



ClairCity: Citizen-led air pollution reduction in cities

ClairCityMutual Learning Workshop- Aveiro Region, PT

April 2018

Report – web version

1 Document Details

Authors	Myriam Lopes and Joana Ferreira, UAVR
Contact	Myriam Lopes, UAVR Email: myr@ua.pt
Creation Date	February 2018
Date of Last Revision	April 2018
Description	This report is one of the deliverables on the task of WP 4.4.1. Mutual Learning Workshops (MLW). The workshop was held with stakeholders to share and discuss the health risk factors of their changing city environment now and within the timescale of the future scenarios (2020-2030-2050). The current report contains the general concept, the summary of the MLW, the scenario outputs and conclusions

1.1 Version History

Version	Updated By	Date	Changes / Comments
V1	Myriam Lopes, UAVR	Februar 2018	Version 1
V2	Eva Csobod, REC	April 2018	Version 2
V3	Myriam Lopes, UAVR	April 2018	Version 3
V4	Corra Boushel UWE	November 2018	Version 4

1.2 Contributions and Acknowledgements

The authors would like to thank the following people for their important contributions used in the preparation of this final document.

Quality Assurance	Corra Boushel (UWE), Eva Csobod (REC)
Native Language Check	Corra Boushel (UWE)
Project internal comments	Internal comments ask for detailed information on the stakeholder groups and the conclusions of the MLW.

Contents

- 1 Document Details..... 2
 - 1.1 Version History 2
 - 1.2 Contributions and Acknowledgements 2
- 2 Executive Summary 4
- 3 Introduction 5
- 4 Mutual Learning Stakeholder Workshop in the Aveiro Region 6
 - 4.1.1 MLW Concept and Workshop Aim 6
 - 4.1.2 Participants and organisations 6
- 5 Minutes of the Mutual Learning Workshop 7
 - 5.1.1 Introduction..... 7
 - 5.1.2 Plenary session 7
 - 5.1.3 Working Group One..... 8
 - 5.1.4 Working Group Two..... 9
 - 5.2 Summary of table discussions 10
- 6 Appendix A - Logistics 14
 - 6.1.1 Facilitators 14
 - 6.1.2 Logistics..... 14
 - 6.1.3 Resources 14
- 7 Appendix B – Agenda 15

2 Executive Summary

As part of the ClairCity project, the Mutual Learning Workshop (MLW) brought together stakeholders from health, public transport, energy and air quality to discuss the future visions for the Aveiro Region. The Aveiro Region (CIRA) MLW was held on the 28th of February 2018.

For 2020, the main visions and ideas discussed for the Aveiro region were related to:

- the need of awareness for teachers (to engage children and parents), politicians, citizens,
- the use of IT platforms,
- improving the air quality network and monitoring of indoor air quality,
- the promotion of strategies for environment and health protection, namely promote the use of bicycles / bike paths, less cars,
- electric public transportation,
- creating green corridors / forests to guarantee emission reduction
- energy and resources efficiency.

Regarding the horizon of 2050, participants were more ambitious. Their ideas covered the following:

- citizenship / commitment / behaviour / values
- increased inspection
- city maps of air quality
- more efficient housing / fireplace certification
- better public transport network combined with parking outside city center,
- car sharing,
- ban car traffic in cities,
- create free public transport network, throughout the region,
- zero emission zones towards resilient cities.

The main challenges and barriers identified were:

- need to change mentality / lack of individual awareness, ignorance
- promote participation and opinion of citizens
- fight against car lobby and energy, capitalism
- willingness to change and improve / resistance to change, egocentrism, fear
- lack of good environmental leadership/ inadaptability of policies / functioning of local policy systems
- lack of incentives for cleaner behavior and public participation / tax incentives

3 Introduction

This activity is part of the work package Citizens and Stakeholder Engagement, WP4.4 – Citizens and their Health, Task 4.4.1 Mutual Learning Stakeholder Workshop.

