



URBAN SOLUTIONS HOW TO TRANSPORT SMARTER – WITHOUT COMPROMISING MOBILITY

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TRANSPORT AND URBAN DEVELOPMENT

RAMBOLL

RAMBOLL IN BRIEF

- Independent engineering and design consultancy and provider of management consultancy
- Founded 1945 in Denmark
- 13,000 experts
- Over 300 offices in 35 countries
- Significant presence in the Nordics, the Americas, the UK, Continental Europe, Middle East, India, SE Asia, Australia, and Sub-Saharan Africa
- EUR 1.1 billion revenue
- Owned by Ramboll Foundation

- Services across the markets:
 - Buildings
 - Transport
 - Planning & Urban Design
 - Environment & Health
 - Water
 - Energy
 - Oil & Gas
 - Management Consulting



ENERGY AND TRANSPORT

1. Cities account for **three quarters of energy consumption and 80% of CO2 emissions worldwide**
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TECHNOLOGY



OUTLOOK

CO2 emissions from transport
could increase 60% by 2050 ww

Technology progress alone will
not achieve a reduction of CO2 –
Behaviour changing policies is
required



MOBILITY – KEEP THE CITY MOVING



MOBILITY AS A WHOLE - HOLISTIC THINKING – LIVEABILITY



Strategic
Urban
Governance

Architecture
&
Sustainable
Design

Liveable
Public
Spaces

Mobility
solutions

Energy
Strategy

Urban Water
Manage-
ment

Blue/green/
black
infrastruc-
ture design

Biodiversity
in cities

Urban
environmen-
tal quality

Waste
manage-
ment

Holistic City planning

Health, Sustainability and Liveability appraisals, Strategic Environmental Assessments

Smart city concepts and technologies



**DYNAMIC AND POWER FULL
BUSINESS AREA ?**



**ATTRACTIVE
SETTLEMENTS ?**



**MOBILITY
WHAT DO WE
WHAT WITH
OUR CITIES?**



**ACTIVE
WELFARE SOCIETY ?**

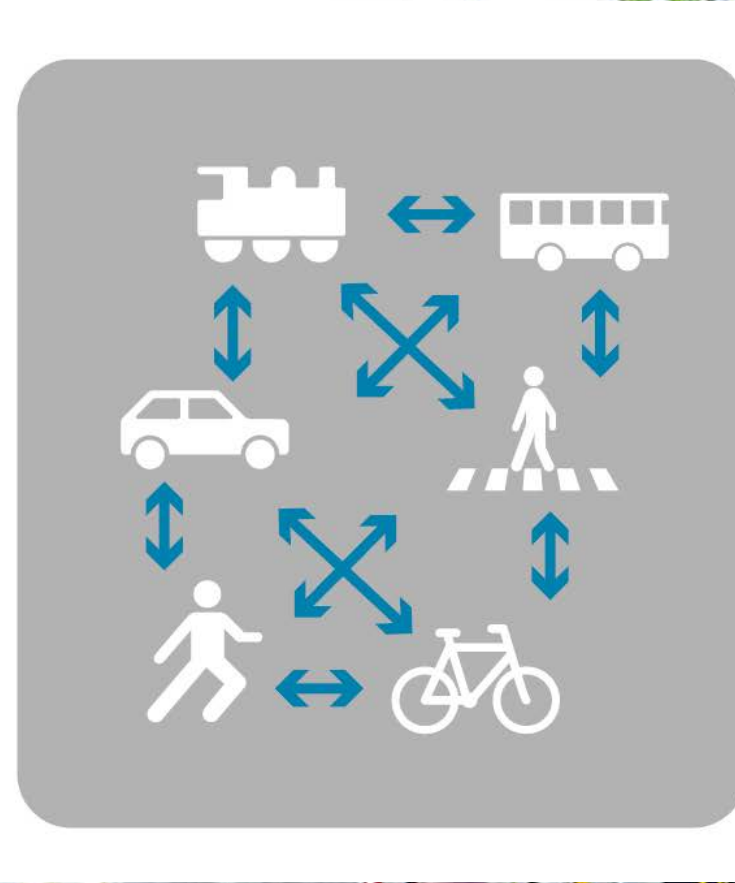


**POPULAR
CITY CENTRE ?**

MOBILITY...



