# Plan de Accesibilidad Universal de Barcelona (PAU)

## Método y Ejemplo de análisis de la via pública

Ramon Lamiel Villaró

**21 y 22** de octubre de 2019 – **CCIB** (Centro de convenciones de Barcelona)

IMPD

# DIAGNOSE PHASE OF BARCELONA ACCESSIBILITY PLAN

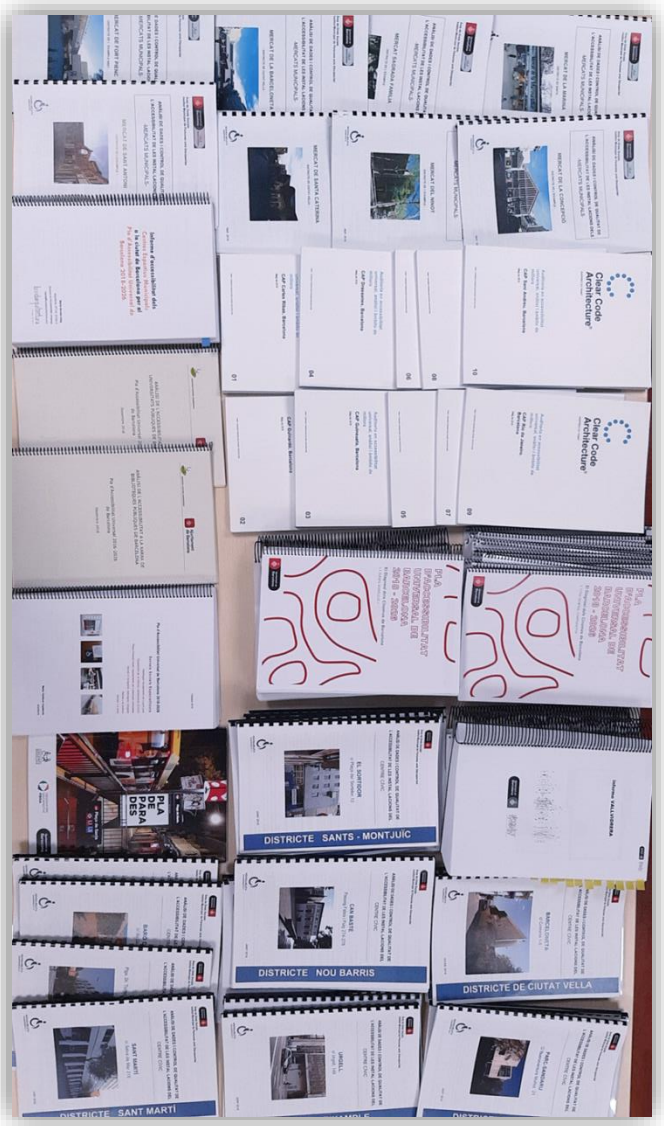
Warsaw, October 1 2019

Ajuntament de Barcelona

40 anys treballant per l'accessibilitat, la inclusió i la diversitat

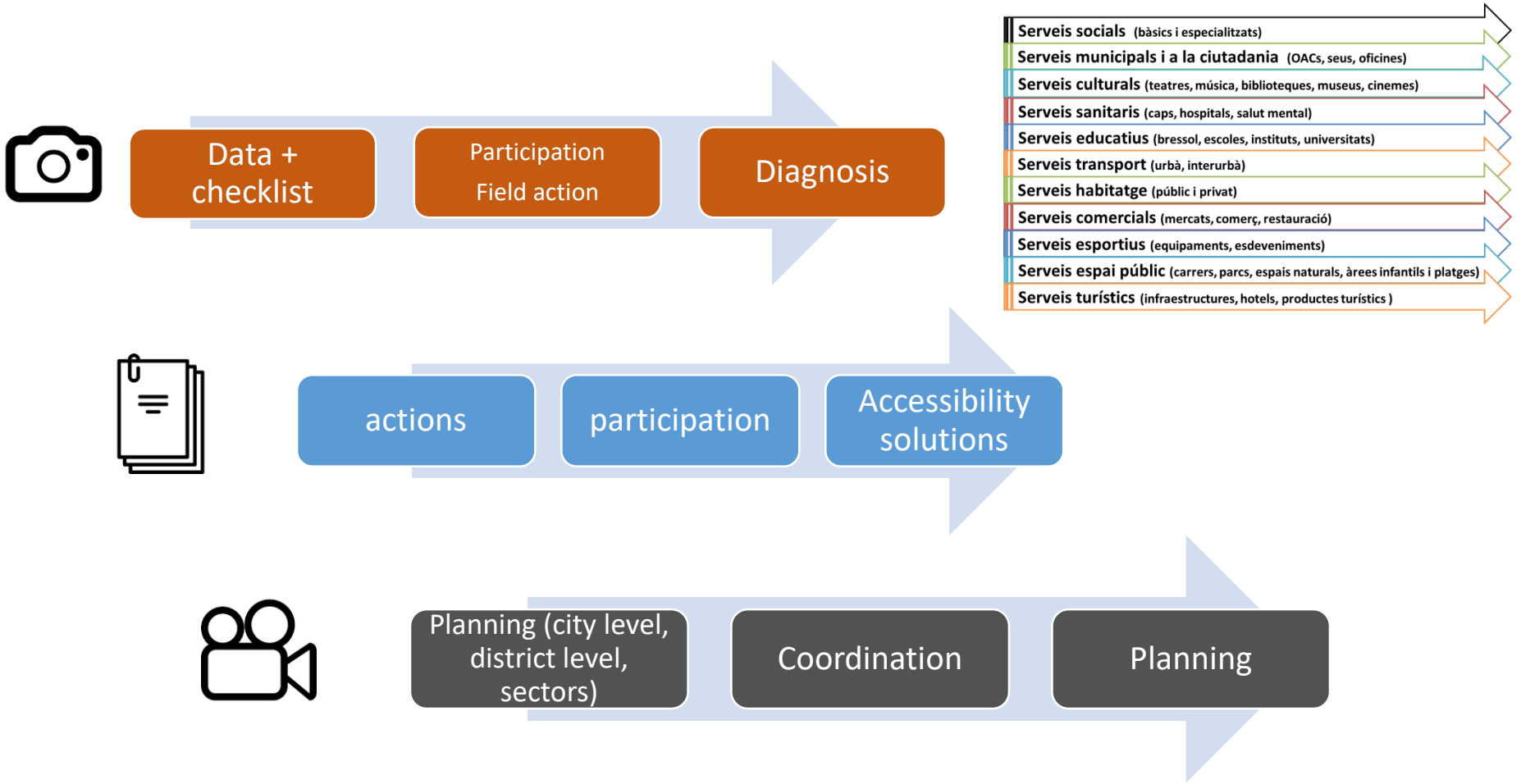
# 01

# Diagnose phase



# 1. Organization, mandate and methodology

## Local rule for the elaboration of the Accessibility Masterplan



Diagnose phase

# 1. Organization, mandate and methodology

**Diagnosis lines**

*Field work -> Promotion of employment and social inclusion, recruiting 56 workers. Among them 40 persons with different disabilities. Special training in universal accessibility.*

