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Constructing non-monetary social indicators: an analysis of the effects of interpretive communities

Fiona OTTAVIANI^{1*}, Anne LE ROY² and Patrick O’SULLIVAN³

Abstract

Based on two contrasting experiences of the construction of non-monetized social indicators carried out at different levels (local and international), this article examines the effects of interpretive communities on indicators, on collective processes, and on social and scientific context – particularly that of information systems. The first initiative we examine is the Social Progress Index (SPI), developed from within the Social Progress Imperative and used at the international, European and local levels. The second initiative is the development of a dashboard of sustainable territorial wellbeing indicators (IBEST) for use across the Grenoble metropolitan area. We present a framework of the effects of interpretive communities. The application of this framework in order to analyze the two initiatives studied reveals the importance of interpretive communities in shaping the scientific and political agenda that is promoted by collective experiences involved in the development of alternative indicators. Rather than specific and circumscribed times for participation, it is the creation of spaces that are not circumscribed in time at the intersection of communities that appear to be most conducive to giving substance to deliberative ecological economics and to ensuring the renewal and transformation of existing interpretive communities.

Keywords

SPI; IBEST; Deliberative ecological economics; Alternative Indicators; Interpretive Communities; Social transformation.

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1. Introduction

The core concern of this article is the social and political transformation associated with experiments with “alternative” indicators⁴, following recent work to gain a better understanding of the social and political influence of such alternative indicators (Sébastien et al., 2014; Lehtonen et al., 2016; Rauschmayer et al., 2015).

The literature on alternative indicators tends to focus more on the intrinsic characteristics of indicators than on their institutional uses and influence. Indeed, many works have developed frameworks to understand the conceptual (Bleys, 2012) or the technical and political characteristics of indicators (Gadrey and Jany-Catrice, 2005). However, a number of recent publications (Sébastien et al., 2014; Lehtonen et al., 2016; Rauschmayer et al., 2015) have sought to develop understanding on these uses and influence. This literature, which has developed within the stream of deliberative⁵ ecological economics (Zografos and Howarth, 2010; Lo and Spash, 2012), focuses on the degree of “institutional embeddedness” as a determinant of eventual indicator use and influence. It distinguishes between the “use” and the “influence” of indicators. “Use” refers to “handling the indicators” in a variety of policy contexts, whereas “influence” occurs through dialogue and argumentation and can generate social learning, networking and changes to planning or policy-making (Lehtonen et al., 2016, p. 4; Rinne et al., 2013). This literature diverges from the idea that the intrinsic characteristics of indicators determine their eventual effects (Thiry et al., 2013) and is interested in the actors involved in these experiments. Existing studies on the use and influence of indicators show that direct use is rare (Bauler, 2012); rather, the indicators tend to exert their influence indirectly, through various ways, including the processes of indicator production.

We start from this last approach, which we believe is more able to identify the social transformations that this type of experiment brings. We argue that the process of constructing the indicators contributes to the formation and transformation of the communities involved. This formation and transformation of the communities involved are not reducible to dialogue or to the bridge that exists between social worlds (science, politics, society); its effects are broader. To analyze the effects of the communities associated with the construction of

⁴ These indicators relate to phenomena that are not simply economic. This movement of alternative indicators emerged at the crossroads of three concerns: 1) a calling into question the primacy of economic indicators (movement beyond GDP); 2) a critically examining of the social and environmental (un)sustainability of development; 3) a critique of indicators emphasizing dysfunctions without revealing the wealth and levers for action to improve living conditions.

⁵ In this paper, “deliberative” has the same meaning as “discursive”.

alternative indicators we examine two initiatives:⁶ the Social Progress Index (SPI) and the initiative for the construction of sustainable territorial wellbeing indicators (IBEST).

The SPI, with its dashboard and associated indicators (Porter et al., 2017), has developed from the Social Progress Imperative,⁷ and has spread around the world as a result of a highly effective media and communication campaign. The second initiative concerns the development of a dashboard for the sustainable territorial wellbeing of the Grenoble metropolitan area (Ottaviani, 2015). These initiatives share a desire to go beyond the limits of commonly used indicators (Méda, 2009). Existing works which explain the use or non-use of indicators highlight the development of indicators that are disconnected from real demand (Sébastien et al., 2014). The two initiatives stand out because they resulted from a specific demand from non-university actors. They also bring together a large network of actors for whom it can be difficult to establish institutional boundaries between different communities.

Depending on the classification framework used, these initiatives will be found in separate categories or in the same category. We focus primarily on the actors involved through an “interpretive communities” analysis (Fish, 1980). Our aim is to help refine the existing work in the field of deliberative ecological economics about non-monetary indicators. We adhere to these three basic starting points of deliberative ecological economics: 1) distancing from the conventional approach in mainstream economics that takes preferences as given (Lo and Spash, 2012); 2) considering the political and moral dimension linked to the complexity of an approach in terms of sustainability (Zografos and Howarth, 2010, p. 3413); and 3) critically examining the procedural power associated with decision-making and collective dynamics. We retain the term “deliberative approach” (and “deliberation”) (ibid.; Frame and O’Connor, 2011; Lo and Spash, 2012) to designate “a forum through which judgments and preferences are transformed through reasoned dialogue” (O’Neill, 2001 in Lehtonen, 2006, p. 186). Participation is an aspect of the deliberative approach, but the deliberation can be based on different kinds of dialogue. An expert report, such as the Intergovernmental Panel on Climate Change Report, can contribute to a forum of discussion (ibid.). We use the term “participatory approach” in a restricted sense. Participatory approaches cover disparate social practices (Blondiaux and Fourniau, 2011). We consider that participatory approaches are circumscribed in a determined space and time. The term refers, within the framework of the construction of alternative indicators, to a particular approach

⁶ In this paper, “initiative” has the same meaning as “experiment”. We use “experience” when we want to emphasize the processual dimension of experiments.

⁷ <https://www.socialprogress.org/>

that involves the citizens of a territory in the development of these indicators. These discussions can take place at different points in the process of building and disseminating indicators (Le Roy and Ottaviani, 2017). A participatory approach is distinguished from other deliberative approaches by the involvement of citizens and non-elected inhabitants, who don't have an expert status owing to their training or institutional position. The term "interpretive communities" (Fish, 1980) is complementary to these two concepts (deliberation and participation) because it reflects the evolutionary character of the communities involved in an experiment. The acculturation of actors to the same subject and the co-construction of an interpretation brings together a new community with its own values and registers of interpretation. If each individual is unique, this is particularly so from the point of view of their plural inscriptions in different interpretive communities. This plural inscription and the dynamic evolution of communities enable the creation of bridges between different communities – and even the creation of new communities. The term "interpretive community" refers to the long-term involvement and reorganization of the values and practices that operate in this type of process. Interpretive communities are not limited to interest groups but are groups that share, at least temporarily, a common interpretation of the same object.

By examining these two initiatives, we seek to analyze the effects of interpretive communities on indicators, on collective processes, and on social and scientific context – particularly that of information systems. The article is structured as follows. In Section 2, we set out our analytical framework for characterizing the effects of interpretive communities. We present our methodology in Section 3. In Sections 4 and 5, we apply our framework to analyze the two initiatives studied and discuss the results. We first outline and characterize the interpretive communities involved in IBEST and SPI and then analyze the effects related to the involvement and interaction of these very different communities. The paper concludes with suggestions for more in-depth research on the effects of interpretive communities on social transformation.

