

A photograph of a green roof garden. The foreground is dominated by tall, feathery, light-brown grasses. Behind them, there are several flowering plants, including clusters of bright pink flowers and some yellow flowers. The background shows a dark, possibly concrete or metal, structure, likely part of the building the roof is on. The overall scene is vibrant and shows a diverse selection of plants.

**French regulations  
and green roofs  
in France**

# Obligations and incentives to install green roofs in France



## Water agencies

- Water agencies are public administrative bodies
- There are six of them, corresponding to river basins
- They share the same program, but each agency implements it in its own way
- Objective no. 1 = to manage rainwater at source in urban areas
- But also to combat UHI and promote biodiversity



*Périmètre des Schémas directeurs d'aménagement et de gestion des eaux (SDAGE) à l'échelle des 7 bassins hydrographiques français*

# Obligations and incentives to install green roofs in France

## Example of assistance from the Seine-Normandie water agency



### Several types of assistance:

- Assistance with preliminary studies => specific and/or feasibility studies: 50%
- Assistance for works :
  - 80% for public bodies (local authorities, social landlords)
  - 40% for private owners (companies)
- Maximum amounts from €30 to €100/m<sup>2</sup>

# Obligations and incentives to install green roofs in France

## Local authorities: incentives and obligations

In local town planning regulations => local town planning tool (PLU):

- It is not possible to prohibit the installation of green roofs as long as they do not detract from the architectural quality of the building and its integration into the surrounding environment
- It is possible to derogate from the maximum heights set in the PLU for green roof installations:  
*"The implementation of a vegetation device in application of article L. 152-5-1 of the urban planning code is authorized within the limit of a one-meter overhang at any point above the height of the construction authorized by the regulations of the local urban planning plan, excluding vegetation. It may also be authorized in derogation of the provisions concerning the architectural characteristics of the facades and roofs of constructions, provided for in application of article R. 151-41 and set in the aforementioned regulations."* (decree of 12/23/2022)



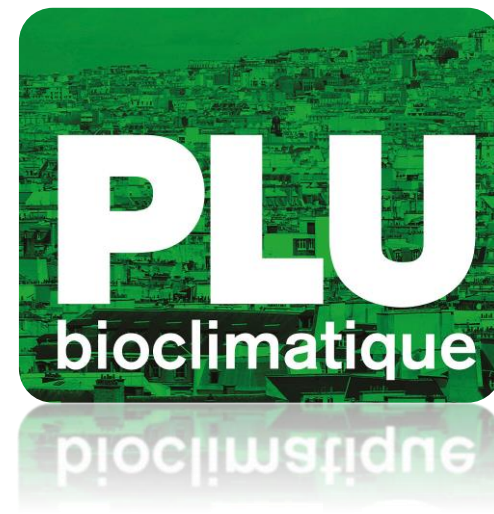
# Obligations and incentives to install green roofs in France

## Local authorities: incentives and obligations

Some PLU encourage or require the installation of green roofs

### Example of Paris "Bioclimatic PLU"

- Requires greening roofs and strongly suggests greening facades
- For all **flat roofs over 100m<sup>2</sup> in area** =>
  - for new buildings: 25cm of substrate
  - Renovations and extensions to existing buildings: 15cm
  - Unless prevented by the preservation of the heritage



# Obligations and incentives to install green roofs in France

## Local authorities: incentives and obligations

### Examples from Clermont-Ferrand and Lille

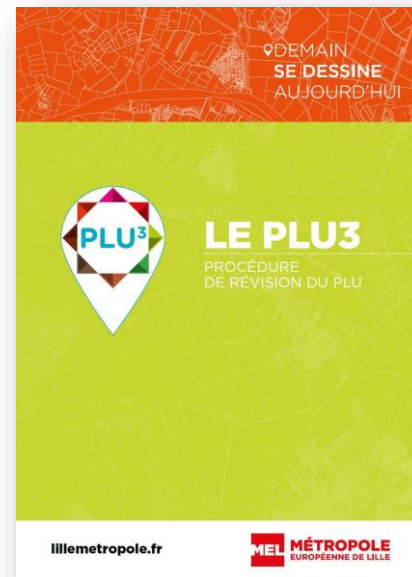
- Impose a minimum biotope coefficient per surface area in their urban zones

