



WP 4: Instruments

28-29th November, 2013
OPERAS Userboard 1, Brussels,
Belgium

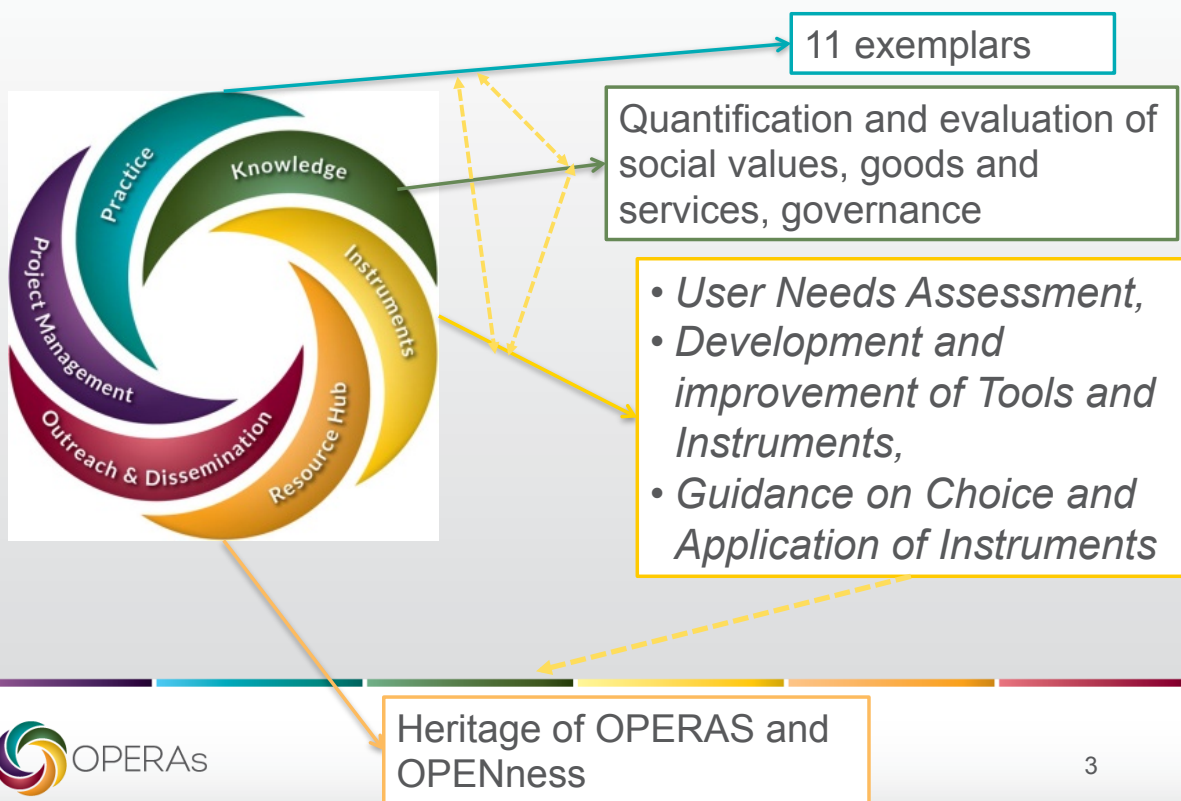


Instruments in Ecosystem Science for Policy & Practice



The WP aims to **develop and improve tools and instruments** that visualise and quantify how ecosystem services contribute to human well-being. The results are **attractive and user-friendly** information, **decision support** and **implementation instruments**, which support sustainable ecosystem management.

