



HOW CAN ACCESSIBILITY INDICATORS INFORM TOURISM SUSTAINABILITY ANALYSES?

1st webinar of the Tourism Sprint of the UN Network of Economic Statisticians – Tourism Statistics: Tools and Techniques for Data-Driven Decisions

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Today's talk

1. Ongoing work on OECD indicators for tourism sustainability
2. Going granular – accessibility indicators to inform tourism sustainability effects at highly granular levels



Indicators for tourism sustainability



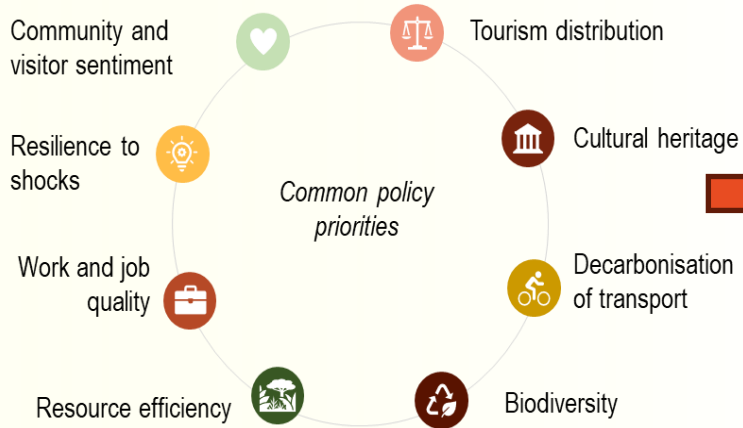
OECD work on tourism sustainability

- ❖ **Draft report**, including a proposed **core set of indicators** for sustainable tourism policy, circulated in June for review and comment by countries and other key internal and external stakeholders
- ❖ **Virtual workshop** held on 3 July - to provide a brief overview of progress and receive feedback to refine proposed **indicators** and **metrics**:
 - Participants included delegates from over 30 countries as well as representatives from international institutions
 - Additional written feedback received over the summer
- ❖ A **revised draft** reflecting feedback received will be circulated to the Tourism Committee shortly
- ❖ Activity being undertaken within the **wider context** of the development of an *OECD Recommendation on sustainable tourism development*