### Transport

- 2451 bus stops
- 154 metro station
- 26 tram stops
- 29 railway stations

### Facilities and services

- 38 municipal markets
- 40 public libraries
- 22 cinemas
- 53 community centers
- 39 basic social centers
- 36 specialist social services
- 38 university buildings
- 40 district sport fields
- 13 citizen help and information offices
- 60 websites of information and electronic procedures
- 53 primary health-care centers
- 106 hotels and restaurants
- 52.161 shops
- 3.668 apartment buildings
- 404 schools

### Streets

- 35 neighbourhoods
- 583 km of streets
- 9 beaches
- 24 parks and gardens

Diagnose phase

# 1. Organization, mandate and methodology

## Facilities accessibility checklist

**Environment**

- Public transport
- Private transport

**Access**

- Slopes
- Doors
- Signaling
- Attention offices

**Communication**

- Stairs and rails
- Slopes
- Elevators

**Sanitary facilities**

- Door
- Sink
- Toilets
- Accessories

**Furniture**

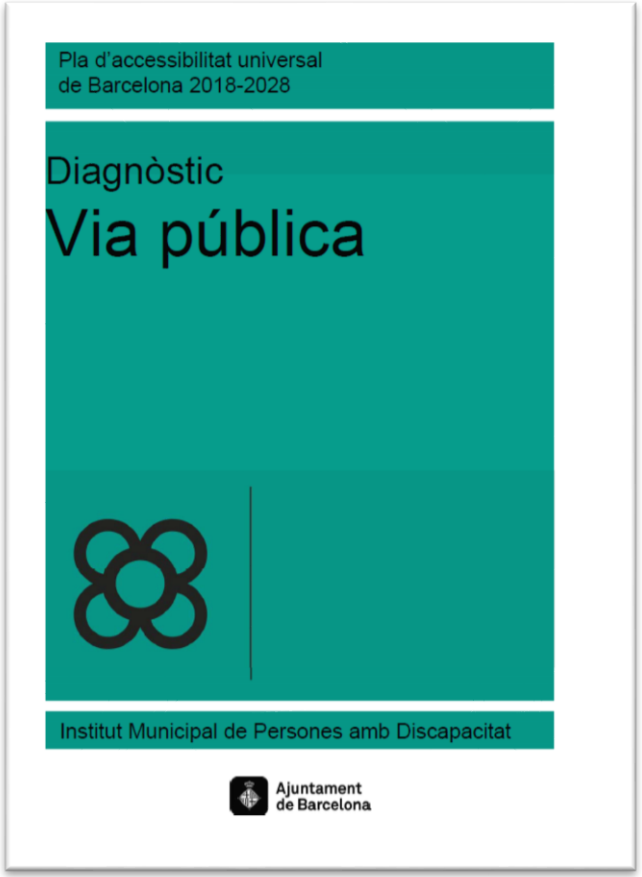
- Tables
- Commandments
- Sources
- Banks
- Chairs

