, it is estimated that between 2005 and 2011 around 928 institutions were involved and around R\$ 444,000.00 (four hundred and forty-four million reais) were invested in a significant variety of support and incentives (RTS, 2011). The Foundation itself has created a *Bank of Social Technologies* in order to record different experiences in this field in the country¹.

It is worth noting that not all the institutions and people involved in this articulation had a transformative perspective on SW, and there was a diversity of understanding of the concept. The concept is in dispute. Historically, capitalist logic has appropriated counter-hegemonic concepts forged in spaces of resistance and alternatives to the dominant mode of production in order to re-signify them based on its interests and values, such as the concepts of social issues, solidarity, cooperation, sustainability, social innovation, among others. The case of the concept of ST is no different, and the concept has been re-signified by private initiative actors from the perspective of innovation, individualistic entrepreneurship and the developmentalist logic of organizing society.

The ST agenda has been given an important role by university groups that were formed from this critical view of science and technology, and based their work on technological extension projects that served as a reference for reflections on the field, also in a search for integration between action in society (extension), student training (teaching) and the generation of knowledge (research) - in these cases, the research agenda arises from the very field of extension. Examples of groups working in the field of ST include the Technical Solidarity Center at UFRJ (Soltec/UFRJ), the Technological Incubator for Popular Cooperatives at Unicamp (ITCP/Unicamp), the Pegadas group at UFRN and the Alternative Production Center at UFMG. All these collectives, along with others, have worked together to build two important spaces for fighting for this agenda: the National Meeting on Engineering and Social Development (Eneds), created in 2004; and the Oswaldo Sevá Popular Engineering Network (REPOS), created at an Eneds in 2014.

In 2003, the topic of ST was incorporated into the Secretariat of Science and Technology for Social Inclusion (SECIS) of the Ministry of Science and Technology (MCT), with various policy documents, ordinances, public notices and calls for proposals that institutionalized Social

Technology in the science and technology sector. A number of other bodies began to include this issue on their agendas, such as the Financier of Studies and Projects (Finep), which created the Area of Technology for Social Development (ATDS).

It is worth noting that other public and private bodies have also promoted policies that have strengthened the field of ST, such as the Banco do Brasil Foundation. In addition, an important record, the result of this articulation in the early 2000s, is the proposal for a National Social Technology Policy Bill², which, after lengthy debates, was consolidated in Bill No. 3329/2015. This proposal was born out of a project supported by the MCTI and carried out by the Social Technology Institute (ITS Brasil), with the participation of civil society and Science and Technology Institutions (ICTs).

As a result of the progress made by ST in the academic sphere, in 2019 it was included as a priority area in one of the most prestigious public calls in the field of extension and technological development by the National Council for Scientific and Technological Development (CNPq). This is the Productivity Scholarship in Technological Development and Innovative Extension (DT), the purpose of which is to "distinguish researchers by valuing their production in technological development and innovation" (CNPq, 2015). The area of ST was designed to support projects that aim to:

improving the quality of life in the urban environment, through the development of technologies that meet social demands, especially in the areas of education, health, mobility, energy, housing and security, encompassing topics such as educational platforms; virtual learning environments; mobile learning; educational robotics; remote virtual laboratories; assistive technologies; tools for integrated urban planning and management; technologies applied to public security; among others (CNPq, 2021).

Thus, it is possible to see that this call has a very broad vision, being open to processes that are in fact related to the perspective of ST, but also to others linked to the perspective of innovation and conventional technology, characterizing this political and epistemic dispute around the concept. In this sense, it should also be noted that, since 2019, ST has had a joint entry with Educational Technologies, forming the area of "Educational and Social Technologies" in the DT Grant Calls (CNPq, 2019, 2020, 2021, 2022, 2023).

In this context, according to the main line of projects included in the call over the years, the evaluation criteria are still based more on the conventional and hegemonic logic of innovation. Thus, although the presence of ST in the DT Call for Proposals represents a step forward in the area's scientific policy, the strong prestige given to the field of innovation in the call for proposals generates the need for a double step forward, namely (i) a greater presence of evaluators and members of the ST field on the Advisory Committee and (ii) greater detail on the particularities of the Social Technology field in the Call for Proposals, with a view to avoiding the harmful effects of conceptual loss in the ST arena and the promotion of false representation in the processes.

In the following sections, we present the historical process of building public policies in the field of SW, categorized into three major moments: The Great Cycle, the Descent and the Recovery. The periodization is based on elements that are markedly qualitative and, secondarily, quantitative: the qualitative elements are fundamentally based on the evaluation of the strategic position

assumed by Social Technology in the institutional design of public bodies in Brazil and its outstanding outputs (Policies, Plans and Projects); on the residual front, the quantitative elements are based on pointing to the budgetary resources channeled to the area, which allows us to observe the continuous movement of push (within the political field aligned with popular causes) and influx (in governments aligned with the center and right of the national political spectrum) of the field of Social Technology from the perspective of public policies in Brazil. Finally, we would like to emphasize the exploratory and descriptive nature of the work presented here - based on a wide-ranging bibliographical review and documentary analysis - and therefore not always transparent and coherent for the general public, as we have sought to reveal in this article.

1.^a Phase: great cycle of the social technology field (2003-2015)

In Brazil, themes related to the field of Social Technology have been of interest to researchers from Science and Technology Institutions (ICTs) since the 1970s. Some experiences in developing appropriate technologies were highlighted during this period, accompanied by actions by Civil Society Organizations (CSOs). Also relevant were some actions by the federal government, mentioned above, and by state governments aimed at disseminating and promoting research in this area, through their research support foundations.

