Implementation Strategies
For Mobility Based Development
In Bandung City, Indonesia
REVISITED COMPOSITION

urban sprawl vs sustainable development

Bandung, Indonesia

sustainable urban development

mobility based development

urban redevelopment

2040

structure vision Bandung 2040
development framework & strategy

contceptual design
WHERE should the new centralities be located?

1st QUARTER

Settlement
Production
Network
Governance
1st Nature

LAYERED ANALYSIS on existing condition

TOD POTENTIALS in BMA (Widyahani & Indradjati, 2014)

2nd QUARTER

HOW will the new centralities be incorporated to the urban network?

CRITICAL ANALYSIS on case studies

Randstad
Curitiba
Hong Kong
Portland

STRATEGIES

1. Distance
2. Infrastructure
3. Policy

DIALOGUE with experts

STRATEGY

RESEARCH

questions

CONTEXT
selection

PROBLEM
analysis

URBAN SPRAWL
phenomenon

STRUCTURE
VISION

METHODOLOGY
POPULATION GROWTH

URBAN DEVELOPMENT

http://www.ecointernet.org/wp-content/uploads/2014/05/crowd1.jpg

https://riopluscentre.files.wordpress.com/2015/02/dhaka-urban-sprawl-buildings-un-photo-kibae-park.jpg
WHAT DOES URBAN SPRAWL DO?

happens between city centre and sub-urban area

happens within city centre area

sprawling development

suburban

city center

congestion
time-consuming
air pollution

attractive city center

more people coming
time-consuming
poor

attempts to provide facilities & infrastructure

car oriented

more construction

informal housing & economy

increasing development pressure

environmental degradation
Cirebon

Bandung

Jakarta

155 km

148 km

Jakarta-Cikampek Toll Road

Cipularang Toll Road

Padakunyi Toll Road
SIZE OF THE CITY

16,767 hectares

2,575,478 inhabitants
COMPARING THE DISTANCE

- DELFT STATION
- DEN HAAG: 11.4 km
- WASSENAAR: 20.5 km
- ROTTERDAM
SLUMS

FLOODS

TRAFFIC CONGESTION

UNCONTROLLED DEVELOPMENT
annual population growth: 1.11%
urbanisation rate: 12.11%
urban population: 100%

(2000 - 2010)
Settlement
- built environment
- concentration of population
- housing cluster

Urban Centre
- higher education
- offices
- industries
- commercial
- ‘horeca’

Urban Network
- highway
- railway
- streets
- stations
- terminals
- accessibility

Governance
- governance units
- administrative border
- planning units

First Nature
- topography
- water bodies
- green area

Layered Analysis
SPRAWLING
MONOCENTRIC
DISCONNECTED
UNSYNCHRONIZED
BARREN

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Layered Analysis
How could comprehensive planning on mobility based development help to promote sustainable urban development in Bandung City, Indonesia?

What are the drivers of urban development in Bandung City?

What is mobility based development and how is it implemented?

How does the new physical structures perform to promote sustainability?
OBJECTIVE

to encourage sustainable development in Bandung City by providing comprehensive mobility plan and urban redevelopment strategies.
in 2040, Bandung can thrive from the variety of urban centres, ease of access, and better environment quality.
INITIAL IDEA

- Serving the west part of the city
- How to promote?
  (because nothing much is happening here now)

- What's the role of Candihi in metropolitan context?
- What's the relation with Bandung?

- Existing urban centre
- How to enhance the attractiveness/divide the city?

- Existing arrival point
- What to do to improve the transport?

- Centre for east/north-east
- What's the role? What to improve to increase the attractiveness

- Urban planning to reactivate the area?

- Need to prepare new station, reactivation of what?

- Inter-city/provincial road

- Highway

- "Arrival" point from south
  - Existing line
  - How to make it work?

- "Arrival" point from south
  - Additional train traffic

- "Arrival" point from south
  - Elevated or underground?

- Serving the east part of the city
  - Obvious option, but currently doesn't work
  - Why?