WP4 Instruments in OPERAs

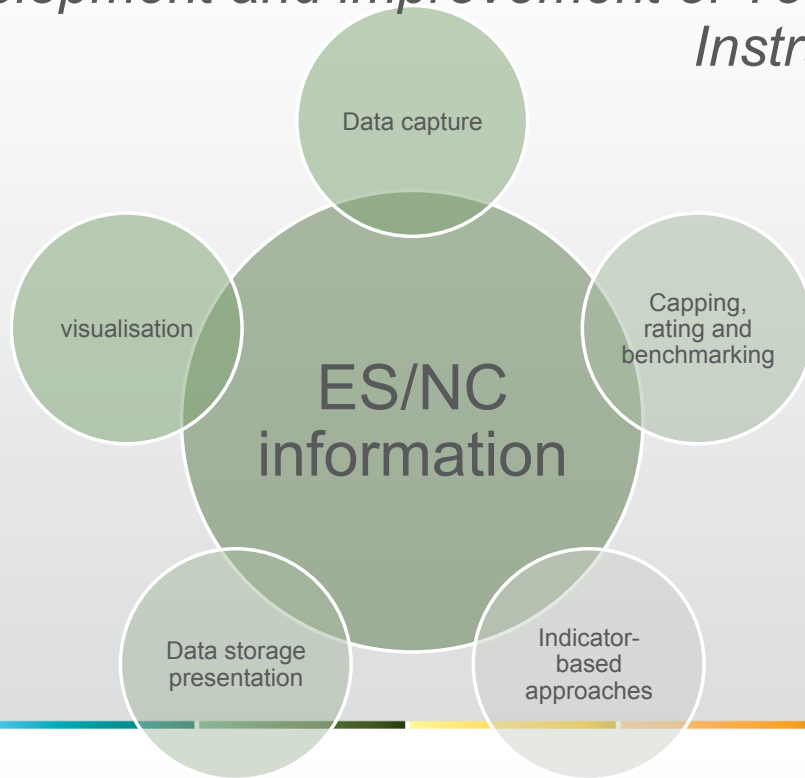


User Needs Assessment

Demand for ES / NC instruments:

- Top down analysis: gaps and needs assessment for the integration of ES/NC concepts (Focus: policy)
- Bottom up analysis: demands and needs for ES/NC instruments by key stakeholders (Focus: stakeholders)
- Identifying and assessing emerging issues and the opportunities for ES/NC integration
- Analysis of needs for ES/NC in the context of specific policy tools and their implementation

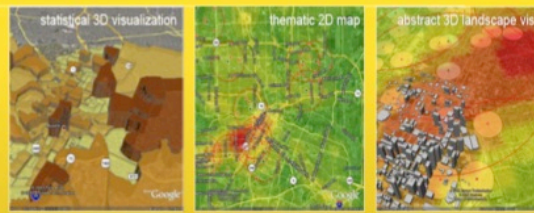
Development and improvement of Tools and Instruments



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Examples of visualization

Scenario data (time series) as photo-realistic 3D visualizations & examples of further visualizations



