



Postcard from Paris Region

Main stake, face to the climate change.

Erwan Cordeau from the Paris Region Institute.

Paris Region, To compare

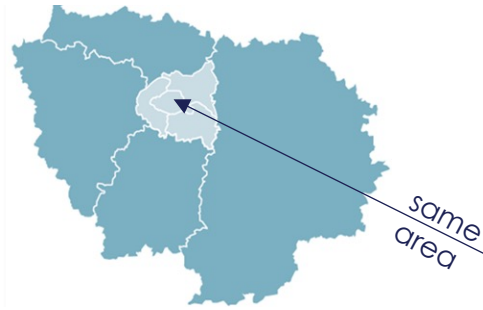
Paris Region (« île-de-France »),

London and Berlin by land cover

Nearly 3 quarters of Paris Region is covered by natural, agricultural and forest areas

While population density in relation to the region's total surface area is lower than in London, population density in relation to Paris' urbanized surface area is higher

The proportion of green and recreational areas in the Paris metropolitan area is relatively low.



Land cover within a 60 km radius of 3 major metropolises



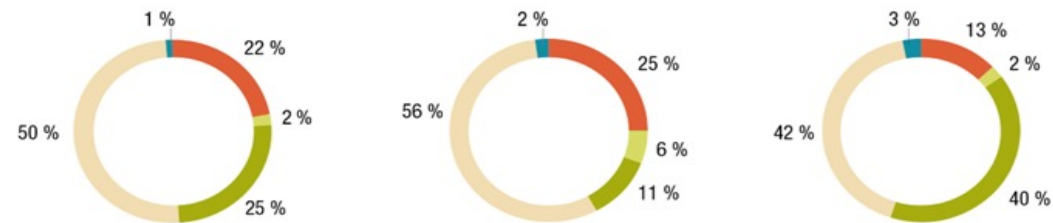
Built-up and paved areas
 ■ Espaces bâtis et revêtus

Green and recreational areas
 ■ Espaces verts et de loisirs

Forest and natural areas
 ■ Espaces forestiers et naturels

Agricultural land
 ■ Espaces agricoles

Water areas
 ■ Espaces en eau



11,9 millions 13 millions 4,7 millions
 Nombre d'habitants

Number of Inhabitants

984 hab / km² 1 148 hab / km² 414 hab / km²
 Densité (surface totale)

Total density (number of inhabitants per square kilometer)

4 115 hab / km² 3 663 hab / km² 2 976 hab / km²
 Densité urbaine (zone artificialisée)

Urban density (number of artificialized area inhabitants / km²)

© L'INSTITUT PARIS REGION, 2021
Source : Corine Land Cover 2018

Stake

Overlapping and sharing jurisdictions

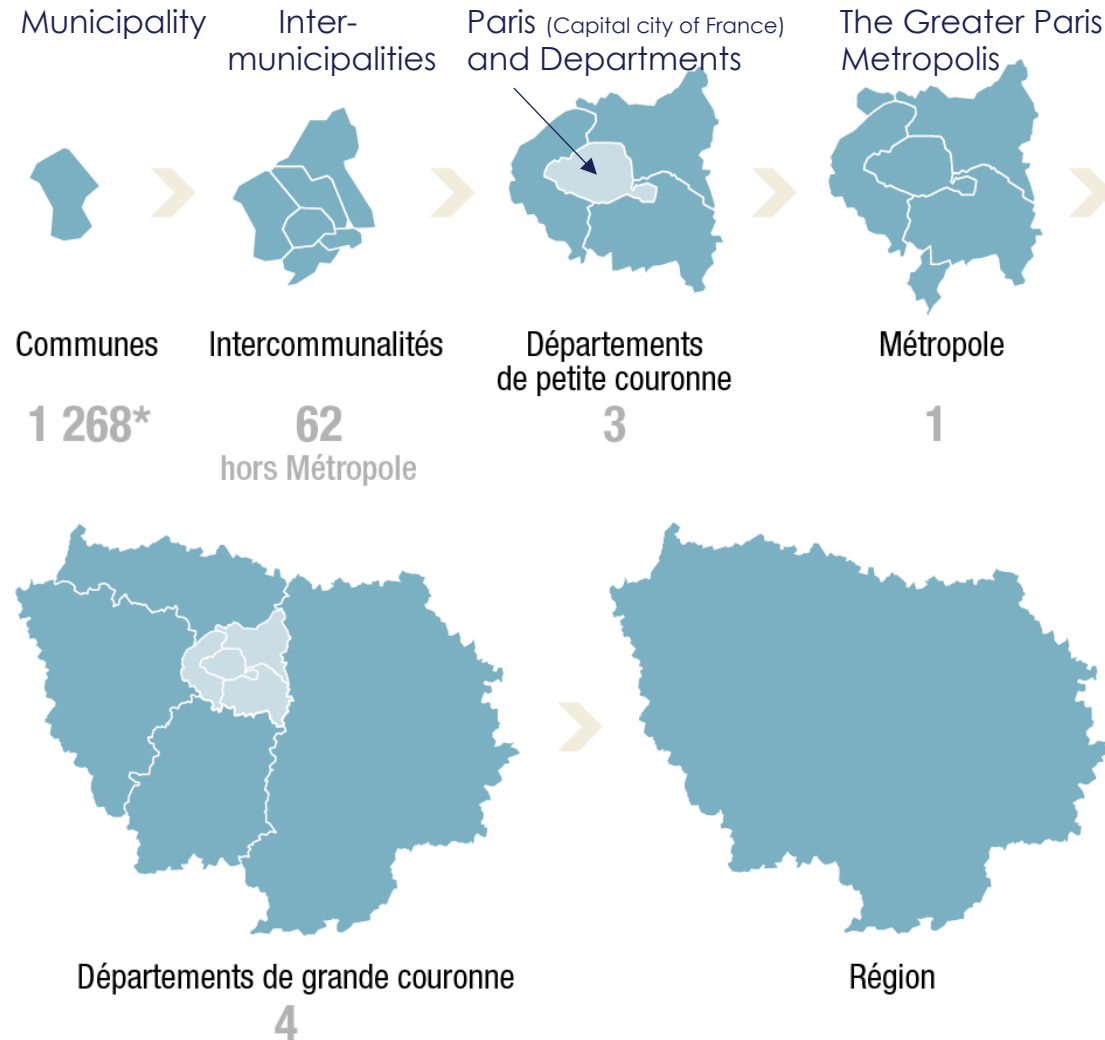
For Climate Adaptation assessment and actions, jurisdiction is shared between several territorial authorities

