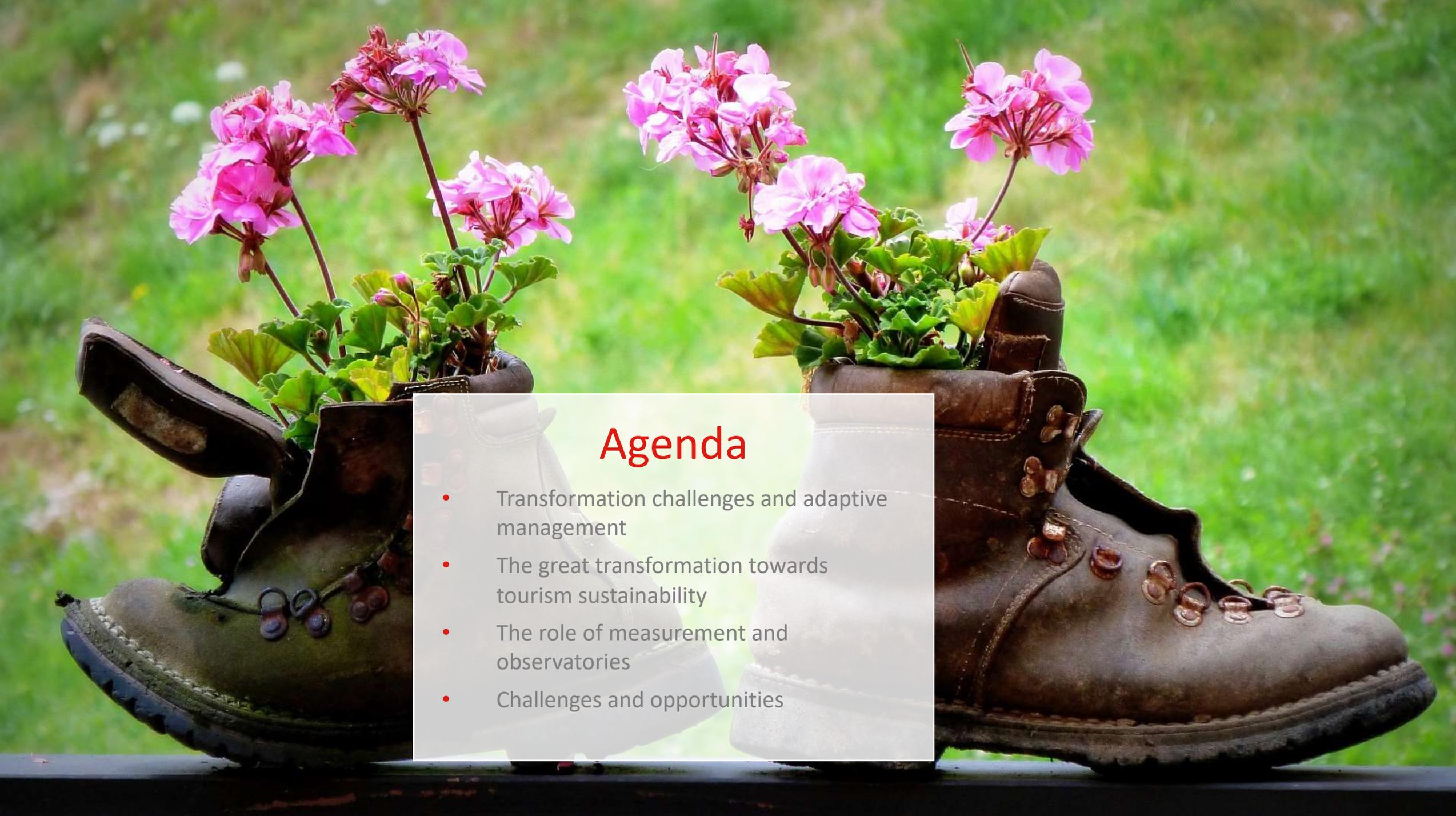




The role of observatories in the sustainable transformation of destinations

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Center for Advanced Studies
Eurac Research

