Technolution

We connect **physical** and **digital** worlds. Innovative. Mission-critical.

- ✓ electronics
- ✓ embedded
- ✓ software
- ✓ security

Transportation	Aerospace & defense	Utilities	High tech

We are specialized to integrate information controlled operations in 'zero trust' environments where Denied, Degraded, Intermittent, Limited Bandwidth (DDIL) circumstances are regular.

Facts and figures

Technolution

350
Motivated
employees

8.2
Customer
satisfaction

USD 100M
Revenue

Our locations

Technolution
Gouda

Technolution Deventer
Deventer

Phase to Phase
Arnhem

Technolution Nordics

TNL USA

Value driven coordination

Frontrunner and leadership with MobiMaestro & FlowCube

Redefining
solutions

Netherlands is a Delta country
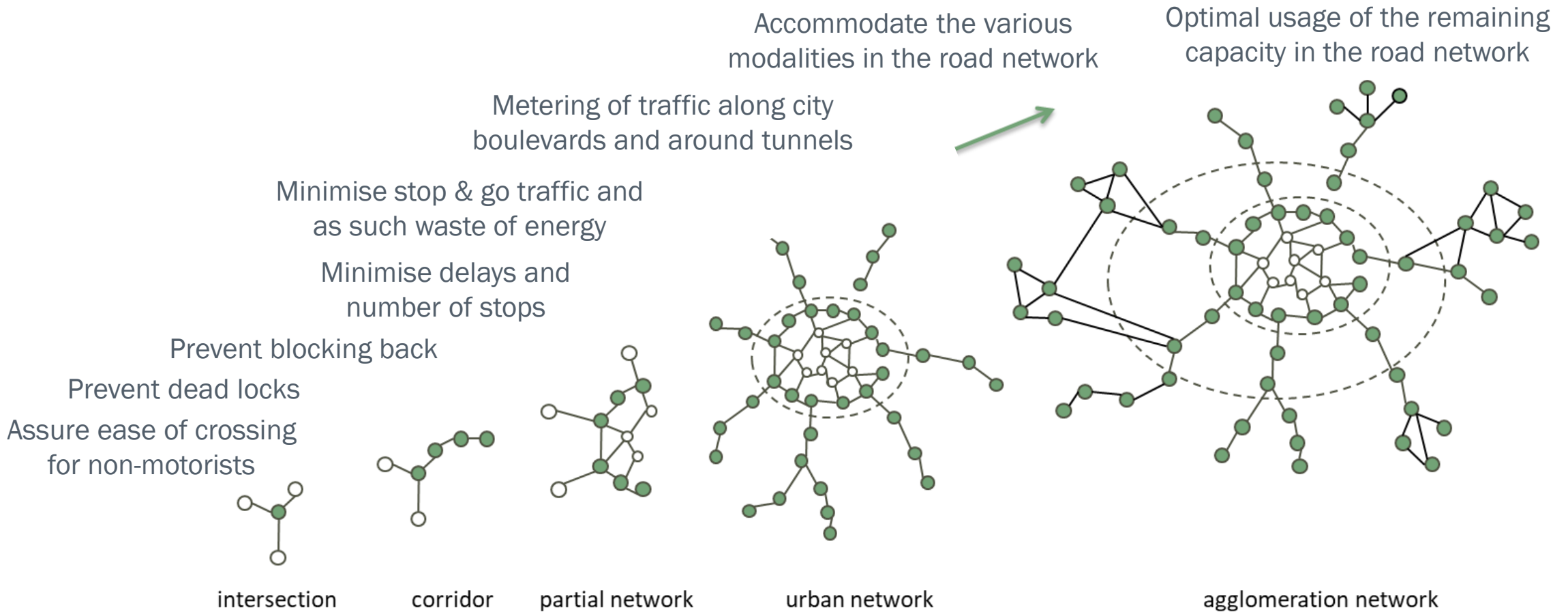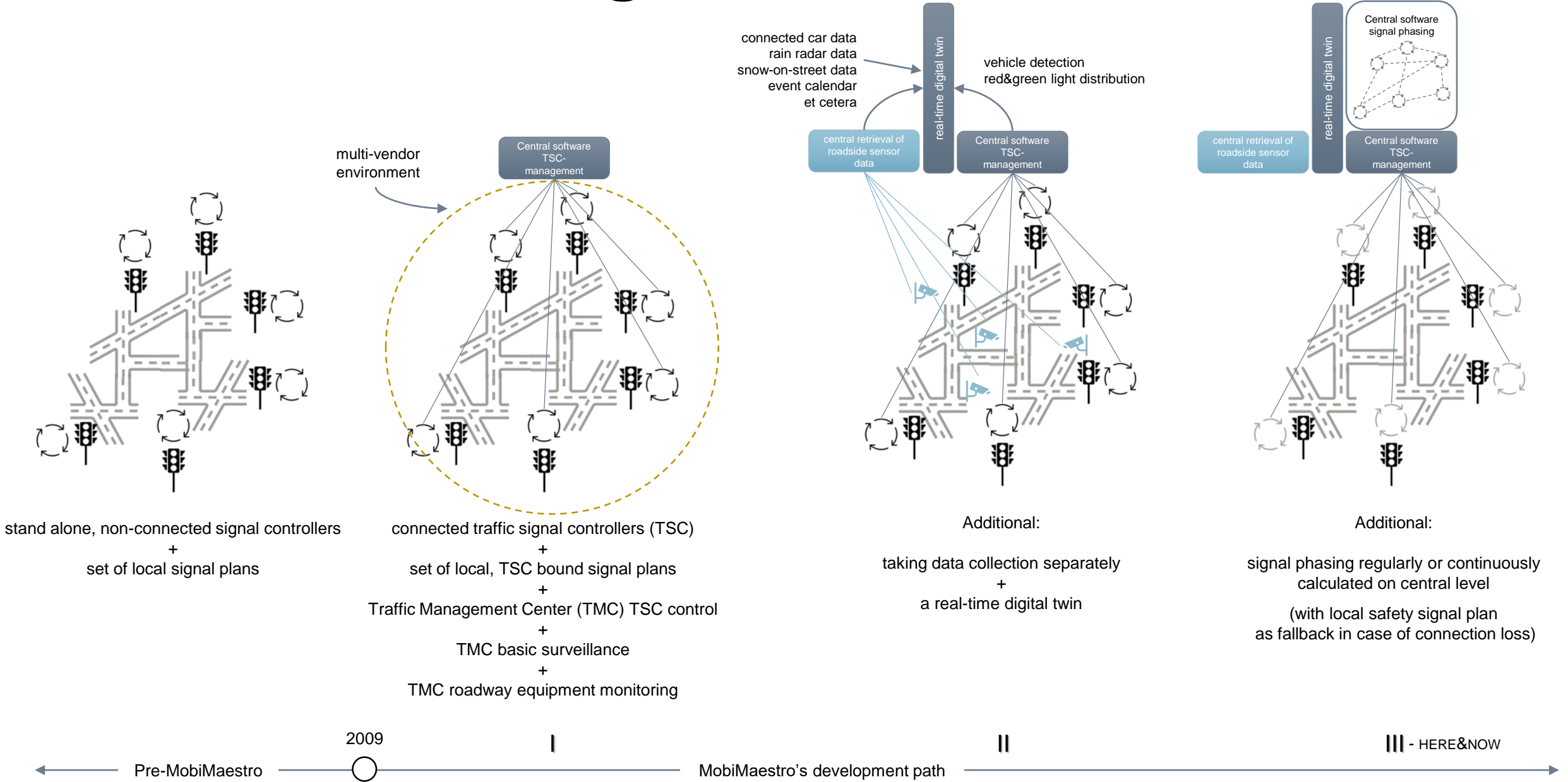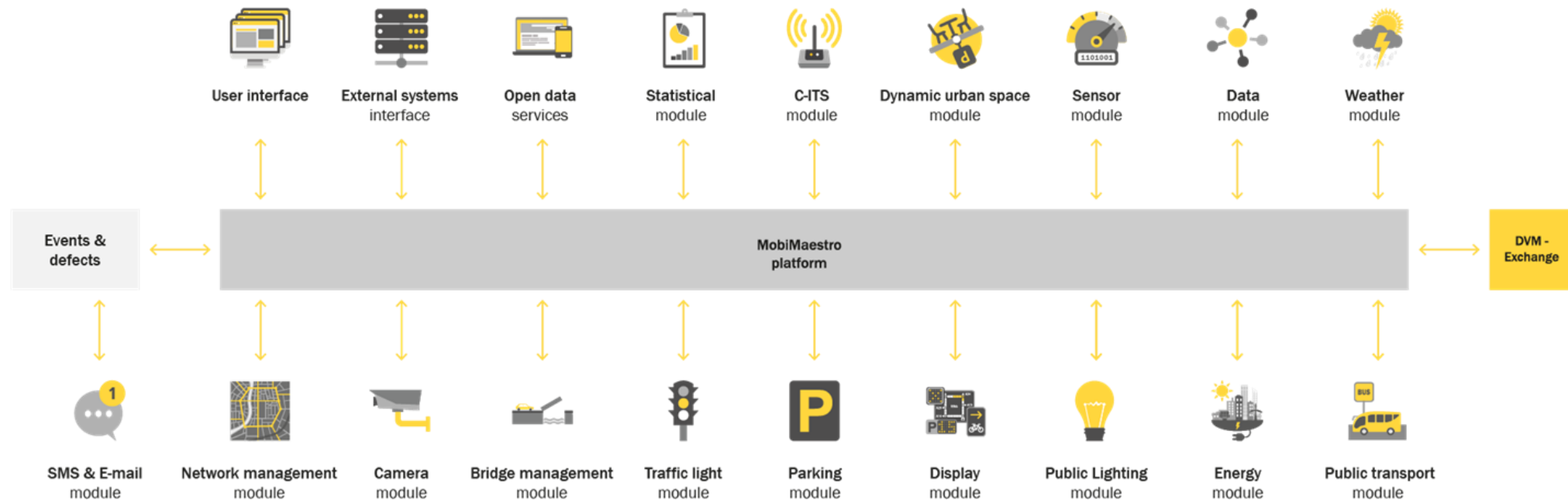
Jammedville versus Flowtown

