National working group of accessibility officers from French inclusive cities

Cerema

Origins of the technical group

In April 2014, officers responsible for the handicap mission and the accessibility and technical officers of several cities and intercommunal cooperation authorities met at the initiative of the departments of the city of Nantes, Grand Lyon and Cerema. The "technical group of accessibility officers from inclusive cities" (GT-RAVI) was born and has set itself the primary objective of organizing an annual thematic workshop. In spring, the leaders meet to define the theme of the autumn workshop, in keeping with their concerns of the moment. Chosen as a result of a call for contributions on the basis of local experiences already in progress, the selected towns and urban areas can take part in discussions.

Summary of the second participatory technical workshop held on November 23 and 24, 2015

Theme: "Orientation information accessible to all"

Host local authority: Urban Community of Dunkirk

On November 23 and 24, 2015, the second annual participatory workshop organized by the working group of accessibility officers from French inclusive cities (GT-RAVI) that the Cerema runs was hosted by the Urban Community of Dunkirk (CUD) in its premises and in those of the youth hostel l'Escale[1].

Three half-days enabled thirty people representing 14 local authorities[2] and 3 Cerema departments[3] to discuss their respective practices and thinking and then to co-produce deliverables for any French local authority around the topic of orientation information available to all. Three subgroups, each led by a pair made up of a local authority and Cerema, worked together on the following topics:
- **How can street design features identifiable and detectable by everyone be created?**
- **What signage is available on the scale of an area?**
- **Will smart cities be (more) accessible to all?**

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[1] This establishment won an award for its accessibility, particularly as part of the first "Recueil de belles pratiques et bons usages en matière d'accessibilité de la Cité - Compendium of best practices and good usage in terms of town accessibility" organized in 2011by the French Minister of Ecology, Sustainable Development, Transport and Housing, and the Secretaries of State for transport and housing.

[2] Bordeaux Métropole, Communauté Urbaine de Dunkerque, Grenoble Alpes Métropole, Ville de Grenoble, Métropole européenne de Lille, Lorient agglomération, Métropole de Lyon, Nantes Métropole / Ville de Nantes, Ville de Paris, Ville de Rennes, Toulouse Métropole, Ville de Toulouse and Ville de Villeurbanne

[3] Direction territoriale Centre Est, Direction territoriale Nord Picardie, Direction technique Territoires et ville

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A plenary session chaired by Sony Clinquart, Vice President of the CUD, in charge of social and interdependent development and higher education, and by Marie Prost-Coletta, ministerial delegate for accessibility (DMA), made it possible to share the highlights and key lessons from each of the three groups and consider possible perspectives. This summary covers the main points discussed during this plenary session. The detailed reports and deliverables of each group are available on-line (in French) and can be consulted for further details on each topic dealt with[4].

In the first group, the issue of "identifiable" road improvements that are "detectable" by all, as advocated by Decree No. 2006-1658 and the Decree of January 15 2007, was addressed through two examples: pedestrian crossings and pedestrian/cycle separators. Participants exchanged views on the basis of commented photographic reports, presenting their respective feedback on the matter.

Regarding experiments relating to the installation of guidance paving devices in pedestrian crossings, these have to be considered as experiments requiring waiving of the inter-ministerial instructions on road signs, although this is complicated to implement (the waiver must be applied for, a panel of testers that can be considered as representative for each user category concerned must be recruited, objective criteria defined, and results collected and analysed). In addition, when the experiment is finished, the question of reproducibility must be asked, including medium and long term user feedback, aspects related to the durability of materials and their maintenance, the overall cost of the development work, etc.

The deliverable proposed by this group consists of a table for presenting different technical solutions tested by the participants and analysing the respective advantages and disadvantages of these. During the plenary session, an example of each type of development was presented to illustrate this:

- rows of paving stones lining a pedestrian crossing to guide the blind and partially sighted without stigmatizing them, and to channel the flow of all pedestrians (Toulouse Métropole). Variable durability has been observed based on the implementation conditions (especially the season);

- A pedestrian-cycle separator made of cobblestones (pebbles embedded in concrete) caught the attention of the group and has excellent user feedback (Métropole de Lyon). It is more expensive than other solutions due to the impossibility of automating cobblestone laying.

The DMA welcomed this thinking that makes the field of streets central to accessibility concerns, welcomed also the attractive appearance of the design features presented and indicated that this work would help to fuel that on the second French action plan for active mobility (PAMA 2). Accessibility of streets and public spaces plays a very important role in promoting pedestrian traffic.