In the 2000s, there was the emergence of a cluster of actions related to the issue, which originated among CSOs, with the creation of the Social Technology Institute (ITS), and in the government area the first actions can be traced to the Banco do Brasil Foundation (FBB). In 2001, the FBB created the *Social Technologies Award* with the aim of making initiatives in the area more visible and creating a Social Technologies Bank to record and access these experiences. In 2003, the Foundation began to support the replication of social technologies (Fonseca, 2009).

In 2003, the National Secretariat of Science and Technology for Social Inclusion (Secis) was created within the then Ministry of Science and Technology (MCT), having been preceded by discussions that began in 2002, involving part of the research community, representatives of state bodies (MCT, CNPq, FINEP, CGEE) and civil society organizations, articulated by the Brazilian Academy of Science (ABC) and the ITS. In the same year, the "Science and Technology and the Third Sector" working group was created, with the aim of "drawing up proposals for ways and mechanisms to build partnerships between the MCT and third sector organizations" (Dias, 2009).

Then, at the end of 2002, another collegiate body was set up, called the "Technology for Social Development" Working Group, which proposed the creation of the Secretariat of Technology for Social Development and the creation of an Extraordinary Fund for Science and Technology for Emergency Actions (combating hunger, illiteracy and dengue fever). In the proposal, the Secretariat's mission would be to develop public policies and strategies for implementing actions aimed at social development and combating hunger. Among the Secretariat's proposals for action were the launch of various calls for proposals and the promotion of "ways of applying innovative technologies, also known as social technologies or inclusion technologies". This shows that in 2002 the term "Social Technologies" already appeared in MCTI reference documents.

Secis has made it possible to support various technology initiatives for social development in the country. Despite not having a National Social Technology Policy in place, since 2003 the issue has been gaining ground in the Ministry. It should be noted that the understanding of the concept

of ST has always been the subject of disputes within the management and bureaucracy of the MCTI. The concept of Social Technology is polysemic; therefore, within the MCTI the clash would be no different. As a result, many of the projects supported directly ended up being technology transfer projects, with no process of collective construction, no socio-technical adaptation, no exchange of knowledge and no prospect of social transformation. Somewhat different was the case of the projects supported through calls for proposals, as they were subject to predefined criteria and evaluated by a technical committee, which, depending on the committee's formation, could have reduced support for mere technology transfer projects.

Almost simultaneously with the start of Secis, as mentioned above, there was a meeting of governmental and non-governmental institutions looking for synergies and improvements in their work in the field of Social Technology, which resulted in the formation of the Social Technology Network (RTS). Throughout 2004, the FBB, the MCT, Finep, Petrobras, Secom-PR (Secretariat for Government Communication and Strategic Management of the Presidency of the Republic) and Sebrae (Brazilian Micro and Small Business Support Service) set out to organize and conduct a process of mobilization and discussion to make the formation of the Network possible.

Since then, the RTS has been thought of as an instrument of collective organization for the democratization, access and construction of technological solutions that promote social inclusion, adopting the concept of Social Technology as "products, techniques and methodologies that can be reapplied, developed in interaction with communities and that represent effective solutions for social transformation" (RTS, 2011). The main moment in this early mobilization was the 1st International Conference and Exhibition of Social Technologies (São Paulo, November 2004). At this event, around 400 people gathered to discuss concepts and present proposals for the operationalization of the network that was to be formed. On that occasion, the book "Tecnologia Social: uma estratégia para o desenvolvimento" (Social Technology: a strategy for development) was launched (RTS, 2011)

The Social Technology Network (RTS) was inaugurated on April 14, 2005, in Brasília, in an articulated and organized way, the result of months of debate and a lot of participation. At that time, the Network had 30 organizations, from different segments of society: NGOs, government bodies, universities and companies. The launch formalized the Constitutive Document and the decision that an Executive Secretariat should be set up in Brasília, to be funded by the Network's supporting institutions. The RTS's mission was to "bring together, organize, articulate and integrate a set of institutions and actions, with the aim of contributing to the promotion of sustainable development, through the dissemination and reapplication of Social Technologies on a large scale" (RTS, 2011). Between 2005 and 2011, 928 institutions from all regions of Brazil and other countries, notably Peru, Colombia and Venezuela, joined the RTS (RTS, 2011). However, the reduction in policies and resources directed towards the field of ST led to demobilization and, in 2011, the RTS was abolished.

As far as the macro-planning aspect of the Brazilian federal state is concerned, the Multi-Year Plan (PPA) - established by the Federal Constitution (Brazil, 1988) - which is expected to be in force for four years and serves as the government's central plan, is considered to be the federal government's main medium-term budget planning instrument. This budget defines the guidelines, objectives and targets of the federal public administration, including capital expenditure and other expenditure arising from it, as well as expenditure on long-term programs. It is essential to think of government planning as a dynamic process in tune with the changes taking place in the country's

political, social and economic dimensions, relating to the (increasingly complex) preferences and demands of the various social groups that make up Brazilian society (De Toni, 2014).

Thus, the PPA from 2004 to 2007 (Table 1) included in its government mega-objective II, "growth with the generation of work, employment and income, environmentally sustainable and reducing social inequalities", with the sectoral challenge of "expanding, regionally deconcentrating and strengthening the cultural, scientific and technological bases that sustain development, democratizing access to them". During this four-year period, the MCT set up *Program 0471 - Science and Technology for Social Inclusion*, with the aim of "expanding local and regional capacity to generate and disseminate technical progress, with a view to economic competitiveness and the population's quality of life" (Brasil, 2004). The program's target audience was universities, research institutions, companies, city halls and business entities.

