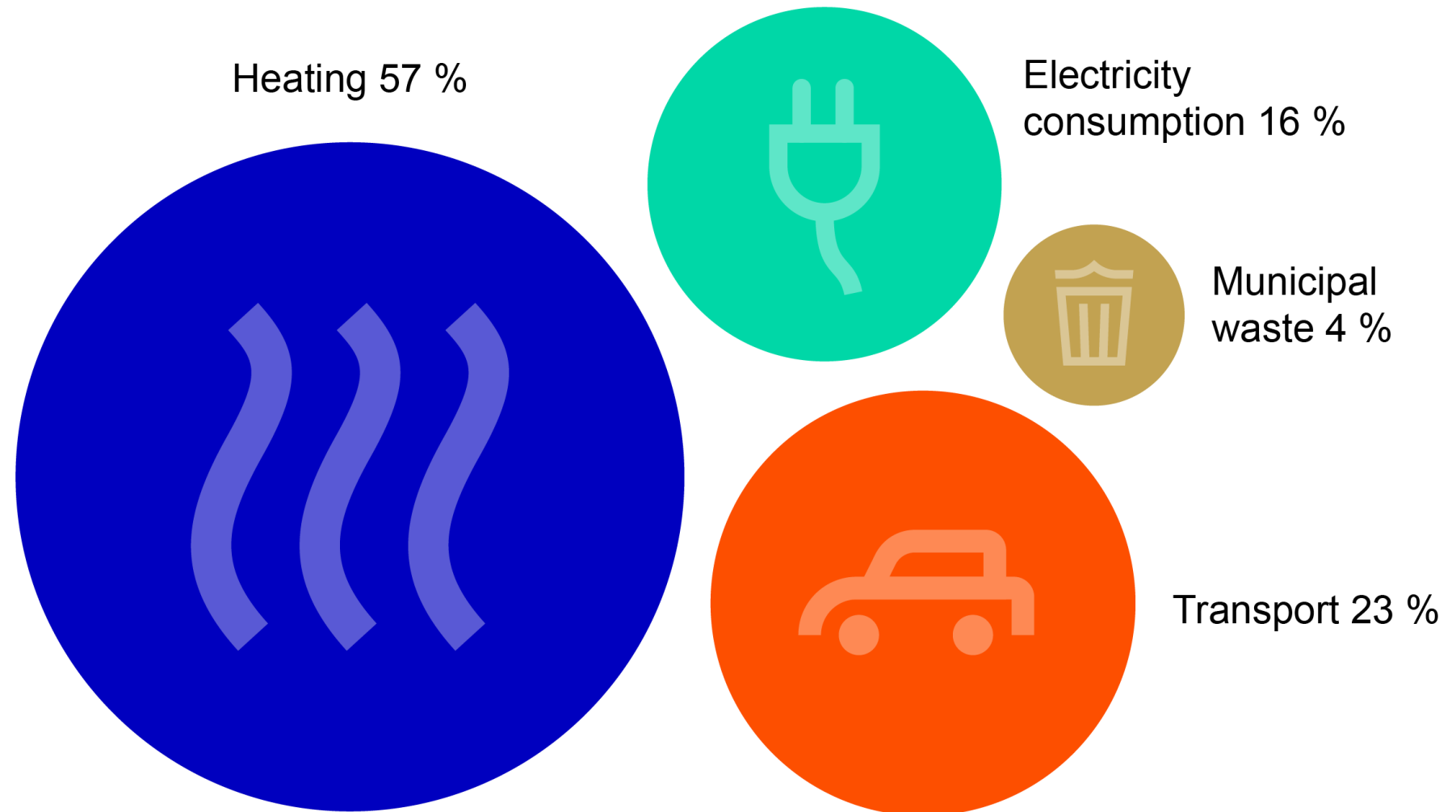


# Helsinki Energy Challenge

An aerial photograph of Helsinki, Finland, at night, showing a dense urban landscape with illuminated buildings and streets. The entire image is overlaid with a semi-transparent orange color. The text 'Helsinki Energy Challenge' is prominently displayed in white, bold, sans-serif font across the upper and middle portions of the image.

