Environmental monitoring and planning
joining forces towards resilient cities and territories

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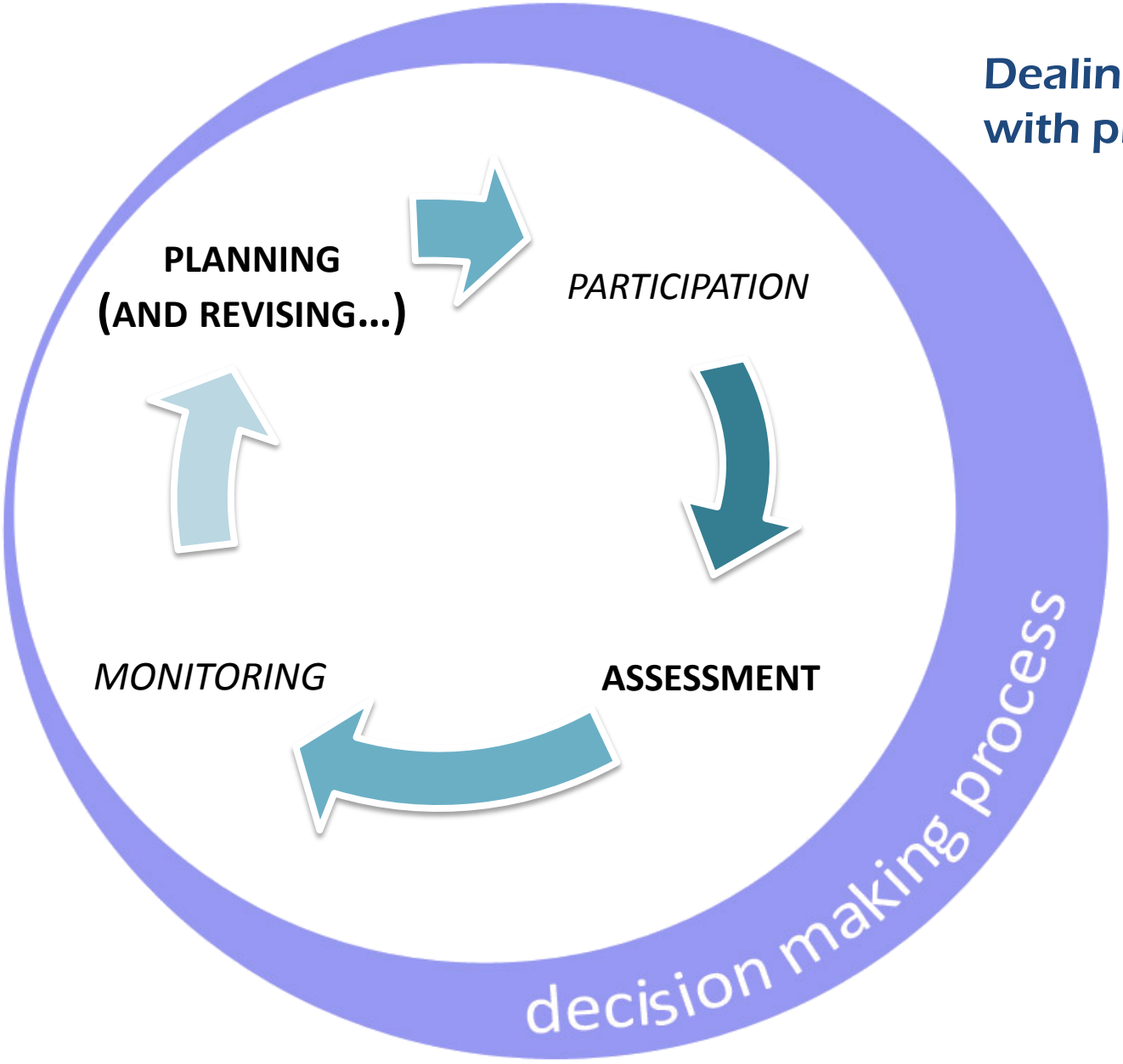


Dealing with SEA is to deal with planning....

to deal with resilience, implying transformation and uncertainty in *space* and *time*, we suggest planning and evaluation activity should be considered within their comprehensive container, the decision making process.

Resilience, territories and monitoring

Resilience as the ability of urban and territorial systems of responding to stress (pressures) and turning to a state of balance

Resilience implies transformation/adaptability of systems (reached state of balance different from the previous one)

dynamic

vs

To support resilience in planning, monitoring

- Return responses to planned and unforeseen environmental and territorial trasformations
- Allow proper intervention on the plan/decision making (continue revising, updating)

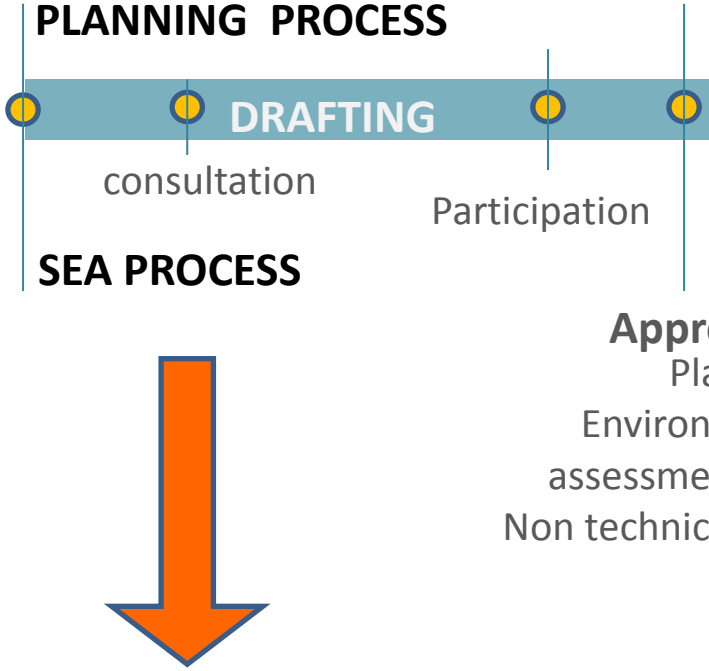
Time
Space

Adaptive management

static Planning as conceived and practiced until now mainly unable to properly face dynamics *(piano processo – iterative process – life cycle)*

Strategic environmental assessment and planning: how can SEA contribute to planning process?

(part of decision making as a whole)



Approval
Plan
Environmental assessment report
Non technical summary

Integrating the environment
(EA of further documents)

Monitoring environmental effects
(participation and information about outcomes)

Revising the plan
(if necessary)

Following the life cycle of the plan (opening to «piano-processo»)

Proposing a structure (plan has to allow the assessement)

Supporting the trasparency of the planning process (unavoidable for undergoing revision)

Strategic environmental assessment and planning: how can SEA contribute to planning process?

