The problem

- Methane & nitrous oxide: 20% of global warming
- Uncertainty methane & nitrous oxide: 35-100%
- Lack of emission data on a fine grid in space and time
- Monitoring is labor and €’s intensive
- Public is unfamiliar with methane & nitrous oxide

…therefore important emission reductions options stay unused!
Our plan

- Develop a simple low cost monitoring system for methane, nitrous oxide and CO$_2$ with a fine grid in space and time.
- Involve scholars and volunteers in measurements for science.
- Feedback of scientific results to education and public.
- Communication platform between scientists and scholars.
Cooperation / consortium

Netherlands:

- SME (coordination and education, Globe), COS NL (Check-it-out), KNMI (aerosols), Ecofys (check-it-out), Oikos (check-it-out), RIVM (soil carbon), KNMI (precipitation), WUR (N₂O/CH₄), WUR (nature calendar), RUG (CO₂).
- Weather amateurs, scouting, volunteers...
- Globe, Check-it-out, ...

Europe:

- CarboEurope, CEH Edingburgh (Centre for Ecology and Hydrology, Ute Skiba)
- EU Special Support Action to prepare for an EU project.
Objectives

- Scholars and researchers get insight in emissions, source characteristics and distribution of methane & nitrous oxide.
- Fine grided data base in time (>4 year, monthly) and space (250 points in NL), open for further research. (raw data including weather and activity information)
- Participative climate education.
- Interaction science ⇔ education.
- Create awareness on local human activities in relation to the emissions on greenhouse.
- Contribute to a shared basis for climate policy.
Opportunities

- Interactive knowledge transfer.
- Scientists visit schools.
- Scholars perform meaningful analyses at the university.
- Scholars become interested in science and technology.