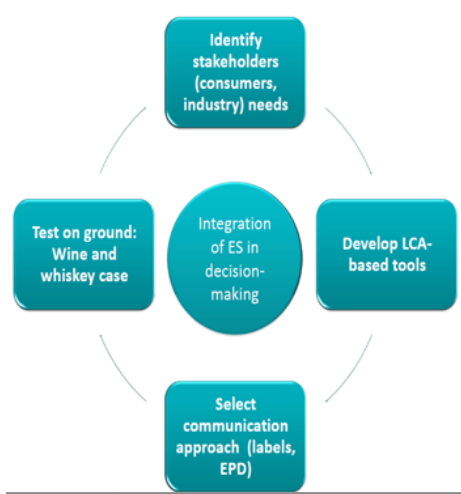
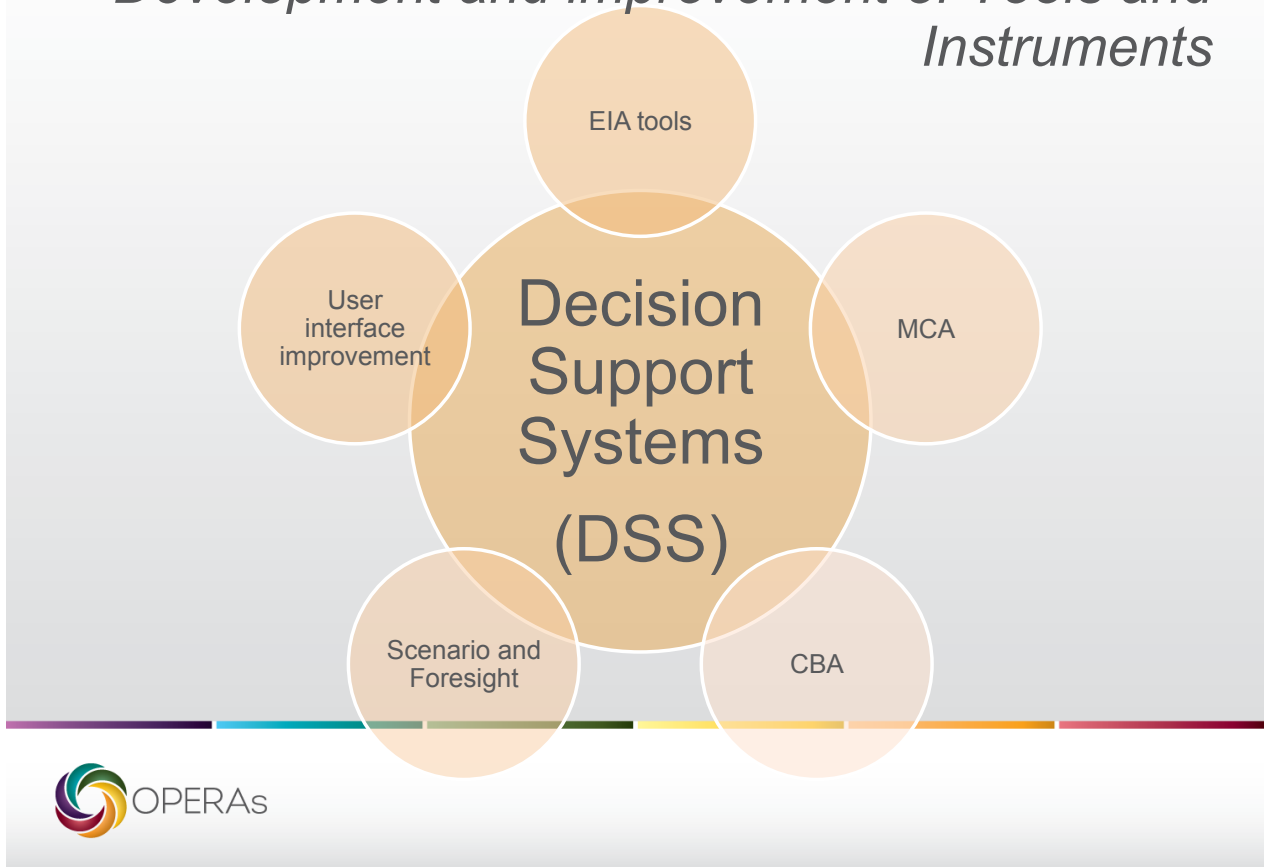
Space for exemplars:



inform
Data storage presentation

	Timber	Global climate regulation	Water services	Medical plants	Cultivated goods	Nature-based tourism	Who loses

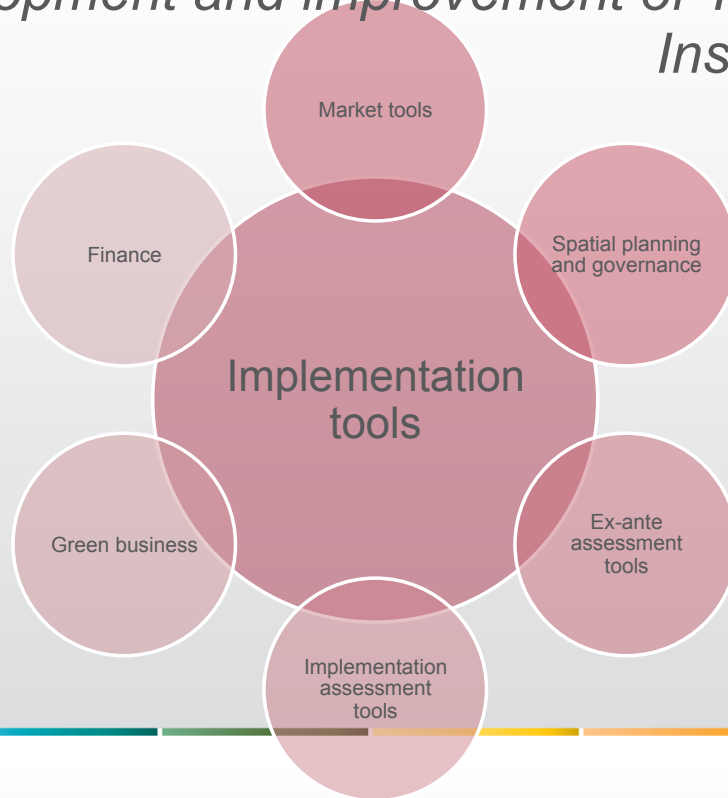
Development and improvement of Tools and Instruments



