




BEST

Bioenergy and
Sustainable Technologies



 Bundesministerium
Digitalisierung und
Wirtschaftsstandort

 Bundesministerium
Klimaschutz, Umwelt,
Energie, Mobilität,
Innovation und Technologie



 Für die
Stadt Wien



CleanAir2 project – citizen science investigating real-life emission from firewood stoves

Wood Heater Design Workshop #2

Manuel Schwabl

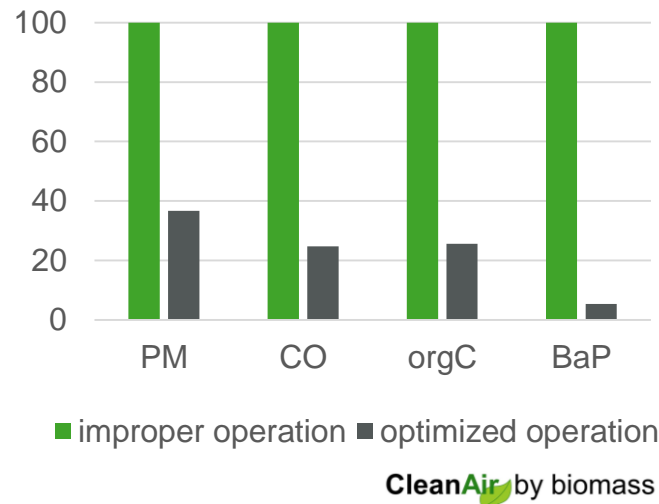


clean air & ***sustainable energy***

Raising awareness – users are the key

User operation

- Learned operation with solely feedback of visible flames
- Do they really read user manuals?
- connection to air quality via their neighbours
- incredible impact



Raising awareness – changing behaviour



CleanAir II - Trailer

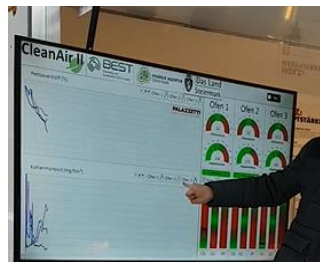
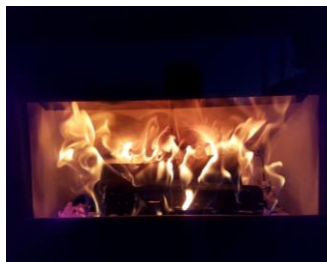


Data visualisation

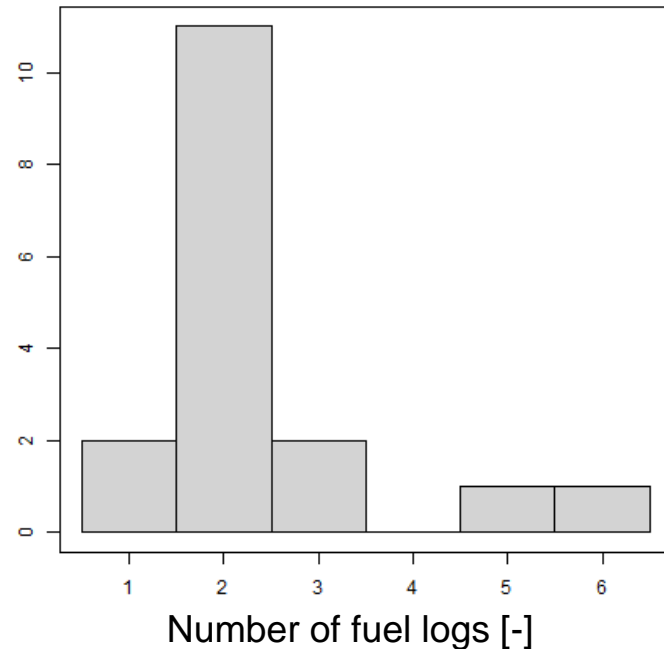
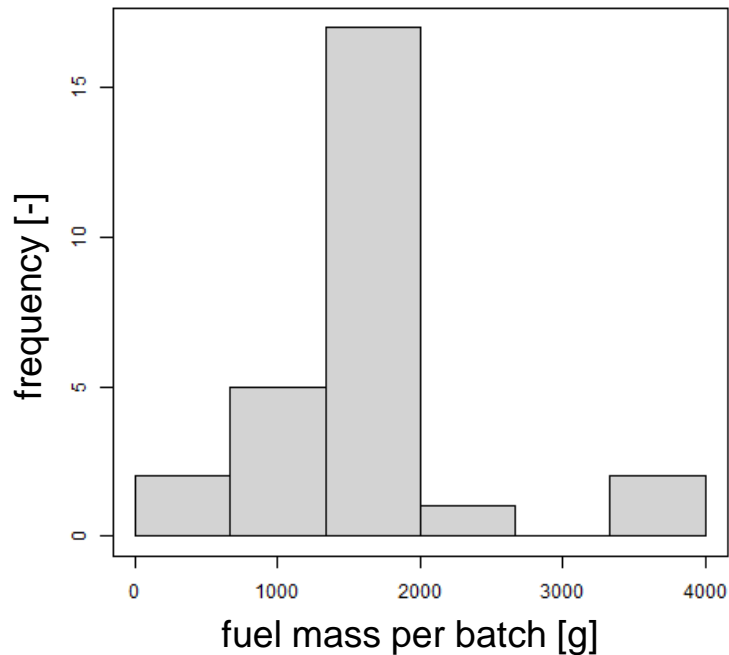
Pressure and
temperature sensors

