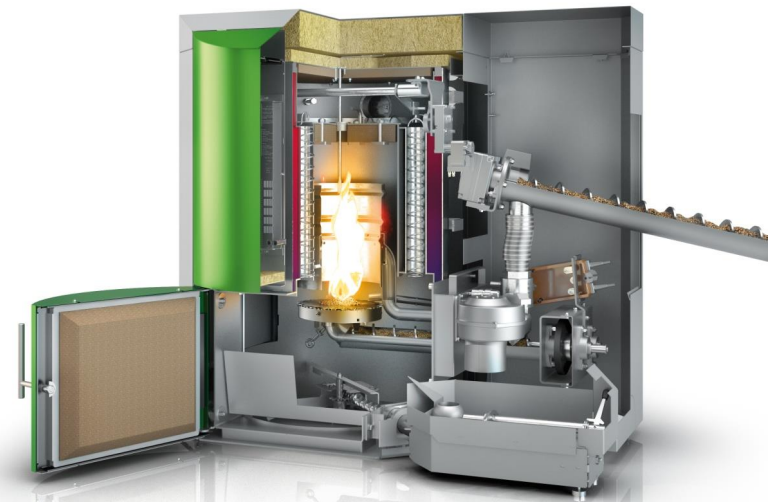


Dr. Harry “Dutch” Dresser Maine Energy Systems

How do you decide which system is
best for you?



- **How biomass systems work**
- **Fuel type**
- **System size vs fuel type**
- **Heated Fluid (air, water)**
- **Cost effectiveness**
- **Types of equipment available**

