

# BDC

Università degli Studi di Napoli Federico II

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### **Inner Areas Regeneration and the Circular Economy Model**



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Università degli Studi di Napoli Federico II

Via Toledo, 402  
80 134 Napoli  
tel. + 39 081 2538659  
fax + 39 081 2538649  
e-mail [info.bdc@unina.it](mailto:info.bdc@unina.it)  
[www.bdc.unina.it](http://www.bdc.unina.it)

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## Inner Areas Regeneration and the Circular Economy Model

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### Scenarios for a common system of Strategic Environmental Assessment for urban and territorial planning in Italy

*Scenari per un sistema comune di Valutazione Ambientale Strategica per la pianificazione urbana e territoriale in Italia*

Andrea Giraldi<sup>a,\*</sup>

#### AUTHORS & ARTICLE INFO

<sup>a</sup> Architect, PhD in Urban and Territorial Planning

\* Corresponding author  
email: [giraldi.andrea@gmail.com](mailto:giraldi.andrea@gmail.com)

#### ABSTRACT AND KEYWORDS

##### Scenarios for a common system of Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) in the field of urban and territorial planning is a peculiar form of policy evaluation. SEA differs from evaluations applied to policies in other fields and is undergoing changes over time. This article briefly analyzes a horizontal comparison between the main aspects of assessment in different fields of public policy and then a diachronic comparison between different approaches to SEA applied to urban and territorial planning over time. From this analysis, it is possible to affirm that SEA, differently from other assessments, is not centralized, doesn't have external evaluators, is not performance-oriented, and does not imply the allocation of financial resources. Two possible scenarios for the future of SEA are drawn: an optimistic one in which a formal-bureaucratic approach is abandoned in search of more substance, and a more pessimistic one in which SEA is used as a tool to dismiss substantial critiques of urban and territorial planning. Under these two scenarios, some proposals for the improvement of the SEA system are described, also through a critical reading of some innovations in environmental assessment structures in Tuscany.

**Keywords:** Strategic Environmental Assessment, urban planning, territorial planning, Agenda 2030

##### Scenari per un sistema comune di Valutazione Ambientale Strategica

La Valutazione Ambientale Strategica (VAS) nel campo della pianificazione urbana e territoriale è una forma peculiare di valutazione delle politiche che differisce dalla valutazione applicata alle politiche in altri campi e sta vivendo nel tempo un mutamento di approccio. Questo articolo analizza brevemente prima un confronto orizzontale tra i principali aspetti della valutazione in diversi campi delle politiche pubbliche e poi un confronto diacronico tra diversi approcci alla VAS applicati alla pianificazione urbana e territoriale nel tempo. Da questa analisi è possibile leggere che la VAS a differenza di altre valutazioni non è centralizzata, non ha valutatori esterni, non è orientata alla performance e non implica l'attribuzione di risorse finanziarie. Vengono tracciati due possibili scenari per il futuro della VAS: uno ottimistico in cui si abbandona un approccio formale-burocratico per uno più sostanziale; un altro più critico per il quale la VAS è una forma di costruzione del consenso. Nell'ambito di questi due scenari vengono descritte alcune proposte di miglioramento del sistema di VAS, anche attraverso la lettura critica di alcune innovazioni nelle strutture di valutazione ambientale in Toscana.

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**Parole chiave:** Valutazione Ambientale Strategica, pianificazione urbanistica, pianificazione territoriale, Agenda 2030

## **1. Strategic Environmental Assessment: fragmented experimentations of a single definition**

The assessment of public policies takes different forms depending on the scope of application (educational policies, urban planning policies, social policies, etc.), and depending on the regulatory context of the reference territory, with differences between Europe and other spatial areas, but also with differences between European states. For certain policies such as urban and territorial planning, the different ways of applying environmental assessment are based on a single theoretical reference taken at the level of European Directives, followed, however, by a plurality of procedural declinations according to national and regional regulations, and a fragmentation of local application cases. If this fragmentation indicates a freedom of experimentation and adaptation to contexts, the state of the art within the Strategic Environmental Assessment (SEA) is represented by the absence of a global-local-global supply chain and the poor comparability between assessments of different local contexts. From this arises the need to explore Scenarios for a common system of SEA for urban and territorial planning in Italy, examining how the evaluation is applied to other policies, how the SEA has changed shape over time, what are the future scenarios and how could be improved some ongoing examples of a coordinated evaluation system.

