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CES4KIDS

Sustainable Urban Mobility Plan

Agrupamento de Escolas da Cidadela (AEC), Cascais, Portugal

AGRUPAMENTO DE ESCOLAS DA CIDADELA
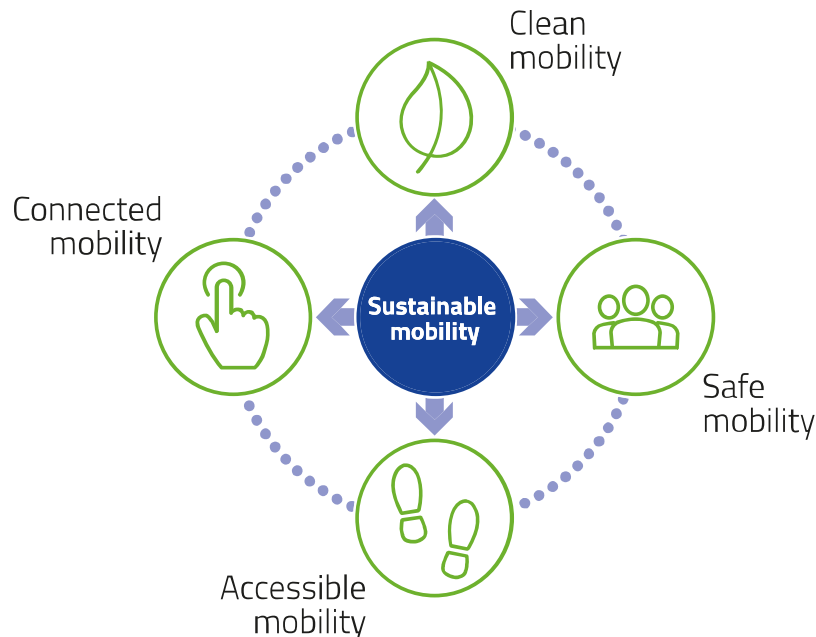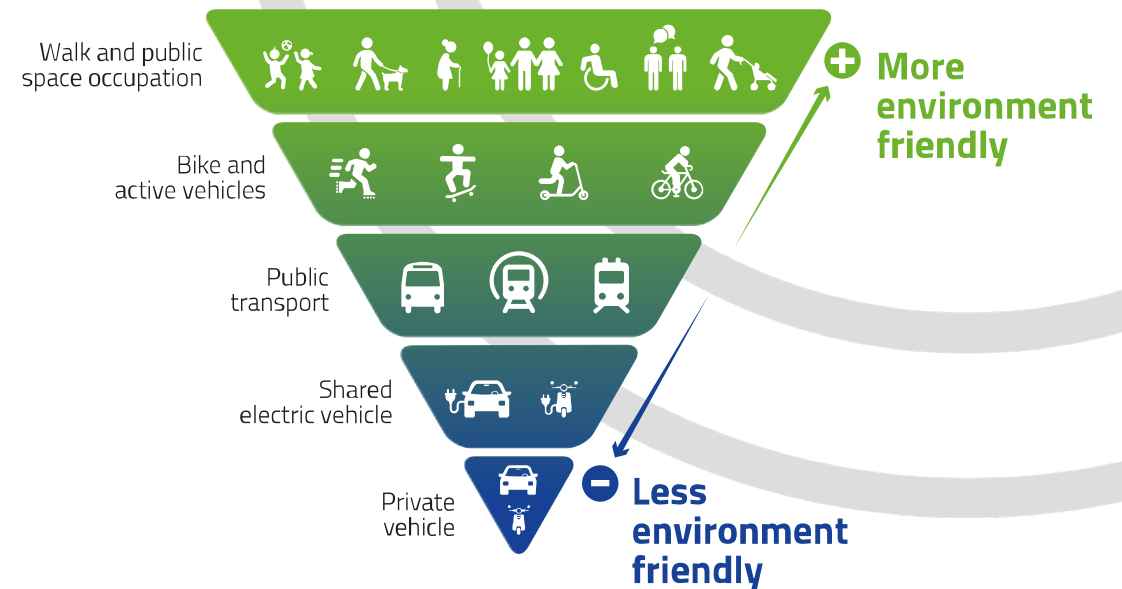
1. Vision

"Our school wants to improve the modal shift towards more sustainable modes such as active mobility (walking and bicycle) and public transport, which in turn seeks to minimize energy consumption and the negative effects on the environment and people's quality of life"

Clean mobility

Connected mobility

Sustainable mobility

Safe mobility

Accessible mobility

These four pillars consider the whole mobility ecosystem, having an impact on the people, the environment, the infrastructure and the technology.