2. A framework for analyzing interpretive communities and their effects

2.1 Analyzing interpretive communities

While the literature has been more concerned with the use of indicators than the transformations associated with communities involved in this type of experiment (Lehtonen et al., 2016, p. 2), some recent works have begun to consider this latter issue. These include the work of Tom Bauler (2012) who highlights some interesting elements for understanding the importance of communities in these kinds of experiments. Bauler views indicators as a kind of “boundary object” at the interface of different social worlds and whose eventual forms are influenced by the manner of their interaction (Sébastien et al., 2014, p. 318). He proposes an understanding of the use and influence of indicators based on two sets of criteria. The first corresponds to three characteristics and qualities which are important for ensuring the use of indicators: the legitimacy of the indicator with regard to political, societal and ethical standards; the credibility of the indicator, related to the actors’ valuation of the robustness thereof; and the salience⁸ of the indicator, i.e., its degree of adequacy between the concerns of policy actors and the phenomenon covered by the indicator. The second set of criteria refers to three different configurations that determine the institutional boundaries within which an indicator can be located by identifying three possible pairs of political “arenas”: politics and science, society and politics, and society and science. At the intersection of the pairs of sets of criteria, one can observe the degree and the type of “institutional embeddedness of indicators” (Bauler, 2012, p. 41) as well as their uses and influence. Indicators can be understood as a liaison (or coordination) tool between these communities. For example, the strong involvement of the scientific community will have the effect of increasing an indicator’s credibility but may also undermine the social or ethical legitimacy attributed to the indicator.⁹

This approach seems to us to provide a useful framework for understanding the use and influence of indicators, but it needs to be supplemented. While alternative indicators typically involve the interaction of the arenas of science, politics and civil society, uncovering the relative weight or power of each of these arenas is a prerequisite for understanding institutional embeddedness. However, this general framework alone does not allow us to determine the specific effects associated with a particular institutional set-up. Indeed, the categories of “science”, “politics” and “civil society” may become too general to characterize the specific dynamics of different initiatives for the construction of “alternative” indicators.

⁸ The works on the use of alternative indicators (Thiry et al., 2013; Corlet et al., 2020; Malay, 2019), stress that it is not so much the scientific or democratically acceptable nature of the indicators that count, but their salience to existing political concerns.

⁹ The reasons for these tensions can vary and relate to: 1) simplistic populism; 2) the tendency to technocratize decision-making bodies and scientific knowledge, which leads to a rejection of the “belief in expert systems” (Giddens, 1990); and 3) the constant attempt to rationalize decisions, which leads to political decisions being made on the basis of algorithms, which is at the root of the decision’s depoliticization.

Differences in the legitimacy-credibility-salience (LCS) appreciation of indicators can persist in each arena (Bauler, 2012, p. 41). Conversely, different communities can have a shared LCS-appreciation.

Depending on the history of their own interpretive community and the type of collective dynamics promoted, each group of actors, in their own interpretive communities, will interact with the other actors involved. This position refers to the work of De Munck (1998, p. 184), according to whom the “intersubjective conventions that are truly constitutive of meaning ... do not depend on the intention of the speaker but rather on the history of the interpretive community”. As noted by Citton (2007) (and by Fish, 1980): “interpretive gestures, norms of the acceptable and the unacceptable (as well as all gestures and all norms) are conceivable only within interpretive communities which give individual subjectivities their forms, their limits and their aims” (Citton 2007, p. 20). In other words, an interpretive community comprises actors who have a set of shared values and visions that can evolve with the collective dynamics. These values and visions can have an influence on the indicators, on collective processes, and on the social and scientific context. This means that the relevance and purpose of developing alternative indicators are not only to develop indicators for their own sake but to participate in the transformation of interpretive communities, thereby making the indicators useful. If the interpretive communities correspond to the worlds of science, politics and society, we can assume that the experiments are based on existing interpretive communities and are transformed as the process progresses.

Following Bauler (2012), to identify the actors in the scientific, political and civil society worlds, it is useful first to identify these interpretive communities. However, we hypothesize that these collective experiences reconstruct interpretive communities. We therefore start with the identification of interpretive communities based on functional sets, and we seek to show the effects of those involved and their implication. Interpretive communities can be built through participation, but this is only one part of the process. These communities are contributors to a deliberative approach by leading the actors to recompose their judgments and their practices. The interest of an “interpretive communities” approach is to highlight the anchored character of people in plural communities and the reorganization of values and practices that operate in this type of process.

2.2 Effect of interpretive communities

It would be simplistic to judge the overall effects of IBEST or SPI based only on the extent to which the actors involved in the construction of the indicators use them. While, of course, indicators are expected to be used, they can have much more diffuse effects that may follow from the collective experiment itself: the effects include, for example, the vision that an indicator conveys in the scientific, political and civil society worlds. To what extent does the experiment have the power to challenge the logic of existing policy actions in the communities concerned? What form of emancipation of the actors can occur through the process of constructing the new indicators? In short, we can ask of each experience: “what, for whom and why?” (Frame and O’Connor, 2011, p. 2). We focus here on the experience – which reflects the construction of a community around the interpretation of a common object – rather than on the indicators. It seems to us that focusing only on the influence of indicators conceals the fact that the dynamics of the actors often have greater effects than the indicators themselves.

We therefore base our analysis of the indicators on a broad view of the effects produced by the dynamics of actors. We use an analytical framework built by Sybille van den Hove (2001) to understand the real and potential effects of participation. We use it to analyze a broader collective process than just participation over a given period of time, to understand the effects not of a specific time of participation but of a specific collective dynamic involving different interpretive communities, and potentially constituting new ones. Using this framework, we seek to distinguish three types of effects: substantive effects, which are linked to the influence of interpretive communities on the content of the indicators produced; procedural effects, which correspond to the influence of the interpretive communities involved and of their relative power on the process itself – they refer the specific dynamic of the experiment; and contextual effects, which are related to the transformation of information collection systems and of the social and scientific contexts of the communities involved.

There are strong inter-relationships between these different dimensions and any real process has several effects which influence each other and have substantive, procedural or contextual characteristics. Consequently, the distinction between these three types of effects is above all heuristic. The processes studied “are dynamic, perpetually renewed processes, they are therefore part of a complex relationship with the social context: they modify the social context just as the social context modifies them” (van den Hove, 2001). While this framework makes it possible to understand the different types of effects linked to a collective process, the

identification of the criteria linked to each kind of effect is based on a literature review of the effects identified in the field of participation (ibid.). We start from this theoretical base, which enables us to analyze the effects of interpretive communities by considering the aspects that are specific to these three types of effects in the framework of van den Hove. To do so, we specify each effect based on the existing literature on deliberative ecological economics. We analyze the substantive effects in terms of their LCS characteristics (Bauler, 2012). The procedural effects refer to the specific dynamic of actors in the experiment, and the contextual effects refer to the transformation of the social and scientific context (notably in terms of information systems).

Three broad categories of effects	Synthesis and adaptation of the criteria proposed by van den Hove (2001)	Specification of the characteristics	Literature
Substantive effects <i>What?</i>	More pertinent indicators from the environmental point of view	Salience	Bauler (2012)
	More pertinent indicators from the economic point of view		
	More socially acceptable indicators	Legitimacy	
	More robust indicators from the technical point of view	Credibility	
Procedural effects <i>For whom?</i>	More dynamic and open processes	Representation of common goods Kind of assessment	Soma and Vatn (2014); Frame and O'Connor (2011)
	Improved power of influence of less organized interests	Procedural power	Zografos and Howarth (2010) Bruno et al.

