



**Les grands enjeux urbains et territoriaux
du 21^{ème} siècle**

CARLOS MORENO

Professeur Université Paris1 - Panthéon Sorbonne – IAE Paris
Directeur Scientifique Chaire ETI
Médaille de la Prospective 2019 – Académie d'Architecture

IN PHYSIOLOGY OR MEDICINE 2019

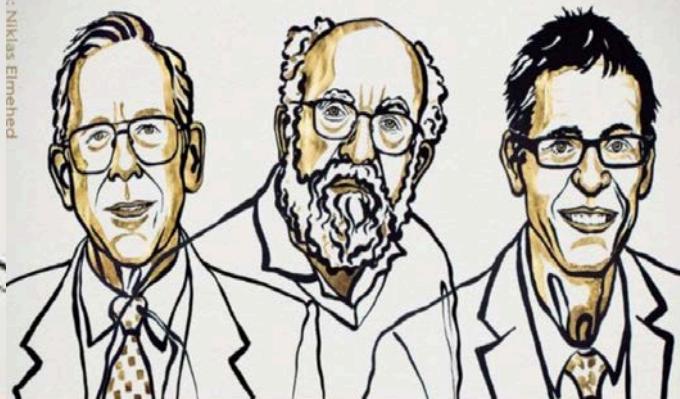


William G.
Kaelin Jr.

Sir Peter J.
Ratcliffe

Gregg L.
Semenza

THE NOBEL PRIZE IN PHYSICS 2019

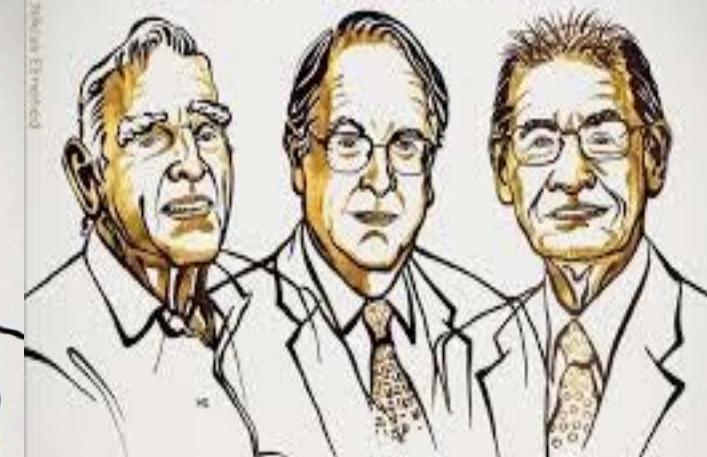


James
Peebles

Michel
Mayor

Didier
Queloz

IN CHEMISTRY 2019



John B.
Goodenough

M. Stanley
Whittingham

Akira
Yoshino

D'où vient
la vie ?



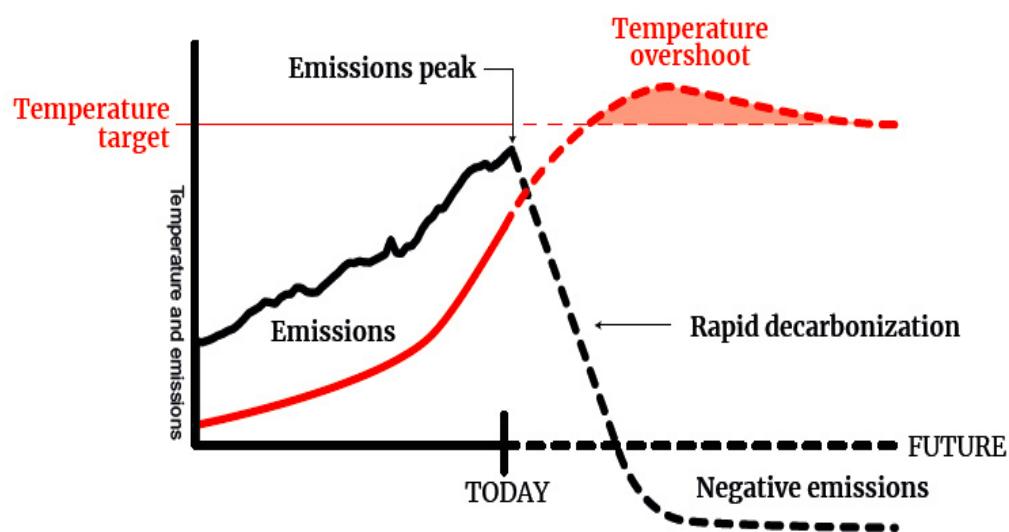
D'où vient
la terre ?



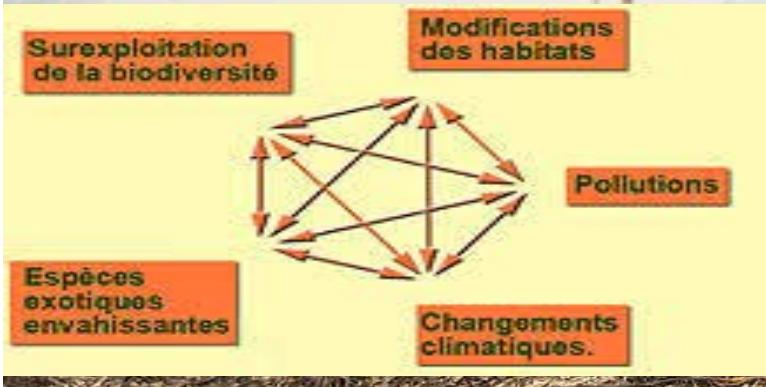
D'où vient
mon
smartphone ?



CHANGER DE PARADIGME !



CHANGER DE PARADIGME !