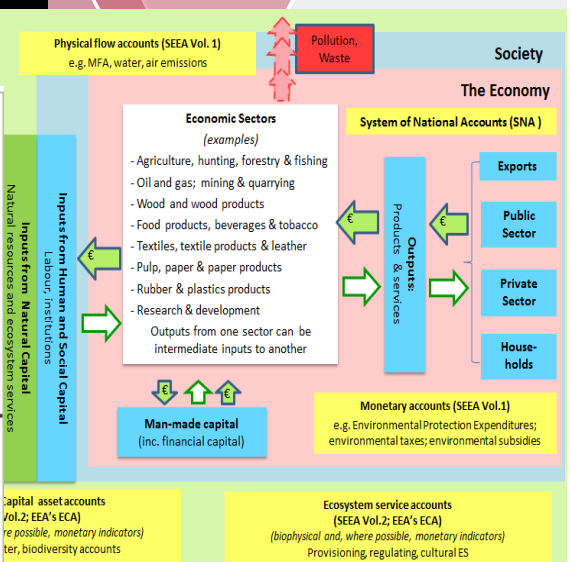
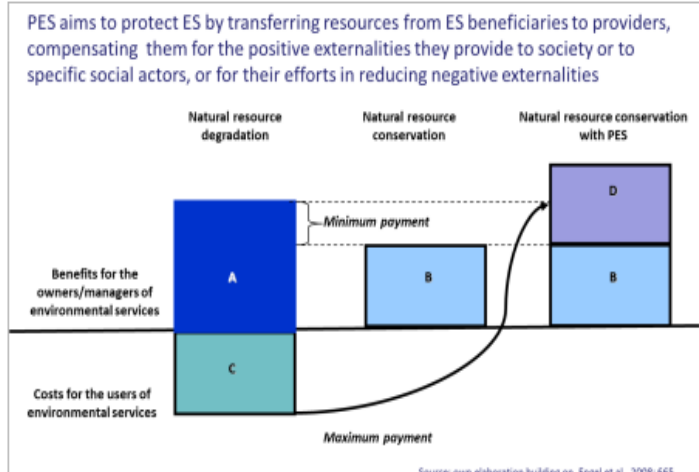
and improv



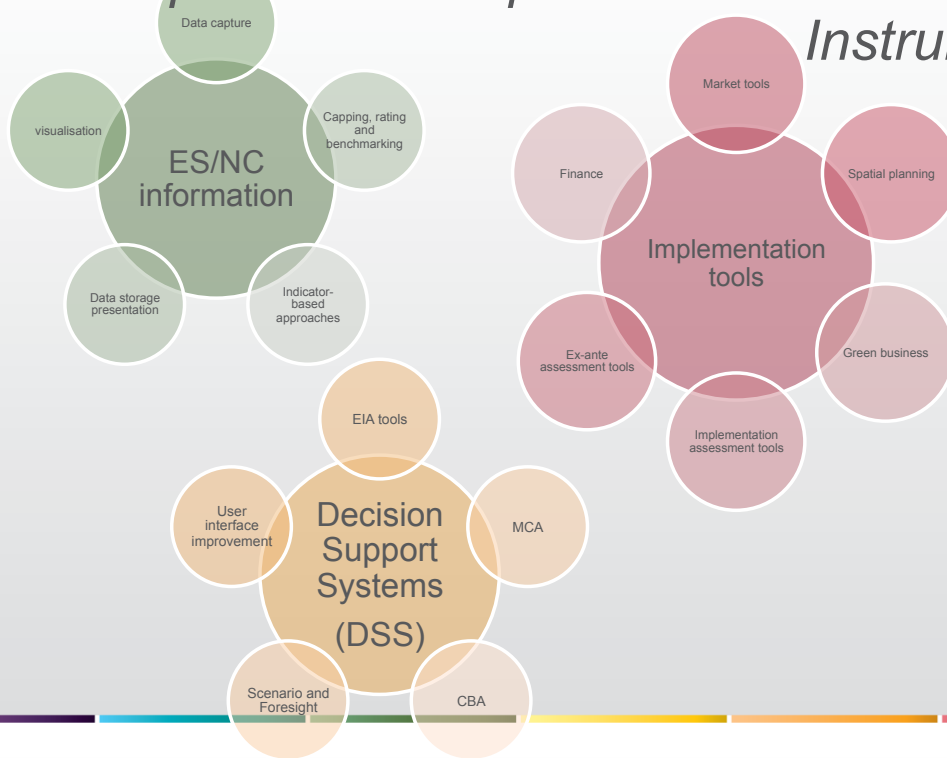
Development and improvement of Tools and Instruments