			(2014)
Contextual effects <i>Why?</i>	Change in the practice, the system of information and the conceptualization of the social context	Social benchmarking Conception of development	Bruno and Didier (2013) Spash (2012)
	Change in the practice, the system of information and the conceptualization of the scientific context	Mainstream/post-normal	Funtowicz and Ravetz (1993)

Table 1 – Potential effects of interpretive communities

Source: authors

Using this framework, we analyze the variability of the effects associated with the two experiments studied. To do this, we use various types of empirical material to identify the real and potential effects of the experiments.

3. Data and methods

The following table presents the data sources that we used to analyze these experiments in addition to the literature review carried out on IBEST and SPI.

	IBEST	SPI
Direct observation data	All IBEST meetings since 2008 (more than twenty a year) Participation in the “wealth” network (Catholic Committee Against Hunger and for Development [CCFD] – “ <i>Centre d’Information Inter-Peuple</i> ” [CIP] - Researchers)	Meetings in Somerville, Participation in meetings of the Institute for Strategy and Competitiveness of the Harvard Business School
Reports	IBEST Reports 2012, 2016 and statistical production 2018	All SPI reports published since 2011
Websites of the institution involved	Partner websites and others websites presenting the experience	

Table 2 – Data sources, beyond literature review

Source: authors

Our work is based on participatory action research (Blackstock, 2017, p. 342). Action research aims to “transform the system from a concrete transformation project more or less completely defined” (Richard, 2012, p. 220). Our direct observation data (primary sources) includes note taking, minutes and meeting documents. For IBEST, we also have several audio recordings (and questionnaires) from participative events (citizen workshops, hybrid forum), which have been transcribed. We combine observations about “what happened” and “what is likely to happen”, given the characteristics of the experiment.

We do not use a quantitative process for automated processing of information (based on word recurrence or thematic recurrence). The “empirical material” of the IBEST and SPI experiments is not suitable for this type of treatment and the diversity of the materials used makes it difficult to process them systematically. We carried out a test to see what a treatment of professional and citizen workshops by lexicographical recurrence would provide, but the method did not appear to add value because of the already very synthetic documents highlighting the key concepts retained by professionals and citizens.

The difficulty of taking account of all the interactions inherent in these types of experience is a marker of their specificity: they are not limited to a few publications or participation times circumscribed in advance in a specific space and time. What specifically characterizes their deliberative dynamic, is the pursuit of interactions within interpretive communities which are recomposed over time. We therefore focus our analysis of the material on the identification of the relationships between actors and the effects linked to the actors involved. This is based on the existence of a formal or partnership agreement which makes it possible to identify the existence of such relationships. These are based on the existence of regular meetings which bring together the different actors involved. Finally, the existing academic studies and the gray (unpublished) literature on experiments make it possible to identify or confirm the existence of certain relationships and to identify shared values and practices.

4. The interpretive communities in IBEST and SPI

The indicators produced in these two experiments present a number of technical or conceptual similarities – an aspect that has featured widely in the discussion and development of alternative indicators (see Table 3).

		IBEST	SPI
General description	Key concepts	Wellbeing; sustainability; common good; capabilities	Social progress; capabilities; opportunity; wellbeing
	Beginning of the experiment	2002	2009
	Level	Local (Grenoble urban area, Isere area)	National, regional and local
Data	Reliance on existing data	Partially	Entirely
	Use of survey data	Survey with 80 questions	Only for municipalities
	Reproduction of results	Every five years for Grenoble	Each year for the national level
	Monetization	No	No
	Traditional economic indicators included	No	No
	Number of participants	1000 participants in 2012 and in 2018 (Grenoble)	Depends on the municipalities. Not relevant for the general SPI which uses administrative data
Outcomes	Dimensions	Eight dimensions: 1) Work and employment; 2) Assertiveness and commitment; 3) Democracy and living together; 4) Natural environment; 5) Health; 6) Access to and use of public services; 7) Time and pace of life; 8) Sustainable access to subsistence needs	Three dimensions broken down into 12 components: 1) Basic human needs – 1.1 Nutrition and basic medical care; 1.2 Water and sanitation; 1.3 Shelter; 1.4 Personal safety; 2) Foundations of wellbeing – 2.1 Access to basic knowledge; 1.2 Access to information and communication; 1.3 Health and wellness; 1.4 Environmental quality; 3) Opportunity – 3.1 Personal rights; 3.2 Personal freedom and choice; 3.3 Inclusiveness; 3.4 Access to advanced education
	Dashboard	28 indicators	51 indicators
	Products	Dimensional profiles, dimensional indices and a global index	Dimensional indices and global index
Construction method	Choice of dimensions and indicators	Participatory approach in 2012 and 2019 and many events with collective exchanges open to citizens	Essentially discussion between “experts” (academics or others). Collective exchanges open to citizens at the local level
	Indices: Weights	Equal weighting (pending a collective determination)	Components factor analysis to determine weights for each individual indicator in the component + Simple arithmetic average of the 12 components
	Indices: Normalization method	Comparative normalization method with fixed limits	Comparative normalization method with fixed limits
	Indices: Goalposts	Sustainable situations described	Best or worse cases preferably

		by the stakeholders of the participatory approach and regulatory thresholds	defined by existing standards or otherwise in relation to the observed values
Use	Coverage	49 municipalities in the Grenoble metropolitan area	149 countries in 2019 + several municipalities
	Use	Observation and assessment	Benchmarking, observation, assessment

Table 3 - Summary presentation of IBEST and SPI's methods

Source: authors

The two experiments produce non-monetary indicators of social sustainability covering defined geographical areas. They constitute two experiments centered on social sustainability (Clément et al., 2011, p. 8) which draw attention to the social sustainability, often overlooked in wider sustainability approaches¹⁰ (Ballet et al., 2011; Davidson, 2011). They also share a focus on the opportunities available for individuals to live their lives to the fullest (Sen, 1999, p. 15). Using a rich variety of multi-dimensional indicators, they create composite non-monetary indices.

Their differences mainly relate to the procedural aspects, the scale of the initiatives, the types of actors involved, the intended uses, and the status they give to the various affected parties in the deliberation process. While both initiatives involve a diverse array of actors (politicians, inhabitants, public policy professionals, researchers from different disciplines, companies, and foundations) and they both have influence outside their original “place” of design, there are differences in the type of interpretive communities constituted by the two experiments.

4.1 IBEST: a collective and territorial vision of sustainable wellbeing for a defined metropolitan area

The IBEST experiment involved different interpretive communities whose participation varied over time, as indicated in Figure 1.

¹⁰ Two complementary meanings of social sustainability can be distinguished (Ballet et al., 2011): its “societal” meaning (social interactions) and its “social” meaning (inequalities, redistribution). Social sustainability lies at the crossroads between works on social theories (focused on wellbeing, social justice and inequalities) and works on understanding social interactions.