© EPA

CARLOS MORENO
LA PASSION DE L'INNOVATION



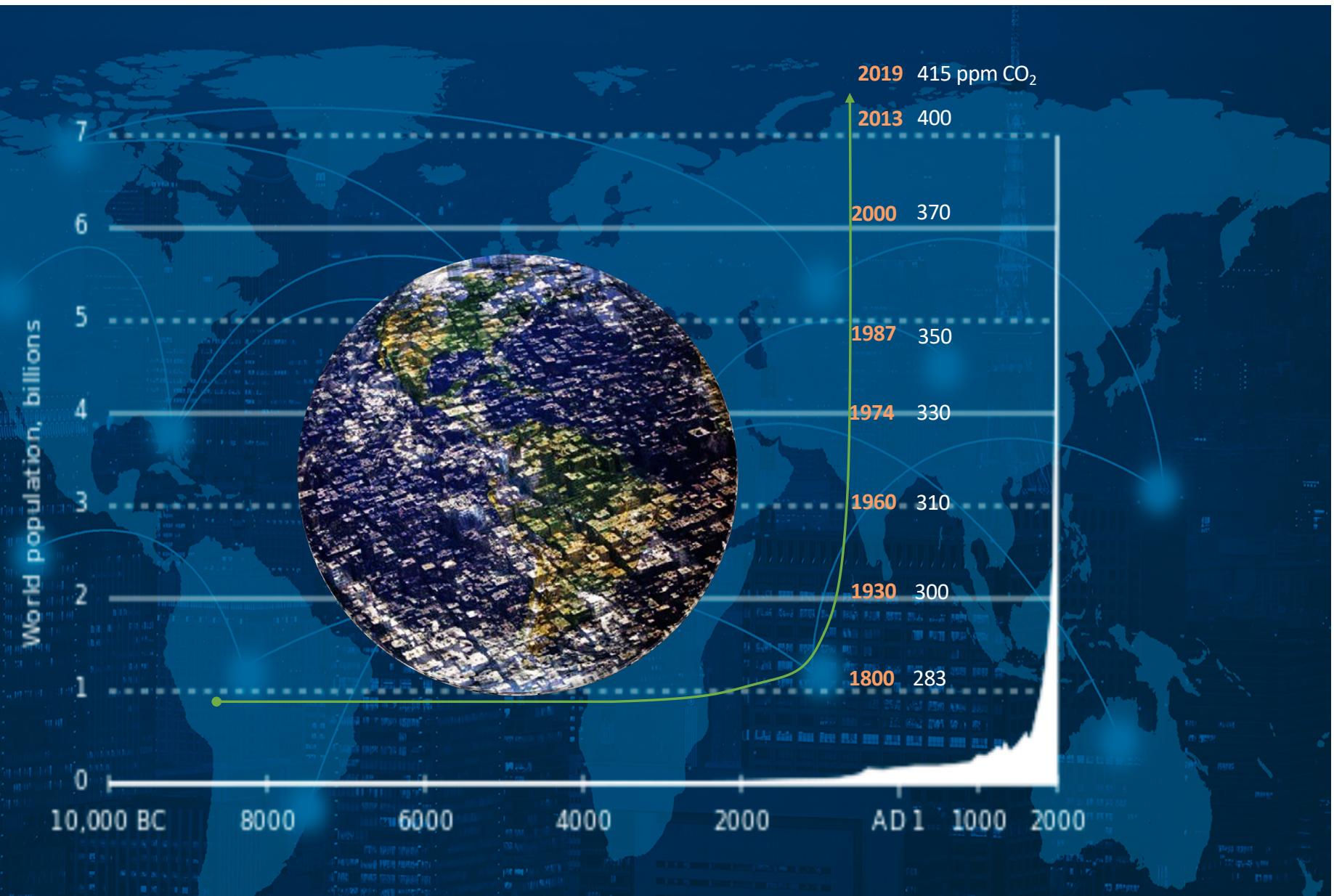
WWW.MORENO-WEB.NET
@CarlosMorenoFr

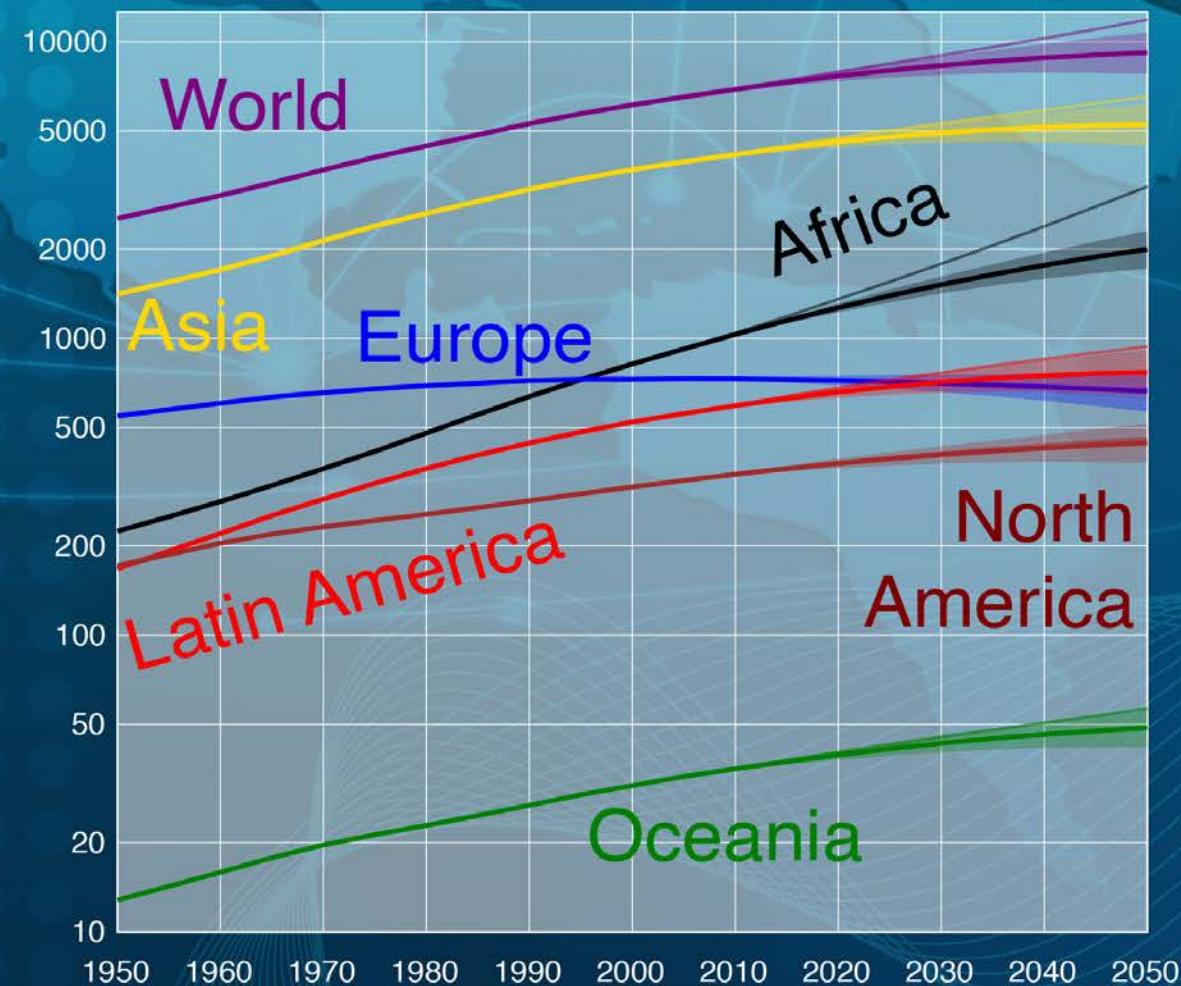


**CHANGER DE
PARADIGME !**

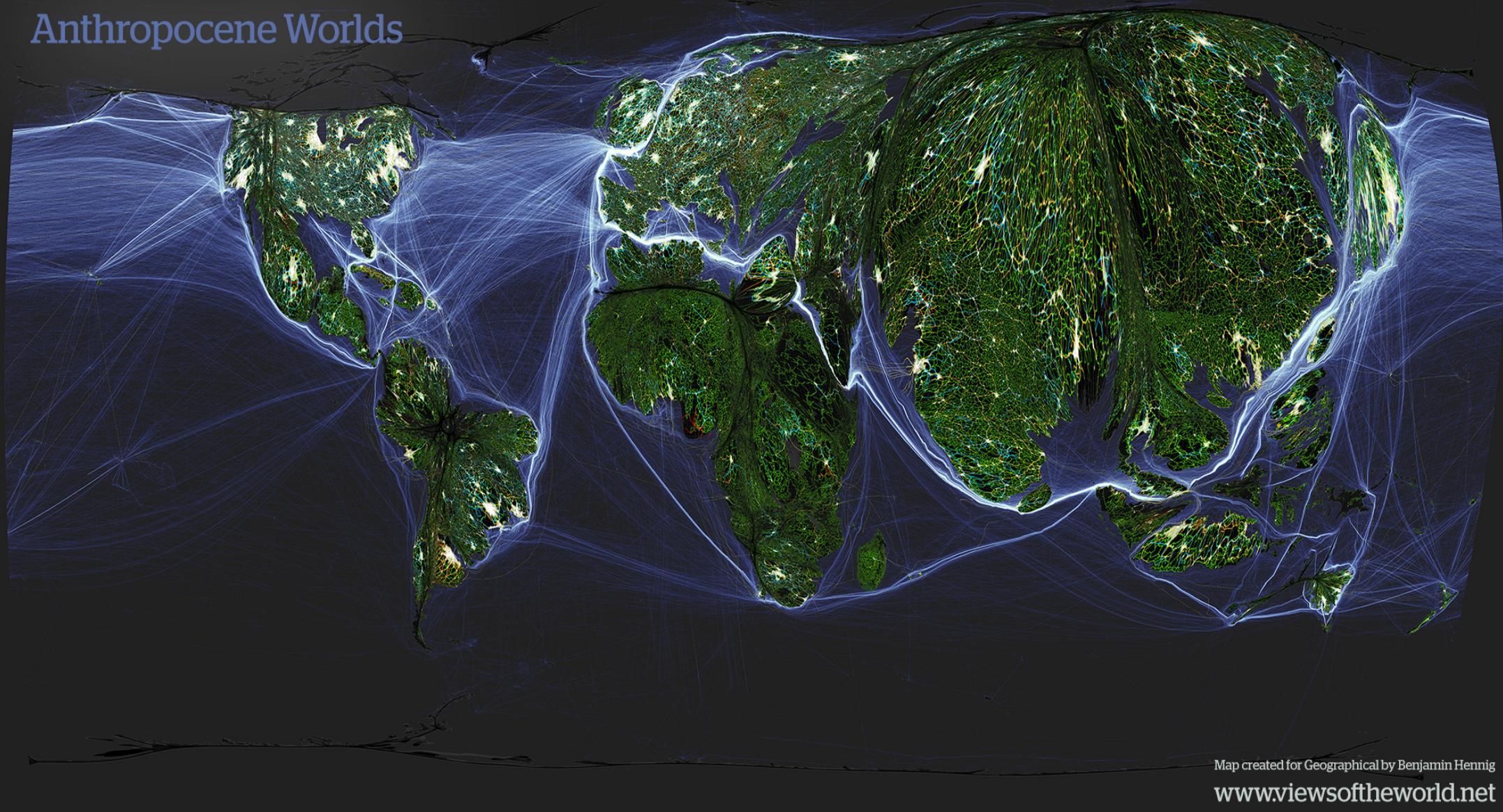


**PENSER LE CHANGEMENT
AU LIEU DE
CHANGER LE PANSEMENT**





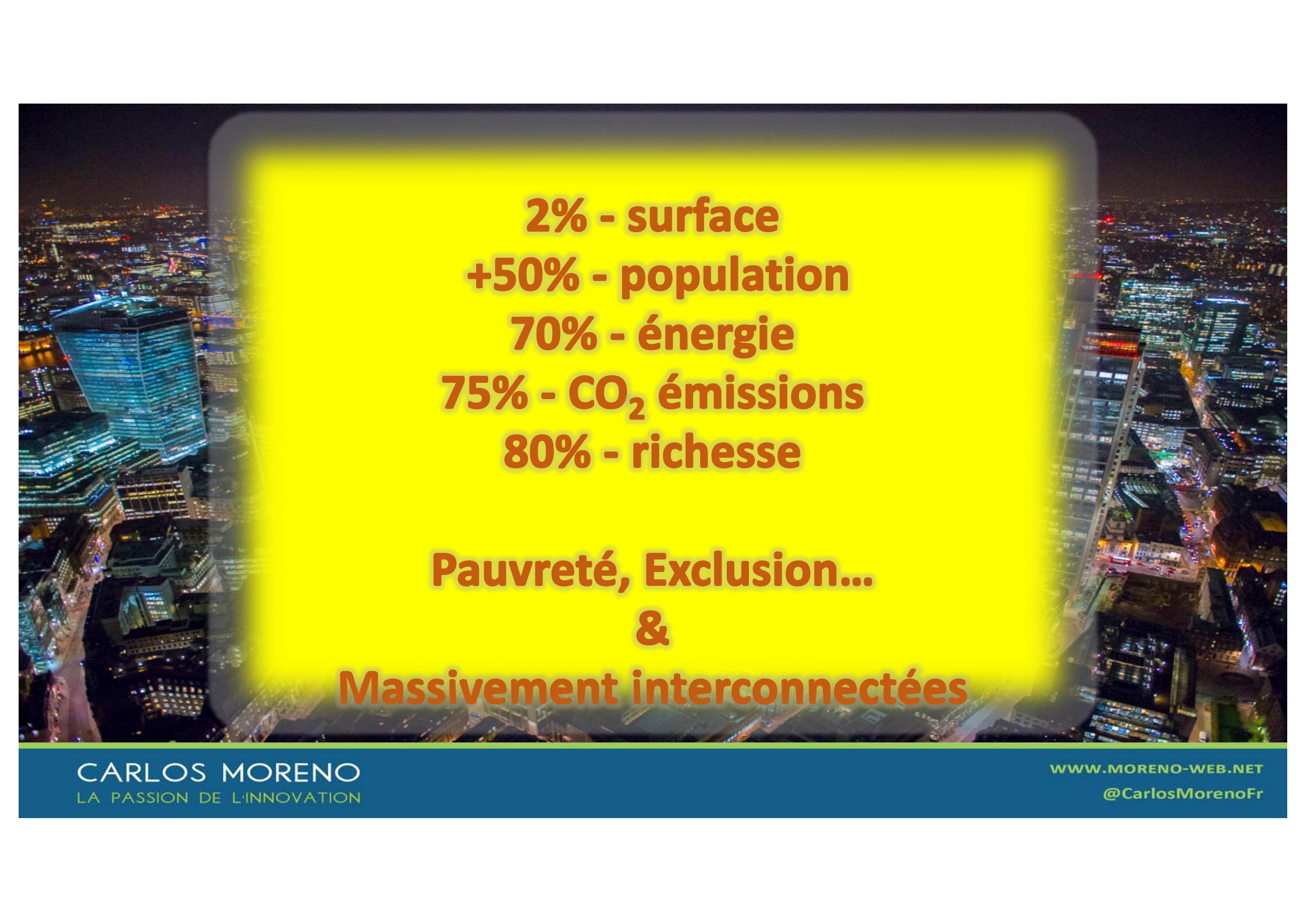
Anthropocene Worlds



Map created for Geographical by Benjamin Hennig
www.viewsoftheworld.net



Le siècle des villes



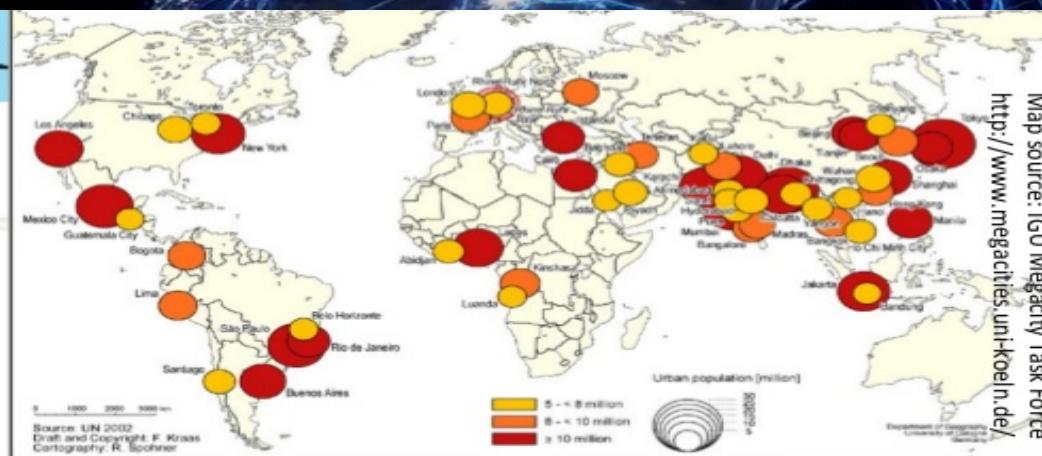
2% - surface
+50% - population
70% - énergie
75% - CO₂ émissions
80% - richesse

Pauvreté, Exclusion...

&

Massivement interconnectées

GLOBAL CITIES



The worlds 20 largest
metropolitan areas populations fitted into Europe



source: https://en.wikipedia.org/wiki/List_of_metropolitan_areas_by_population

eivarXlithuania

2018, 140 VILLES EUROPÉENNES = 50% PIB EUROPÉEN



PUB NEW YORK = PIB AUSTRALIA
PUB LOS ANGELES = PIB NETHERLANDS
PUB CHICAGO = PIB SWITZERLAND
PUB SEATTLE = PIB ISRAËL
PUB TEL AVIV = +54% PIB ISRAËL
PUB PARIS - ILE DE FRANCE > PIB ARGENTINA

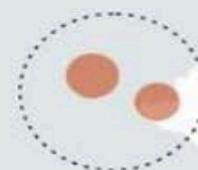
