



Barcelona, 18th of June 2021

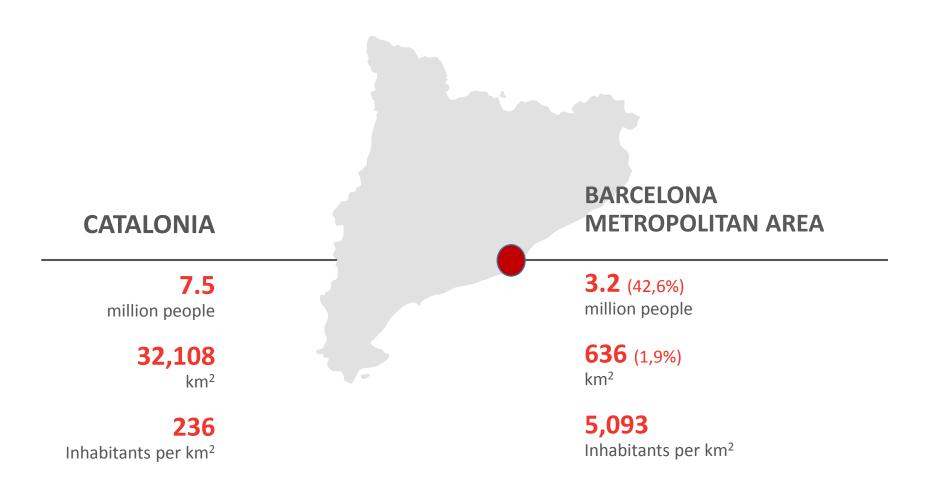
Climate Emergency Declaration and effects of the pandemic in environment indicators of Barcelona Metropolitan Area



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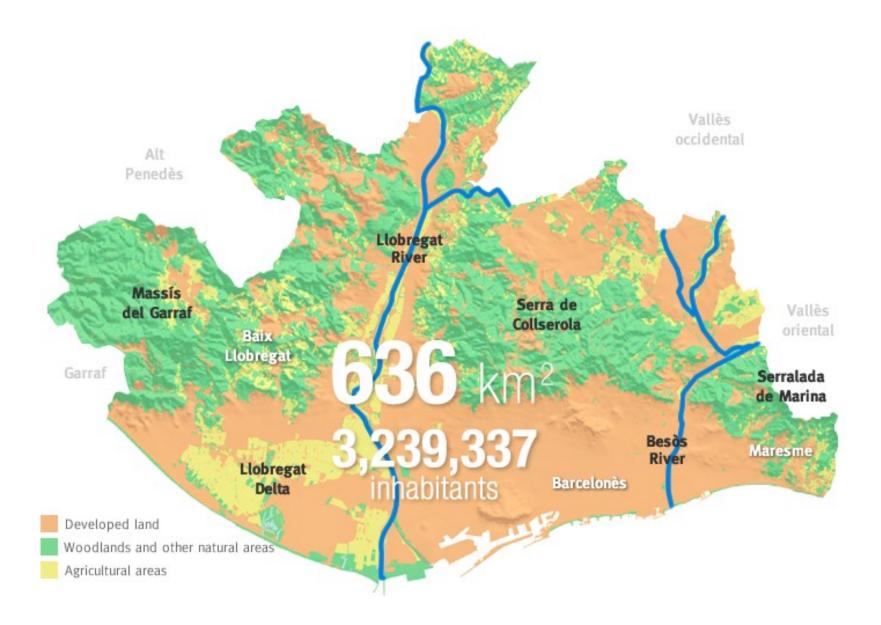


Catalonia and the Barcelona Metropolitan Area (BMA)