At Municipality scale : the mayor has a police powers and a duty to protect vulnerable populations from natural hazards ; local urban planning document

The inter-municipal authorities (relevant scale) are competent to develop Local Climat and Energy Plans ; local urban planning documents

The law has strengthened the departments in their missions of territorial and human solidarity

The regional authorities (The Region and The State) must take the lead in climate and sustainable development (Master plan, Regional climate, air and energy plan...)



Stake

High value-added tertiary activities

Economic weight of the Region in France :

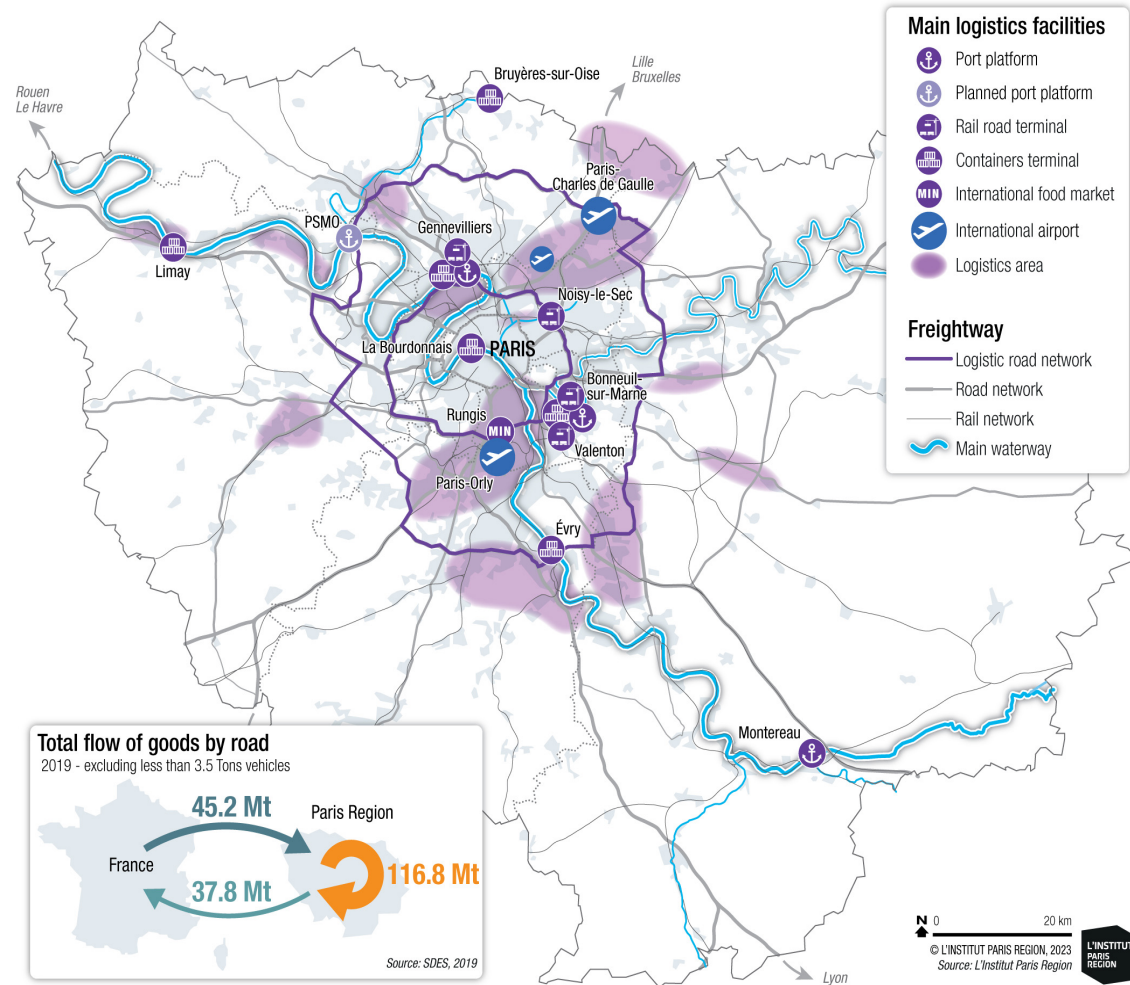
23% of jobs, highly concentrated in the center (Paris, La Défense...)