Global INSTO Meeting 2022 - Madrid, 20.10.2022



Agenda

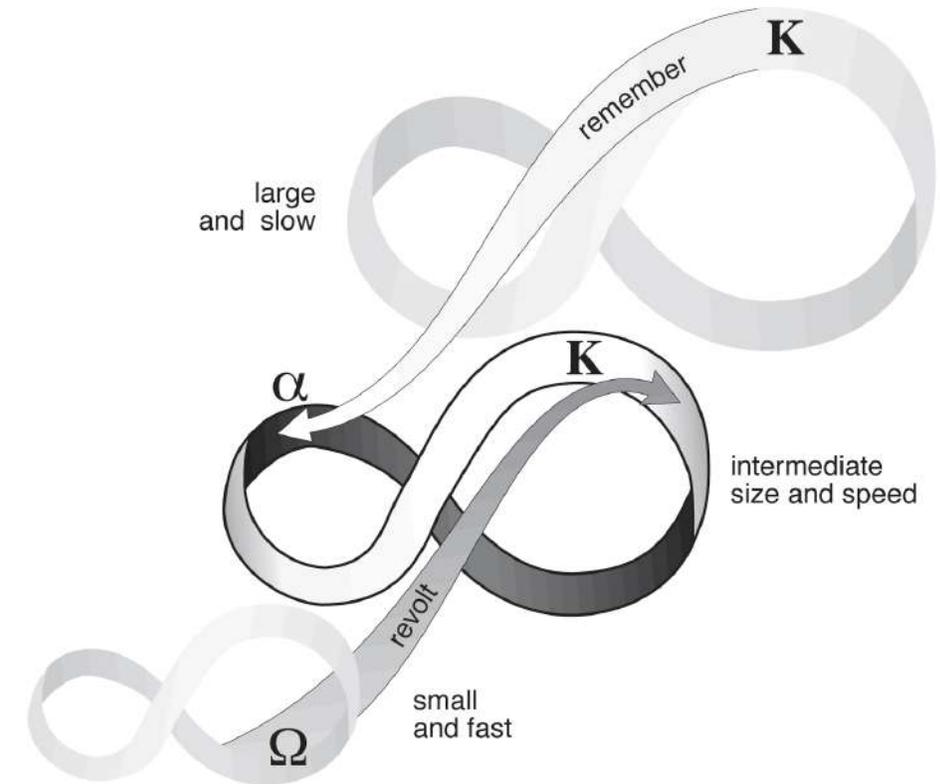
- Transformation challenges and adaptive management
- The great transformation towards tourism sustainability
- The role of measurement and observatories
- Challenges and opportunities

Transformation challenges

- Tourist Destinations have proven to work as **Complex Adaptive Systems** during the Covid-19 pandemic (Hartman, 2021)
 - They absorbed **shocks**, adapted to **radically new framework conditions** and sometimes **transformed** their offer to the better
 - Not only the Covid-19 pandemic, but multiple other stressors (crisis bundles) will affect tourist destinations in the future (e.g. climate change, energy crisis, natural hazards/disaster), and **multiple layers of resilience** will support continuous adaptation and transformation (Benedikter, Fathi, 2021)
 - Absorption, adaptation and transformation occur at many **nested levels** (e.g. business, destination, continent) and with **different speeds** (s. panarchy adaptive cycle)

Benedikter, R., Fathi, K. (2021). The Coronavirus Crisis and Its Teachings: Steps Towards Multi-Resilience. Studies in Critical Social Sciences,. Brill.

Hartman, S. (2021). Stefan Hartman, Adaptive tourism areas in times of change, Annals of Tourism Research, 87, 2021 <https://doi.org/10.1016/j.annals.2020.102987>.



Gunderson, L.H., Holling, C.S. (Eds), 2002. Panarchy. Understanding transformations in human and natural systems, Washington DC, Island Press. Figure 3-10 (page 75).

