Institutional arrangements for cycling: Challenges in Latin American cities

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1. Study on Institutional arrangements in 8 cities
Scope of study

- BID (IADB), Universidad de Los Andes (Bogota)
- 8 cities: Literature review
- Own experience
- At least 2 interviews with each city with municipal coordinator, cycling organisation, state
4 Successful cycling cities in Europe and United States

- Rotterdam (The Netherlands)
  - Growing cycle use since 2002
- Seville (Spain)
  - 1 – 5% cycling 2007 -2010
- Dublin (Ireland)
  - Reversed decline of cycling between 1997 and 2005.
- Portland (USA)
  - 1.1 → 7.2% of commuter trips (1990-2014)
Latin-American cities that (more or less) successfully promote cycling

- Bogotá (Colombia):
  - Peñalosa I: Bicycle Network 0.5 → 4% (1999-2004). Now 5-6%.
- Mexico-city (Mexico):
  - Local increase of use (e.g. PBS). Still very low overall.
- Rio de Janeiro (Brazil):
  - Planning since 1970’s, now 4%
- Rosario (Argentina):
  - Increase of use in crisis, planning followed
Cycle use in the 8 cities

Years: 2007-2016
2. Institutional arrangements for the promotion of cycling in Latin-America
Elements of Institutional arrangements

- World-class cycling infrastructure
- Cooperation
- Cycling-inclusive planning
- Integrated

4. Capacity Building
   - Plans and Policies
   - Institutional Organization
   - Coordination between actors

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2.1 Cycling-inclusive plans and policies

2.2 Institutional organization

2.3 Coordination between actors

2.4 Capacity to create a cycling-inclusive city
2.1 Cycling-inclusive plans and policies
2.1 Politics, policies and plans

- Defining what you want (vision, objectives)
- How you want it (policy and plan)
- And how and when you will implement it (action plan).
A. Politics, vision and discourse (1)

- Does political discourse and practice match?
- E.g.: Mexico-city

**Discourse:**

| Source: Department of Environment, Mexico |

**Practice** (investments):

<table>
<thead>
<tr>
<th>Year</th>
<th>PEATONES</th>
<th>CICLISTAS</th>
<th>T. PÚBLICO</th>
<th>AUTO/ Moto</th>
<th>CARGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0%</td>
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</tr>
<tr>
<td>2012</td>
<td>12%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
<td>8%</td>
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<tr>
<td>2014</td>
<td>26%</td>
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<td>32%</td>
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</table>

Inversión Total en Movilidad 2014: $4,928,087,156.00
A. Politics (2)

- Cycling is (very) political in L.A. and Spain
- Cycling is important, but less political in Rotterdam, Dublin and Portland
- Latin American cities:
  - Strong focus on kms, often ignoring quality or need
  - Focus on scoring politically often leads to rushed projects and implementation (Bogotá 2015)
B. Cycling plans integrated?

- Are cycling plans and policies integrated in other plans and policies?
  - E.g. Cycling-inclusive mobility plans and policies
  - Yes: Rotterdam, Dublin, Portland
  - Limited: Seville
  - No: Bogota, Mexico-city, Rio de Janeiro, Rosario

Latin America: Cycling is a stand alone issue, not integrated in general traffic and transport plans
C. Complete Bicycle Masterplans?

L.A. cities:
No complete bicycle masterplans that include all these components

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Masterplan? Example Rio de Janeiro

  - Only: A goal to double length of cycle network to 300 kms
  - By: Department of Environment to reduce emissions
  - Not a plan with a network and project list
- From 2015: Project to develop a real Bicycle Masterplan
- Up to 2016: Cycling infrastructure created bit by bit, not as part of network (some feeder to BRT)
Vision, goals and objectives (1)

- L.A. cities, Seville and Dublin: only kms of cycling infra
- Rotterdam, Portland: also goal to increase cycle use

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<tr>
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</thead>
<tbody>
<tr>
<td>Goals</td>
<td>+ 10% cycle trips</td>
<td>City Network: 77 km. cycle tracks</td>
<td>Regional Network: 2900 km.</td>
<td>Cycling to work: 7 to 25%</td>
</tr>
</tbody>
</table>

Rotterdam & Portland: also expansion of cycling infrastructure!
### Latin-American Bicycle Plans

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<tr>
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</thead>
<tbody>
<tr>
<td>Goals</td>
<td>145 km new cycle lanes and tracks</td>
<td>Ecobici x2 + 114 km cycling infra</td>
<td>+ 150 km cycling infra (undefined)</td>
<td>+ 150 km cycling infra (undefined, no year)</td>
</tr>
</tbody>
</table>

Does this matter?
Complete future bicycle network defined (2)?

