

ENERGY LEAP

DEVELOPING BUILDINGS OF THE FUTURE



PARTNERE I

ENERGISPRING

UDVIKLER FREMTIDENS BYGNINGER



VEST ADMINISTRATIONEN AS



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BYGNINGSSTYRELSEN



CASTELLUM

**Project manager
Annette Egetoft**



**Mayor
Morten Kabell**



CONTENTS

Background

- Copenhagen goals for reducing energy consumption
- Copenhagen building stock

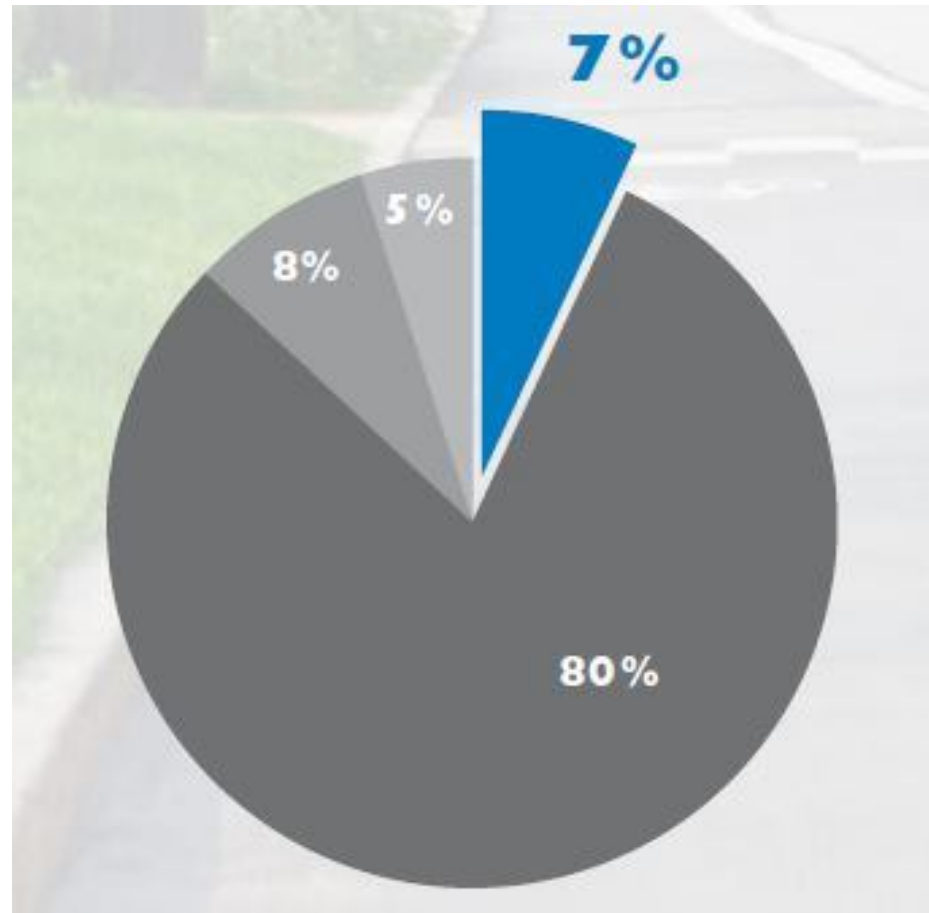
Energy Leap

- New partners – and squaremeters in 2017
- Obligations - Benchmark - Objectives
- What's in it for the partners?
- The role of the City of Copenhagen
- Perspectives