31% of Gross Domestic Product

40% of annual R&D spending

Motorized transport still plays a major role

But the agglomeration benefits from an efficient public transport network (and a new project underway : Grand Paris Express)



Stake

Strong social and territorial disparities

12.2 million inhabitants

18,8% of the French population

13 million inhabitants in 2035

5.8 million housing units, including :
73% apartments

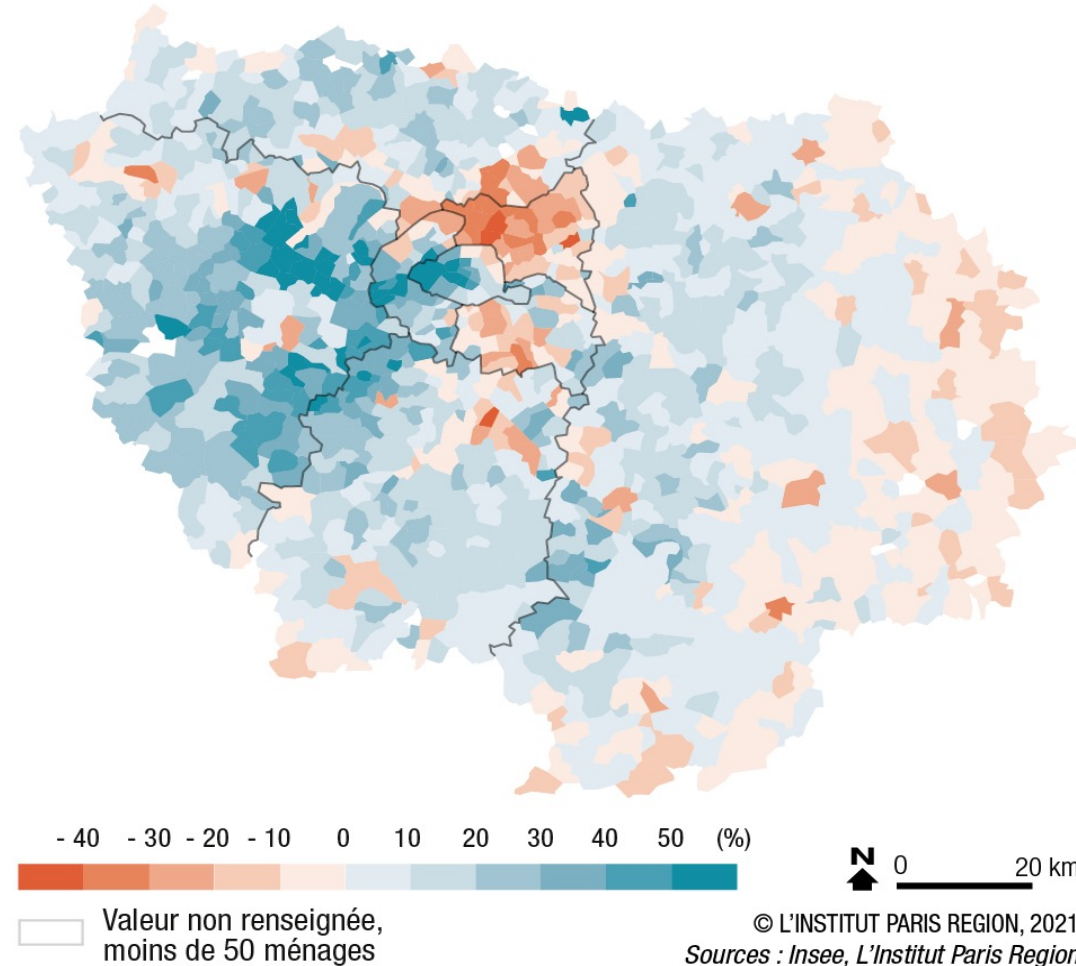
26% built between 1946 and 1970,
prior to the first thermal regulations

