

Smart Cities in Latin América

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Mission:

To be an institution that works for the development and constant growth of technology in Chile, in the areas of Education, Smart Cities, Digital Development, all of them supported by their Center of Digital Studies. País Digital articulates actions between public and private sectors.



Internet of Things as Smart City Foundation



Latin American Initiatives





Applications



Communications



Things

“sensors and actuators connected by networks to computing systems. These systems can monitor or manage the health and actions of connected objects and machines”



Applications



Analytics

Mobile

Cloud

Security

Communications

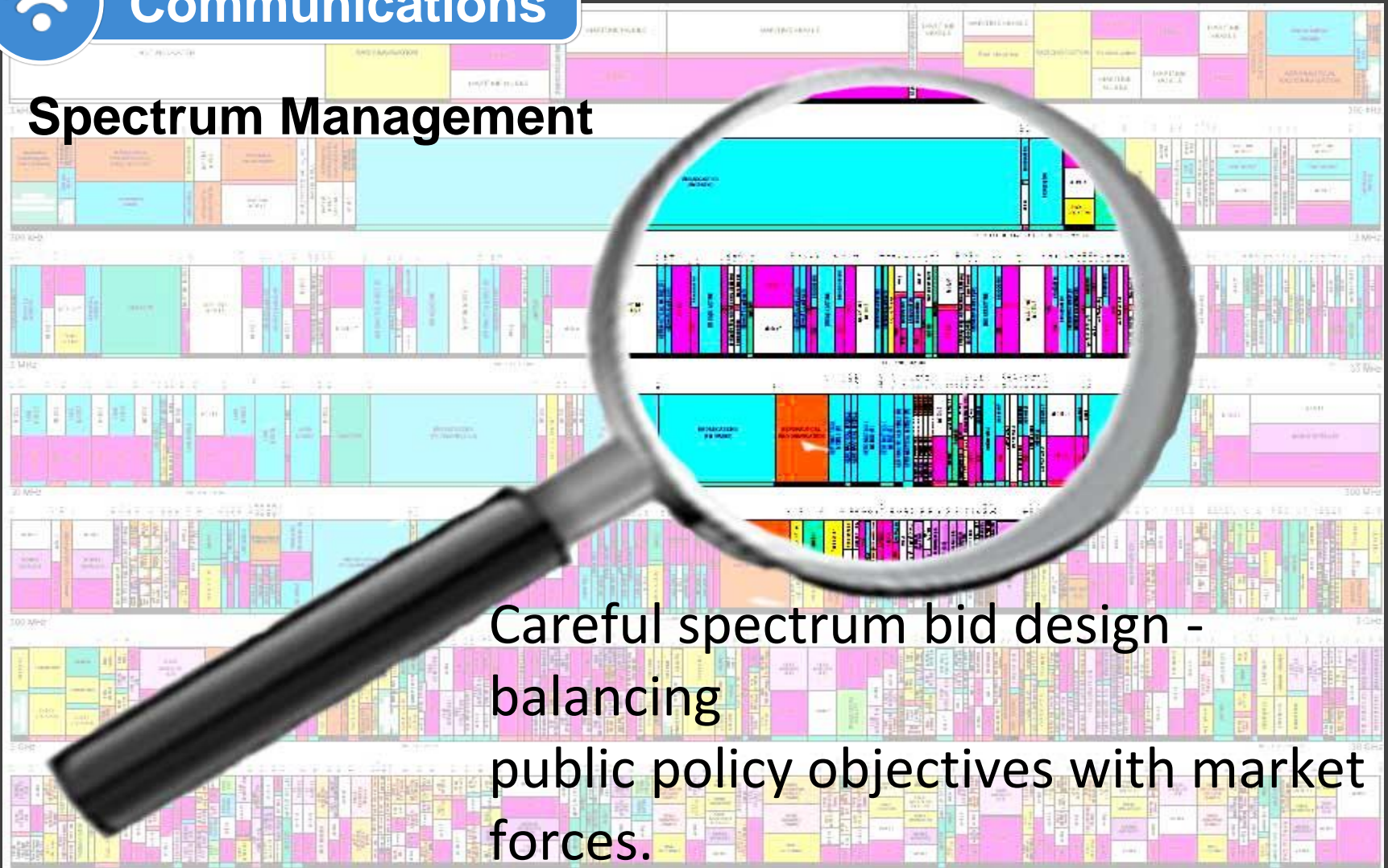
Wireless / Wired





Communications

Spectrum Management



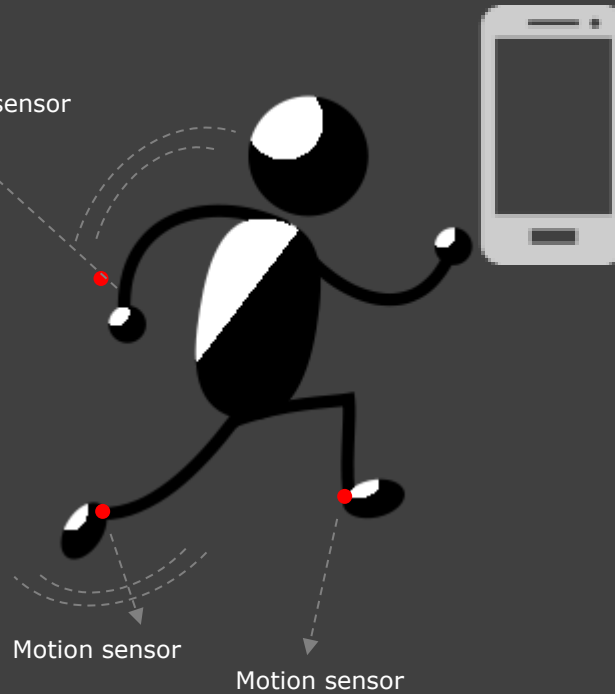
Careful spectrum bid design -
balancing
public policy objectives with market
forces.



