ITU Workshop on "With Information and Communication Technologies (ICTs) everywhere - how safe is EMF in Latin America ?"

(Lima, Peru, 10 December 2013)

Exposure Limit Compliance and National Policies for Antenna Siting

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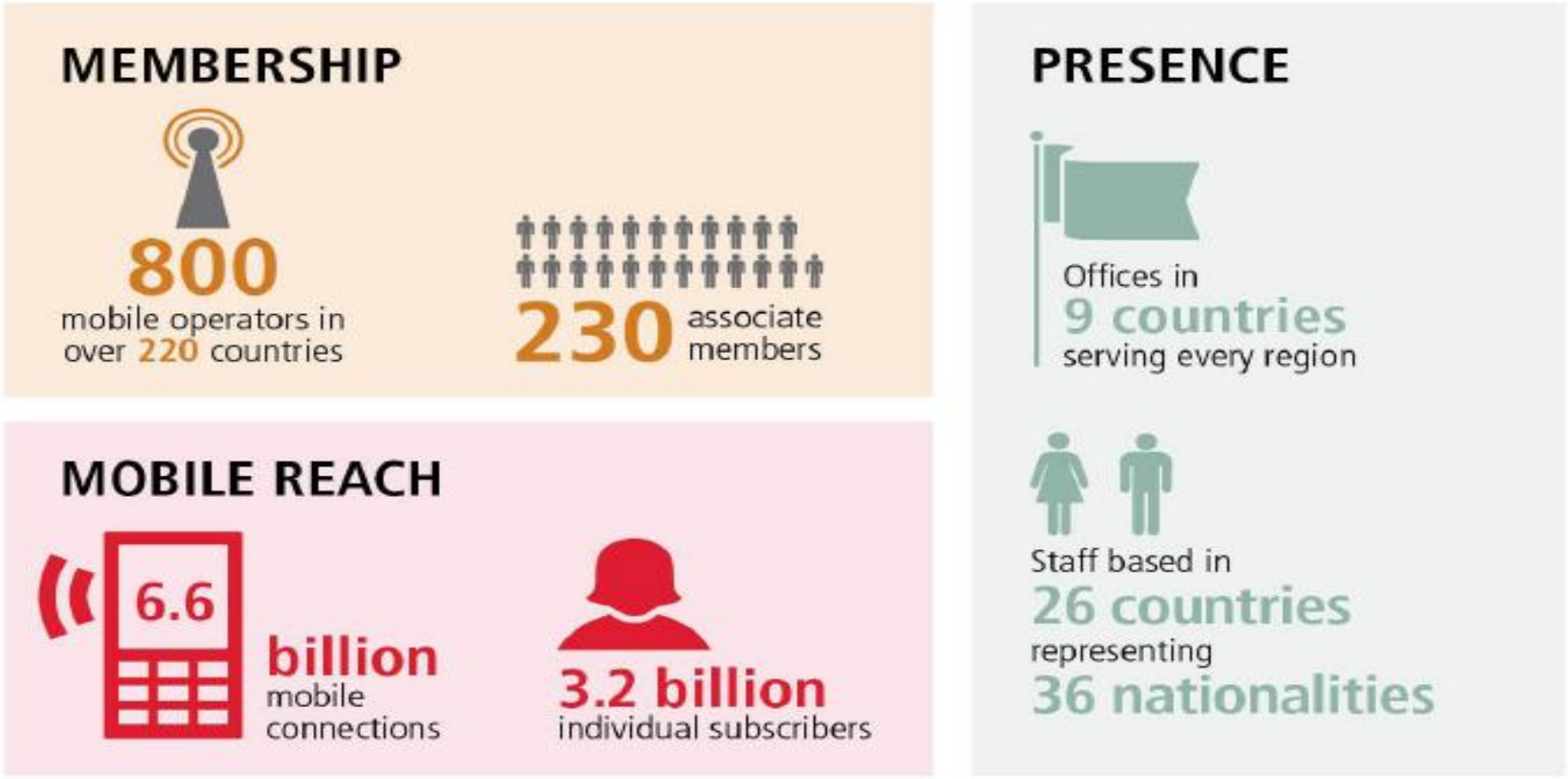
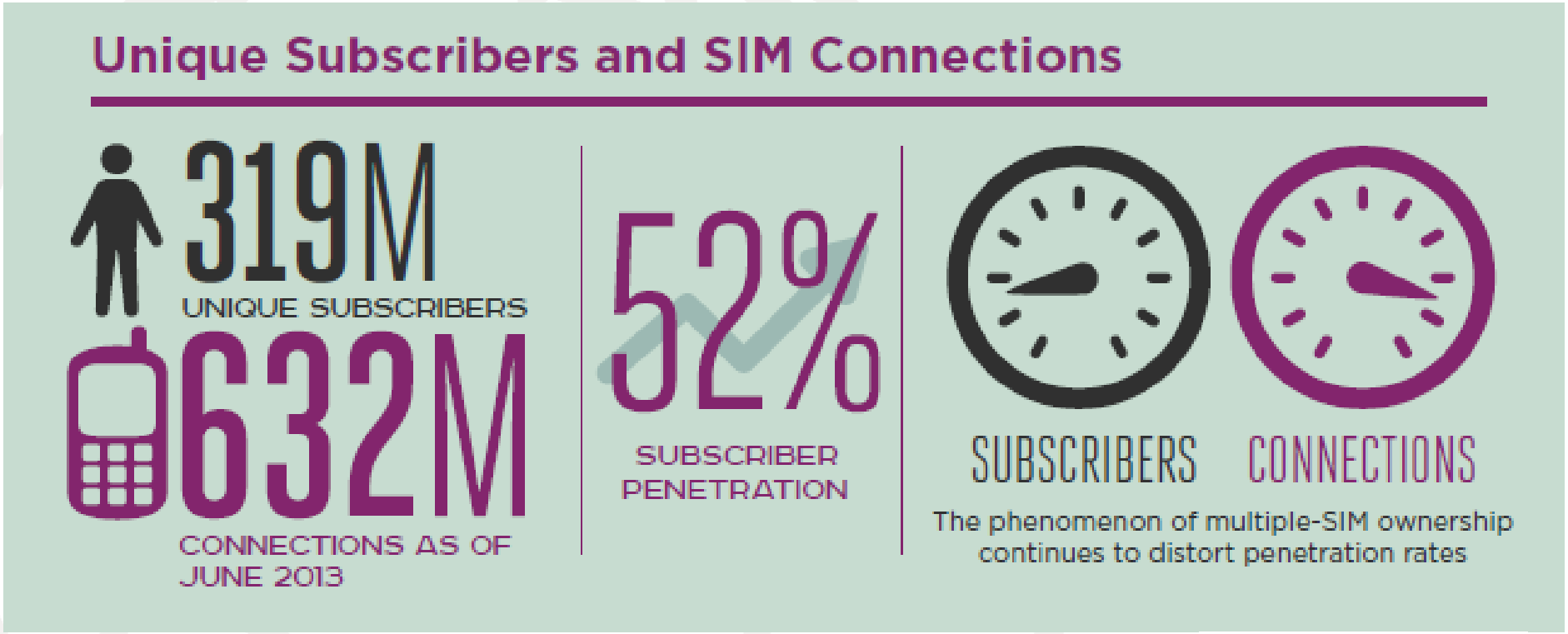
The GSMA in numbers