Table 1

Social technology in the multiannual plans of the ministry of science, technology and innovation from 2004 to 2023

PPA	Megaobjective - Strategic Vision	Sector Challenge	Program	Objective	Public	Budgetary Action - Initiative
2004 - 2007	II) Growth that generates work, employment and income, is environmentally sustainable and reduces social inequalities.	Expanding, regionally deconcentrating and strengthening the cultural, scientific and technological bases that support development, democratizing access to them	0471 - Science and Technology for Social Inclusion	Increasing local and regional capacity to generate and disseminate technical progress, with a view to economic competitiveness and the population's quality of life.	Universities, research institutions, companies, municipalities and business organizations	Action 0750 - Support for Technological Innovation Appropriate to Local Sustainable Development (PTA) Action 0862 - Support for Research and Innovation for Social Development
2008 - 2011	Promoting social inclusion and reducing inequalities	Promoting science and technology for social development	0471 Science, Technology and Innovation for Inclusion and Social Development	Expand local and regional capacity to generate and disseminate technical and scientific progress with a view to improving the quality of life of socially vulnerable populations.	Rural and urban excluded population; people with disabilities; indigenous peoples and traditional communities; women and black communities; participants in the youth program; people with food and nutritional insecurity; small producers; micro and small	Action 8976 - Support for Research, Innovation and Technological Extension for Social Development

					businesses; populations in socially and economically depressed regions; and solidarity economic enterprises	
2012 - 2015	Strategic Vision: For its sustainable development model, well distributed regionally, which seeks social equality with quality education, knowledge production, technological innovation and environmental sustainability.	Macro-challenge: Science, Technology and Innovation: consolidate science, technology and innovation as a structuring axis of Brazilian economic development	2021 - Science, Technology and Innovation	0500 - Promote science, technology and innovation for productive inclusion and social development. *One program was made up of several objectives	No	Initiative - 01QK - Support for Social Technology and Assistive Technology projects Target: Support 15 social technology, assistive technology and technological extension projects
2016 - 2019	Vision of the future: a solid, dynamic and sustainable economy, capable of competitively expanding and renewing its productive structure, generating quality jobs and respecting the environment.	Strategic Guideline: Promoting science, technology and innovation and stimulating productive development, increasing productivity, competitiveness and the sustainability of the economy	2021 - Science, Technology and Innovation	1055 - Promote collaborative science, technology and innovation policies and actions for social inclusion	No	Initiative 04UB - Encouraging and supporting scientific cooperation based on the formation of networks to strengthen projects aimed at technological innovations related to the Network of Researchers in Food and Nutritional Sovereignty and Security, Digital Inclusion, sustainable cities, mobility, transportation, housing, sanitation, sports and leisure, aimed at municipalities and traditional communities Goal: 044F - Support 40 social and assistive technology projects
2020 - 2023	No	Guideline 04 - Efficiency of public sector action, valuing science and	2204 - Brazil at the Frontier of	1176 - Optimizing the country's scientific capacity to meet	No	Target 052P - Increase the share of public spending on research and development (R&D)

technology and reducing state interference in the economy	Knowledge	the challenges of the Brazilian reality	in relation to Gross Domestic Product (GDP) to 0.7%
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Source: Prepared by the authors based on the Multi-Year Plans from 2004 to 2023 (Brazil, 2004, 2008, 2012, 2016, 2019).

Two actions were allocated to this program: *Action 0750 - Support for Technological Innovation Appropriate to Sustainable Local Development*; and *Action 0862 - Support for Research and Innovation for Social Development*. Within the scope of the budget execution of these two actions, Technology for Social Development projects were supported.

In the PPA from 2008 to 2011, the theme of social inclusion was explicitly included in the government objective (promoting social inclusion and reducing inequalities) and the sectoral objective also highlighted social development (promoting science and technology for social development). The novelty of this PPA was that, in addition to the previous program under the responsibility of the MCT, it included the *Action to Promote the Dissemination of Social Technologies for Traditional Communities*, with the MCT responsible for its execution, within the *Traditional Communities Program* of the Ministry of the Environment (Brasil, 2008). This is the first time that Social Technology has appeared verbatim in the PPA. This budget action was proposed by members of the Science and Technology Management, Planning and Infrastructure Career at Secis/MCT and its demand was built on the ministry's participation in the National Commission for Traditional Peoples and Communities.

It is interesting to note in this PPA that specific population groups were mentioned in the objective of *Program 0471 - Science, Technology and Innovation for Social Inclusion and Development*. Among them were: indigenous peoples and traditional communities; women and black communities; participants in the youth program; people with food and nutritional insecurity; small producers; micro and small businesses; populations in socially and economically depressed regions, specifically the population of recyclable material collectors and their families; and solidarity economic enterprises.

The MCT's PPA 2012 - 2015 incorporated the concern for productive inclusion within the STI under *Objective 0500 - Promote science, technology and innovation for productive inclusion and social development*. Instead of actions, this PPA innovates with the so-called Initiatives, replacing the old Budgetary Actions. An Initiative could bring together several budget actions, which were now only present in the Budget Guidelines Law (LOA). This is the first time that the MCT's PPA has included a specific target to support Social Technology and Assistive Technology projects (Brasil, 2012).

At this point, a conceptual problem arose, as well as a problem of understanding what Social Technology is and what Assistive Technology is, which lasted until the PPA in force in 2023, as if the two categories were synonymous, mainly as a strategy for budget execution.

Notably, in the 2016 - 2019 Multiannual Plan, the then MCT had Innovation incorporated into its name, becoming MCTI, and this change also sparked debate about social inclusion. In the description, instead of specific population groups, themes such as digital inclusion, food and nutrition security and sustainable cities are included. The only exception was for Traditional

Communities, which remained mentioned in the description. The problem with the specific goal of supporting Social Technology and Assistive Technology projects remains the same as in the previous PPA (Brasil, 2016).

