



Sixth UNWTO International Conference on Tourism Statistics
MEASURING SUSTAINABLE TOURISM
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Session 5 –
Producing statistics on sustainable tourism

Tourism statistics: early adopters of big data?

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Outline of the presentation

- Big data & the 7 V's
- Sources linked to tourism
- Benefits vs. risks
- Evolution or revolution?

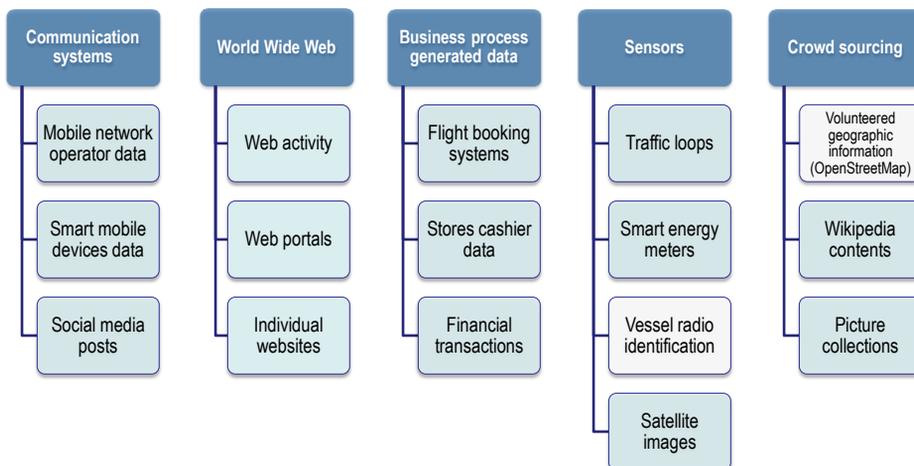
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Big data & the 7 V's

- ⇒ **Volume** - exploding # observations
- ⇒ **Velocity** - data deluge
- ⇒ **Variety** - many faces
- ⇒ **Veracity** - what do we measure?
- ⇒ **Validity** - quality, usefulness
- ⇒ **Volatility** - longevity?
- ⇒ **Value** - data as marketable asset

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Sources linked to tourism



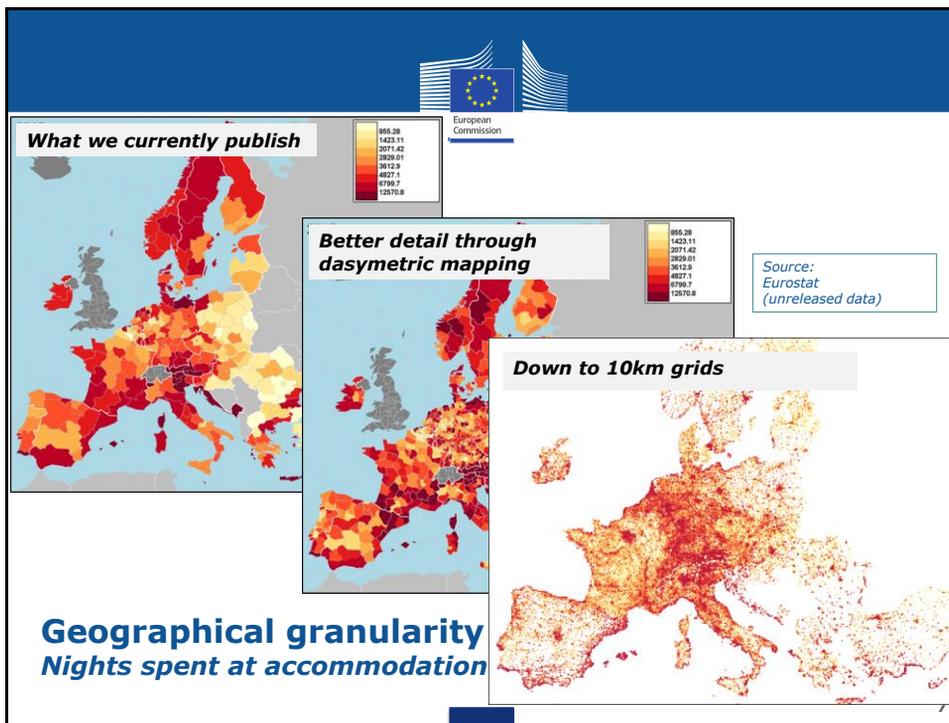
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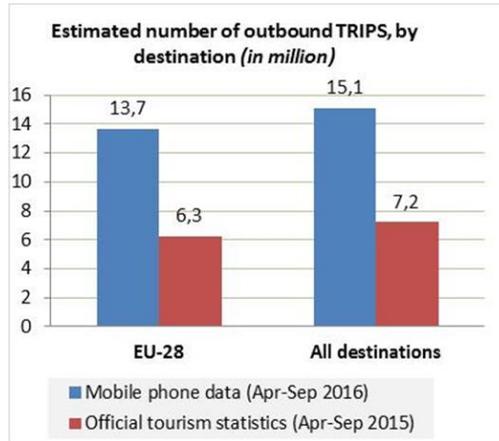
Benefits

- ⇒ **Better timeliness (and overall quality?)**
- ⇒ **Better geographical granularity**
- ⇒ **Better temporal granularity**
- ⇒ **New indicators previously unavailable**
- ⇒ **Synergies with other fields of statistics**
 - Multi-source + multi-purpose
- ...

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- ## Risks and constraints
- ⇒ Access ... and continuity of access
 - ⇒ Concepts and definitions?
 - ⇒ Selectivity bias (representativeness?)
 - ⇒ Comparability over time (break in series?)
 - ⇒ Independence (objectivity?)
 - ⇒ Skills (data collector → data connector)
 - ⇒ Trust (producers, users, society)
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Quality, breaks, concepts, trust, access, ...
Outbound tourism trips by residents of Belgium

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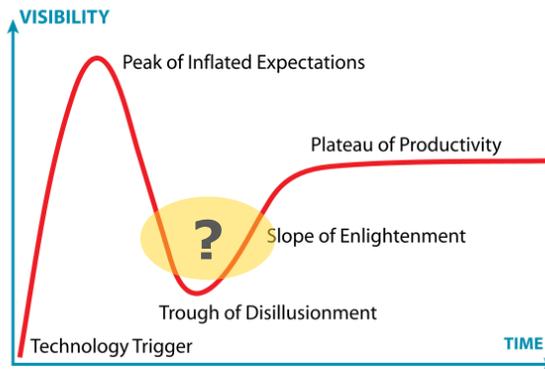
Evolution or revolution?

- 1. Big data as auxiliary info for surveys**
 - Validation, calibration, deeper breakdowns
- 2. Surveys as one of the sources**
 - Increasing weight of new sources
 - Flash estimates
- 3. New sources gradually replace surveys**
 - Partially!
- 4. Rethink the system of tourism statistics?**

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Where are we now?

Gartner Hype Cycle



Food for thought

- ⇒ **Big data is here to stay**
 - Official statistics no longer a monopoly
 - Safeguard access to objective data
- ⇒ **Be prepared to leave the comfort zone**
 - Producer becomes user
 - Question everything you know
- ⇒ **Invest in skills and in collaboration**
- ⇒ **Big data have particular potential for MST**