The mobile revolution

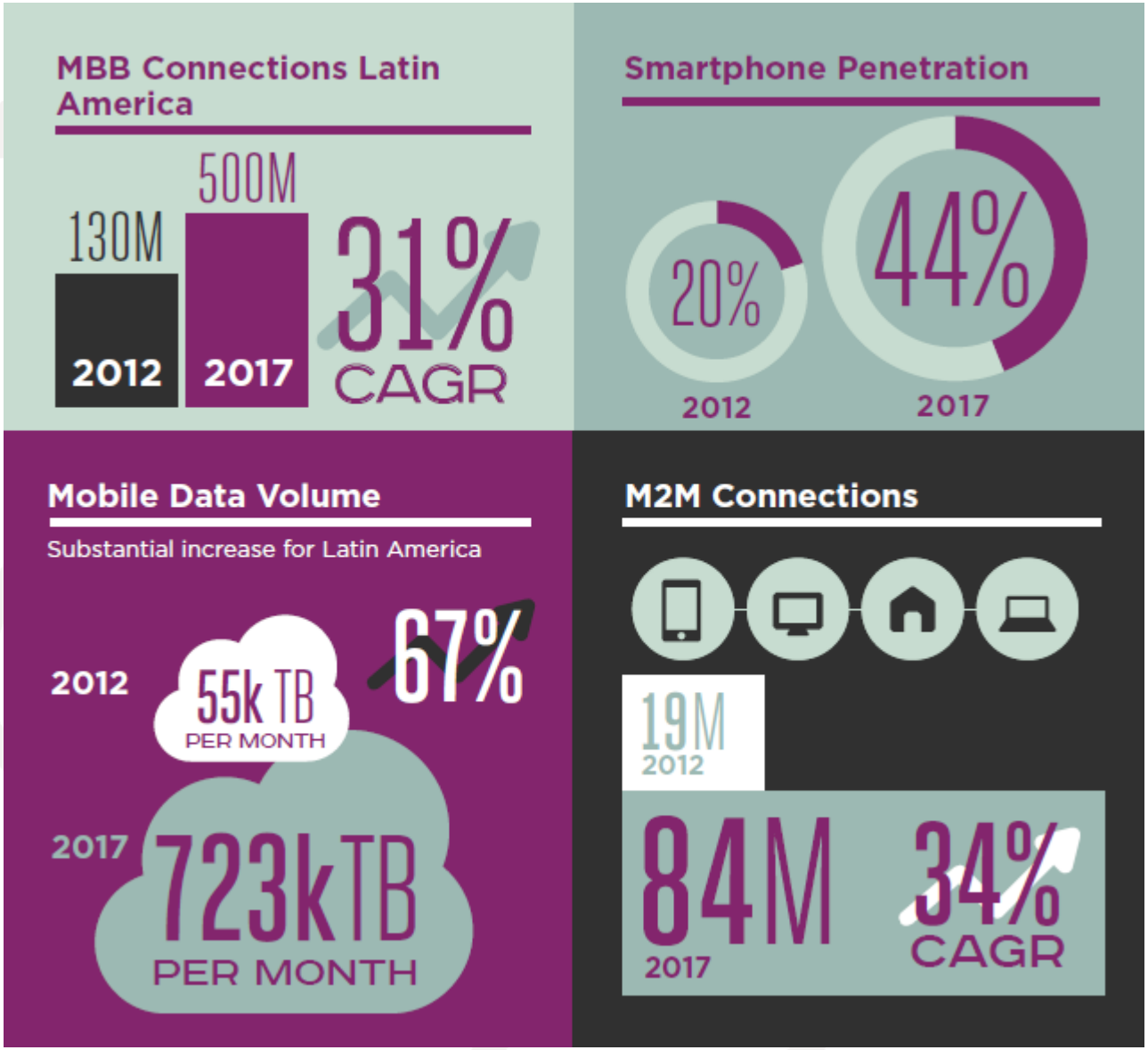
Subscriber growth in Latin America



Mobile Economy Latin America 2013

Source: GSMA, Mobile Economy Latin America, 2013

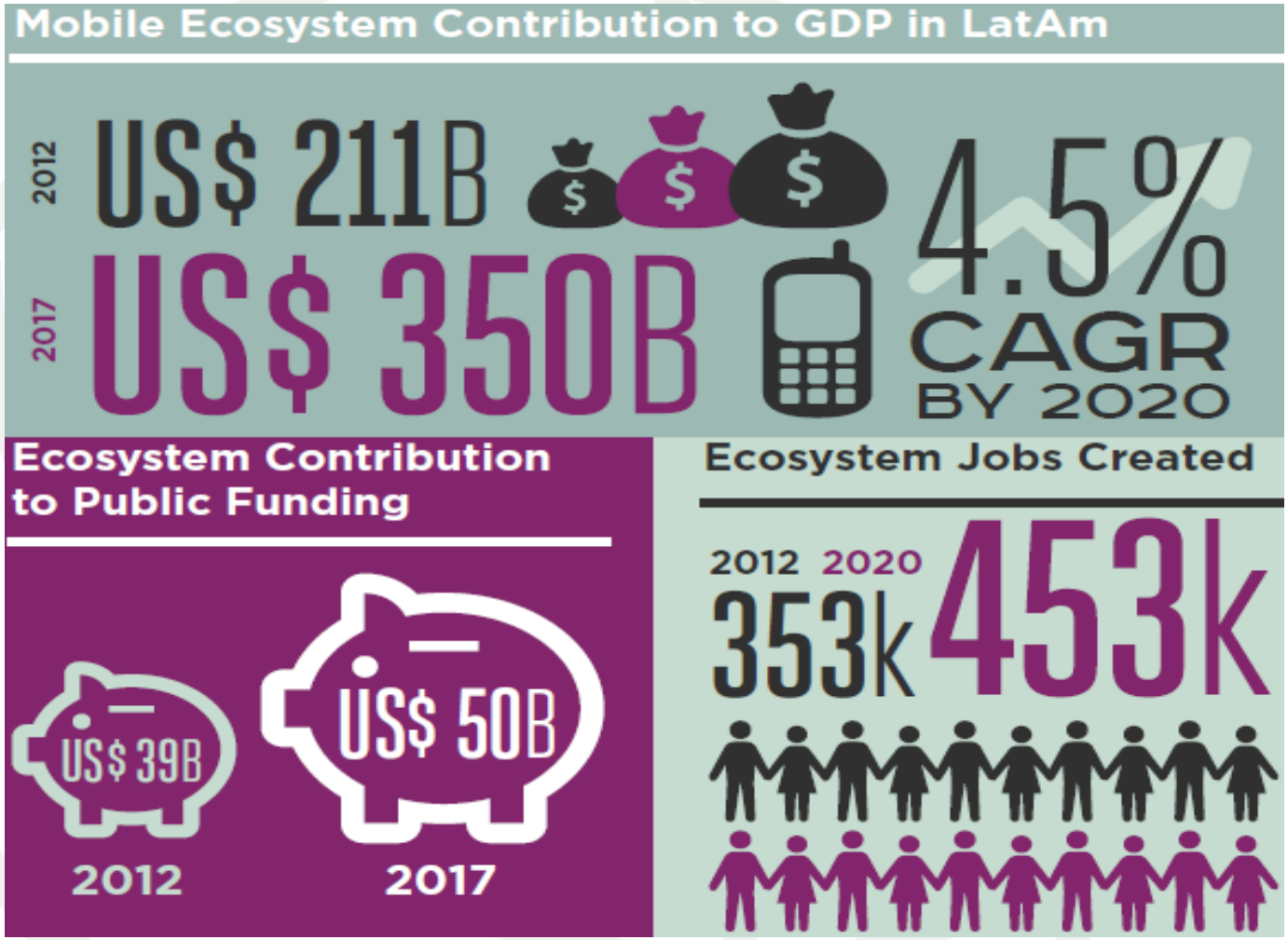
New phase of development



Source: GSMA, Mobile Economy Latin America, 2013

Mobile Economy Latin America 2013

