

Measures fighting the domestic combustion impact on air quality in Austria

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clean air & ***sustainable energy***



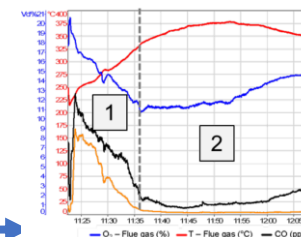
clean air & ***sustainable energy***



Technology innovation in Austria

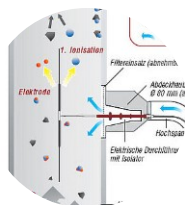


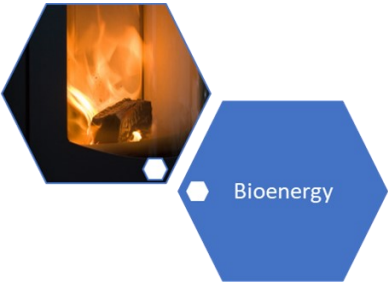
Improving
combustion



Avoidance of high
emission factors

Emission
abatement





New Combustion Technologies

Zero-Flame combustion technology

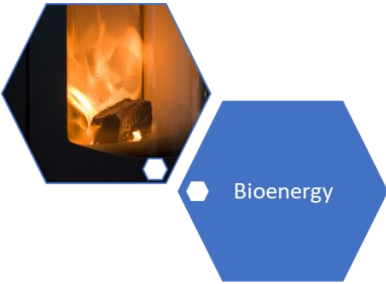


Source: <https://www.oekofen.com/>

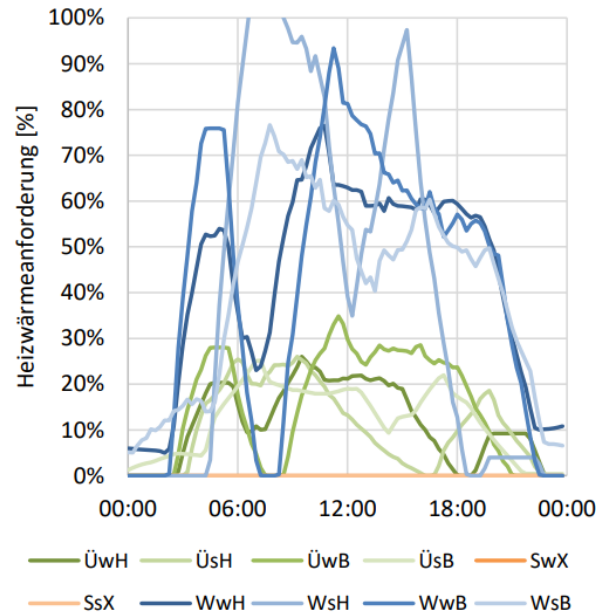
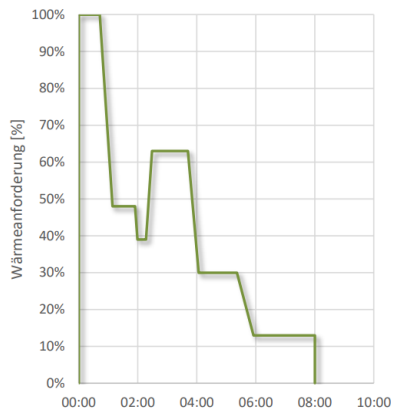
Gasification technology