The aim is to empower citizens to better understand the specific challenges and opportunities that their city currently offers and engage them into moving towards reduce pollutants emissions and carbon footprints, improved air quality and decreased health risks. This is achieved as part of overall perceptions and ideas of citizens on sustainable lifestyles and a *'better quality of life'* within their city in the future. The main outcomes will support the policy development of the cities towards 2050 in the field of integrated city planning, air quality and climate change.

REC (WP4 lead) are responsible for the design of the Mutual Learning Stakeholder Workshops (henceforth, Mutual Learning Workshops or MLW); the content, methodology, structure, the potential stakeholders and timeframe. The MLW is implemented by the partners and cities/regions.

4 Mutual Learning Stakeholder Workshop in the Aveiro Region

The Aveiro Region (CIRA) MLW was held on the 28th of February 2018, at the Department of Environment and Planning, University of Aveiro.

4.1.1 MLW Concept and Workshop Aim

The MLW is designed for stakeholders who are engaged in environment, health issues and policies.

The aim of the event is to discuss and identify routes to a “clean air”, healthy, zero-carbon region by 2050 by understanding specific challenges and opportunities for organisations, and engaging them to identify actions, milestones and priorities.

4.1.2 Participants and organisations

Participants from different municipal and regional organizations (NGO's) on mobility, environment and health and governmental entities as the regional directorates of environment and health were invited by the city partner CIRA.

5 Minutes of the Mutual Learning Workshop

5.1.1 Introduction

The welcome, introduction to the ClairCity project and the MLW goal was given by Dr Myriam Lopes and the Executive Secretary of CIRA, José Eduardo Matos. They highlighted the importance of this type of initiative for the development of the region.

Participants were asked to read the information sheet and sign the consent form and the list of participants.



5.1.2 Plenary session

The aim of the plenary was to give an overview of the air pollution problems in the Aveiro Region and to present past and ongoing research on methods to improve air quality, wellbeing and protect human health. Carlos Borrego (professor at the Dept Environment and Planning, University of Aveiro) and Margarida Coelho (Assistant Professor at the Dept of Mechanical Engineer, University of Aveiro) were invited to speak.

Carlos Borrego gave a brief introduction and presented case studies where modelling tools were applied to test measures (influence of trees, route options, ...) to improve air quality, reduce human exposure and increase human comfort. Margarida Coelho introduced her research group of Transportation Technology and its main fields of research, the concept of Intelligent Transport Systems (ITS) and Advanced Transport Mobility Systems (ATMS). She presented the aims and expected outcomes of three ongoing projects. The @CRUiSE: Advanced Impact Integration Platform for Cooperative Road Use, includes a mobile app, a GIS model with noise, emissions and costs data, and an On-Board Platform of Sensors for Enhancing Safety of Cyclists. MobiWise: from mobile sensing to mobility advising, is aiming to design a 5G platform with an infrastructure of sensors, people and vehicles. Data storage in a cloud to manage the data. The project CISMob is tackling the mobility challenges in the Aveiro Region, promoting innovative actions to reduce our carbon footprint and increasing sustainability with more efficient use of urban transport infrastructures.



After the talks, there was time for a general discussion on the topics addressed by the speakers.

After the Plenary Session, participants were invited to move to the other room and sit in groups of 4 or 5 people around each table with a facilitator.

5.1.3 Working Group One

Before starting each participant presented themselves and the organisation they represented. The team members (facilitators and helpers) were also introduced to the whole group.

Myriam Lopes presented the first activity - Actions and Scenarios - Visions for the year 2020 in the Aveiro Region. Within their group, each participant was invited to present the material brought about actions that contribute to the environment and health in the region. Since just one or two participants brought a leaflet, the facilitator encourage participants to share in the group the contribution of their organization to make the Region of Aveiro healthier, with a cleaner air and smaller carbon footprint, in the present/ near future.