## **2. Scenarios for the SEA as a peculiar form of policy evaluation**

### *2.1 Horizontal comparison between assessment in different fields of policy*

The SEA differs from different kinds of evaluation applied to other fields of public policies, such as:

- Evaluation of scholar education, promoted in Italy since 1999 by the National Institute for the Evaluation of the Education and Training System (INVALSI).
- Evaluation of universities and their results in research, promoted in Italy since 2006 by the National Agency for the Evaluation of the University and the Research System (ANVUR).
- Evaluation of the performance of public administration, which is promoted in Italy by Independent Evaluation Bodies (OIV).

INVALSI and ANVUR carry out performance-related evaluation procedures, with centralized coordination. ANVUR finalizes the assessment of university merits with the distribution of a share of ministerial funds (Stockmann et al., 2020, p. 282), and the indicators of the INVALSI tests are also used as a criterion for the distribution of economic resources to schools.

The performance of the public administration has undergone reform in the last fifteen years. Today it is assessed by OIV as a decentralized system external to the institutions, also aimed at attributing productivity bonuses to public employees (2020, p. 287). Table 1 compares some characteristics of the evaluation processes in place in Italy in different sectors.

Which useful elements emerge from this comparison? What emerges is the distinction of SEA from the assessment of other public policies. SEA differs in all the aspects that evaluations in the other areas have in common instead. The absence of centralization and of distinction between the evaluator and the evaluated subject, and also the poor consequences in terms of bonus/malus based on monitoring outcomes, emerge as weaknesses of SEA, but at the same time they open the opportunity to experiment with a soft standardization scenario, yet to be explored. This fragmentation of evaluation processes also emerges at the European level, from

the comparative analysis between different sectors in different states (Stockmann et al., 2020, p. 483): the institutionalization of public policy evaluation is still a process in progress, in which the evaluation community carries out autonomous experiments not fully felt to be necessary by the technical and political components of society, nor supported by demand from the public. On the contrary, the internationalization of public policies (Agenda 2030, European Directives, etc.) presses for the institutionalization of a global-local-global chain.

**Table 1. Assessment in different policy areas in Italy**

<b>Field (and evaluating body)</b>	<b>External evaluator</b>	<b>Centralized management</b>	<b>Performance oriented assessment</b>	<b>Imply the attribution of financial resources</b>
- School (INVALSI)	X	X	X	X
- University (ANVUR)	X	X	X	X
- Public administration (OIV)	X	X (coordination)	X	X
- Environmental impact of urban and territorial planning (Competent Authority for VAS)	O the authority is independent but strictly connected to the public proponent	O only recently are appearing some experiment of soft standardization of SEA at regional level	O monitoring is due but not controlled	O

Source: The author's elaboration of Melloni in Stockmann 2020

## 2.2 Diachronic comparison of different approaches to SEA in Italy

The SEA is undergoing a mutation of approach since it was introduced by the European Union with Directive 2001/42/EC and implemented in Italy with Legislative Decree 152/2006, even if in some regions an evaluation of plans and programs was already envisaged in some areas, such as urban planning (Tondelli, 2013).

Since its introduction, it is possible to read a mutation in the approach to evaluation:

1. in the past, a procedural and experimental approach to evaluation of public policies, which is a practice developed in Anglo-Saxon public administrations and in the private sector (Stockmann et al., 2020, p. 275), was initially introduced in Italy as a mandatory procedure for obtaining European funds and for the environmental impact assessment envisaged by the European directive 85/337/EEC, transposed by law 349/1986: this first period was characterized by a certain implementation of the new tool;
2. in the present, a formal approach to evaluation: after an initial phase of experimentation, evaluation in Italy is experiencing a second period in which it is formally practiced as a routine in many areas of public administration, with a bureaucratic, passive approach, with the result of formal-compilatory evaluation practices;
3. in the future:

3.1 optimistic scenario: time is ready for a transition to a third phase in which the formal-passive approach is abandoned for a new substantive-strategic evaluation (Marra, 2017; Stockmann et al., 2020).