- No: Mexico, Rio, Rosario
- Yes: Rotterdam, Seville, Dublin, Portland
Bicycle network defined (2)

- Bogota: Yes, but...
  Bicycle strategy 2013

- But:
  - No political status
  - No implementation plan (when to implement what?)
  - Guidance document
  - Latest: Cycle track along metro line
Implementation plans (3)
- E.g. Rotterdam

<table>
<thead>
<tr>
<th>Vision and overall policy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Plans and policies (incl. bicycle plan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic &amp; Transport</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation and action plans</th>
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<tbody>
<tr>
<td>Traffic &amp; Transport</td>
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</table>
Implementation plans

- **Rotterdam, Portland:**
  Yes. With projects, budget and year of implementation

- **Dublin:**
  No. But overall network is defined with regional funding.

- **Seville:**
  One plan implemented in 4-year term

- **4 Latin-American cities:**
  No overall implementation plan, no budget reserved
Maintenance (4)

- 4 Latin-American cities have no maintenance plan or budget for maintenance → Politicians want to score with new cycling infrastructure

- E.g.: Bicycle Masterplan Tilburg 2005-2015: 43% budget

Conclusions for LA cities

- Political pressure leads to focus on measurable (quick) results → kms rather than quality
- No objectives for cycle use or cycling accidents → what do you want to achieve?
- No bicycle network plan with implementation plan and budget → no clear commitment
- No maintenance
2.2 Institutional organization for cycling and actors
### Institution responsible for cycling:

<table>
<thead>
<tr>
<th></th>
<th>Traffic Planning</th>
<th>Urban Planning</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
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<tr>
<td>Dublin</td>
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<tr>
<td>Seville</td>
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<td>Dark Green</td>
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<td>Portland</td>
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<td>Bogota</td>
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<tr>
<td>Mexico city</td>
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<td>Green</td>
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<tr>
<td>Rio de Janeiro</td>
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<tr>
<td>Rosario</td>
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</tbody>
</table>
# Institutional models

<table>
<thead>
<tr>
<th>Integrated</th>
<th>Not Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Coordinator</td>
<td>Without Coordinator</td>
</tr>
<tr>
<td>Cycle Work Group</td>
<td>Without Cycle Work Group</td>
</tr>
</tbody>
</table>
Integrated Model

Traffic and Transport Planning

- Traffic Planning
  - Cycle Network Planning
- Road Design
  - Cycling Infrastructure Design
- Parking
  - Bicycle Parking
- Public Transport
  - Intermodality Bicycle
Rotterdam: Integrated planning
Not Integrated model

Cycle infrastructure projects

Environment
Generates and Submits
Mexico

Public Works
Generates and Submits
Rosario / Rio

Urban Planning
Generates and Submits
Bogota

Approves or rejects
Transport / Mobility

Generates and Submits
Example Seville

- Urban Planning Department cannot intervene in the carriageway

‘footpath’ cycle tracks
Cycling infra integrated in traffic

Safe intersection when cycle infrastructure is integrated.

Example Rotterdam
# Entities initiating cycling projects

<table>
<thead>
<tr>
<th>Entities</th>
<th>Traffic / Transport</th>
<th>Public Works</th>
<th>Urban Planning</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam</td>
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<tr>
<td>Seville</td>
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<td>Dublin</td>
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<tr>
<td>Portland</td>
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<tr>
<td>Bogota</td>
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<tr>
<td>Mexico-city</td>
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<tr>
<td>Rio de Janeiro</td>
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<tr>
<td>Rosario</td>
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</tbody>
</table>
Other entities with cycling projects

Mexico city: The *Delegaciones* have jurisdiction over secondary roads
Functions of Bicycle Coordinator

- Design
- Promotion
- Execute MP
- Link citizens
- Coordinate
- Other Projects

Bicycle Coordinator
Coordination mechanism (proposed):

Public Works  
Cyclists Org.  
Environment  

Urban Planning and design  
NGO  

Traffic Transport  
Bicycle Office  

Cycling Work Group  

Zé Lobo (Rio)
Conclusions for LA cities

- Only responsible agency should initiate cycling projects
- Integrating cycling in traffic and transport leads to better results (than in environment, urban planning)
- Designate a bicycle coordinator (or office)
- Cycling working group is effective institutional arrangement to coordinate cycling plans and projects
2.3 Interaction between actors
Citizens / cycling groups

- Important to involve them and to allow them to give input
- Example: In Portland Citizen’s task force was strongly involved in the bicycle plan

- But, if there is no real planning, citizens and cycling groups cannot compensate for this shortcoming
- Example Rosario:
  - Citizens vote for which project to implement (no network plan)
Citizens (neighbours) not involved
NGOs

- NGOs in Latin America and Seville are essential for cycling and have a lot of expertise:
  - ITDP, Transporte Ativo, Despacio, A Contramano, etc.
  - Example City-centre cycle plan Rio

Zé Lobo (Rio)
Quem pedala no centro hoje

Para entender quem pedala hoje no centro, realizamos cinco contagens em pontos estratégicos: Candelária, passeio público, estádio-Cidade Nova, Praça XV e Av. Chile. Encontramos um total de mais de 3.000 ciclistas, sendo 40% bicicletas de serviço, e 60% destas, triciclos. Um dos principais indicadores que atesta a qualidade da infraestrutura para o ciclista é a quantidade de mulheres pedalando. Neste quesito, o centro foi reprovado: apenas 3% eram mulheres.