- Do we need another servicing centre around Leuwis?
  - Connection w/ Lembang & KB

- Serving the "north" part of the city
  - Existing urban centre
PROPOSED T.O.D. LOCATIONS

Source: Review of 2013’s Masterplan and Draft for Mayor’s Regulation on Transportation in Bandung City (Bappeda Kota Bandung, 2013)
LAND-USE PLAN

Source: Detailed Spatial Planning for Bandung City (Dinas Tata Ruang dan Cipta Karya Kota Bandung, 2015)
MOBILITY NETWORK PLAN

Source: Detailed Spatial Planning for Bandung City (Dinas Tata Ruang dan Cipta Karya Kota Bandung, 2015)
SUB-REGIONS’ DEVELOPMENT DIRECTION

Source: Brochure of Detailed Spatial Planning for Bandung City (Dinas Tata Ruang dan Cipta Karya Kota Bandung, 2015)
POSSIBLE DIRECTION FOR THE PROJECT

Source: https://www.rijksoverheid.nl/documenten/rapporten/2012/03/13/structuurvisie-infrastructuur-en-ruimte
POSSIBLE DIRECTION FOR THE PROJECT
OUTCOME

Structure Vision of Bandung 2040

Development Framework & Strategy

Conceptual Design
Where should we relocate the informal housing?

What needs to be provided to avoid/stop dev on the north?

What to do with the existing massive dev on preserved areas? Demonstration?

What about the existing urban development?
Preservation of the natural features around and in the city: hills, uplands, river basins.

Preservation of the heritage built environment as part of the city's identity.

Encouraging new development to the southern part of the city.
• Adopting polycentric urban model with mixed-use development

• Developing around transit infrastructure

• Combining transit and park/public space
DISTANCE TO EXISTING CENTRE

- Distance to the nearest point

- What about the existing urban development?
STRATEGIES

GOVERNANCE SHIFT
SOCIALIZATION
DIALOG
IMPLEMENTATION
CROWD PLEASER
GOVERNANCE SHIFT

Adjustment of spatial planning regulation & policies

Rethinking the planning & development control instruments

Encouraging collaborative planning & development control
STRATEGIES

GOVERNANCE SHIFT
- Adjustment of spatial planning regulation & policies
- Rethinking the planning & development control instruments
- Encouraging collaborative planning & development control

SOCIALIZATION
- Public education on urban planning
- Public education on sustainability
- Introduce new governance model & new development direction
- Introduce new mobility infrastructure

DIALOG

IMPLEMENTATION

CROWD PLEASER
**STRATEGIES**

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**DIALOG**
- Establish a platform to empower dialogue among the stakeholders (public sector, private sector, and civic society)

**IMPLEMENTATION**
- Establish a dialogue with the stakeholders of transportation business in Bandung

**CROWD PLEASER**
- Establish a dialogue with inhabitants of the river banks
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- Establish a dialogue with the stakeholders of transportation business in Bandung
- Establish a dialogue with inhabitants of the river banks

IMPLEMENTATION
- Establishment of BRT system in city scale
- Empower integration of transportation network and system
- Redevelopment of river bank areas
- Redevelopment in new urban centres

CROWD PLEASER
CROWD PLEASER
Kick-off Project to attract people’s interest and encouraging public awareness (e.g. thematic parks adjacent to new TOD locations, anchor offices at the key TOD location, etc.)

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2015 - election
establishment: integrated transport network

2015 - election
key project: urban redevelopment project in Leuwi Panjang & Ujung Berung

2015 - election
establishment: fully developed new centres

2040 - election
review: structure vision 2040 - 2065
STRATEGIES

2015

- key project: Gede Bage central park
- consensus reached: all transport stakeholders
- review: planning instrument
- socialization: new regulations & future dev.
- evaluation: mid-term evaluation on the spatial plan

2040

- election
- consensus reached: on sustainable dev. with future investors
- socialization: agenda for sustainable development
STRATEGIES

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- Socialization: All transport stakeholders
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- Review: Planning instrument
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- Review: Structure vision 2040 - 2065
- Socialization: New regulations & future dev.
- Election

- Election
What happens within each node?
1. Function?
2. Transformation?

DEVELOPMENT GUIDELINES
How to combine industrial areas with other functions which are more public?

What are the transportation modes?

What kind of infra is needed?

PROGRAMME...?
LET'S DISCUSS