**Traditional thinking –
each mode of transport = one
unit**



**Mobility - all modes of transport
= a holistic**

SMART, SUSTAINABLE AND LIVEABLE

Best practice to future practice

- Best practice today is sustainability
- Not content with best practice
- Best practice is retrospective
- Cities last for the next 100s of years
- Future practice is liveability

Liveability is the ever moving objective

- Prime **enablers** are:
 - Sustainability
 - Smart city
 - Mobility
 - Viability
- **Planning means** are resiliency, coherency and flexibility

SUSTAINABLE TRANSPORT IN A SMART LIVEABLE CITY

NORDHAVN – A NEW PART OF COPENHAGEN, DENMARK



Sustainable and smart

- 40.000 inhabitants
- 40.000 workplaces
- CO2 neutral
- Smart city solutions
- Sea wheat for bioethanol and biogas
- District heating and cooling
- Large energy store
- Intelligent waste handling
- Public transport prioritization
- Parking strategy
- Super bicycle paths
- Solar systems

LIVEABILITY AND SMART PLANNING IMPROVE MOBILITY - REDUCE TRAFFIC

Definition of 5 minute city

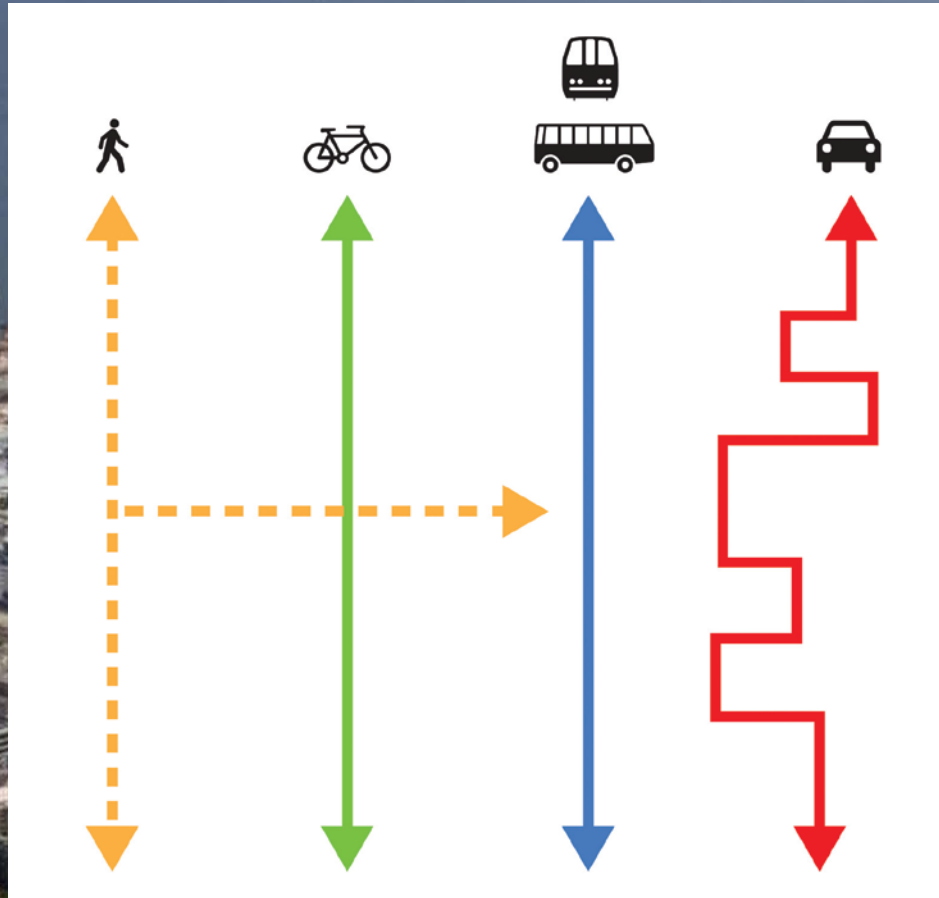
- The five minute city makes it possible to reach basic shops, institutions, work places and cultural facilities within 5 minutes walk
- Or within 5 minutes walk to a public transport mode leading to the destination

Why?