- **Participation** (proper timeframe and tools foreseen within the legislative framework. procedure)
- **Integrating the environment** all along the life cycle of the plan (SEA follow up) – overlook on all implementation instruments against fragmentation (EA of further documents)
- **Monitoring** (SEA monitoring also returns the effectiveness of planned actions. A proper plan monitoring is not foreseen at present – except for SF programmes. The plan does not reflect on its effectiveness if not under substantial revision/replacement)
- **Revision** (foreseen by law, still pending and not practiced. Strictly linked to monitoring)

About planning and assessment…

…towards resilient territories, giving room to *multiple rationalities*

The disappearance of universal approaches should lead to a more context-based inspiration for environmental assessment and planning. Also, it has to engage with *competing multiple rationalities* and with conflicts arising from the different *values* they represent and bring into the policy making arena. A tentative and collective ongoing process, led by the so-called *adaptive management* (Holling 1978). Intended in a wide sense, it allows establishing an iterative territorial learning process enriching knowledge and delivering short term outputs for management.

Territorial and urban *adaptability*
(health of environment and ecosystems)

Continuous Monitoring as a tool for assessing the adaptability of territorial systems and for guiding decision making – starting from Dir 42/01 approach and diffusing to planning system

Decision making is dynamic by nature and links plans, policies, programmes and related implementation tools into a territory–tied system.
Decision making as a whole deploys effects, both planned and unforeseen, on the territory it relates to.

What is to be monitored?

State of the environment and of ecosystem services (*context monitoring* - environmental agencies)

Effects - environmental effects deployed by all planning tools and external dynamics
(*plan monitoring* – authority responsible for SINGLE planning – tools for assembling)

Environmental responses to planned and unforeseen actions- continuous monitoring
(updating the state of the environment)

Integrated monitoring of plans, programmes and projects targeted to the same territory

Environmental context

Resilience through assessing

Human and ecosystems health

Social and cultural issues (landscape)

Adaptation and mitigation to climate change

Ecosystem services to people, landscape, global/local relationship

Context monitoring

Long time to check responses and transformations (updating frequency)

Territory based – common to decision making as a whole

Process indicators

Responding in short time (performance indicators - proxy)

Sensitive to collectible information during implementation

Give the chance to draft a trend

Contribution indicators

Longer time to be calculated, direct link to sustainability goals and environmental context issues

Plan monitoring

Need to estimate environmental transformations through observing the implementation phase

