

# TACKLING ENVIRONMENTAL THREATS with Grassroots Citizen Science

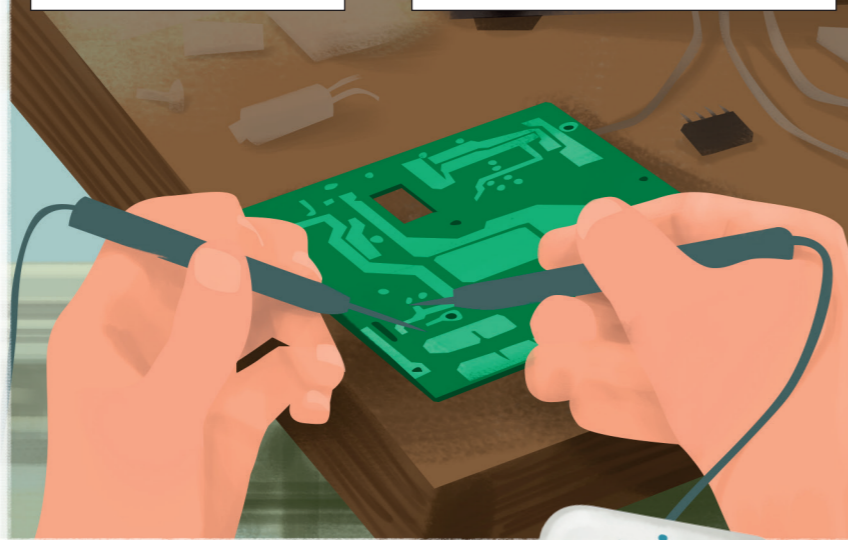
MICHEL VAN OUDHEUSDEN - ART WORK: HANS BOEYKENS

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AIR POLLUTION, EXTREME WEATHER CONDITIONS, AND OTHER ENVIRONMENTAL THREATS HAVE SPURRED A NEW FORM OF PUBLIC ENGAGEMENT WITH SCIENCE AND TECHNOLOGY CALLED ENVIRONMENTAL GRASSROOTS CITIZEN SCIENCE.



CONTRARY TO EXPERT-LED CITIZEN SCIENCE PROJECTS IN WHICH CITIZENS COLLECT SCIENTIFIC DATA FOR EXPERTS, THESE GRASSROOTS INITIATIVES EMANATE FROM THE BOTTOM UP, WITH CITIZENS DEVELOPING THEIR OWN MEASUREMENT TOOLS AND GENERATING THEIR OWN DATA.



ENVIRONMENTAL GRASSROOTS CITIZEN SCIENCE IS MARKEDLY ON THE RISE IN EUROPE, WHERE CITIZENS DEMAND POLICY ACTION AGAINST AIR, TRAFFIC, AND RELATED FORMS OF POLLUTION.



IT ALSO EMERGES IN OTHER PLACES ACROSS THE GLOBE, INCLUDING AMONG REMOTE COMMUNITIES LIVING UNDER EXTREME CONDITIONS, WHERE HUMAN SAFETY IS AT RISK AND ECOSYSTEMS ARE DIRECTLY THREATENED.



BY TAKING SCIENCE AND TECHNOLOGY INTO THEIR OWN HANDS, CITIZENS INCREASE PRESSURE ON PUBLIC AUTHORITIES AND SCIENTISTS TO IMPLEMENT A TRANSITION TOWARDS A MORE SUSTAINABLE FUTURE.

POLICYMAKERS, SCIENTISTS, BUSINESSES AND OTHER STAKEHOLDERS ARE TAKING NOTICE. SOME EXPERTS EXPRESS A WILLINGNESS TO WORK WITH THESE CITIZEN SCIENTISTS, WHILE OTHERS RAISE CONCERNS ABOUT THE SCIENTIFIC QUALITY OF THE DATA PRODUCED BY CITIZENS.