Significant income inequalities
(east/west at the regional scale) :

28.4% poverty rate
in Seine-Saint-Denis Department

9,7% poverty rate
in Yvelines Department

Median standard of living in Paris Region



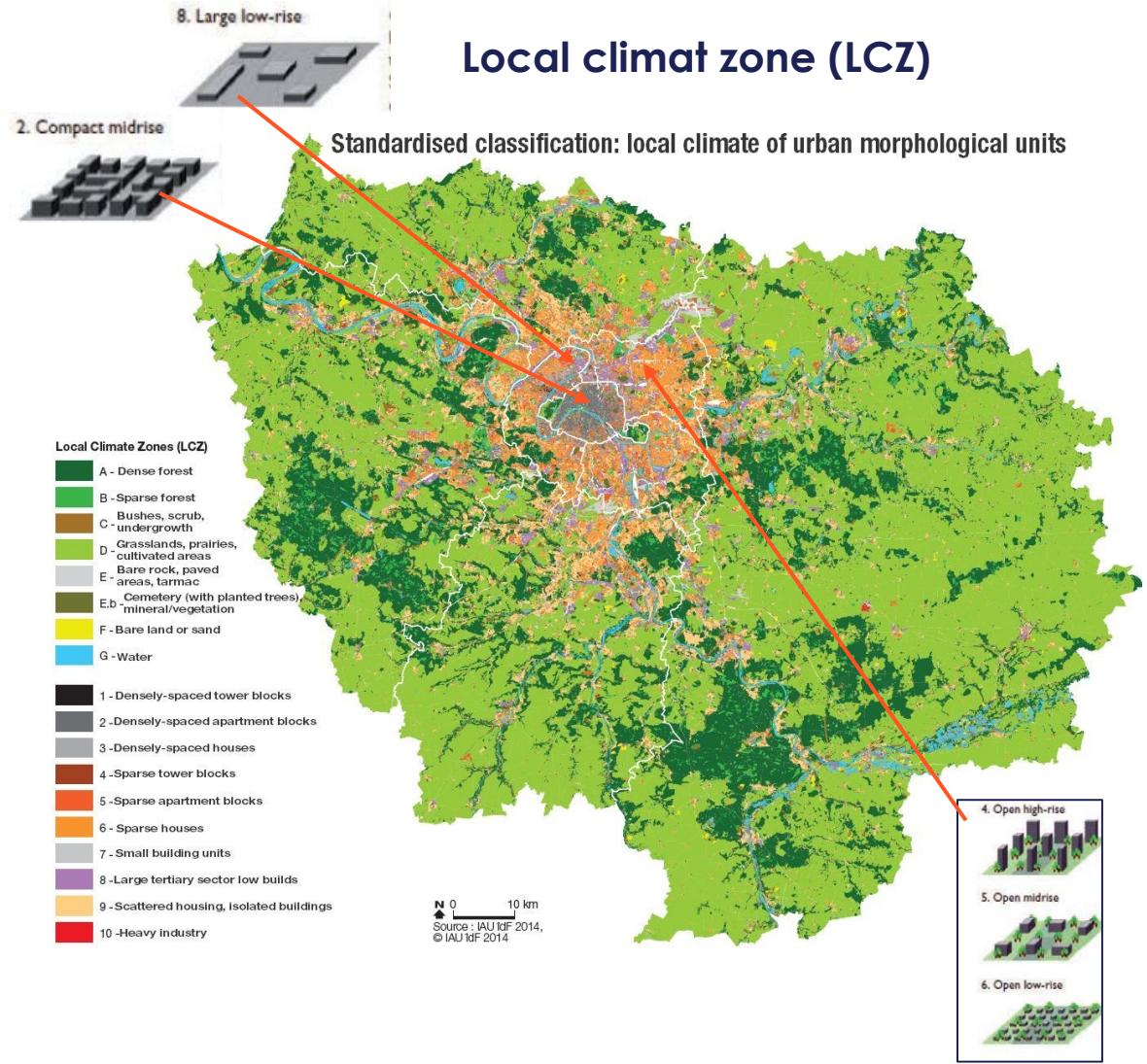
Stake

Strong territorial and local climat disparities

A current temperate climat described as "altered oceanic" for its more pronounced annual temperature variations and less precipitation than on the oceanic fringe.