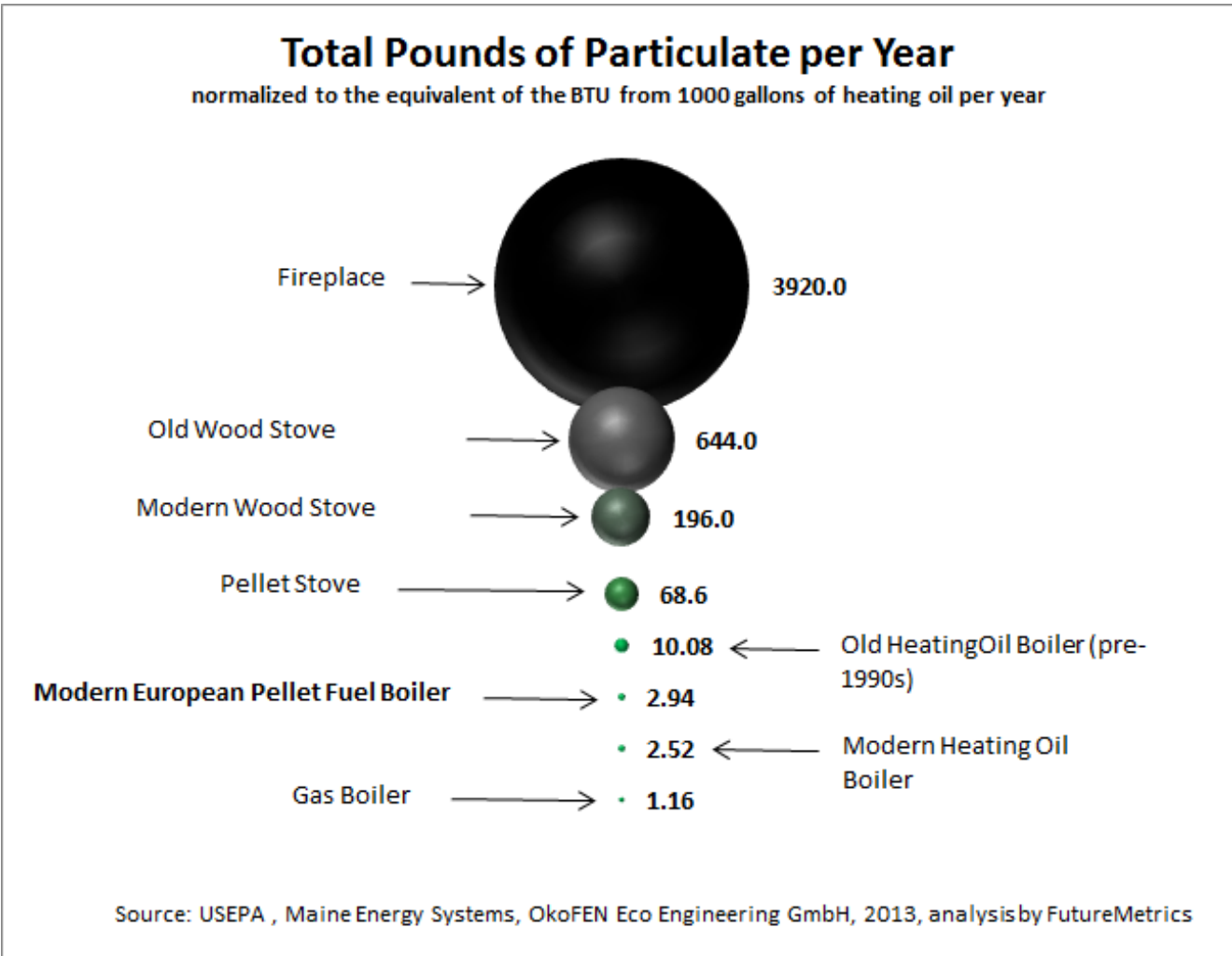


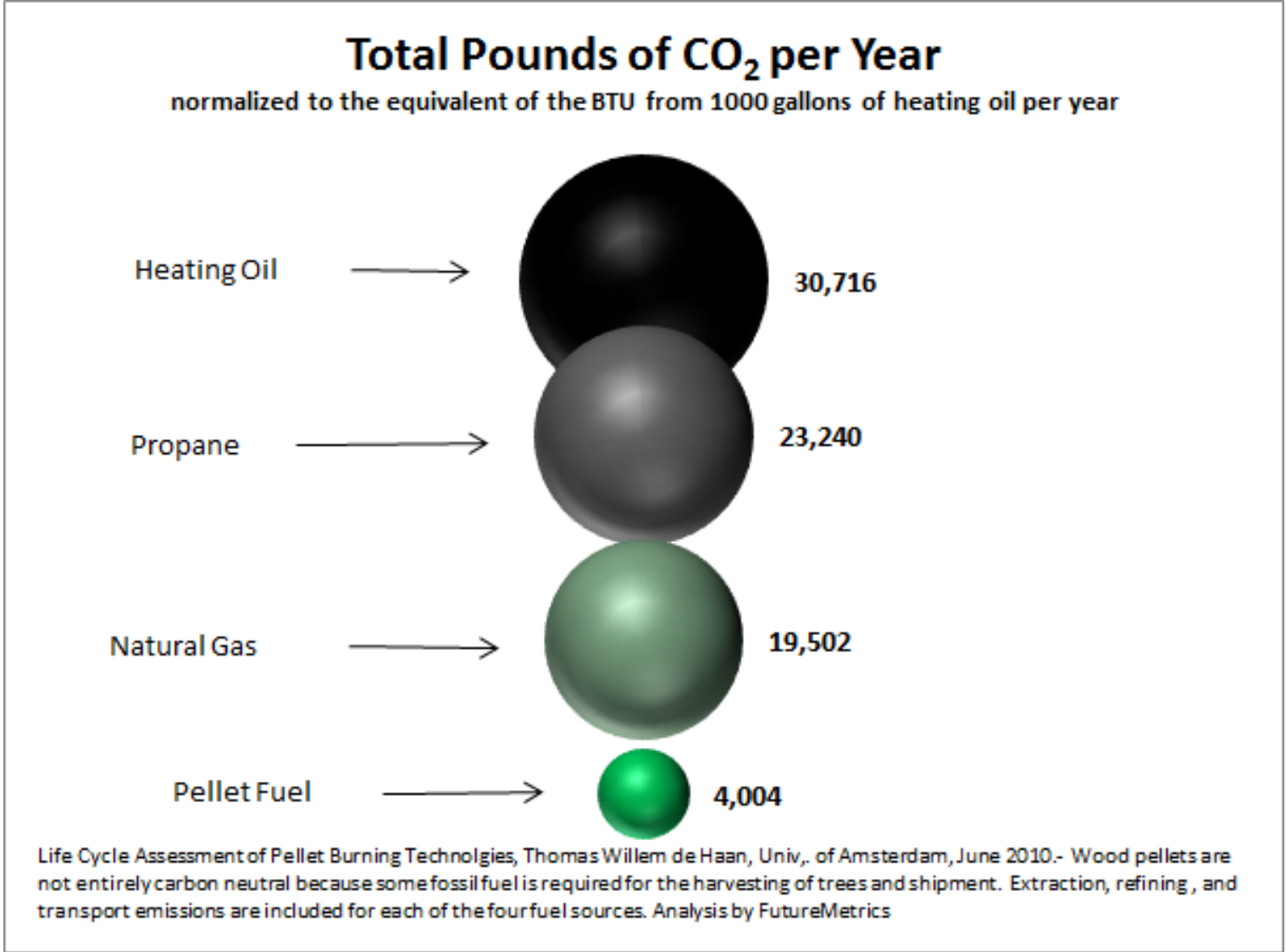
- Reviewed list of participants
 - Short side trip
 - Emissions
 - Efficiency
 - Environment
 - Ease of installation