Helsinki

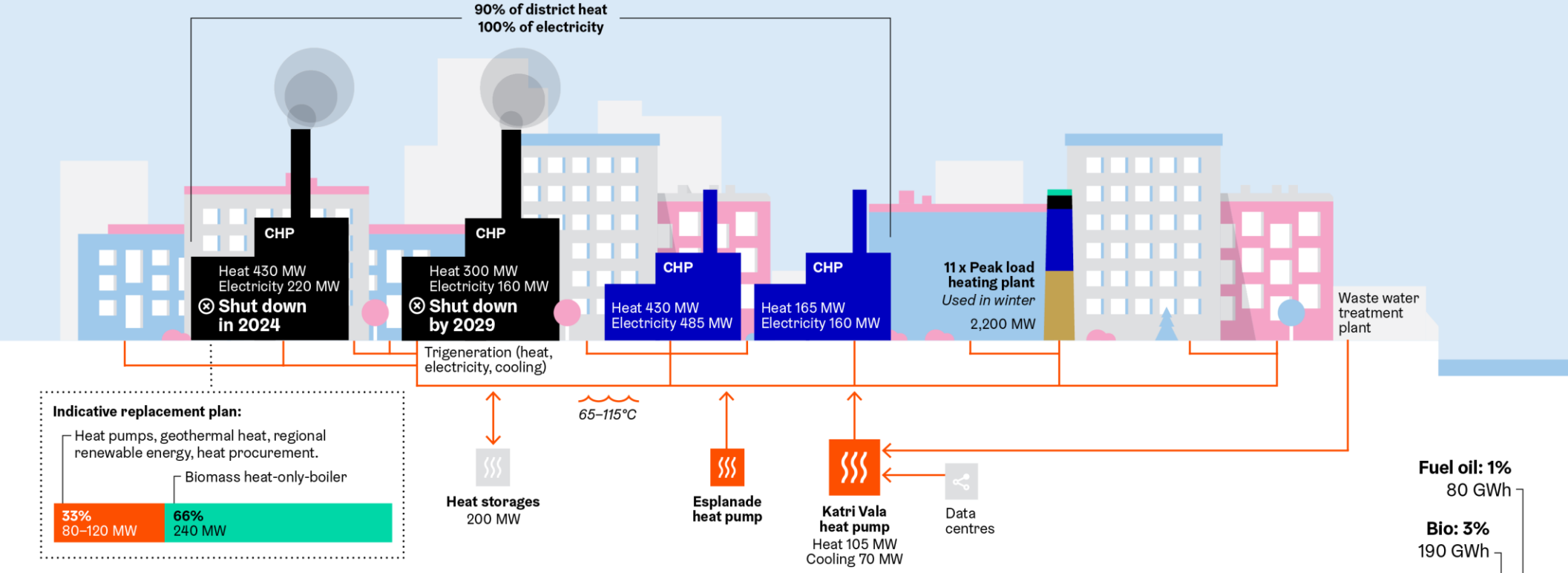
# Emissions in Helsinki



# Energy system in Helsinki

Helsinki

operated by city-owned energy company Helen



**Indicative replacement plan:**

- Heat pumps, geothermal heat, regional renewable energy, heat procurement.
- Biomass heat-only-boiler