Adaptive management

- Due to the fragmented nature of tourism supply, the **management of change** is related to **choices and actions of individual and (semi-)interdependent agents** (Hartmann, 2021).
 - **GOVERNANCE** (i.e. self-governance, hierarchical governance and shared governance) plays a crucial function to enable smooth transformations (and to manage chaos and uncertainty)
 - **MONITORING** (i.e. measuring and understanding change) supports governance systems in **setting the right boundaries** to the transformation and in developing strategic storytelling to achieve a new system state
- **ADAPTIVE MANAGEMENT** (Holling, 1978, Walters, 1986) creates a connection between scientific experimentation and iteration to support and continuously improve decision making (PLAN-DO-CHECK-ACT)
 - It represents a possible response of destinations to face multi-scalar change

Hartman, S. (2021). Stefan Hartman, Adaptive tourism areas in times of change, *Annals of Tourism Research*, 87, 2021 <https://doi.org/10.1016/j.annals.2020.102987>.

Holling, C.S., 1973. Resilience and stability of ecological systems, *Annual Review of Ecology and Systematics*, 4, 1-23.

Walters, C.J., 1986. *Adaptive management of renewable resources*, New York, McGraw Hill.



The transformation towards tourism sustainability

Socio-ecological transformation

- **SOCIO-ECOLOGICAL TRANSFORMATION** “[...] is an umbrella term which describes **political, socio-economic, and cultural shifts** resulting from attempts to address the socio-ecological crisis” (Brand & Wissen, 2017: 2).
 - Etymology: lat. Transformare = to reshape, turn into
 - Not only top-down, but also bottom-up approach
 - Collective, plural, and open-ended search, experimentation, and learning process towards new societal models of development

**12 RESPONSIBLE CONSUMPTION
AND PRODUCTION**



Reshaping tourism
demand and supply
towards SCP models

**Supporting and connecting
pioneers of change**



**TOURISM
FOR SDGS** a platform developed by 

Brand, U., & Wissen, M. (2017). Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus. München:OekomVerlag.

Reshaping tourism demand

- **@ QUALITY LEVEL**

- Foster **behavioural change** and **knowledge transfer** while on vacation (command and control regulations vs. market oriented tools)
- Question **social norms** and habits and give visibility and emphasis to **new/different habits and role models** (visioning, strategic storytelling)
- Start from **quick-wins** and accompany tourists in their behavioural change
- Address **more sustainable target markets** (e.g. proximity markets, environmentally sensitive markets)

- **@ QUANTITY LEVEL**

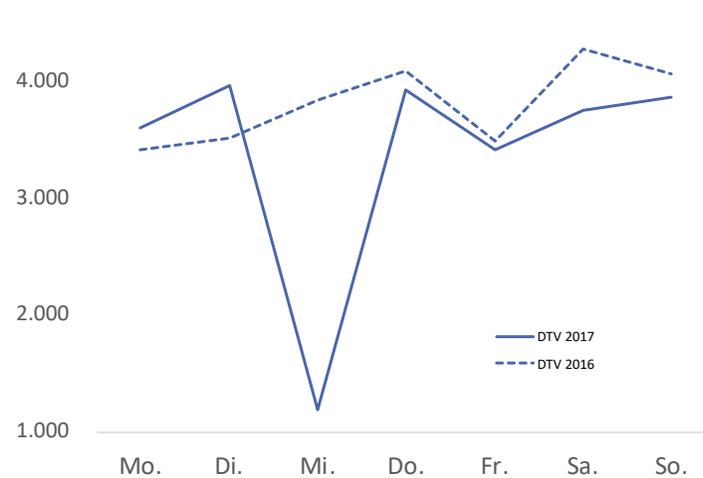
- **Monitor and manage flows** across space (overcrowding) and time (seasonality)
- **Assess impacts** per capita and total impacts
- Identify **critical limits** (e.g. maximum capacities for attractions)

Reshaping tourism demand – the case #Dolomitesvives

- **Example: traffic calming initiative (command and control measure) in an Italian World Heritage Site (Dolomites Unesco WHS)**