3.2 pessimistic scenario (opposite to the optimistic one): it is time to abandon evaluation because it is a tool that doesn't create balance among transformative forces but, on the contrary, a tool by which the strongest subjects are preserved (Boarelli, 2013). In the field of urban planning, this approach looks at SEA as a form of greenwashing that sidesteps conflict between different points of view. This scenario is not intended to improve the internal architecture of SEA; it poses a deeper question about the whole framework and the philosophical principles behind evaluation.

Comparative analyses between states, not only in Europe (Monteiro et al., 2018), explore how different governance contexts can influence the future development of Strategic Environmental Assessment. SEA is not detached from the context of cultural and institutional values; on the contrary, it is "influenced by the context" and its effectiveness is linked to the ability to adapt to the governance environment. Consequently, the ability to move from a formal assessment approach to a substantive one, or on the contrary the threat of reducing the procedure to a mere greenwashing operation, also depends to some extent on the context of national and local governance.

### **3. In the optics of an optimistic scenario, improving the substance of SEA**

Going into the specifics of what is meant by "formal" instead of "substantive" evaluation, some critical issues of the SEA applied to urban planning instruments are listed in this paragraph, deducing them from the literature and from direct experience:

1. the absence of a basic data set (Campeol, 2020, p. 8; Pagni & Lattarulo, 2014) and a set of indicators at local level, standardized at European level (see an example in paragraph 5.1), updated constantly by states, in coherence with the ONU's Agenda 2030, that must be used in SEA to permit a comparative evaluation between SEA of plans applied to different contexts. The basic data available on trends, policies, and the state of the environment are numerous, but at the moment they are neither coordinated nor updated or structured at a central level based on sustainability objectives and shared indicators. It leaves to each proposing authority great discretion, which has so far allowed a certain amount of experimentation but at the same time has gone to the detriment of an objective and transparent reading of the adequacy of the conclusions drawn. Nevertheless, it involves an unbalanced expenditure of energy on data collection with respect to interpretative synthesis and strategies;
2. the absence of a basic set of quantitative limits, thresholds, and goals, standardized at the European level (in part a proposal can be found in the SEA for the urban plan of Lucca, described in paragraph 5.1): this absence permits the presence of self-attributed environmental objectives, self-promotion of the choices made a priori, and self-certification of the verification of consistency with higher-level and sector instruments, set in a generic way, leading to a lack of transparency and traceability of the evaluation process (Besio M. e al., 2013; Tondelli, 2013, p. 251);
3. the absence of effective directives for the stoppage of soil consumption at an European level, which is a strong limit to the concrete impact of the SEA. Evaluation is a weak tool for assuring sustainability objectives for urban and

territorial planning at the local level if these are not strongly defined at the central level. And it is not only an environmental matter. Consumption of soil, even if only as a formal act contained in urban plans, is an economical subsidy for municipalities that, at least in Italy, must be limited and substituted with more sustainably produced alternatives. Soil consumption is one of the main synthetic indicators for the negative effects of urban and territorial plans, and it is easily subject to quantitative measuring and regulation; the difficulty is to cut the tie between soil-consuming urban plans and the municipal budget.

If it looks too optimistic to imagine that in a short time the European Union will adopt the internal architecture of SEA described in the three points above, it could be more reasonable to expect an improvement in this direction at a regional level.

#### **4. In the optics of the pessimistic scenario: if SEA legitimates unsustainability**

Adopting the point of view of a radically critical judgment of assessment as a tool with which constituted power legitimated itself (Boarelli, 2013), it is possible to adapt this radical view to SEA in urban planning, with the assumption that the actual bureaucratic approach to SEA is not a transitory approach but the only one possible, because of its philosophical roots in a utilitarian and post-fordist way of management. Under this point of view, SEA, even when shares environmental information with part of society that can't easily get it in other way (Torre, 2010, p. 63), appears as a tool to legitimize choices, whatever their supposed environmental impact, which is a form of greenwashing like many others.