Could be shared by different plans and programmes

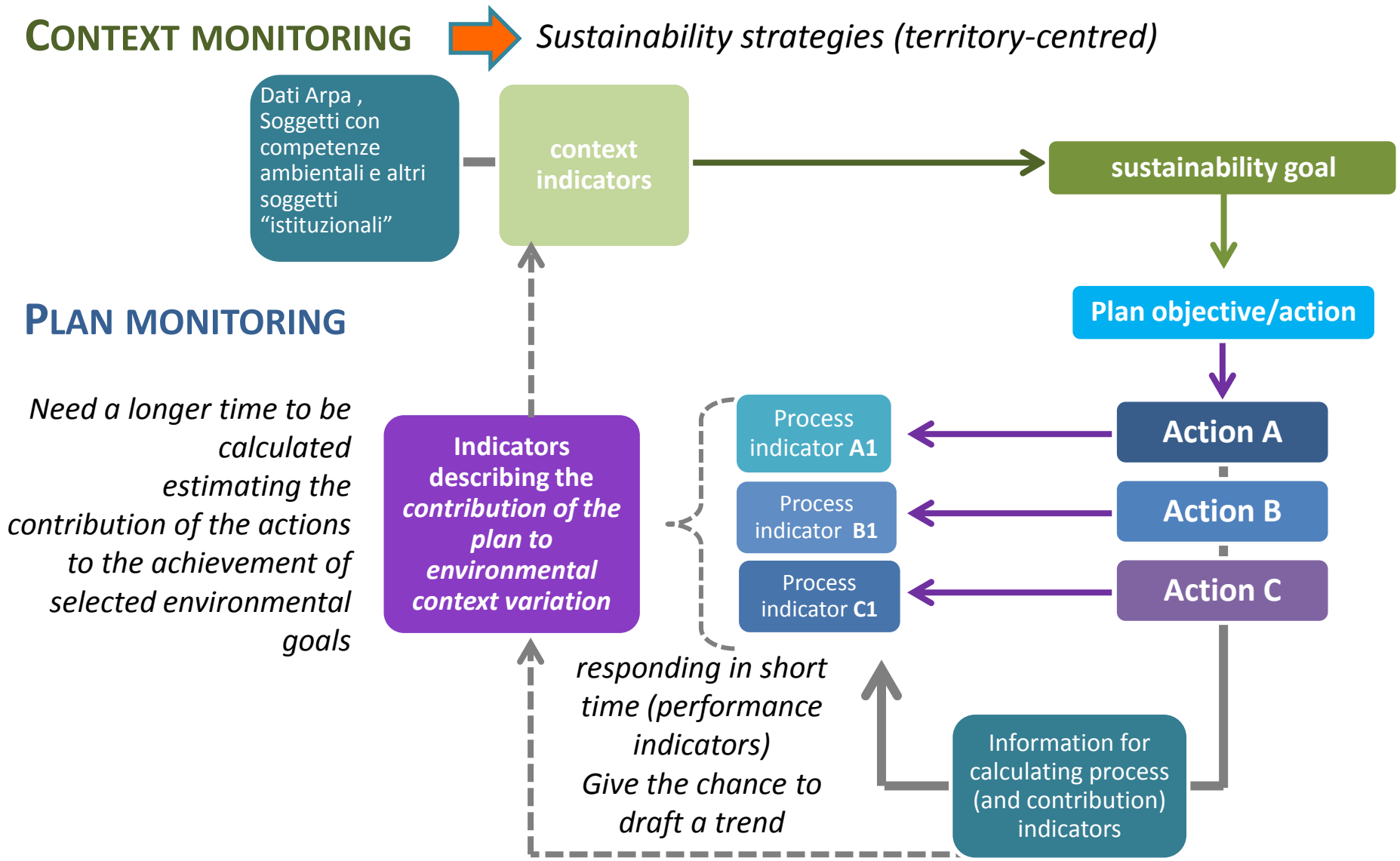
Participation feedback

Returning information useful for interpreting ongoing transformations

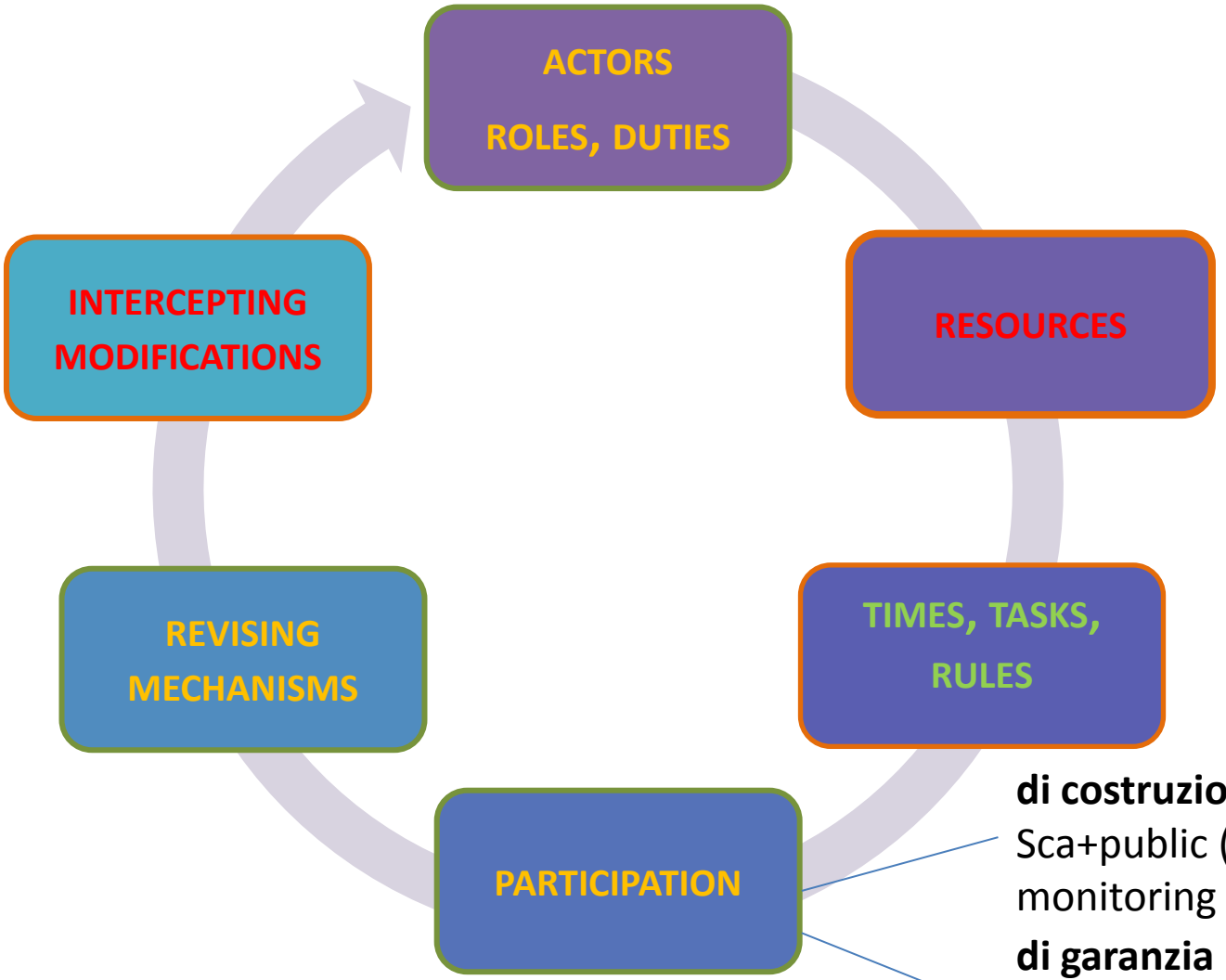
Interaction between environment, society and economy – interdisciplinary

SUSTAINABILITY IN PLANNING...

INTEGRATING MONITORING, FOCUSSING ON TERRITORIES



Integrated monitoring needs a clear “governance scheme”



di costruzione
Sca+public (elaborating monitoring report)

di garanzia
Sca+public (debate on outcomes)

...SOME CONSEQUENCES (for planning and monitoring)

Once defined the scale of planning, the whole planning and policy instruments involving that territory should be taken into consideration for monitoring the environmental cumulative effects induced. In this vision, concerned territory is the focus upon which changes shall be continuously monitored and described through proper shared data and indicators.

By law, environmental assessment procedures must be referred to a single plan, programme or project. But to proper pose the basis for adequate monitoring of their effects common provisions should be put in place and shared at territorial level.

Territorial and environmental dynamics should be interpreted *per sè,* delegating to the single planning component the demonstration of its contribution to changes underway. This step could bring to the full application of the strategic spirit of the SEA, unburdening the single planning and assessment process from context based analysis.

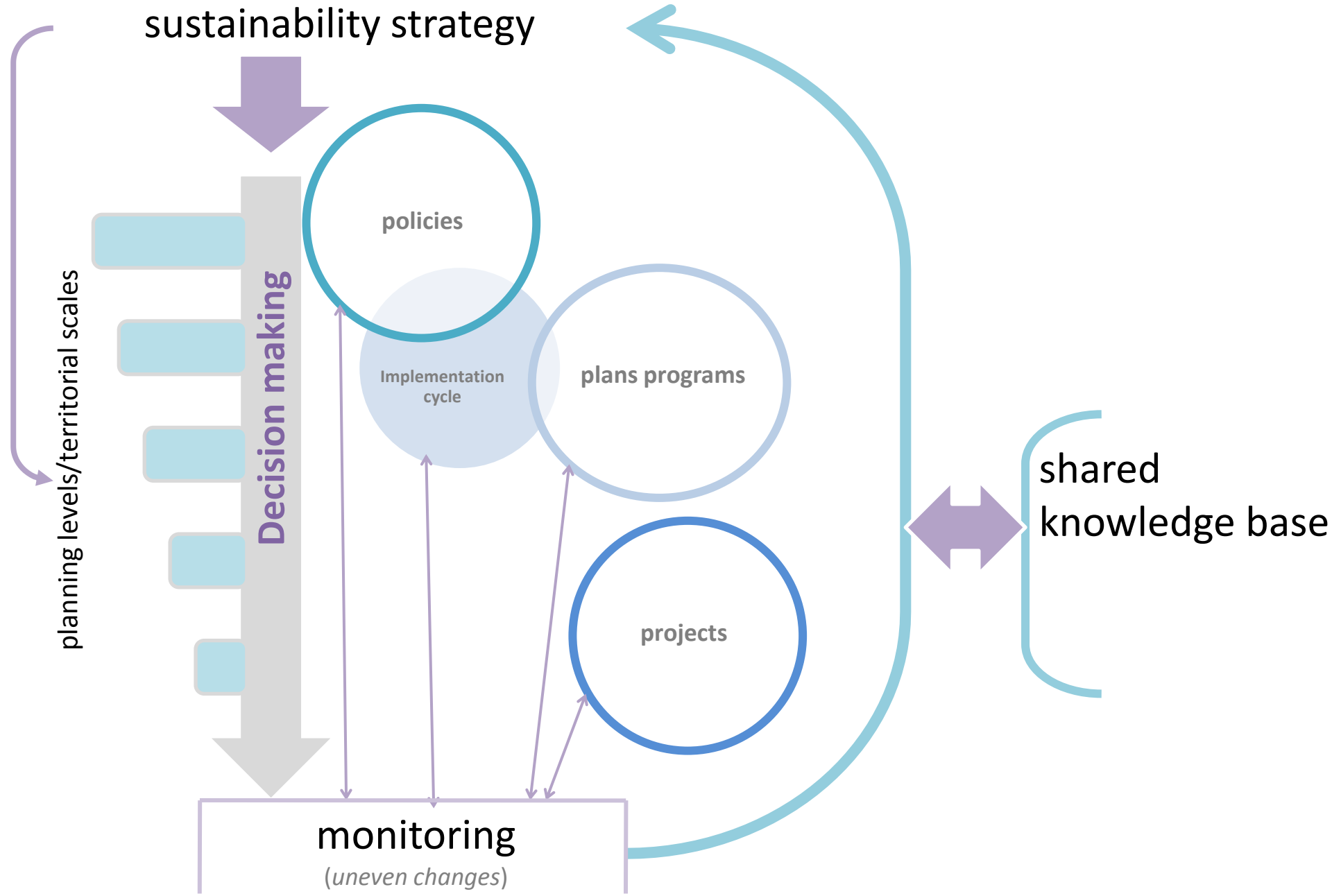
framing environmental assessments
monitoring plans effects (integrated monitoring)

SUSTAINABILITY IN PLANNING...