ENERGY CONSUMPTION

Energy consumption only accounts for 7 % of the CO₂ reductions

- However energy savings are the cheapest way to cut emissions



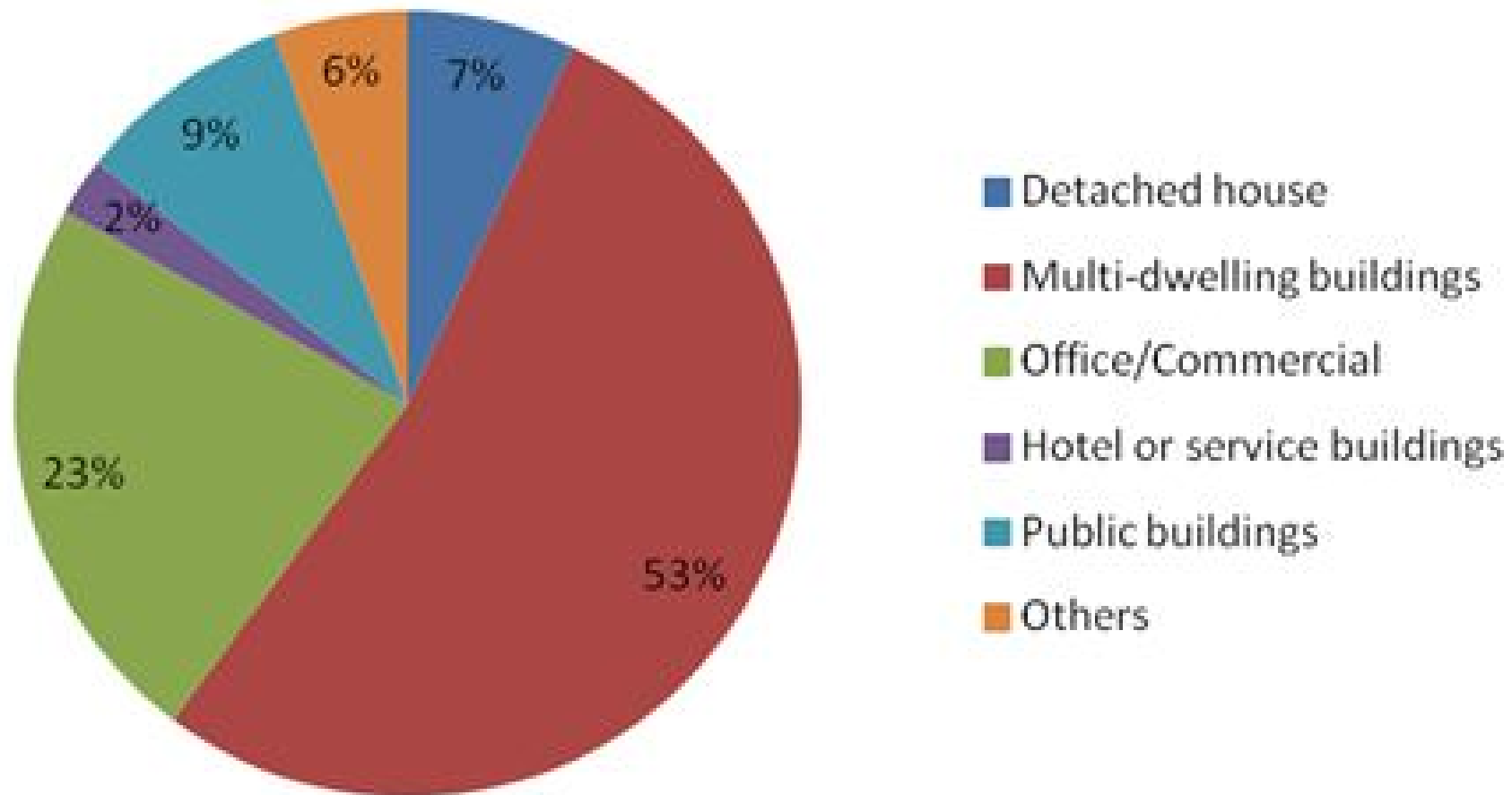
COPENHAGEN GOALS FOR REDUCING ENERGY CONSUMPTION

GOALS 2025	STATUS 2015
Heat consumption reduced by 20 %	Without correction for climate/weather: : Goal achieved With correction for climate/weather: No change
Electricity consumption reduced by 10% in households	Reduced by 5 %
Electricity consumption reduced by 20% in commercial and service companies	Increased by 1.3 %
Municipal properties: Energy consumption reduced by 40%	Reduced by 10%

COPENHAGEN BUILDING STOCK

Total sq. m = 42.000.000

Of which housing = 25.000.000 and business = 18.000.000



ENERGY LEAP PARTNERS

26 members have joined the partnership, of which 19 property owners and property and asset managers