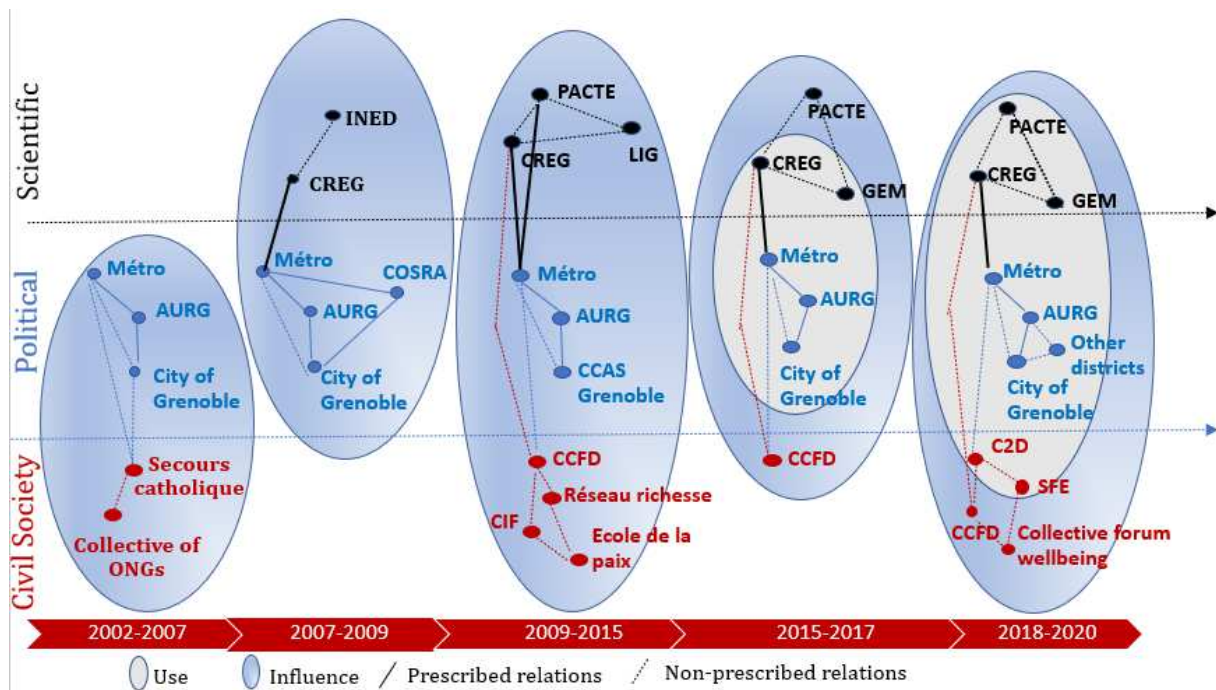


Figure 1: The organizations involved in IBEST

Source: authors

Following the publication of the Viveret Report (2002), which emphasized the need to go beyond a narrow conception of wealth, a group of professionals from the city and associations was formed. In 2004, the group brought together representatives of the Urban Planning Agency of the Grenoble Region, the Grenoble-Alpes-Métropole, the Local Plan for Integration and Employment, the City of Grenoble, *Secours Catholique*, ULISSE, the Movement for Solidarity Development and the “Isérois” Social Observatory. Despite their different backgrounds, the group’s members had a common goal: to reconsider the wealth of the Grenoble urban area with a view to revamping the logic of action and appraisal of public sector activities. There was an urgent need for local policy professionals to find alternative indicators as they were having to rely on traditional indicators to demonstrate the effects of their actions, particularly for evaluations ordered by the interministerial policy on underprivileged areas (“*la politique de la ville*” in French). The associations (locally based non-governmental organizations) wanted to move away from a monetary view of wealth and instead consider the issue of wellbeing in a qualitative way without necessarily leading to the construction of numerical data. By contrast, for policy professionals involved in techno-political communities where “*what isn’t counted doesn’t matter*”, the use of new indicators was an imperative.

Working on their goal to develop alternative indicators, the group focused on the professionals in charge of city policy and sought to create a social database for the municipal and metropolitan levels. The idea was to enhance the existing territorial and social diagnoses and observations of these professionals and to strengthen them by taking account of the social dimension of neighborhood dynamics (Le Roy and Offredi 2011). Given the magnitude of the task, and to give these indicators weight and allow them to be operationalized, there was a need to engage with the scientific community (Clot, 2010).

Therefore, the group was opened up in 2007 to other actors who specialized in public observation through the involvement of the Social Observation Group¹¹ (COSRA – Rhône-Alpes), which comprised professionals from state agencies, local authorities, associated resource centers and the university. This first step in scaling up the process also involved economists from Grenoble economics laboratory (CREG) at the Pierre Mendès France University.¹² This collaboration was possible because of the close relations that already existed: one of the professionals involved called on a team of researchers she knew from her university years. A grant from the regional Social Observation Group made it possible to fund the early stages of the project. The 2009 signing of an agreement between the Rhône-Alpes Region, the Urban Planning Agency of the Grenoble Region (AURG – prime contractor) and the university, through the Grenoble urban area (*Métro* in French), cemented a partnership between these different actors. The aim was to test the feasibility of using existing data from various social databases at the neighborhood level (Le Roy and Offredi, 2011). At the end of this exercise, there was a need to create new data. With the opening up of the research group to individuals from other disciplines (sociologists, political scientists, urban planners), the term “wealth” appeared to the group of public professionals and researchers to be too narrow and too economics-oriented to capture the territory’s social and environmental issues. The need to create new data – in a new way, using a participatory approach – determined the choices made in developing the sustainable territorial wellbeing indicators.

The Grenoble project experimented, on a practical level, with the kind of theoretical ideas discussed within the ecological economics community. Should impacts be evaluated through the allocation of values or criteria by experts in a paternalistic manner? Or should they be fixed through some sort of democratic consultative process and, if so, who should be involved in the deliberative process (Lo and Spash 2012)?

¹¹ The regional Social Observation Group was an observatory led by the Regional Directorate of Youth, Sports and Social Cohesion (DRJSCS), which is a regional administration of the State. The group shares experiences and knowledge on the observation and evaluation of public policies.

¹² Since 2016, the Grenoble Alpes University.

The broadening out of the approach made it possible to involve other groups of actors (citizens, elected representatives, associations). It provided the opportunity to bring together interpretive communities which were already close to each other because of the involvement of some members in the two communities, for example through the IBEST group and the informal “Wealth” (“*Richesses*” in French)¹³ network. This informal network involved the Catholic Committee Against Hunger and for Development (CCFD), academics working on IBEST and other associations (CIP, Ecole de la Paix) and aimed to convince local actors of the need to break away from a worldview guided by the pursuit of increasing economic growth. This expansion of the interpretive communities tasked with reconsidering indicators of sustainable wellbeing led to the organization in June 2018 of an international forum for living well in Grenoble under the impetus of a group of institutions involved in the two interpretive communities (CCFD, CREG-GEM-PACTE, Metro, City of Grenoble, etc.). Attendees at the forum (Bhutan and Ecuador among others) brought a view that was in sharp contrast to traditional views of socio-economic development. They were of the view that emerging economies should seek to avoid following the same development trajectory as that of today’s advanced economies. Instead, they would try to inspire each other, and even the advanced economies, through a radically different vision of development and social sustainability measured in a way that would take greater account of the specificities of different communities.

Over time, the actors involved in the Grenoble IBEST initiative coalesced around five intersecting criticisms of past practice, which constituted a common set of values for this interpretive community:

- 1) Criticism of the narrow view of local performance based on economic growth and related indicators of purely economic attractiveness;
- 2) Criticism of the social and environmental unsustainability of the current organization of the socio-economic system;
- 3) Criticism of the lack of visibility of certain social and environmental dimensions of local performance;
- 4) Criticism of the harmful effects of the “New Public Management” approach with its focus on narrowly defined and economically motivated “key performance indicators” which have had a seriously damaging effect on the functioning of many public-sector organizations;

¹³ See <https://blog.ccfid-teresolidaire.org/rhone-alpes/pages/Semaine-Content-pas-comptant>

5) Criticism of the excessive emphasis on dysfunctions instead of highlighting actions to improve the situation in the metropolitan area.