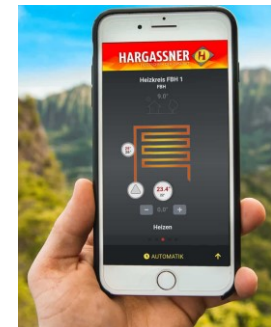
Source: <https://www.windhager.com/>



Avoiding high emission factors



Source: <https://www.guntamatic.com>



Source: <https://www.hargassner.com>

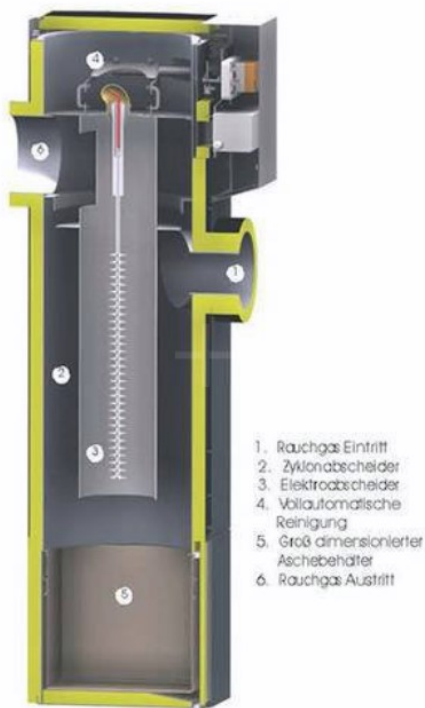
Source: M. Schwarz, et al. Kesselverhalten bei variierender Leistungsanforderung: Die CycleTest-Methode, European Pelletsconference, Wels 2022



Bioenergy

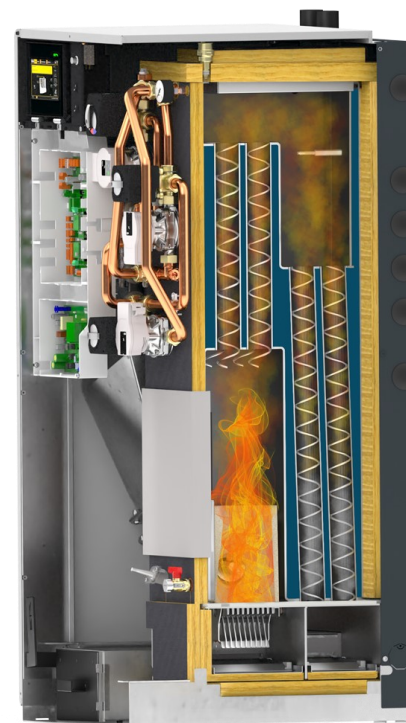
Emission abatement electrostatic precipitation