**3 steps binary evaluation**

- Exact measure
- 1 -> accessible
- 0 -> not accessible

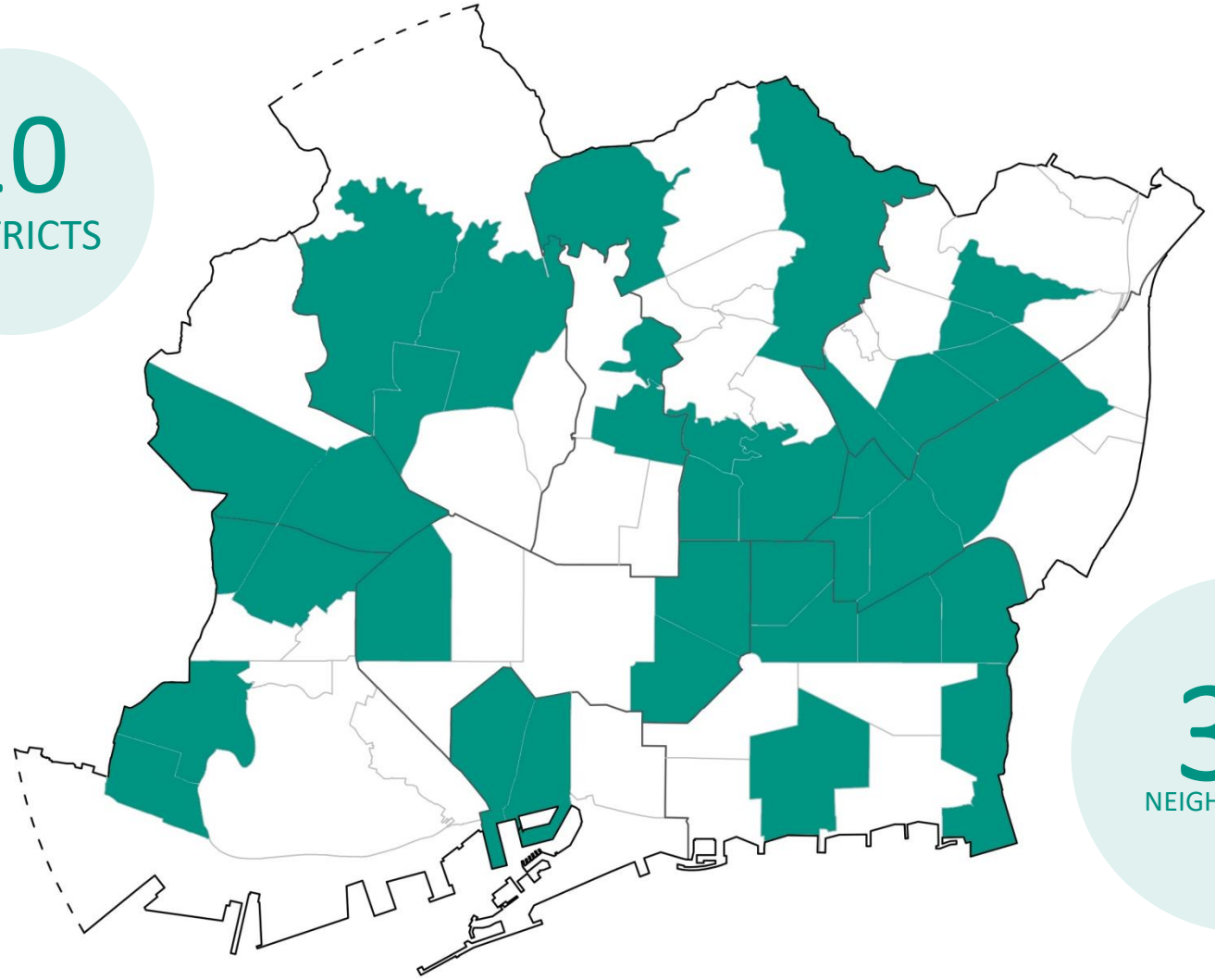
# 02

# Streets diagnosis



# Streets diagnosis
## 2.1 General data

10
DISTRICTS



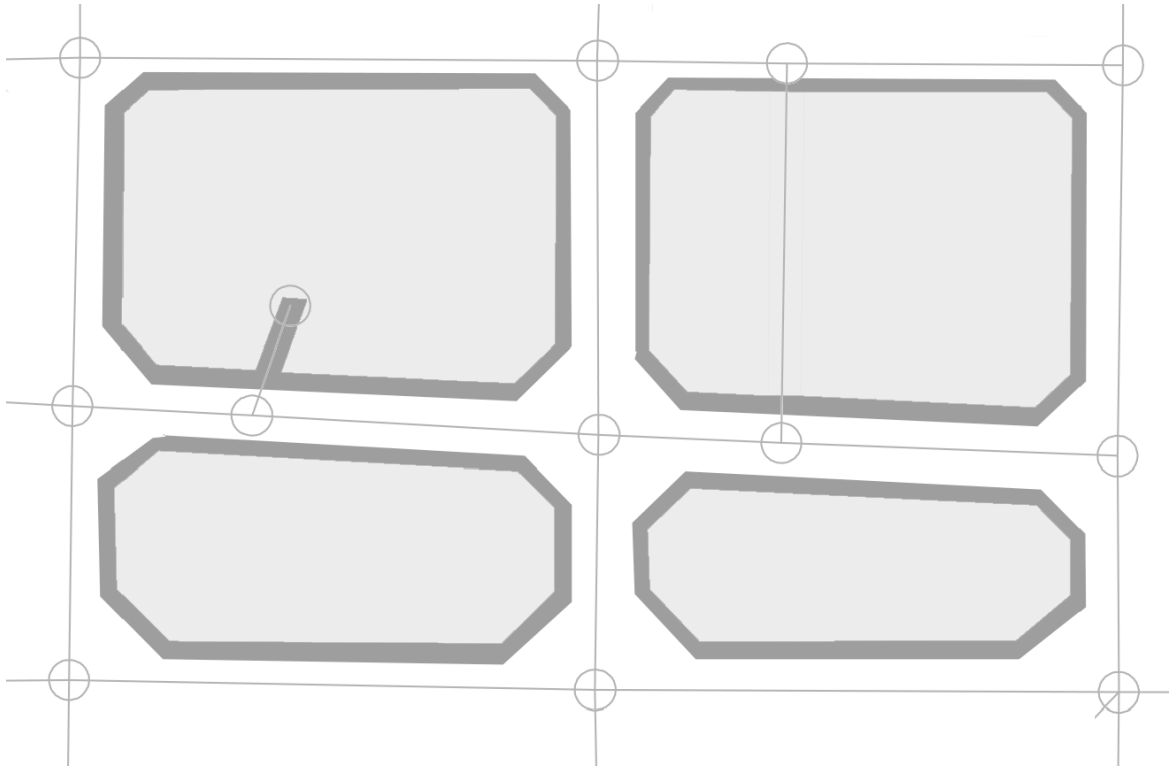
35
NEIGHBOURHOODS

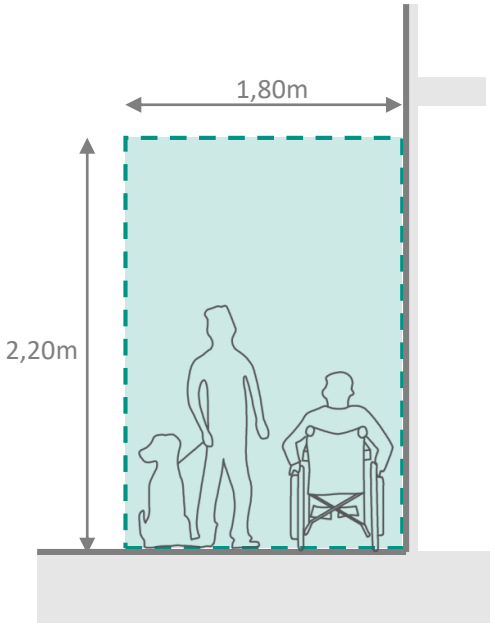