The emphasis placed on each of these criticisms was more or less marked depending on the background of the actors involved. For example, at the start of the experiment in 2009, academics underlined the perverse effects of a performance-oriented logic (Le Roy and Offredi, 2011) while policy professionals put greater emphasis on the need to break away from a negative view of territories (Clot, 2010). However, the position of most of the actors lay “somewhere between situational ethical concern and militant activism” (Offredi and Laffut, 2013, p. 1010). The views of the actors evolved and were refined through the interaction between the interpretive communities involved, while they maintained the goals of renewing how socio-economic organization and progress were viewed and of moving beyond the narrow economically focused GDP indicator (and its variants). It is clear now that these different relations (prescribed or not) are very specific to this initiative in that they do not take the form of subcontracting between the different communities; the collective dynamic on sustainable wellbeing continues to be co-constructed through regular discussions. Indeed, the regularity in the relationship seems to have helped to create a base of shared values.

4.2 SPI: social progress assessed at the global level

We now turn to the interpretive community and the institutional embeddedness of the SPI. The origins of the SPI are very different to those of the IBEST. From the beginning, the goal was to develop a global index which could be rolled out to different levels and territories (see Fig. 2).

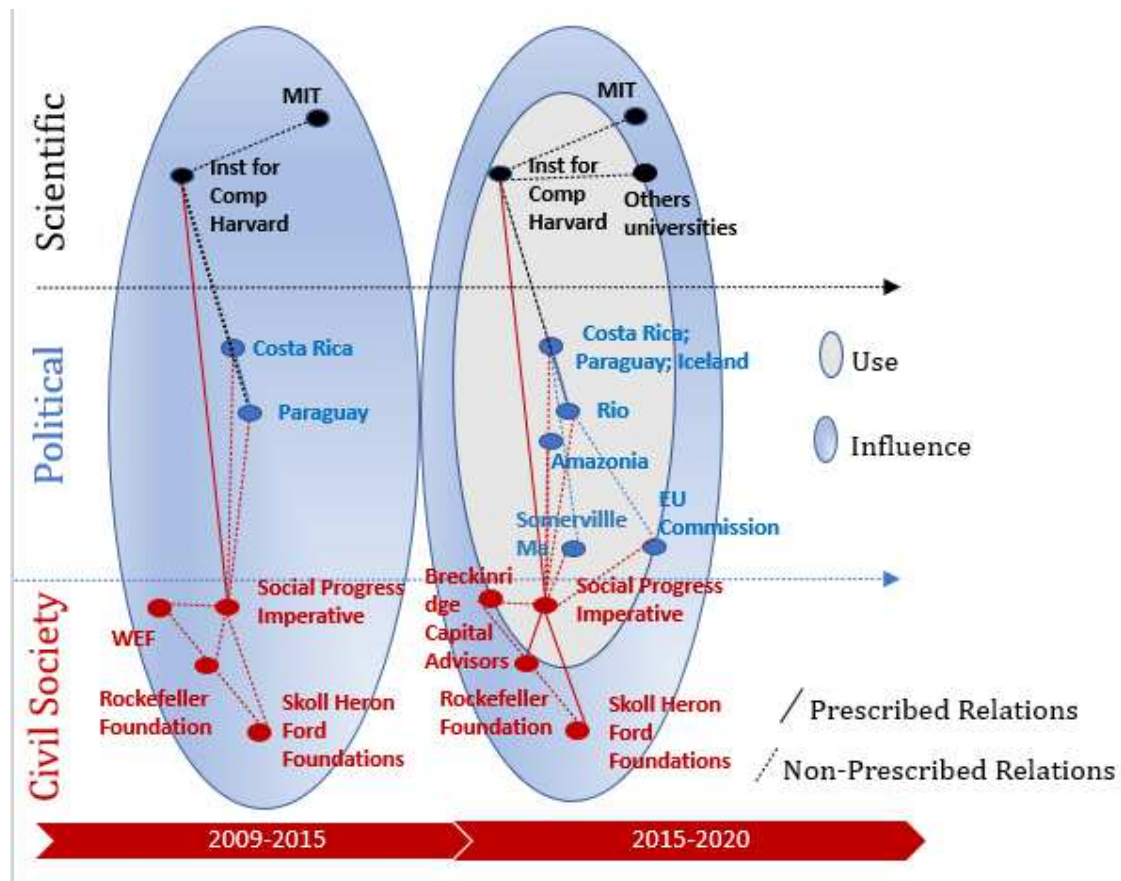


Figure 2: The Organizations and States involved in SPI

Source: authors

The SPI was launched and diffused through a network of powerful actors at the international level. Renowned academic researchers acting in concert with wealthy foundations enabled it to have an impact on the world stage and to command an international media presence. The academic, financial and media resources behind SPI are incomparable to those of IBEST.

The SPI did not originate as an academic initiative to produce better indicators. It is therefore different from many academic initiatives in respect of alternative indicators, which have not attracted much attention from policy-makers (except, perhaps, from the United Nations, which sponsored the Human Development Index and the *World Happiness Report*), as the idea of the SPI was born in 2009 from the World Economic Forum's Global Council on Philanthropy and Social Investment. With regard to the arenas involved (the second set of criteria of Bauler's [2012] analysis), the process of developing the initiative seems similar to that of the IBEST, as the initial group, which comprised various civil society actors, quickly sought to bring in academic expertise to guarantee the intellectual quality and credibility of

the index, the development of which was their first priority. Of course, the level and power of the actors involved in the two initiatives were very different.

The general idea of the initial World Economic Forum council was that mere philanthropy was doing little to promote sustainable social development, and that intelligent and innovative social investments by companies and/or government players could make a difference by creating the conditions for long-term sustainable development. This was in line with Michael Porter's and Mark Kramer's ideas on creating shared value (Porter and Kramer, 2011). But if they wanted to move from philanthropy to social investment and innovation, a comprehensive new indicator of social progress – in addition to the traditional GDP indicator – would be needed to assess the social impact of such investment. The Social Progress Imperative was therefore created to meet this need. The primary purpose of this non-profit entity was to contribute to social development in less-privileged areas through judiciously directed social investment. The overriding goal of the Social Progress Imperative, whose founding members included players from the business, academic, public policy, philanthropy and non-profit sectors, was to develop a new index, namely the SPI. However, while the day-to-day leader of the SPI initiative Michael Green has a mixed public policy and an academic background, most of the initial actors were academics or representatives of business (e.g., Deloitte) or of various NGOs and foundations (e.g., Skoll Foundation, Rockefeller Foundation) with an interest in matters related to development.

On the academic side, the SPI had the expertise of such renowned economists as Michael Porter (Harvard Business School [HBS]) and Scott Stern (Massachusetts Institute of Technology [MIT]), while Michael Green (chief executive officer of the SPI) was an economist by training and had worked at the highest level in Whitehall, the British civil service. Michael Porter, who has become the leading academic representative of the SPI, promotes an essentially optimistic vision of the potential of market-driven capitalist economies to produce and enhance wellbeing. While, in the past, his work was focused on competitiveness in supply chains in a way that was wedded to a narrow conception of “economic” value and to growth of GDP as the ultimate economic indicator, from as early as 2006 and from his seminal (post-financial crisis) article with Mark Kramer in 2011, Porter has moved away from this narrow conception of the role of firms being to generate “economic value” (stakeholder benefits) towards a much broader concept, which they call “creating shared value” (Porter and Kramer, 2011). Indeed, in their article, Porter and Kramer talk about companies contributing to social progress, saying: “Businesses must reconnect company success with social progress” (ibid, p. 62). Their views on shared value creation,

therefore, dovetailed well with the Social Progress Imperative's goal of measuring social progress to gauge the effectiveness of economic and social development policies.

From our reading of institutional embeddedness, we can say that IBEST and SPI mobilized different networks of actors while sharing the objective of developing a non-monetary indicator focused on social dimensions. Given the involvement of the different actors (scientific, civil society, political), we can say that the two initiatives originated at the crossroads of the civil society and scientific arenas, but the interpretive communities involved are very different in terms of their institutional weight and the vision of these actors. These differences in institutional anchoring have an effect on the indicators, the collective dynamics and the social and scientific contexts.