Economic contribution of mobile



Mobile Economy Latin America 2013

Source: GSMA, Mobile Economy Latin America, 2013

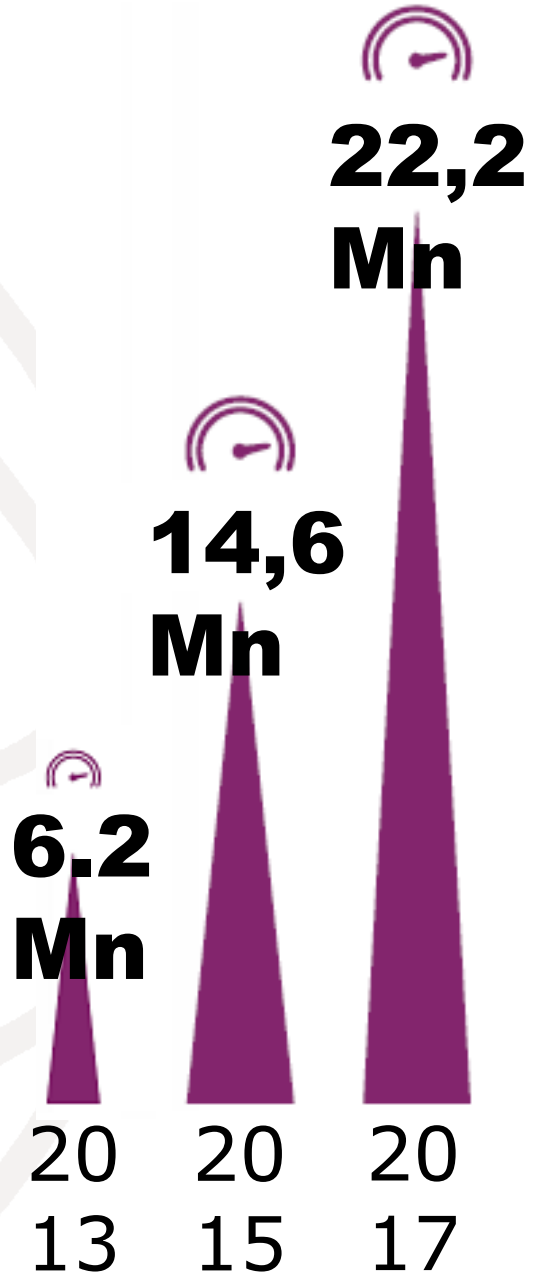
Broadband in Peru

MOBILE BROADBAND

6.2Mn

FIXED BROADBAND

1.8Mn



Antenna siting

- Growing traffic.
- Need for back-haul, power, locations.
- Difficulties with local authority approvals.