FRAMING ENVIRONMENTAL ASSESSMENTS

Art. 34 - Italian legislative decree 152/2006 (environmental code) and further amendments

"Sustainability strategies are intended to frame environmental assessments foreseen in this decree. Such strategies, coherently defined at different territorial levels, ensure the dissociation between economic growth and its environmental impact. They have to be carried out through citizens' and third sector participation as representatives of different demands. They also guarantee the respect of conditions of ecological stability, biodiversity safeguard and the satisfaction of social needs linked to the development of individuals' potentials as demanding premises for competitiveness and job growth."


sustainability strategy
planning levels/territorial scales
Decision making
policies
Implementation cycle
plans programs
projects
monitoring
(uneven changes)
shared knowledge base

ADDRESSING DYNAMICS IN DECISION MAKING FOR GOVERNING COMPLEXITY

Some common issues for d.m. constituting elements:

Territorial scale and sector

territories are targeted by several plans, programmes, policies. Mechanisms should be put in action at least for assessing their cumulative socio-economic-environmental Impacts

Implementation rules and tools

directly or through further planning and programming tools. The whole implementation cycle has to be put under observation

Times

every plan has its own timeline. Furthermore, its influence and foreseen implementation tools can overpass expected deadlines and delay for an unpredictable time

Actors

plans addressing the same territory can partially involve common actors and stakeholders, depending on the sector they refer to and on their territorial dimension. For this reason, participation activities should be properly structured, and should follow the whole decision making process chain *(creating a territorial arena..)*

SHARING A KNOWLEDGE BASIS

THE ISPRA CATALOGUE

ID	Tematica strategica da SSS	Obiettivo di sostenibilità generale	Obiettivi di sostenibilità specifici	target	Questione ambientale	Indicatori	Fonte	Unità di misura	Considerazioni	popolabilità nazionale	schede indicatori nazionali
71	Risorse culturali e paesaggio	Protezione e conservazione del patrimonio culturale – SNAA Protezione, gestione e pianificazione dei paesaggi – CEP Tutela e valorizzazione del patrimonio culturale - D.lgs 42/2004	tutela, recupero e valorizzazione del paesaggio - D.lgs 42/2004		Tutela e valorizzazione dei beni Paesaggistici	Ambiti paesaggistici tutelati	MIBAC Fonti regionali	cartografia	http://sitap.beniculturali.it/sitap/	SI	Scheda ID71
72	Risorse culturali e paesaggio	Protezione e conservazione del patrimonio culturale – SNAA Protezione, gestione e pianificazione dei paesaggi – CEP Tutela e valorizzazione del patrimonio culturale - D.lgs 42/2004	tutela e valorizzazione dei beni culturali - D.lgs 42/2004		Tutela e gestione dei beni culturali	Beni dichiarati d'interesse culturale e vincolati da provvedimento	MIBAC Fonti regionali		banca dati con accesso tramite registrazione: http://www.benitutelati.it/	SI	Scheda ID72

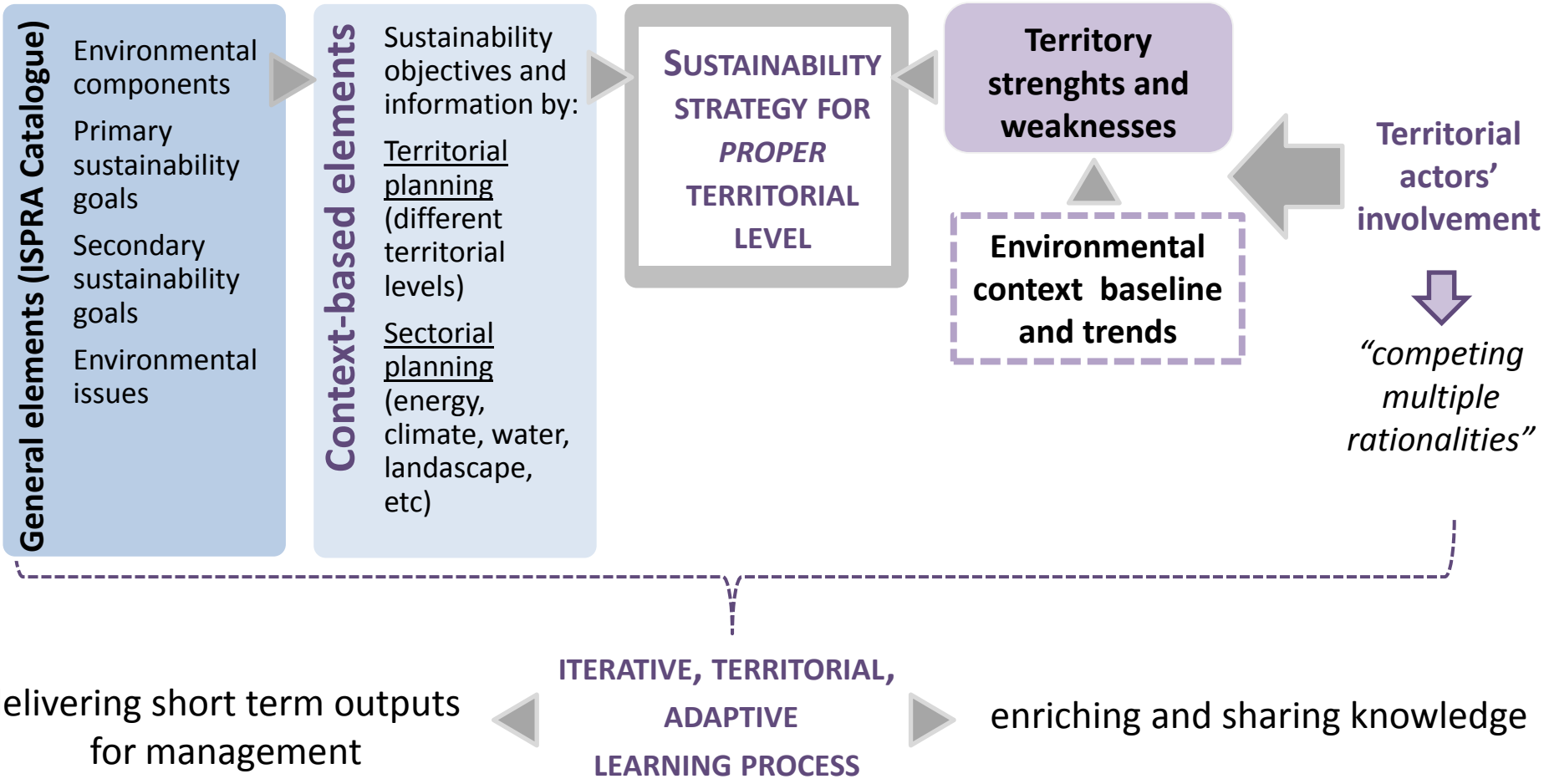
A still ongoing process led to the definition of 72 context indicators, describing 11 strategic themes and 52 environmental issues. 53 meta-information forms available at the moment.

