

Mobility Oriented Development strategies and concepts, challenges and planning

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Sustainable Transportation within the Framework of Green Deal - SPHERE

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Agenda

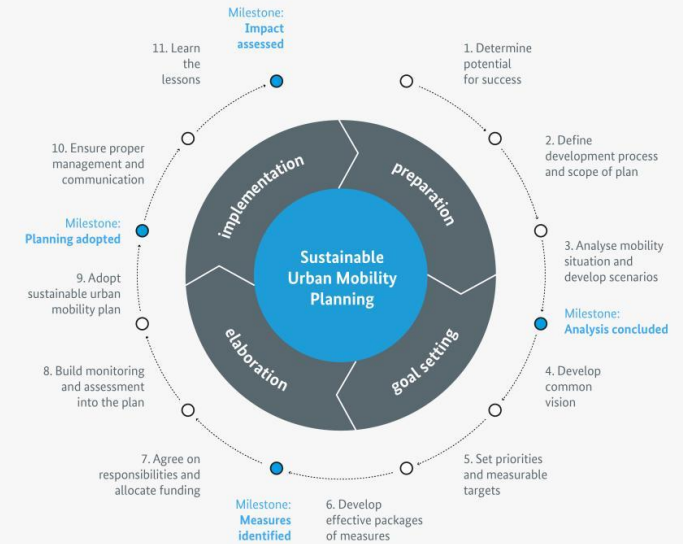
- Introduction
- Strategies and Concepts of Mobility Oriented Development
- Challenges of Mobility Oriented Development
- Planning and Future Solutions

Introduction

Mobility Oriented Development is an urban planning approach that focuses on creating efficient, accessible, and sustainable transportation systems. It aims to integrate transportation networks with land use planning to improve mobility, reduce automobile dependency, and enhance the quality of urban life.

The rapid growth of urban populations and transportation demand has created significant challenges for cities worldwide. Therefore, mobility-oriented development has become an essential strategy for achieving sustainable urban development and improving accessibility for all citizens.

The Sustainable Urban Mobility Planning Cycle

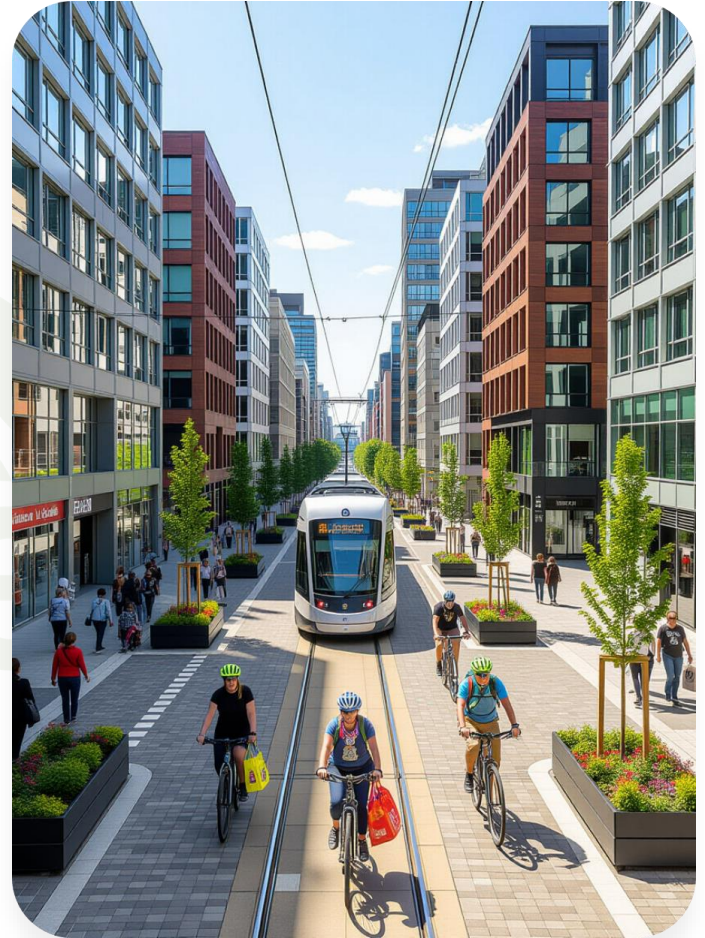


Mobility Oriented Development Matters

Mobility is more than just the act of moving from point A to point B; it is the **connective tissue** of urban life. Traditional planning often treats transportation and land use as separate silos, leading to fragmented cities where access is a privilege rather than a standard.

The Integration Imperative

- **Spatial Justice:** Ensuring all residents can reach jobs, education, and services regardless of vehicle ownership.
- **Environmental Urgency:** Reducing carbon footprints by minimizing the necessity for long-distance, single-occupancy vehicle trips.
- **Economic Vitality:** Creating vibrant "sticky" places where high foot traffic supports local businesses and innovation hubs.



Core Meaning and Scope

Mobility Oriented Development is a planning paradigm that prioritizes the seamless integration of various transport modes within a high-quality urban environment. While it shares roots with Transit Oriented Development , MOD expands the scope beyond heavy rail or bus rapid transit to include the *entire "mobility ecosystem."*

Feature	Traditional Planning	Mobility Oriented Development
Primary Focus	Traffic throughput	Human accessibility
Land Use	Segregated zones	Mixed-use, high-density
Network	Hierarchical roads	Multimodal "web"
Scale	Regional/Automotive	Human/Neighborhood

Key Concepts Behind the Approach

A shift from "mobility as a product" to "**mobility as a service**" (MaaS) integrated into the physical fabric of the city.