Gas analyser
(CO & O₂)

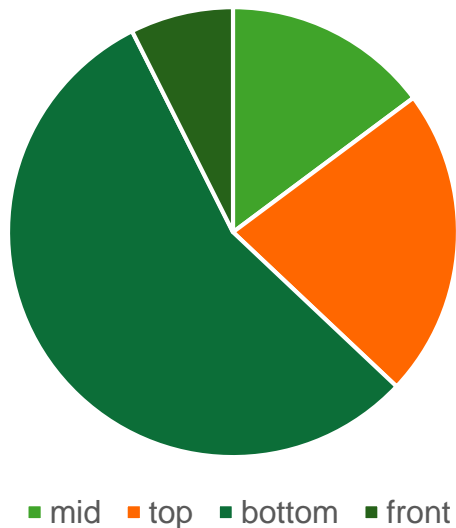
CleanAir II - Trailer



Heating behaviour – ignition mode



Heating behaviour - Ignition mode

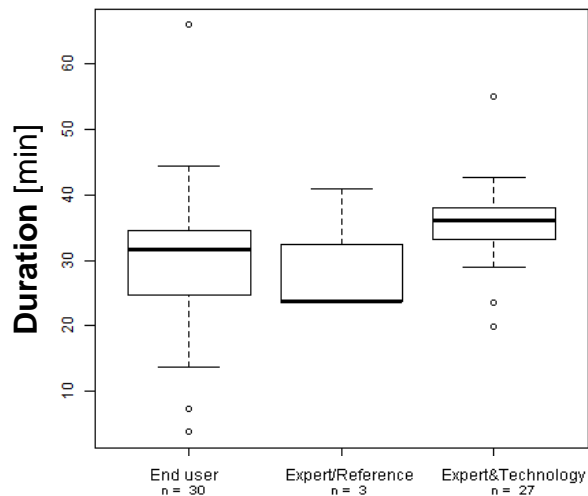


- Mostly with news papers or cardboard
- Majority learned the method from parents

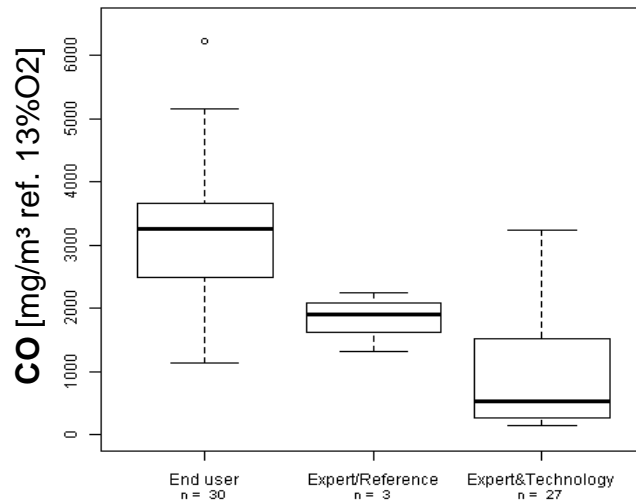


Impact

Batch duration



Emission Impact



Feedback from workshop participants

„...completely new method to ignite a stove...“
„... burns faster and releases less soot ...“
„... igniting is easier and with less effort...“

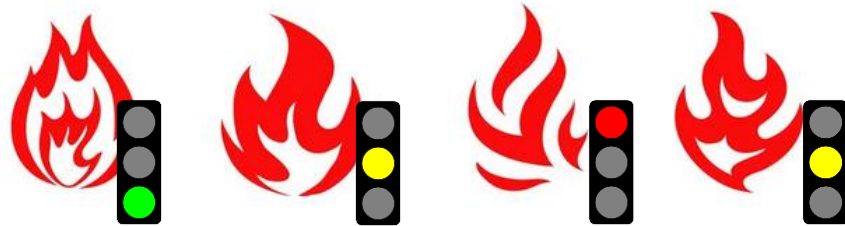


„I learned how to ignite a stove...“
„ ...more smokefree and clean ...“
„... less soot on the window...“

https://www.youtube.com/watch?v=iwgf_WFx650

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Area 1 – Fixed Bed Conversion



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