modular



Source: <https://www.guntamatic.com>

integrated



Source: <https://www.eta.co.at>

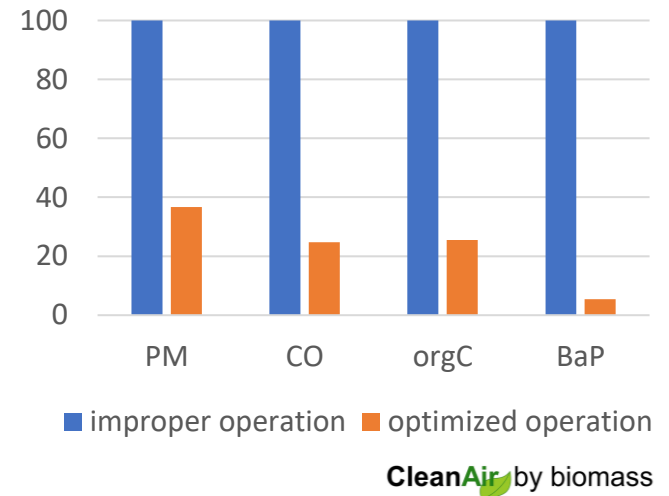
Acceptance &
awareness



Users are the key for emission in log wood stoves

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



Acceptance &
awareness

CleanAir II - Trailer



Acceptance &
awareness

CleanAir II - Trailer



Data visualisation

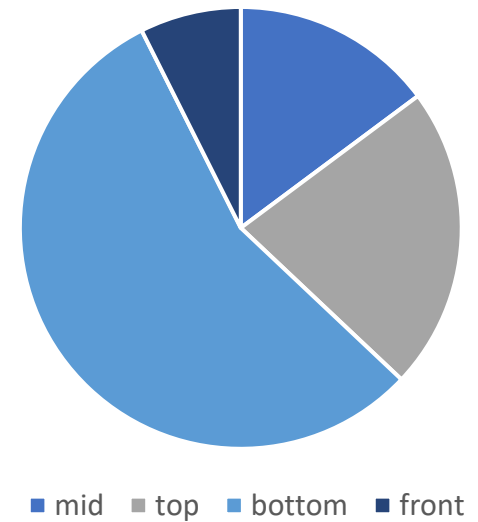
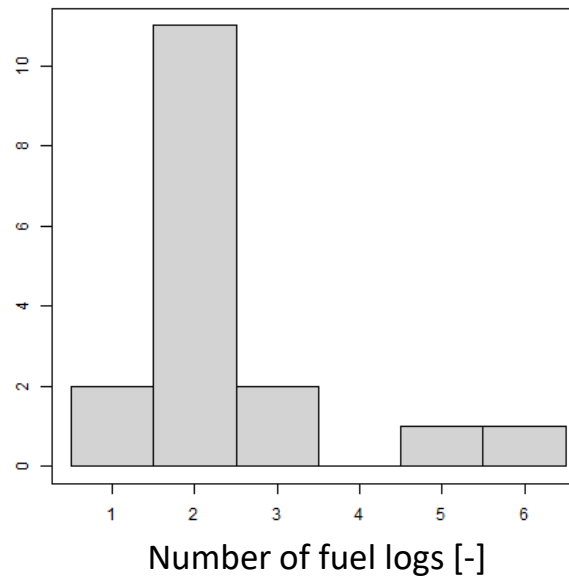
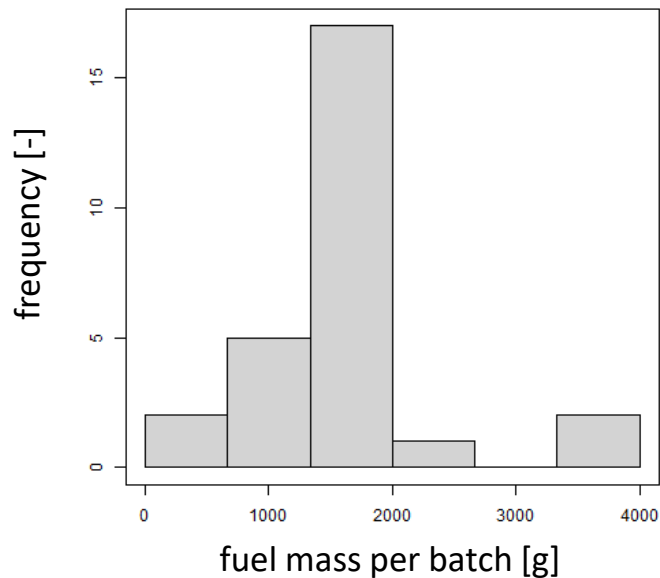
Pressure and
temperature sensors

Gas analyser
(CO & O₂)

