Urban metabolism for tourism in Copenhagen. 
Introduction to the URBANWASTE project and the waste management in the City of Copenhagen

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Project objectives

• The URBANWASTE project aims at developing strategies for reducing the amount of municipal waste, as well as strategies to further develop re-use, recycling, collection and handling of waste.

• These strategies will facilitate the reintroduction of waste as a resource into the urban metabolism flows and address waste management, risk prevention and land-use as an integral part of urban development.

• Project period: 2016-2019

• Homepage: http://www.urban-waste.eu/

“The project will develop eco-innovative and gender-sensitive waste prevention and management strategies in cities with high levels of tourism”
Urban metabolism and tourism

Tourism increase the need for energy, food, water and goods significantly

- Energy
- Food
- Water
- Goods

City with citizens and tourists

- Emissions
- Organic waste
- Waste water
- Loss of resources

Urban Waste at UrbanWINS webinar 5 July 2017
Tourisms influence on waste production

Extract of results from URBANWASTE survey circulated among tourists and visitors in the 11 pilot cases among Europe.
Urban metabolism and URBANWASTE

Energy
Food
Water
Goods

City with citizens and tourists

Waste management

Recycled resources

What is needed?
• Waste prevention
• Better collection and handling
• More recycling

Emissions
Organic waste
Waste water
Loss of resources
Extract of results from URBANWASTE survey circulated among tourists and visitors in the 11 pilot cases among Europe.
Waste management planning in Copenhagen and the link to urban metabolism.
City of Copenhagen
Resource and Waste Management Plan 2018

Principles
• Waste is a resource
• Change from incineration to recycling
• The local level can make a difference
• Every step up the waste hierarchy reduces CO2-emissions
• Focus on resource efficiency and green growth.

Targets
• 20% reduction in waste to incineration
• 45% of household waste to recycling –
• Double recycling of household waste from 2010 to 2018.

• ~ Budget of 300 mio. DKK – 40 mio. EUR
City of Copenhagen Resource and Waste Management Plan 2018

Less waste
- Flagship: Sydhavn Recycling centre
- Initiatives: Local recycling hubs, reduction of food waste

Better source separation by citizens and business
- Flagship: Copenhageners separate waste
- Initiatives: Innovative waste solutions, optimisation of waste schemes

More efficient and environmentally friendly waste collection
- Flagship: Biowaste and heavy transport fuelled with biogas
- Initiatives: Collection of bulky waste in fractions

Better waste treatment
- Flagship: Prevention and recycling of plastic waste
- Initiatives: New waste treatment center at Amager

http://www.kk.dk/artikel/ressource-og-affaldsplan-2018
Possibility for behavioural change

Extract of results from URBANWASTE survey circulated among tourists and visitors in the 11 pilot cases among Europe.
URBANWASTE in Copenhagen

Goals

• A cleaner Copenhagen
• Preventing waste from tourism activities
• More waste sent for recycling.

First activities

• Surveys among tourists, waste workers and tourism workers on issues about waste management related to tourism
• Data collection from all cities on waste, tourism and waste management
• Focus group interviews
• Brainstorming on measures to implement.
Chan and Lam (2001) researched waste generated only from hotel rooms in Hong Kong. It turned out the generated waste was 2.76 kg / room / day. The authors divided into 5 different waste categories, the percentage is given in Figure 27.

Figure 27: Waste composition in hotel rooms in Hong Kong

Possible prevention measures
• Online newspapers
• Liquid soap dispensers
• Nice slippers to bring home as souvenir
• Reusable laundry bags
• Toiletries on demand

From report on Urban Metabolism carried out in URBANWASTE. Find it here: http://www.urban-waste.eu/urban-metabolism/
Ideas for initiatives to be implemented in the cities

• Recycling advisors for touristic establishments (hotels, restaurants, shops) helping to send more for recycling.

• Removable street bins and customized bins for pizza trays in party areas to improve people’s behavior and avoid litter.

• When having a deposit-refund scheme – set up charity collection of beverage packaging in airports. Can be used in places mainly frequented by tourists but where waste pickers are not present.

• Nudging activities to prevent food waste from buffets (breakfast, and other kinds of buffets).

• Advertising for tap water: different possibilities such as the promotion of reusable flasks (including distribution of flasks during communication events), dissemination of the map of the drinking fountains through apps, websites.

• Gift box/reuse street furniture targeting tourists. Tourists can drop the things they don’t need/don’t want to bring back home and they can pick up other things they would need.
Activities in Copenhagen at the moment

• During summer focus is on collection in streets and parks.

Bins that can be seen at night with an inlet that fits pizza trays

Handing out pocket ashtrays and bags for waste

Putting large cigarette butts on bins to tell people where to put them
Knowledge sharing between cities

Visit in Copenhagen from Kavala, Greece. Introduction to Danish recycling stations.
**MONDAY AUGUST 28 // 8:00-18:00**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:15-9:00</td>
<td>REGISTRATION AND COFFEE</td>
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<tr>
<td>9:00-9:35</td>
<td>OFFICIAL OPENING OF CPH CLIMATE SOLUTIONS</td>
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<tr>
<td>9:35-10:10</td>
<td>PANEL DEBATE – ABOUT ROLES AND RESPONSIBILITIES</td>
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<tr>
<td>10:10-10:25</td>
<td>BREAK</td>
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<tr>
<td>10:25-11:55</td>
<td>MOBILITY AND TRANSPORT SUSTAINABLE MOBILITY – LEADERSHIP</td>
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<td>11:55-12:45</td>
<td>LUNCH</td>
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<tr>
<td>12:45-14:15</td>
<td>ENERGY CONSUMPTION SUSTAINABLE ENERGY MANAGEMENT IN BUILDINGS</td>
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<td>14:15-14:40</td>
<td>BREAK</td>
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<tr>
<td>14:40-16:10</td>
<td>ENERGY SYSTEMS TOWARDS 2050 SEEN IN A COPENHAGEN PERSPECTIVE</td>
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<td>16:10-16:15</td>
<td>BREAK</td>
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<tr>
<td>16:15-16:55</td>
<td>DEBATE – NORDIC SUSTAINABLE B2</td>
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<tr>
<td>16:55-17:00</td>
<td>CONCLUDING REMARKS</td>
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<tr>
<td>17:00-18:00</td>
<td>NETWORK AND DRINKS</td>
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**TUESDAY AUGUST 29 // 8:00-14:00**

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<tr>
<th>Time</th>
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<tr>
<td>8:00-9:00</td>
<td>REGISTRATION AND COFFEE</td>
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<tr>
<td>9:00-12:30</td>
<td>STORM SURGE SOLUTIONS IN COPENHAGEN STAKEHOLDER AND MARKET DIALOGUE</td>
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<tr>
<td>10:30-12:30</td>
<td>BOAT TOUR SUSTAINABLE TOWARDS 2050</td>
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<td>BREAK</td>
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<tr>
<td>13:30-14:00</td>
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**SIGN UP:**

http://www.tilmeld.dk/CPHClimateSolutions2017/the-event.html
Thank you!

Any question?

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http://www.urban-waste.eu/