2030, 750 MÉTROPOLES = 60% PIB MONDIAL >>> PUB



GDP
国内生产总值

Chinese Megaregions compared with Countries

BEIJING-TIANJIN
北京天津城市圈



\$1.14T

\$1.13T



AUSTRALIA
澳大利亚

YANGTZE RIVER DELTA
长江三角洲城市群

MAJOR CITIES: SHANGHAI,
SUZHOU, HANGZHOU, WUXI,
NANTONG, NINGBO,
NANJING, CHANGZHOU



\$2.62T

\$2.31T



ITALY
意大利

PEARL RIVER DELTA
珠江三角洲城市群

MAJOR CITIES: GUANGZHOU
SHENZHEN, HONG KONG,
FOSHAN, DONGGUAN, MACAO



\$1.89T

\$1.83T

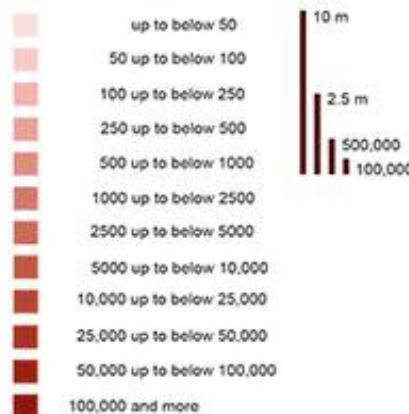


KOREA
韩国

“For most of the past millennium until the Industrial Revolution, the Yangtze River Delta was the world's leading economic region, and it has reclaimed its role as a key mega region on the world stage.”
— WINSTON MOK

Population in cities and municipalities with more than 1000 inhabitants

Population density per km² * Population *



* Total Population in cities with more than
1000 inhabitants per 10 km² of raster surface

Latest data available for the period 2012 - 2017



Database: Spatial Monitoring System for Europe
Geonames.org
Geometric basis: EU GRID ETRS89 LAEA, 10 km
Author: V. Schmidt-Seiwert, L. Kiel