´Se necesita cuadruplicar número de antenas para ofrecer Internet 4G´

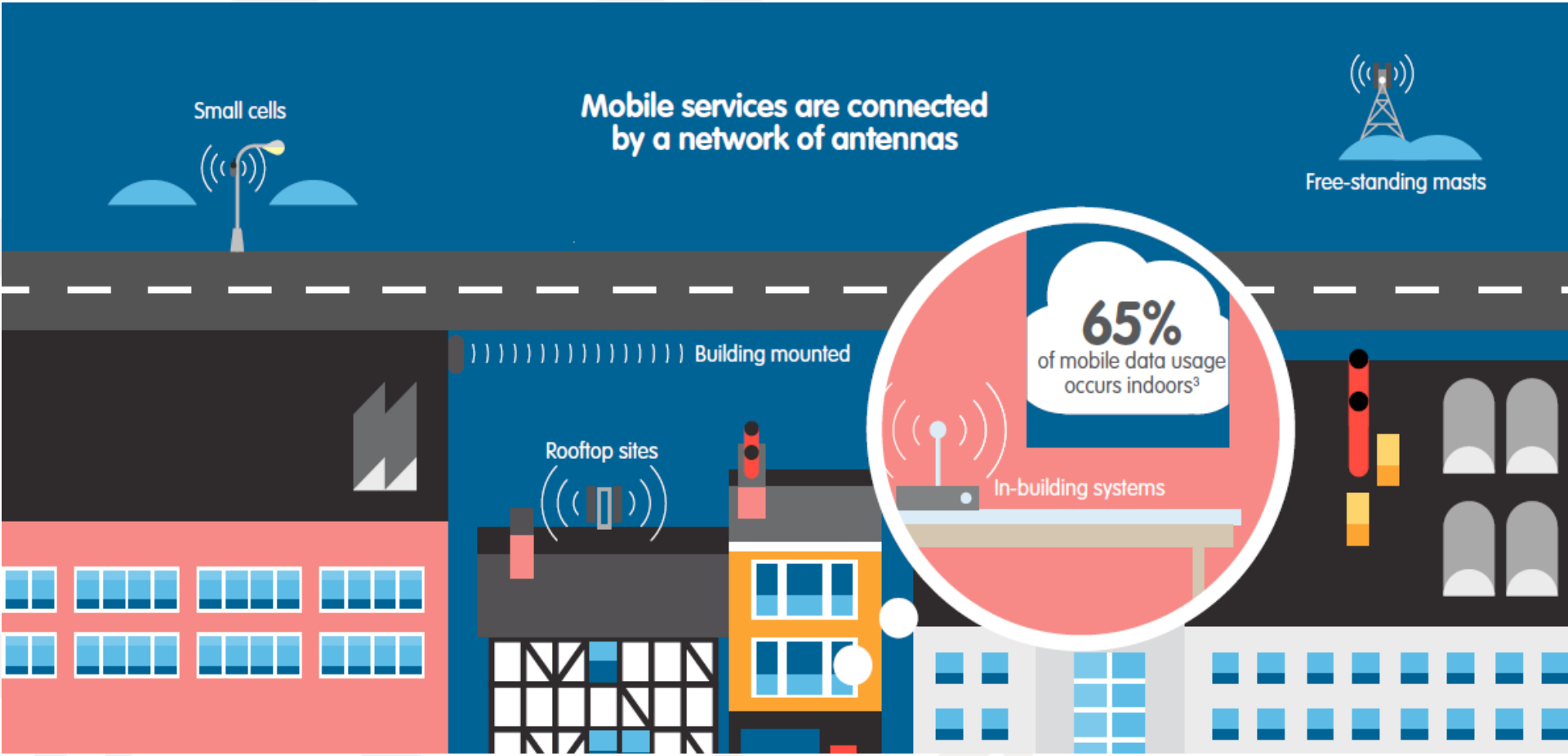
Lunes, 22 de Julio 2013 | 5:53 pm

'*You need to quadruple the number of antennas to deliver 4G Internet*'
- Peru, Deputy Minister of Communications, July 2013.

