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Evaluation of cycleways by cyclists

A proposed methodology



Like in other Brazilian cities, the road system in Florianópolis is not appropriate for the use of bicycles, dangerous for current cyclists and far from attractive for new fans of this clean, healthy, fair, efficient and economical vehicle. Improvement requires an integrated approach to road construction and maintenance, including separate cycle routes, traffic calming (to allow shared road use), bike parking facilities, integration with public transportation, and also educational programs for the humanization of traffic.

Small advances to include cycling in Florianópolis, a coastal city with 409,000 inhabitants, led to the construction of a number of cycle tracks and cycle lanes, which add up to 36 km, representing 8,76 cm per inhabitant. Besides being very little, the realized cycling facilities show a lack of technical standard and a low user quality, a view shared by many cyclists in informal discussions.

Local cycling activists want to break with informal discussion and get into a consistent dialogue with the authorities responsible for appropriate road provisions, based on technical standards and user relevance. Thus a need arises for a methodology to assess the quality of cycle ways. The learning from quality assessment will contribute to increased safety and comfort of cycle ways and to authorities being more effective in providing for cyclists in the transport system and in attracting new bicycle users,

leading to the improvement of traffic and quality of urban life.

To develop the methodology, ViaCiclo - Cyclists Association of Florianópolis and Region, obtained the support and partnership of Metropolitan Cycling Laboratory (from Gouda, the Netherlands), both non-profit institutions that promote the use of bicycles for transportation. The development process aimed to:

- Enhance the level of technical knowledge by cyclists themselves
- Create a mechanism for evaluation technical standards and user satisfaction
- Enable the monitoring of cycling development over time as a basis for on-line technical assistance

Research and development of this nature is not yet performed by the responsible authorities; initiatives come from civil society, from user organizations with members working voluntarily and without financial resources. We therefore chose to create a methodology that can be conducted by a small team based on free tools on the Internet. The methodology developed in Florianópolis is shared, through a Methodological Guide, with other people and institutions interested in applying it in other cities.



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Based on these requirements the following elements were defined for each evaluated cycle route:

- Field surveys resulting in a Technical Sheet containing all data and information
- Visual documentation by photo, video and online map
- Online questionnaire to collect cyclists evaluation
- Processing of the collected information by an experienced cyclist, a qualified professional and a representative of the authorities

The evaluation encompassed several variables to assess if the cycleways provide security, comfort and attractiveness to cyclists:

- Width, separation and protection from motor vehicles, considering the practiced speeds
- Length, network connectivity and location
- Comfort, lighting, drainage, slope of ramps and clearing (no barriers);
- Vertical and horizontal signalization, particularly at intersections
- Integration with public transport, bicycle access and protection against theft and illegal parking
- Accessibility for children, attractiveness and sense of comfort and security on the part of all cyclists



In Florianópolis the evaluation was conducted in a pilot sample of 5 cycle

routes (others are still in progress). The field research revealed a lack of technical standard, design decisions of the cycling routes appeared to be led by:

- Small adjustments if the existing road infrastructure permitted (improvement where possible in stead of where needed)
- Obtain low cost of the work
- Seeking to cause the least possible interference in motorized traffic
- Seeking to cause the least possible interference in the interests of the owners of houses and businesses



Aspects such as small width, hindrance of cars, bad drivers' conduct, lack of connection between cycleways and of continuity of routes, pot holes, barriers (such as plates and poles) and lack of maintenance were the main reasons which prevented a fully positive assessment. In general, the cycleways are not considered safe and the sense of attractiveness is undermined by observing that cyclists are pedaling on the roads where cycleways exist.

The evaluation of 5 cycle routes in Florianópolis already resulted in a better understanding of cycling development in Florianópolis which enables the determination of improvement strategies and interactions with the responsible authorities. These experiences are now available in the *Methodological Guide for Cycleways Evaluation* in Portuguese.

Additional information

- Results of evaluation in Florianópolis:
<http://2.gp/b6wp>
- Full document "Methodological Guide for Cycleways Evaluation" in Portuguese:
<http://2.gp/b6wq>
- Auxiliary open documents in Portuguese:
<http://2.gp/b6wr>
- Summarized version of "Methodological Guide for Cycleways Evaluation" in English:
<http://2.gp/b6ws>