Monitoring of traffic **flows** and their variation

→ 2500 cars less on the road



Source: Eurac, 2018

Detecting **behavioural change**
→ Different use of public space



Knowledge transfer
→ Clear communication



Reshaping tourism supply

- **@QUALITY LEVEL**
 - Support **product, process and market innovation** (e.g. climate-resilient tourism offers, efficient use of resources and circular economy, market selection based on the internalization of tourist's environmental costs)
 - Enhance **local/regional supply chains** and give visibility to innovative **business models**
 - Spread and support the adoption of **certification schemes** and guide SMEs in the selection of the most adequate and reliable certification scheme
- **@QUANTITY LEVEL**
 - Quantify and classify the **sustainable offer** (e.g. public transport, bike rentals)
 - Identify **limits to growth of the accommodation facilities** (e.g. moratoria, maximum capacities, geographical boundaries for expansion)
 - Give statistical relevance and monitor **peer-to-peer accommodation** (e.g. AirBnB statistics) and its impacts
 - Assess **environmental and social impacts** of infrastructural projects

Reshaping tourism supply – The sustainability award

- **Example: the Sustainability Award of the Bolzano/Bozen Hotel Fair (4th edition)**

Hotels and accommodation facilities that have transformed their business based on sustainability principles apply

STOST – South Tyrolean Observatory for Sustainable Tourism **defines the scientific evaluation criteria** to rank the hotels

~ 30 Accommodation facilities apply each year

The local DMO offers a prize of 10.000 Euro (marketing budget) for the prize winner



FieraMesse
Bolzano Bozen

IDM INNOVATORS.
DEVELOPERS.
MARKETERS.



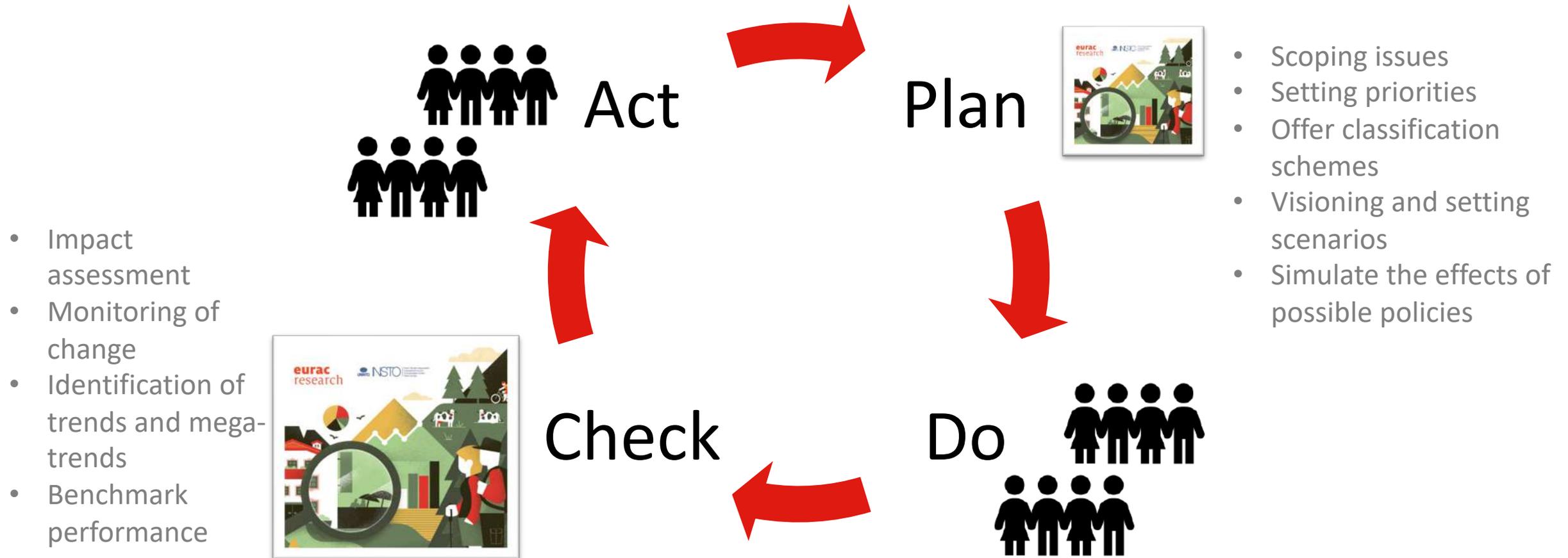
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The role of measurement and the observatories