Things



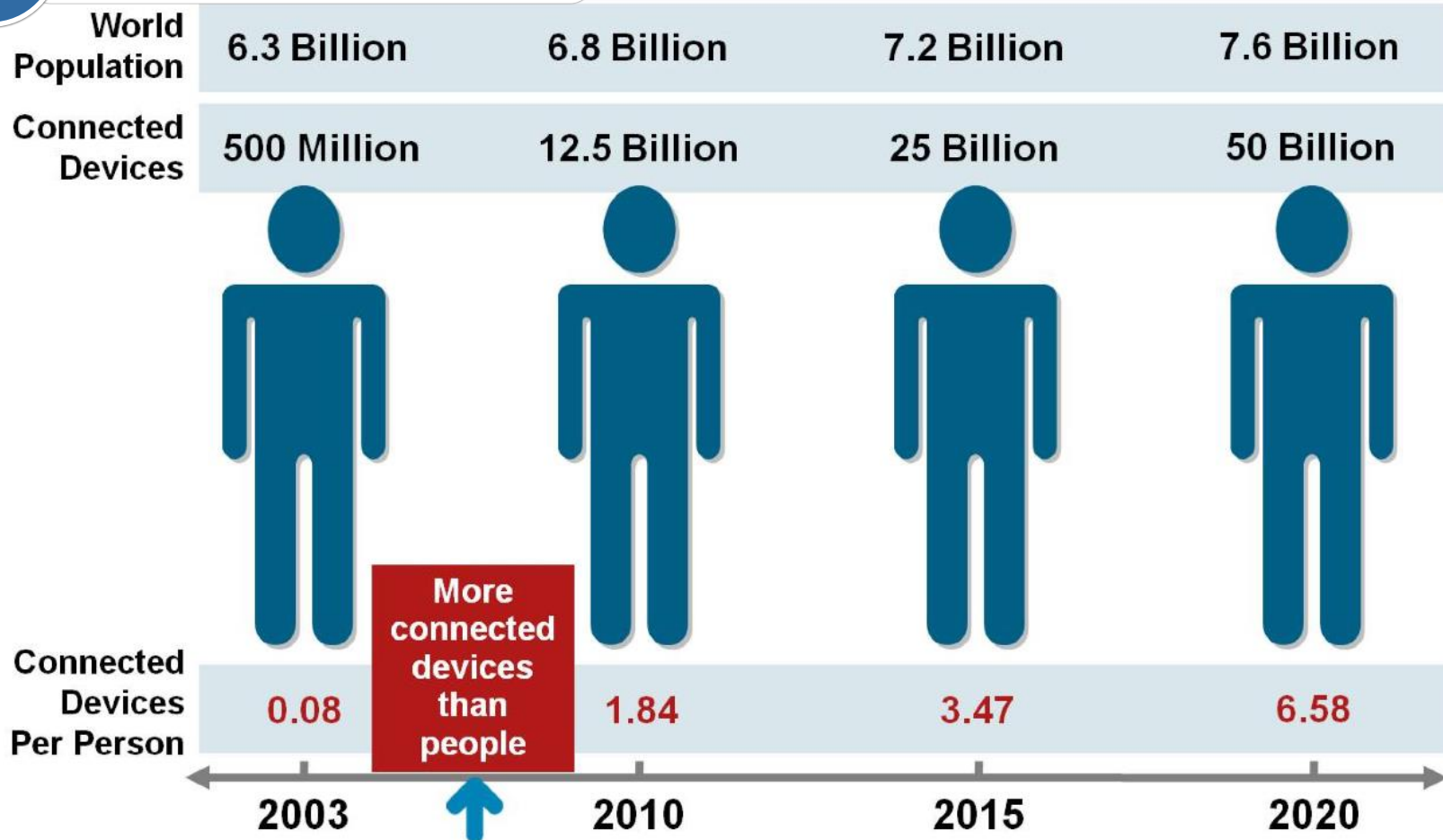
Motion sensor



- Camera
- Microphone
- Barometer
- Compass
- GPS
- Accelerometer
- Heart rate
- SpO2
- Fingerprint
- Eter
- Gyroscope



Things



WHAT ARE WE DOING **in** **LATIN AMERICA?**

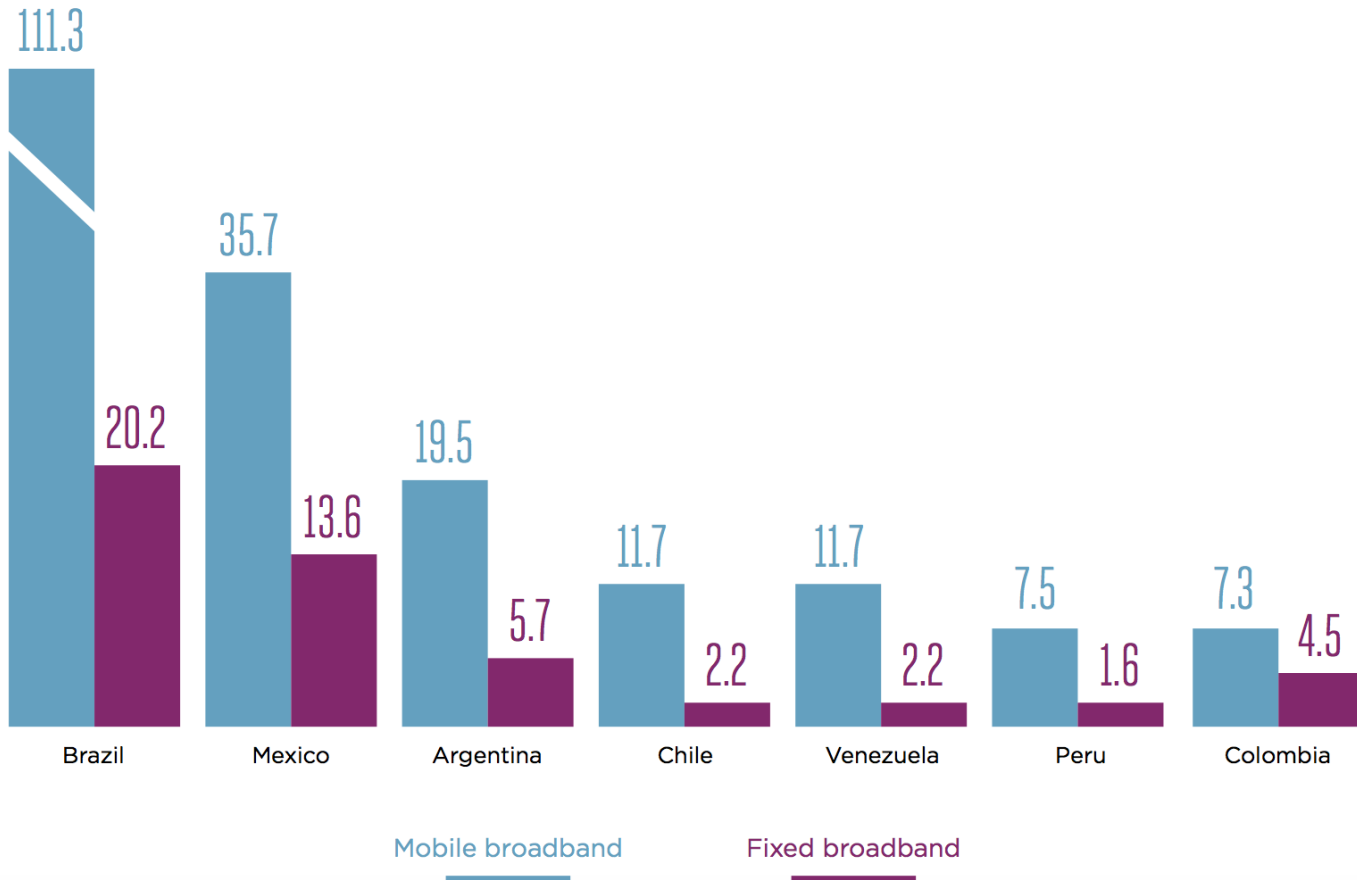


- The urban population in the Latin America and Caribbean region will approach 81 % percent of projected by 2020
- Over 300 million Internet users by 2015
- 135% Penetration Rate SIM connections by 2020
- 82% of the Lines in the region are Prepaid