For 2020 the main visions and ideas discussed for the Aveiro region were related to:

- the need of awareness for teachers (to engage children and parents), politicians, citizens,
- the use of IT platforms,
- improving the air quality network and monitoring of indoor air quality,
- the promotion of strategies for environment and health protection, namely promote the use of bicycles / bike paths, less cars,
- electric public transportation,
- creating green corridors / forests to guarantee emission reduction
- energy and resources efficiency.

The second part of this working group was a reflection on visions for 2050. Each participant shared their visions for 2050 on behalf of their organisations, and set goals to achieve by 2050.

Regarding the horizon of 2050, participants were more ambitious. Their ideas covered the following aspects:

- citizenship / commitment / behaviour / values
- increased inspection
- city maps of air quality
- more efficient housing / fireplace certification
- better public transport network combined with parking outside city center,
- car sharing,
- ban car traffic in cities,
- create free public transport network, throughout the region,
- zero emission zones towards resilient cities.

Before sharing the ideas proposed by each group, a coffee-break was provided. During the coffee break participants were encourage to observe the posters, read the visions of the other groups, and reflect on the following questions:

- Is it realistic to achieve the goals set for 2050?
- Will it involve major changes?

5.1.4 Working Group Two

Reflections from the first working group were shared before moving on. This second working group activity consisted of two parts. In the first part, participants were asked to think about the main challenges and barriers to reach the goals and ambitions posted for 2050 and write them on post-its. Then, to overcome the identified challenges and barriers, participants had to propose actions and strategies to be implemented in 2030 and prioritize them. These actions were written on post-it notes of a different colour and posted next to the corresponding challenge/barrier.



Once again, participants had the opportunity to share their proposals with the others. The main challenges and barriers identified were:

- need to change mentality / lack of individual awareness, ignorance
- promote participation and opinion of citizens
- fight against car lobby and energy, capitalism
- willingness to change and improve / resistance to change, egocentrism, fear
- lack of good environmental leadership/ inadaptability of policies / functioning of local policy systems
- lack of incentives for cleaner behavior and public participation / tax incentives

5.2 Summary of table discussions

Activity	Group 1	Group 2	Group 3	Group 4
Visions 202	<ul style="list-style-type: none"> • Promotion, from kindergarten to high school, of educational programs and projects, actions, events, on sustainable development (mobility, energy efficiency, eco-schools, environmental management of schools, awareness of food waste, forests, noise, ...) • alerts on social media and online platforms about the environment based on complaints or events • PLeaflet about the project "Santo Cabeço" (project created after a major fire occurrence, aims to restore and protect the remaining native vegetation in a small town of Agueda - Belazaima do Chão) • regional development projects under the national environmental education strategy and national strategy for air • CCDR-C has an ongoing project called "better air in the center" which aims to improve the air quality network for more and better information on the air quality in the region 	<ul style="list-style-type: none"> • There is a company in Gafanha da Nazaré that promotes the use of bicycles giving an extra day of annual leave for those who bike to work • By 2020, it is planned to create 30 km of cycle paths in Ílhavo • 300 students from Gafanha da Nazaré use the bike daily. Project: "The future of cities is the bicycle" aims to replace the car by the bike • Entrepreneurship competition (increase the number of projects related to the quality of the bicycles) • C MARKET (from 2012, 2013): awareness-raising for the reduction of carbon footprint, more efficient processes and energy efficiency certification • Proposal presented to the City Hall to provide bicycles, allowing mobility between services • Leaflet of project UAU BIKE.PT. Provision of bikes to the academic community (teachers, students and staff) to increase the use of bicycles instead of the car 	<ul style="list-style-type: none"> • pedagogy to the community, better conditions/ public policy pressure • reduce car use /increase bicycle use • Measures to reduce particulate emissions in port activity, evaluation of air quality in Gafanha da Nazaré; • Air quality information to the population • energy efficiency measures • support to University of Aveiro studies on air quality or health. 	<ul style="list-style-type: none"> • implement a plan towards low carbon emissions, considering water, energy and waste • implement measures of energy efficiency (namely in transport sector), and efficient use of resources • monitor and assess indoor air quality (particularly in health services), including the definition of control measures to prevent exposure • raise awareness of workers and users of health services, politicians and citizens in general for environment and health related problems • monitor atmospheric emissions of point sources (related with health services emissions) and verify legal compliance • promote research, through financial grants, related with health and exposure to environmental key factors • renew the bus fleet using cleaner technology and introduce new electric bus in Aveiro region public transportation network • Supervise the industrial activity