The role of observatories in the adaptive management circle

The Deming Circle and the integration of the Observatory into the tourism ecosystem and tourism policy:



AN EXAMPLE...



STOST – Monitoring mobility issues

Identification of the additional issue area: Mobility
(local-specific)



Identification of the main issue in tourism transport in South Tyrol



STOST – Monitoring mobility issues

Selection of indicators to monitor impacts, ongoing transformations and their effectiveness

INDICATOR	VALUES (ABSOLUTE)		CHANGE (%)	
	2019	2021	2010-2019	2019-2021
14.1 Estimated car-related CO ₂ equivalent emissions from inbound tourism	102.4 kt CO ₂ eq	68.9 kt CO ₂ eq	+39.9%	-32.7%

Table 15: Indicators of climate action. Source: own calculation based on data from ASTAT, STOST, Google Maps, German Umweltbundesamt.

INDICATOR		VALUES (ABSOLUTE)		CHANGE (%)	
		2019	2021	2012*-2019	2019-2021
10.1 Mobilcards, bikemobil Cards, museumobil Cards and guest tickets	Activation	1,658,620	916,618	+258.5%	-44.7%
	Uses	6,924,310	4,075,548	+282.2%	-41.1%
10.2 Ski-lift and cable car users by season	Summer	10,817,425	no data	+38.8%	no data
	Winter	118,094,699	no data	-7.5%	no data
10.3 Charging stations for e-mobility	In hotels	209	207		-1.0%
	Public	110	177		+60.9%

Table 12: Indicators for mobility. Sources: STA - Südtiroler Transportstrukturen AG (10.1); ASTAT (10.2); Neogy and Tesla (10.3). * No data available for 2010 and 2011.