# 2.3 Regulatory framework



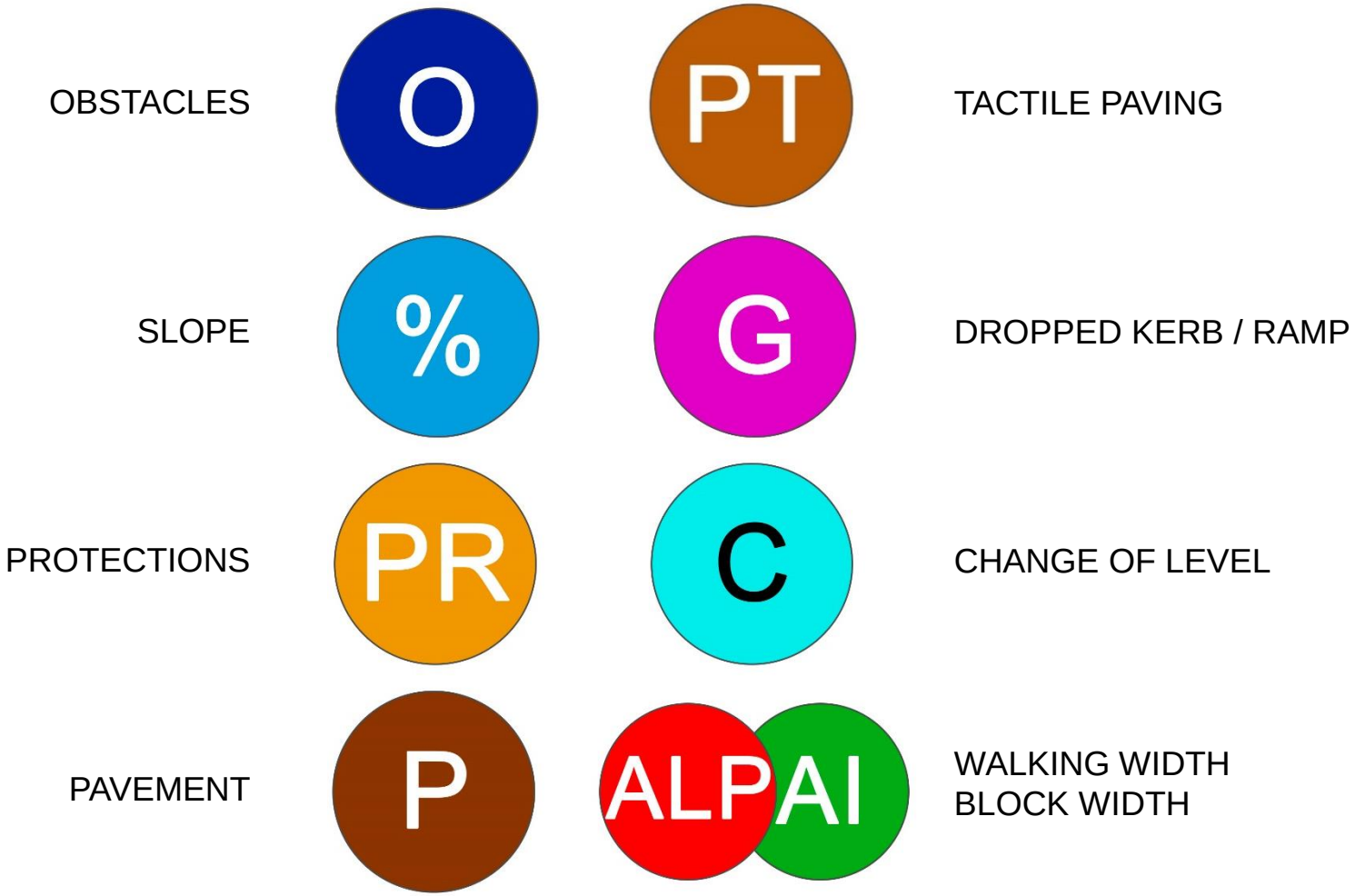
Orden VIV/561/2010

Article 5. General conditions of the accessible pedestrian itinerary.
a) It will always appear adjacent or adjacent to the facade line or horizontal element that physically materializes the limit built at ground level.
b) In its entire development it will have a free width of not less