5. IBEST and SPI: the effects of interpretive communities on the indicators, on collective processes, and on the social and scientific context

We now apply our analytical framework for characterizing the three types of effects of interpretive communities:

- 1) substantive effects which correspond to the influence of interpretive communities on the content of the indicators produced (5.1);
- 2) procedural effects which refer to the influence of the interpretive communities involved and of their relative power on the process itself (5.2);
- 3) contextual effects which correspond to the transformation of information collection systems and of the social and scientific contexts of the communities involved. (5.3).

5.1 Substantive effects: effects of the interpretive communities on the indicators

How the different interpretive communities involved in IBEST and SPI affected the process of refining the indicators during their construction differed greatly, as we will now show.

The IBEST experiment demonstrates that the process of developing indicators involves a type of trade-off which takes account of the involvement of different interpretive communities. Indeed, the involvement of elected officials and professionals in the process is a way to keep pace with the concerns of public actors and to improve the salience between the

concerns of policy actors and the indicators developed. The use of a survey questionnaire involving researchers from different disciplinary backgrounds (CREG, PACTE, LIG laboratories, Grenoble Ecole de Management) was one way to increase the “credibility” (Bauler, 2012) of the indicators developed. Moreover, linking the quantitative component with the three steps of the participatory component gave social, scientific and ethical legitimization to the experiment and, thus, to the dimensions and indicators developed in the process. Taking a participatory approach to the process widened the circle of interpretive communities involved, and should not just be seen as legitimizing the approach. The effects of the involvement of inhabitants, associations and professionals can be seen in the conventional and technical construction of the indicators; indeed, the results of the quantitative survey were reworked through the participative approach in what we call a “crossover of methods” (Ottaviani, 2015). The challenge of this coordination process was to put the approach’s “stamp” on the indicators that were designed. The crossover between the results from the quantitative and participative parts of the investigation led to the determination of eight dimensions of sustainable wellbeing (see Table 3).

In the participatory approach, participants emphasized the importance of the interaction between the different dimensions: *“the new indicators are the links between indicators and we don’t have that [...] We have to understand the links”* (Citizens and activists, Hybrid forum, 2014). In others words, *“these questions are to be approached from a transversal perspective”* (Director General [DGS in French] at Grenoble-Alpes Métropole, 2017).¹⁴ These links refer to the transversal dimension of sustainable wellbeing and the need for people to keep a holistic approach in the analytical construction. For example, they underline that *“For each of us, the natural environment is connected to elements of wellbeing”* (Citizen’s opinion, 2013); or with regard to health, that investing in prevention could involve investment in modes of transportation with a lower environmental impact (because of its geographical configuration, Grenoble suffers from damaging pollution peaks with very poor air quality in high pressure weather conditions). This position of associations, public professionals and citizens being in favor of a strong and transversal concept of sustainability – which was in line with the positioning of the researchers involved – was then captured in statistical format by the researchers. They translated the outcomes of the participatory process by, for example, retaining certain associations between the indicators (contrary to what is generally practiced) or by adopting a standardization method involving the definition of

¹⁴ See <http://grand-a.aurg.org/documents/RA-journal-des-projets.pdf>

sustainability thresholds. The setting of dimensions, indicators or even thresholds is therefore not the result of an aggregation of individual opinions, but of a “social truth” based on a type of non-aggregated generality emerging from collective deliberation (Davis and Whittington, 1998). They are “procedurally-formed, non-aggregated and socially constructed” (Zografos and Howarth, 2010, p. 3407). A further effect of interpretive communities is their extended scope for taking account of social exclusion and inequalities.

In the case of the SPI, the prototype version of the indicators can be considered as an academic exercise whose goal was to test the index on about 70 countries. It was developed under Porter’s direct supervision. The international dimension of the approach and the type of interpretive communities involved means that the task was more to ensure the scientificity of the approach than to make a participatory dimension central to the process of constructing indices. The lexical field used by official websites (Deloitte, SPI, European Commission, etc.) supports this concern: for example, the term “robustness” is used repeatedly in the official presentation of the SPI;¹⁵ the SPI provides the “very best data”.¹⁶ The traditional criteria which were used to construct the index support its credibility and its international extension: aggregation of individual preferences, determination of the importance of individual indicators in the components according to their statistical weight, etc. While this has certainly helped to give scientific legitimation to the SPI, it has also opened the index to a degree of criticism, suggesting that there is some bias in favour of wellbeing considered from a purely individualistic perspective over the consideration of inequalities (Cassiers et al. 2015). By 2019, the index covered 146 countries, including some of the largest in the world. Beyond its use by economic actors, it is in the academic community that the index has attracted most support and interest (SPI, 2017). This is hardly surprising as the index is very credible for the scientific community (Bauler, 2012) when compared to the traditional criteria of scientific validation, and it was constructed by experts. The academic power of the Harvard Business School (HBS) network, which ensures the dissemination of the experiment via its Institute for Strategy and Competitiveness, also gives it weight.

5.2 Procedural effects: influence of interpretive communities on collective processes

¹⁵ An example on the Indian website dedicated to the SPI: <https://socialprogress.in/social-progress-initiative/>

¹⁶ See <https://www.socialprogress.org/about-us/who-we-are>

There are considerable differences in the dynamics of the experiments linked to their visions of how to improve the socio-economic organization carried out by the interpretive communities involved in IBEST and the SPI.

The SPI, with actors such as the Rockefeller Foundation¹⁷ and Massachusetts Institute of Technology, advocated a universalist vision of the measurement of socio-economic development with the aim of producing an index with global coverage. However, for IBEST, the aim was not for the set of indicators to be reused in other territories, but that the approach should inspire a reappraisal of the meaning and the priorities of socio-economic organization. In the case of IBEST, given the lively interaction among the interpretive communities, the final set of indicators can be seen very much as a “boundary object” (Bauler, 2012, p. 42) between the interpretive communities with their different values and agendas with regard to social specificities. Neither set of indicators is an end in itself;¹⁸ rather, they are a tool for convergence, or at least for debate, towards new visions of socio-economic progress, of how policy actions can promote such progress and how the effects of such policies can be measured.

There are differences between IBEST and the SPI in the material power of the networks of actors involved as well as in the mode of and the place accorded to the participatory approach in the experiment. The SPI can be used in a variety of ways that are as different as the actors and the territories involved. This wide dissemination of the index across very different territories in terms of their economic, social and cultural settings can be explained – through reasons that go well beyond quantification of social progress – by the influence of the network of the actors involved. While Michael Porter’s Institute for Strategy and Competitiveness has the ability to disseminate ideas and analytical tools through its worldwide network of associated universities and professional schools,¹⁹ the foundations involved are able to mobilize local political actors and economic organizations looking for tools to promote their social impact.

¹⁷ On the philanthropic universalism of the Rockefeller foundation, see Tournès (2007) and Smith (2009).

¹⁸ Gláucia Barros, director of the Fundação Avina in Brazil, member of the Brazilian Social Progress Network Commitment: “*An ethical concern with this tool is that the IPS does not become an end. It is an instrument, a pretext, first of all to become aware of what a society of wealth really is and, then, to be able to exercise a concept of co-responsibility and collaboration*”.

¹⁹ The institute has established a HBS affiliation system with universities, which gives them privileged access to their educational materials, while constituting a dense network of academic actors, promoting “shared values” and competitiveness.