Accommodate the various
modalities in the road network

Optimal usage of the remaining
capacity in the road network

Metering of traffic along city
boulevards and around tunnels

Minimise stop & go traffic and
as such waste of energy

Minimise delays and
number of stops

Prevent blocking back

Prevent dead locks

Assure ease of crossing
for non-motorists

intersection   corridor   partial network   urban network   agglomeration network

Datadriven management over time

multi-vendor environment

Central software TSC-management

connected car data
rain radar data
snow-on-street data
event calendar
et cetera

real-time digital twin

vehicle detection
red&green light distribution

central retrieval of roadside sensor data

Central software TSC-management

central retrieval of roadside sensor data

real-time digital twin

Central software signal phasing

Central software TSC-management

stand alone, non-connected signal controllers
+
set of local signal plans

connected traffic signal controllers (TSC)
+
set of local, TSC bound signal plans
+
Traffic Management Center (TMC) TSC control
+
TMC basic surveillance
+
TMC roadway equipment monitoring

Additional:

taking data collection separately
+
a real-time digital twin

Additional:

signal phasing regularly or continuously calculated on central level

(with local safety signal plan as fallback in case of connection loss)

2009

I

II

III - HERE&NOW

Pre-MobiMaestro

MobiMaestro's development path

The Tower of Babel and the Bridge we Build

Deployments

USA

Netherlands

Norway

Sweden

Denmark

Up to 22% reduction in consgestion and 16.3% emiisions (jctconsultantancy.co.uk, Netherlands Statistics Office)
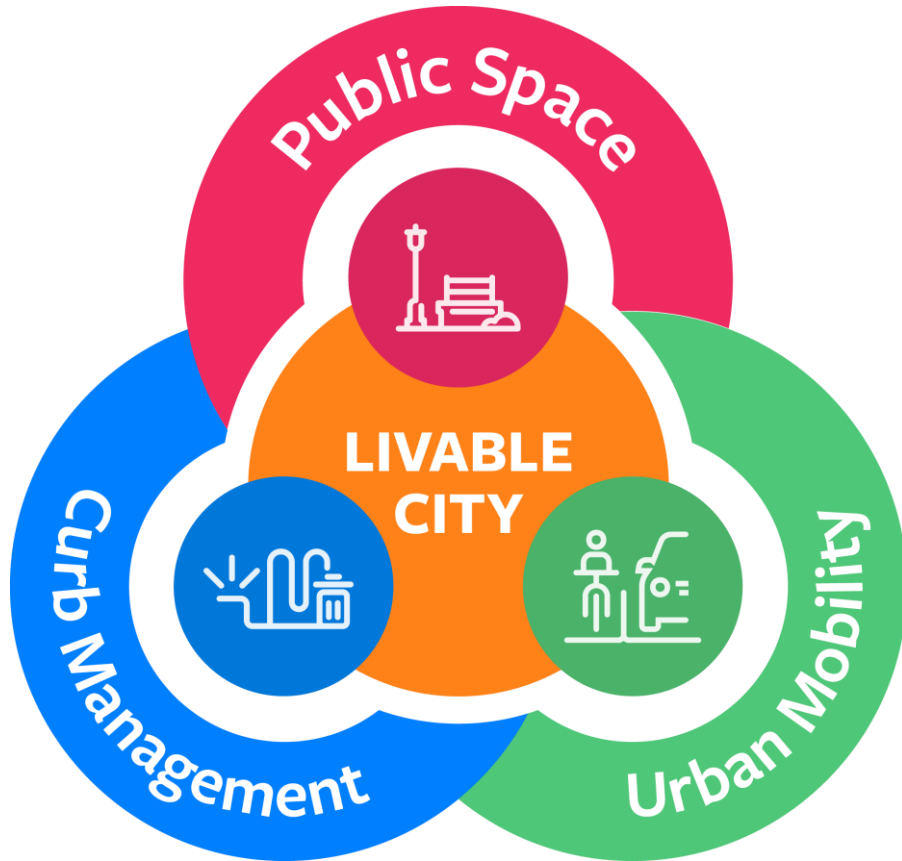
The livable city

Making your dreams "Shovel-Ready" with tangible results (i.e. waste costs savings, reliability, impact, reduced accidents)