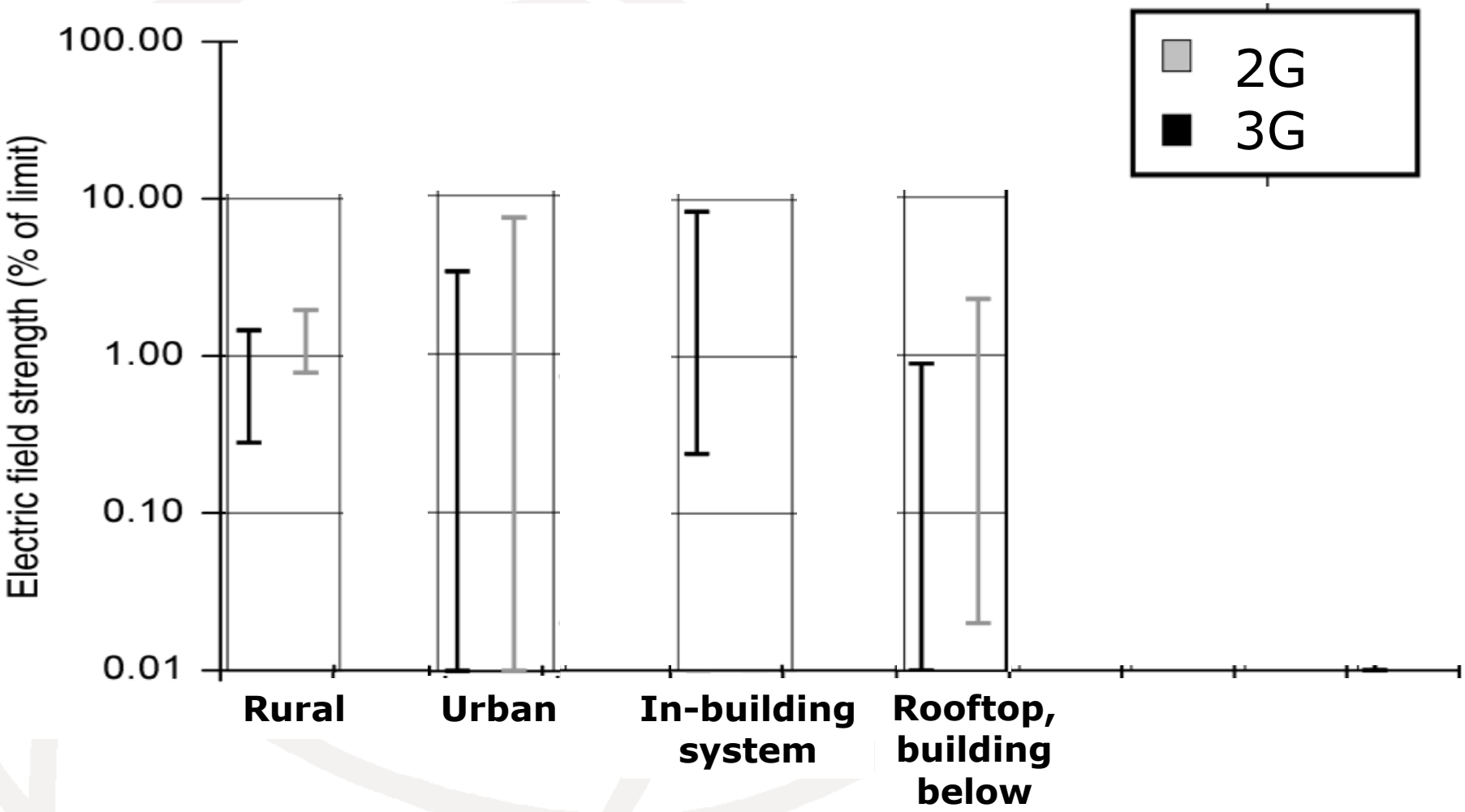
Mobile phones need nearby antenna sites

- Adaptive power control:
  - Phones are low power devices.
  - Lower power reduces interference.
  - Extends talk-time.