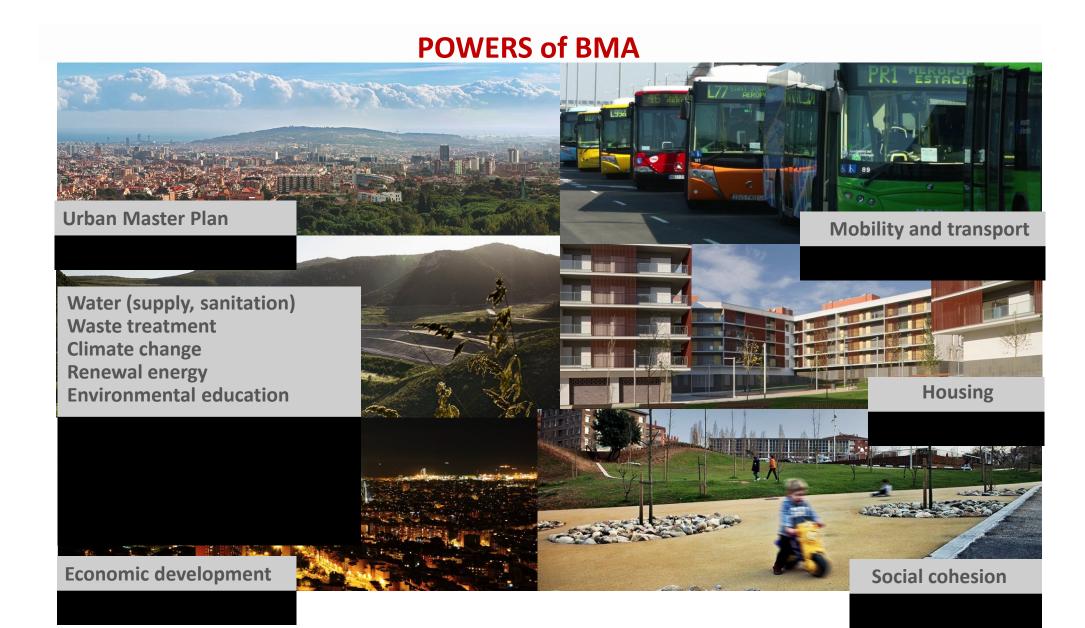


The Barcelona Metropolitan Area (BMA)



