

OPPORTUNITIES AND RISKS ARISING FROM DIGITAL AND
EMERGING TECHNOLOGIES – THREE RECOMMENDATIONS

**United Nations Fourth Expert Group Meeting on Science, Technology and
Innovation (STI) Roadmaps for the SDGs Agenda**

United Nations Office
Nairobi, Kenya, April 1-3, 2019

Yola Georgiadou

National Statistics versus Big Data Analytics 1

National Statistics

- Nation-state scale
- All residents in households
- Pre-cooked categories for people
- Often public, open, revealed
- Create a shared truth, upon which consensus-forming claims can be made in decision making

Big Data Analytics

- Any spatial scale
- Anybody, anywhere
- Emergent categories for people
- Often private, closed, secret
- Detect trends, sense moods, spot things as they bubble up → create various truths

National Statistics versus Big Data Analytics 2

National Statistics

- Simplify society
- Ostensibly public interest
- Diffuse controversy
- First ask a question, then collect related data
- NS officers are public servants, accountable to government
- Slow, high cost

Big Data Analytics

- Complexify society
- Often not clear to whose interest
- Often amplify controversy
- First Hoover any data, then ask as many questions as you want
- Data analytics experts often accountable only to CEOs
- Fast, low cost

National Statistics versus Big Data Analytics 3

National Statistics

- slow, high cost

Worst case scenario

- Disasters and humanitarian crises in weak states

Consequence

- Hollowing out of the state
- Privacy violations

Big Data Analytics

- Fast, low cost

22 March 2019

FEMA's major privacy "incident" - The New York Times

FEMA publicly acknowledged that it shared personal data from 2.3 million disaster survivors with a contractor.

FEMA violated the Privacy Act of 1974 and Department of Homeland Security policy

FEMA exposed survivors to identity theft.



FEMA shared with the contractor

Necessary data:

First, Middle Last Name

Date of Birth

Last 4 digits of Applicant's Social Security Number

Disaster Number

Authorization for TSA

Number of Occupants in Applicants Household

Eligibility Start and End Date

Global Name

Export Sequence Number

FEMA Registration Number

20 unnecessary data, including six with sensitive information:

Applicant Street Address

Applicant City Name

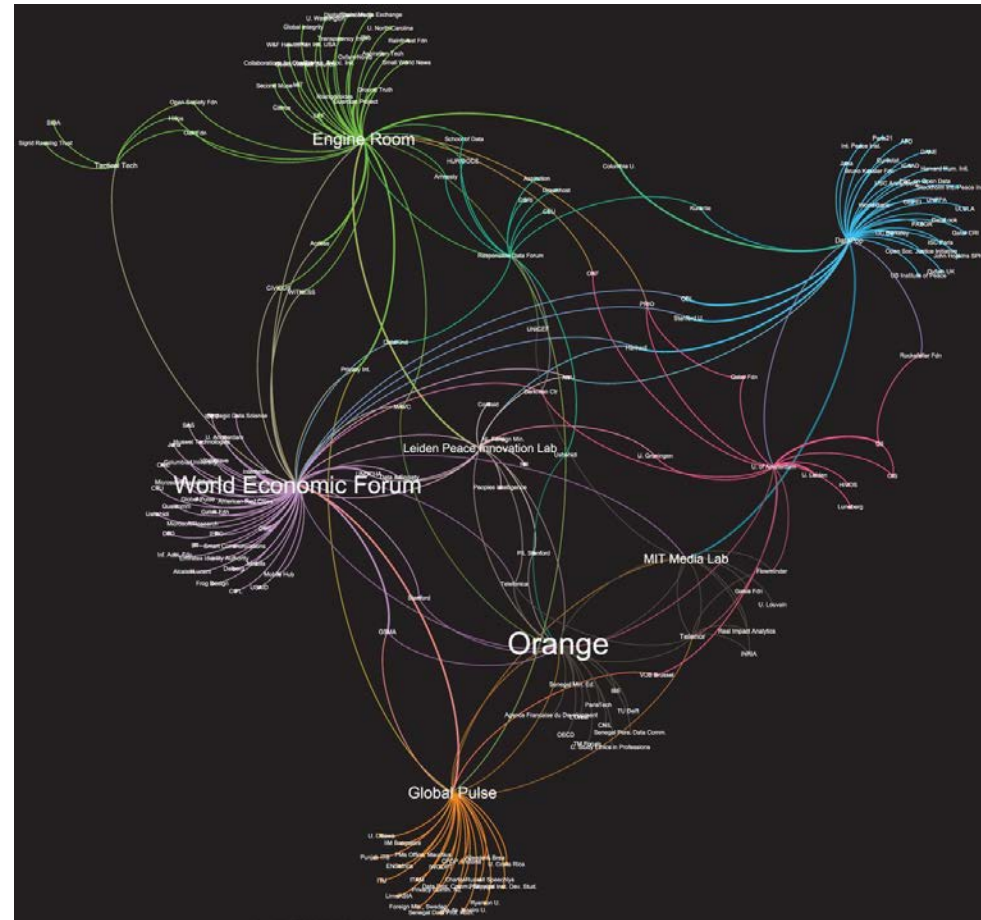
Applicant Zip Code

Applicant's Financial Institution Name

Applicant's Electronic Funds Transfer Number

Applicant's Bank Transit Number

Global Responsible data actors



Taylor, Linnet. 2016. The ethics of big data as a public good: which public? Whose good?, Philosophical Trans. Royal Soc. A. Vol 374, Issue 2083