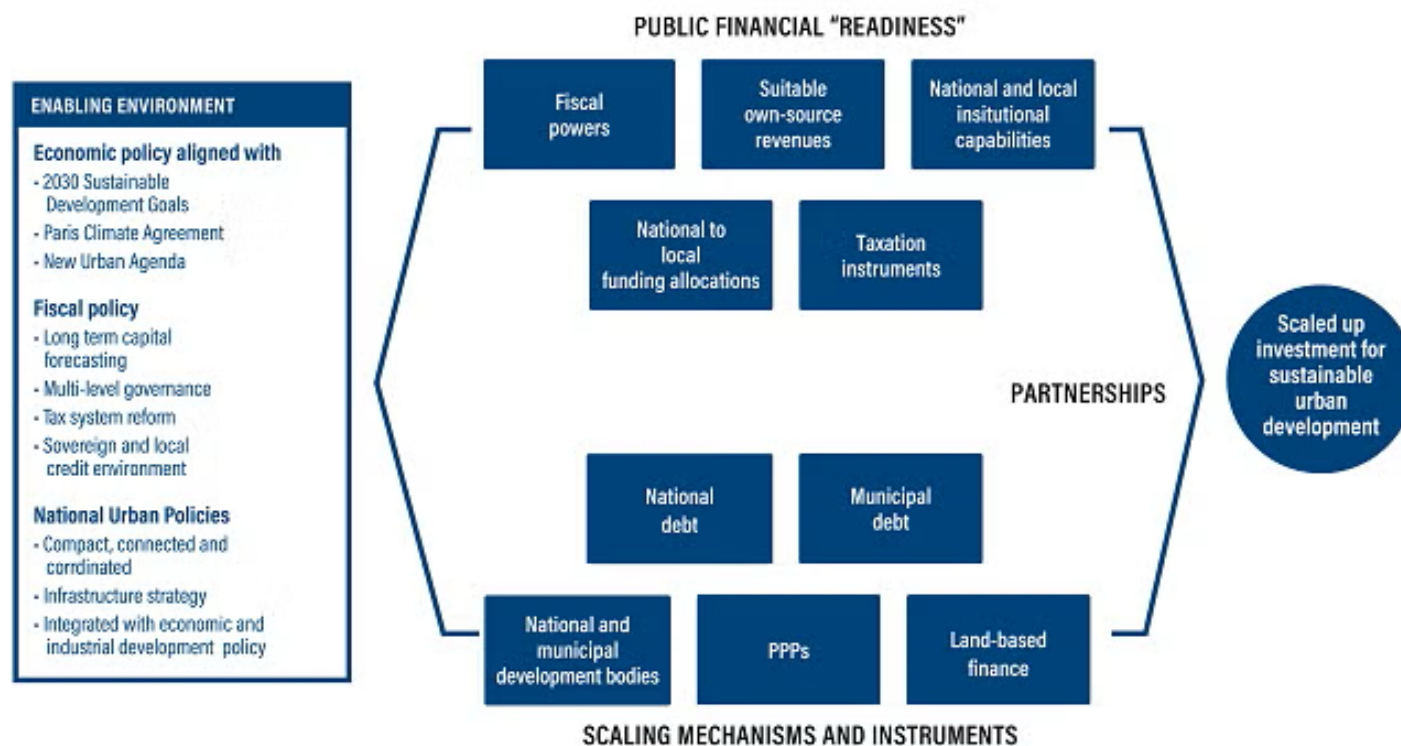Redefining
solutions

Align with your "liveable" priorities

Innovative Funding Models

- Besides traditional CAPEX and OPEX:
  - As a Service
  - Value Capture
  - PPP's
  - Congestion pricing
  - ...

Issues to consider in scaling up investment in sustainable urban infrastructure

PUBLIC FINANCIAL "READINESS"

ENABLING ENVIRONMENT

Economic policy aligned with
- 2030 Sustainable Development Goals
- Paris Climate Agreement
- New Urban Agenda

Fiscal policy
- Long term capital forecasting
- Multi-level governance
- Tax system reform
- Sovereign and local credit environment

National Urban Policies
- Compact, connected and corrdinated
- Infrastructure strategy
- Integrated with economic and industrial development policy

Fiscal powers

Suitable own-source revenues

National and local insitutional capabilities

National to local funding allocations

Taxation instruments

PARTNERSHIPS

Scaled up investment for sustainable urban development

National debt

Municipal debt

National and municipal development bodies

PPPs

Land-based finance

SCALING MECHANISMS AND INSTRUMENTS

Source: WRI.

22.07.09

WORLD RESOURCES INSTITUTE

Build a compelling narrative

- Tell your story with data.
- Engage the public.
- Showcase successstories.
- Learn from others.

Made it all "shovel-ready' for the United States

Paul Hoekstra

Redefining
solutions

Redefining
solutions

TNL