Some proof of this advanced capitalism can be found in the details that characterized many SEA in urban and territorial planning:

- a) postponement of evaluations to subsequent phases.
- b) reduction to statements in the Environmental Report without consequences in the plan rules and without any prescribing impact on the plan.
- c) focus on compensatory and mitigating measures rather than the preventive conditioning of planning choices towards more sustainable approaches (Lamorgese & Geneletti, 2013).
- d) lack of structured and readable data and thresholds, with little use of the potential of GIS and webGIS: a national and regional webGIS could provide much of the information necessary for the SEA, structuring it on the basis of objectives and indicators consistent with environmental policies.
- e) the SEA does not necessarily represent an instrument of public participation in decisions on environmental matters in the application of the Aarhus Convention. Conversely, the bureaucratization of decision-making processes can increase the distance between citizenship and the choices of the bureaucratic and political elite (Graeber, 2015), and the SEA can contribute to the greenwashing of choices already made. There is a formal consultation of the subjects competent in environmental matters, but in some cases the bureaucratic workload to which they are subjected translates into routine and uncontextualized contributions.
- f) recent studies have focused attention on the impartiality of the authority that carries out the evaluation as a condition of effectiveness (Rega et al., 2018), but at the same time, in urban planning, this principle of impartiality is inconsistent with that of the unique decision-making seat and the responsibility assumed by the entity that draws up and approves the plan (Tondelli, 2013, p. 248).
- g) the performance of the plan is not subject to evaluation except marginally, as mandatory monitoring is often excluded from administrative practices.

## 5. Analysis of recent innovation in SEA: the Tuscan context

### 2.2 Diachronic comparison of different approaches to SEA in Italy

The SEA of the new urban plan of the Municipality of Lucca (Giraldi, 2022), has been an experiment of reorganization of the supply chain between the ONU's goals set forth in Agenda 2030, the National Strategy for Sustainable Development (SNSvS) of 2017, and the SEA at the local level. The goals-indicators-data system was based on a selection of environmental goals from the SNSvS, choosing the most pertinent ones (the numbering of goals in Table 2 refers to the SNSvS). The current environmental framework, the trends in progress, the policies in place, and the actions of the urban plan are read through the filter of these national sustainability objectives, which set out the Sustainable Development Goals (SDGs) of the UN Agenda 2030, and give a shared structure to the system of indicators referred to at the local level.

**Table 2. Indicators for goals from SNSvS in the SEA for the Plan of Lucca**

Resources	SNSvS goals	Indicators
AIR	OBJECTIVE: Minimising emissions and reducing concentrations of pollutants in the atmosphere (II.6)	Air quality (exceedances of the threshold)
		Historical series of air pollutants by source (exceedances of the threshold)
		Presence of Municipal Action Plan on air quality (yes/no)
		CO <sub>2</sub> reduction plan (yes/no)
	OBJECTIVE: Reducing greenhouse gas emissions in non-ETS (Emission Trading Scheme) sectors (IV.3)	Precipitation mm/m <sup>2</sup> /month
		Temperature °C/month
		Local action plans to combat overheating (yes/no)
	OBJECTIVE: To reduce public exposure to environmental and anthropogenic risk factors (III.1)	Presence of plants at risk of major accident (yes/no)
		Census of the presence of asbestos (yes/no)
		Incentives for the removal of asbestos (yes/no)
		Regional Plan for the removal of Asbestos (yes/no)
		Noise complaints (Number and type)
		Complaints due to electromagnetic pollution (Number and type)
WATER	OBJECTIVE: Minimising	Presence of Acoustic Classification Plan of the municipal territory (yes/no)
		Monitoring of telephone and RTV stations (yes/no)
		Monitoring electrical stations, power lines and related security distances (yes/no)
		Presence of location plan for telephone and RTV stations (yes/no)
		Quality status of surface water bodies (exceedances of the threshold)