The updating and enrichment of the Catalogue, both for objectives and indicators, have been introduced into the formal duties of the Environment Agencies Network.

The Catalogue contents are supposed to be adjusted case by case for being used at territorial level, guaranteeing a common frame for comparing trends and situations

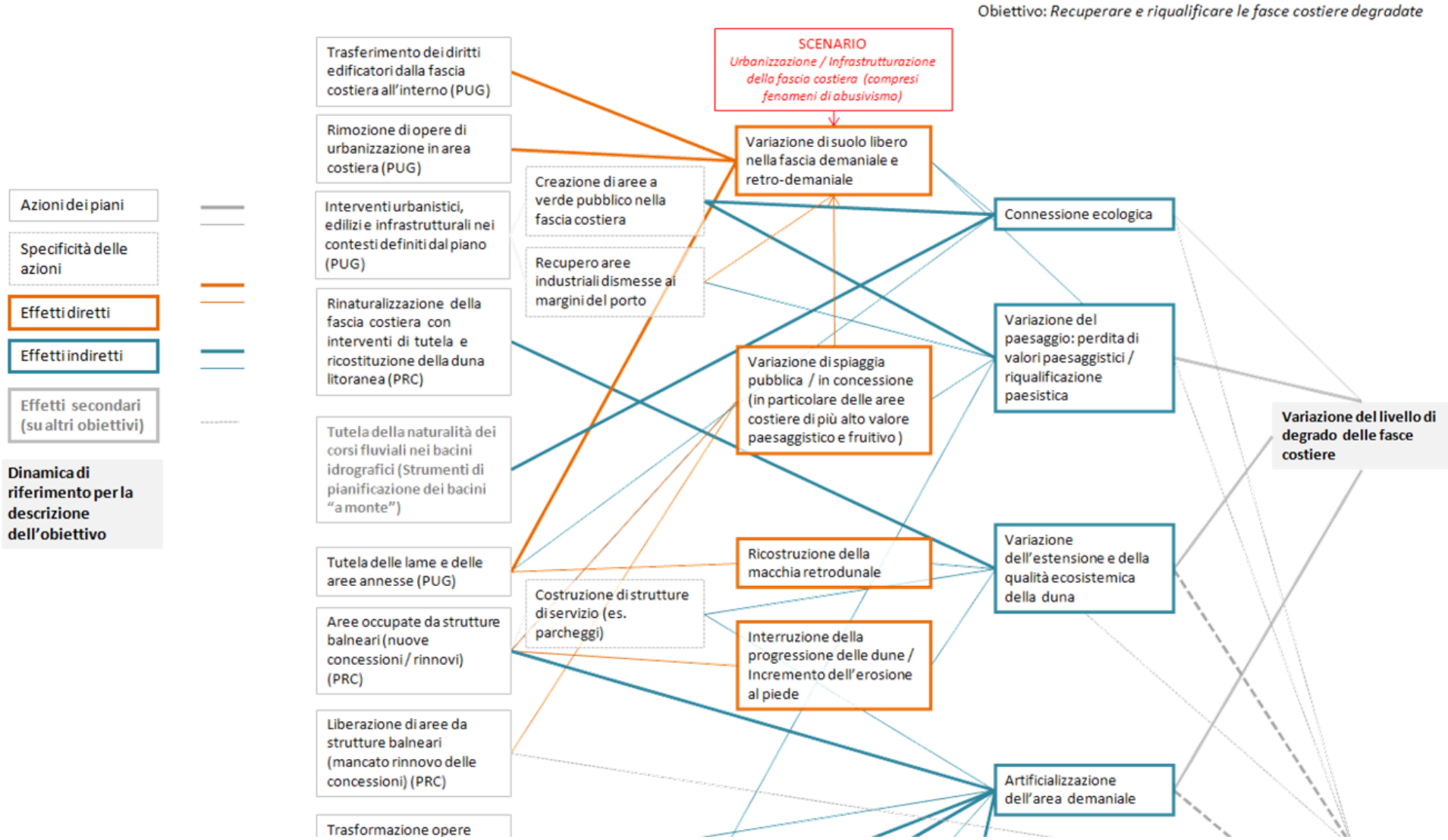
(regional and local experiences actually undergoing)

…as a first step for building strategies..



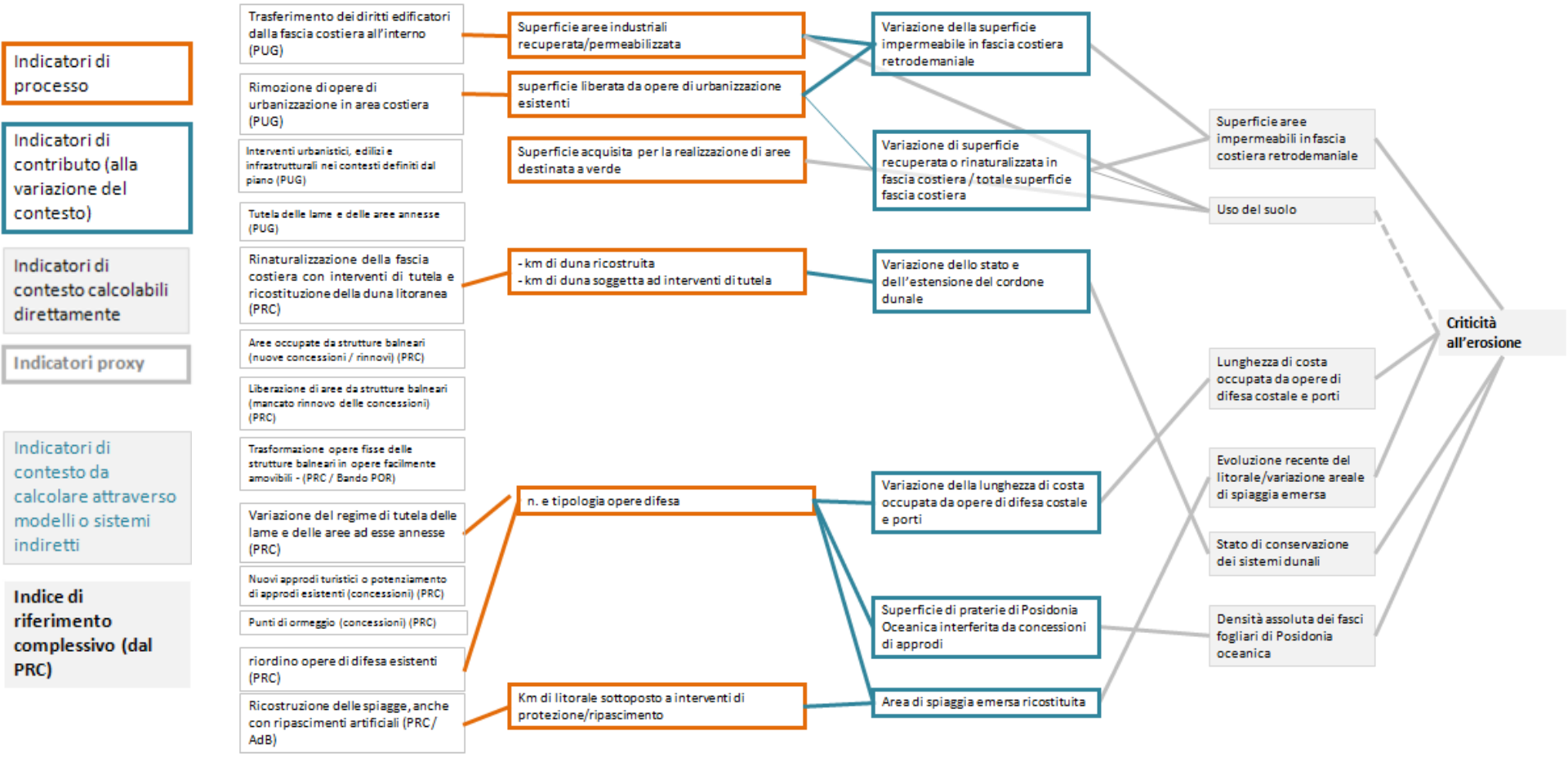
It is a step forward Therivel's decision makers "*thinking SEA*" (Therivel 2012, 263), as it applies to the sustainability of decision making process as a whole and does not infers the uselessness of environmental assessment procedures. Rather, it implies the role of the *territorial arena,* to which the sustainability strategy refers to, in marking the opportunity for constructing *environmental* (and social) *subjectivities* and qualifying related planning and assessment system.

