

Smart & Clean HELSINKI METROPOLITAN

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@SmartClean_Fi

#smartclean

LinkedIn: Smart & Clean Community

Solutions for 1,5°C World

Circvol Amsterdam-Helsinki 11 November 2020 Tiina Kähö @tiinakaho



Smart & Clean is a world leading community building impactful climate solutions for systemic challenges.

New solutions in mobility, energy, housing and circular economy tackle climate crisis and provide new business opportunities for the companies involved.



PPP Orchestrator role Impact driven approach Model for systemic change

Four innovations:





We are Smart & Clean.





Universities & research institutions







Smart & Clean Foundation's Governance and Funding model

2016

State / R&D

4 in the board (6 in the Supervisory Board)

Cities

3 in the board

(6 in the Supervisory Board)

Corporations

0

0

4 in the Board (6 in the Supervisory Board)





Significant changes with cooperation

Smart & Clean Foundation's Board



Nina Kopola **Business Finland**, **Director General**



Kalle Saarimaa Fortum, Vice President, Recycling & Waste Solutions



Anni Sinnemäki City of Helsinki, Deputy Mayor, Urban Environment



Pertti Korhonen Chairman of the Board Professional board member



Jukka Mäkelä Vice Chairman of the Board City of Espoo, Mayor



Minna Aila Neste, Senior Vice President Sustainability and Public Affairs



Jussi Manninen VTT Technical Research Centre of Finland, Executive Vice President



Mari Pantsar Sitra, Director



Hannu Penttilä City of Vantaa, Deputy Mayor, Land use, Building and **Environmental Department**



Ville Tamminen Caverion, Head of **Division Finland**



Janne Öhman Siemens Osakeyhtiö, CEO



IPCC'S 1,5°C TARGET CHALLENGED OUR CLIMATE CHANGE ACTIONS COMPLETELY.



Smart & Clean HELSINKI METROPOLITAN



THE STRUCTURES OF TODAY WILL BECOME WORTHLESS IN 10 YEARS.

THEY ARE STRANDED ASSETS THAT LOSE VALUE EVERY DAY.



THIS IS THE BIGGEST OPPORTUNITY THAT HAS EVER EMERGED.



Tools for building impactdriven climate solutions

Understand the big picture

Influence funding models

> Use incentives



1. Understanding the big picture

CO₂ emissions in the Helsinki Metropolitan region



Source: Helsinki Region Environmental Services Authority HSY, C40

Consumptionbased emissions



12,7 t CO₂e

per capita per year

(Estimation based on European C40 cities)





Consumption based emissions

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Source: HSY, C40, Arup, University of Leeds



City of Helsinki has a plan to be Carbon Neutral by 2035. The plan tackles sector based emissions (emissions generated within city borders)

A sustainable limit for consumption based emissions is 2 t per person (to keep global warming under 1,5°C)

Even in Carbon neutral Helsinki 2035 emissions generated by consumption will be five times that



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0,9 t CO_2e

per capita per year (2020 3,9 t CO₂e)

Source: Helsinki Region Environmental Services Authority HSY, C40

Consumptionbased emissions

555



9,7 t CO₂e per capita per year (2020 12,7 t CO₂e)

(Estimation based on European C40 cities)

> 1,5° goal is 2 t CO₂e





Impactful climate action tackles both sector based and consumption based emissions

Climate solution

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Making systemic change needs strong publicprivate patrnerships

Source: HSY, C40, Arup, University of Leeds. *Estimation, based on European C40 cities



and creates opportunites for business while tackling the climate crisis





2. Understanding the problem and calculating impact **Global Plastic Challenge**

Emissions

130 million tonnes CO₂/a

Growth of consumption

> ~130% by 2050

Fossil resources

Production

 CO_2e





Throwaway culture 75–110 **billion EUR** **Plastic in** the seas

8 million tonnes





3. Putting together all the actions needed

How to read this image



Center: the main goal of the project

- Inner circle: All the dependent actions needed for a successful outcome
- Outer circle: Subprojects contributing to each objective

Outside the circle: Involved actors



A REPAIR OF A PARAME

Design competition for household sorting system	Hard plastics collection Unders of cons	• L&T tanding truction	Construction companies, V	n TT
Sorting and recycling at homes and small businesses egulation incentives	Recycling of all plastics, incl. hard plastics and construction plastics	Mecha and che recyc proces	inical inical ling sses	Fortum and Neste
bility of ial and lucts Diagonal cire	sed stic cle	From material to new products	More recycled plastic producers and products	Orthex
cling favored rocurement Replacement of plastics with other materials	Su re Demand/ Behaviour Change	upply of ecycled plastics Recyc plas produc superma	cled tic cts in arkets	Kesko
Bio-based products	Inspirationa examples, communicatio	al ons All actors	Sm HELSI	art & C



4. Getting the right people and organisations together...



Identifying all the actors needed to make a systemic change







...and getting them to play together in an ecosystem

Creating leadership models that enable the individual actors to see that their actions are dependent on each other and that sometimes individual organisations need to compromise for the good of the common goal



Orchestrator's role is new and important in leading systemic change

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An orchestrator:

- Collects data and calculates
 the impacts
- Creates a holistic picture of the actions needed to make systemic change
- Identifies and connects the actors
- Fosters trust
- Communicates and markets the ecosystem and the solution(s)
- Builds capacity and knowledge





Smart & Clean Solutions for 1,5°C World.

Thank you!

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