<p>Visions 2050</p>	<ul style="list-style-type: none"> • absence of car parking in the center of urban areas • free network of electric buses or other public transports, throughout the region • tree planting in the cities and adjacent areas; creation of ecological corridors • no tolls on the A25 / A17 sections • network bike lanes across the region • creation of incentives for transport sharing (car, bike, boat sharing) • people commit to promote the sustainability of the planet and to contribute for the quality of life • inform people enabling them to opt for sustainable mobility, efficient use of houses and efficient use of resources, value the preservation of the environment • more enforcement to ensure compliance with environmental legislation • incentives for the use of cleaner technologies • environmental awareness 	<ul style="list-style-type: none"> • prohibit the circulation of private cars in cities, car parks in the peripheral areas • parking for bicycles/ safe infrastructures • rental of hybrid and electric cars • micro-cars / bicycles, "cool" bicycles • transport sharing • best electric public transport network (density, frequency and schedules) • certification of fireplaces • more efficient housing • more infrastructures prepared for cyclists in public services and companies 	<ul style="list-style-type: none"> • Non-polluting cars; • more and better legislation; • cities that are more sustainable, more resilient and closer to the citizen; • educated, more informed and more responsible citizen; • Efficient public transport network; • car-sharing; • increased use of pedestrian and cycling modes; 	<ul style="list-style-type: none"> • Reduction of private cars in cities • Proactive identification of pollution problems – diseases, indicators • Contact with nature (e.g. to understand and follow the food lifecycle) • Knowledge and education (need to know the planet to protect it), training and information • Integrated mobility policies, complementary modes (e.g. private car – bus – bike), efficient public transportation network • Return the city to citizens • Effective assessment of the cause-effect between diseases/ morbidity/ mortality and exposure to air pollution • Implement protective strategies – reduction of exposure (e.g. domestic, workplace, urban environments) • Municipal air quality maps as a decision-support system to include in urban planning • Urban road traffic management depending on AQ monitoring in real time, considering innovative tools of AQ monitoring and modelling.
<p>2030 – Challenges and Barriers</p>	<ul style="list-style-type: none"> • Capitalism - financial economy based on debt • fear and egocentrism, ignorance, lack of leadership and lack of will • lack of participative processes at community level, lack of policy makers with environmental conscience 	<ul style="list-style-type: none"> • mentality • land use/urban planning • participation and opinion of citizens • education and awareness • resistance to change • information and communication • fight against car and energy lobby 	<ul style="list-style-type: none"> • lack of individual consciousness; • change mentality; • economic interests of the car industry; • educate citizen and politicians; • function of political power; • change the way you act; 	<ul style="list-style-type: none"> • hard to change implemented habits and recognize the need to change, inertia • easier to think individually • Mismatch between citizens and the overall politicians • lack of financial support of individual citizens in their sustainable choices (e.g. non-pollutant