Source: GSMA Intelligence; ITU

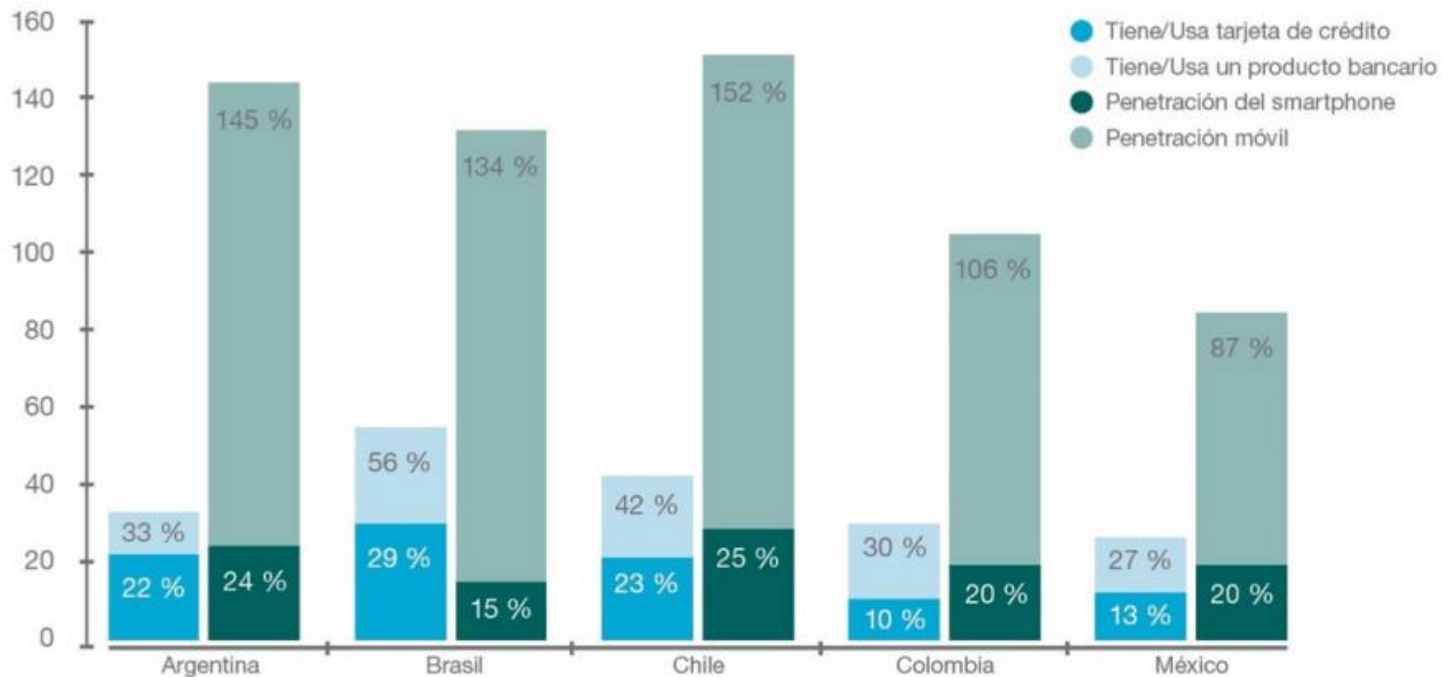
Mobile and fixed broadband connections in selected markets

(2013, m)