Walk and public space occupation

Bike and active vehicles

Public transport

Shared electric vehicle

Private vehicle

+ More environment friendly

– Less environment friendly

The preference in public spaces and roads will be higher for the more environmentally friendly transport modes, while the most polluting forms will be a lower priority.

CES4Kids' main objective is to deliver a complete and direct participation experience to children and youth in the co-creation of mobility planning, while at the same time enabling the design of solutions aimed at improving mobility around schools which will suit better the needs and preferences of school pupils.

CES4Kids objectives

- Empower children and youth with the acquisition of knowledge and technical capabilities to address mobility challenges in order to make them actors of change

- Raise wider awareness of the sustainable mobility cause and influence school pupils' mobility behaviour to speed up change towards more sustainable mobility habits

- Give voice and prominence to school pupils in mobility strategic planning and decision-making processes

- Understand better pupils' mobility behaviour and preferences.

- Develop school pupils' capabilities in critical thinking, communication, networking, negotiation, problem resolution, leadership, entrepreneurship, civic engagement and social justice

2. School's Mission

Specific mission of each school:

Sustainable Mobility Plan objectives

- Promote active mobility and public transport modes for daily trips to school

- Reduce air and noise pollution and traffic congestion levels in the school surroundings

- Achieve a safer environment for children and youth in the school environment

- Ensure public space and transport accessibility for everyone

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3. Methodology

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Information

Teaching of educational content with children
Pupils learn the main principles and concepts of sustainable mobility

Celebration of knowledge transfer and raise awareness events
Pupils visit public and private entities that work on the sustainable mobility field

Diagnosis

Hands-on learning in the urban environment
Pupils assess the urban environment of their school to identify barriers to a more sustainable mobility

Collection of data from children and families
Pupils and families answer a survey regarding their mobility habits and their preferences

Proposals

Participation process: Session 1
Pupils put in common the diagnosis and elaborate their own improvement proposals

Prioritisation

Participation process: Session 2
Pupils debate, vote and prioritise the improvement proposals playing a role game which involves different stakeholders

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4. Diagnosis

Description of the identified problems in your school's surrounding

A lot of traffic, especially in the peak hours

Degraded and too narrow sidewalks

Lack of ramps on the sidewalks

Bus stops in poor condition (without safety areas, benches, etc.)

Public transport vehicles without systems adapted to people with reduced mobility (e.g., wheelchair users, baby cars)

Lack of bike parking systems near the school and bad condition of the existing parking

Scarce number of shared Bicycles and Scooters near the school

Incomplete cycle paths in the municipality

Graphic documentation of the problems

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5. Action Plan

List of all Actions
(Number and Name)

	Clean	Safe	Accessible	Connected
1. Improve pedestrian areas		✓	✓	
2. Improve public transport system		✓	✓	
3. Improve bike parking near school	✓	✓		
4. Improve the shared bicycle and scooter system		✓		✓
5. Manage the traffic system around the school	✓	✓		✓
6. Manage the bus stops to improve the traffic		✓		✓
7. Improve cycle lanes and the bicicle sharing system	✓	✓		
8. Promote the zero CO2 emission transport	✓			

5. Action Plan

Action N.º 1 – Improve pedestrian areas

Description of the problem

There are accessibility problems in the school environment that cause constraints in the movement of the school community, namely: the existence of degraded and too narrow sidewalks, lack of ramps on the sidewalks and existence of staircases to cut the route, without options for people with reduced mobility.

Goal (s)

Improve the mobility of the whole population and in particular the school community;

Make public space more comfortable to promote pedestrian travel;

Description of the action

It is proposed to increase the size of the sidewalks; the arrangement of areas in poor condition and the creation of ramps in strategic locations.