It was during this phase of the Great Cycle of ST that the first proposal for a National Social Technology Policy Bill was drawn up, Bill 111/2011, which was consolidated into the current Bill 3329/2015, as mentioned in the previous section.

The Action Plan for Science, Technology and Innovation 2007-2010 (PACTI), announced in November 2007, still within the timeframe of the First Phase, was an important instrument for guiding state actions for STI activities, insofar as it proposed programs and directed the allocation of resources in a systemic and strategic approach. Among its strategic priorities, the fourth priority was Science, Technology and Innovation for Social Development. The MCT's actions in this regard were expressed especially in the investment made in the National STI Week, the Brazilian Math Olympics for Public Schools (OBMEP), the Technological Vocational Centers (CVTs) and the Telecenters.

Still in the field of documents with strategies for the STI area, the National Strategy for Science, Technology and Innovation - ENCTI (2012-2015) was launched in 2011, with Science, Technology and Innovation for Social Development appearing as one of the priority programs for future-oriented sectors. In this first ENCTI, STI for Social Development had three main strands: (i) popularizing STI and improving science education; (ii) productive and social inclusion; and (iii) technologies for sustainable cities. The term Social Technologies appeared for the first time in the ENCTI, in the objective: "to develop and apply social technologies and promote technological extension for productive and social inclusion".

Table 2 shows the different calls for proposals to support Social Technology projects in the Great Cycle period, in which the MCT participated and which were important in supporting projects in the field of ST. The calls for proposals are concentrated between 2005 and 2013. We selected those whose call titles include "Social Technology", "for Social Inclusion", "Appropriate Technologies", "Technologies for Social Development" or, in the case of the Solidarity Economic Enterprises call, those that had funding from the MCTI's Secretariat of Science and Technology for Social Inclusion. The table includes the 2028 extemporaneous call, which will be discussed in detail in the Descent phase.

Table 2
Calls for support for social technology projects between 2004 and 2023

Call title	Acronym	Projects awarded	R\$ (million)
Support for Social Technology Projects for the Social Inclusion of Waste Pickers	Notice CT-Agro/CT-Hidro/ MCT/CNPq nº 018/2005	35	4
Support for Extension Projects and Provision of Technologies for Social Inclusion.	Notice CT-AGRO/CT-HIDRO/ MCT/CNPq - nº 019/2005	92	10
Support for Projects to Generate and Make Available Ecologically-Based Technologies Appropriate for Family Farming.	Notice MCT/CNPq/MDA/CT-Agro- nº 020/2005.	53	4

Support for Social Technology Projects for Traditional Communities and Indigenous Peoples	Notice MCT/MMA/SEAP/ SEPPIR/CNPq nº 026/2005.	42	3,2
Support for Projects to Generate and Make Available Technologies for Ecologically-Based Family Farming, Traditional Communities and Indigenous Peoples	Notice MCT/CNPq/SEAP-PR/ CT-Agronegócio/CT-Verde Amarelo/CT-Saúde/CT-Hidro - Nº 07/2008	52	5
Proposals for Research, Scientific Development and Technological Extension for Social Inclusion	Notice MCT/CNPq No. 029/2009.	52	3
MCT/FINEP/Transversal Action - Technologies for Social Development	Notice MCT/FINEP/Ação Transversal - 1/2009		17,3
Incubation of Solidarity Economic Enterprises - Public Call	MCTI/SECIS/MTE/SENAES/CNPq No. 89/2013	84	20
Social Technology	CNPq/MCTIC/MDS Call No. 36/2018	63	4,9
Total		473	71,4

Source: Prepared by the authors.

Table 2 shows the results of funding that supported a series of projects linked to the field of Social Technology over this period, which served to support its greater dissemination and strengthening. We recorded a total of 274 supported projects related to the field of Social Technology, with an investment of around R\$70 million. It is worth noting that the last call for proposals, launched in 2018, is a late result of efforts made in previous years, which explains why it was launched at a politically adverse time for the field of Social Technology.

2.^a Phase: decline of promotion policies (2015-2022)

The impeachment of the Dilma Vana Rousseff government (2011-2016) in the first year of the implementation of the 2016-2019 Multi-Year Plan began the phase of the decline in policies to promote Social Technology, which we believe will last until 2022. In this sense, we can emblematically observe the follow-up to the organizational and regimental change of the MCTI, which was then merged with the Ministry of Communications. At first, the Secretariat for Science and Technology for Social Inclusion became a department (Department of Policies and Programs for Social Inclusion - DEPI) within the Secretariat for Research and Development Policies and Programs. Secondly, in 2019, the topic was diluted within a general coordination (General Coordination of Applied Human and Social Sciences), in the Department of Science Policies and Programs of the Secretariat of Policies for Training and Strategic Actions (Brasil, 2019).

In this dynamic, it should be noted that the PPA 2019-2023, under the management of the Jair Messias Bolsonaro government (2019-2022), outlined for the MCTIC had as its motto the efficiency of public sector action with the "valorization of science and technology" and a reduction in state interference in the economy. In this vein, the theme of social development is replaced by sustainable development, in other words, the centrality of the social is changed in favor of "sustainable development". Thus, Social Technology disappeared from the PPA within the MCTI *pari*

passu with the change in the regimental structure aimed at social inclusion in the central body of science, technology and innovation in Brazil.