=> Green roofs = one of the solutions to meet this minimum requirement

+ possible financial incentives



plan local  
d'urbanisme  
de la métropole

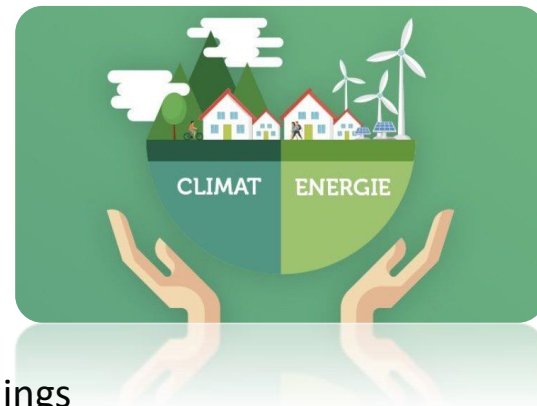


# French regulatory developments

## Regulatory history

### 2019 - "Energy-climate" law (L.111-18-1 of the town planning code):

- For new buildings
- > 1,000m<sup>2</sup> of floor space
- Obligation to plant or to set up Renewable Energy (RE) = 30% of the roof surface to be covered
- For:
  - Commercial buildings
  - Industrial buildings
  - Craft buildings
  - Warehouses
  - Hangars
  - Covered car parks



# French regulatory developments

## Regulatory history

### 2021 - "Climate and resilience" law (L.171-4 of the building code)

- For new buildings, major renovations and extensions
- Commercial, industrial and craft buildings, sheds, warehouses, covered car parks > 500m<sup>2</sup> of floor space
- Offices > 1,000m<sup>2</sup> of floor space
- 30% of the roof surface to be covered





# French regulatory developments

## Regulatory history

### 2023 - "Acceleration of renewable energies" law (L.171-4 et 5 du CCH)

In 2025:

- For new buildings, major renovations and extensions
- Commercial, industrial and craft buildings, sheds, warehouses, covered car parks, offices, administrations, hospitals, schools, sports facilities > 500m<sup>2</sup>
- Obligatory green roofing (or RE) of 30% of roof area

In 2026:

Obligation to green (or RE) 40% of roof area

In 2027:

Obligation to green (or RE) 50% of roof area



# French regulatory developments

## Regulatory history

**2023 - "Acceleration of renewable energies" law (L.171-4 et 5 du CCH)**

In 2028:

- All existing buildings corresponding to the uses and footprints listed by January 1, 2025 must have their roofs covered with renewable energy or a green roof system
- The roof surface to be covered must be defined by decree



# Application texts

- Definition of heavy building renovation
- Definition of exceptions to this obligation
- Definition of exemptions from application of the obligation to facilities classified for environmental protection (ICPE = installations classées pour la protection de l'environnement)
- Characteristics of green roof systems



# Application texts – In progress

Possible exceptions to the obligation:

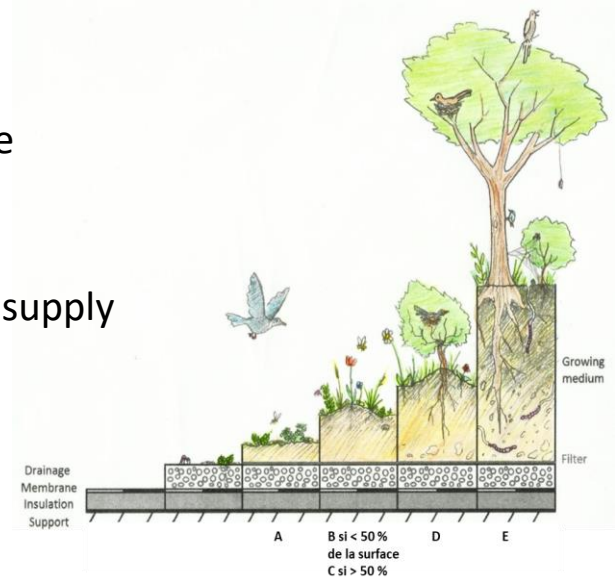
- In the case of specific architectural and heritage features
- In the event of additional costs
- In the event of technical difficulties
- In the event of safety constraints