Low Access to Financial Services, High Mobile Penetration

Figura 4: Baja inclusión financiera, alta penetración móvil



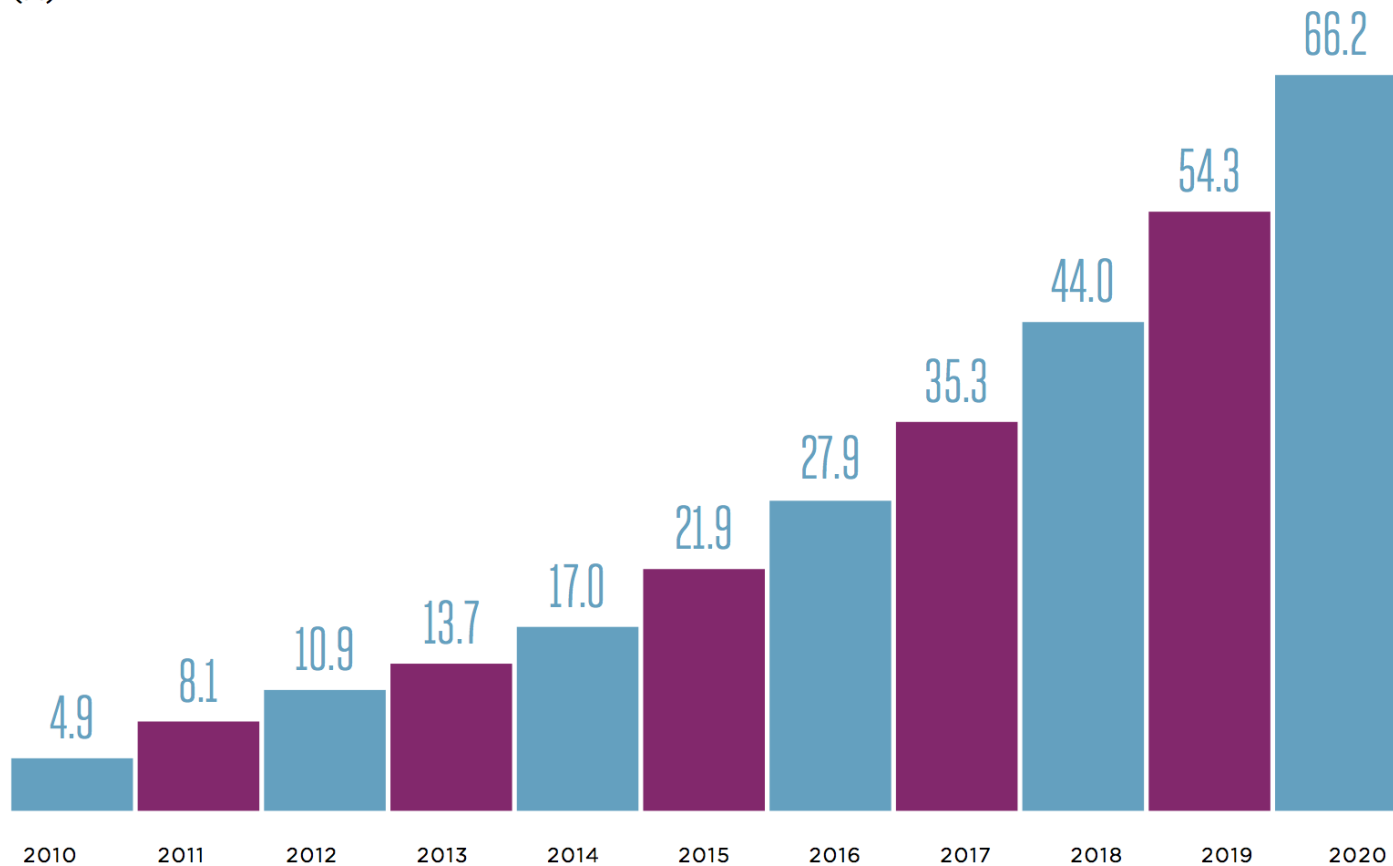
Fuentes: Base de datos de la Inclusión financiera global del Banco mundial, 2012 y Ericsson ConsumerLab, Plataforma analítica, 2012

Smart cities in Latam

Source: GSMA Intelligence

M2M connections in Latin America

(M)



Is there any Smart City in
Latin America?

8 CIUDADES INTELIGENTES

La ciudad tendrá un sistema de metro eléctrico subterráneo antes de la próxima década.

El sistema TransMilenio mueve 1,65 millones de personas al día.

TransMilenio es uno de los sistemas más extensos y usados del mundo.

Algunos edificios usan tecnología que absorbe la contaminación.

La ciudad cuenta con más de 4000 bicicletas públicas.

Pioneros en la construcción de edificios inteligentes y sostenibles

Catalogada como la mejor ciudad para hacer negocios.

Tiene el Gobierno menos corrupto de la región.

Los precios del peaje están automatizados según el tráfico.

Combinó la renovación urbana con el desarrollo grupal a través de la inversión en sectores marginados.

Se creó el Ministerio de la Modernización, que implementó una extensa red pública de Wi-Fi.

La ciudad generó 150.000 empleos implementando tecnología, entrenamiento, diseño, farmacéutica, artes y producción visual.

Es considerada la ciudad más ecológica de Latinoamérica según el ranking de Siemens.

El exalcalde Jaimer Lerner tiene el crédito por la invención de buses como sistema de transporte masivo.

Reconocida por el metro como su sistema de transporte masivo.

Construcción de infraestructura atractiva como museos y librerías.

Fue catalogada como la 'ciudad innovadora del año'.