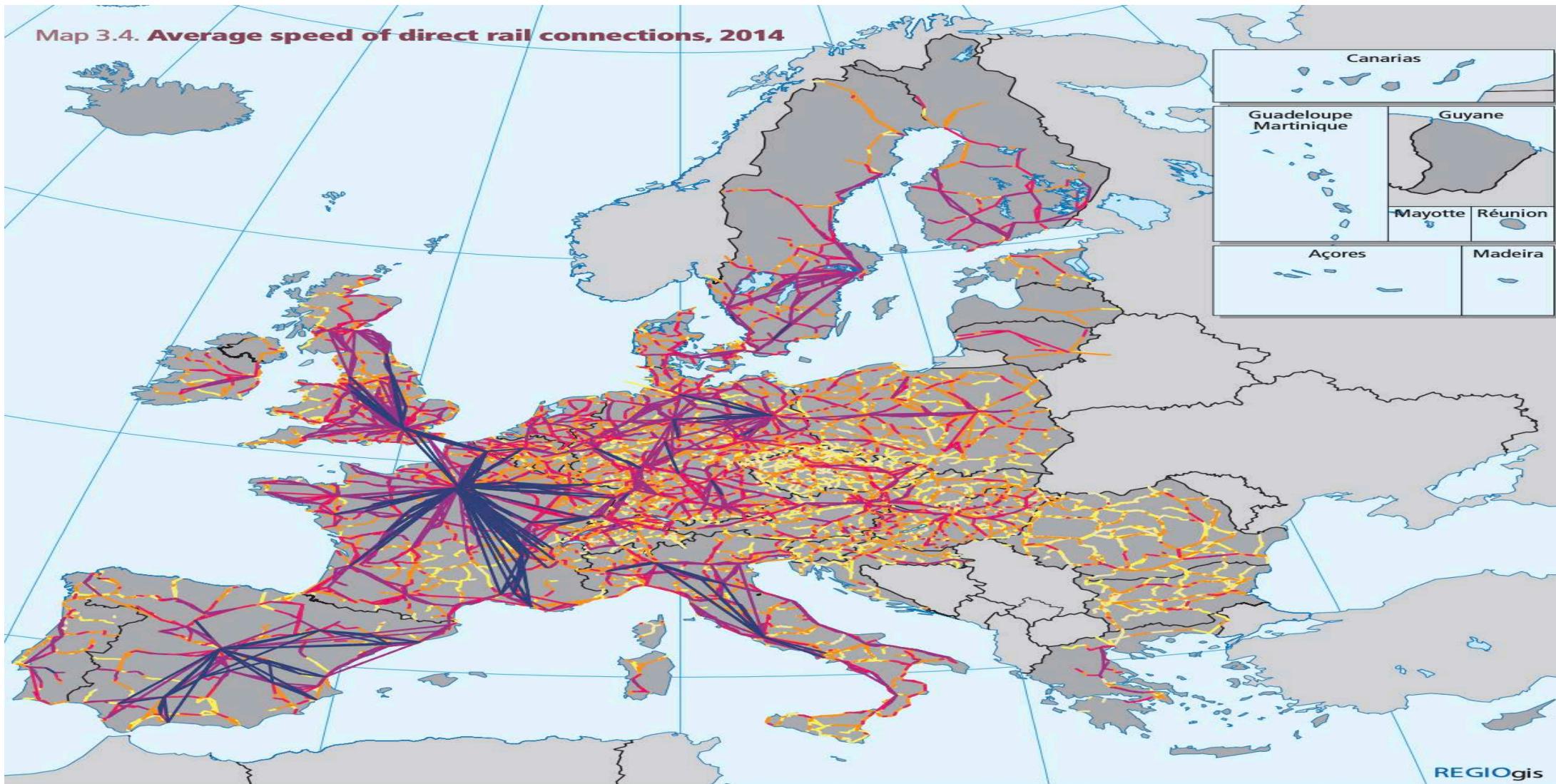
© BBSR Bonn 2017

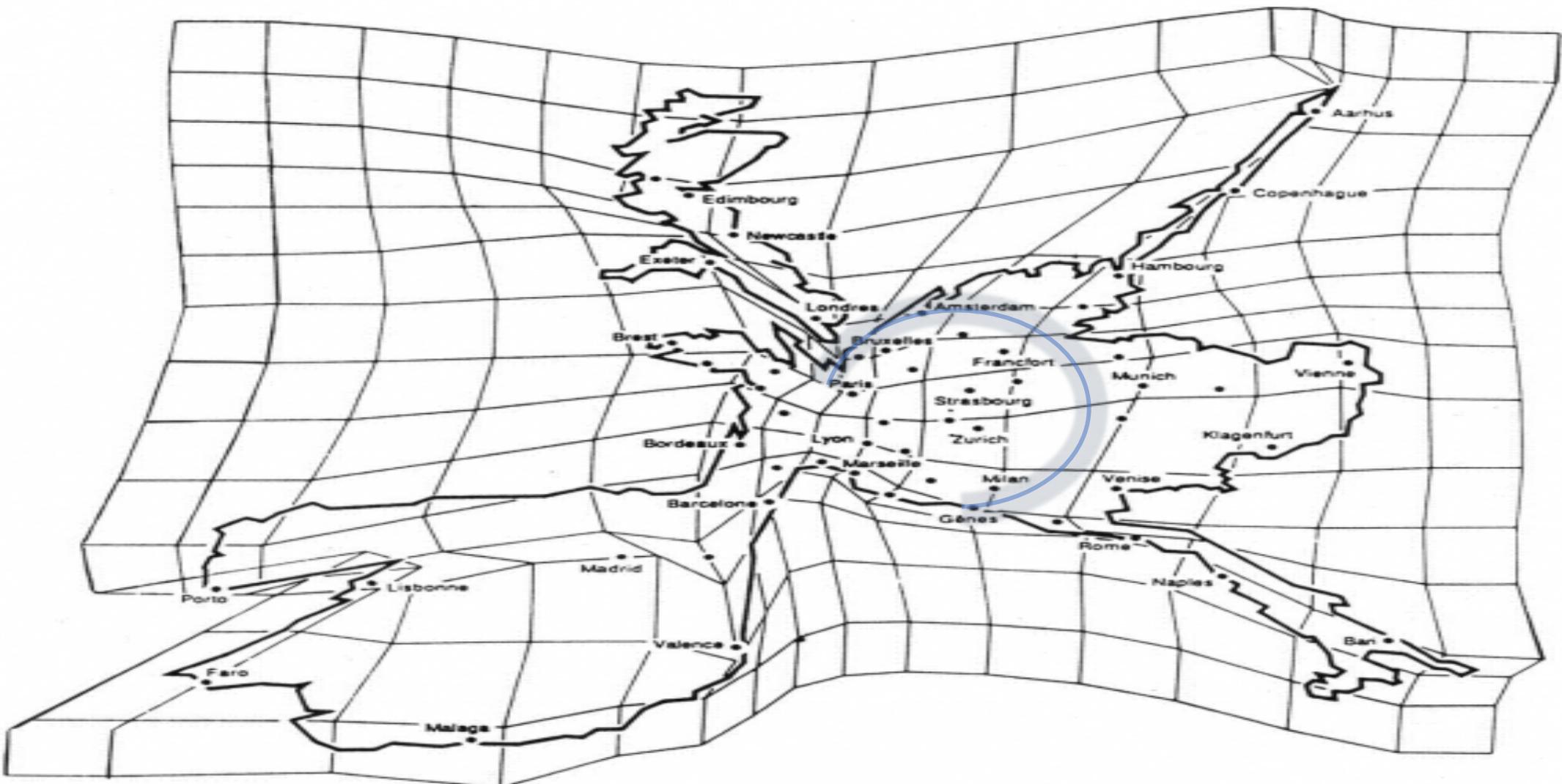


CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr

Map 3.4. Average speed of direct rail connections, 2014





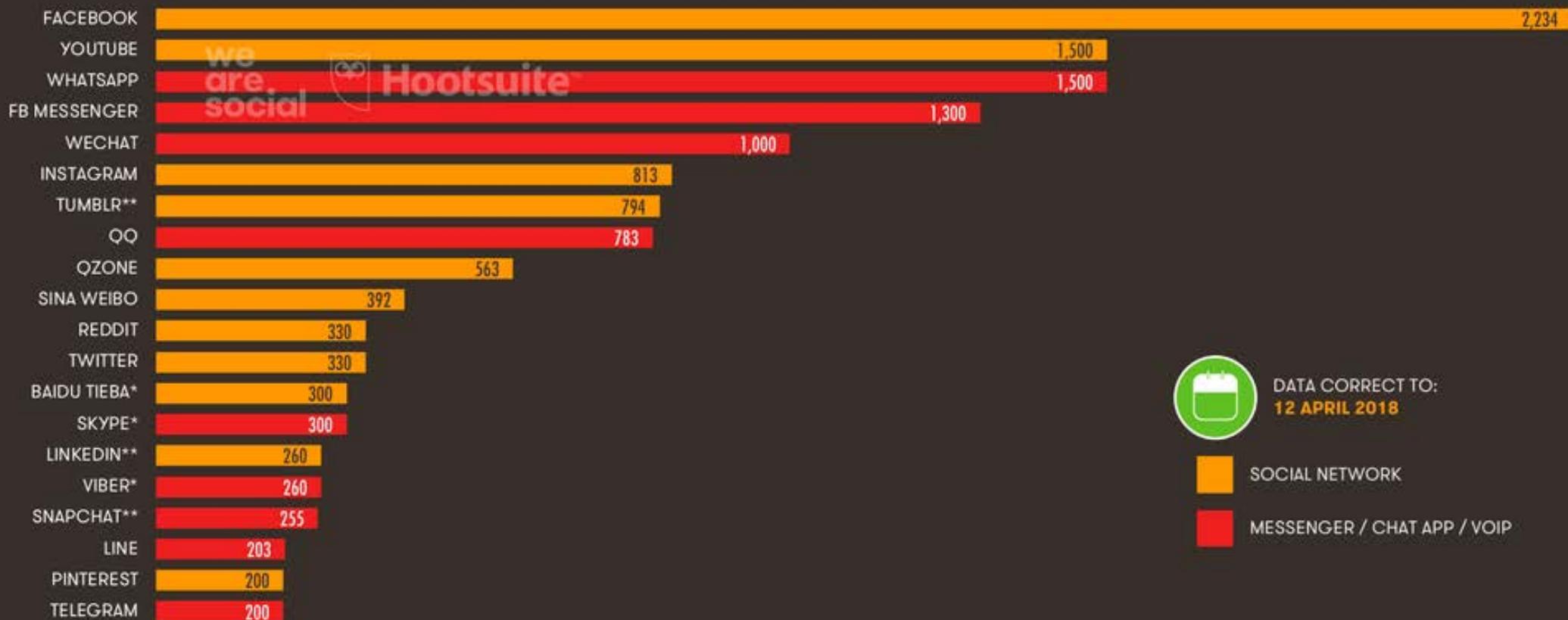


2014

APR
2018

ACTIVE USERS OF KEY GLOBAL SOCIAL PLATFORMS