HOW THEN SHOULD WE IMAGINE ENVIRONMENTAL GOVERNANCE FOR A SUSTAINABLE FUTURE? WHAT (IF ANY) IS THE ROLE OF GRASSROOTS CITIZEN SCIENCE IN THIS PROCESS? AND HOW SHOULD GOVERNMENTS AND EXPERTS RESPOND TO CITIZEN SCIENTISTS AND THEIR DEMANDS?

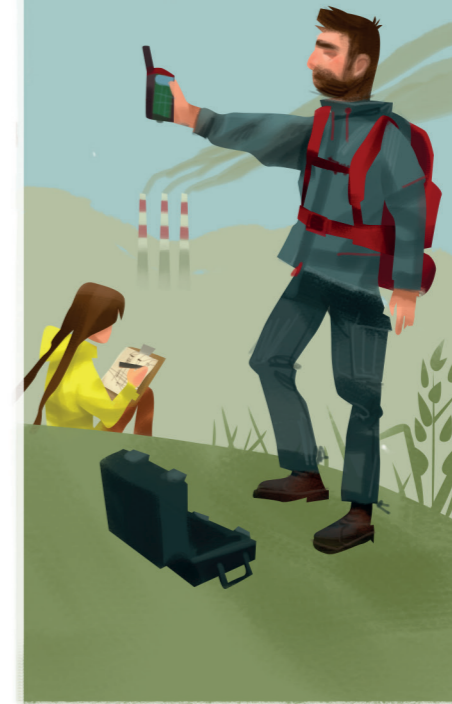
THIS RESEARCH PROJECT SEEKS TO DEVELOP ANSWERS TO THESE QUESTIONS IN CONSULTATION WITH ALL CONCERNED PARTIES.

**THIS INCLUDES  
YOU**  
Have your say here:

Or send us your views:  
[mpv28@cam.ac.uk](mailto:mpv28@cam.ac.uk)

YOUR THOUGHTS AND SUGGESTIONS WILL BE SHARED WITH CITIZEN SCIENTISTS, DECISION MAKERS, PROFESSIONAL RESEARCHERS, AND OTHERS IN A COORDINATED EFFORT TO IDENTIFY AND ADDRESS THE CHALLENGES AND PITFALLS OF ENVIRONMENTAL GOVERNANCE.

GRASSROOTS CITIZEN SCIENTISTS IN TURN VOICE CRITICISM OF INSTITUTIONAL SCIENCE AND ITS LINKS WITH INDUSTRY AND GOVERNMENT, ARGUING THAT SUCH CONNECTIONS INHIBIT KNOWLEDGE SHARING AND THE DEVELOPMENT OF A TRUE PARTICIPATORY SCIENCE CULTURE.



## THE GRACE RESEARCH PROJECT IN A NUTSHELL

HOW DO GRASSROOTS CITIZEN SCIENTISTS IN THREE WORLD REGIONS (EAST ASIA, WESTERN EUROPE, CENTRAL AFRICA) MOBILIZE DATA AND TECHNOLOGIES TO TACKLE ENVIRONMENTAL THREATS SUCH AS CLIMATE CHANGE? AND HOW DO PUBLIC AUTHORITIES AND SCIENTIFIC EXPERTS, AMONG OTHER ENVIRONMENTAL STAKEHOLDERS, RESPOND TO THESE PRACTICES? THIS RESEARCH PROJECT SEEKS TO DEVELOP ANSWERS TO THESE QUESTIONS, WITH THE AIM OF FACILITATING MUTUAL LEARNING AND RAPPORT BETWEEN ALL CONCERNED PARTIES. THE PROJECT IS LED BY DR. MICHEL VAN OUDHEUSDEN IN COLLABORATION WITH PROFESSOR JENNIFER GABRYS, BOTH BASED AT THE UNIVERSITY OF CAMBRIDGE (UNITED KINGDOM).

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