defining performance indicators (process and contribution) in the integrated monitoring system proposed for the Apulia Regional Coastal plan: 1. *characterizing environmental effects*

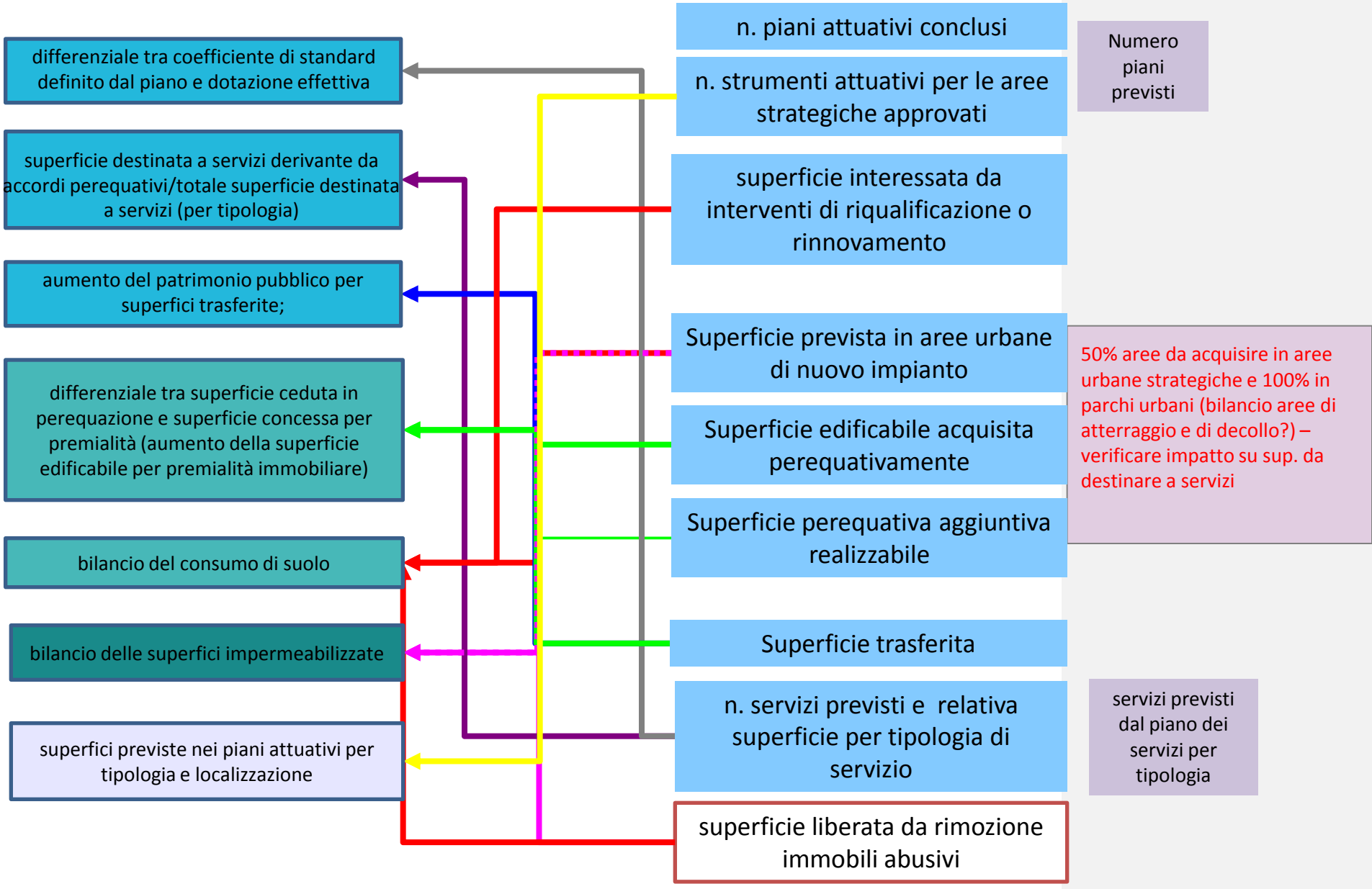


defining performance indicators (process and contribution) in the integrated monitoring system proposed for the Apulia Regional Coastal plan: 2. *from effects to indicators*