> ➢ For more details on this issue, see Appendice : "Streets : Design features identifiable and detectable by everyone" (paper originally published Techni.Cités, n°291, March 2016)

[4] http://www.territoires-ville.cerema.fr/actes-de-l-atelier-technique-accessibilite-2015-a1933.html

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In the second group, the various presentations turned the discussions towards two main aspects:
- methods for evaluating the readability of urban sites by doing commented circuits with vulnerable users (people with various disabilities, the elderly or foreign people) considered as being able to reveal malfunctions that are potentially awkward for all. Here too, these methods turn out to be of great value in bringing out questions in an exploratory manner, despite some complexity of implementation (the need to involve at least two observers, if possible with multi-disciplinary skills);
- using (inter-)communal graphic charts in directional signage which requires working in partnership with communication departments, which can bring a lot of weight to bear on the subject.

Several general lessons have emerged, including the need to ensure the coordination of scales and continuity of information throughout the entire chain of travel (public transport, roads and facilities open to the public) and therefore to coordinate the very many people involved, raising awareness of the range of solutions that the concept of signage can cover (which is not just about installing signposts but also involves staff training, the readability of the architecture or the development, websites, etc.), the need to base work on both regulatory and normative information and on best practice (explained in guides in many local authorities).

While, since the 2005 law, technicians in charge of accessibility have made the connection between signage and accessibility, it is now important to make the many people within local authorities likely to be involved in the signage production process (from elected representatives to people managing inter-communal facilities open to the public) aware of the benefit of integrating the knowledge of the needs of the most vulnerable people, that accessibility officers hold. In this perspective, the deliverable proposed by the group describes various arguments that can be used in the local context by said officers:
- the first goal for the information (before appearance, which must still be dealt with carefully) is to be received by all citizens in their diversity;
- taking into account the needs of disabled people makes it possible to adapt communication to the needs of other populations targeted by local priority policy (such as the elderly, children and foreign tourists);
- economically, a comprehensive approach should make it possible to streamline resources by pooling orders, and "restorative" signage may help to avoid heavy work.
- raising awareness, notably by simulation, allows non-specialists to understand the initiative very quickly;
- regulations - at last - require that any information issued to the public should be accessible (and setting up signage may be a "light-weight" action with very high added-value in the context of the implementation of the Ad'AP[5]).

The DMA stressed the importance of a comprehensive approach to signage and said that AFNOR[6] is currently working on how to set up a good signage.

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[5] *Agendas d'accessibilité programmée* - Programmed Accessibility Agendas

[6] Association française de normalisation – French association for standardization

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The third group first worked to develop a common definition of the smart city. It can be seen as a process that goes beyond the issues of sustainable development, and aims to improve quality of life by making users central to the urban project by providing answers to their needs, through a systemic, cross-sectoral approach. This definition confirms the central place of the user, rather than technology, in smart cities.

The deliverable proposed by this group is a methodological note addressed to the accessibility officers in the local authorities. Different conditions of success for running an accessibility project related to smart cities have been identified:
- the need for strong political support;
- setting up participatory governance, both internally (cross-sector, decompartmentalization) and externally (private partners and citizens)
- sustainability, updating and control of the quality of public data
- exchanging and sharing data,
- system interoperability,
- technical leadership to be entrusted - according to available skills - to someone within the local authority or to a private company (a start-up).

On the technological side, discussions in the plenary meeting led to the question of the relevance of developing dedicated services or specific layers for accessibility in geographic information systems rather than integrating these aspects into common tools. It was also recalled that Cerema is currently conducting an exploratory study on the possibility of proposing a national accessibility data model standard[7]. The DMA also reported that IGN[8] is currently working on developing a database of establishments open to the public in France.

Regarding standardization committees, it is increasingly difficult for local authority project managers to get involved in these working groups (through lack of time and funding).

On the role of the GT-RAVI, the participants stressed that they wanted to use it to facilitate the capitalization of guides, initiatives and practices. The issue of distribution to smaller towns as well as the time available to carry out this capitalization collectively was raised.

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[7] In this regard, see the summary and the thematic account of the 2014 workshop by the GT-RAVI (in French):
http://www.territoires-ville.cerema.fr/atelier-technique-accessibilite-cerema-a1438.html

[8] Institut géographique national – National geographic institute

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Appendice

Streets
Design features identifiable and detectable by everyone

**By Marion Ailloud and Laurent Saby, Cerema / Territoires et ville,
co-leaders of the "Ville accessible à tous" ("Cities accessible for all") programme**

*Paper originally published in Techni.Cités, n° 291, March 2016
Translated from French by Birdwell international*

To put it in a nutshell...
- The layout of pedestrian crossings can still raise many questions, especially for partially sighted and blind people.
- Depending on the context and issues, the types of devices and developments vary greatly.
- New systems, especially for pedestrian crossings and pedestrian/cycle area separators, have been tested by several local authorities and discussed at a recent collaborative workshop.