National Statistics versus Big Data Analytics 4

National Statistics

- slow, high cost

Recommendation 1

- Strengthen scientific method in national mapping & statistics organisations

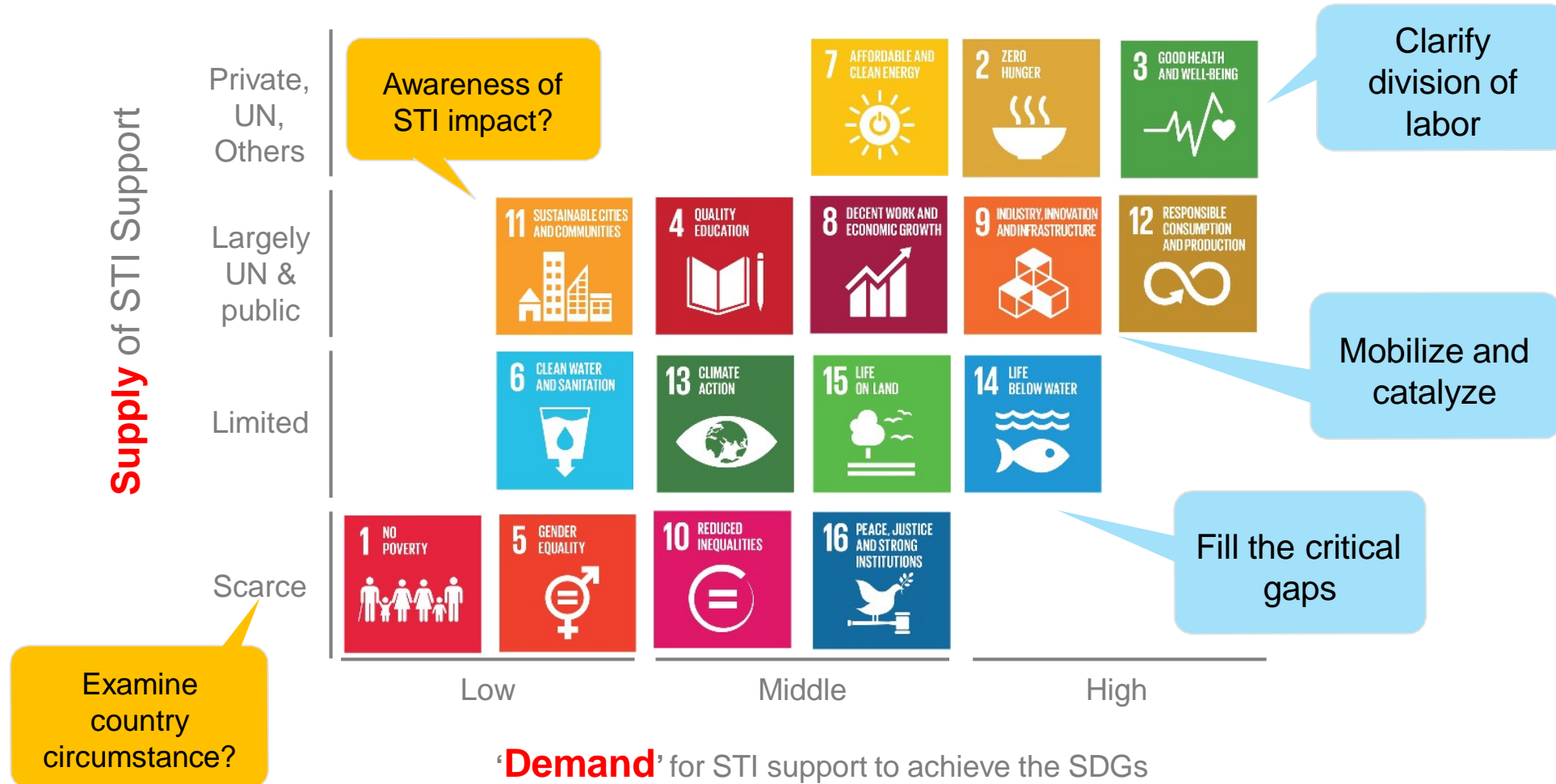
Recommendation 2

- Harmonise responsible data guidelines with national data protection laws & privacy cultures

