



D8.6: hackAIR workshop toolkit

WP8 – Communication, dissemination and exploitation



D8.6 hackAIR workshop toolkit

Document Information

Grant Agreement Number	688363	Acronym	hackAIR	
Full Title	Collective awareness platform for outdoor air pollution			
Start Date	1 st January 2016	Duration	36 months	
Project URL	www.hackAIR.eu			
Deliverable	D8.6 – hackAIR workshop toolkit			
Work Package	WP8 - Communication, dissemination and exploitation			
Date of Delivery	Contractual	31 December 2017	Actual	30 December 2017
Nature	Report	Dissemination Level	Public	
Lead Beneficiary	ON:SUBJECT			
Responsible Author	Inge Jansen			
Contributions from	Wiebke Herding, Elroy Bos, Fabiola Benavente (ON:SUBJECT), Arne Fellermann (BUND), Panagiota Syropoulou (DRAXIS), Lefteris Spyomitros (CERTH), Gavin McCrory, Carina Veeckman (VUB)			

Document History

Version	Issue Date	Stage	Description	Contributor
0.1	31/08/2017	Draft	First version of module 1 included in D8.5 Plan for Workshop Tour	Inge Jansen, Wiebke Herding (ONSUB), Arne Fellermann (BUND), Hai-Ying Liu (NILU), Panagiota Syropoulou (DRAXIS), Christodoulos Keratidis (DRAXIS)
0.2	14/11/2017	Draft	Draft for module 2 shared with partners	Inge Jansen (ONSUB), Panagiota Syropoulou (DRAXIS), Lefteris Spyomitros (CERTH), Gavin McCrory, Carina Veeckman (VUB)
0.3	12/12/2017	Draft	Internal consultation of full draft	Inge Jansen, Wiebke Herding, Elroy Bos (ONSUB)
0.4	19/12/2017	Final draft	Full draft shared with partners	Panagiota Syropoulou (DRAXIS), Arne Fellermann (BUND) Wiebke Herding (ONSUB)
1.0	28/12/2017	Final	Final deliverable ready for submission	

Disclaimer

Any dissemination of results reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Copyright message

© hackAIR Consortium, 2017

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both. Reproduction is authorised provided the source is acknowledged.

Table of Contents

1 Executive summary.....	5
2 Introduction.....	5
3 Overview of the workshop toolkit	5
6.1 Module 1: Introduction to air quality and citizen science.....	6
6.2 Module 2: Introduction to the hackAIR platform	6
6.3 Module 3: Build your own sensing device	6
6.4 Module 4: Air quality adventure	7
7 Additional resources.....	7
8 Next steps	8

1 Executive summary

This document contains the overview of the hackAIR workshop toolkit. In addition, you should have received a set of files containing presentations, handouts and facilitation guides. You can also download these from www.hackair.eu/downloads.

The purpose of the hackAIR workshop toolkit is to enable local organisers to easily set up engaging events that introduce hackAIR to potential users and ultimately help to build awareness and citizens' engagement on air quality. Workshops can be customised by selecting 1-3 workshop modules from the workshop toolkit, ranging from an introduction to air quality and citizen science to building your own sensing device and from an introduction to the hackAIR platform to an air quality safari.

2 Introduction

The hackAIR project develops an open technology platform that can be used to access, collect and improve air quality information in Europe. It is supported through the EU programme on "Collective Awareness Platforms for Sustainability and Social Innovation" until December 2018. hackAIR takes advantage of existing open and complementary community-driven data sources for collecting, analysing and sharing air quality measurements to community members through low-cost open hardware sensing devices easily assembled by citizens, web and/or mobile phones applications.

The project aims to encourage wide adoption of the hackAIR platform in order to build awareness and citizens' engagement on air quality. One of the tasks of Work Package 8 (Communication, Dissemination and Exploitation) is thus the organisation of the hackAIR workshop tour (Task 8.3). From the project description:

"As part of the project, hackAIR will organise a series of workshops to engage citizens around air quality and allow them to explore the hackAIR tools with a hands-on approach (e.g. building their own air quality monitoring station or participating in an air-quality photography excursion). Local host organizations will ensure the involvement both of local air quality advocates and the maker community. Workshops are envisaged to take place in Germany (multiple times), Oslo, Brussels, and selected other European locations such as Thessaloniki or Amsterdam. This tour will also provide opportunities for media coverage [...]. There will be at least 6 workshops. Based on the lessons learnt from the organisation of workshops, an online toolkit will be developed, which will empower organisations elsewhere to host their own workshops as well."

This workshop toolkit builds on the earlier deliverable D8.5 (Plan for hackAIR Workshop Tour), in which we describe the overall approach to workshop organisation, including timelines and a preliminary workshop schedule.

This deliverable also links directly to deliverable D7.3 (pilot training and testing materials) and builds on earlier work on engagement strategies and evaluation.

3 Overview of the workshop toolkit

hackAIR's workshop toolkit consists of four workshop modules. Each can be run as a separate workshop or they can be combined and adapted to provide a deeper learning experience for users. Each module contains material for a workshop lasting 60 to 90 minutes. Longer workshops are possible using multiple modules.