Many types of antenna sites

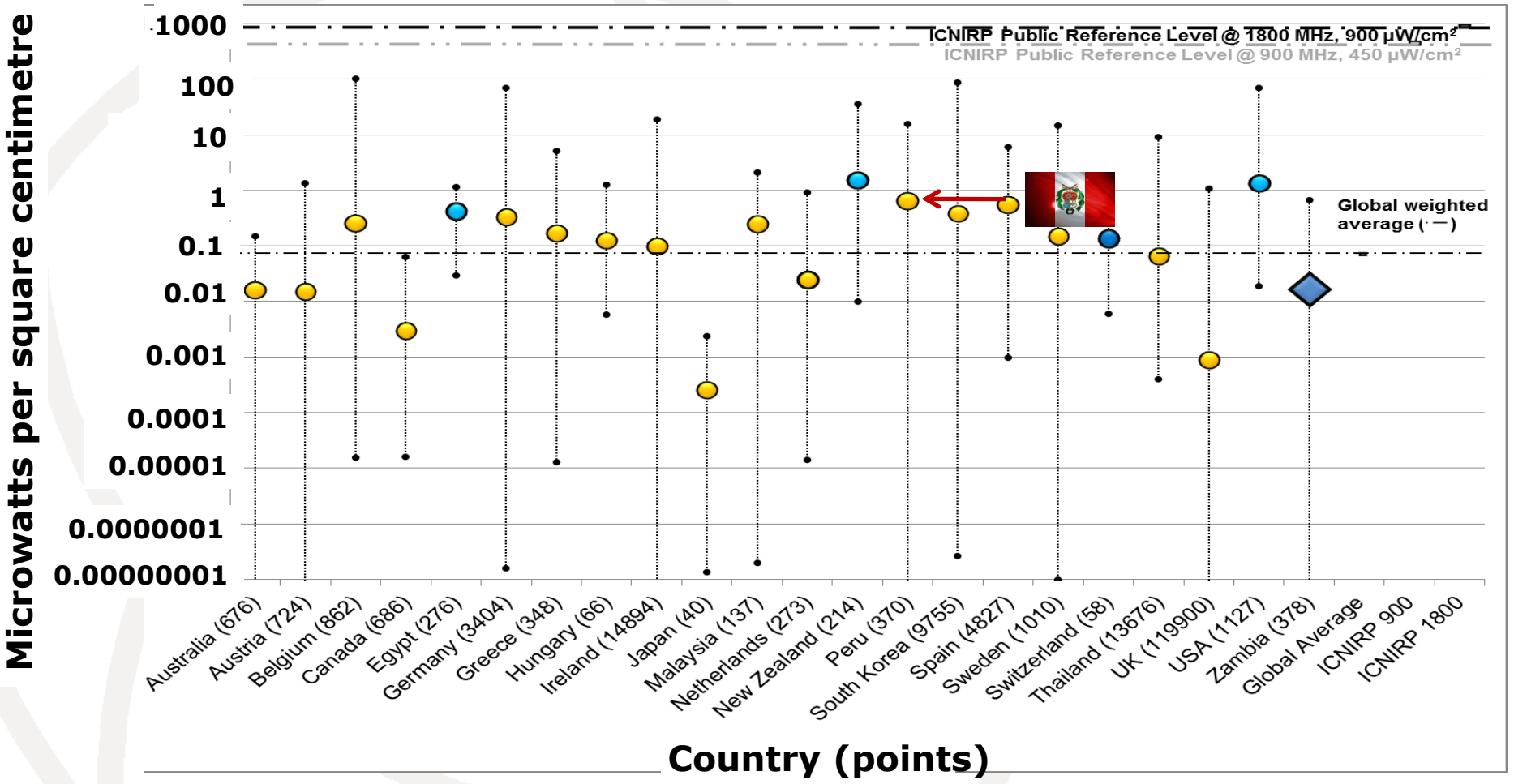


Exposures similar from all site types



Adapted from Figure 2 of Bornkessel et al, *2007*