BASED ON THE MOST RECENTLY PUBLISHED MONTHLY ACTIVE USER ACCOUNTS FOR EACH PLATFORM, IN MILLIONS



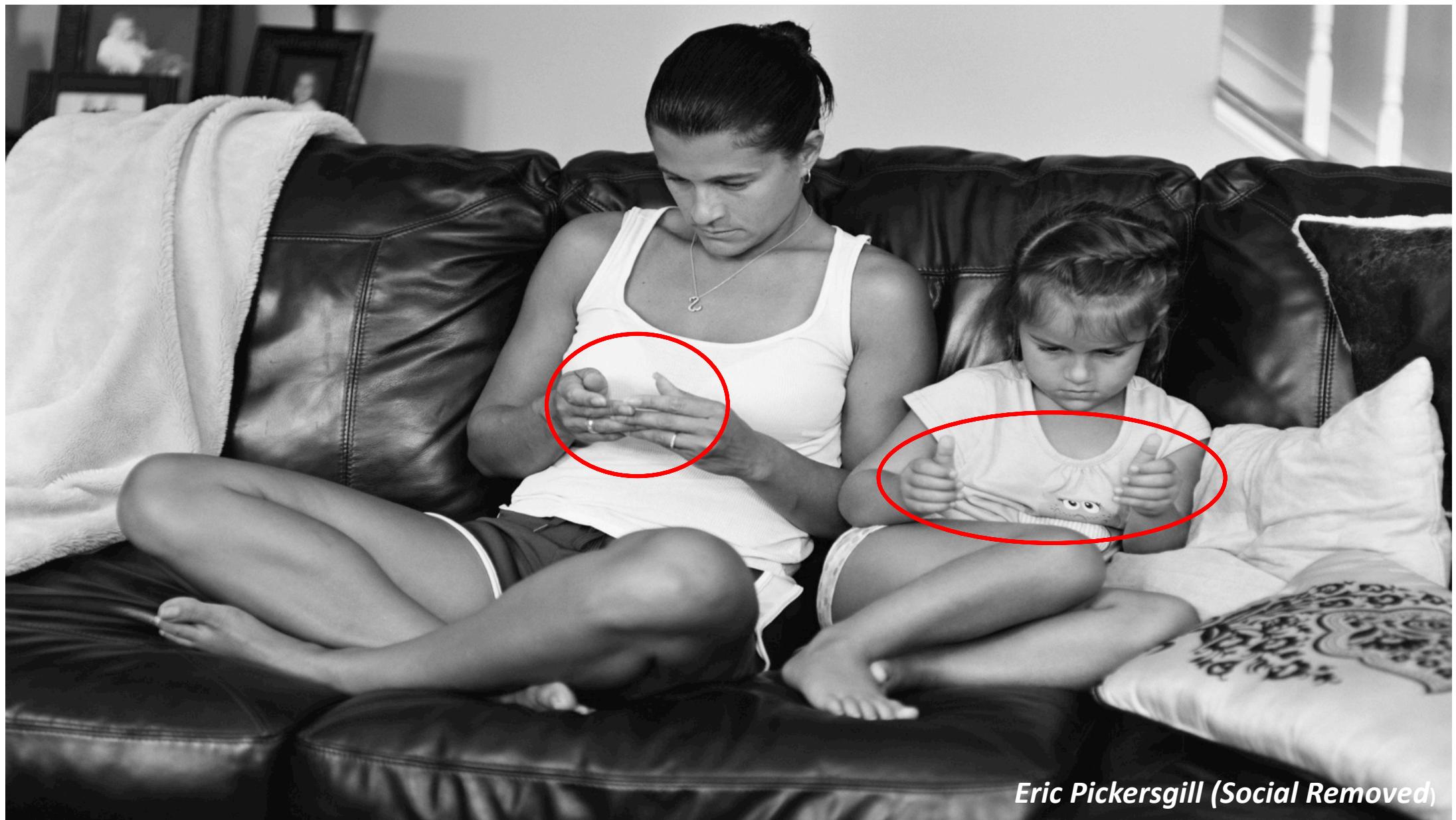
DATA CORRECT TO:
12 APRIL 2018



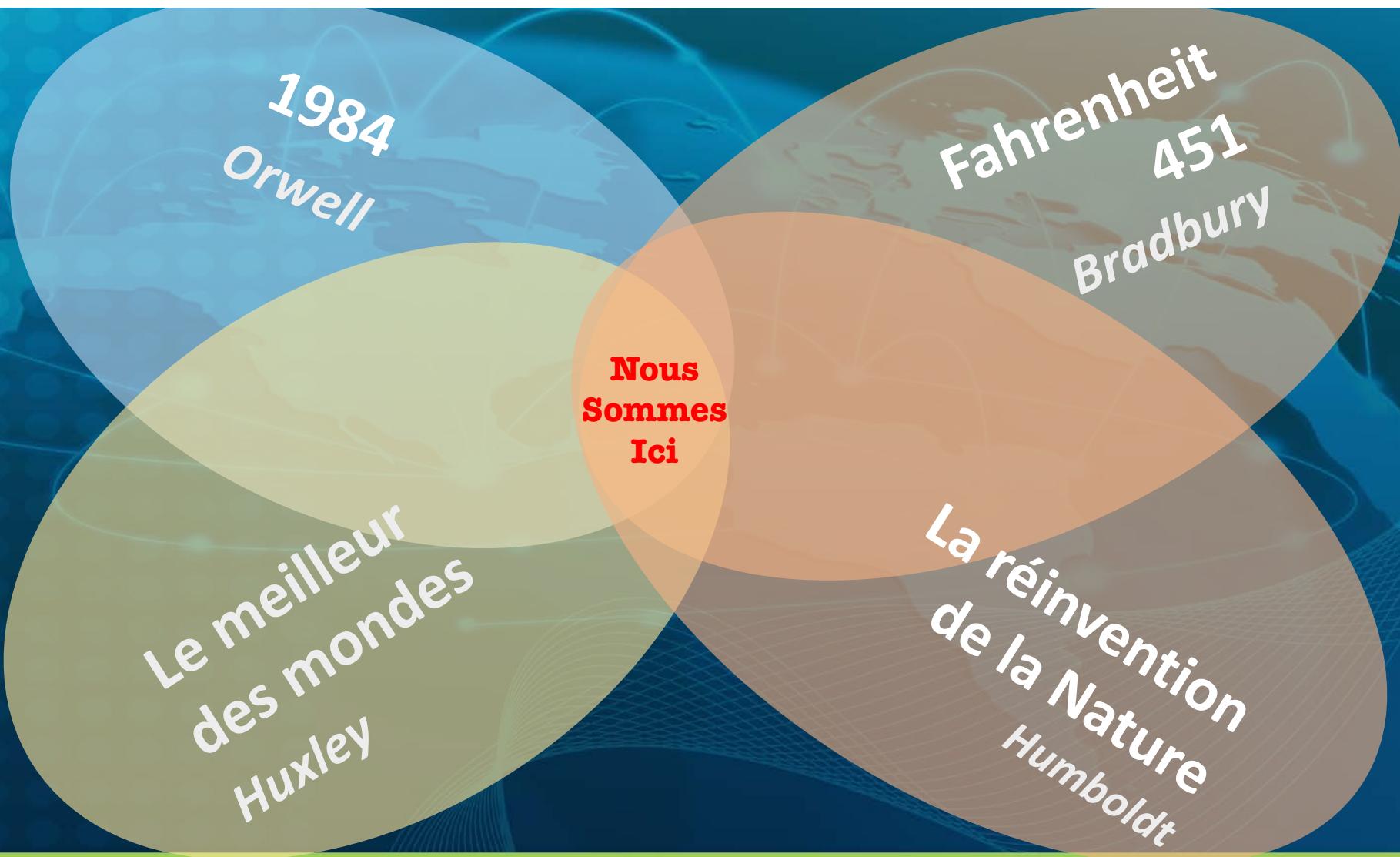
SOCIAL NETWORK



MESSENGER / CHAT APP / VOIP



Eric Pickersgill (Social Removed)