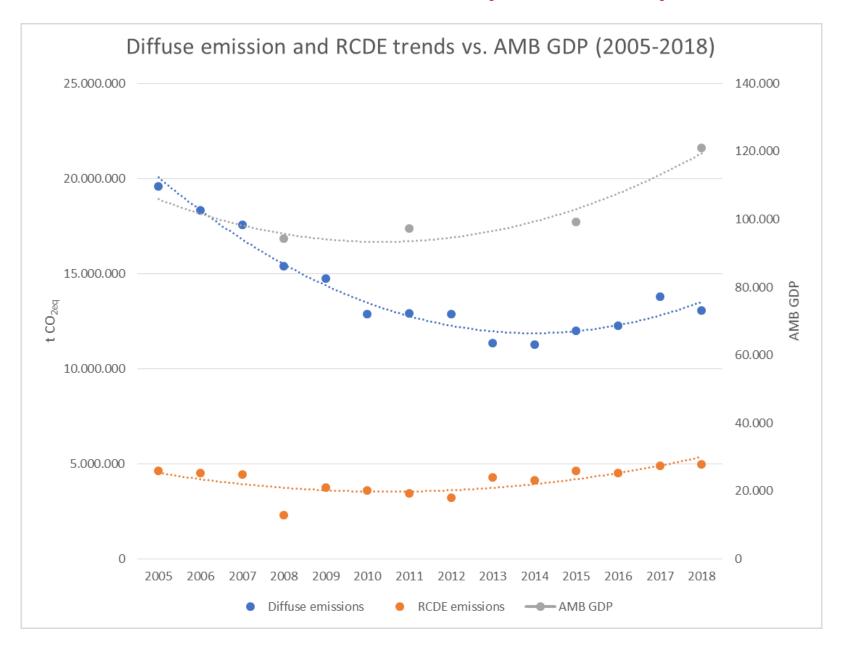






Non-ETS and ETS emissions trend (2005-2018) in BMA





ETS emissions trends

Climate emergency declaration in BMA (23-03-21) - Key challenges -





1. Energy transition

Decarbonization and renewable energies with local generation, fair and efficient



2. Efficient use and management of water resources

Strategic master plan of the integral water cycle



3. Electrified, efficient, intermodal and flexible mobility:

Mobility Plan, reduce impact port/airport, better intermunicipal and rail flows



4. Planning more resilient and sustainable cities and urban spaces

Urban master plan and Nature Based Solutions



5. Waste as resources:

Circular economy and changes in production and consumption patterns





-55% GHG reduction by 2030

Carbon neutrality in 2050

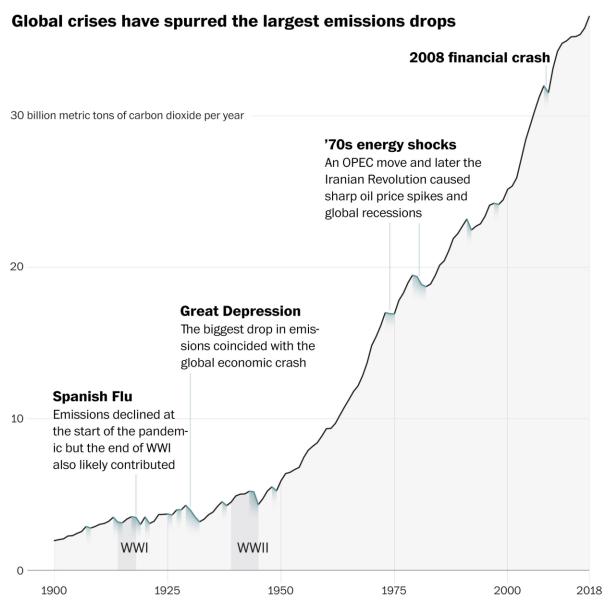
Early adaptation



CHALLENGES DURING COVID19 PANDEMIC

COVID pandemic: CO₂ emissions





Source: Global Carbon Project

It is estimated that emissions **could fall by 4-5% in 2020** (*Carbon Brief*), the biggest fall after financial crash 2008 (-1,4%)

Emissions would have to be reduced by 7.6% each year between 2020 and 2030 to achieve Paris agreement.

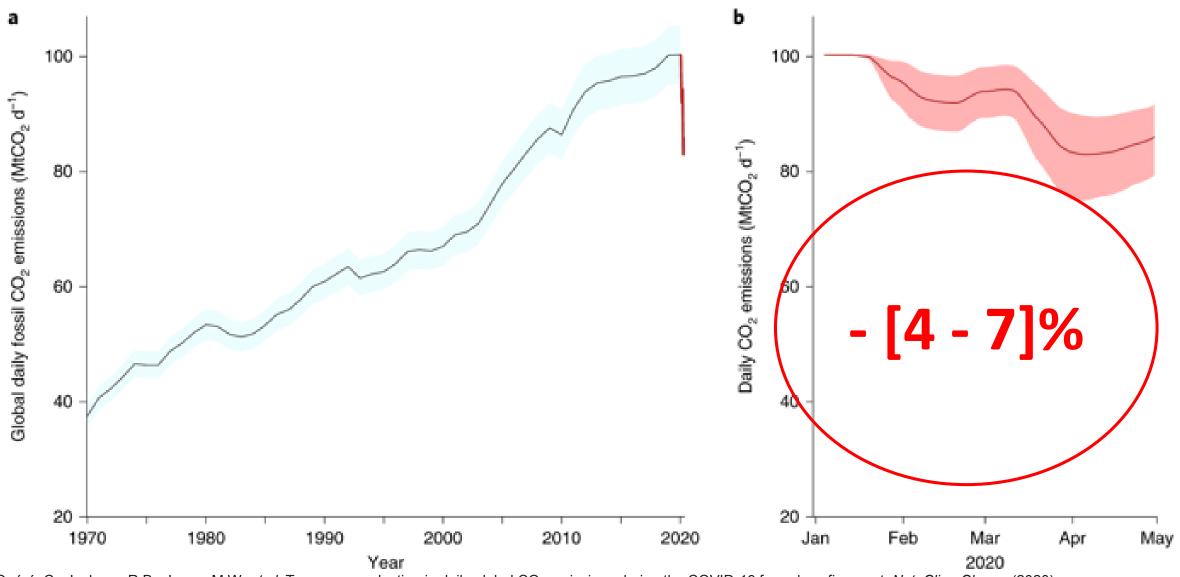
COVID pandemic will not be enough to change CO₂ trend and avoid the catastrophic scenario of warming above 1.5°C.

The fall means only a reduction of 0.01 degrees Celsius in global warming by 2050, so the world is still heading relentlessly to an increase of +3°C by the ending of this century.

We need a low-carbon recovery post pandemic: it could reduce expected GHG by 25% by 2030.