Choose which of the 4 pillars of mobility your action influences
(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

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5. Action Plan

Action N.º 2 – Improve public transport system

Description of the problem

There are accessibility problems associated with the public transport network that serves the school area, namely the existence of stops in poor condition, without safety areas, without coverage for rain; and the existence of public transport vehicles without systems adapted to people with reduced mobility (e.g. wheelchair users, baby cars).

Goal (s)

Improve the spaces associated with transport to attract the population to their use;

Improve the characteristics of public transport vehicles so that the transport system is inclusive for the whole community;

Description of the action

It is proposed to create more comfortable spaces for bus stops, with a quality environment in terms of access and the adaptation of public transport vehicles so that they have access ramps to facilitate the mobility of people with reduced mobility.

Choose which of the 4 pillars of mobility your action influences
(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

5. Action Plan

Action N.º 3 – Improve bike parking near school

Description of the problem

There are problems in the bike parking system at school. Parking conditions at school and outside are bad (few places, degraded infrastructure, insecurity sentiment), forcing parking on school bars.

Goal (s)

Improve bike parking infrastructure at the school door, in a space with quality and safety, to attract more students and teachers to travel by bike to school.

Description of the action

It is proposed to create parking spaces for bicycles with availability for a greater number of bicycles and with better quality (protected from rain, with safety systems, with space to store helmets).

Choose which of the 4 pillars of mobility your action influences
(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

5. Action Plan

Action N.º 4 – Improve the bike and scooter share system

Description of the problem

Although there is a stop of the Shared Bicycle and Scooter System right in front of the school, the number of bicycles/scooters available is very scarce (e.g. it is insufficient for a group of friends to go to the city centre by Bike)

Goal (s)

Increasing the number of shared bicycles/scooters at the point in front of the school will promote their use more frequently by pupils, not only for sporadic journeys (e.g. lunch to the city centre) but also on home-school trips.

Description of the action

It is proposed to increase the infrastructure associated with shared bicycles and scooters to increase the number of vehicles available at the school door.

Choose which of the 4 pillars of mobility your action influences

(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

5. Action Plan

Action N.º 5 – Manage the traffic system around the school

Description of the problem

Next to the school there are great difficulties of circulation, with areas of great congestion, especially at peak times, generating high levels of pollution, and road insecure.

Goal (s)

Review the management of road traffic in the school environment to create a space with better circulation but also safer and where pedestrians, cyclists and vehicles can live together

Description of the action

It is proposed to condition traffic in the school area, especially in peak periods, to avoid high levels of polluting and road accidents, through the creation of a traffic plan, considering areas where is prohibited to stop and creating specific areas of peak and ride.

Choose which of the 4 pillars of mobility your action influences

(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

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5. Action Plan

Action N.º 6 – Manage the bus stops to improve the traffic

Description of the problem

In the school area there is a great congestion at rush hours, due to the high flow of parents who will leave the students, but also by the proximity to large equipment flows of high demand (court), and public transport blocks the main roads next to the school.

Goal (s)

Relocate bus stops around the school in order to avoid congestion and road accidents;

Create a traffic conditioning system in this area that brings together various equipment with great demand (secondary school and court).

Description of the action

It is proposed to relocate some bus stops and the conditioning of traffic to cars.

Choose which of the 4 pillars of mobility your action influences
(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

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5. Action Plan

Action N.º 7 – Improve cycle lanes and the bicicle sharing system

Description of the problem

In the school area there is a great shortage of shared vehicles (bicycles/scooters) for the school population as well as there is incomplete cycle paths in which the routes interrupted and areas of high insecurity.

Goal (s)

Close the missing sections of bike lanes to connect several routes to the school and thus promote the use of the Bicycle/Scooter in the home-school trip;
Increase the number of shared System vehicles available in the city to make them useful for the daily life.

Description of the action

It is proposed to finish the sections of bike paths that are missing to connect several routes to the school; e Increase the number of shared system vehicles available throughout the city.