	pollutant loads in soils, water bodies and aquifers (II.3)	Presence of nitrates (exceedances of the threshold)	
		Quality of surface fresh water intended for the production of drinking water (exceedances of the threshold)	
		Quality of surface fresh water intended for the production of drinking water (exceedances of the threshold)	
		Quality status of groundwater bodies (exceedances of the threshold)	
		Real estate units served by sewerage (%)	
		Potential treatment plant (n° inhabitants)	
		Volume Total Treaty [m2/year]	
		Network and sewerage development programmes (yes/no)	
		Real estate units served by the aqueduct (%)	
		Network and plant development programmes (yes/no)	
	OBJECTIVE: Maximising water efficiency and adapting water abstraction to water scarcity (II.5)	Concessions for mineral or thermal waters (yes/no)	
		Water emergency (yes/no)	
		Salt intrusion (yes/no)	
SOIL		OBJECTIVE: Stopping land consumption and combating desertification (II.2)	Loss of utilized agricultural area (hectares)
			Loss of area for arboriculture and woodland linked to agricultural holdings (hectares)
	Degree of utilization of production plants (%)		
	Dwellings not occupied by resident (%) persons		
	Plant nursery (quantitative and qualitative aspects)		
	Cave (m <sup>2</sup> allowed)		
	OBJECTIVE: Preventing natural and man-made risks and strengthening the resilience capacities of communities and territories (III.1)	Settlements in water, geological and seismic risk areas (%)	
		Sites to be reclaimed from soil pollution (m2)	
		Seismic hazard and feasibility plan (yes/no)	
		Hazard and geological feasibility plan (yes/no)	
ENERGY	OBJECTIVE: To increase energy efficiency and production of energy from renewable sources by avoiding or reducing impacts on cultural heritage and the landscape	Hazard and hydraulic feasibility plan (yes/no)	
		Mitigation plan and projects (yes/no)	
		Civil Protection Plan (yes/no)	
		Consumption of electricity supplied in the municipality by type of use (kW)	
		Consumption of natural gas supplied in the municipality by type of use (mc)	
		Electricity distribution network extension and quality (Km)	
		Gas distribution network extension and quality (Km)	
		Energy network expansion plan (yes/no)	

	(IV.1)	Photovoltaic systems (n, kwp, increase %, kW/Km <sup>2</sup> )
		Other renewable energy sources (n, kwp, increase %, kW/Km <sup>2</sup> )
		Policies to promote renewable energy sources (yes/no)
		Control policies for hydrocarbon extraction (yes/no)
		Policies to control the extraction of geothermal resources (yes/no)
WASTE	OBJECTIVE: Reducing waste production and promoting the second raw material market (III.5)	Special waste produced by type (kg/ab)
		Municipal waste produced kg/ab
		Municipal waste produced (t/year)
		Separate waste collection (%)
		Policies for reduction, recovery and recycling (yes/no)
		Waste treated by local plants by type of plant (kg)
		Incinerator control and emission data (exceedances of the threshold)
BIODIVERSITY	OBJECTIVE: To safeguard and improve the conservation status of species and habitats for ecosystems, terrestrial and aquatic (I.1)	Presence of Parks or nature reserves (Km <sup>2</sup> )
		Presence of Natural Sites of Regional or European Interest (Km <sup>2</sup> )
		Warning elements (habitat, species, etc.)
		Equipment of Masterplan or Municipal Green Plan (yes/no)
	OBJECTIVE: To protect and restore genetic resources and natural ecosystems related to agriculture, forestry and aquaculture (I.4)	Presence of local varieties (yes/no)
		Presence areas valuable agricultural (Km <sup>2</sup> )
	OBJECTIVE: Ensuring sustainable forest management and combating forest abandonment and degradation (II.7)	Forests on agricultural holdings (Km <sup>2</sup> )
		Fire registry (yes/no)
	OBJECTIVE: Restoring and defragmenting ecosystems and promoting urban/rural ecological connections (II.4)	Identification and regulation of the ecological network (yes/no)
		Rules and actions for the qualification of the ecological network (yes/no)
LANDSCAPE AND CULTURAL	OBJECTIVE: To ensure the development of	Census of landscape heritage and related sets (yes/no)
		Census of historic roads and settlements (yes/no)

QUALITY	potential, sustainable management and preservation of territories, landscapes and cultural heritage (III.5)	Norms for preservation of Parks, historic gardens and Urban green system (yes/no)
		Norms for preservation of Agricultural and forestry landscape systems (yes/no)
		Norms for preservation of Water management systems and morphological aspects (yes/no)
SOCIETY	OBJECTIVE: To reduce housing distress (I.3)	Public house units (n°)
		Meeting demand for public housing (%)
		Eviction measures (n°)
		Municipal policies of social housing (yes/no)
	OBJECTIVE: Increasing sustainable and quality employment (II.2)	Persons employed by economic activity (n°)
		Municipal policies for employment (yes/no)
	OBJECTIVE: Ensuring accessibility, quality and continuity of training (I.1)	Crèches (% on age)
		Existing and planned schools (m2)
		Kindergartens and project schools and increased receptivity (m2)
	OBJECTIVE: To ensure access to effective health and care services by combating territorial disparities (III.3)	Hospital beds/ inhabitants of the reference basin (n°)
	OBJECTIVE: Increasing sustainable mobility of people and goods (V.2)	Cycle paths (mq/ab)
		Transport infrastructure network planned extension (%)
		Vehicles per capita (municipal and regional media trend) (n°)
		Incidentality (n°)
Urban plan for sustainable mobility (yes/no)		
Byke plan (yes/no)		
OBJECTIVE: Promoting demand and increasing the supply of sustainable tourism (III.6)	Types of accommodation and beds (n°)	
	Attendance and arrivals (n°)	
	Municipal policies for sustainable tourism (yes/no)	
OBJECTIVE: Regenerating cities, ensuring accessibility and ensuring the sustainability of connections (III.3)	Census Degraded areas (yes/no)	
	Urban accessibility (%)	
	Urban regeneration projects (m2)	