Métabolisme urbain

1800 x 1174 - blog.ac-rouen.fr



Incomplète

Impermanente

Imparfaite

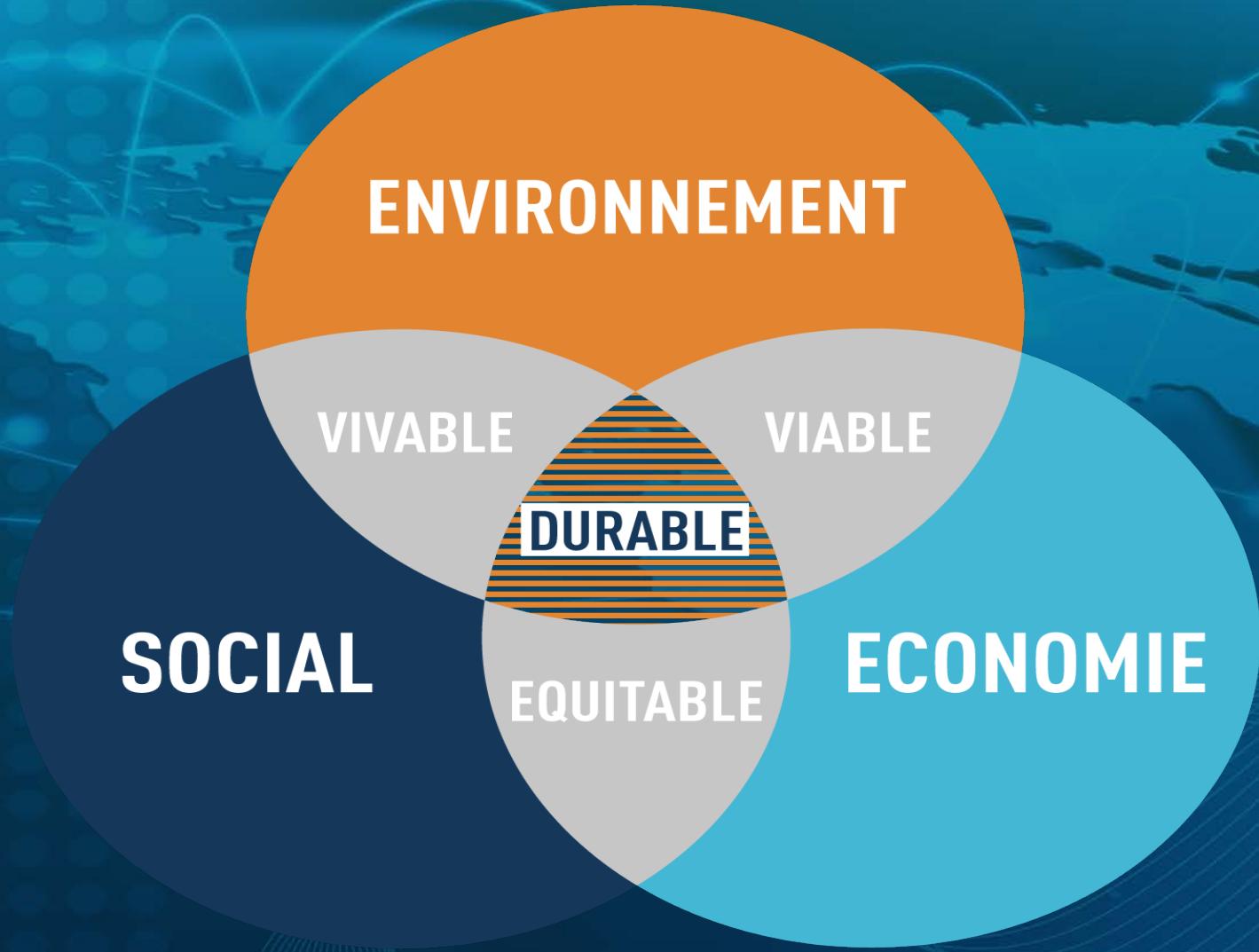


METROPOLIS

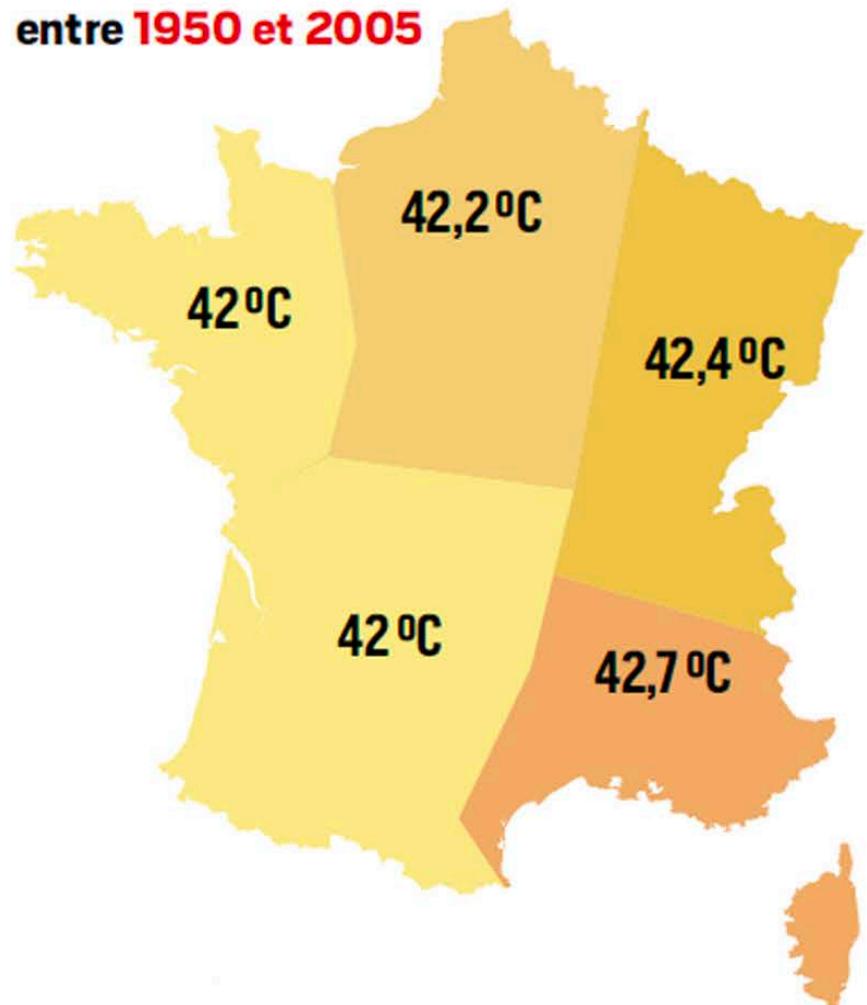
Métabolisme urbain

HUMAN

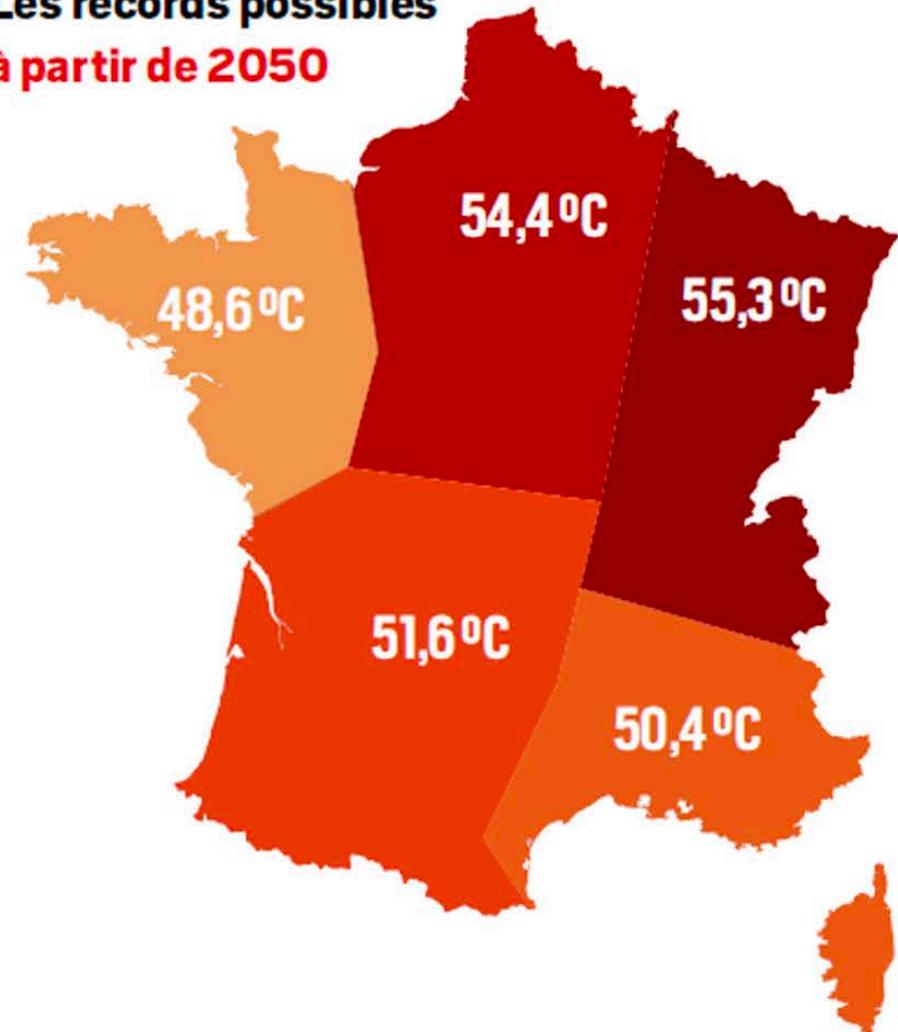
© Carmen Santana - ARCHIKUBIK



**Les records observés
entre 1950 et 2005**



**Les records possibles
à partir de 2050**





CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr





CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr





CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
[@CarlosMorenoFr](https://twitter.com/CarlosMorenoFr)

Qualité de Vie

INCLUSION SOCIALE

INNOVATION
TECHNOLOGIQUE

RE INVENTION URBAINE

METROPOLIS

URBAN

HUMAN



CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr

LINK BETWEEN AIR POLLUTION & HEART DISEASE

► In 2004, the American Heart Association issued a scientific statement concluding exposure to air pollution contributes to cardiovascular illness and mortality



► Pollution particles smaller than 2.5 microns are tiny enough to enter the body, irritate the lungs and blood vessels around the heart.

► Over time, these pollutants reportedly aggravate or increase the process of disease in the arteries

► Short-term exposure can increase the risk of heart attack, stroke, arrhythmias and heart failure in susceptible people, such as the elderly or those with pre-existing medical conditions



"Lunch was delicious. Pollution was disgusting. Notice how dark it was. This photo was taken at noon." Hangzhou 2006
(From a private blog)



CARLOS MORENO
LA PASSION DE L'INNOVATION

EL AUSTRAL
EL DIARIO DE LA ARAUCANÍA
www.australtemuco.cl

Temuco es la ciudad con peor contaminación del aire en América Latina



Demand for action over motorway air pollution

POLLUTED communities next to the M1 in Sheffield have made a renewed call for action to tackle emission levels.

The East End Quality of Life Initiative, which represents areas around Tinsley and Darnall, has spoken out after new research showed a link between exposure to air pollution and heart attacks.

Neighbourhoods close to the motorway experience spikes in pollution during rush hours.

A report by the Journal of the American Medical Association looked at 34 studies comparing the risk of a heart attack at various levels of inhaling industrial and traf-

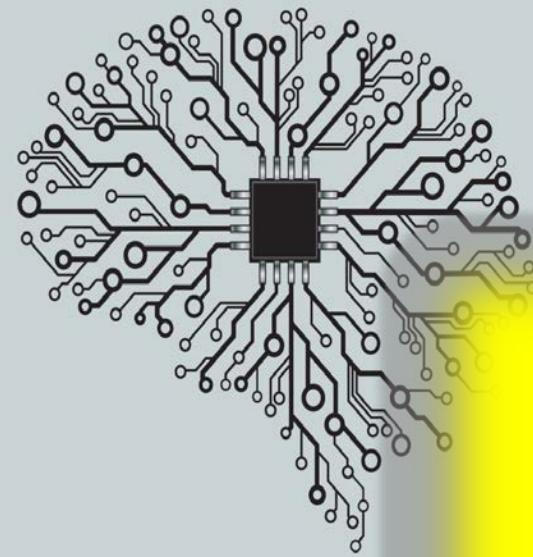
fic-related air pollutants including carbon monoxide, nitrogen dioxide and small soot-like particles.

It said: "For most of the pollutants, an increase in concentration of 10 micrograms per cubic metre of air – the typical standard used to assess harm, and barely noticeable to a person breathing the air – was associated with a 1-3 per cent increase in the chance of having a heart attack in the next week."

Neil Parry, of the quality of life initiative, said: "This is more evidence of the need to cut pollution in and around Tinsley and the rest of the city. The most vulnerable in our communities are worst affected."