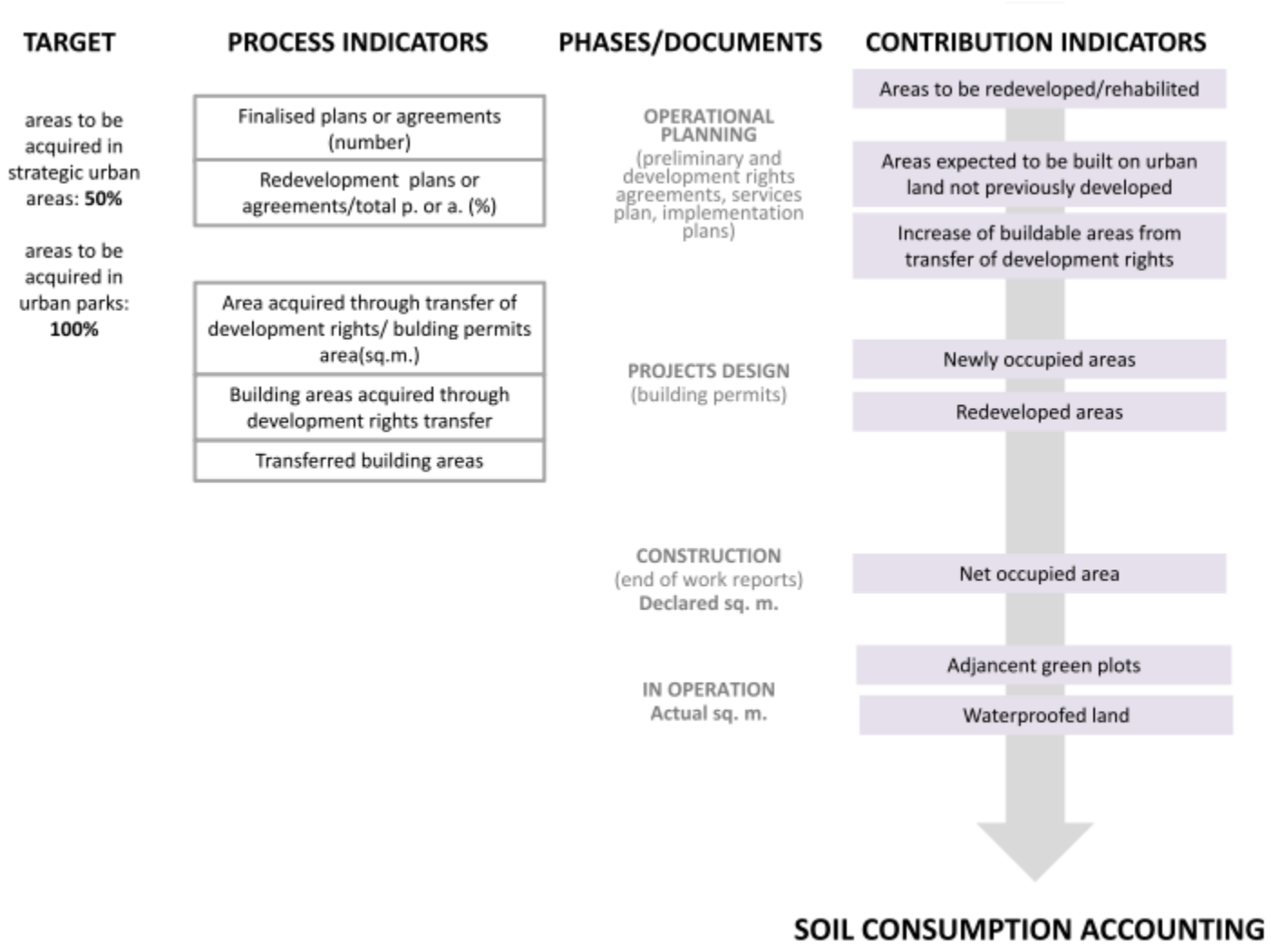
Obiettivo: *Recuperare e riqualificare le fasce costiere degradate*



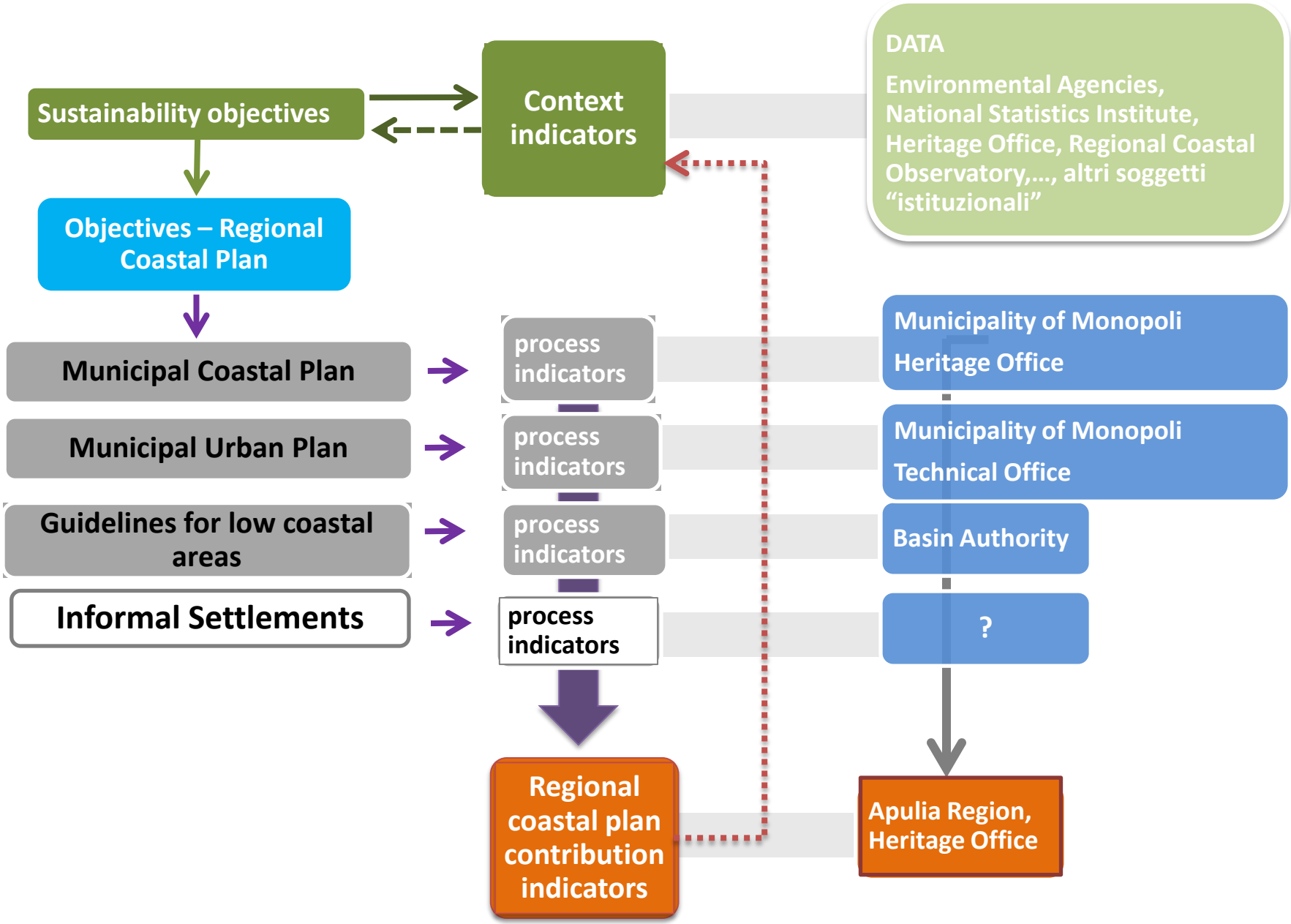
PIANI URBANISTICI ATTUATIVI (Lamezia Terme)



time matters: integrated monitoring system for the Structural Municipal Plan of Lamezia Terme



Governance scheme for Apulia Regional Coastal Plan



Un’esperienza in corso: la VAS dei programmi comunitari e l’approccio alla resilienza dei territori