Choose which of the 4 pillars of mobility your action influences

(leave the title of all that apply and delete the rest)

Clean Mobility

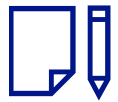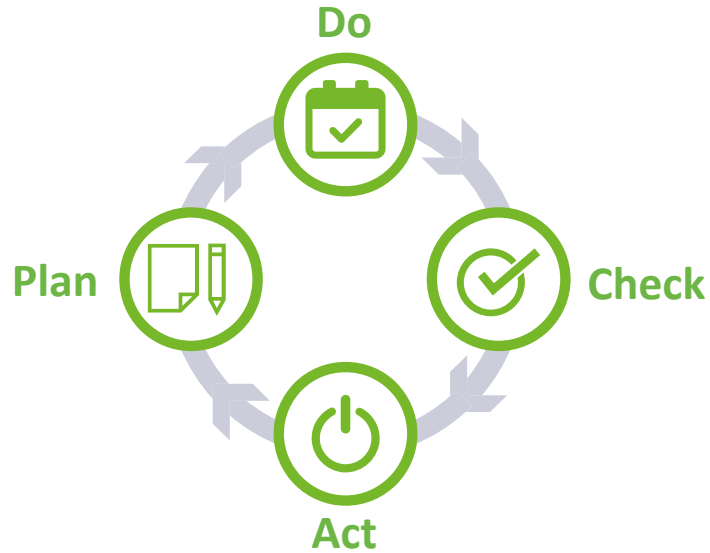**Safe Mobility**

Accessible Mobility

Connected Mobility

Link to video or solution map

Urban Mobility

5. Action Plan

Action N.º 8 – Promote the zero CO2 emission transport

Description of the problem

Throughout the city, there are major environmental problems related to mobility due to high CO2 production.

Goal (s)

Promote environmentally friendly mobility with zero CO2 emissions.

Description of the action

It is proposed to promote the existence of shared active transport system and adaptation of the public transport system for clean vehicles.

Choose which of the 4 pillars of mobility your action influences
(leave the title of all that apply and delete the rest)

Clean Mobility

Safe Mobility

Accessible Mobility

Connected Mobility

Link to video or solution map

Urban Mobility

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6. Monitoring

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PDCA Cycle

For achieving continuous improvement

Do

Plan

Check

Act

Recognise an opportunity and **plan a change**

Implement the change, the **proposal**

Review, evaluate, and identify lessons learned

Take **actions** to continuous improvement

Primary objective

To evaluate any impacts on pupils caused by the actions implemented.

Check

- **Evaluate data and results** collected from previous phases.

- Compare with expected results to **identify similarities or differences**.

- Identify if there were **changes from the original state** of the context.

- Identify changes in a) students' **mobility patterns**, b) **knowledge on sustainable mobility**, and c) **perception of schools' environments**.

How to carry out the monitoring (check)?

Develop every 2 years

- Based on the one carried out within CES4Kids.

- Questions selected according to the information needed by each school.

6. Monitoring

CES4KIDS

Suggested survey structure and content*

Small survey
develop every
2 years

*Each school can include or
remove questions according to
their needs.

1
Sociodemographic Information

- Age
- Gender
- School
- Academic year

2
Information on Mobility Patterns

- Main mode of transport to get to and from school
- Length of the journey (round-trip)
- Level of mobility independency

3
Perceptions on Schools' Surroundings

- Do they like their schools' surroundings?
- Do they feel safe?
- What changes would they make?
- FAQ, suggestions ands comments

4
Knowledge on Sustainable Mobility

- What is Sustainable Mobility (SM) for them?
- Which are the 4 pillars of SM?
- Students' and families' mobility habits

6. Monitoring

Diagnosis Matrix

1. Before the process

Sustainable Mobility Pillars

Action	Clean	Safe	Accessible	Connected
Action 1 Improve pedestrian areas		🚦	⚠️🚲	
Action 2 Improve public transport system		🚗💥	ℹ️	
Action 3 Improve bike parking near school	CO₂	🪖		
Action 4 Improve the shared bicycle and scooter system		🪖	ℹ️	
Action 5 Manage the traffic system around the school	CO₂	🚗💥	⚠️🚲	

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6. Monitoring

Diagnosis Matrix

1. Before the process

Sustainable Mobility Pillars

Action	Clean	Safe	Accessible	Connected
Action 6 Manage the bus stops to improve the traffic		🚗💥🚶	ℹ️	
Action 7 Improve cycle lanes and the bicicle sharing system	CO_2	🚴		
Action 8 Promote the zero CO2 emission transport	CO_2			

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Thank you!

For more information, please contact:
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