than 1.80 m, which guarantees the direction, intersection and change of direction of the people regardless of their characteristics or mode of movement.
c) Throughout its development it will have a free crossing height of not less than 2.20 m.





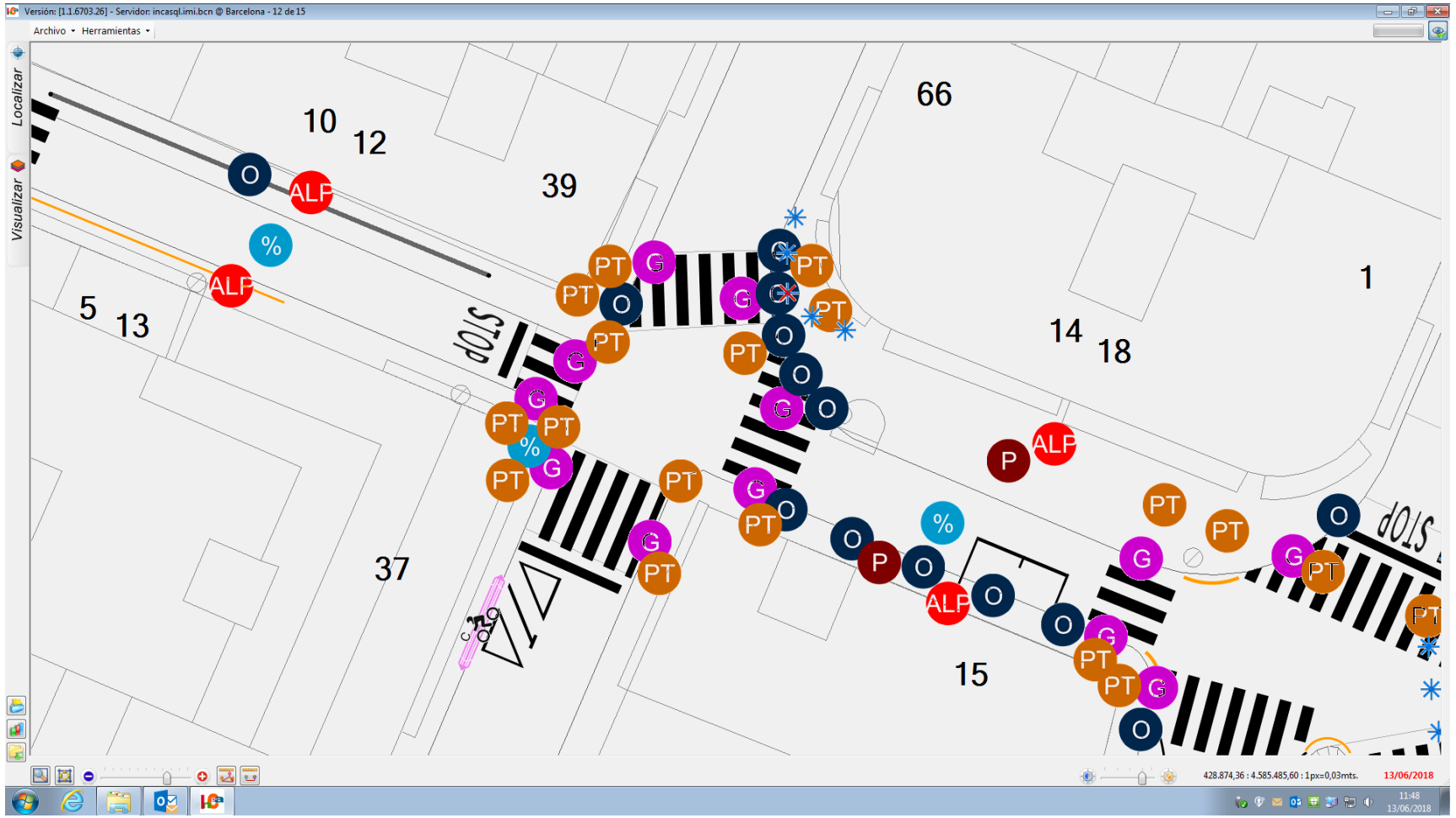
## Streets diagnosis
# 2.4 Accessibility parameters