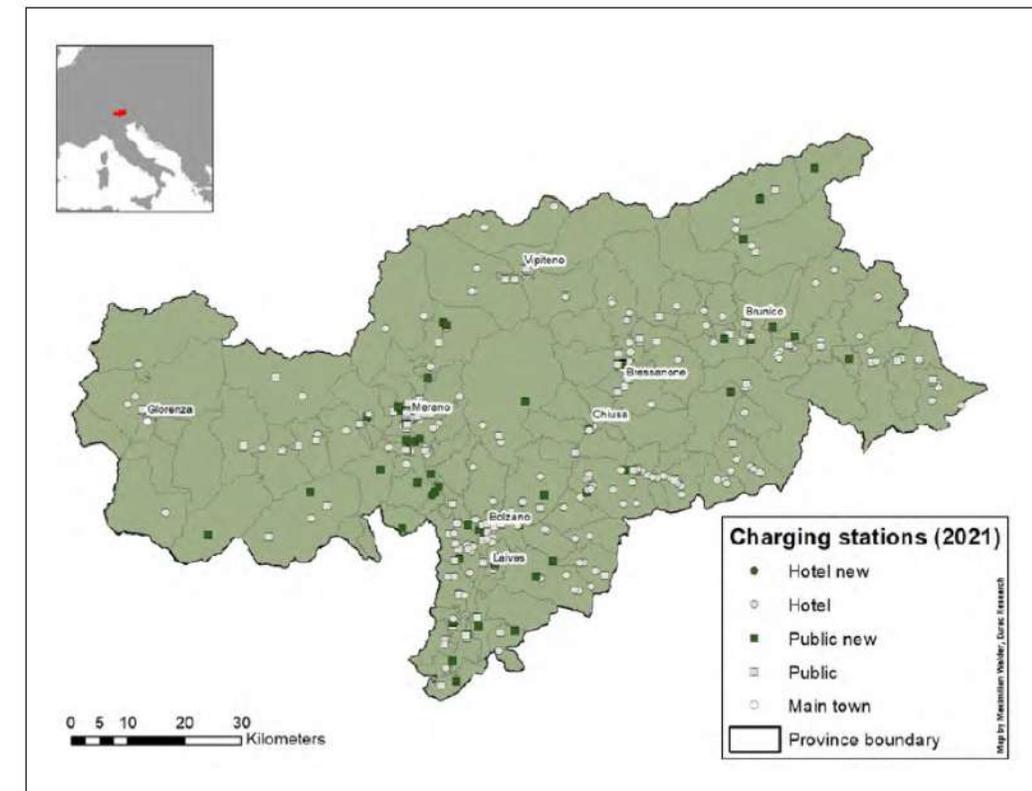


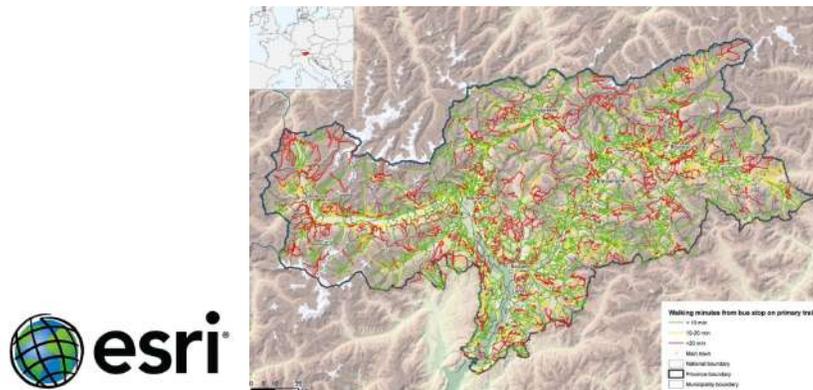
Figure 25: Charging stations for e-mobility in hotels and in public areas, South Tyrol 2021. Sources: Neogy and Tesla, own elaboration.

STOST – Monitoring mobility issues

Identifying specific challenges through additional and ad-hoc analyses

- Regular monitoring of the modal split
- Analysis of the locals' perception of the impact of tourist transport on life quality
- Assessment of the Covid-19 effects on tourist mobility
- Pilot study on the accessibility of the local hiking trails
- ...

Accessibility of hiking trails by public transport (2019)