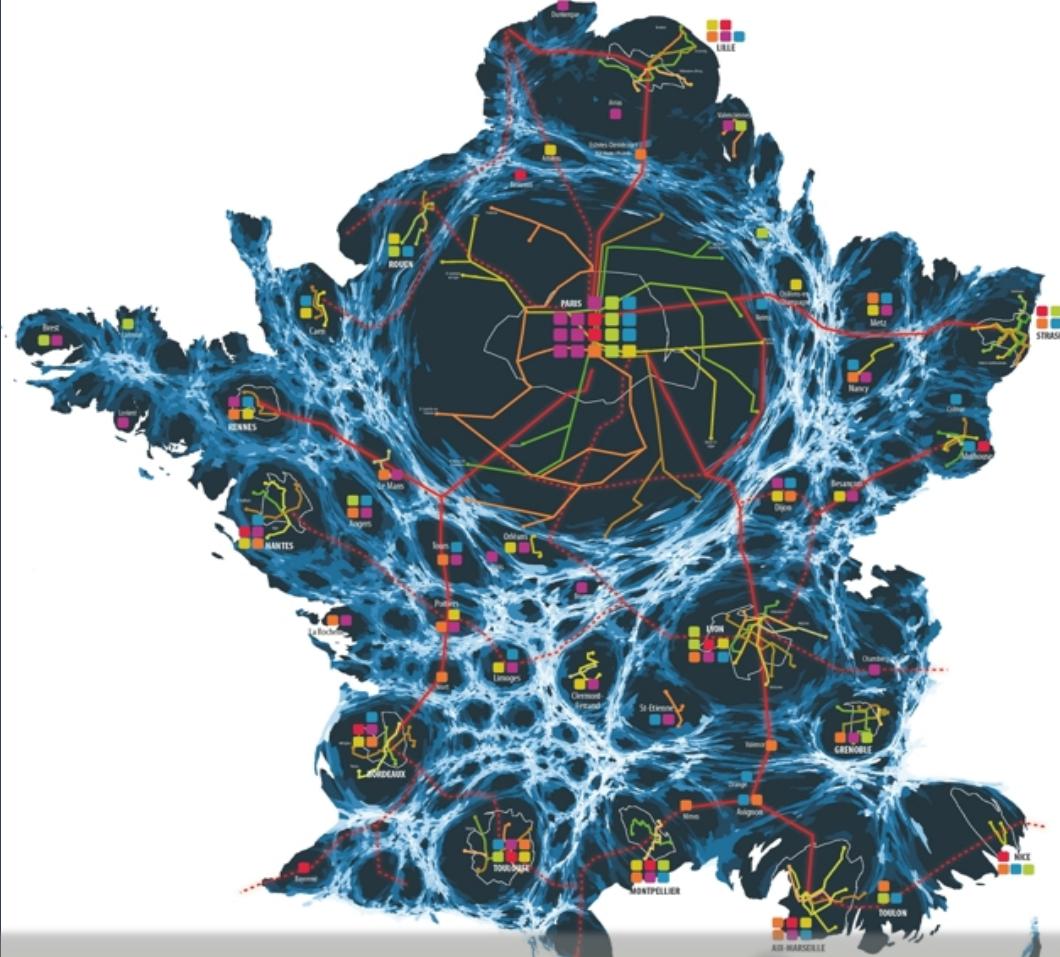
WWW.MORENO-WEB.NET
@CarlosMorenoFr





Espace
Temps
Silence

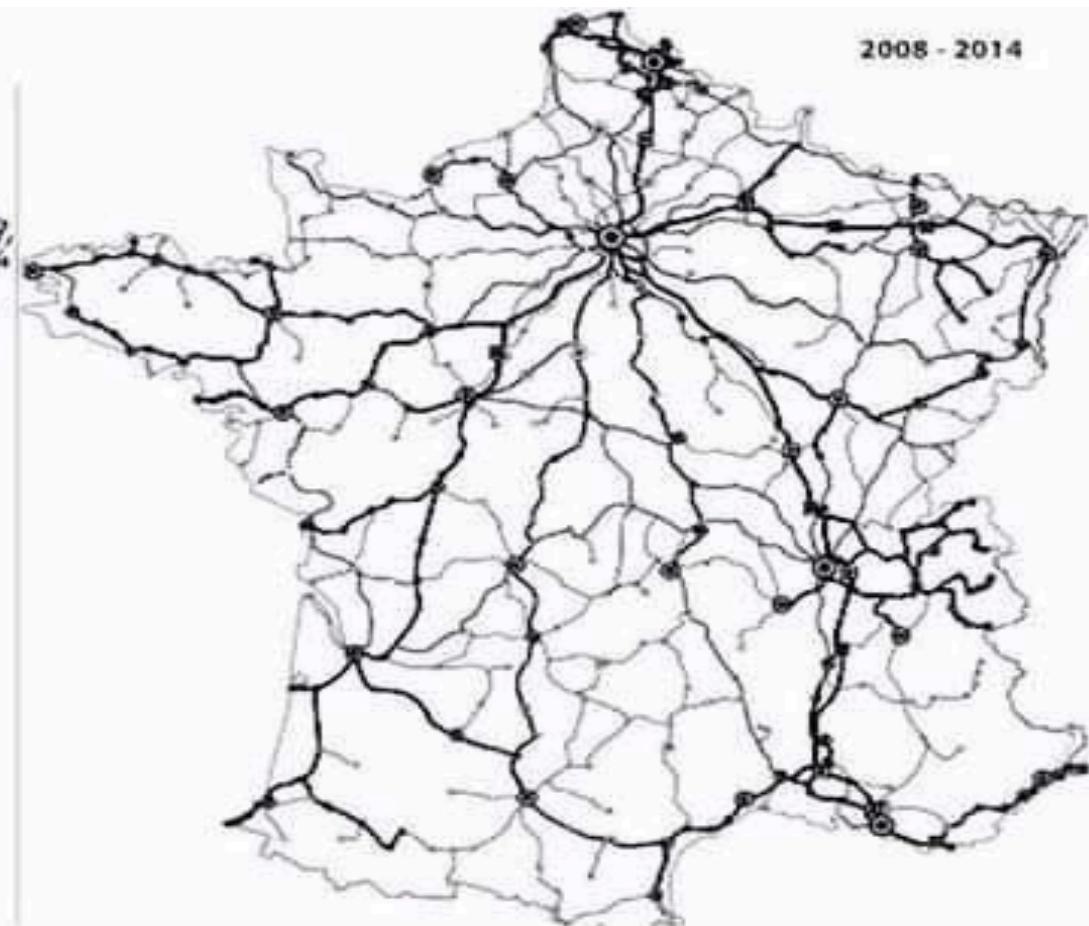




RÉINVENTER LES SOLIDARITÉS TERRITORIALES

CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr



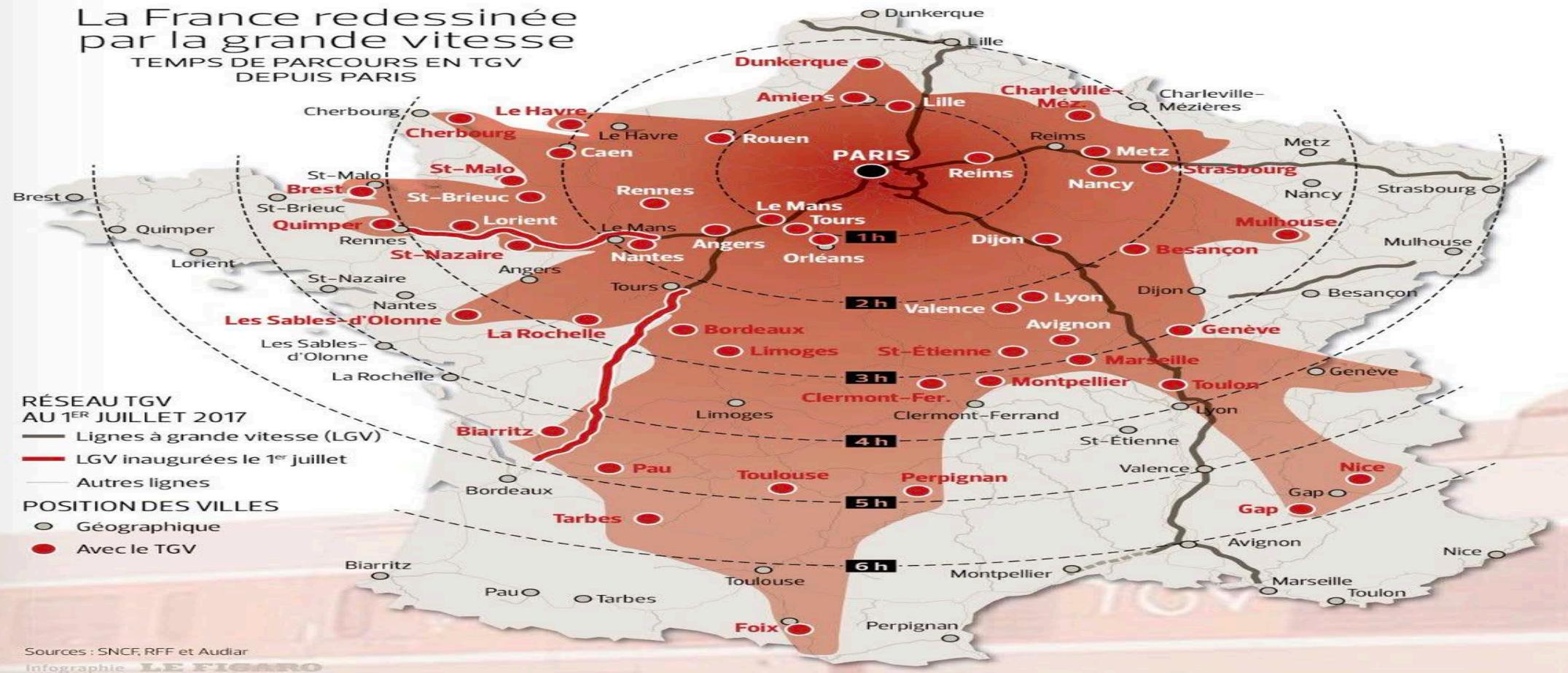
RÉINVENTER LES SOLIDARITÉS TERRITORIALES

CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr

La France redessinée par la grande vitesse

TEMPS DE PARCOURS EN TGV
DEPUIS PARIS



RÉINVENTER LES SOLIDARITÉS TERRITORIALES

CARLOS MORENO
LA PASSION DE L'INNOVATION

WWW.MORENO-WEB.NET
@CarlosMorenoFr

VILLES MOYENNES ET SCORES DE FRAGILITÉS

Cumul des scores de fragilités



Les scores de fragilité sont basés sur 3 thématiques : dynamique démographique, dynamique économique et fragilité sociale.