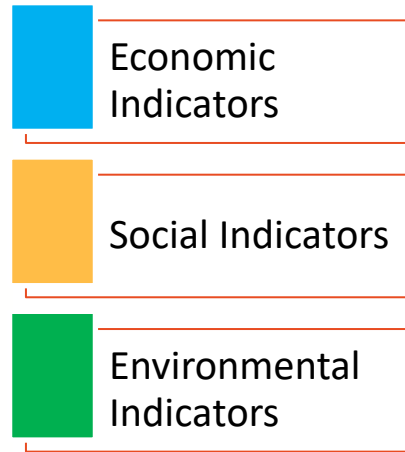


Developing a core set of indicators for tourism sustainability

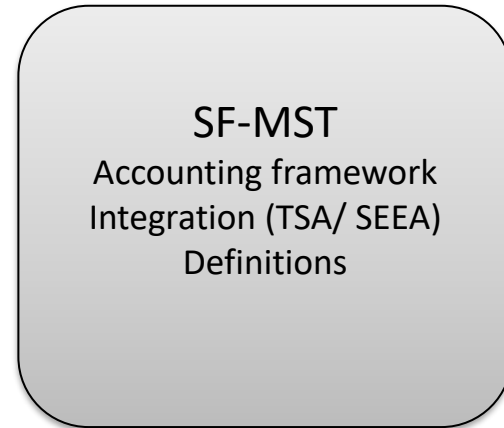
Policy priorities



Indicator categories



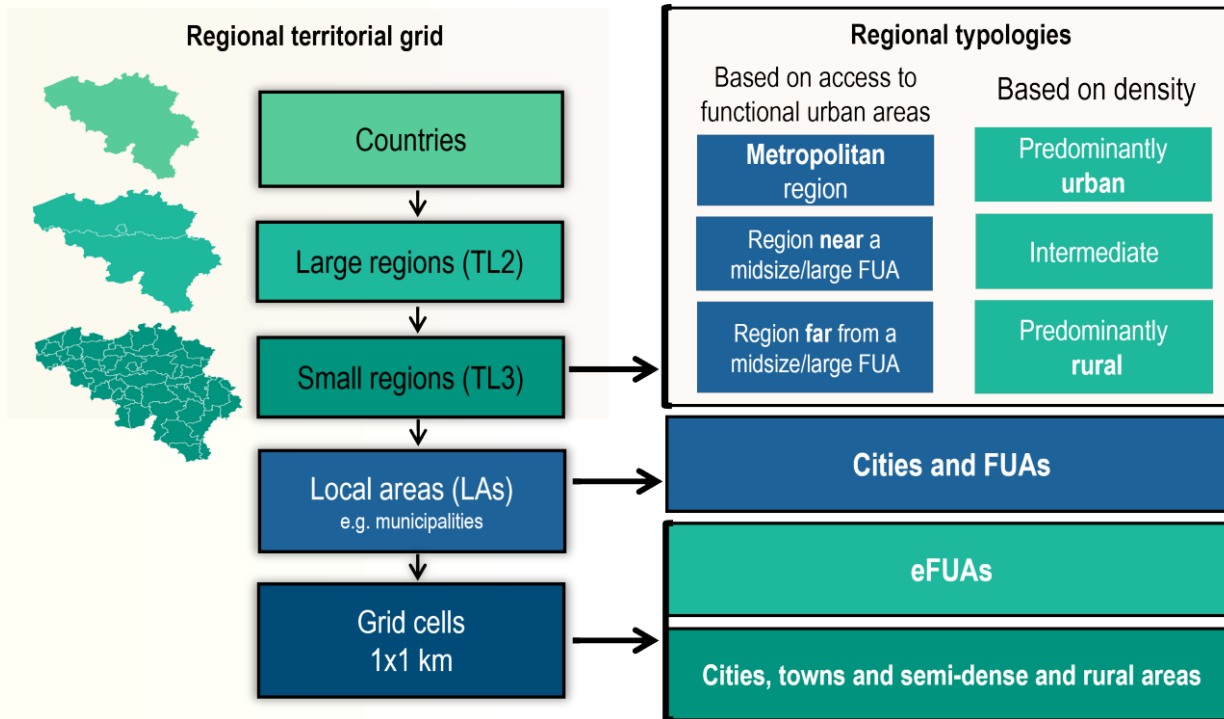
Statistical framework





**Going granular –
accessibility indicators**

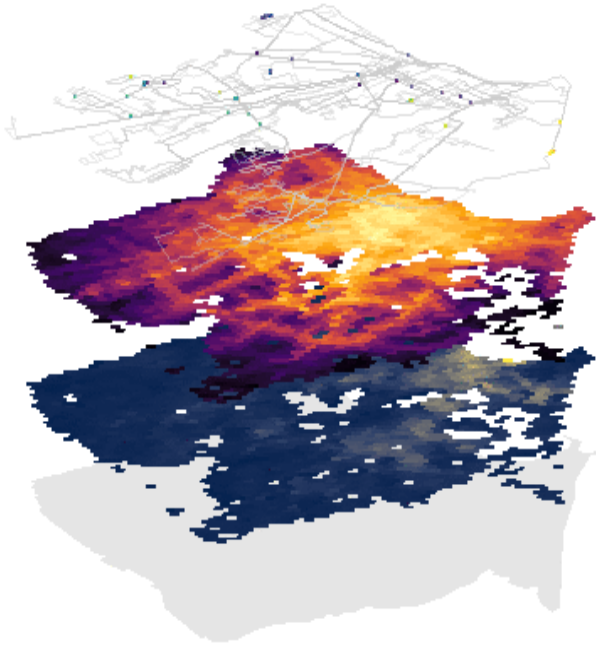
Different spatial scales for different analyses





Highly localised impacts – how to measure them?