It should be noted that the National Science, Technology and Innovation Strategy (ENCTI 2016-2022), validated by the National Science and Technology Council on December 13, 2016 - therefore, in the midst of the Michel Temer government (2016-2018) - contained the medium-term strategic guidelines for the implementation of public policies in the area of ST&I, as well as serving as a subsidy for the formulation of other policies of interest. The ENCTI 2016-2022 identifies Social Technology as one of its Strategic Themes, as it was built during the period of growth of the theme and, to a large extent, was drawn up with the collaboration of technical staff trained in this first period:

(...) eleven STI themes were selected as strategic for national development, autonomy and sovereignty. These themes and their associated strategies were selected based on the need for the SNCTI to propose solutions for: (...) the development of social technologies for socio-productive inclusion with a reduction in regional asymmetries in production and access to science, technology and innovation (MCTIC, 2018, p. 86).

This apparent centrality of Social Technology, precisely in a period marked by the decline of policies to promote the area, reveals the complex web in which Social Technology has been enmeshed over the last two decades: on the one hand, it acts as a response to the clamor for the participation of science in the country's social development and, on the other hand, it stands as a bastion of resistance built by multiple bureaucratic actors within the country's state bodies (markedly in the MCTI and CNPq and, residually, in portfolios spread across the Esplanade of Ministries). This reading plays a fundamental role, as we argue that Social Technology should be seen not only as a banner of a particular government, but above all as a collective project that has ramifications in universities, public bodies, civil society organizations and social movements.

In this way, the *Action Plans for Science, Technology and Innovation* (PACTI), drawn up under the government of President Michel Miguel Elias Temer Lulia (2016-2018), demonstrate these often invisible links in macro-national policy, but which are fundamental to the sustainability of the aims of Social Technology. Thus, the *Action Plan on Technological Extension for Social Inclusion* (MCTI, 2018) outlined a roadmap of priorities established to support the implementation of the National Science, Technology and Innovation Strategy (ENCTI 2016-2022), the 2019-2023 Multiannual Plan and the goals of the Sustainable Development Goals (SDGs) through 3 thematic lines: Science, Technology and Innovation for Regional Development and Social and Productive Inclusion; Social Technology; and Assistive Technology (Brasil, 2018).

Thematic line 2, specific to Social Technology, aims to "contribute to the realization of social inclusion and development, based on scientific and technological knowledge, through the use of social technologies". Among the implementation strategies are the reapplication and availability of existing social technologies, through the launch of public notices, public calls and specific orders for different institutions and areas of activity in line with the transversality of other areas of social inclusion. It also sets certain biomes and territories as targets for action, focusing on the Amazon,

the semi-arid region, the São Francisco Valley and the outskirts of large urban centers, encouraging the spatial deconcentration of science, technology and innovation activities.

An important point in the strategies designed is the intention to establish institutional and programmatic partnerships with other public policies of the ministry, with social movement organizations, with research and extension institutes, with universities and with the private sector, in order to integrate and increase the efficiency of science, technology and innovation actions for social inclusion.

In this sense, we have reached the nodal point that dialectically allowed us to overcome the downward phase of Social Technology policies, namely the launch of CNPq/MCTIC/MDS Call No. 36/2018 (CNPq, 2018). This call, although extemporaneous to the great heyday of scientific promotion policies aligned with public policies in Brazil (Paiva, 2018), was the direct result of an articulation involving the CNPq, the MCTIC and the Ministry of Social Development (MDS), the result of which reached the global amount of R\$ 4,885,525.00 (four million, eight hundred and eighty-five thousand reais and five hundred and twenty-five reais)³.

According to the data presented in Table 3, the Call for Proposals had a gross demand from applicants of 549 (five hundred and forty-nine) proposals, with a demand for resources of around R\$46 million, of which only 63 (sixty-three) projects were supported and effectively developed in the call. In other words, even in a context of severe budget restrictions in the science, technology and innovation sector, it can be seen that demand in the field of Social Technology remained high and without sufficient funding.

Table 3
General data for CNPq/MCTIC/MDS call No. 36/2018 - social technology

Call	Gross demand	Demand met	Areas
CNPq/MCTIC/MDS Call No. 36/2018	549 proposals	63 Proposals	A - Development of TS
	R\$ 46 million	(11, 47%)	B - Reapplication, improvement and dissemination of TS
		R\$ 4.9 million	C - TS evaluation

Source: Prepared by the authors.

It can be seen that the competition allowed for the dissemination of social technology actions across all regions of the country, with a total of 51 institutions receiving funding, in line with other findings in science policy that attest to the fact that thematic calls for proposals increase the number of implementing institutions (Paiva, 2018, p. 96). The Northeast approved the largest number of proposals, followed by the South (14), Southeast (13), Midwest (9) and North (7). The percentage distribution by region and executing institutions was as follows:

- *Northeast*: 20 projects, 31.8%. Institutions: UFPE (3); UFRPE (2); IFPE; UFS (2); UFRN; IFRN; UERN; FUNCERN; UFRB; UEFS; UFPI; IFPI; UFC; UNILAB; UFCG; FEJAL.
- *South*: 14 projects, 22.2%. Institutions: UFSM (2); UFPEL (2); PUCRS; UNIPAMPA; UCPEL; FURG; IF-Farroupilha; UFSC; FURB; IFSC; UFPR; UEPG.

- *Southeast*: 13 projects, 20.6%. Institutions: UNESP (2); UNICAMP; USP; IFSP; UFRJ; UFF; IFRJ; UERJ; FIOCRUZ; UFV (2); UFVJM.
- *Center-West*: 9 projects, 14.3%. Institutions: UnB (2); EMBRAPA (2); UFG; IFG; UFMS; UFGD; UNEMAT.
- *North*: 7 projects, 11.1%. Institutions: UFPA (3); IFPA; UFRA; UFAM; IDSM

An in-depth analysis of the data contained in this extemporaneous call for proposals is important because it reveals the strength of the Social Technology field, even at a time when public policies in the area are declining. In this way, visualizing the spread of its development across the territory and national institutions is an important synthesis exercise not only for government planning, but also for the various actors involved in building the field in Brazil.