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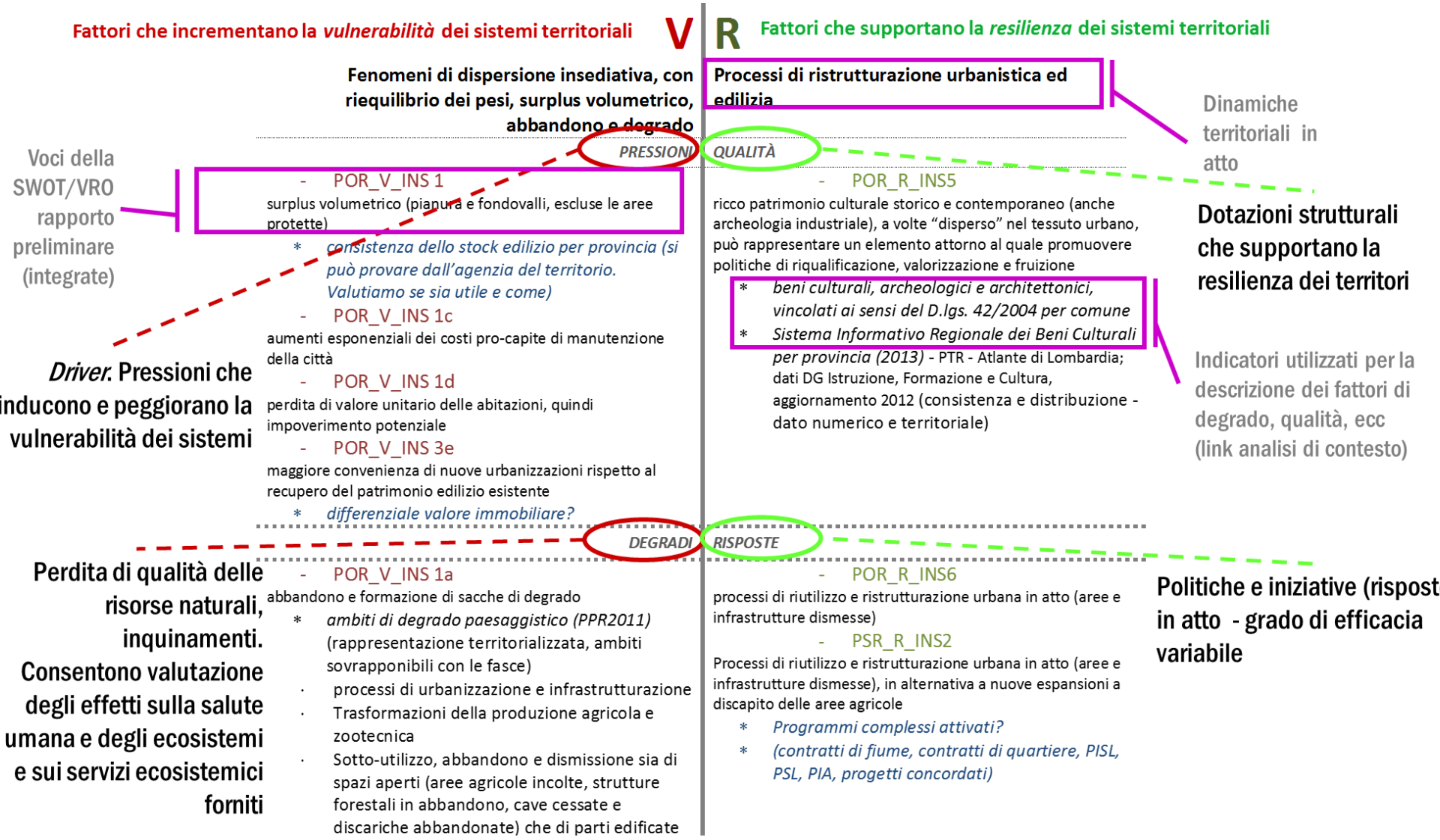
Gioia Gibelli Studio

cosa implica il passaggio da un approccio ambientale «classico»?


Fattori che incrementano la *vulnerabilità* dei sistemi territoriali
V
R
Fattori che supportano la *resilienza* dei sistemi territoriali
Fenomeni di dispersione insediativa, con riequilibrio dei pesi, surplus volumetrico, abbandono e degrado
Processi di ristrutturazione urbanistica ed edilizia
Dinamiche territoriali in atto
Voci della SWOT/VRO rapporto preliminare (integrate)
PRESSIONI
QUALITÀ
- POR_V_INS 1
surplus volumetrico (pianura e fondovalli, escluse le aree protette)
* *consistenza dello stock edilizio per provincia (si può provare dall'agenzia del territorio. Valutiamo se sia utile e come)*
- POR_V_INS 1c
aumenti esponenziali dei costi pro-capite di manutenzione della città
- POR_V_INS 1d
perdita di valore unitario delle abitazioni, quindi impoverimento potenziale
- POR_V_INS 3e
maggiore convenienza di nuove urbanizzazioni rispetto al recupero del patrimonio edilizio esistente
* *differenziale valore immobiliare?*
- POR_R_INS5
ricco patrimonio culturale storico e contemporaneo (anche archeologia industriale), a volte "disperso" nel tessuto urbano, può rappresentare un elemento attorno al quale promuovere politiche di riqualificazione, valorizzazione e fruizione
* *beni culturali, archeologici e architettonici, vincolati ai sensi del D.lgs. 42/2004 per comune*
* *Sistema Informativo Regionale dei Beni Culturali per provincia (2013)* - PTR - Atlante di Lombardia; dati DG Istruzione, Formazione e Cultura, aggiornamento 2012 (consistenza e distribuzione - dato numerico e territoriale)
Dotazioni strutturali che supportano la resilienza dei territori
Driver. Pressioni che inducono e peggiorano la vulnerabilità dei sistemi
Indicatori utilizzati per la descrizione dei fattori di degrado, qualità, ecc (link analisi di contesto)
DEGRADI
RISPOSTE
Perdita di qualità delle risorse naturali, inquinamenti. Consentono valutazione degli effetti sulla salute umana e degli ecosistemi e sui servizi ecosistemici forniti
- POR_V_INS 1a
abbandono e formazione di sacche di degrado
* *ambiti di degrado paesaggistico (PPR2011)* (rappresentazione territorializzata, ambiti sovrapponibili con le fasce)
· processi di urbanizzazione e infrastrutturazione
· Trasformazioni della produzione agricola e zootecnica
· Sotto-utilizzo, abbandono e dismissione sia di spazi aperti (aree agricole incolte, strutture forestali in abbandono, cave cessate e discariche abbandonate) che di parti edificate
- POR_R_INS6
processi di riutilizzo e ristrutturazione urbana in atto (aree e infrastrutture dismesse)
- PSR_R_INS2
Processi di riutilizzo e ristrutturazione urbana in atto (aree e infrastrutture dismesse), in alternativa a nuove espansioni a discapito delle aree agricole
* *Programmi complessi attivati?*
* *(contratti di fiume, contratti di quartiere, PISL, PSL, PIA, progetti concordati)*
Politiche e iniziative (rispost in atto - grado di efficacia variabile