At a recent collaborative workshop led by Cerema, several urban local authorities worked around the theme of accessibility of orientation information, comparing various design features that are identifiable and detectable in streets.

Regulations on accessibility of streets and public spaces[9] have introduced the concept of design features that can be identified and detected by everyone. How should these be designed? What technical devices should be chosen? What methodology should be used for testing? These questions are central to local authority concerns. To answer these questions, a collaborative workshop, organised in Dunkirk by the "technical group of accessibility officers from French inclusive cities" (GT-RAVI), brought together technicians from seven local authorities in November 2015 [10]. Work and discussion were particularly focused on two types of improvement work: pedestrian crossings and pedestrian/cycle separators.

DEFINITIONS
"Identifiable" can be identified by means of visual or audible devices.
"Detectable" can be identified by technical devices sensitive to canes, feet or hands.

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[9]   Decree No. 2006-1658 of December 21, 2006 and implementing order of January 15, 2007.
[10]   Communauté urbaine de Dunkerque, Métropole de Lille, Métropole de Bordeaux, Métropole de Nantes, Métropole de Toulouse, Métropole de Lyon, and Ville de Paris

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Pedestrian crossings

The development of "pedestrian crossings", an essential link in the chain providing mobility for everyone, can still raise many questions from local authorities. How can understanding of the layout be facilitated? How can pedestrians, especially people with visual impairments, be alerted of the danger, and how can they be helped to decide when to embark on the crossing and to cross without going off course, in the best conditions?

To achieve these objectives, it is necessary to return to the fundamentals of the design of intersections and recall some general principles to be adapted to the local context:
- position the pedestrian crossings in line with the path along the built environment;
- improve the readability of developments: the user (motorist, cyclist, pedestrian, etc.) must realize that he/she is arriving in an intersection and, once committed, understand how the development works. Several solutions can be used to "mark" the intersections : creating a contrast, changing the profile of the road approaching the intersection, etc.;
- create shorter crossings to reduce the area of potential conflict between users;
- avoid diagonal crossings, to ensure greater visibility and simplify the routes of pedestrians and vehicles. Oblique crossings are particularly problematic for the blind, who may go off course and find themselves in danger, in the middle of the intersection or on the carriageway.

For example, intersections with kerb extensions, adopted by many local authorities including the Dunkirk urban community, offer several advantages. They reduce the length of the crossing and improve pedestrian visibility. The narrowing of the road encourages drivers to slow down. Finally, the approaches to the crossing are easily identified by means of visual and tactile contrasts.

Example of junction design with curb extensions in Dunkirk
Credit: Communauté urbaine de Dunkerque

Where it is not possible to avoid a crossing with a rounded pavement, meaning that the tactile warning surfaces have to be set in a curve, some local authorities, such as the Lille urban area, pay special attention to the work of fitting these devices. A list of recommendations has been defined in consultation

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with associations, in order to limit "gaps" between the modules and improve perception of the tactile warning surfaces. This implies awareness on the part of project managers and substantial monitoring of the work.

Rounded pavement with fitted warning surfaces in Lille
Credit: Métropole Européenne de Lille

Tested tactile devices

Concerning the need for identification by the blind and the partially sighted while they are crossing, regulations (c.f. order of 15 January 2007) stipulate that "a tactile device applied to the carriageway or road markings, or any other measure that is equally effective, can help users tell when they are on a pedestrian crossing and detect the boundaries of this crossing". This need is particularly felt on complex crossings, such as long crossings, those in two stages, or diagonal ones.

Guidance paving, which is subject to standard NF P 98-352, should not be used on pedestrian crossings. Some local authorities have installed and tested other devices to facilitate the crossing of the blind and partially sighted.

Some local authorities, such as Toulouse and Nantes, have chosen to mark the boundaries of the pedestrian crossing by visually contrasting devices that can also be detected by the feet and by canes: strips of glued paving stones or strips of gravel resin, etc. These devices are not intended to guide blind or partially sighted users, but to alert them that they are leaving the crossing. They are mostly used on long or diagonal crossings. Their effectiveness greatly depends on how they stand up to traffic; they need to be able to keep a minimum thickness over time to be detectable.