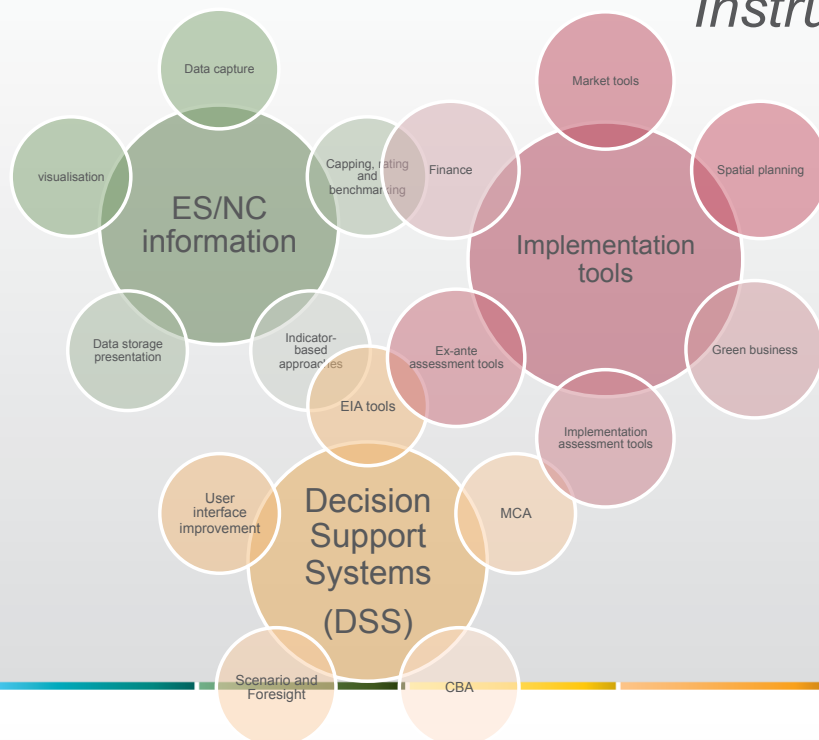
Development and improvement of Tools and Instruments



Development and improvement of Tools and Instruments



Development and improvement of Tools and Instruments



Tool/instrument	Short summary (content and ES)	Lead persons/ institute
Scenario Tool –	Multi-scale scenario toolbox for strategic planning: (i) exploring implications of change on current decisions, (ii) assessing the viability of future targets including pathways with indicators	James Paterson, Marc Metzger (UEDIN)
CBA –	Assessment of long-term, broad scale strategic decisions regarding different land-use options. Quantification/Valuation based on land use typology, associated management and social features and benefit transfer. <i>ES: timber production, GHG regulation, recreation, aesthetics, biodiversity</i>	Rob Tinch (IODINE)
CBA	Analysis of changes and costs related to shifts to greener land-use practices for furthering public/private payment mechanisms for ES in agriculture. <i>ES: Food provision, biomass provision, energy provision, cultural (bird watching and ecotourism) in protected areas</i>	Maya Bankova-Todorova (WWF)
Business information tool – LCA, labelling and others accounting and rating systems being explored	Analysis of potential environmental impact of a product throughout life cycle. <i>Working on identifying the needs of businesses to assess the environmental impact of their products and operations on ecosystem services.</i>	Boyan Rashev, Peter Seizov, Apostol Dyanov, Denitza Pavlova, Dariya Hadzhiyska (Denkstatt)
EIA - ToSIA (Tool for Sustainability Impact Assessments of ES and NC in value chains)	ToSIA: Tool for sustainability (environmental, economic and social) impact assessment of changes in policies or external forces within the forestry sector. <i>ES: Provisioning Energy, Water, Timber, NTFP, Biodiversity, GHG emissions, Carbon stock, erosion and other protection functions, cultural, traditional and livelihood aspects, certification.</i> ToSIA-MCA for guiding users through an evaluation process: (i) defining indicator (thresholds), (ii) weighting indicators, (iii) aggregation, (iv) uncertainty and sensitivity analysis	Diana Tuomasjukka, Marcus Lindner, Bernhard Wolfslehner (EFI)
MCDA –mDSS tool	mDSS tool for guiding users through three decisional phases: (i) problem identification: DPSIR, creative system modeling, (ii) option definition and modeling: Simile modeling environment by Simulistics (iii) evaluation based on MCDA	George Cojocaru, Carlo Giuppani (Tiamasg)
MCDA – ALUAM 11/12/13	ALUAM designed to understand interplay between climate change, economy, LU change on the provision of ES and for evaluating policy measures. <i>ES: timber production, agricultural food products, GHG regulation, recreation, aesthetics, biodiversity</i>	Sibyl Brunner, Adrienne Grêt-Regamey (ETH Zürich)