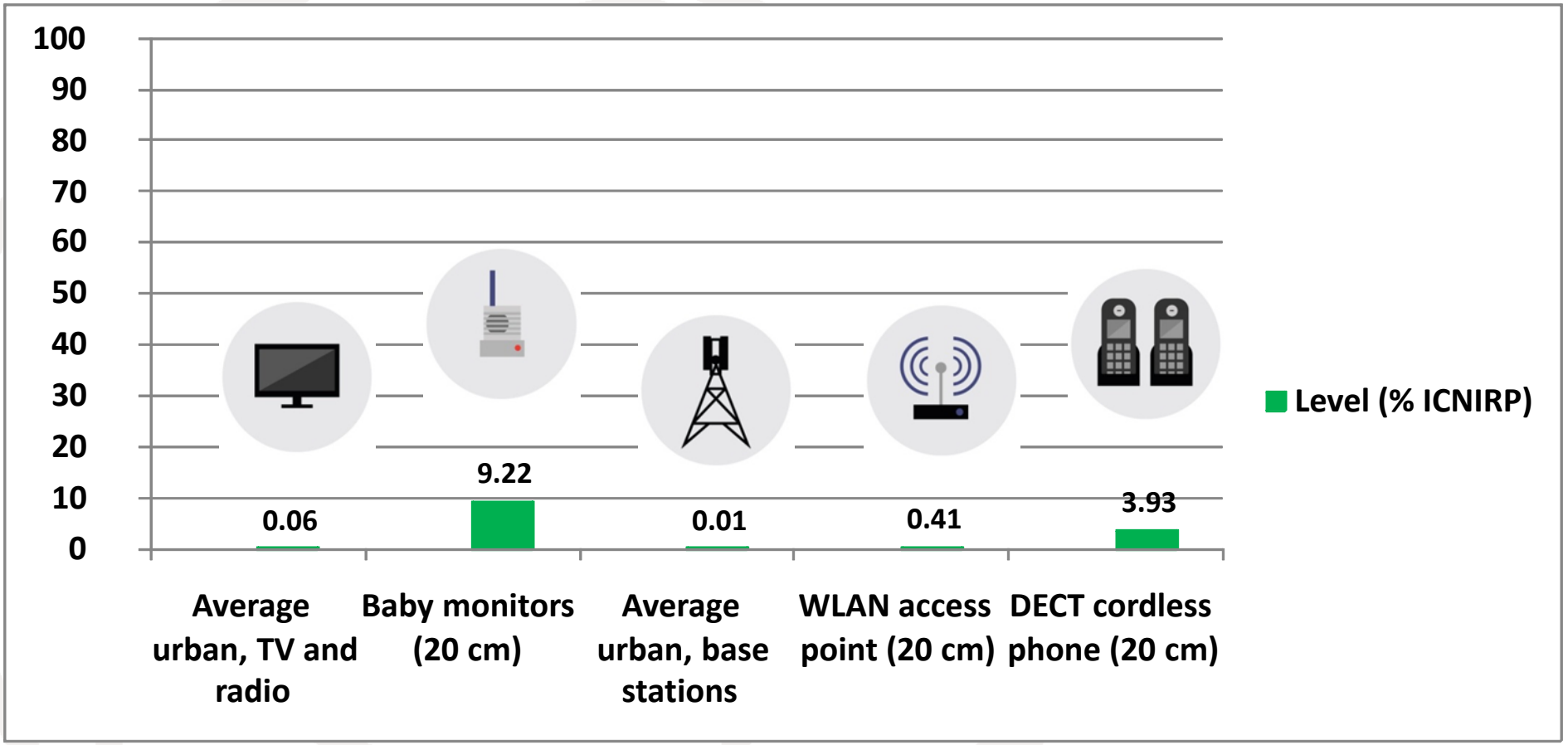
Exposure similar for all countries



Global average more than 5,500 times below limit values.

