POCACITO IN THE US
LISBON - ENERGY AND WATER
PROBLEM
Population decrease (unlike other major cities)

- Population: 547,733 (-10,000/year)
- Metropolitan Area (MA): 2,821,697

Effects of economic crisis and austerity

Ageing population

Residents + Commuters: 1 M every day

House units in Lisbon: 323,729

- ≈50,000 empty
- ≈30,000 rented for tourism
Population

<table>
<thead>
<tr>
<th>Year</th>
<th>City of Lisbon</th>
<th>Lisbon Metrop. Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>750,000</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>1,500,000</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>2,250,000</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>3,000,000</td>
<td></td>
</tr>
</tbody>
</table>
Population vs Age group

- Age groups: 0-14, 15-64, 65+

Graph shows the population changes across different age groups from 1960 to 2011.
CAUSES AND IMPACTS
Buildings
- Inefficient
- Occupancy
- Old
- Price

Mobility
- Air quality
- Noise
- CO2
- Quality of life

Climate and Resilience
- Floods
- Water scarcity
- Heat waves
SOLUTION

A smarter vision: holistic understanding of the complexity of urban systems

More people, more employment, a better city
Lisbon defined the **built environment**, the **mobility system**, the **generation of clean energies** and the use of **ICT** as key areas of activity for the upcoming years.
IMPLEMENTING

A smarter vision: holistic understanding of the complexity of urban systems

More people, more employment, a better city
Lisbon defined the built environment, the mobility system, the generation of clean energies and the use of information & communication technologies as key areas of activity for the upcoming years.
Covenant of Mayors @eumayors - Jul 8

And the first capital #city to join the Covenant of Mayors for #Climate & #Energy is...

covenantofmayors.eu/news_en.html?i...

EUROCITIES network, FEDARENE, Energy4Europe and 6 others
Lisbon defined the built environment, the mobility system, the generation of clean energies and the use of information & communication technologies as key areas of activity for the upcoming years.
Can a whole country run on renewable energy?

By Natasha Maguder, CNN

Updated 0822 GMT (1722 HKT) September 1, 2010

Portugal runs for four days straight on renewable energy alone

Zero emission milestone reached as country is powered by just wind, solar and hydro-generated electricity for 107 hours

Portugal kept its lights on with renewable energy alone for four consecutive days last week in a clean energy milestone revealed by data analysis of national energy network figures.

Electricity consumption in the country was fully covered by solar, wind and hydro power in an extraordinary 107-hour run that lasted from 8.45am on Tuesday to Wednesday morning.

French hitchhiker goes berserk in New Zealand after four days stuck without a lift

Syrian coffin not dead; says US after aid convoy bombing

No grammar school; lots of piers; the secrets of Europe’s top education system

Donald Trump Jr comparing Syrian refugees to pornstars shingles

Jim Carrey sues over former girlfriend’s suicide
Potência (kW)

0 20 40 60 80 100 120

0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 0000

Jul-11
- Dia útil (21)
- Sábado (6)
- Domingo (5)
- Feriado (0)

[Arrows indicating points on the graph]
Como está a Natureza?

O Ambiente está mesmo saudável, vamos mantê-lo assim!

Baseado no consumo
Período
- Hoje
- Ontem

Como está a Natureza?

O Ambiente está bom, mas ainda conseguimos melhorar!

Baseado no consumo
Período
- Hoje
- Ontem

CONSUMO
PRODUÇÃO
CONSUMO/PRODUÇÃO

Escola dos Olivais

Opções do gráfico:
- Diário
- Semanal
- Mensal

Atualizar
Lisbon defined the built environment, the mobility system, the generation of clean energies and the use of information & communication technologies as key areas of activity for the upcoming years.

<table>
<thead>
<tr>
<th>Policy</th>
<th>Sustainable and cost-effective building retrofit</th>
<th>Solar city</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water and Green Structure</td>
<td>Public space and sustainable mobility</td>
<td>Participation</td>
</tr>
</tbody>
</table>
"LOW COST" IMPLEMENTATION

RESILIENT (LONG TERM "LOW COST")

FUNCTIONAL AND ECOLOGICAL

PUBLIC PARTICIPATION
URBAN PARKS
URBAN WOODS
+
URBAN GARDENS
URBAN FARMING
Biodiverse extensive meadows
VINEYARDS
GROVES
OLIVE TREES
NEW PARADIGMS
Water consumption (25,9x10^6 m³), 2014

- Municipality: 32%
- Food and Tourism: 15%
- Service buildings: 9%
- Health: 7%
- Commercial: 7%
- Education: 5%
- Public Adm.: 5%
- Cultural: 4%
- Residential: 3%
- Others: 13%
Water consumption (25,9x10^6 m³), 2014

- Municipality 32%
Water consumption (25.9x10^6 m^3) 2014

- Green spaces: 75%
- Street washing: 32%
WATER EFFICIENCY

16 case studies
LESSONS LEARNED

VS

LEARNING PROCESS
Participation

International collaboration/networks

Multi-stakeholders

Smart city vision

Better coordination in dealing with cross-sectoral issues

NBS

Bottom-up innovations to foster ICT innovation

Combination of fundings schemes

“Adaptigation”
Cities and urban development are essential to achieve the goals for a inclusive, smart and sustainable development. “The future of Europe depends on our future cities”.

Lx-Europa 2020 Strategy

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