Es un centro de emprendimiento cultural y tecnológico y cuenta con programas universitarios que apoyan este sector.

Renovación y desarrollo con ayuda de IBM para monitorear en tiempo real el clima, crimen, tráfico, vigilancia y datos de emergencia.

Contratación de jóvenes que contribuyen al registro de imágenes digitales en los puntos donde hay problemas como la acumulación de basuras en las favelas.

4. BUENOS AIRES
HABITANTES
12.548.638

5. RIO DE JANEIRO
HABITANTES
11.960.000

6. CURITIBA
HABITANTES
3.260.292

7. MEDELLÍN
HABITANTES
3.499.080

8. MONTEVIDEO
HABITANTES
1.742.850

3. BOGOTÁ
HABITANTES
9.853.338

2. MÉXICO DF
HABITANTES
20.116.842

1. SANTIAGO DE CHILE
HABITANTES
6.228.590



Santiago

- Automating pricing depending on traffic

Mexico DF

- Smart and eco buildings

Bogota

- Electrical and eco Subway

Buenos Aires

- Public Wi-Fi and public tech job programs

Rio de Janeiro

- Weather, Crime, Traffic & Emergency Monitoring

Curitiba

- Considered the most ecological City

Medellin

- Considered the most innovative City

Montevideo

- University and educational programs to create human capital

CHILE in Digital Figures



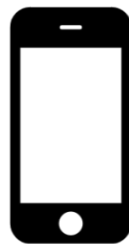
70%

of population
with Internet access



98%

of the population can
benefit from
telecommunications offers



140%

mobile phone
penetration



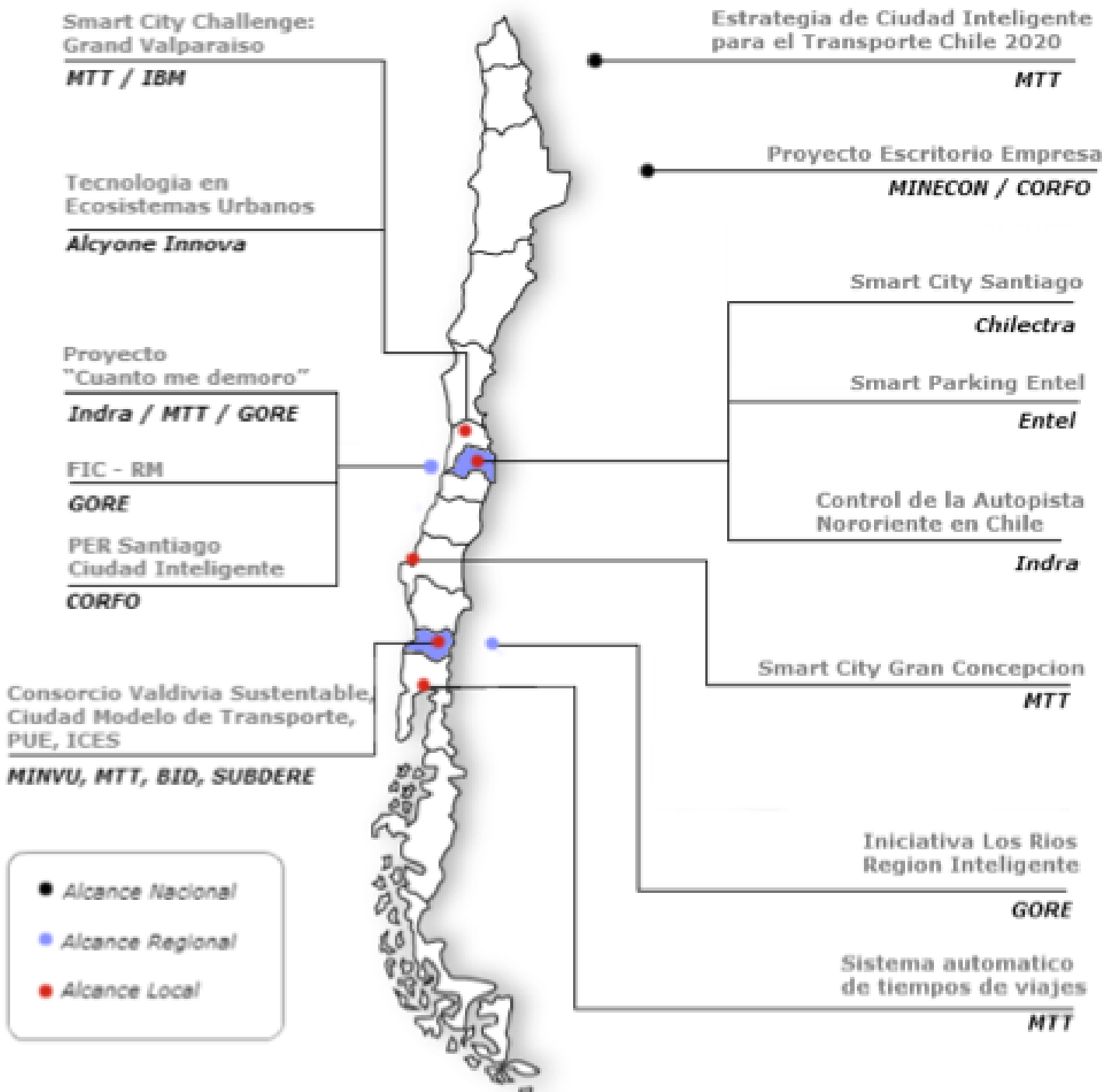
67%

of households
with Internet access



432%

increase in mobile Internet
connections between