Time: 2021-11-11 07:00:00

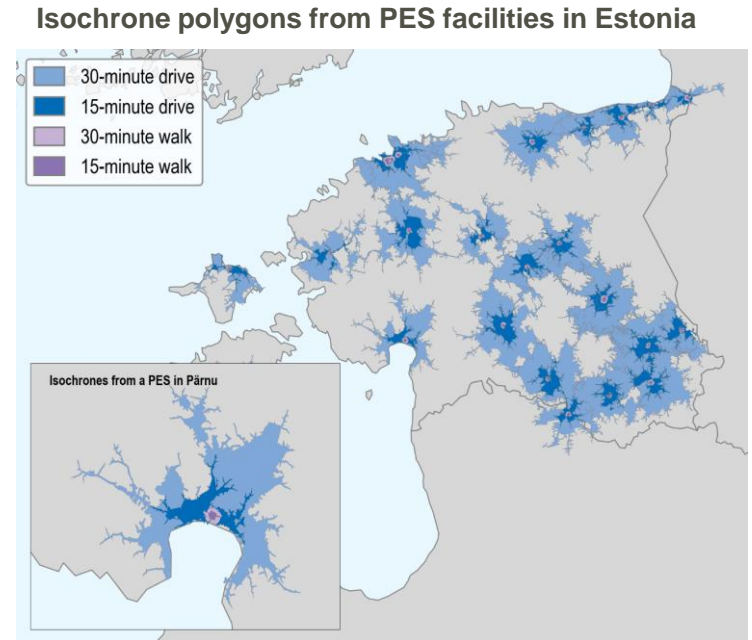


	Type		Possible data sources	Ideal measures
Connectivity	Physical		(Public) transport network data Mobile phone data \$\$ Travel surveys ☉	Cost Quality Availability
Amenities/services	Public	Cultural sites/parks	Point of Interest (POI) data Credit card expenditure data \$\$ Geotagged data (e.g. instagram) \$	Capacity Opening/Waiting times
	Private	Restaurants/Shops/hotels	Google Street View \$\$	
Users	Actual	Local/Visitor	Credit card data \$\$	Age/Gender/Income Visitor records
	Potential		Population grids	
Places	Neighborhoods	Rural/towns & suburbs/cities	Administrative definitions Grid-based classifications	
	Functional areas	Far/close to cities		
	Regions			

Source: <https://www.urbandemographics.org/post/animating-transport-networks-3d-maps/>

Connecting the dots: accessibility indicators

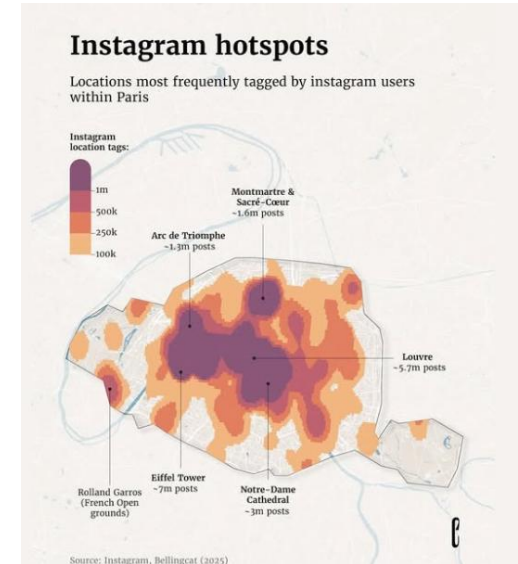
- 1. Access to opportunities** within a given travel time
 - % of pop. with access to opportunities within a given travel time threshold in each area
- 2. Competitive accessibility** considers capacity and demand from others
 - E.g. how many bus seats can I access given that other people can reach the same bus stop in a similar time than me?
 - Measure of demand pressure/congestion





Accessible and attractive – a double-edged sword?

- Visitors and locals coincide in the most attractive areas
 - Some services adapt quicker than others → ↑ local sentiment from additional offer but ↓ from congestion → **highly localised effect**
- Impact on housing linked to public transport connectivity
 - Worse connectivity means more concentration and competition → **highly localised effect**



Measuring highly localised effects at large spatial scales dilutes impact



Thinking outside the box – accessibility indicators that can potentially inform tourism sustainability

- Walkability and public transport access to main touristic attractions
- Diff. in accessibility to amenities between areas with/without main touristic attractions
- Cycling/walking infrastructure density around attractions (km of paths per 10,000 visitors)
- Gini index of tourism service distribution across neighborhoods/regions
- Ratio of resident vs. tourist use of essential services
- Proximity of tourism POIs to protected areas
- Peak-to-average visitor ratios at biodiversity-sensitive areas (detect seasonal stress)
- Competitive accessibility to amenities including green areas and parks
- Co-location of tourism-related services and public services
- Risk of local residents displacement (based on housing market pressure)



Conclusion

- Many effects of tourism on sustainability are likely to be **highly localised**
- Where appropriate measures should be **disaggregated** at the subnational level
- **Accessibility** measures can **complement** existing measures at more aggregate scales
 - ❖ They can also help interconnect dimensions of tourism sustainability that likely reinforce each other
- Existing **open data** allows to build localised metrics at low cost that identify areas facing more exposure/impact within larger regions
- **High-frequency** and **mobile phone records** data can help discern tourism-specific effects

Thank you!



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