We can also see a contrast between a vision of society in terms of “stakeholders” (SPI) and a vision focused on “citizens” (IBEST) as described by Soma and Vatn (2014). These two visions are linked to differences in the interests of these two types of participants. Soma and Vatn (2014, p. 325) underline that to “act as a citizen implies considering values and views about what is the better thing to do for the community one belongs to” whereas “a stakeholder is somebody having a specific stake in a certain decision”. A similar contrast is suggested in the work of Frame and O’Connor (2011) when they distinguish between indicators based on “external assessment” and “integrative assessment”²⁰. The civil society involved in each of the experiences differs, particularly from the point of view of the vision carried by these interpretive communities.

The SPI responds, rather, to a logic of stakeholder interests as evidenced by its indicator in the Amazon. Indeed, the convergence of actors to discuss the SPI in this region has been of concern to large companies such as Natura and Coca-Cola who are anxious to ensure the viability of their supply chains in the region. There, the SPI has served as a collective deliberation aimed at bringing together the economic interests of these firms and the socio-economic interests of the populations of the territory. The indicators have been adapted to the local context, but their validation has remained the responsibility of the *Social Progress Imperative*. In such cases the SPI may serve more to adapt territories to companies than to contribute to the global transformation of economic logic. At the same time, it must be said that advocates of SPI, and Porter in particular, do not see an inherent conflict between economic logic and a new vision of social progress (Porter and Kramer, 2011, p. 62–63).

The challenge for IBEST is to participate in a type of “statactivism” (Bruno et al., 2014). The regular participatory event (held an average of four times a year) to discuss and deconstruct the data constructed with elected officials and citizens demonstrates that the communities constituted by the researchers and professionals shared a common concern to keep the process open. There is no claim of universality but an attempt to carry a “polyphonic conception” (Frame and O’Connor, 2011) of the common good (Daly and Cobb, 1989) which integrate the particularisms. This polyphonic conception corresponds to the admission of multiple points of view. This position is in contrast to the search for a “silver bullet” indicator of sustainability (Frame and O’Connor, 2011, p. 4).

²⁰ The setting of assessment criteria by external stakeholders is not neutral and often responds to a logic of control in relation to their interests. On the contrary, an integrative assessment aims at a collective and complex definition of assessment criteria that go beyond individual interests.

However, both approaches retain the conviction that social progress and sustainability can be promoted most effectively through cooperation among different social actors. Both initiatives (even if not for the same reasons) regard having an open and transparent process of constructing indicators as important and, in line with this, the results are publicly online for free.

5.3 Contextual effects: effects of the interpretive communities on social and scientific context

While IBEST has resulted in the revision of the scientific validation criteria and a transformation of the expert's posture (Le Roy and Ottaviani, 2017), the SPI retains a traditional conception of the scientific validation criteria (Ottaviani, 2015). IBEST's posture can be described as post-normal science. The communities involved adhere to this posture for three reasons: 1) the communities involved considered that scientific knowledge is subject to strong uncertainty; 2) there are no universal truths but there are social truths which are situated territorially and historically (Spash, 2012, p. 45); and 3) a pluralistic conception of knowledge is useful to challenge and complement expert knowledge; there are "different legitimate perspectives and ways of knowing" (Funtowicz and Ravetz, 1993, p. 754).

More broadly, the actors involved in the two indices do not have the same view of social sustainability. The SPI actors refer to social performance whereas those involved in IBEST talk of common good and wellbeing. While IBEST clearly challenges the conception of territorial development in terms of competitiveness and economic growth, the SPI is more attached to competitiveness and economic growth.²¹ Certainly, the SPI does not include economic growth or any analogous aggregate economic variable in its assessment of social progress, but it is still attached to investigation of the correlation between economic growth and social progress as measured by the SPI (SPI, 2019). This ambivalence within SPI about GDP may explain why it has generally been regarded both by its scientific designers and by those who have adopted it as an indicator that is complementary to GDP and economic growth rather than as an outright replacement for it. At present, only Paraguay and Iceland have officially adopted the SPI as an indicator of social development performance, and GDP per capita is also still measured in these countries. In Porter's view, GDP and GDP per capita

²¹ This also applies to local experiments. On the Rio SPI website, we can read: "The justification for this model is that economic growth is a necessity, but not a sufficient condition for human development". See <http://www.ipsrio.com.br/o-que-e>

can be retained but strictly as measures of aggregate production and productivity. This conception in terms of “inclusive growth” is shared by the founder members of Social Progress Imperative.

These differences in values between the interpretive communities have different transformative effects on the social system of information and the logic of actors.

The Grenoble policy professionals originally wanted to develop new indicators to overcome the difficulties encountered by the actors tasked with evaluating the city’s policy (Clot, 2010). Although responding to this need for evaluative information was the first explicit use of sustainable territorial wellbeing indicators, other needs have since emerged. These new uses are linked to the strong involvement of professionals in the process of constructing indicators when creating metropolitan policy for 49 municipalities (the majority of which are rural). The public policy professionals use these new indicators to assess the territory’s problems (around aging, inequalities, social vulnerability) and they increasingly rely on them in publications for elected officials and the wider population. Leading on from this, and in connection with the chosen method of normalization, which makes it possible to identify the distance between the current and a sustainable situation (Ottaviani, 2015, p. 324), another use has emerged: i.e., helping to steer public action by pointing to the path between a “problematic” situation and a sustainable situation in terms of it having a “social floor” and an “environmental ceiling”. The dimensional indices (ibid.) that were created in this manner reveal that, at a time of metropolitization, there are issues that are common to all of these territories. Beyond these common issues, the results of the IBEST also show the relevance of having differentiated territorial policies for specific policies (e.g., living environment and health).

These indicators are now used for observation and evaluation purposes. However, using them to steer public action has not yet been effective even if the metropolitan area’s council has voted to use them as a baseline for their public policies. IBEST has disrupted the existing information systems, particularly the “silo” tendencies that are characteristic of so much of public policy action. There is therefore still a gap – a lack of “salience” – for IBEST in that its ability to structure public policy action falls short of the transversal vision of the indicators. These indicators are therefore not directly institutionally compatible with and usable by public actors. Therefore, what matters is less the use of indicators as such than the logic of questioning that this type of approach allows. This is why professionals who are

familiar with this transversal approach to wellbeing use it to develop qualitative evaluation for public policies concerning social isolation of the elderly, policy against poverty, etc. The inhabitants of the development council – some of whom were involved in the participatory events – have also adopted this approach and have been using it to propose an alternative evaluation framework for the territorial coherence plan and the local inter-municipal urban planning plan.

The SPI follows a much more transversal system-type of approach to macro level development policies, which require a cross-ministerial approach to policy-making that does not fit easily into the current structures of government bureaucracy/ministries. This, together with the fact that the SPI can present a different picture of socio-economic performance to GDP for some countries, and in some cases paints a very unflattering picture of the effectiveness of public policies, has certainly hindered its uptake in certain political circles and policy-making communities. The results can be embarrassing for politicians and policy-makers especially at the level of international comparisons of social progress. For example, the USA, with increasing GDP per capita over the last four years, has regressed in its SPI ranking, from 19th to 26th in the world, for those same years (2016–2019).

Thus, despite its global, even universalist, ambition there is clearly a wide degree of variability in the use and influence of SPI. This can be explained by Bauler's (2012) analysis of the importance of institutional embeddedness of an indicator for its dissemination. As we noted earlier, the SPI, while bringing together diverse actors, is still very much an international initiative by economic, philanthropic and academic actors. It can even be described as being a top-down initiative compared to IBEST, which is more bottom up. The initiative began from a World Economic Forum side event and was taken up enthusiastically by some development aid actors and foundations, and subsequently by many powerful academics, but throughout the process there was serious underrepresentation of the actual politicians and policy-makers who would be called upon to use the index as a day-to-day, or at least an annual, appraisal tool for social achievements and social progress. At the European level, even though an SPI for EU regions is available online (SPI, 2016a), there has so far been little evidence of the effects of its adoption by the European Commission or Parliament as a key criterion for judging the effectiveness of EU regional policies.