- Reviewed list of participants
 - Short side trip
 - Environmental implications
 - Sustainability
 - Emissions
 - Efficiency

- Big topic
 - Size
 - Quantity
 - Composition

Richard Peltier





Efficiency

How measured

LHV/HHV

Conventional

Condensing

CHP boilers

Thermal

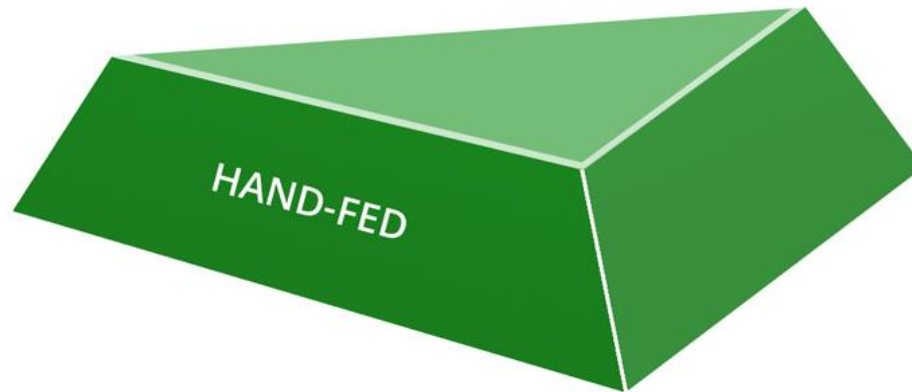
Electrical

Duration of reliable unattended operation

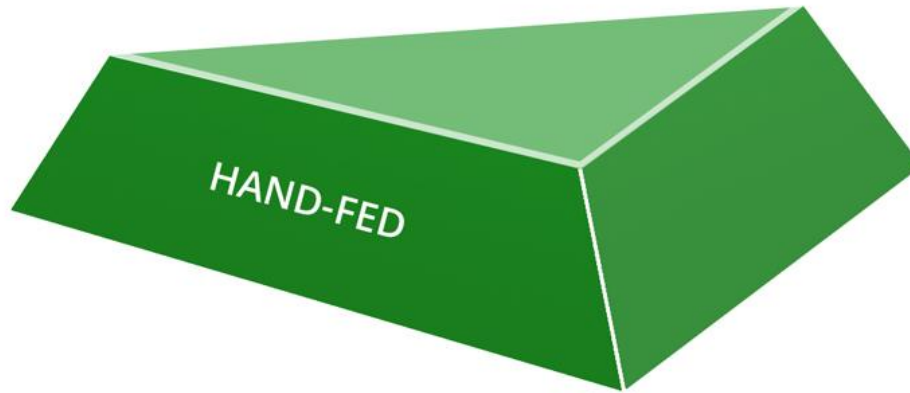
DRUO

The period of time a boiler can be expected to operate predictably without user involvement