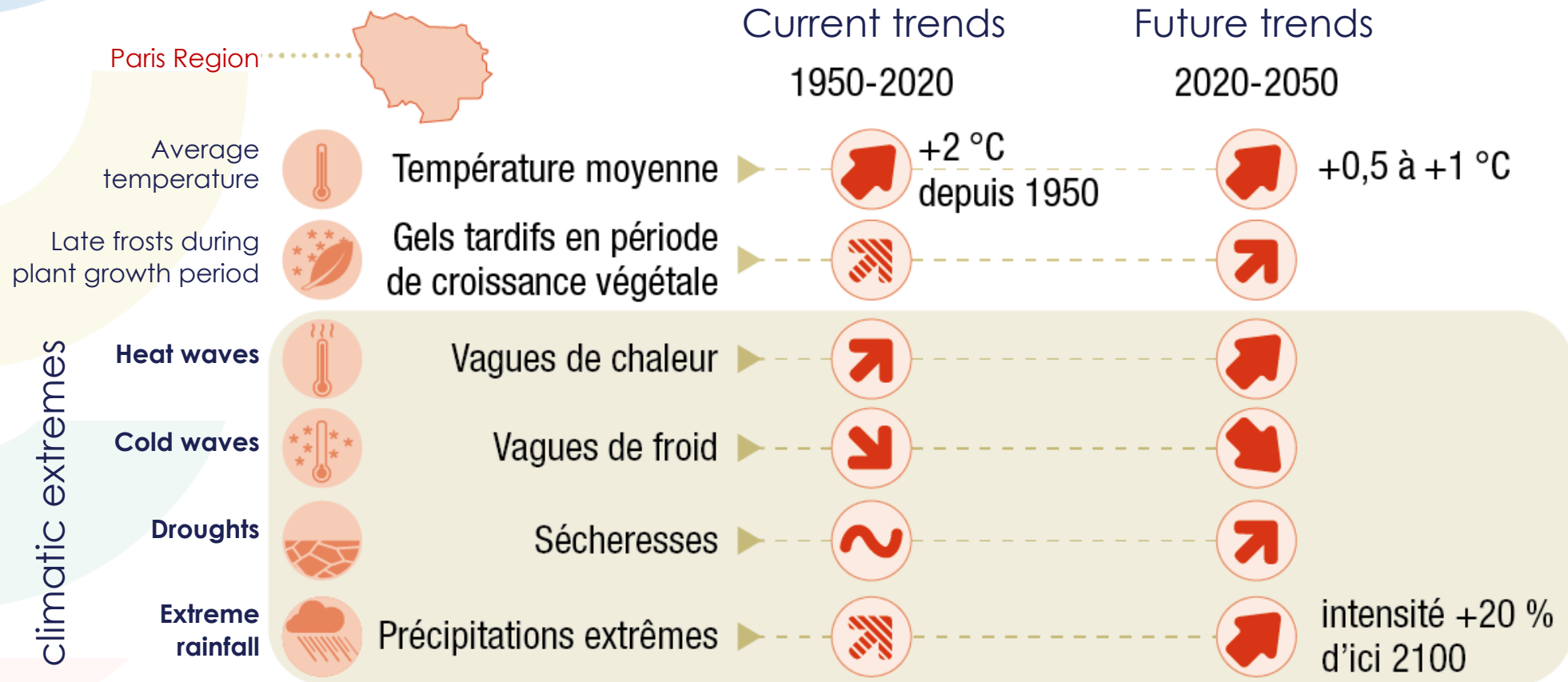
The closer you get to the core of the Paris Region - Paris town – the denser, rougher, more compact and mineral (impermeable) the urban fabric becomes...