In this sense, the call for proposals is fully in line with the strategies outlined in the Action Plan for Technological Extension, which seeks to value local knowledge, especially that of indigenous peoples and traditional communities, and to use the public structure of Brazilian university extension as an instrument for making technology available and appropriating it. In addition to implementing participatory methods with social actors and communities to identify their demands and also their technological offerings. It should be noted that these implementation strategies indicate socio-technical adequacy and a dialog of knowledge.

In this sense, although the second phase was marked by a decline in policies to promote Social Technology, dialectically, it is possible to observe the completion of the planning cycle for science, technology and innovation instruments - via the PPA, ENCTI and Action Plan I - culminating in the launch of CNPq/MCTIC/MDS Call No. 36/2018 - Social Technology. This effort can be understood, in part, by the internal resistance waged within the Federal Government itself - especially by members of the Science and Technology Management, Planning and Infrastructure Career (Brasil, 1993) at the MCTI and CNPq - based on the intricate relationships maintained by members of the Social Technology field located, especially, in the country's Federal Higher Education Institutions.

This reflection also reveals to us the certainty that, despite the heavy resistance imposed by the arrival of Jair Messias Bolsonaro's government (2019-2022), the state is not a monolithic bloc (Bourdieu, 2011; Poulantzas, 2019) in which public policies are developed in full agreement with the boss on duty, but rather an arena in which the different social, economic, cultural, political and scientific projects spearheaded by the various social strata and segments are constructed - between disputes and consensus, open or veiled. In this sense, we have sought to characterize and unveil, albeit briefly, this complex web in the field of Social Technology, with the manifest intention of highlighting the losses and gains of this power game, a capital reconstruction for the future tactics and strategies of the actors in the field.

3.^a Phase: resumption (2022 - current)

The decline reported in the previous section led to a deep fraying of the social fabric, made up of state and society, which was built around the field of Social Technology in its first 15 years of

construction, but it was not able to completely eliminate the germs planted in the first phase of policies to promote Social Technology. However, the damage was profound and significant for understanding the field and its players.

The RTS, which was the main coordinating body, suffered from its dependence on government institutions and gradually dried up until it was abolished in 2011. The lack of funding policies for university groups and NGOs working in the area weakened these collectives, which had fewer and fewer people and projects underway. The national political scenario, which reached a turning point in 2016 and then deteriorated, also discouraged the groups, since the possibility of effectively recovering important policies for this field, such as Proninc or Proext, was almost nil.

However, as outlined in the previous section, which pointed out the resistance of social technology in the complex web of the Brazilian state through its various actors and also as a late fruit of the first phase of the field, we list the vital breath that allowed the beginning of a new cycle of rearticulation in the field of ST. This was represented by the articulation around *CNPq/MCTIC/MDS Call No. 36/2018 - Social Technology*, where more than 60 projects in the field of ST were approved and supported in the midst of a phase of decline in the promotion of Social Technology.

Even though most of them were not connected to the historical construction made previously (and many of them were not even effectively in the field of ST, such as some at who said that the project was done without any dialog with the community in which it would be implemented), there was a group of teachers/researchers/extensionists developing actions related to the field. Thus, this represented an opportunity to re-establish an articulation space around this field, since the Social Technology Network had disbanded. In 2019, there was a face-to-face meeting of the coordinators of these projects, which was fundamental for establishing understandings, drawing up guidelines for the ST policy and resuming coordination between the different subjects who recognize themselves in this field, whether those already involved in the existing networks or those who have joined the process individually.

First, in a dialog involving researchers from Higher Education Institutions and public managers who defended the ST agenda in their ministries, the Social Technology Forum was created in 2019. Gradually, the Forum expanded and began to shape itself as a space for "articulation of articulations", in other words, a space where representatives of other collectives and networks met and saw in that forum the possibility of increasing the strength of their demands and trying to build strategies of resistance and survival in the most hostile government to social policies and higher education institutions that the country has seen in the last 40 years.

The Forum began meeting periodically to analyze the situation and debate strategies for demanding public policies for the different areas involved: Solidarity Economy, Social Technology, cooperative incubators, technological extension, agroecology, etc. The broadening of the scope and participation of different groups led to a change in the name of the Forum, which was renamed the Social Technology and Solidarity Economy Forum (ForTES).

As a result of this construction, and taking advantage of the articulation space provided by the CNPq call for proposals mentioned above, in early 2021 the proposal for the *Brazilian Association for Teaching, Research and Extension in Social Technology* (Abepets) began to be designed. In its initial awareness-raising document, the Association's possible objectives include:

"Holding and supporting events on Social Technology; producing publications on experiences in the field of ST; establishing a dialogue with institutions and funding bodies; strengthening relations with local governments to strengthen ST initiatives; creating a journal; supporting technological extension projects; supporting the creation and strengthening of postgraduate programs on the subject; establishing relations with foreign institutions for exchange and funding; mapping a network of regional contacts working on the subject" (ABEPETS, 2021).

In the initial movement, 260 people from the five regions of Brazil signed up to take part in building the Association, as well as some people from other countries, just over half of whom (135) were teachers. Throughout 2021 and 2022, regular meetings were held to build Abepets. Initially, there were seven Working Groups: WG1 - Organization and structuring of the Association; WG2 - Postgraduate programs and events related to ST; WG3 - Publications in the field of ST (Good practices); WG4 - ST and public policies; WG5 - Internal and external communication; WG6 - Theoretical and methodological deepening in ST; WG7 - Participatory Territorial Agenda.

