# TOD in the SUMP process

#### Training session

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### Some General Notes on this session



This is a 1-hour session. The session is divided into an introduction, some theoretical aspects and a group exercise / workshop.



The sessions is meant to be (very) interactive, participants are encouraged to ask questions and provide answers.



Please avoid – when possible – using your personal devices and prefer being proactive during the session.



## Workshop objectives

→Review the proposed SUMP process and understand where the TOD alternative can be introduced.

 $\rightarrow$ Understand what contexts are best suited for TOD.

→Discuss and collectively decipher how TOD will help in optimising land-use and mobility planning in order to reduce travel needs.



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### Teaser images





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### Teaser images







### **Teaser images**





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### Tools for integration (1/2)



#### Multipolar cities

Reduction of long-distance travel needs in the urban territory in quest of metropolitan scale services and/or amenities.

Search for improved accessibility values of traffic generators; and improved placement of multimodal stations.



#### Densification

(General or targeted)

General reduction of trip lengths.

Introduction of beneficial effects in the consumption of energy.



### Tools for integration (2/2)



#### Improved public transport

Use of public transport as backbone of the urban structure. With this tool, the network hierarchy acts as structuring axes in the city or area.

New high-capacity services are catalysts to corridor renewal.



#### NMT improved conditions

Conception of pedestrians and bicycle users (as well as other lesscommon modes) as a key mode in planning processes, the expected results are improved public areas to enhance the place of non-motorised modes.



## Interpretation of how concepts use existing tools





## What is TOD (\*)?

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\* TOD: Transit Oriented Development





## TOD's initial concept

The TOD concept was first defined by P. Calthorpe (1993). It described « **urban villages** » with strong accessibility levels. It uses high-capacity public transport nodes to structure a dense, mixed, non-motorised transportwelcoming urban zones.

| COMPACT | DENSIFY | CONNECT | TRANSIT | MIXED USE | SHIFT | NON-MOTORISED MODES |



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**DESTINATIONS** Coordinate land use and transportation planning

DISTANCE Create a well-connected street network

DESIGN Create places for people

DENSITY Concentrate and intensify activities near frequent transit

DIVERSITY Encourage mixed land uses



**DEMAND MANAGEMENT** Discourage unnecessary driving

Theoretical advantages of TOD



More destinations

Improved conditions for NMT

Improved safety around stations



Increased demand along main axis

Reduced operational costs

Improved image

922 Cities

Reduced travel needs

Improved quality of life for all

Increased commercial appeal





#### TOD's three scales



Source: Mangin (2004)

#### Metropolitan scale

Manage **urban development** and sprawling (partners) Develop secondary poles to **reduce travel needs** ("short-distance" cities) Provide **improved access** to urban services

#### Corridor or zonal scale

Densify (or **re-densify**) around public transport and urban transport stations Develop a **more efficient** public transport system Link **urban growth** to main transport axes

#### Local or project scale

Develop **urban projects** for public spaces to improve accessibility to stations Prefer **NMT** and **public transport** to motorised individual modes Include **concertation processes** in development projects around stations



A stable plan creating a strong link between urban density and public transport demand from initial planning phases



Example



1947	$\varphi$	'Finger Plan'
		Priority to suburban trains to guide urban growth
		Definition of an administrative and cultural CBD, and of residential peripheries
1960	$\phi$	Preliminary Outline Plan
		Reduced motorized private transport in central area
		Suburban model based on hubs with these hubs / centres located along the 'fingers'
1972	$\phi$	Structure Plan
		Acknowledgement of car-dependency of the city
		Further growth channelling and implementation of a 'belt' around the central area
1989		Regional Plan Priority to high-speed lines and suburban rail network
		'Finger Plan' update and definition of physical growth limits for the metropolitan area
2003	$\left  \right\rangle$	Traffic Plan
		Extension to larger metropolitan areas
		Regional-scale plan following the initial vision and applying it to a larger area



A plan prepared before the city's growth that creates a link between population densities and public transport corridors

1980 1990 2000





#### A recent initiative kick-started by the implementation of a high-capacity bus system. (AREP project)





### **Discussion and workshop**

Q: What are the main obstacles to the introduction of the TOD approach in the planning processes of cities in the Global South?



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## The SUMP planning process

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## The SUMP planning process

Accessibility and quality of life, as well as sustainability, economic viability, social equity, health and environmental quality





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Goal setting and scenario building

Measure planning

and monitoring

Phase I:

## Initiation and diagnosis

#### Assess current financial capacities and resources

Evaluate existing capacities and available resources. Guarantee political support at the national and city levels and encourage ownership of plans. Conduct an assessment of current stakeholder involvement.

#### **Conduct an urban mobility diagnosis**

Assess planning requirements. Define a geographical scope for the plan. Link with other on-going planning processes. Propose a timeline for the implementation of the plan. Identify existing data sources and data owners. Analyse, in a mode-by-mode basis, problems and opportunities of current mobility.





 Initiation and diagnosis

Measure planning

Implementation

and monitoring

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Phase II:

## Goal setting and scenario building

#### Build and assess scenarios

Develop scenarios of potential futures, with focus on improving environmental efficiencies. Present and discuss scenarios with various stakeholders. Propose a common vision of future urban mobility.

#### **Conduct appraisal of scenarios**

Agree on main objectives that will address key problems of urban mobility. Set (quantitative and qualitative) indicators linked to above objectives. Define measurable targets, set measures. Propose a rough estimate cost for measures. Conduct an economic appraisal of scenarios.





Initiation and diagnosis



Goal setting and scenario building

Phase III:

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## Measure planning

#### Define measures and assess their viability

Propose and assess measures packages. Describe actions and action plan. Identify priorities from the list of actions. Identify funding sources and assess existing financial capacities.



Implementationand monitoring





Initiation and diagnosis



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Goal setting and scenario building

Measure planning

Phase IV:

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## Implementation and monitoring

Design an implementation plan

Review and assess successes and failures



## Approaching scales in the SUMP cycle

## Metropolitan scale

Focus on the long term vision in order to define the principles and the objectives of the planning process

## Corridor and/or zonal scale

Focus on introducing contextual elements to best promote coordinated growth, manage investment and determine desired urban characteristics

## Local or project scale

Focus on guaranteeing appropriate location of facilities and infrastructure and on introducing practical mechanisms to improve efficiencies



## Linking TOD to the planning process

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## The EASI concept





## Urban mobility planning, the French PDU example



Your City

## How to link planning documents













### **Discussion and workshop**

Q: What are the main opportunities and obstacles of TOD measures depending on the type of area targeted in the planning process?



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## **Closing the session**



### Thank you for your attention

#### Keep in touch



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