at the origin of **disturbances in local climatology**



Main climate evolution for Paris Region linked to climate change

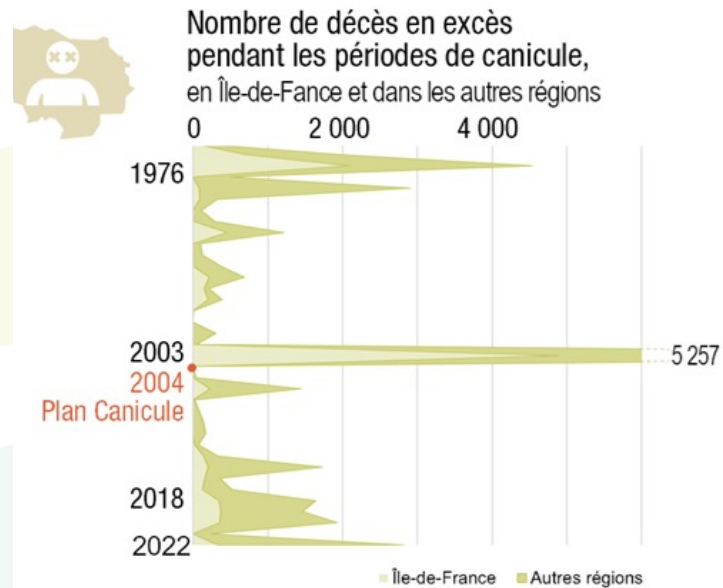
(Based on GREC Francilien, IPSL, DRIAF Météo France data processed by L'Institut Paris Region for The Regional diagnosis of Île-de-France's vulnerability to the effects of climate change, Novembre 2022)



Focus

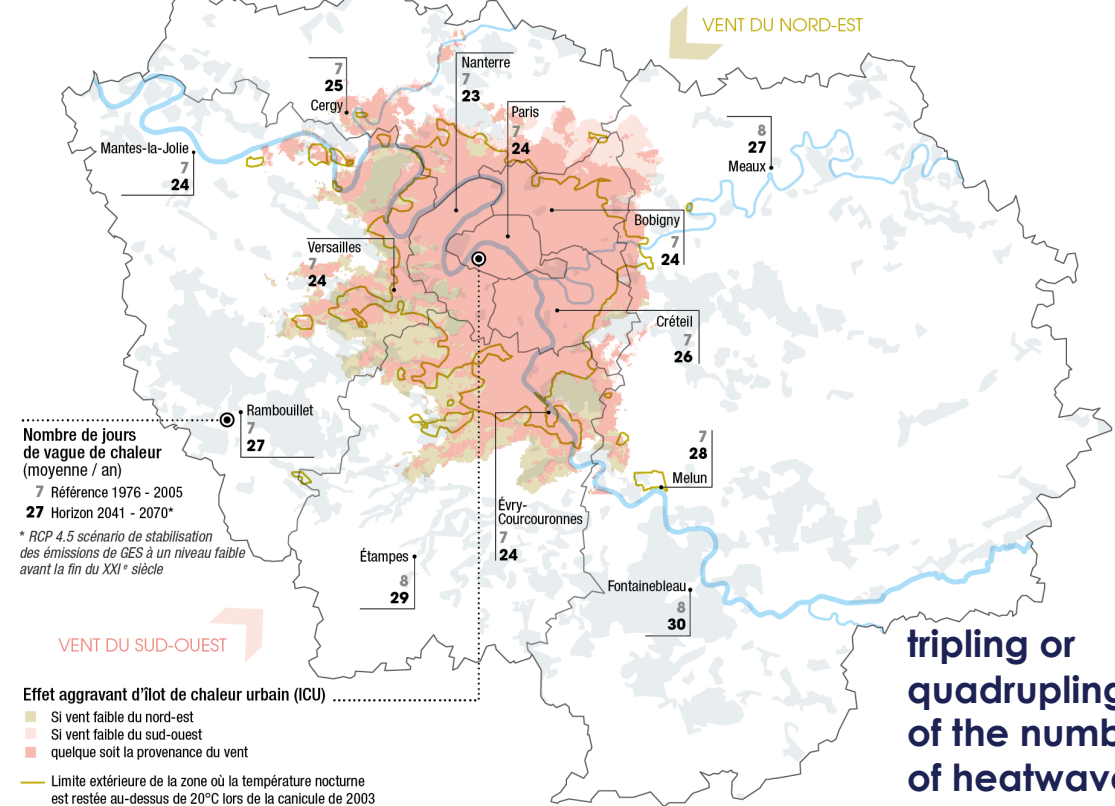
Heat waves & Canicules, + Urban Heat Island(UHI)

the most hard-hitting weather events : a public health issue

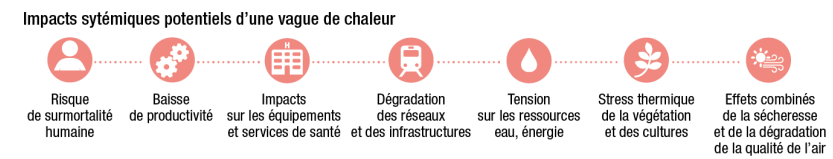


France, 2023 / Sources : Météo-France (ClimatHD), Géodes (Santé Publique France)