Acceptance & awareness



Heating behaviour – ignition mode



Acceptance &
awareness

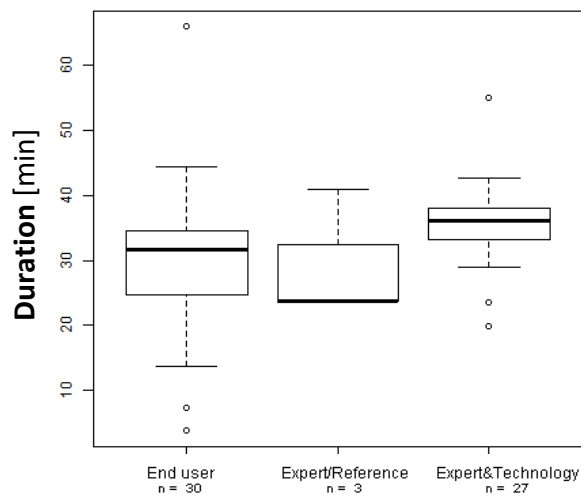


Acceptance &
awareness

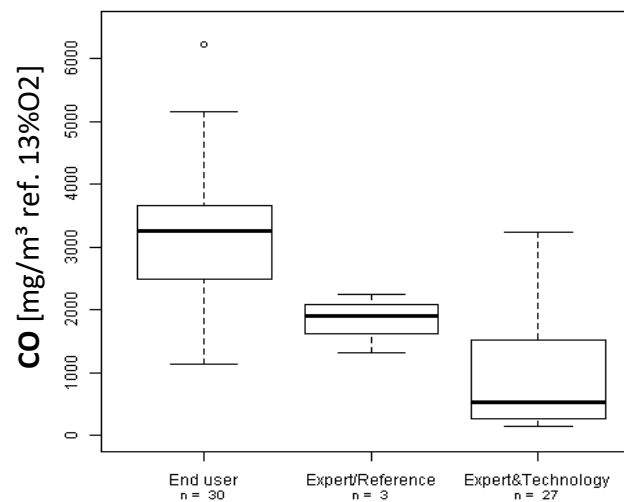


Impact

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 ...“

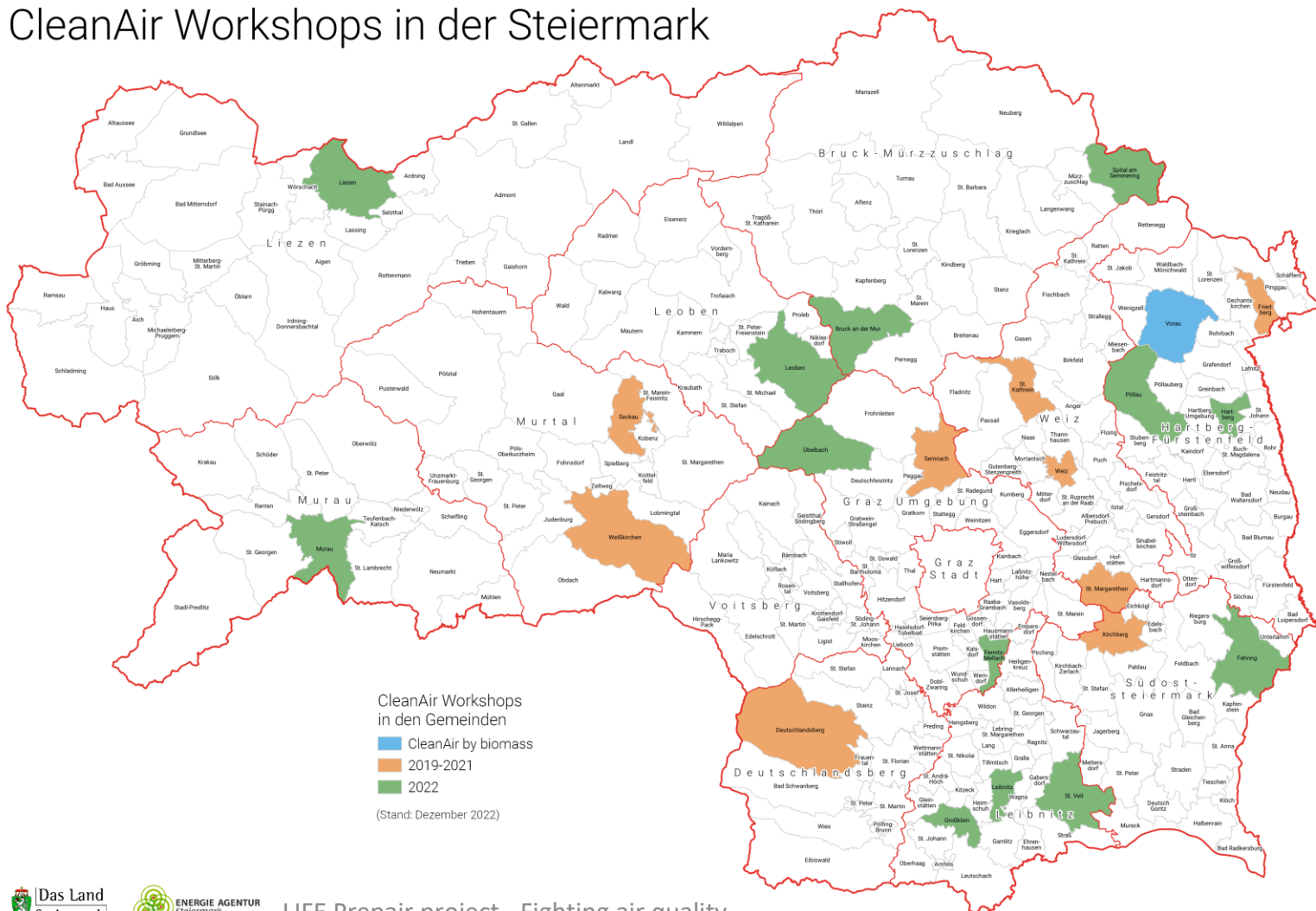
„... less soot on the window...“

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



Impact and coverage

CleanAir Workshops in der Steiermark



Acceptance &
awareness



Raising awareness – changing behaviour





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BEST

Bioenergy and
Sustainable Technologies



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ARSO ENVIRONMENT
Slovenian Environment Agency



LIFE Prepaire project - Fighting air quality
impact in Austria