After lengthy debates, the Abepets Rules of Procedure were built collectively and in July 2022 the Abepets Founding Assembly was held, with subsequent registration and creation of a CNPJ, when its first coordinator was also elected, with a two-year mandate. Abepets has played an important role both as a space for bringing together people working in the field of SW and as an actor institutionally recognized by society and public authorities to contribute to the construction of public policies in the area.

ForTES is currently made up of: Network of Technological Incubators of Popular Cooperatives (Network of ITCPs); Interuniversity Network of Studies and Research on Labor (Unitrabalho Network) - University Incubators; Osvaldo Sevá Popular Engineering Network (Repos); Popular Extension Technology Network (Retep); Brazilian Association of Teaching, Research and Extension in Social Technology (Abepets); Research, Innovation and Social Technology Network in Solid Waste Management, Sustainability and Solidarity Economy (REPITES); Solidarity Economy Network of the Federal Professional, Scientific and Technological Education Network (IFEcosol Network); Brazilian Social Technology and Innovation Forum (FBTSI).

In addition, other organizations such as the Brazilian Solidarity Economy Forum (FBES), the Social Management Researchers Network and the Brazilian Agroecology Association (ABA) have attended Forum meetings.

From 2019 to 2022, ForTES maintained a dialog with public managers from the MCTI, the Ministry of Citizenship, the Ministry of Regional Development and the CNPq, mainly, in addition to other relevant interlocutions for the field, such as with the Banco do Brasil Foundation. Despite their insistence, it was not possible to make any further progress in the second phase outlined in this article for the ST field. In short, even with the coordination and affinity of purpose with some public managers, located in the middle strata of the various federal government bodies, the processes were hindered by senior federal administration managers when the agenda advanced in the government structure. In any case, the main positive result of this period was a deeper understanding of the purposes of the field of Social Technology in the relationship with these permanent members of the Brazilian federal state, as well as the respective subsistence, even if residual, in various official documents, of the importance of the field of Social Technology and the legitimacy of the Forum.

Also noteworthy, as an example of the negotiations within federal agencies in 2022, is the publication of two Ordinances by the MCTI to set up a *Committee of Experts in Social Technology*. The first, no. 5.749/2022 (MCTI, 2022a), effectively created the Committee and the second, no. 6.221/2022 (MCTI, 2022b), designated the composition of its members, as follows: three members (full and alternate) from MCTI, two members (full and alternate) from CNPq, two members (full and alternate) from FINEP, two members (full and alternate) from the Mamirauá Sustainable Development Institute - IDSM, two members (full and alternate) from the National Institute for Amazonian Research - INPA, two members (full and alternate) from the Emílio Goeldi Museum of Pará - MPEG and, finally, a single representative from the scientific community.

Despite the fact that this Committee has never met, as well as having an over-representation of federal bodies, we assert three important elements underlying its constitution: i. the testimony of the controversial survival of Social Technology at the end of the Bolsonaro administration (2019-2022); ii. the constitution of a plethora of federal public bodies involved, to a greater or lesser extent, with the field of ST and, finally, iii. the possibility of a new redesign of the Committee of Experts considering the current validity of the aforementioned ordinances.

The Multiannual Plan 2024-2027, the first PPA under the new government, included Program 2304 - Science, Technology and Innovation for Social Development, with the general objective of "democratizing access to the results of scientific and technological development, promoting the dissemination of technologies and the popularization of science, in order to contribute to solving social problems and improving the lives of the population" (Brasil, 2024). The Budgetary Action related to Social Technology was Action 0214, with the aim of "expanding the development, access, reapplication and appropriation of social technologies" (Brasil, 2024). According to Brasil (2024), the value of the program is 2,123,358 (two million, one hundred and twenty-three thousand, three hundred and fifty-eight reais). The amount for the four years is low compared to other ministry programmes, such as PROGRAMME: 2324 - Innovation in Companies for a New Industrialization, which has an amount of 97,698,986 (ninety-seven million, six hundred and ninety-eight thousand, nine hundred and eighty-six reais). However, we hope that the budget earmarked for Action 214 can be supplemented with parliamentary amendments and resources from the National Fund for Scientific and Technological Development - FNDCT.

Naturally, the year 2023 presented a new scenario that allowed these actors, in particular ForTES, to gradually be recognized by the federal government as relevant interlocutors for the areas of Social Technology and Solidarity Economy. In May 2023, ForTES went on its first official institutional mission, with a delegation of 8 members, holding two-day meetings with: MCTI, MDA, MJ, Senaes/MTE and CNPq.

With regard to macro-strategic policies, several are being reconfigured. In this regard, MCTI Ordinance No. 6.998, of 10.05.2023, establishes the guidelines for drawing up the National Science, Technology and Innovation Strategy for the period from 2023 to 2030. These guidelines should guide the institutional activities of the bodies and units that make up the structure of the Ministry of Science, Technology and Innovation.

Among the guidelines established is the orientation of the debates for the 5th *National Conference on Science, Technology and Innovation*, which will take place in August 2024, aimed at

building a new *Science, Technology and Innovation Strategy* for the period 2023 to 2030. It also defines that this *Strategy* will be organized around four structuring axes:

I - recovery, expansion and consolidation of the National Science, Technology and Innovation System;

II - reindustrialization on new bases and support for innovation in companies;

III - science, technology and innovation for national strategic programs and projects; and

IV - science, technology and innovation for social development.

Currently, there is a dialogue between different ministries and sectors of the federal government, but we can see two main interlocutors in this process of rebuilding policies for the field of ST: the MCTI, where the dialogue has taken place mainly with the DEPTS; and the National Secretariat for Popular and Solidarity Economy of the Ministry of Labor and Employment - Senaes/MTE.