- To create urban life
- Social interconnectedness
- Networking
- Sustainable behaviour and transportation

SMART MOBILITY

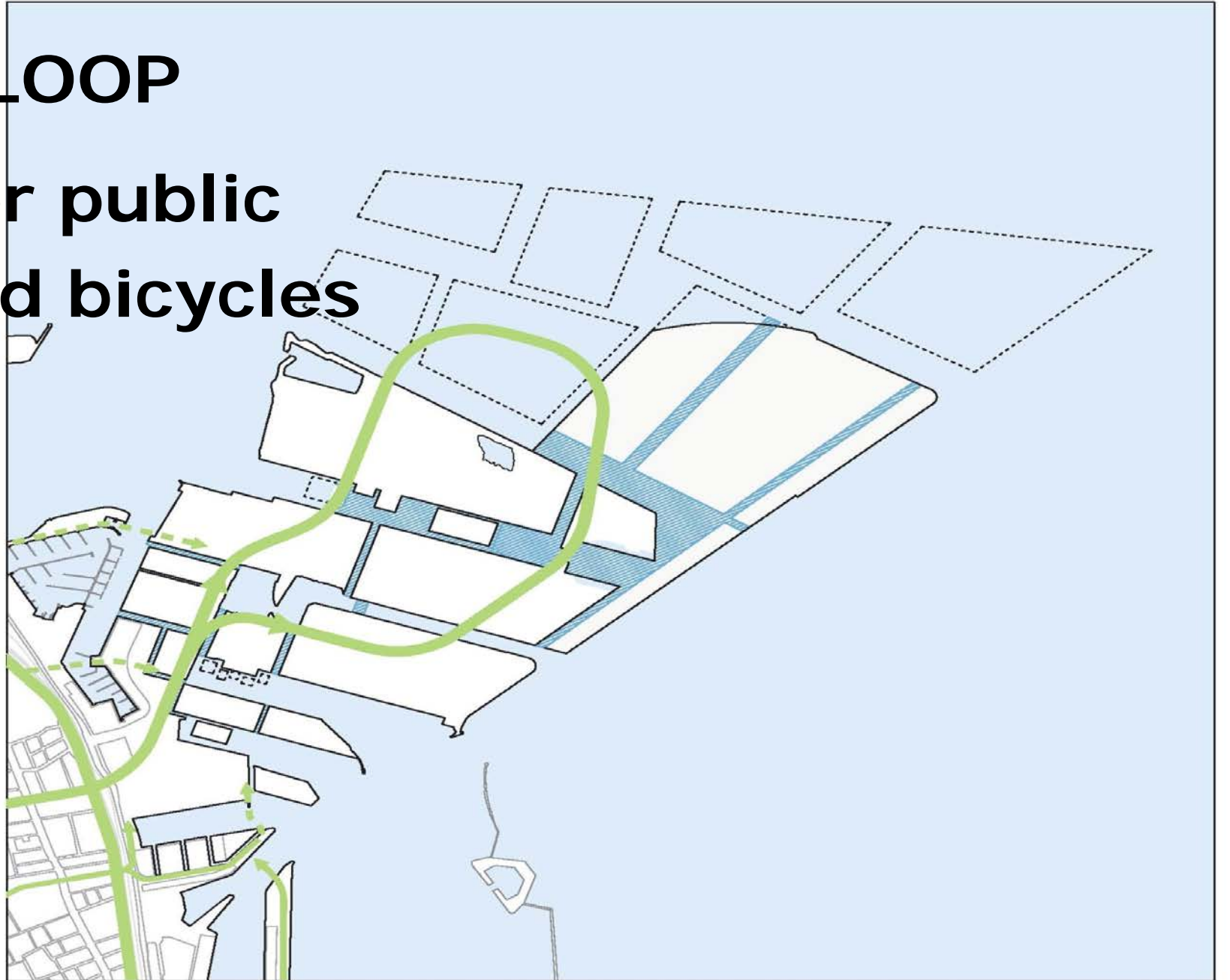
FIVE MINUTE CITY



- High quality public transport is one of the defining elements
- Direct and high class bicycle routes – super cycle paths
- Crooked car routes
- Location strategy for buildings for public use – institutions, shops, culture etc.

THE GREEN LOOP

A corridor for public transport and bicycles



LOOP – OUTER STRETCH IN GREEN SURROUNDINGS



HVALA

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