COVID pandemic: CO₂ emissions





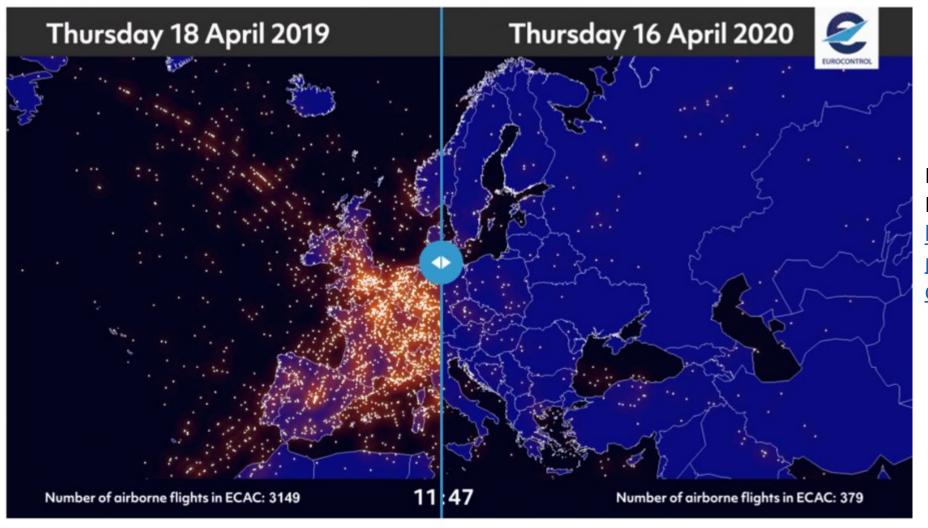
Le Quéré, C., Jackson, R.B., Jones, M.W. et al. Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Nat. Clim. Chang.* (2020).

COVID pandemic: traffic and air pollution



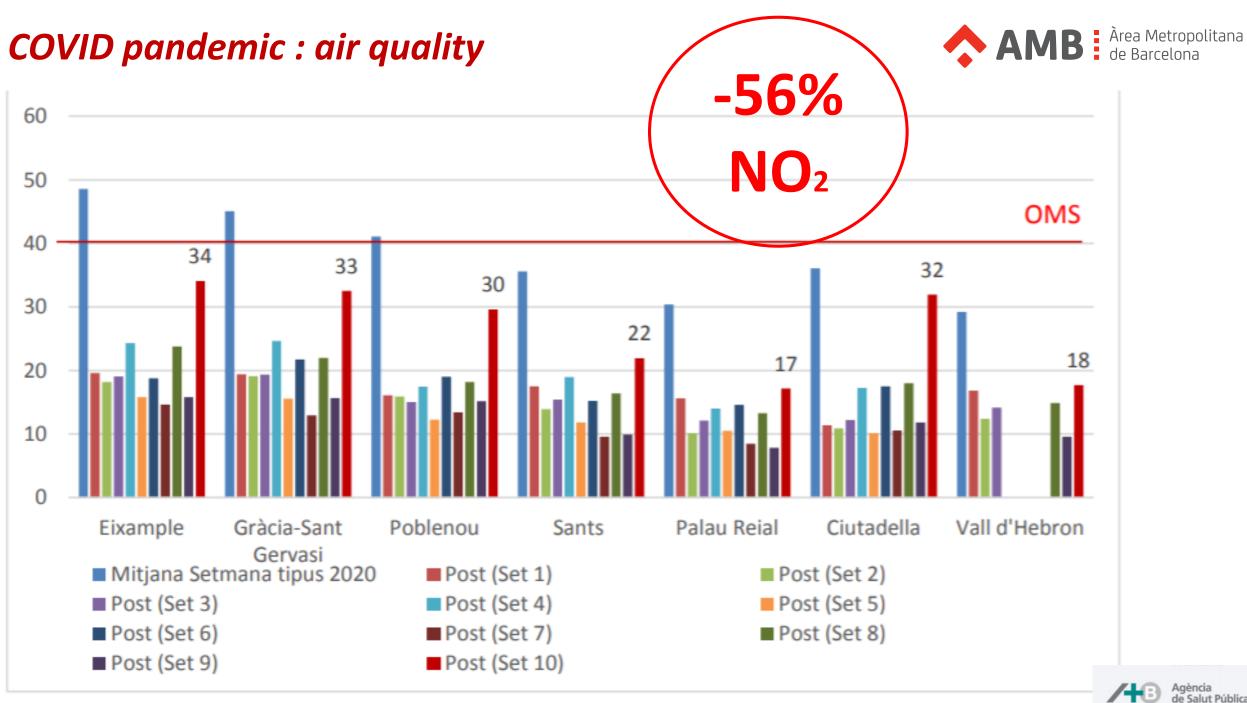
Amazing change in aviation traffic. March '19 vs '20 (Eurocontrol Air Traffic 2020 vs 2019. Business traveller)