The announcement of the resumption of the National Conference on Science, Technology and Innovation is an arena of dispute for civil society, given the efforts previously made to dismantle participatory spaces during the period of the Descent, reinforcing an agenda of rearticulation of the ST field in order to seek debates that contribute to the design of public policies in this area.

Finally, in an effort to summarize this contemporary collective movement, we point out that the main players in the field, such as ForTES, Abepets, ITS, among others, mobilized with the MCTI and, as a result, three moments qualified debate with significant representation for the field of ST were held before the National Conference:

1. Preparatory Meeting for the Free Conference on Social Technology, Solidarity Economy and Assistive Technology, organized by civil society, in dialogue with the MCTI, which took place on February 5, 2024;
2. Free Conference on Social Technology, Solidarity Economy and Assistive Technology, organized by civil society in dialogue with the MCTI, held in Brasilia on 28 and 29 February 2024;
3. The Thematic Meeting on Science, Technology and Innovation for Social Development, organized by the MCTI, was held on March 14 and 15, 2024, in Rio de Janeiro, where civil society took forward the agendas of the previous plenary sessions;

For all these reasons, we believe that the recent recovery of the field allows for the revival of the process of building and implementing public policies capable of strengthening the field of Social Technology once again. And, as a result, progress towards the creation of another technological paradigm, more strongly linked to the social demands and environmental problems of our country.

Conclusions

In this article, we aim to provide a summary of the historical process that has taken place over the last twenty years regarding public policies for the field of Social Technology in Brazil. Considering the scenario of the resumption of policies for this area, knowing what has been done

before is a fundamental step towards more effective planning, learning from the mistakes and successes of previous periods.

On the one hand, this article has limitations in the sense that it didn't focus its research on local or even intra-institutional policies that have strengthened ST experiences in different territories and institutions. On the other hand, having authors who participated, as public managers, in the construction of TS public policies within their institutions (CNPq and MCTI), allowed for a broader view and perspective of the actions that took place in these bodies that have been relevant to strengthening experiences in the field.

The resumption of civil society articulation around the topic of ST, starting in 2019, particularly through the work of the Social Technology and Solidarity Economy Forum (ForTES) and the creation of the Brazilian Association for Teaching, Research and Extension in Social Technology (Abepets), could represent an important pillar for the public policies that have been built under the new government to maintain the transformative and emancipatory perspective that was defended for this field 20 years ago.

Likewise, the creation of the Department of Social Technology, Solidarity Economy and Assistive Technology, within the MCTI, is a fundamental achievement for this field, and it is necessary to ensure that policies related to the field of ST are built, and that they allow us to increasingly seek to build another technological paradigm, breaking once and for all with the *myth of technological development*, and moving towards having a technological framework suited to the reality of our people and submitted to the greater objective of tackling inequalities, poverty and the struggle for rights for the entire Brazilian population.

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1. See the Social Technology Bank at <https://transforma.fbb.org.br/> (FBB, 2023).
2. When researching the procedure, it is not clear what the current status of the Bill is, since the Senate page says that the Bill has been sent to the Chamber of Deputies, and vice versa. See: <https://www25.senado.leg.br/web/atividade/materias/-/materia/99555e>
<https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2018288>
3. Initially, there was a budget forecast of R\$3,500,000.00 (three million five hundred thousand reais), but there was an additional contribution from CNPq itself and from the Call's partners.

Author

Felipe Addor

PhD in Urban and Regional Planning from IPPUR/UFRJ. Adjunct professor and director of the Interdisciplinary Center for Social Development at the Federal University of Rio de Janeiro (Nides/UFRJ). Researcher-extensionist at the Technical Solidarity Center (Soltec/UFRJ). Member of the Brazilian Association for Teaching, Research and Extension in Social Technology - ABEPETS and the Oswaldo Sevá Popular Engineering Network - REPOS. He organized the 3 volumes of the book *Social Technology and Popular Agrarian Reform* (2022; Unesp and Lutas Anticapital publishers).

E-mail: felipe@nides.ufrj.br

ORCID: <https://orcid.org/0000-0002-9419-0487>

Andreia Ingrid Michele do Nascimento

PhD in Economic Sciences from the Complutense University of Madrid, member of the Federal Career of Management, Planning and Infrastructure in Science and Technology with a position at the Brazilian Institute of Information in Science and Technology (Ibict), a Research Unit of the Ministry of Science, Technology and Innovation (MCTI). Member of the Brazilian Association for Teaching, Research and Extension in Social Technology - ABEPETS. Leader of the Social Technology and Development Research Group (Ibict/MCTI) and member of the Digitalities of Information and Knowledge in the Humanities Research Group (Ibict/MCTI).

E-mail: andreiamichele@ibict.br

ORCID: <https://orcid.org/0009-0004-5740-5639>

Archimedes Belo Paiva

PhD in Social Sciences from the University of Brasília (UnB), with a post-doctorate in Science Policy from the State University of Campinas (Unicamp). Member of the Federal Career of Management, Planning and Infrastructure in Science and Technology at the National Council for Scientific and Technological Development (CNPq). He is a member of the Interdisciplinary Studies Group in Science and Technology (GEICT/Unicamp) and the Latin American Social Sciences Research Group (UnB). Her research and publications have focused on the constitution of science and technology in the Latin American context, with a special emphasis on the area of Governance in Science and Technology.

E-mail: abelo@cnpq.br/arquimedes.paiva@unicamp.br

ORCID: <https://orcid.org/0000-0002-3082-5658>

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Third author: conception (support), research (equal), methodology (equal), project management (equal), supervision (equal), validation (equal), visualization (equal), writing - original draft (equal), writing - revision and editing (equal).

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