Based on Rowley and Joyner, 2012

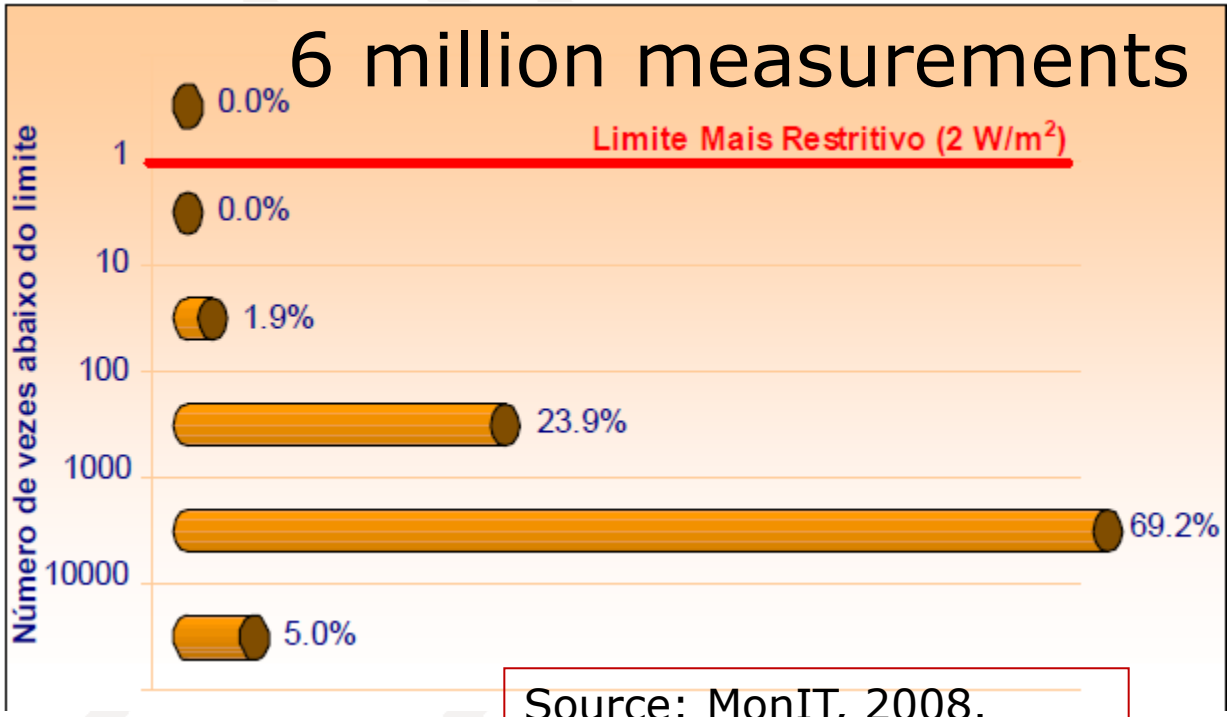
Mobile network levels similar to other radio sources



Based on Valberg et al., 2007.

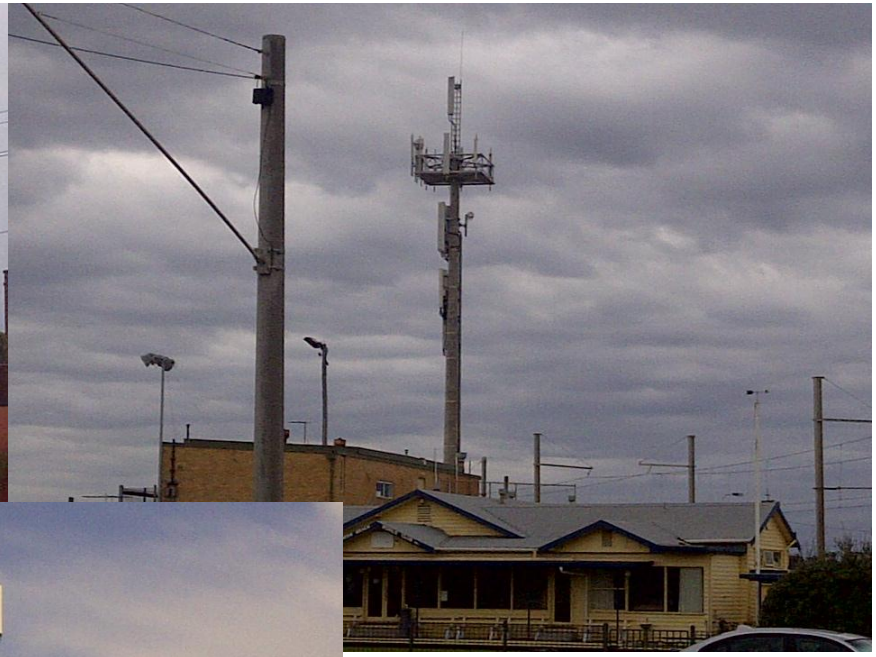
Assessing compliance

- Operator declarations.
- Post-installation measurements.
- Sample audits.
- Monitoring.



Source: MonIT, 2008.

Visual integration with environment



National policy for mobile networks

- Protects public and supports rollout.
  - Clear criteria for site assessment with national limits based on WHO recommendations.
  - Support municipalities with policy that specifies:
    - Information, consultation and design guidelines.
    - Mandatory decision period.
    - Simplified procedures for small cells and modifications.
    - Non-political decision making.
- Allow site sharing.
- Grant access to government facilities for antennas.

Some US initiatives on antenna siting

- FCC 'shot-clock' ruling (2009).
  - *90 days - co-location, 150 days - other.*
- Federal working group addressing access to government facilities.
- "Colocation by right".
  - *'…local government may not deny, and shall approve…modification…'*

Conclusions and Recommendations

Infrastructure rollout to support coverage and capacity hindered by non-evidence based concerns.

National governments can support through:

- Clear guidelines on visual integration requirements
- Mandatory decision period for site applications, harmonisation of municipal requirements
- Simplify procedures for small antenna, low power sites and modifications
- Helping operators to communicate WHO definitions to local communities

Muchas Gracias

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Lima, Peru, 10 December 2013