PAST, PRESENT, AND FUTURE OF TRANSIT-ORIENTED DEVELOPMENT IN EUROPEAN CITY-REGIONS

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**CASUAL**

Co-creating Attractive and Sustainable Urban Areas and Lifestyles

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<td>Formas / Joint Programming Initiative Urban Europe</td>
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<td><strong>Start date</strong></td>
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What is Transit Oriented Development (TOD)?
in a nutshell

Development that is oriented towards mass transit facilities

- usually rail, but also Bus Rapid Transit (BRT) and ferry
- “transit” is the key word – not to be confused with “transport” (i.e. roads or highways)
Brief history

• Three types of settlements:
  1. The walking city
  2. The transit city
  3. The automobile city
  4. TOD based city

Term **TOD** coined by Peter Calthorpe in *The Next American Metropolis* (1993)
Two main TOD types

1. Node TOD
   - Heavy rail – based (R-TOD)
   - Urban or suburban
   - Single node or multi node

2. Corridor TOD
   - Light rail – based (R-TOD)
   - BRT based (B-TOD)
   - Ferry based (FOD)
   - Urban
Single Node TOD

- Development takes place within a circle centered on a train station
- Circular pattern
- Radius varies from 0.5 km in the US (pedestrian access) to 2-3 km in the Netherlands (bicycle access)
- Applicable in urban or suburban areas
**Multi Node TOD**

- Same as single node TOD but it reaches further than a single location to create a network of nodes
- Beads-in-a-string pattern
- Applicable to a region
Corridor TOD

- Linear development along a transit line with frequent stops
- Solid pattern because the nodes (i.e. tram or BRT or ferry stops) are near each other
- Applicable to an urban area (e.g. for finger-like urban extension)
Characteristics

High quality urban design

Average to high densities (not necessarily high-rise)

Pedestrian- and cyclist-friendly environment

Easy access of transit facilities
TOD: The origin & evolution?

Europe > US > Europe

• Three case studies
  1. Austria (Vienna) – Central Europe
  2. Netherlands (Amsterdam) – Western Europe
  3. Sweden (Stockholm) – Northern Europe

• Timeline
  • Post-WWII – present

• Method
  • Secondary data (policy reports, books, articles, etc.)

Outputs:

• CASUAL project Working Paper no. 5
• Article under review in Land Use Policy
Theoretical framework: 
**The “culturized Planning model”**

**Manifest Culture**

**Planning Artefacts**: territorial structures (land-use, morphology, etc.); decentralization; institutional structure; policy solutions; scope of urban and regional plans/strategies/projects; degree of bindingness; language and graphic representation styles.

**Manifest and Latent Culture**

**Planning Environment**: learned assumptions, frames, and values of planners; cognitive structures; world views; professional mission, objectives, and principles (equality, sustainability, social justice, etc.); local planning traditions; local planning history; planning processes (hierarchical, cooperative, technical, etc.); planning style (development-led vs. plan-led); decision-making environment (participatory, top-down, etc.); perception and self-conception of the planning profession.

**Latent Culture**

**Societal Environment**: Taken-for-granted social norms, beliefs, and perceptions affecting planning; societal background; orientation towards time (past, present, or future, i.e. desire to preserve or modernize); ways of dealing with uncertainty (rigidity vs. flexibility); relationship with nature (i.e. protection or exploitation); conception of justice; degree of individualism vs. collectivism; emotional orientation.

Based on Knieling and Othengrafen (2015)
Postwar Spatial Planning Policy

in Austria, the Netherlands, and Sweden
• 1950s: Major focus on housing reconstruction (Netherlands and Austria)
• 1960s: Infrastructure development – both roads and rail
• 1970s: Creation of new suburbs and towns (Sweden and Netherlands)
• 1980s onwards: re-urbanization trends | urban revitalization
• 1990s: rise of neoliberalism
• Planning has acquired a bad name!
Postwar TOD Policy and Practice

in Vienna, Amsterdam, and Stockholm
General trends

• 1950s-1970s: The suburban TOD era

• Urban expansion
  • Vienna: classic ring-radial growth
  • Amsterdam: lobe city
  • Stockholm: star shape

• Housing transit construction proceed more or less in parallel

• 1980s-onwards: The urban TOD era

• Infill, brownfield development in areas served by transit
Vienna

- Seestadt Aspern, a TOD area still under development
  - New urban centre in the east of Vienna
  - Multifunctional district with a mix of residential, office, scientific, research and educational uses
  - In 2028, 240 hectares of developed land, 20,000 residents and a similar number of workplaces
  - Integrated mobility strategy for incoming residents (prioritising walking, cycling and public transport)
  - Connected to the public transport network of Vienna and the wider metropolitan region through metro, light rail and heavy rail, tram and bus network
  - Aim of maximising the attractiveness of streets and public spaces
  - Broad choice of shops, restaurants and other services are provided
  - The highest densities around the two metro stations
Amsterdam

- Zuidas district, a TOD centred on the South Station
  - Success has been ascribed to the availability of large amounts of office space, a concentration of prestigious law firms, the proximity to the Schiphol airport, an international allure, and excellent accessibility by car (including the necessary parking facilities)
  - The general quality of the local urban environment is currently rather mediocre
  - Largely mono-functional and dominated by high-rise office buildings

- Ambitious plans
  - putting the railway and highway infrastructure underground
  - providing additional space for new housing, open space and green transport modes (cycling and walking)
  - transformation into to a fully-fledged urban centre, incorporating a balanced mix
Stockholm

- Regional urban core of Flemingsberg
  - almost 20 km south of the centre
  - area now characterised by scattered multi-storey housing, a research park, a university and university hospital, a regional court and a police station
  - current plan to densify the area with new apartments, shopping and leisure facilities, and additional office space
  - proposed transport infrastructure projects: a tramline connecting Flemingsberg with the southern western suburbs of Stockholm and a high-speed rail line (the East Link Project), connecting Stockholm with Linköping and Södertälje
Conclusion

- TOD has clearly originated in Europe
- The history of TOD goes back at least seven decades
- Intrinsic part of planning since WWII
- The current TOD reincarnation is more focused on urban design
- Planning has been crucial in making TOD happen
- The current loss of reputation of the planning profession makes the future of TOD uncertain
Lessons for practitioners

- Transit-oriented development (TOD) does not occur naturally and governments play a major role in steering development towards transit stations and lines – or in servicing existing housing developments with public transport.
- TOD is context dependent.
- Efforts to promote TOD in brownfield urban areas are important given the trend toward a return to the city and ideas of “green urbanism”.
- It is also important to support the development of new centres at the edge or outside larger cities as integral parts of regional polycentric strategies.
- Different types of TOD can be employed in parallel: nodal TOD, regional network TOD, and urban corridor TOD.
Thank you!

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