Crossing marked out by contrasting glued strips of paving in Toulouse
Credit: Toulouse Métropole

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The other option, rather than working on the boundaries is to set up a "breadcrumb trail" all along the crossing carriageway. Nantes has tested different ribbed devices with gravel resin or hydraulic paste. For its part, Paris is experimenting with traversing tactile zones on which people walk directly. These attempts to find solutions are particularly complex: over and above the initial guiding objective, it is necessary to ensure safety comfort for all users, including cyclists and powered two-wheelers, and take into account economic and environmental imperatives, especially controlling noise pollution.

Example of a tactile device tested by the City of Paris
Credit: Mairie de Paris

In terms of method, these experiments require filing a waiver request and getting authorization to be able to set up these new devices on carriageways used by vehicular traffic. Local authorities see this as an additional task making testing more complicated and extending the deadlines. In addition, the composition of user tester panels varies greatly from one local authority to another in terms of number and qualification of members. It seems to be strongly recommended to associate with a professional who has knowledge of mobility and detection techniques and strategies for the blind and partially sighted (a locomotion instructor, for example), and to collect his/her observations during testing. This gives a complementary vision to the inherently subjective opinions of the testers.

Pedestrian/cycle area separators

Cohabitation between pedestrians and cyclists, especially on cycle paths at pavement height, may raise a number of concerns from users. This is particularly the case for the blind and partially sighted, who express the need to distinguish spaces by means of detectable and traceable devices. Depending on the context and issues, the types of devices and facilities are highly variable. Among the responses provided, marking may be an initial approach, but it does not solve the problem of detection. A change of surface covering can be a solution that is easy to apply and one that does not consume much space, provided, however, sufficient differentiation between the two areas in terms of texture and colour is made, aiming to ensure a similar comfort of use.

In some contexts, low boundaries can be used: low concrete kerbs, metal strips, strips of paving stones, grassed slabs, etc. These devices are lower than 5 centimetres, with a chamfer to limit the risk of cyclists falling when crossing at a tangent. It is particularly complex to reconcile the challenge of

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maintaining permeability between spaces (to make crossings possible) and the challenge of good detection, especially as other parameters may need to be taken into account: the importance of appearance in areas of great landscape and architectural interest, maintenance imperatives, dealing with intersections, etc.
(see LOCAL FOCUS: Lyon)

When traffic flows are particularly great or when safety is at risk through conflicts of use, physical separators greater than 5 cm in height may then be opted for: protruding granite kerbs, concrete bead-type devices, etc. These devices have the advantage of being easy to detect by pedestrians and cyclists. However, these have a great partitioning effect and significantly impact transverse movements: some users (especially those in wheelchairs) may not even be able to cross them. Finally, the profile of these separators should not be too aggressive (avoid sharp edges), to prevent cyclists from toppling over or pedestrians who have not seen the device from stumbling.

LOCAL FOCUS: Métropole de Lyon
Cobblestones between pedestrians and cyclists on the banks of the Rhône

The banks of the Rhône have been redeveloped to encourage active modes. A path suitable for walking (including people in wheelchairs, pushchairs, etc.) has been created alongside the river. Some space is also devoted to bicycles, roller skates, scooters, etc.

To prevent collisions between pedestrians and cyclists while maintaining a certain permeability, a 40 cm wide cobblestone strip (pebbles embedded in concrete) was chosen by the city of Lyon. According to feedback from users, it is easy to perceive and detect, while being in keeping with the appearance of the site. It is wide enough to allow technical equipment to be installed (lighting, etc.).

Cobblestone strip between the pedestrian route and the cycle space. In places, the pebbles have been sawn to facilitate crossings, especially for people in wheelchairs
Credit: Métropole de Lyon

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Two other work groups

In addition to the participants working on detectable and identifiable facilities, other technicians were able to discuss two other topics: signage and smart cities. The group devoted to signage focused on the various arguments that can be put forward to raise awareness, internally, among communication departments about universal accessibility and the expertise that accessibility officers can pass on or bring to light. A second group worked on developing a definition of smart cities. This definition confirms the central place of the user, rather than technology, in the approach. The proposed deliverable is a methodological note for running a community project on the theme of accessibility in connection with the concept of smart cities.

To find out more (in French):
- Output from the 2014 and 2015 workshops is available at www.territoires-ville.cerema.fr
- Cerema factsheet collection: " Les cheminements des personnes aveugles et malvoyantes " (Paths for the blind and the partially sighted)
- "Piéton, usager des lieux publics, un jalonnement pour tous", (Pedestrians and users of public places: a signing system for everyone) Ed. du Certu, 2013

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