VULNÉRABILITÉS ACTUELLES ET FUTURES DE L'ÎLE-DE-FRANCE AUX VAGUES DE CHALEUR



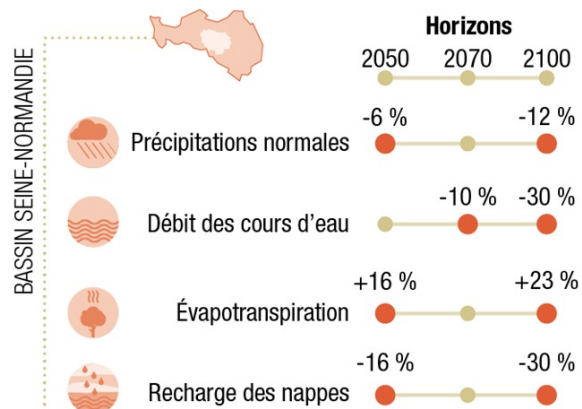
tripling or quadrupling of the number of heatwave days by 2041 - 2070



© L'INSTITUT PARIS REGION, 2021 Sources : DRIAS, projet MApUCE, CNRM, INVS, L'Institut Paris Region

Focus Droughts

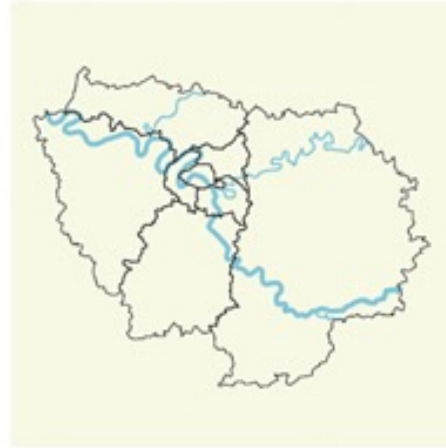
Some very recent events :
 2018, 2019, and 2020 (2 million euros to help farmers financially)
 but very bad foresight as regards the soil drought !
 (clay shrink-swell, forest fires, crops and vegetation...)



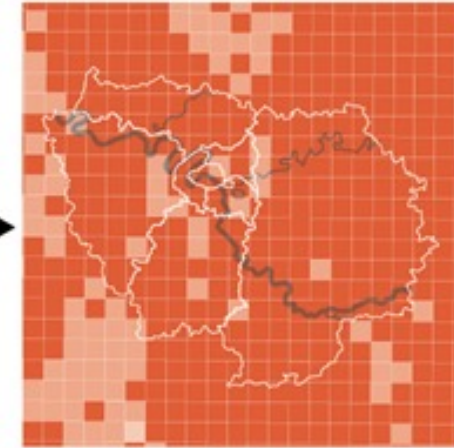
© L'INSTITUT PARIS REGION, 2021 / Sources : Drias, GREC IdF, AESN, SDAGE

The soil drought evolution

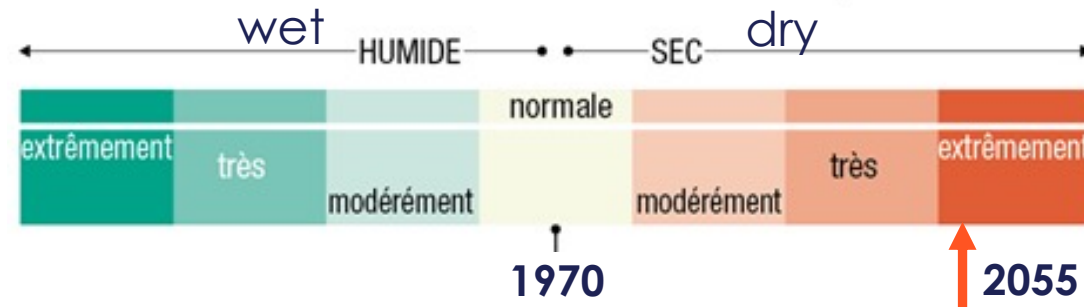
Période de référence (autour de 1970)



Évolution à moyen terme, scénario intermédiaire* du GIEC, autour de 2055



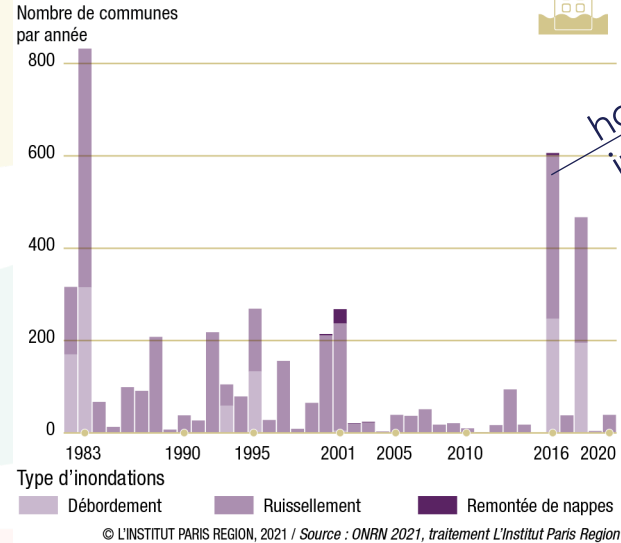
* Développement économique tendanciel avec équilibre entre les sources d'énergie.