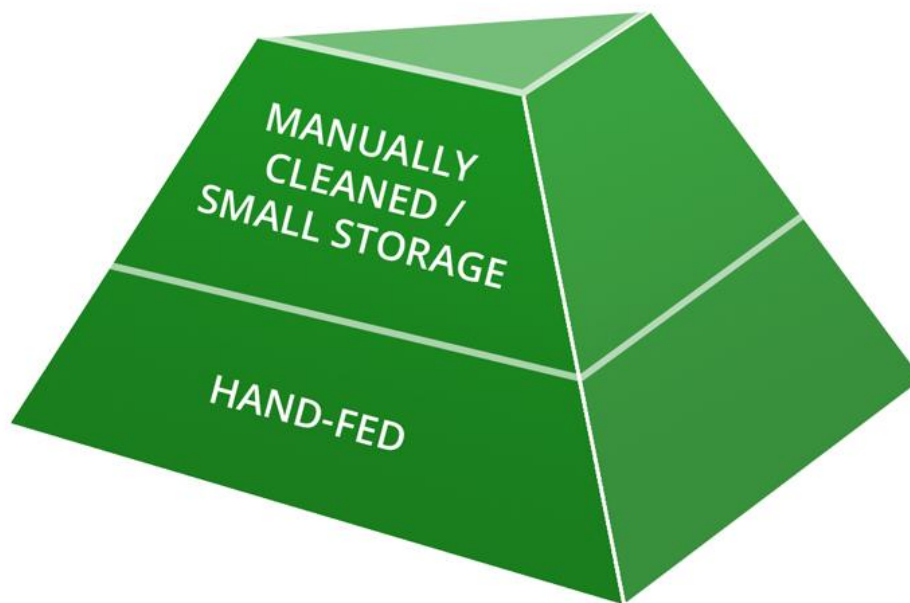
Matching products and user expectations



Matching products and user expectations



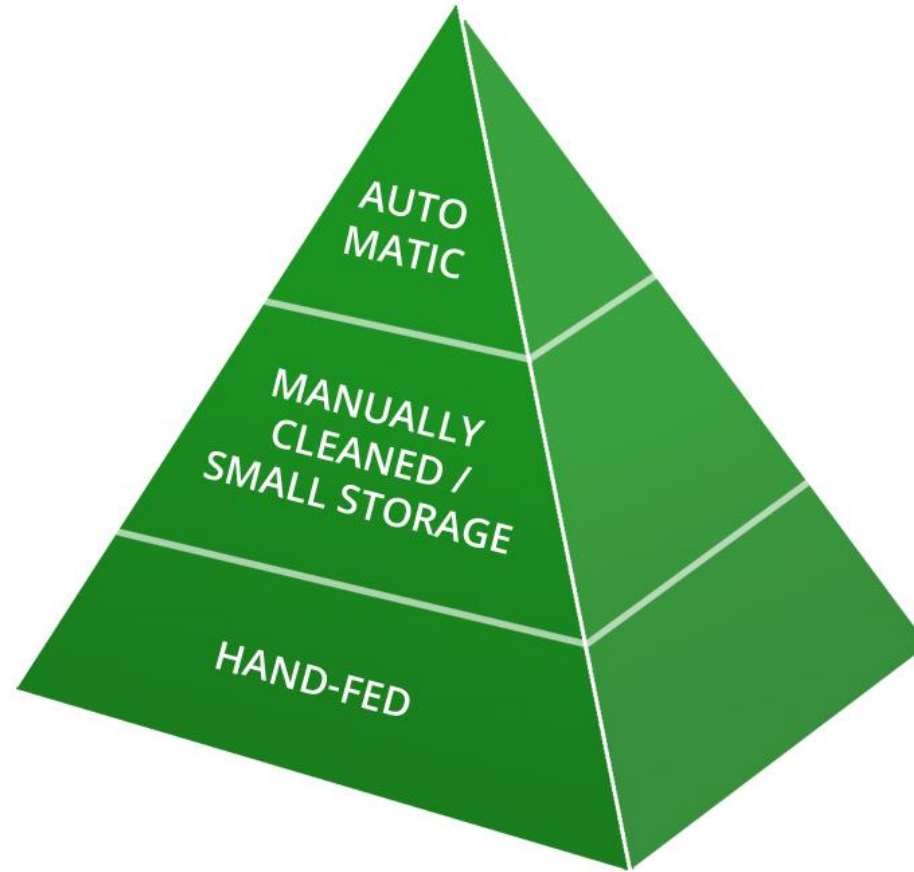




Matching products and user expectations



Matching products and user expectations



Matching products and user expectations