Cidade Nova
813 ciclistas

CIDADE NOVA

27.4% particulares
27.4% serviço
5,2% outras bicicletas
7,9% mulheres

Praça XV
350 ciclistas

PRAÇA XV

64,2% particulares
25,6% outras bicicletas
7,9% mulheres

Avenida Chile
676 ciclistas

AVENIDA CHILE

93,7% particulares
3,3% serviço
6,2% outras bicicletas
0,7% mulheres

Passeio Público
728 ciclistas

PASSEIO PÚBLICO

53,7% particulares
7,2% serviço
51,3% outras bicicletas
8,7% mulheres

Total de ciclistas computados: 3.186
Total de bicicletas à serviço: 1.305
COLETAMOS DADOS EM 100 PONTOS DO CENTRO DA CIDADE, OLHANDO PARA TODOS OS DIVERSOS SEGMENTOS DAS RUAS.
Metropolitan cooperation

- Cycling plans and policies beyond municipal boundaries
- Dublin, Portland and Rotterdam have metropolitan authorities that are also responsible for cycling
Example Dublin

- National Transport Authority / DTO:
  - Regional network
  - Funding to municipalities when designs in line with design manual
  - and in regional network
Municipality in region (+ consultants):

- **Preliminary plans** including pre-planning consultations
- **Planning consent** through statutory process (several options)
- Detailed design, **tendering process** and construction
Main conclusions

- Involvement of NGO’s and citizens is essential for support and to get input from users
- ....but there needs to be a structure (institutional arrangement)
2.4 Capacity to generate cycling-inclusive plans and infrastructure
Capacity needed to deliver

- Skilled professionals (traffic planners, designers, etc.)
- Ability to create good quality (cycling) infrastructure
- Juridical arrangements
- Capacity to secure funding
Cycle planning and design expertise

- Latin America (and many other countries):
  - Expertise needed to design good quality cycling-inclusive road infrastructure is (generally) missing
  - Worse: In many cases there is little awareness that this expertise is missing
Expertise: Cycling design is not easy

Lack of road safety
Dangerous bollards (Seville)

Lack of continuity / integration in traffic (Bogotá)

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Causes of poor designs

- Lack of expertise and/or budget for expertise
- Not taking space from motorised traffic
- Experts on ‘political’ positions
- Belief: anything is better than nothing
- Architects design cycling infrastructure (L.A., Sevilla)
  - Lack of understanding of (motorised) traffic and road design
- Political pressure and lack of time and budget for studies and designs: Deliver ‘now’ (‘victorias tempranas’)

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Design issues

Not wanting to take away road and parking space (Dublin)

Lack of road safety / integration in traffic (Rio de Janeiro)
Institutional arrangements to create capacity:

<table>
<thead>
<tr>
<th>Institutional arrangement</th>
<th>Limitation / condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>University education</td>
<td>Needed, but long-term solution</td>
</tr>
<tr>
<td>Training courses and workshops by experts</td>
<td>Useful, but limited reach</td>
</tr>
<tr>
<td>Cycle manuals and guidelines</td>
<td>Doesn’t teach real life situations</td>
</tr>
<tr>
<td>Design projects by cycling experts</td>
<td>Excellent if together with local consultants</td>
</tr>
</tbody>
</table>
Developed in/for Colombia, Mexico, Brazil (Peru, Chile)

Quality differs but is improving.

National manuals:
- Cities are not always aware of existence
- Often by consultant without creating ownership with national and local authorities

Local manuals:
- Few. Simple Rio de Janeiro guidelines are good step to create more uniformity in design
Examples of juridical arrangements (laws)

- Oregon (1971): Municipalities need to spend at least 1% of state infrastructure budget on cycling infrastructure.

- Rio de Janeiro (2005): Shopping centres need to provide cycle parking.
Conclusions for LA cities - Capacity

- Take cycling serious
- Make studies and professional designs
- Hire experts if not available
- Don’t rush
Thank you for your attention

Jeroen Buis, Liliana Gonzalez, (Damien O’Tuama (Dublin), Zé Lobo (Rio de Janeiro))
Panel
Anything to add?
Discussion and questions

- Plans and policies (1), Institutional organization (2), Coordination (3), Capacity (4)
- Can you identify some of these institutional challenges in your cities?
- Which of the arrangements discussed could be incorporated in your city?