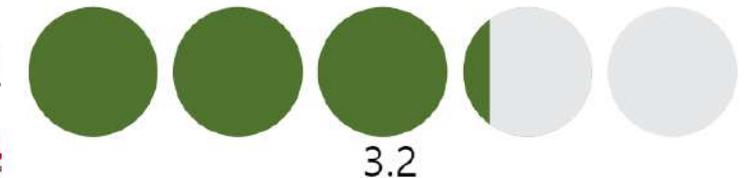


Intra-destination mobility by car Pandemic effect

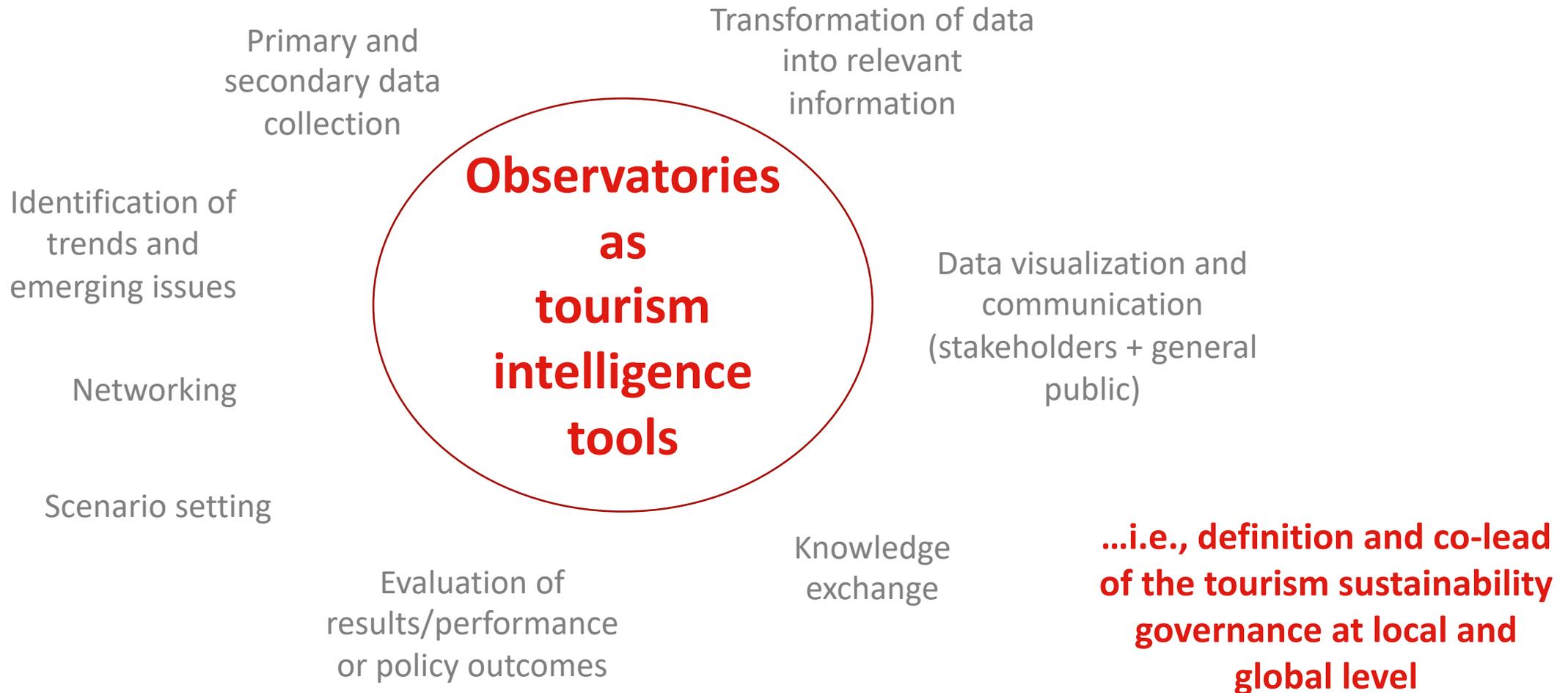
55.7% in 2013 → 69.9% in 2020

Perception of traffic load by locals

Wie schätzen Sie die Verkehrsbelastung in Ihrer Wohnsitzgemeinde ein? (1 = Sehr niedrige, 5 = Sehr hohe)



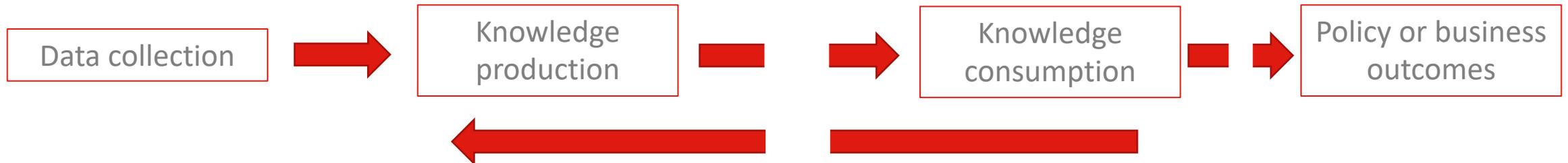
What do observatories stand for?





Challenges and opportunities

Challenges and opportunities



Adapted from: Volgger, M., Cheer, J.M., Pforr, C. (2021). Evidence-based sustainable tourism: Governance, policy and practice. Call for papers for a Special Issue of the Journal of Sustainable Tourism



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