Source: The author's elaboration from the SEA for the Lucca urban plan (2021).

The coexistence of the National Strategy for Adaptation to Climate Change (SNACC) and the National Strategy for Sustainable Development (SNSvS, 2017), which set out the Sustainable Development Goals (SDGs) of the UN Agenda 2030, represent an example of how fragmented the structure is and how complex the integration of environmental policies is (Serra et al., 2022). In this framework, the SEA has for some years been recognized as a crucial tool for implementing a chain of global objectives and local actions (Nilsson & Persson, 2017; Ravn Boess et al., 2021). The link between SDGs and SEA is not a sufficient condition to guarantee an effective evaluation, but it is still a viable way to overcome some known limitations of the SEA of urban planning instruments.

The decentralized level at which the SEA operates does not constitute a limit. The national objectives of the SNACC and the SNSvS can be the range from which to draw the environmental sustainability objectives on which the local SEAs are based. Unlike other cases examined in the literature on the first trials of the SDGs in SEAs in Italy (González Del Campo et al., 2020), the international and national environmental goals are not put in place only as a check on external coherence. In Lucca's SEA, global goals structure the whole evaluation, from the organization of data up to ex-post monitoring. This approach can be found also in other SEAs, like the ones for the preliminary urban plan of Cagliari (Marras, 2022), the metropolitan plan of Milan (Mazza et al., 2022), and in the studies on regional planning in Abruzzo (Fiorini, 2022), with a strong link between environmental indicators from ISTAT and ISPRA and the goals defined by the Agenda 2030 SDGs and by the SNSvS. However, energies are still unbalanced on the collection and structuring of information, while they could focus on strategic measures, if a systematic and centralized management of data, indicators, and guidelines on preventive measures were explicitly structured on the basis of national environmental policies, as discussed here in paragraph 2 about the optimistic scenario for the future of the SEA.

### *5.2 The regional software for uniforming SEA context: questions about MINERVA*

Tuscany Region, like many other public administrations, is organizing and publicizing its open data through very useful interfaces for municipal administrations, planners, and citizens in general. After the project Geoscopio<sup>1</sup>, the Region, in collaboration with the University of Florence, is developing an Integrated Regional IT Ecosystem for Territorial Government<sup>2</sup>. An important innovation is represented by the software “Methodology for the Relational Processing of the Environmental Assessment” (Metodologia INformatizzata per l'Elaborazione Relazionale della Valutazione Ambientale M.IN.E.R.V.A. or MINERVA), which is intended as a support for the assessment process and as a form of standardization of the results of the SEAs in the field of urban and territorial planning in the regional context.

Some municipalities have experimented with this software, and the university is applying it ex post to recent urban plans to go deeper with the experimentation. MINERVA has been projected for SEAs referred to in urban and regional plans. The software works as briefly described in the following lines (Aldini et al., 2022):

- Each rule of the plan has to be examined in relation to one or more environmental resources (water, air, etc.) as identified by the European Directive 2001/42/EC of the European Parliament and of the Council of June 27, 2001, classifying time by time each rule as “protection rules” or “transformation rules”.
- Any protection rule has a form to be filled out and boxes to be checked to define various aspects of the norm.
- The same happens to transformation rules.

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- An algorithm processes the data entered, and the software returns a synthetic index of sustainability for each environmental resource, for each rule of the plan, and for the urban plan.