**33%**  
80-120 MW

**66%**  
240 MW

**Fuel oil: 1%**  
80 GWh

**Bio: 3%**  
190 GWh

**Heat pumps: 8%**  
570 GWh

## Heat production 2018



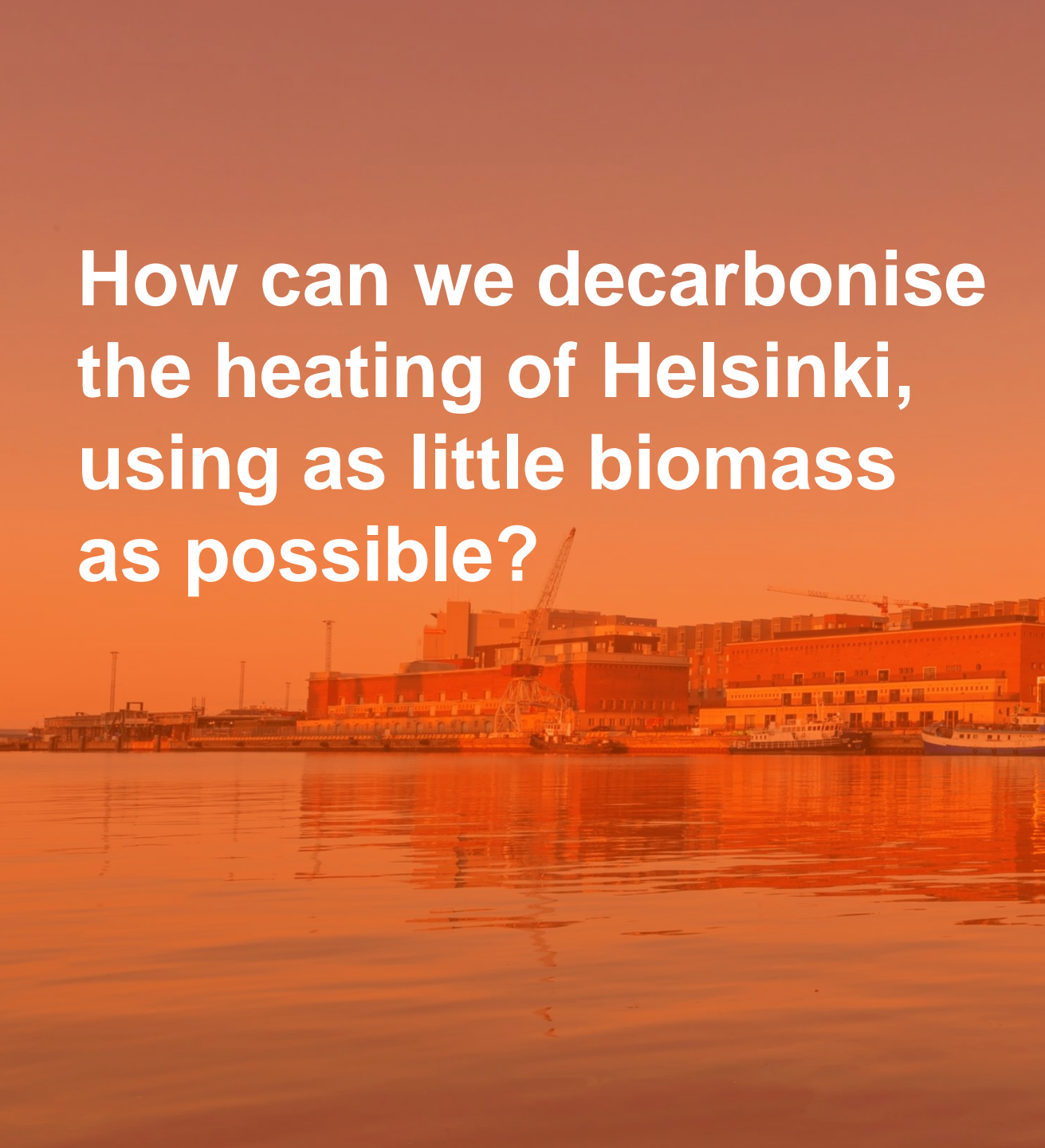
To be replaced fully by 2029, with minimal use of biomass

## Electricity production 2018





**How can we decarbonise  
the heating of Helsinki,  
using as little biomass  
as possible?**



**Helsinki: carbon-neutral by 2035**

**Finland: no coal in energy production  
from 2029**

**53% of our urban heat is now produced  
with coal**

# Creating the future of heating to fight global warming

- Find a solution for Helsinki and share with other cities
- Inviting innovators from all over the world
- 1 000 000 euro award

Helsinki



# Why Helsinki?

- We are dedicated to cleaner and smarter cities
- We are 100% on board
- We play fair
- We are just the right size
- We are cold

Helsinki







**We welcome  
a diversity of  
teams  
and solutions**



The background image shows a multi-level office building interior. It features glass railings on the upper levels, a central atrium with a spiral staircase, and a ground floor with tables and chairs, possibly a cafe or meeting area. The lighting is warm and orange-toned.

# Benefits of joining the Challenge

- Opportunity to make a real difference to sustainability worldwide
- One million euro prize
- Possibility to use Helsinki as a testbed and then, to scale up
- Coaching and support to develop the solution



# Timeline

*Note – due to the current coronavirus (COVID-19) situation, changes to the schedule are possible.*

**27 February – 31 May**

Application phase

**March - May**

Helsinki Energy Challenge  
webinars

**15 May**

Clarifying Q&A published at the Challenge  
website

**31 May 16:00 EET**

Deadline for applications

**2 July**

Finalist teams invited to join the  
co-creation phase of the Challenge



**3 July & 17 August**

Orientation webinars for finalist teams

**2-4 September**

Boot camp in Helsinki for finalist

**30 September**

Finalist teams to submit their final competition entries

**October**

Winner(s) selected by the international jury

**24 November**

Awards ceremony



# Evaluation criteria

Proposed solutions are evaluated based on:

- Climate impact
- Cost impact
- Impact on natural resources
- Capacity
- Implementation schedule
- Implementation feasibility
- Reliability and security of supply

# A high profile jury will select the winner



**Hans Jørgen Koch**  
CEO, Nordic Energy Research



**Markku Ollikainen**  
the Chair of the Finnish Climate Change Panel, Professor of Environmental and Resource Economics, University of Helsinki



**Sanna Syri**  
Professor, Energy Technology and Energy Economics, Aalto University



# A high profile jury will select the winner

Helsinki



**Brian Vad Mathiesen**

Professor, Department of Planning,  
University of Aalborg



**Martin Young**

Senior Director, Scenarios and Business Insights,  
World Energy Council



**Robert Stoner**

Deputy Director of Science and Technology,  
MIT Energy Initiative

**World Economic  
Forum's  
Global Future  
Council**



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