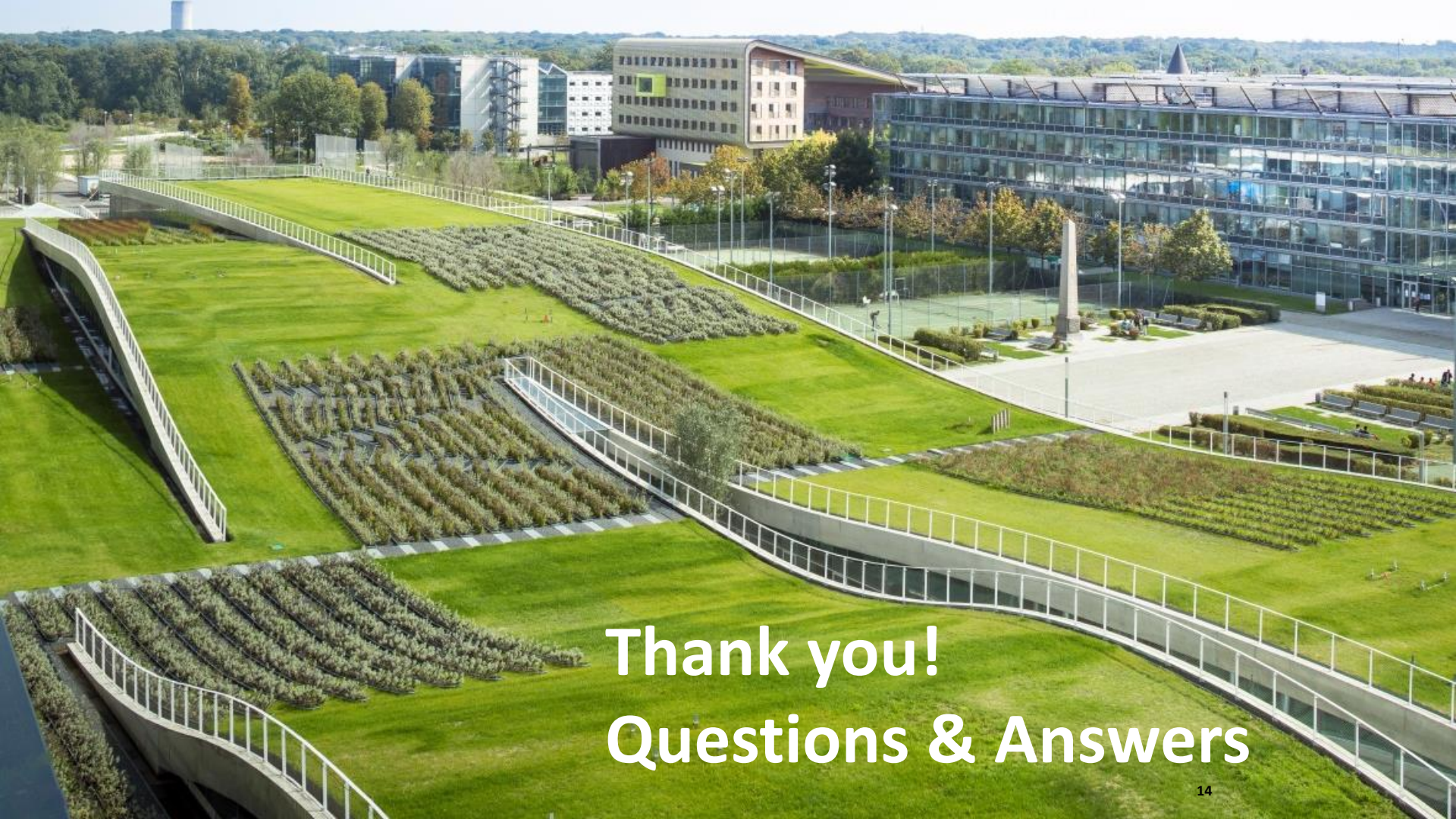
# Application texts – In progress

## Characteristics of green roofs (bylaw)

- **Substrate:** minimum 8cm for renovations and minimum 10cm for new buildings
- **Maximum water retention capacity:** minimum 35% by volume
- **Plants:** minimum 10 species
- **Every point on the roof must be served** by at least one water supply point
- Presence of an access device and minimum annual maintenance
- **For the French overseas departments and territories:** comply with local climatic constraints and do not introduce prohibited exogenous species



Dessin de Frédéric Madre - Publié dans Landscape and Urban Planning vol. 122 (2014)



**Thank you!**  
**Questions & Answers**