The computerized procedure returns an environmental assessment of the plan. The result can be monitored during the process of planning, modifying critical aspects of the plan, it can be compared between different scenarios when choosing between alternatives; and it can be compared between different plans, which makes that assessment in some way “strategic”.

The algorithm gives a vote between 0 and 2 for protection rules, and a vote between –2 and 0 for transformation rules. For example, a protection rule would get a vote determined by the algorithm based on a multicriteria analysis of this aspect of any rule in the urban plan:

- Internal, external, vertical, and horizontal coherence: is the rule completely or partially coherent with other referred plans.
- A reference to the frame of knowledge on which the plan is based: is the link between the rule and the knowledge framework generic, or is it also based on quantitative indicators?
- Institutional feasibility.
- Prescriptivity: is this rule a general recommendation, a prescription, or even a direct action?
- Deadline: is there a recommended deadline or a programmed one?
- Financial feasibility: are there hypothetical funds or even planned and founded resources?

A similar description can be made for the data-entry prospect for the transformation rule that adds other voices to the ones above, like localization, extension, environmental pressure, and measures of mitigation.

## **6. Conclusions: systematize SDGs, indicators, data, and actions.**

In light of the scenarios defined in the first two paragraphs, a meritorious experiment of regional organization of SEA in urban planning, like MINERVA, is a big opportunity for a better management of SEA, but some questions regard the algorithm that has been chosen:

- Why hasn't a standardized form of evaluation already existing at an international level been used instead of an original new local algorithm?
- Why has MINERVA not used thresholds and qualitative-quantitative goals instead of a multicriterial analysis weakened by a strong discretionality and a big dose of (realistically indulgent) self-judgment by municipalities making their plans?
- Is MINERVA another formal, compilative, and bureaucratic procedure or a step in the direction of a substantive approach to SEA?
- Is MINERVA a way to better avoid greenwashing and promote transparency and participation in urban planning?

MINERVA is a contribution that could promote plans with more concrete rules under the aspects of financial and institutional feasibility, with certain deadlines, certain quantitative indicators, and certain actions, in coherence with the general programming and planning system. But the first few paragraphs of this article suggest some objectives that, in my opinion, could be better focused: it would be very useful to bring the results of the analyses on the relationship between SDGs and SEA to their logical consequences (González Del Campo et al., 2020; Ravn Boess et al., 2021), if specific national or regional guidelines would define a basic number

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of environmental and social goals from Agenda 2030, which through the SNSvS reached the SEA of the single local plan. For this, it is necessary to identify at the state or regional level a basic set of significant and dynamically updated indicators. The aim would not be a strong standardization of the evaluation processes, nor to transform the SEA into a data entry format superimposed on municipalities but rather to provide structured information to local authorities, so as to provide them with basic content connected to a system of policies. This standardization could:

- base its objectives on the SDGs and SNSvS;
- base its set of indicators and thresholds on existent protocols, avoiding the less holistic ones like ITACA, centered on building sustainability but lacking a reading of reality as an environmental, social, economic system (Pinto et al., 2022), and paying more attention to other protocols like the ISO 37101 “Sustainable Cities and Communities” (Ruggiero A. et al., 2022), but integrating qualitative assessment with a shared and synthetic set of quantitative indicators adapted to local plans;
- base its dataset on ISPRA, ISTAT, and elaborations made by regions for defying data at the local level.

In an optimistic scenario, this could be a way of comparing the environmental impact of urban plans, ensuring a collaborative governance instead of an external control or a centralized standardization (Partidário et al., 2023), achieving more sustainability, and choosing how to distribute financial resources (Mazza et al., 2022). In a more pessimistic scenario, it would be a more rational and structured form of perpetuation for a rhetorical ritual of consensus building (Tomasino, 2022).

#### Notes

1. <https://www.regione.toscana.it/-/geoscopio>
2. <https://www.govter.toscana.it/geoportale>

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#### Conflicts of Interest

The author declares no conflict of interest.

#### Originality

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The author also declares that the manuscript is not currently being considered for publication elsewhere, in the present of any other language. The manuscript has been read and approved by all named authors and there are no other persons who satisfied the criteria for authorship but are not listed. The authors also declare to have obtained the permission to reproduce in this manuscript any text, illustrations, charts, tables, photographs, or other material from previously published sources (journals, books, websites, etc).

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