https://youtu.be/MMnk PmdcUw



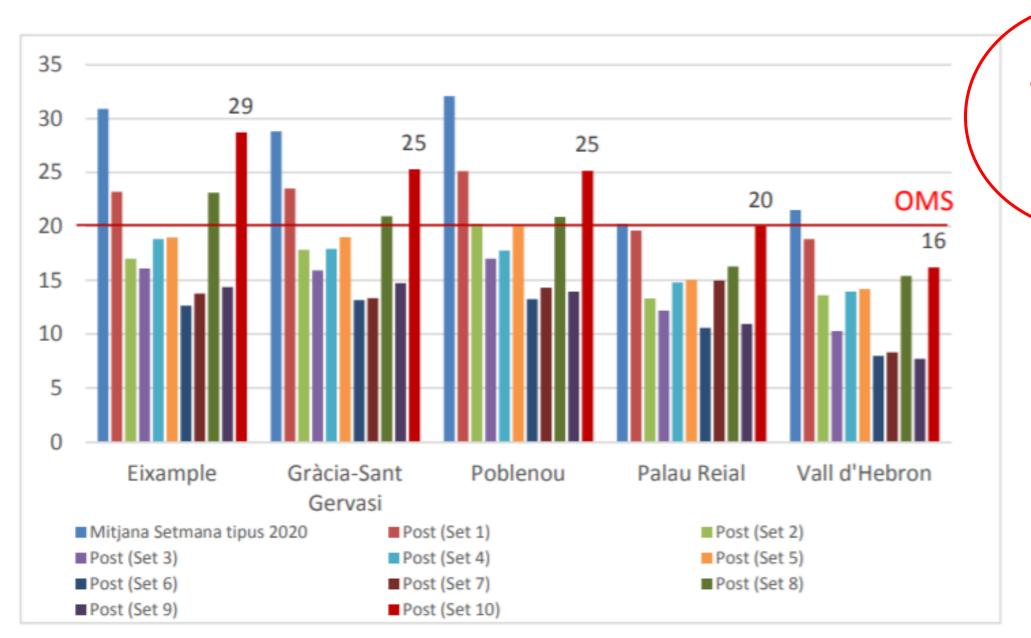
Interactive air pollution in Europe:

https://european-dataportal interactive.gitlab.io/covi d-19/AirpollutionVisual.html