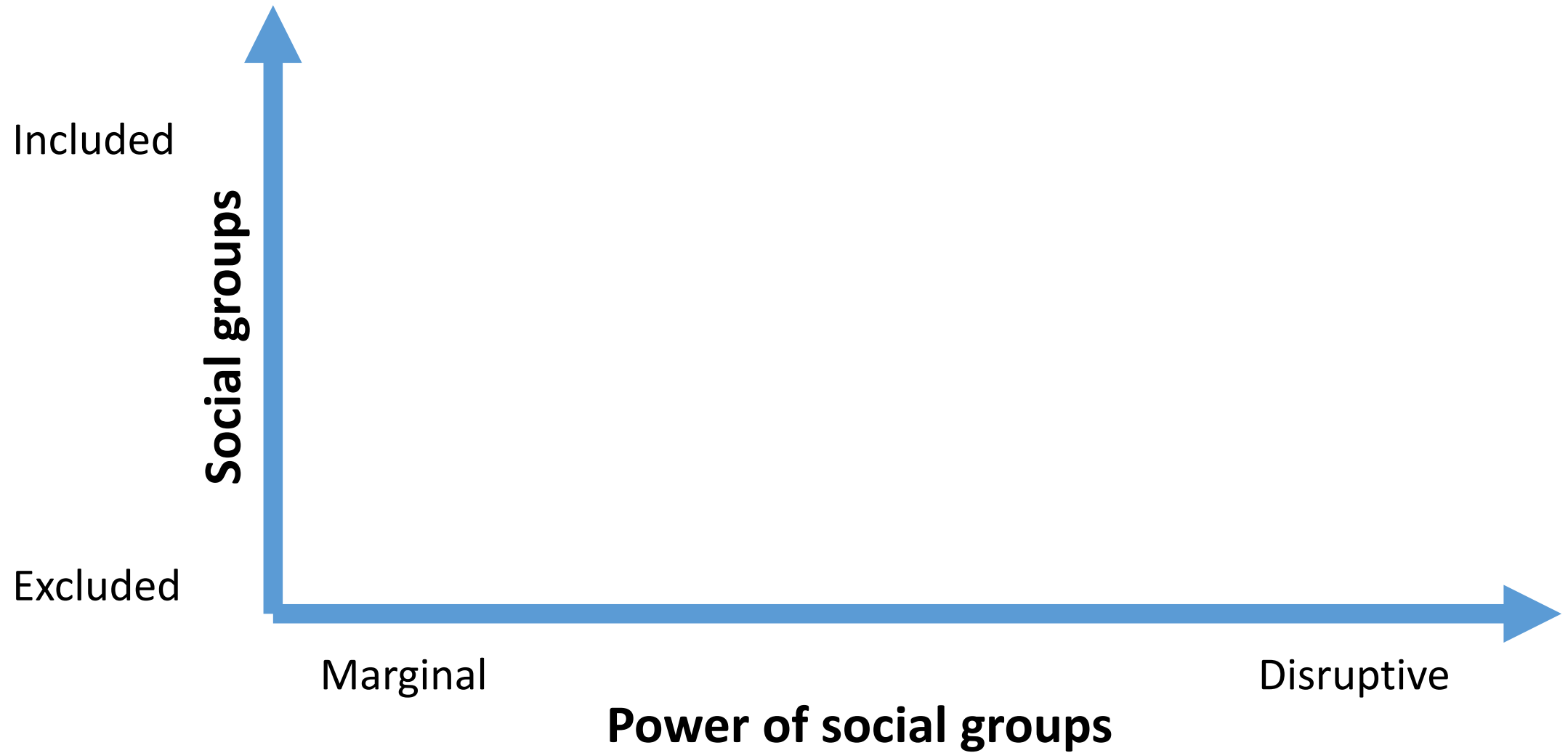
Big Data Analytics

- Fast, low cost

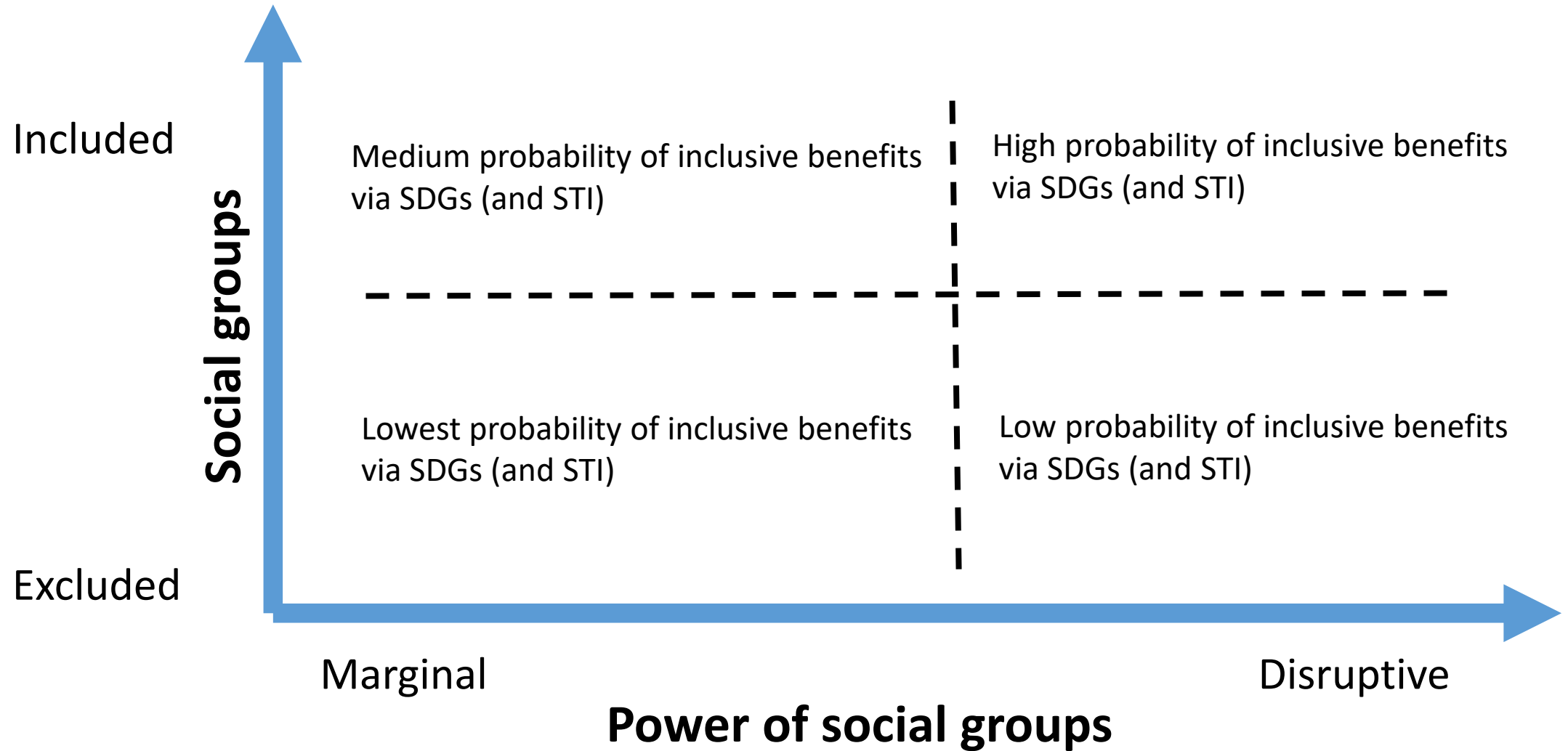
STI and SDGs: An Economics lens



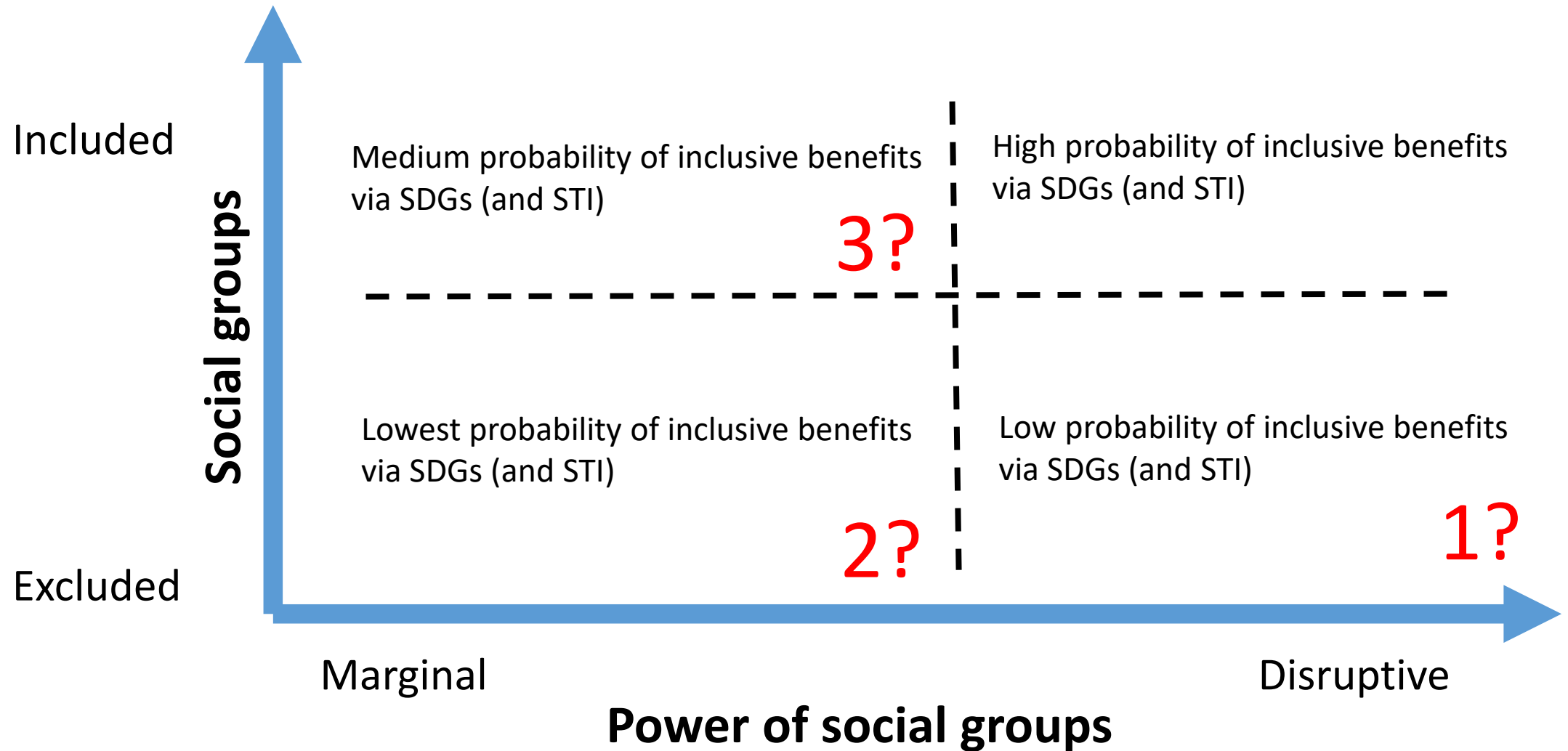
STI and SDGs: A Politics lens



STI and SDGs: A Politics lens



STI and SDGs: A Politics lens – Which priorities?



Recommendations for the STI for SDGs Road Map for Africa

Recommendations

- Strengthen **scientific method** in national mapping & statistics organisations
- **Harmonise** global responsible data guidelines with national data protection laws & privacy cultures
- Use **both** an **economics** and a **politics lens** to prioritize (and distribute labor for providing) assistance to nation-states aspiring to STI for SDGs