	<ul style="list-style-type: none"> • lack of incentives for more sustainable behaviours (use of bikes, walking and car sharing) • willingness to improve; • need of greater involvement and better supervision; • more and better information for full awareness of reality; • good environmental leadership 			<p>equipment or with low-emissions, change from private car to bike use)</p> <ul style="list-style-type: none"> • lack of connection between citizens and nature, lack of knowledge about environmental issues
<p>2030 – Actions and Priorities</p>	<ul style="list-style-type: none"> • alternative means of exchange, instead of using money • environmental awareness - the need to link health to the environment • invite the community to implement strategies, to take action and to monitor • press policy-makers for change • for more environmental monitoring: government guidelines with guaranteed involvement of more human and financial resources • education/ valorization of the essential role of each one in the promotion of behaviours that promote the sustainability of the planet and the quality of life (priority 1) • Promote awareness on sustainable mobility, energy efficiency, resource use and other that lead to environmental friendly decisions (priority 2) • education for citizenship and exercise civic participation (involving students, families, communities) (priority 3) 	<ul style="list-style-type: none"> • marketing • strategic vision for planning • certification of cities ("child-friendly city") • invest on information and awareness programs • more open school curricula • goals: establish the results to be achieved, with measurable goals 	<ul style="list-style-type: none"> • include in the programmatic content of the citizenship discipline concerns about air quality, health and carbon footprint (priority 1); • train politicians: create a proximity committee between university/ municipalities / citizens (priority 2); • prohibit the circulation of cars (mainly diesel), creating support structures (priority 3); • promote more efficient heating equipment (priority 4) 	<ul style="list-style-type: none"> • promote knowledge transfer between distinct sectors, disseminate knowledge and information • promote changes in citizens behaviour • define priorities that will promote shared mobility (e.g. public bus) • include air quality as a goal of the national policy program, including financial funds available to support that. • integrate effective measures within governance strategies at community and national levels • create urban planning management strategies oriented through citizens (e.g. smartphones app's for sharing of mobility solutions, efficient use of urban resources, strategies to improve and preserve well-being and lifestyle) • increase citizens' contact with environmental practices • link again citizens and nature in order to raise awareness on nature protection and preservation • raise awareness about climate change effects within CIRA,

	<ul style="list-style-type: none"> • promote opportunities for active participation in the education for sustainability. Each person contribute to his own sustainable development (priority 4) 			<p>reduce greenhouse gas emissions, remediate – planning for more extreme weather events</p> <ul style="list-style-type: none"> • perform environmental monitoring and assessment, including the implementation of more air quality stations • improve sustainable mobility, urban planning strategies, home-school-work-leisure accessibilities, promote non-pollutant public transportation.
--	--	--	--	--

6 Appendix A - Logistics

6.1.1 Facilitators

Myriam Lopes, the Portuguese coordinator of ClairCity, moderated the workshop, and a group of team members (from UAVR and CIRA) helped as facilitators and as room helping staff:

- Vera Rodrigues, UAVR
- Sílvia Coelho, UAVR
- Joana Ferreira, UAVR
- Olgra Cravo, CIRA

Room staff:

- Sara Silva, UAVR
- Carlos Faria, UAVR

6.1.2 Logistics

Two rooms were used, one for the plenary section and other for the group activities. Prior to the meeting, the tables were organized for group work, the posters were posted and materials were put on the tables. For the working group sessions, a series of power point slides were prepared and presented, aiming to help the moderator to explain the tasks and the participants to better understand what they were asked to do at each step.

6.1.3 Resources

- Participant sign-up sheet
- Participant information sheets
- Consent forms
- Large posters for: Aveiro Region 2020, Aveiro Region 2030, challenges and barriers, Aveiro Region 2050
- Ppt slide presentation

7 Appendix B – Agenda

The Aveiro Region (CIRA) MLW was held on the 28th of February 2018, it was held at the Department of Environment and Planning, University of Aveiro.

13:45	Arrival and sign in
14:00 Start	
14:00	Welcome (Myriam Lopes and José Eduardo de Matos)
14:10	Plenary session
	Carlos Borrego (DAO-UA) – “Air Quality in the Aveiro Region”
	Margarida Coelho (DEM-UA) – “Connected, Intelligent and Sustainable Mobility: the link between Scientific Research and Transport Policies”
	Discussion
15:00	Working Group I – Actions and scenarios
	Visions 2020
	Visions 2050
16:00 Coffee break	
16:15	Working Group II
	Challenges and barriers
	Actions, milestones and priorities
16:55	Feedback from groups and discussion
	Policies, strategies and actions – Visions 2020 to 2050
17:15	Conclusions/ closing words
17:30 End	