* Icones modificables

# 2.4 Accessibility parameters





# Streets diagnosis
# **2.4** Accessibility parameters

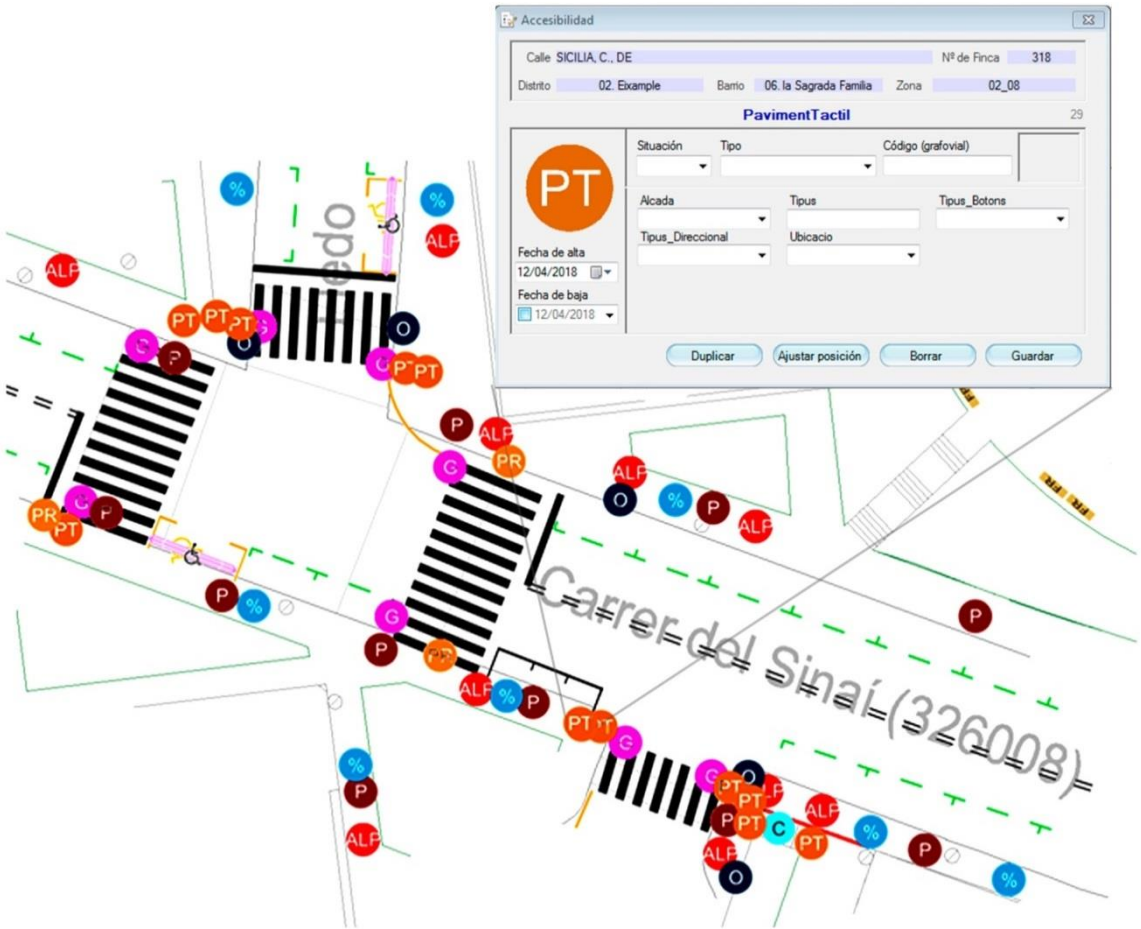

## TACTILE PAVEMENT

**Position**
**Code**
**Type**

**Relief height**
**<5mm ->5mm**

**Type of directional**
**<0.80m**
**>= 0.80m**
**No directional**

**Type of button**
**<0.60m**
**>=0.60m**
**No button**



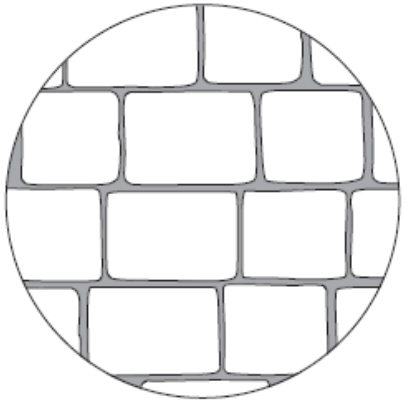
## Streets diagnosis

# 2.5 Data management

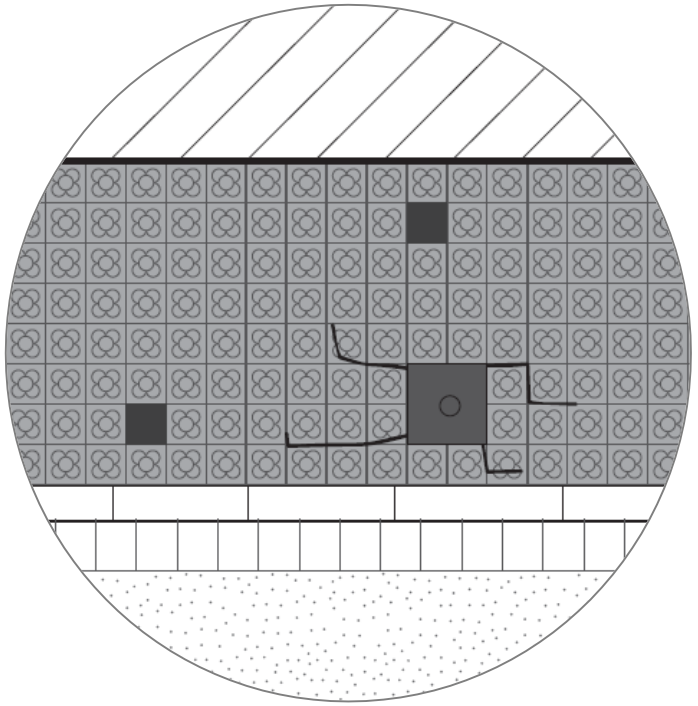
| | P | % | C | G | PR | PT | PK | AI | O |
|---|---|---|---|---|---|---|---|---|---|
| **01. CIUTAT VELLA** | 77% | 93% | 17% | 78% | 96% | 52% | 62% | 100% | 11% |
| 01. el Raval | 98% | 98% | 15% | 72% | 40% | 27% | 63% | 100% | 24% |
| 02. el Barri Gotic | 93% | 90% | 18% | 97% | 69% | 69% | 61% | | 2% |
| **02. EIXAMPLE** | 100% | 99% | 19% | 99% | 94% | 64% | 29% | 99% | 0% |
| 05. el Fort Pienc | 100% | 99% | 7% | 100% | 59% | 69% | 25% | 100% | 0% |
| 06. la Sagrada Familia | 100% | 99% | 100% | 100% | 73% | 74% | 22% | 96% | 0% |
| 08. l'Antiga Esquerra de l'Eixample | 100% | 99% | | 100% | 76% | 53% | 36% | 100% | 0% |
| **03. SANTS-MONTJUIC** | 94% | 93% | 26% | 74% | 93% | 54% | 50% | 100% | 8% |
| 12. la Marina del Prat Vermell | 81% | 95% | 8% | 82% | 76% | 50% | 25% | 100% | 22% |
| 13. la Marina de Port | 96% | 85% | 29% | 85% | 67% | 74% | 63% | 100% | 10% |
| 17. Sants - Badal | 98% | 100% | 25% | 46% | 82% | 44% | 0% | | 6% |
| 18. Sants | 99% | 98% | 38% | 52% | 78% | 43% | 0% | | 8% |
| **04. LES CORTS** | 98% | 94% | 17% | 72% | 96% | 41% | 19% | 99% | 7% |
| 19. les Corts | 99% | 94% | 17% | 55% | 51% | 51% | 19% | 100% | 7% |
| 20. la Maternitat i Sant Ramon | 95% | 93% | 20% | 69% | 84% | 32% | | 98% | 8% |
| **05. SARRIA-SANT GERVASI** | 97% | 64% | 22% | 85% | | 65% | 59% | 91% | 12% |
| 23. Sarria | 96% | 72% | 23% | 89% | | 69% | 64% | 90% | 13% |
| 24. les Tres Torres | 98% | 80% | 18% | 70% | | 55% | 50% | 92% | 8% |
| 25. Sant Gervasi - la Bonanova | 98% | 49% | | 92% | | 64% | 0% | | 12% |
| **BARCELONA** | 92% | 76% | 16% | 63% | 20% | 47% | 55% | 96% | 11% |