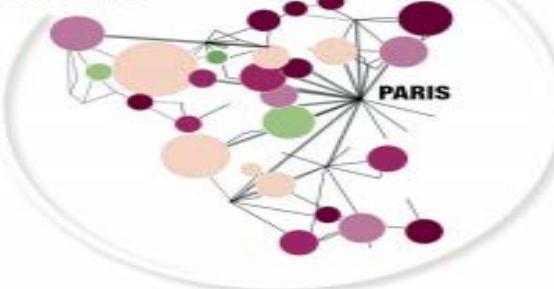
Population
en 2014, par unité urbaine



Aire Urbaine

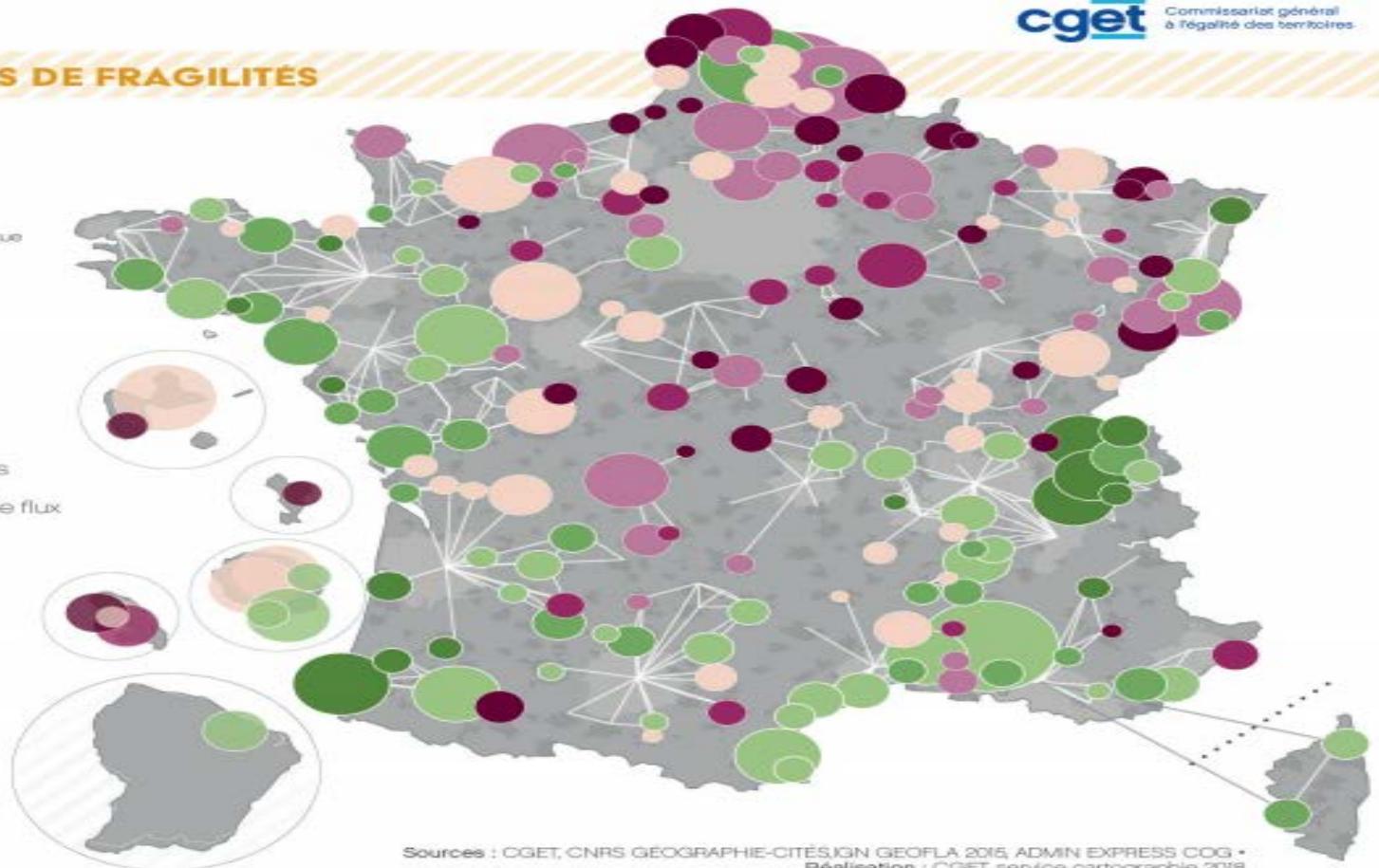
- Grande
- Moyenne
- Petite

Le Système interrégional de Paris



Systèmes urbains inter-régionaux

Intensité des relations entre aires urbaines selon 7 indicateurs de flux



Sources : CGET, CNRS GÉOGRAPHIE-CITÉS, IGN GEOFLA 2015, ADMIN EXPRESS COG •
Réalisation : CGET service cartographie 2018

Pour des nouvelles armatures urbaines & territoriales



Réinventer la vie urbaine & territoriale

Se réapproprier de la nature

Réinventer le lien social

Réinventer la connectivité servicielle

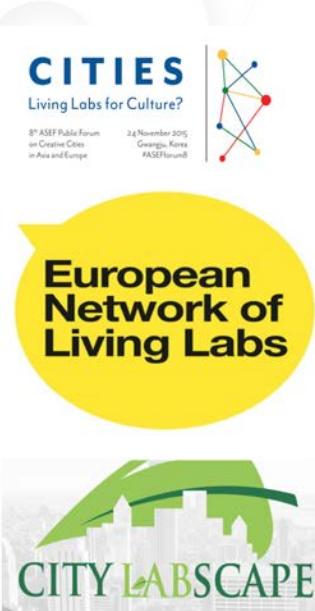


Urban Labs = Test spaces in the middle of the city

Urban Labs = The City as a Urban Laboratory

Urban Labs = Urban Living labs

Urban Labs = Real-life experimentation with users in Cities



LA CIUDAD, ESPACIO DE APRENDIZAJE METODOLOGÍA DE MAPEO COLECTIVO DE SABERES



VIERNES 17 DE MARZO: DE 17:00 A 21:00
SÁBADO 18 DE MARZO: DE 9:30 A 14:00



The city as a laboratory

living labs experiments in urban spaces



HOANG MAI
MAIRE | BROSSARD | MAYOR

A BUDGET FOR YOU, BY YOU!

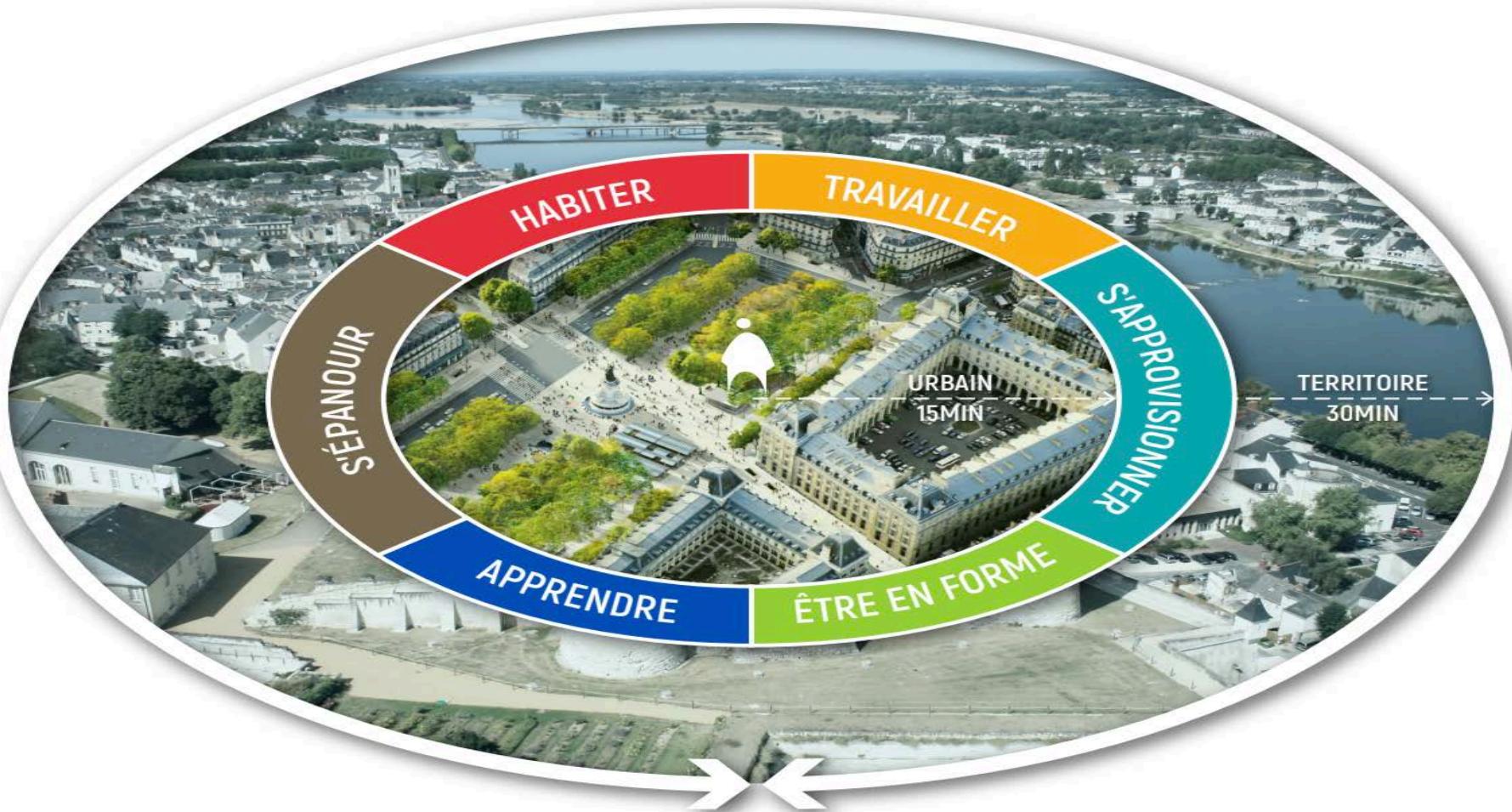
**PARTICIPATORY BUDGETING:
YOUR CITY, YOUR MONEY,
YOUR PROJECT, YOUR DECISION**



Pour un nouveau chrono urbanisme



**La ville du $\frac{1}{4}$ d'heure
Territoire de la $\frac{1}{2}$ heure**



Nouveaux liens de confiance

Technologie, Circularité, Lien social



Merci

carlos.moreno@univ-paris1.fr
www.moreno-web.net