

#### THE FIFTH FAÇADE PROJECT

#### Methodology to define a strategy of Green Roofs Policy for the city of Porto

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# All cities have something in common!



## People and buildings



## Why? If we need vegetation



#### SHANGAY 1990

SHANGAY 2010



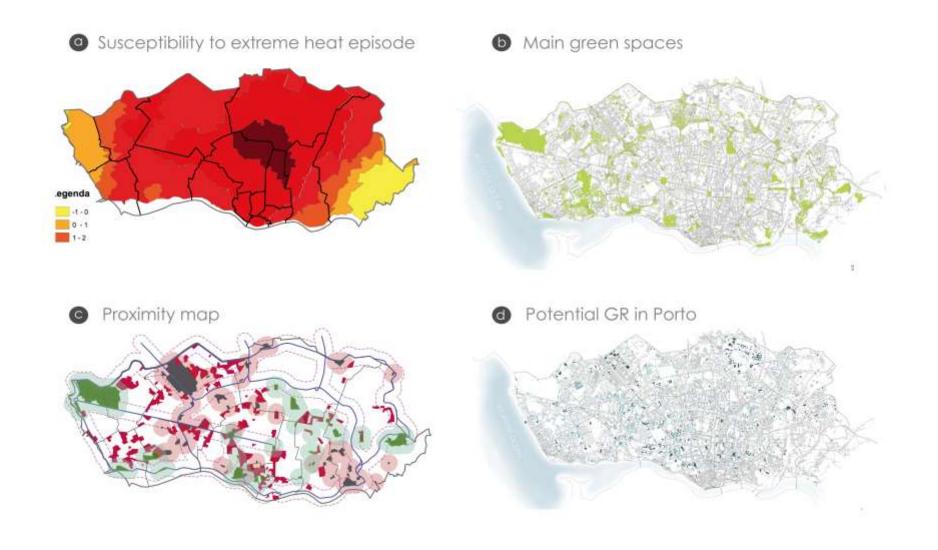
## Cities need nature based solutions.

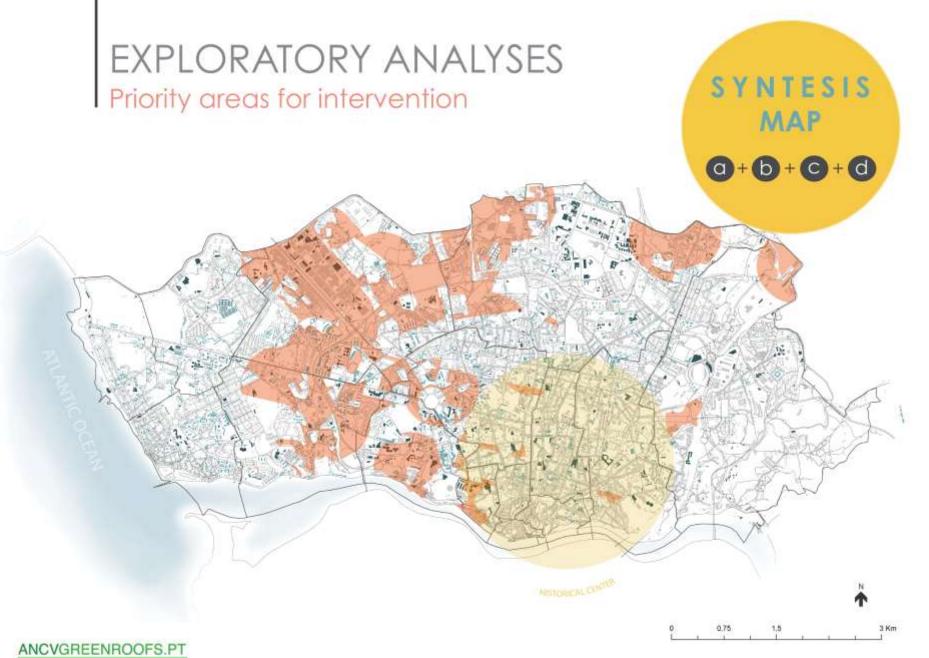
## People need their ecossystem services.

### Porto – Portugal (Fifth Façade Project)



## EXPLORATORY ANALYSIS



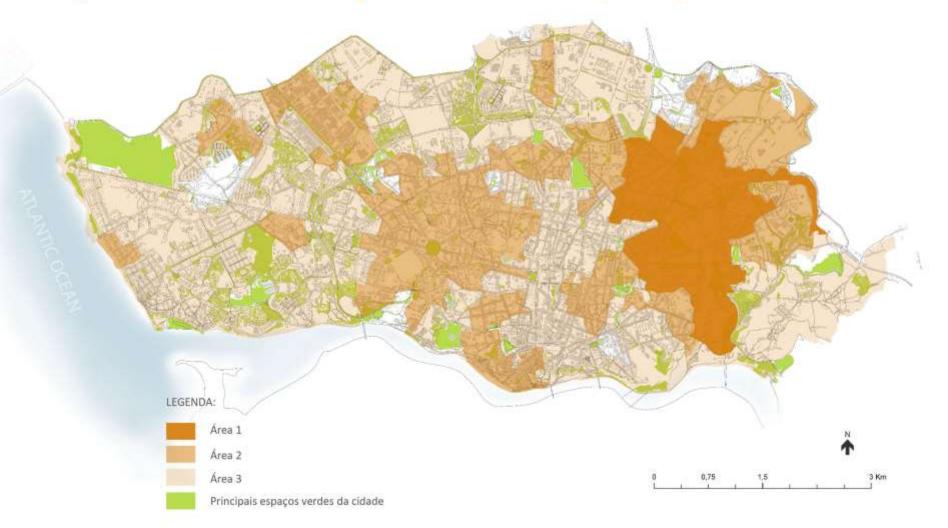


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#### PRIORITY AREAS FOR INTERVENTION