Accessibility over Mobility

We don't just want people to move fast; we want them to reach their destinations easily. Proximity is the best form of mobility.



Multimodal Networks

Designing for the "8-to-80" rule—infrastructure that is safe and comfortable for an 8-year-old and an 80-year-old alike.



Density and Diversity

High-density residential and commercial spaces ensure there are enough people to make transit frequent and viable.



Connectivity

Breaking down "superblocks" to provide multiple routes for pedestrians and cyclists, reducing detours.

Strategies That Shape Mobility-Oriented Places

A FRAMEWORK FOR INTERVENTION

1 Active Transport Infrastructure

Wide, shaded sidewalks, protected bike lanes, and secure micro-mobility parking (e-scooters/bikes).

2 Public Realm Quality

Treating transit stops as **"outdoor living rooms"** with seating, lighting, and wayfinding that makes waiting a pleasant experience.

3 Demand Management

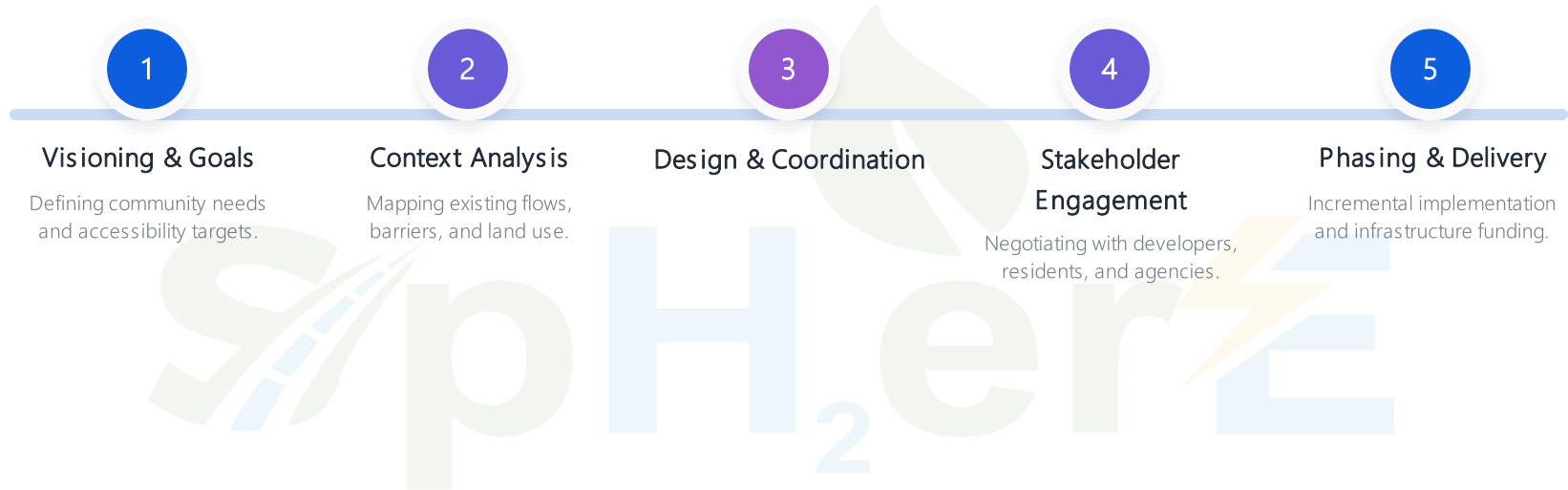
Implementing **"unbundled" parking** and congestion pricing to reflect the true cost of driving.

4 Policy Alignment

Zoning for **"Transit-Adjacent"** development that mandates ground-floor retail and eliminates minimum parking requirements.



Planning Process From Vision to Implementation



Major Challenges and Tradeoffs

MAJOR CHALLENGES



Traffic Congestion

- Increasing number of vehicles
- Longer travel times and unreliable journeys



Urban Sprawl

- Low-density development increases travel demand
- Loss of agricultural and natural land



High Infrastructure Costs

- Expensive to build and maintain transportation systems
- Limited financial resources for cities



Environmental Impacts

- Air pollution and greenhouse gas emissions
- Noise pollution and energy consumption



Social Equity

- Unequal access to jobs, services, and opportunities
- Transportation poverty



Policy and Governance

- Fragmented policies and coordination
- Complex approval processes and regulations



TRADEOFFS



Mobility

Fast and convenient movement



Environment

Lower emissions and cleaner air



Economic Growth

Investment and infrastructure development



Cost

High construction and maintenance expenses



Accessibility

Better access to jobs and services



Density

Higher density may affect liveability



Private Vehicles

Personal comfort and flexibility



Public Transport

Higher capacity and efficiency



Short-term Benefits

Quick results and visible outcomes



Long-term Sustainability

Long-term planning with uncertain outcomes



How Success Can Be Evaluated

Category	Metric	Goal
Mode Split	% of trips by foot/bike/transit	Increase over baseline
Safety	Number of pedestrian/cyclist incidents	Target: Vision Zero
Environment	Air quality and VMT (Vehicle Miles Traveled)	Reduction in local emissions
Economic	Retail vacancy and foot traffic	Increased local economic churn
Access	# of jobs reachable within 30 mins	Improved regional connectivity

Planning and Future Solutions

Think in Networks

A single bike lane is a "lane to nowhere"; a network is a utility.

Prioritize the Pedestrian

Every trip begins and ends as a pedestrian. If the walking environment fails, the whole system fails.

Feasibility Matters

Understand the financial drivers of development. A plan that cannot be funded is just a drawing.

Public Value

Always return to the question of how this development serves the public good and enhances the "right to the city."



Thank you for your attention!