2009 and 2015



Smart cities Chilean ranking

Measure and compare the current state of Chilean cities



11 Selected cities



28 Key Indicators

6 areas: Lifestyle, Society, Economy, , Government, Mobility, and Environment

28 key indicators and general results

RESULTADOS GENERALES



NOTA BÁSICA: 25 PUNTO COMPONENTE
NOTA MÁXIMA: 100 PUNTO

Bike Santiago



- 1 Sign-up
- 2 Receive card
- 3 Release and use
- 4 Move around
- 5 Return



Apps Government



iFarmacias

App facilitating the search for on duty pharmacies in Chile



iBencina

App facilitating the search of prices and locations of gas stations in Chile



iTransantiago

App facilitating the search for alternative travel routes in the Santiago public transport system, see the nearest stops, buses, waiting times.

Great Concepción



This was a co-creative exercise, based on design thinking principles of identifying problems, brainstorming ideas and creating prototypes of solutions. The phase had 3 parts:



Context analysis:

Interviews with officials and technicians to understand the functions, priorities and challenges of each municipal department, and to obtain high-value information for an analysis of the political and economic context.



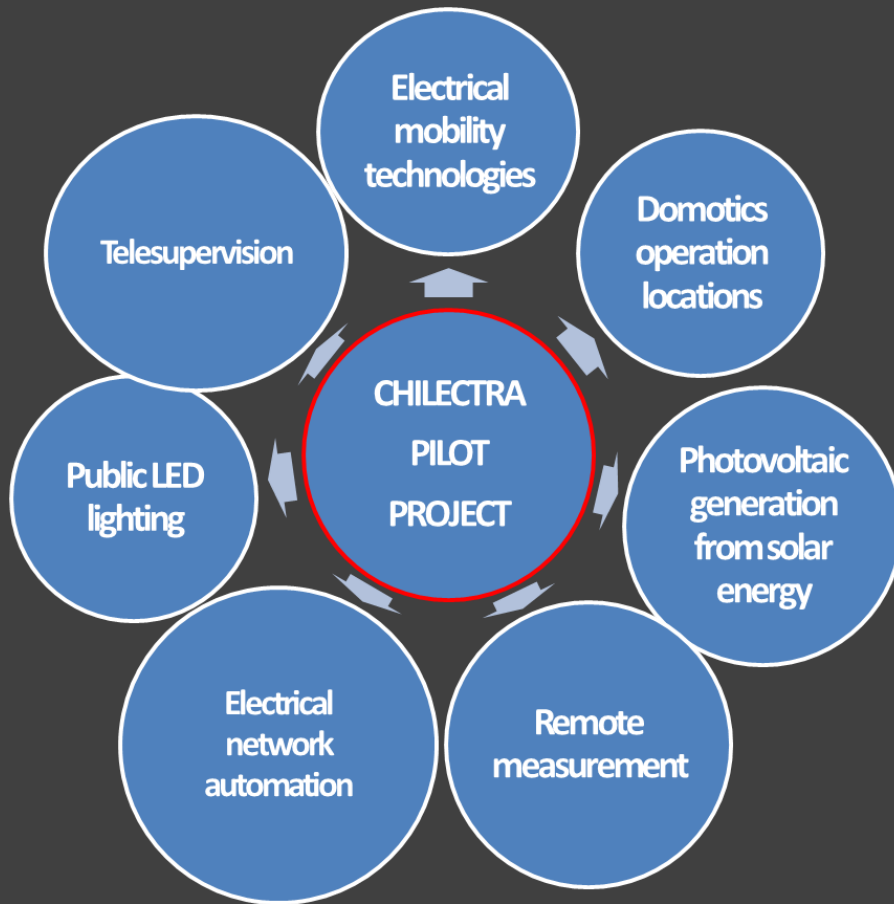
Identification:

A workshop of presentations of technological solutions so that teams of officials, grouped by different challenges, could identify solutions that are relevant for Gran Concepción.