Streets diagnosis

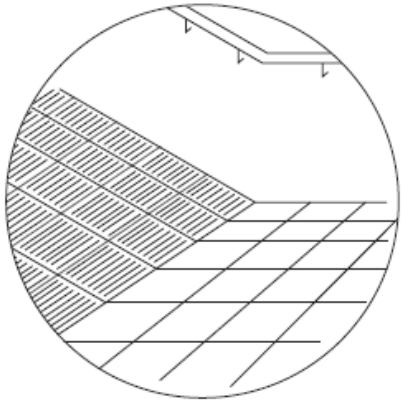
# 2.6 Quality of pavement



Pavement of non-leveled cobblestones



Faults in> 50% of the street

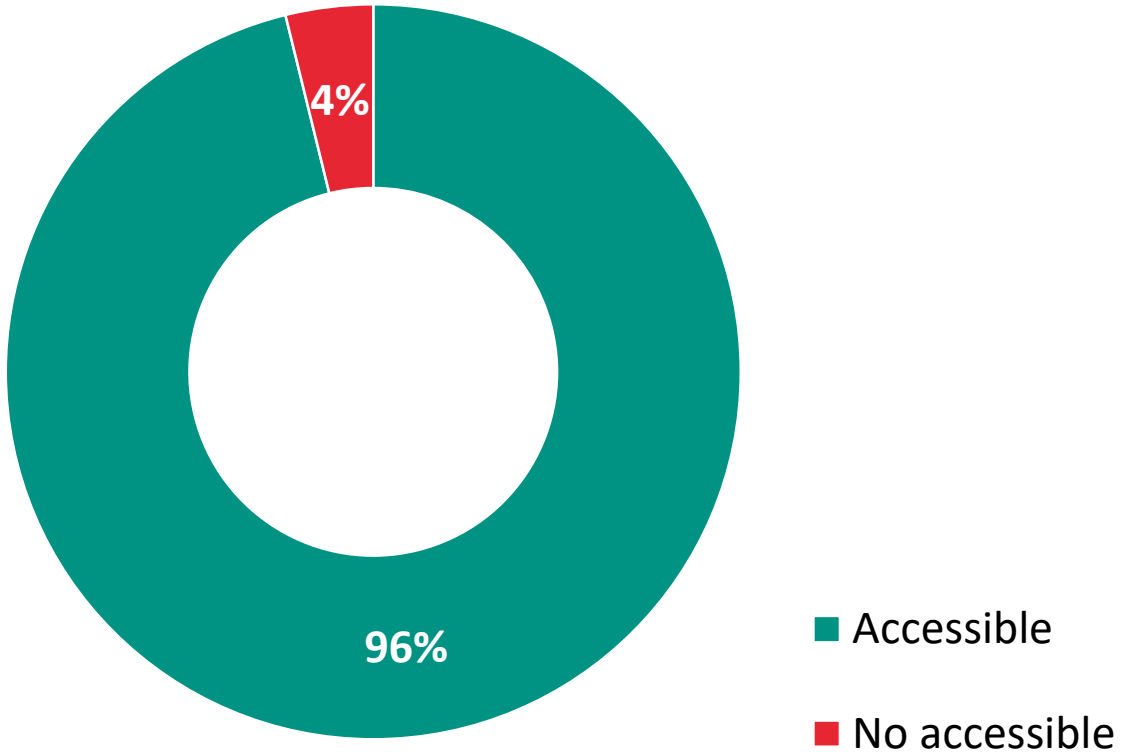


Strong slope without non-slip measures

Streets diagnosis

# 2.6 Quality of pavement

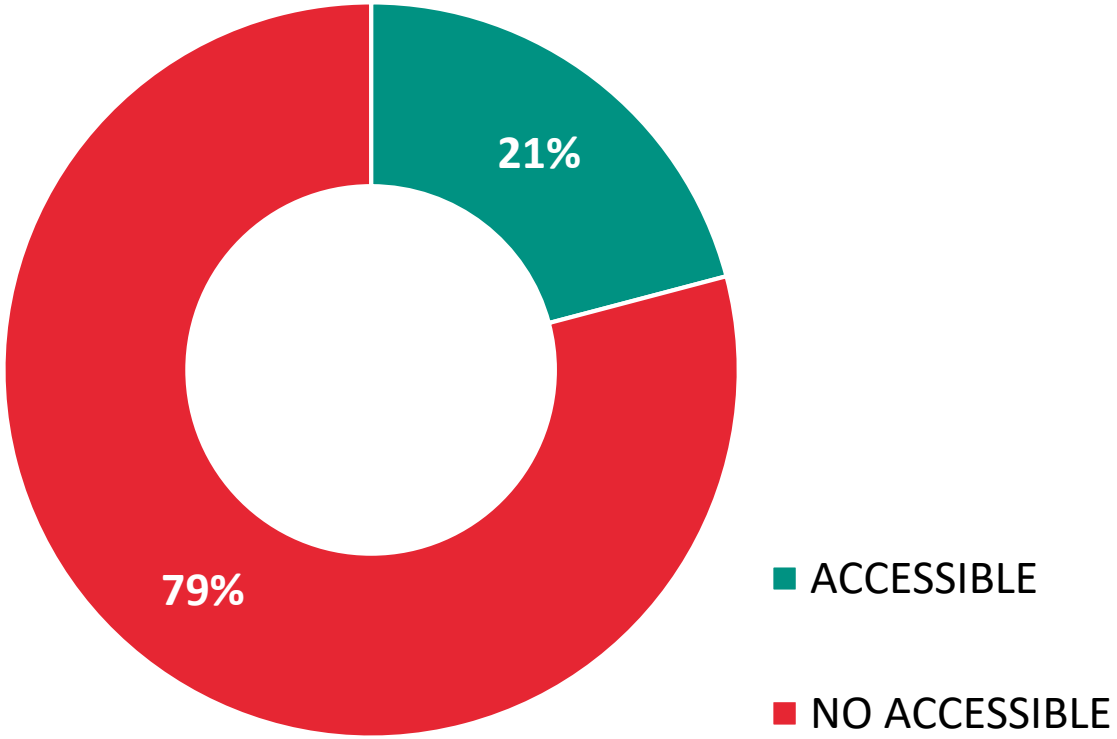
Pavement accessibility BARCELONA



Streets diagnosis

# 2.7 Quality of changes of level

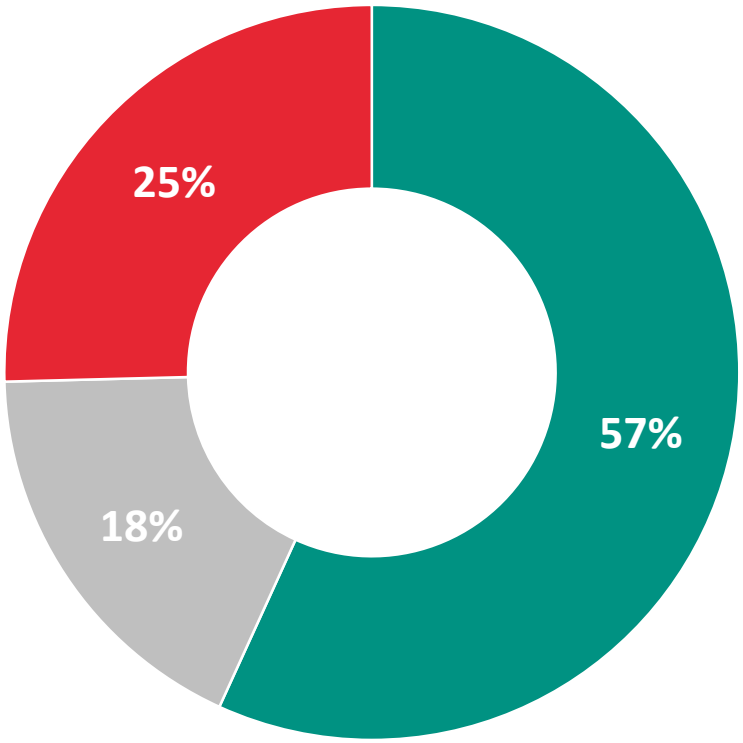
Change of level accessibility BARCELONA



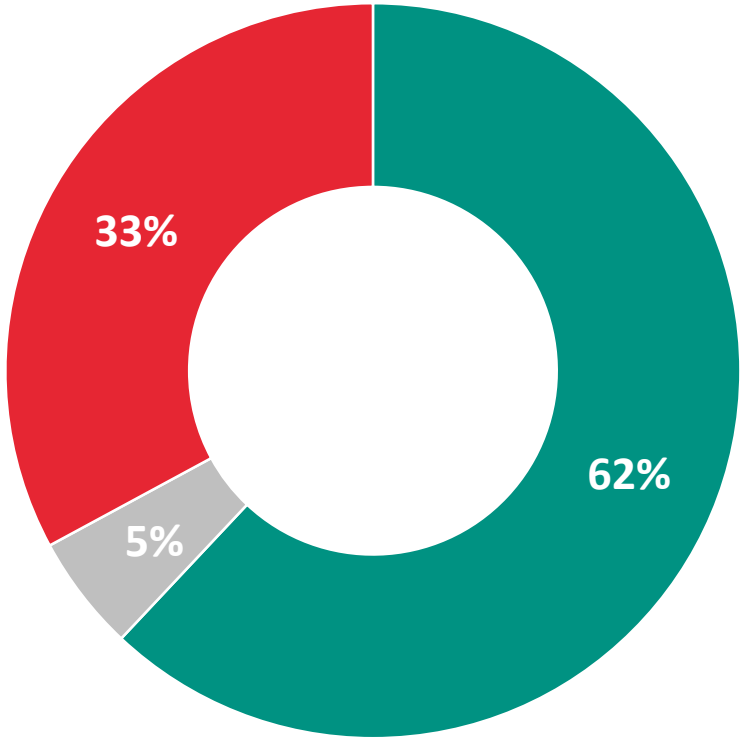
Streets diagnosis

# 2.8 Quality of tactile paving

Tactile paving accessibility
BARCELONA




Directional tiles

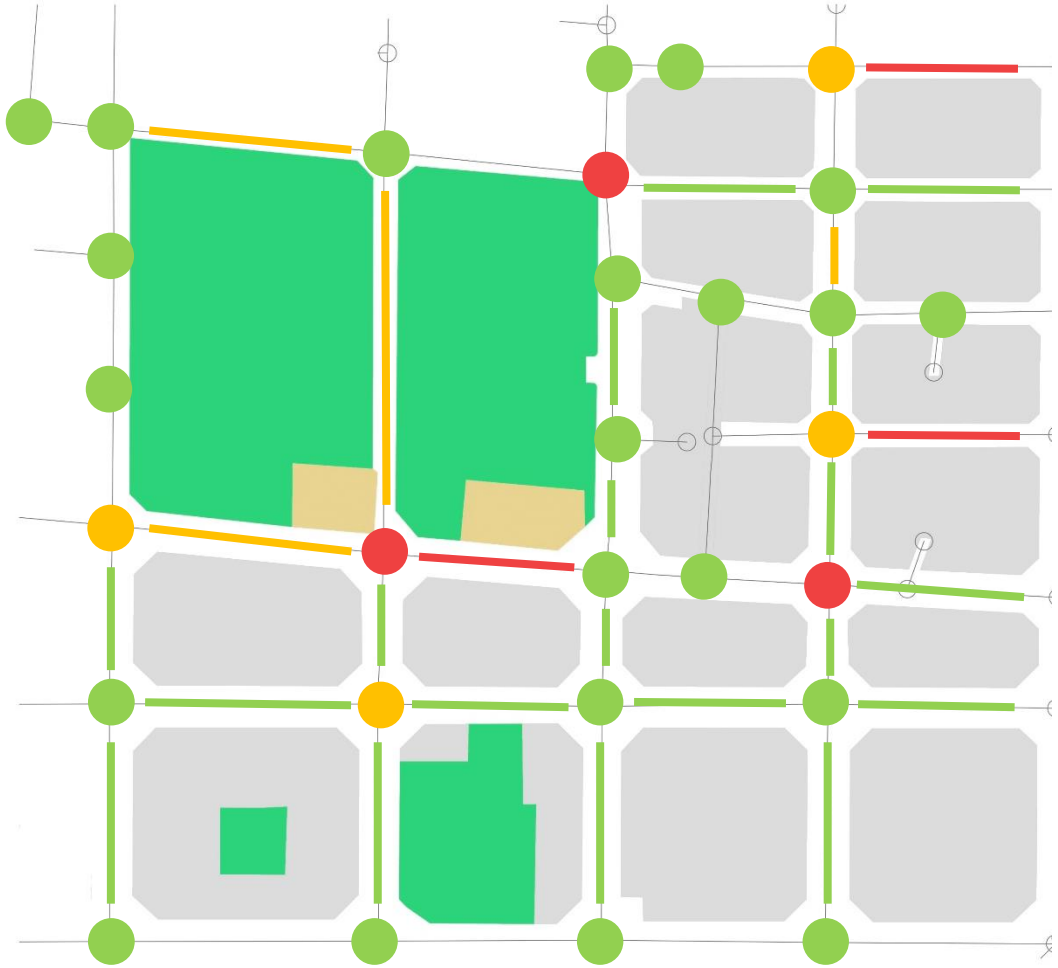



Button tiles

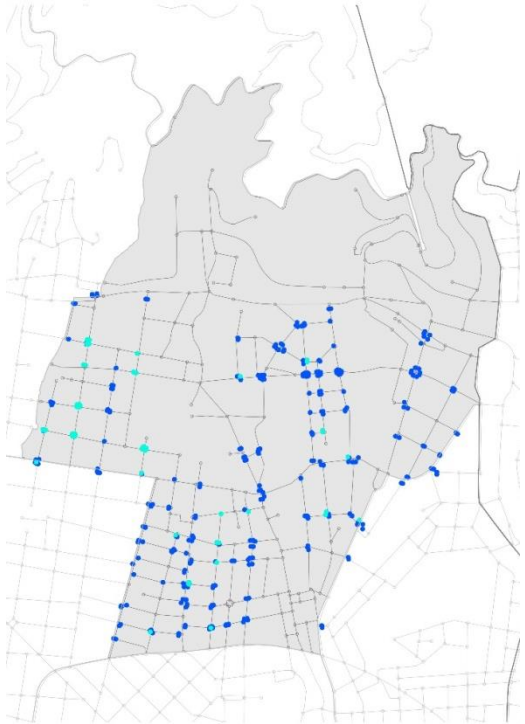
# 03
# Planning

# Planning
# 3.1 Short-term planning

## Areas of intervention
Concentration of incorrect parameters



## Priorization
Based on evidences



Dropped kerb with steps

Dropped kerb with slope <12%

## Accessibility of proximity

According to the diagnosis, it seems strategic to improve physical accessibility not only in the city and district centers, but in the neighborhoods of the city. This improvement, in collaboration with the districts of the City, should allow improving accessibility in streets, transport and commerce. Linked to the right to the city, accessibility must be specified in the municipal and district investment programs.

## Communicative accessibility

Improve the communicative, cognitive, content and product accessibility in the different services and spaces of the city. This is a challenge which involves also the private sector. Public and private investment and collaboration are necessary.

# Q&A

IMPD planning and evaluation
paub@bcn.cat

Sergi Morera
smorera@bcn.cat

Ajuntament de Barcelona



21

# ¡Gracias por su atención!

IMPD planning and evaluation
paub@bcn.cat

Sergi Morera

smorera@bcn.cat