COVID pandemic: air quality



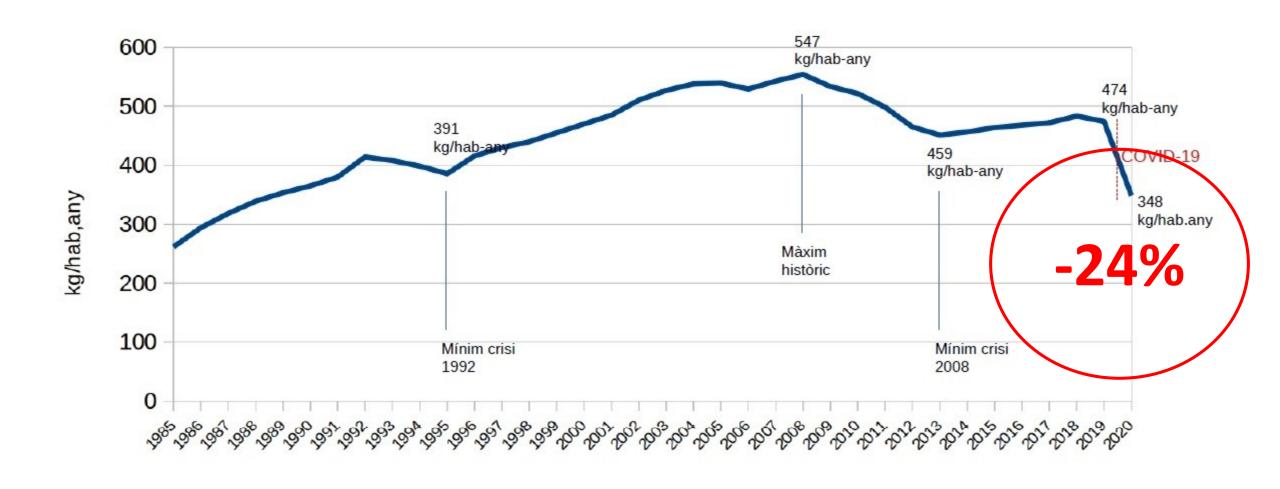


-35% PM₁₀



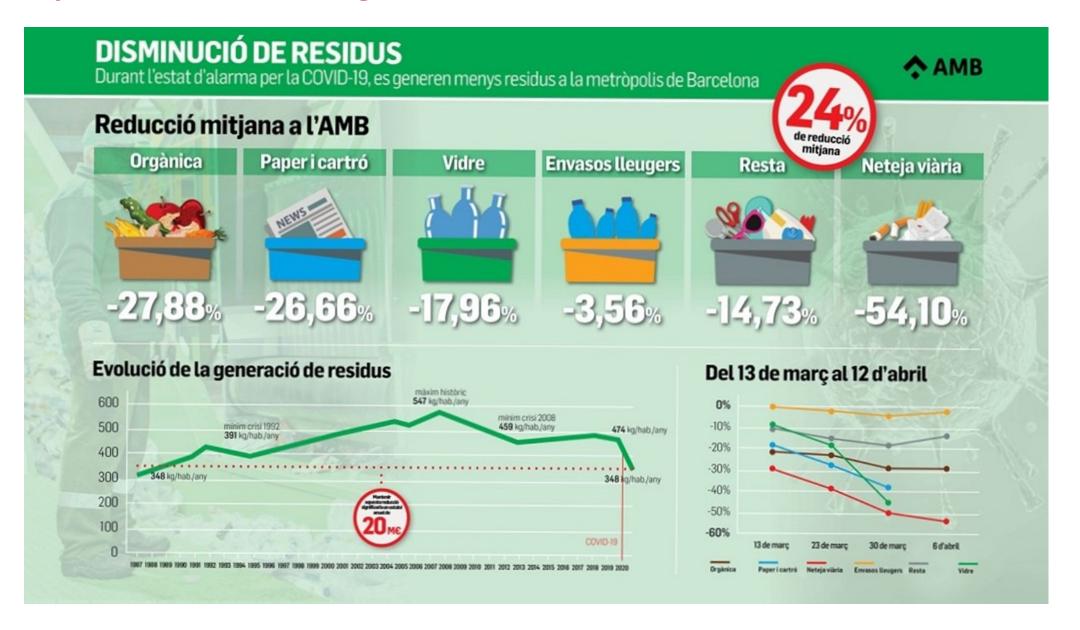
COVID pandemic: waste generation





COVID pandemic: waste generation





LESSONS LEARNT.. OR NOT!



Energy transition path



- Inversió AMB 2019 en energia solar O 300 Comunitats energètiques 2030
- Ajuntaments 100% Renovables 2030 Energia generada plantes residus i aigua (cogeneració)
 - Objectiu 30% renovable 2030 PCiE30



THE PATH TOWARDS A MORE SELF-SUFFICIENT, RESILIENT AND EMISSION-NEUTRAL METROPOLIS

Bcn City Council Superblocks Tactical urbanism

How to **humanize our metropolis** by making the city more sustainable while gaining space for citizens and avoid traffic passing through the streets

Source: https://www.metropolis.org/news/tactical-urbanism-or-how-humanize-our-metropolises









Green new deal and mobility



21 measures for a new metropolitan mobility:

4 strategic actions which comprises 21 measures

- A1: more bikes, bike lanes and more space for pedestrians
- A2: public transport recovery as an essential service
- A3: new mobility deal for job mobility
- A4: air quality and health (needs to be addressed as a joint venture with the municipalities)



http://www.amb.cat/ca/web/mobilitat/actualitat/noticies/detall/-/noticia/nova-mobilitat-metropolitana/9234040/11704

Green new deal and environmental education



- Harness of what we experienced
- Focus: health, self-sufficiency
- Public and open spaces
- Scale up: RE, local consumption, silence, wildlife
- CHANGE WAY OF LIFE (decreasing?)
- Language/words are important:



COVID is not an opportunity!