Co-creation:

An open workshop in which multidisciplinary teams created solutions that addressed the identified challenges, using interactive techniques like the "Citizen's Daily Journey" and "Service Cards".



CORFO: Chilean Economic Development Agency
Ministry of Economy

Mining

Agriculture

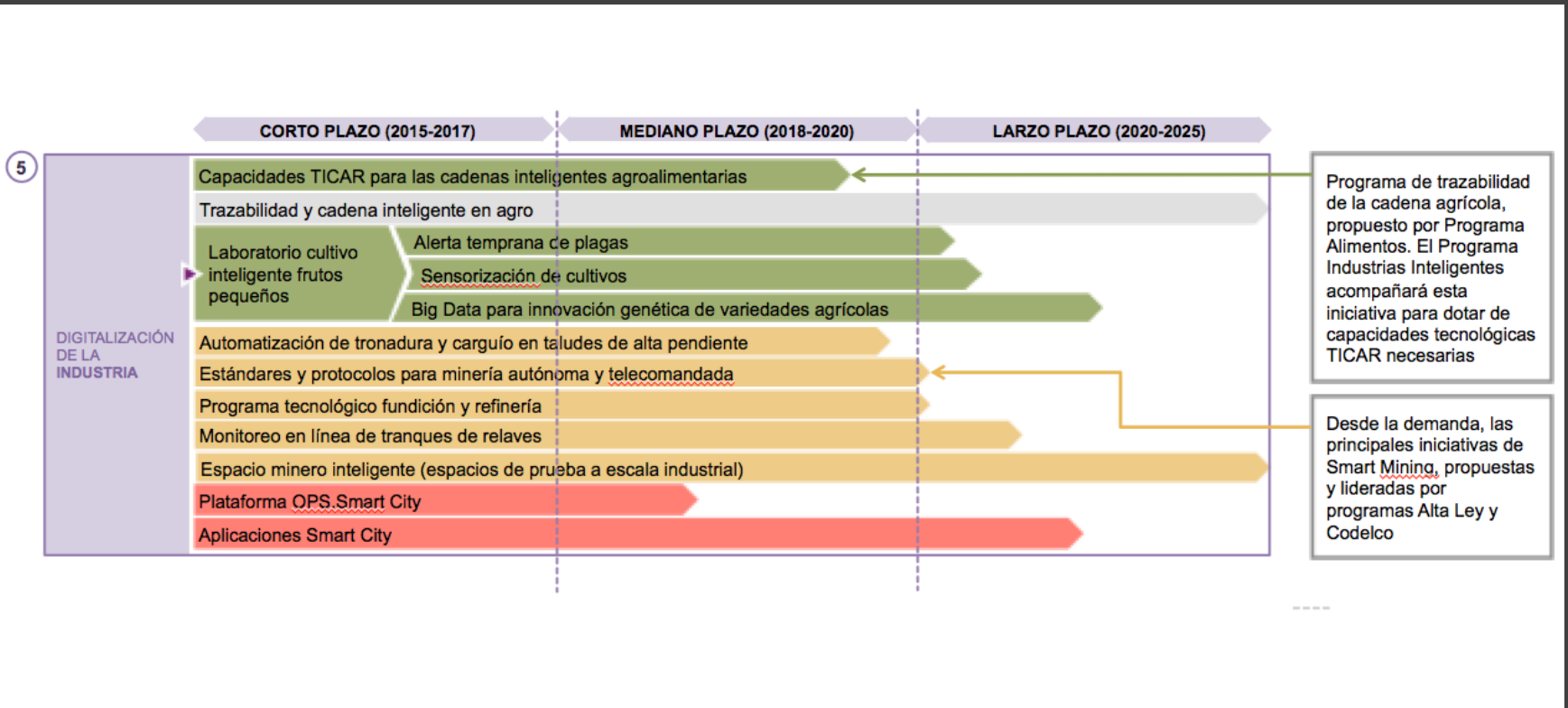
Smart Cities

- Smart City Lab
- Smart City Application Deployment
- Smart City Operations Platform
- Digital infrastructure for intelligent industries
- Radio spectrum for intelligent industries

Hoja de Ruta 2015-2025 (1/2)



Smart industries



The largest barriers are not in technology

- Define long-term digital strategies of governments rather than short term. Long-term
- Digital Agenda? Science, Technology and Innovation and Minister?
- Establish public policies that facilitate implementation of smart cities strategies. Regulations.
- Align strategies with urban development
- Build a culture of innovation.
- Education and a sustainable development of the people

Thank you!

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