The hackAIR toolkit includes a facilitation guide, presentations and, where applicable, handouts for each module. In some cases, additional materials - such as electronics for sensors - will be needed.

All files listed below are available for download on <http://www.hackair.eu/hackair-workshop-toolkit>.

6.1 Module 1: Introduction to air quality and citizen science

A general introduction on air quality and why it matters, including main sources of air pollution and impacts on health and the environment. The module also covers how to measure air quality and what we can do to improve it. There will be a short, basic version containing the most important information and a more elaborate version to allow participants to dive deeper into certain aspects, e.g. the impact of different particles on human health or tips on decreasing your own exposure to air pollution.

Resources	Filename / Link
Facilitation guide	1_facilitation_guide.docx http://www.hackair.eu/wp-content/uploads/2017/02/1_facilitation_guide.docx
Presentation	1_slides.pptx http://www.hackair.eu/wp-content/uploads/2017/02/1_slides.pptx

6.2 Module 2: Introduction to the hackAIR platform

A hands-on session exploring the hackAIR platform. Participants download the app, create user accounts and explore data, maps and trends available. They will experience how they can contribute data and how these contributions make sense to their lives as well.

Resources	Filename / Link
Facilitation guide	2_facilitation_guide.docx http://www.hackair.eu/wp-content/uploads/2017/02/2_facilitation_guide.docx
Presentation	2_slides.pptx http://www.hackair.eu/wp-content/uploads/2017/02/2_slides.pptx

6.3 Module 3: Build your own sensing device

This is a hands-on workshop module, in which participants build their own open hardware sensing devices. Participants build and set up their own Arduino ('hackAIR home') or PSOC ('hackAIR mobile') sensing device to install outside their homes afterwards.

Resources	Filename
Facilitation guide	3_facilitation_guide.docx http://www.hackair.eu/wp-

D8.6 hackAIR workshop toolkit

	content/uploads/2017/02/3_facilitation_guide.docx
Presentation	3_slides.pptx http://www.hackair.eu/wp-content/uploads/2017/02/3_slides.pptx
Handouts	3_handout_home.docx http://www.hackair.eu/wp-content/uploads/2017/02/3_handout_home.docx 3_handout_mobile.docx http://www.hackair.eu/wp-content/uploads/2017/02/3_handout_mobile.docx

6.4 Module 4: Air quality adventure

This module brings the hackAIR platform to the streets. Participants are invited to go on an adventure to explore air quality in their neighbourhood. This can be by using the hackAIR app on their phones to take pictures of the sky in multiple locations, or – in addition – by taking a hackAIR mobile sensing device through the city to test them.

Resources	Filename
Facilitation guide	4_facilitation_guide.docx http://www.hackair.eu/wp-content/uploads/2017/02/4_facilitation_guide.docx
Handouts	4_handout.docx http://www.hackair.eu/wp-content/uploads/2017/02/4_handout.docx

7 Additional resources

To make life easier for local organisers, the workshop toolkit also consists of a set of additional materials that can be used in the preparation and follow-up of the workshops.

Resources	Filename
Checklist for workshop organisers	0_workshop_checklist.docx http://www.hackair.eu/wp-content/uploads/2017/02/0_workshop_checklist.docx

D8.6 hackAIR workshop toolkit

Promotional material	0_workshop_promotion.docx http://www.hackair.eu/wp-content/uploads/2017/02/0_workshop_promotion.docx
Feedback form	0_feedback-form.docx http://www.hackair.eu/wp-content/uploads/2017/02/0_feedback-form.docx
Post-workshop report	0_post-workshop-report.docx http://www.hackair.eu/wp-content/uploads/2017/02/0_post-workshop-report.docx

8 Next steps

In addition to the modules contained in this toolkit, hackAIR partners have also expressed interest in organising the following workshops:

1. **Making sense of data**

A workshop on data interpretation, making sense to the data collected, processed and provided by hackAIR and turning this data into action.

2. **Policy dialogue**

This workshop module focuses on how to bring together citizens, policy makers and experts around air quality and how to make use of the hackAIR platform in doing so. Local organisers facilitate dialogue on policy and measurements between users, makers, scientists, policy makers, health

Materials for these workshops are not included in this toolkit yet and will be prepared when needed. Partners will further explore the interest in these topics and will use the feedback from the pilots to feed into the development into additional toolkits.

Starting in early 2018, hackAIR partners are planning to organise workshops in Germany, Norway, Belgium, Greece and the Netherlands. Other organisations are welcome to use the materials provided to organise their own workshops: all materials are available freely for that purpose.

Feedback from the workshops will be essential to assess the impact and potential of hackAIR's open technology platform for air quality. Feedback forms will thus be made available to partners working on behavioural change techniques, evaluation and impact assessment and the pilot implementation. In addition, any feedback on the platform and its functionality will be provided to the hackAIR development team to enable continuous improvement.