Focus Extreme rainfalls

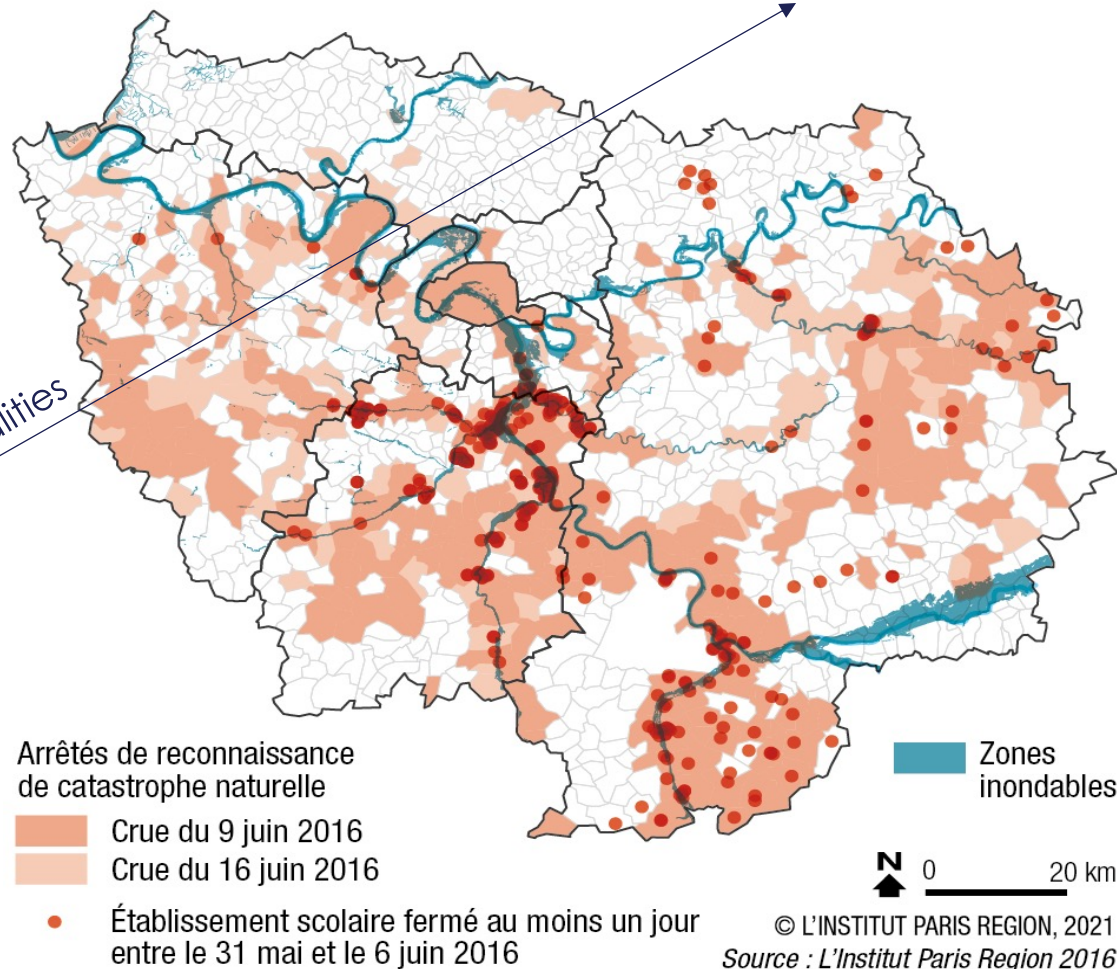
The atypical flood in June 2016
Run-off and overflow floods
Cost of damage : 1.4 billion euros

« flood » natural disaster decree (1982-2020)



Run-off
overflow

Crue exceptionnelle et atypique de mai-juin 2016



On the left side of the slide, there are four large, curved, overlapping shapes in light blue, yellow, light green, and light pink, arranged vertically from top to bottom.

Thank you for your attention

Erwan Cordeau – Urban and Rural Environment Department

L'INSTITUT PARIS REGION

REGIONAL PLANNING AGENCY