Tool/instrument	Short summary (content and ES)	Institute
Information - TESSA: toolkit for rapid assessment of ecosystem services at sites	Provide a simple gross assessment of ecosystem services at a site-specific application. <i>Indicate who will be the 'winner' and 'loser' as a result of any changes in land use and ecosystem service delivery.</i>	Lisa Ingwall-King and Claire Brown (WCMC)
Information - Volante CANVAS tool	Crowed –sourcing tool used to assess social values of targeted stakeholders. Visual app with much potential for development and application.	Lisa Ingwall-King and Marc Metzger (WCMC)
Ecosystem services indicator development	Developing ecosystem services indicators (UNEP-WCMC 2011) – by using and enhancing established framework to develop tailored indicators for exemplars. <i>Ecosystem services indicator database is an online searchable database where users can find and contribute indicators that have been used to apply ecosystem services approaches or hold promise for doing so.</i>	Eugenie Regan, Lisa Ingwall-King and Claire Brown (WCMC)
Mapping Information tool - OE: Our ecosystem	Our Ecosystem (OE) is a web-based land use and ecosystem mapping platform (tool). It enables access, sharing, organisation and querying of spatial data. Can use outputs from other models and tools as input to the platform	Karin Viergever, Ecometrica
PES	Payment for Ecosystem Services (PES) is a type of market-based instrument that is increasingly used to finance nature conservation. PES programmes allow for the translation of the ecosystem services (ES) that ecosystems provide for free into financial incentives for their conservation, targeted at the local actors who own or manage the natural resources.	P ten Brink, D. Russi and M. Kettunen (IEEP)
PA socio-economic assessment / PA Regulations	Step-wise and practice-oriented approach and guidance on how to identify, assess and communicate various ES and related benefits from PAs, with a specific focus on their socio-economic valuation	Marianne Kettunen, Patrick ten Brink (IEEP)
SEEA framework	The System of Environmental-Economic Accounting (SEEA) provides a systematised framework to collect information on the state of the natural capital and its changes over time.	P ten Brink and Daniela Russi (IEEP)
EHS Toolkit	A screening tool to help identify existing perverse incentives that are harmful for biodiversity and to better understand how these should be eliminated, phased out or reformed.	Patrick ten Brink (IEEP)
Offsetting / NLL	Building on biodiversity offsets (ie measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development), exploring integration of ES / NC into	L. Mazza, P ten Brink, IEEP; F. Quetier, Biotop: A

Guidance on Choice and Application of Instruments

- This is the plan for the tool and instrument development, in the meantime – we apply and develop them in the exemplars, and learn from there



Coverage of exemplars and instruments

	1. Greater Dublin	2. Urban Dunes	3. Montago	4. Baleric islands	5 Lower Danube	6. Central Alps	7. Wine	8. Scotland	9. Circum-Med	10. Pan European	11. Global
Scenario tool	(x)	X	x				x	x			x
CBA (iodine)		X							x		(x)
CBA (wwf)				x	x						
LCA							x	(x)			
ToSIA			x				x	x			x
mDSS		x			x						
ALUAM						x					
CollWeb PF	(x)					x					
TESSA	x	x	x		(x)			x			(x)
Volante Canvas	x	x						x			
ES indicator	x	x	x				x				
OE	(x)	(x)	x	X		x	x	x			(x)
PES				(x)							
PA soc-eco assessment / Regulations			x	(x)	x			(x)			
SEEA framework					X			(x)		(x)	x
EHS Toolkit									(x)		
Offsetting /NLL					X	x		x		x	
Finance tools						(x)					
Spatial Planning & Governance	x										



Thanks for the discussions!

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Source: <http://travel-destination.net/news/wp-content/uploads/11334.jpg>