Source: Adapted from "The influence of socioeconomic, biogeophysical and built environment on old-age survival in a Southern European City"



#### Water harvesting? Pollution reduction? Thermal efficiency? Biodiversity promotion?

## ecossystem services?







Porto will require performance from green infrastructures

## www.greenroofs.pt

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	PROJECTS Worl Map	GREEN ROOF Worl Maj		
Green Covers: Green Walls:	<ul> <li>✓ Inclined</li> <li>✓ Extensive</li> <li>✓ Intensive</li> <li>✓ Vertical Gardens</li> <li>✓ Climbers</li> <li>✓ National</li> <li>✓ International</li> </ul>	☞ Solar energy		



https://www.greenroofs.pt/en/map TEWATER TREATMENT



SEAWEED HOUSE

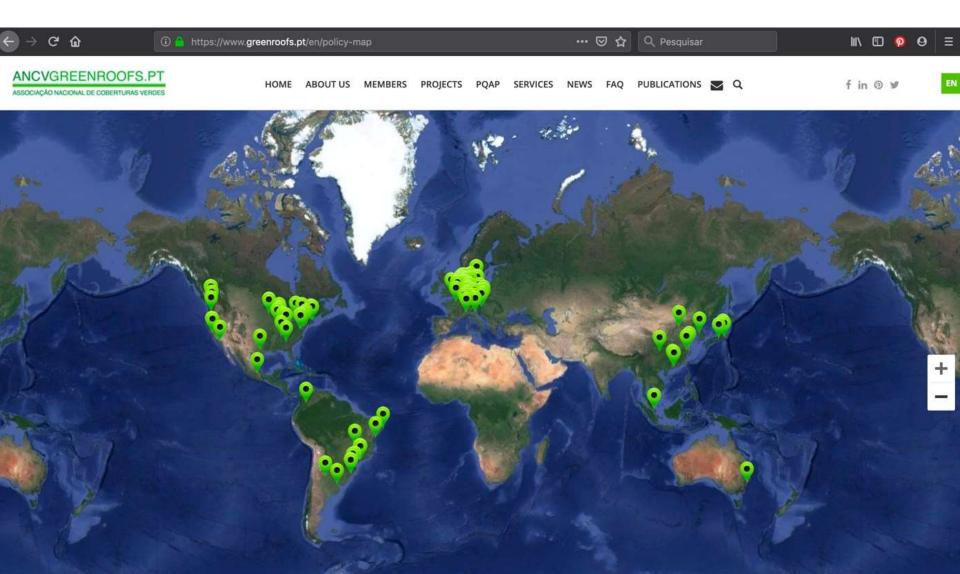


MINHO TOURISM HOTEL

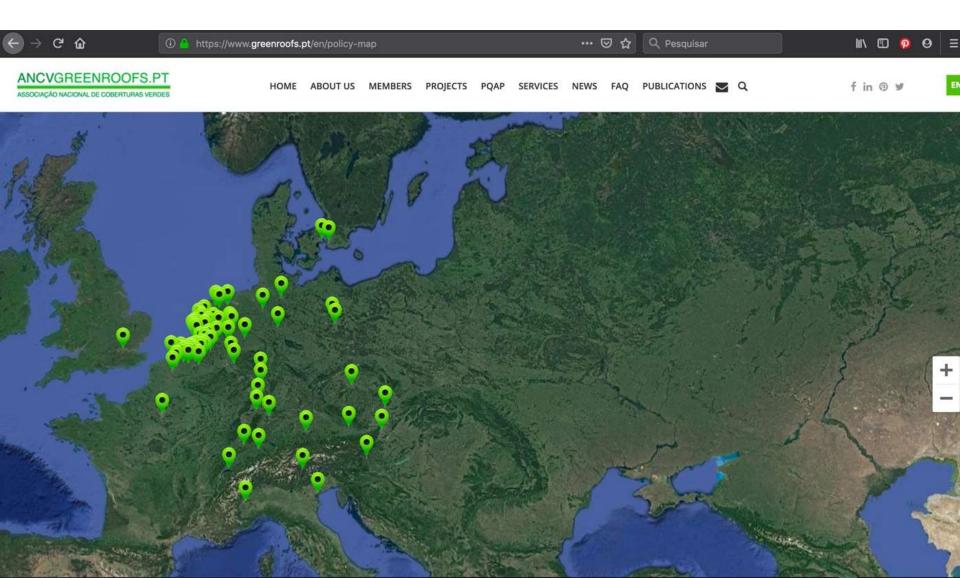


PARTICULAR HOUSE

## Policies world map



## Chose a city!



## Information + link!

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#### Cologne

Subsidy of 50% of eligible costs, up to a maximum of  $\leq$  40 per m2 of designed roof, floor and façade surfaces. For each applicant and year a maximum of 20,000 euros will be funded (2018). Subsidy to homeowners of 10% of the eligible costs, up to  $\leq$  5,000 for each housing unit by the Program 430 and/or Funds for green roofs up to an amount of  $\leq$  100,000 (multi-family residences); and  $\leq$ 50,000 (single-family residences) at very favourable interest rates.

Program: "GRÜN hoch 3 | DÄCHER | FASSADEN | HÖFE" and Programm 430



Source: Green Roof Cologne (https://www.zinco-usa.com/references/perennial\_garden.php)

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## Always ask for performance!



Thank you!

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