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OBLIGATIONS

Partners must:





- Save 3% on energy the first year and ensure that energy consumption continues to go down
- Over time reduce heat consumption by at least 20% and electricity by at least 10% by the end of 2025.
- Make data and experience from their own property portfolio available for other partners














The 7 principles

1. We share knowledge and data the other partners
2. We transform words into action
3. We think long term
4. We help residents and tenants
5. We benchmark the performance of our property portfolio with other comparable properties in the partnership
6. We act as ambassadors for the partnership
7. We actively participate

BENCHMARKING

Principal 5

-  130 kWh / m²
-  100-130 kWh / m²
-  70-100 kWh / m²
-  70 kWh / m²

Afkøling	2010	Tendens	2014	Tendens	2015
17 °C 2014 24,4 °C 2015	 105 kWh/m ²		 96 kWh/m ²		 96 kWh/m ²
37,8 °C 2014 42,5 °C 2015	Opsplitning af varmeanlæg. Tidligst data er fra 2014		 66 kWh/m ²		 99 kWh/m ²
31,7 °C 2014 31,9 °C 2015	 56 kWh/m ²		 45 kWh/m ²		 50 kWh/m ²

Ejendom	Adresse	Areal	Forsyningsa	Ejer/adm	Opført	Afkøling	2010	Tendens	2014	Tendens	2015
		2.765 m ²	Fjernvarme		1877	17 °C 2014 24,4 °C 2015	 105 kWh/m ²		 96 kWh/m ²		 96 kWh/m ²

Forbrugsudvikling for varmen på Slotsholmen fra 2011 til 2014												
Ejendom	Adresse	2011	Tendens	2012	Tendens	2013	Tendens	2014	Energistyring	Besparelse	Areal	
	Slotsholmen København	 113 kWh/m²		 104 kWh/m²		 98 kWh/m²		 97 kWh/m²	JA Anvendt aktivt siden 2012	2.300 MWh 2011-2013	1,3 mio. kr. 2013 pris ekskl. moms	145.000 m²

OBJECTIVES

2017:

- 10 more partners joining -
- Status to day: four has already signed in 2017
- 100 properties taking part in the benchmark
- Status to day: 80 properties in the benchmark = 124.000 m²

2020:

- Total sq.m represented by partners = 7 mio sq.m. equivalent to 17% of total build area in CPH (42.000.000)
- Status to day: Existing partners represent 10,3 % = 4,3 mio sq.m.



WHAT'S IN IT FOR THE PARTNERS?

Sellingpoints

- New knowledge on technologies and methods
- Benchmarking
- Networking – workshops with focus on what works
- You don't want to miss out of it
- You don't want to perform worse than they others
- Branding - publicity
- Influence



BRANDING AND PUBLICITY

>35 reviews in newspapers, newsletters and websites



CLIMATE PLAN



THE ROLE OF THE CITY OF COPENHAGEN

The City of Copenhagen and HOFOR offers to

- Facilitate recruiting and educational activities
- Benchmark energy consumption
- 2 x HOFOR System for monitoring of day-to-day energy consumption based on remote meters
- Technical personnel training courses
- Workshops for management and decision makers
- Sharing of know-how and hands-on experience from other partners
- Publicity /branding

FUTURE PERSPECTIVES

- Developing the partnership
 - Funding from the Danish Energy Agency
 - Funding from Landowners Investment Fund
- Organizing the partnership in the future
 - How to keep it relevant for all partners in the future?
- Recruiting – how many partners and which ones ?
- Communication in between partners and to the public
- Dissemination

RESULTS

- The partnership has given inspiration to the partners:
 - Optimizing the operating buildings
 - Solarcells on the roof
 - Optimizing ventilation
 - Pinpointed strategic barriers
 - Branding
 - Focus on the energy on the strategic level
 - More benchmark of buildings

THANK YOU FOR YOUR ATTENTION

contact

Mariann Anderson
Climate
City of Copenhagen
+45 3033 9544
marian@tmf.kk.dk
www.kk.dk/climate

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