But we can learn/improve/change (prevention-early adaptation)

http://www.amb.cat/web/area-metropolitana/covid19/educacio-ambiental





What do BMA want to get from Next Generation funds?

Projects for a total of 2.717 M \in \rightarrow Digitalization of services and ecological and energy transition in the territory.

BMA's Next Generation metropolitan programs include a total of 11 projects with 34 actions aligned with Next Generation

EU goals. Mainly two:

- Investment program and support for the digital transition (investment of 134.39M€)
- 2. Metropolitan Program for energy and ecological transition (endowment of 2,582.39 M€)

Main scopes of action of the Ecological transition:

- Green infrastructure and nature based solutions
- Decent, affordable and sustainable housing
- Sustainable mobility
- Circular economy / from waste to resource
- Water, vital resource
- Renewable energies





Photovoltaic charging points for electric cars



Coast and beach management







Environmental awareness activities



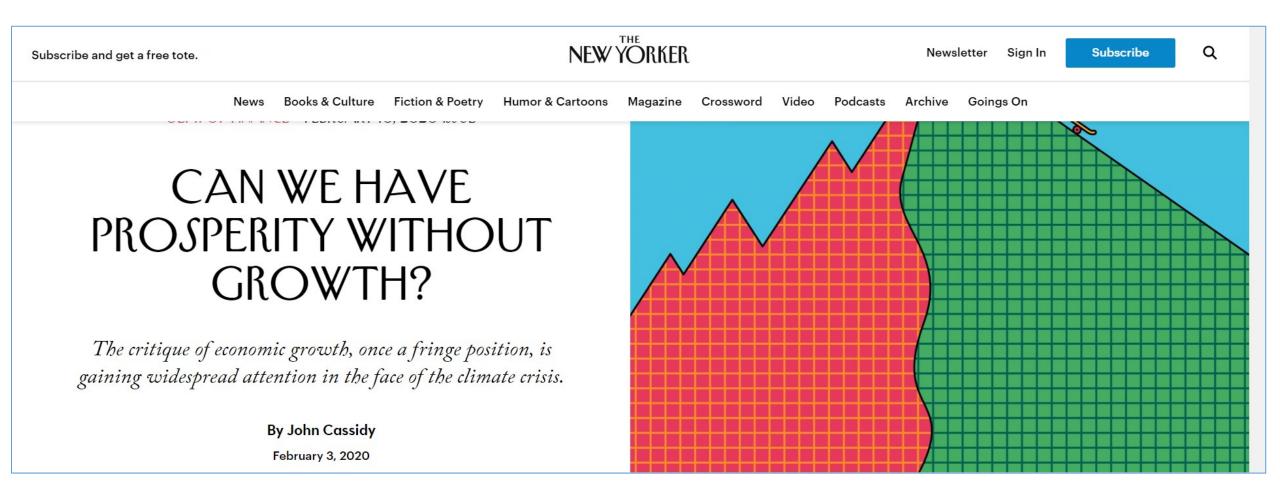
Network of climate shelters (public parks 2021)



Biosolar roofs in study (photovoltaic + green)

Some final thoughts...





https://www.newyorker.com/magazine/2020/02/10/can-we-have-prosperity-without-growth



Thanks!



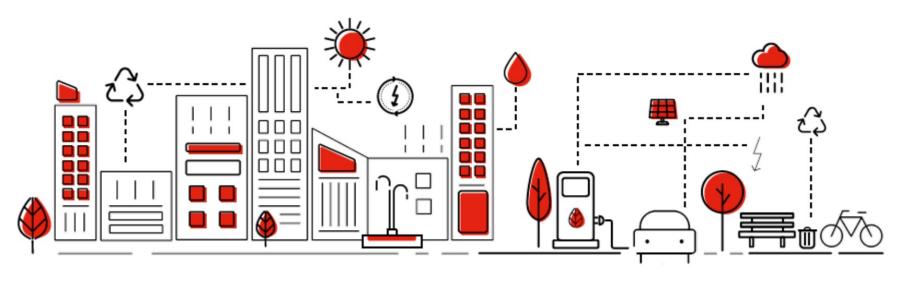
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