If, in line with other well-known aspects of Porter's work, the SPI can be interpreted as an indicator contributing to the measurement of the competitiveness of territories, it is not surprising that the highest degree of practical adoption and use of it as a tool for influencing

policy has been at the local level. In addition, the lack of statistics at the local level may also be a reason for increasing coordination between the various actors involved, as it would be favorable towards expanding the interpretive communities and renewing the interpretive communities involved. SPI indices are now presented as a real policy tool for identifying political priorities for the 81 cantons of Costa Rica (SPI, 2016b) and, more recently, as a tool for assessing the sustainability of tourist destinations (UNWTO, 2017). There, the indicators serve as objects of discussion with citizens to bring about transformative action.²² At the local level, the SPI has had some difficulty establishing itself as a steering instrument and remains complementary to conventional performance indicators. Thus, in the City of Somerville's municipal documents, the SPI is presented as a contributor to the political objective of "collaborating with other departments to streamline service delivery, identifying cost savings, improving customer service, and enhancing overall performance" as well as identifying the "key performance indicators (KPIs)" (City of Somerville MA, 2020). The city has carried out a survey²³ to measure residents' satisfaction several times (every two years since 2011). This survey has similarities with IBEST's survey and testifies to transformations in the local statistical architecture. Thus, local elected representatives have lent their support to the initiative to produce a SPI for the Somerville municipality which would use the available data on their territory (City of Somerville MA, 2016, p. 34, and City of Somerville MA, 2018, p. 36). This process, which was led directly by the mayor through his Office for Innovation and Analytics, was less open to a broader participatory approach than IBEST.

In addition, as mentioned above, the SPI was created to make regional comparisons within countries or between territories (cities or urban areas) and to measure social progress over time. This aim was clearly aligned with the interpretive communities involved at the beginning of experiment. In 2017, India adopted the SPI as an indicator to measure progress on social development issues in 50 states. Municipalities in some countries (especially in Argentina, Brazil and Peru) have adopted modified versions of the SPI by using it as a key indicator of the effectiveness of policies. The logic is still one of social benchmarking (Bruno and Didier, 2013): compare in order to "optimize". In line with this conception, financial institutions and social investment groups have adopted the SPI to assess social and environmental risk for credit worthiness. The SPI is also being used for social investment.

²² See <https://atlascorps.org/a-social-impact-tool-the-2016-social-progress-index-for-the-cantons-of-costa-rica/>

²³ See <https://data.somervillema.gov/Happiness/Somerville-Happiness-Survey-responses-2011-2013-20/w898-3dfm>

The aim is “to identify cities and counties that are achieving sustainable, inclusive growth so investors can maximize opportunity and minimize risk” (SPI, 2017, p. 64).

6. Conclusion

Table 4 synthesizes the effects of interpretive communities. Our analysis has shown that the two experiments have brought about complex social transformations of varying nature. It has also revealed that interpretive communities extend to groups of actors with shared values and beliefs. The epistemic differences between the two experiences appear to be greater than their theoretical or technical differences.

Three broad categories of effects	Synthesis and adaptation of the criteria proposed by van den Hove (2001)	IBEST	SPI
Substantive effects	More pertinent indicators from the environmental point of view	Sustainability thresholds	Absence of critical thresholds
	More pertinent indicators from the economic point of view	Social inequalities Rise in generality non-aggregative	Individual Freedom Rise in generality aggregative
	More socially acceptable indicators	Citizen categories Preference as “procedurally formed, non-aggregative and socially constructed”	Expert categories Pre-existing preferences
	More robust indicators from the technical point of view	Post-normal science	Classical scientific criteria (positivism)
Procedural effects	More dynamic and open	Common good	Stakeholder

	processes	Particularism	Universalism
	Improved power of influence of less organized interests	Weak actors	Powerful actors
Contextual effects	Change in the practice, the system of information and the conceptualization of the social context	Plurality of uses and transversal vision of public action Break with benchmarking Radical transformation of socio-economic organization	Plurality of uses and transversal vision of public action Social benchmarking Inclusive growth
	Change in the practice, the system of information and the conceptualization of the scientific context	Post-normal	Classic conception

Table 4 – Effects of interpretive communities

Source: authors

We view our research as exploratory. While the concept of interpretive communities seems to us to bring “added value” to the study of the dynamics of actors linked to this type of experience, and to the study of social, political and scientific transformations that go beyond the study of decision-making, the blurring of the boundaries between communities seems to us both as a fruitful contributory factor and a limit associated with this approach. It is fruitful because it allows to take a less rigid approach than that based on participation, or via arenas²⁴, which better reflects the open nature of the dynamics studied. This is a weakness because their identification is not systematic and may therefore be open to criticism. Some participants belong to more than one community and participants may enter and exit the processes as they

²⁴ It should be recalled that we consider the participatory approach as particular approach that involves the citizens of a territory in a determined space and time. Following Bauler (2012), it exists three possible pairs of political “arenas”: politics and science, society and politics, and society and science.

wish. Our research paves the way for other work that could take a historical and/or ethnographic perspective to refine the contours of the study of interpretive communities. As individuals are at the crossroads of several interpretive communities and participate in their re-composition, a study of the individual trajectories of the actors involved in this type of experiment would make it possible to reveal the levers and opportunities that lead to this re-composition.

Beyond the content of the indicators themselves, the interpretive communities involved act as a vehicle for the dissemination of specific values and practices which do not necessarily reflect the entire axiological content of the indicators. Malay (2019) showed that “rankings from indicators initiated by powerful stakeholders are highly correlated with rankings according to GDP, demonstrating a low transformative potential”. The social transformations brought about by the SPI’s interpretive community appear to be more “conservative” than those of IBEST, both from the social and scientific points of view. However, this conclusion should be nuanced in view of the specific dynamic of the SPI, which appears to have had a variety of effects: mobilization of actors through participatory action in the territories, transformation of local policy, assessment of financial risks and social benchmarking. We can therefore assume that beyond the interpretive community that initiated the project, other communities are emerging which can interpret and use the indicators for purposes different from those of the community that designed them.

Our analysis reveals that regular occasions for collective discussion (more developed at the local level) appears to contribute to the constitution of communities of value and practices which are not reducible to the formal commitment of an institution. Rather than specific and circumscribed times for participation, it is the creation of spaces that are not circumscribed in time, such as third places²⁵, at the intersection of communities that appear to be most conducive to giving substance to deliberative ecological economics to ensure the renewal and transformation of existing interpretive communities.

The transformation of scientific knowledge also raises questions about how researchers are involved in this type of space: how do researchers seek to modify communities, and how are their own postures transformed by their involvement? In this respect, designers of the SPI appear to be in a top-down position (by determining the content of the indicators and the methodology of the approach) and less so in a position that can be disrupted by these places of collective discussion.

²⁵ Third places refer to the collective place that is not the workplace or home and contribute to creating social interaction.

The comparison of IBEST and the SPI highlights the importance of interpretive communities in shaping the political agenda that is promoted by collective experiences involved in the development of alternative indicators. Our analysis shows that, to study the contribution of this type of experience of alternative indicators in greater depth, it is necessary to analyze the positioning of the involved interpretive communities through a political and ideological angle.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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