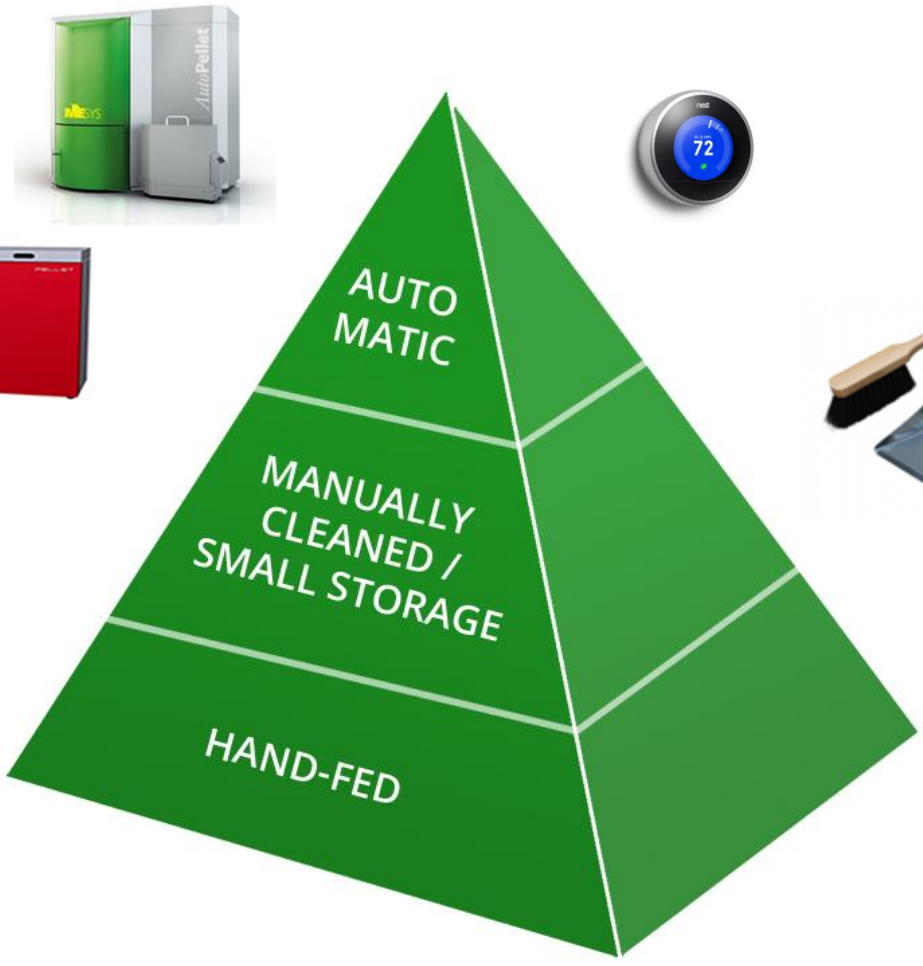


Auger

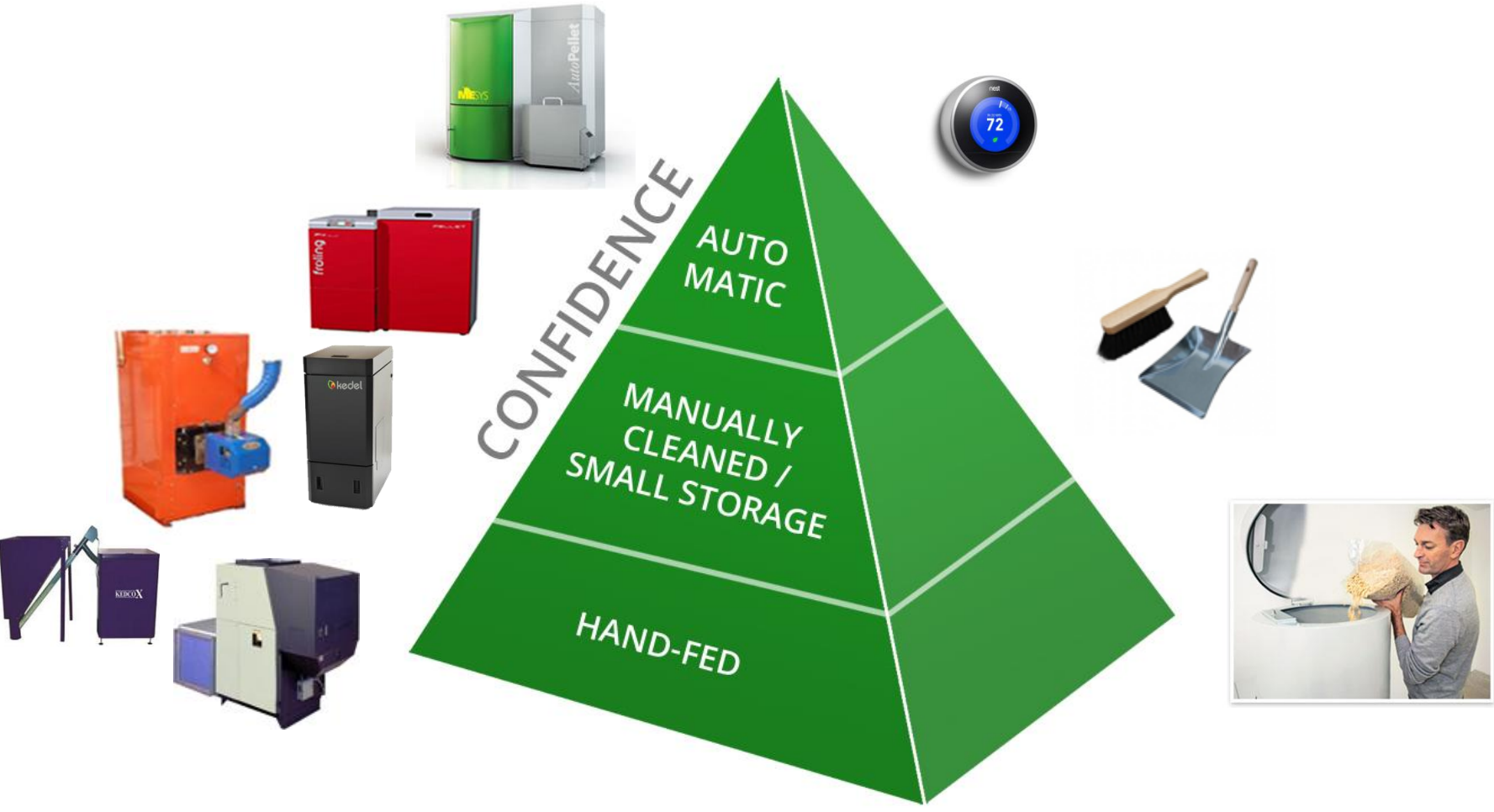


Vacuum

Matching products and user expectations



Matching products and user expectations

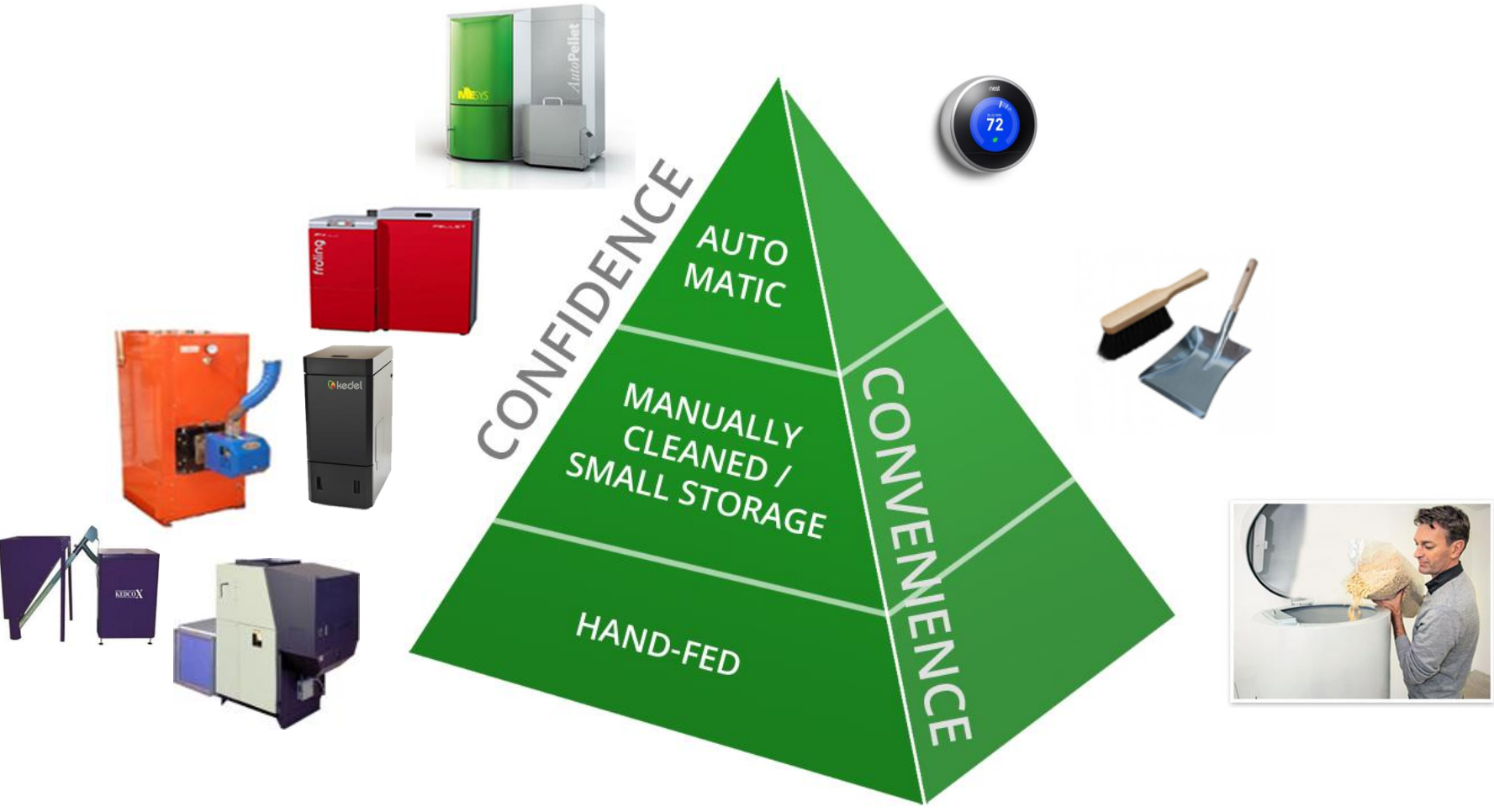


The diagram illustrates a hierarchy of biomass products based on user expectations. The pyramid is divided into three horizontal sections, with the word "CONFIDENCE" written vertically along its left edge. The top section is labeled "AUTO MATIC", the middle section is labeled "MANUALLY CLEANED / SMALL STORAGE", and the bottom section is labeled "HAND-FED".

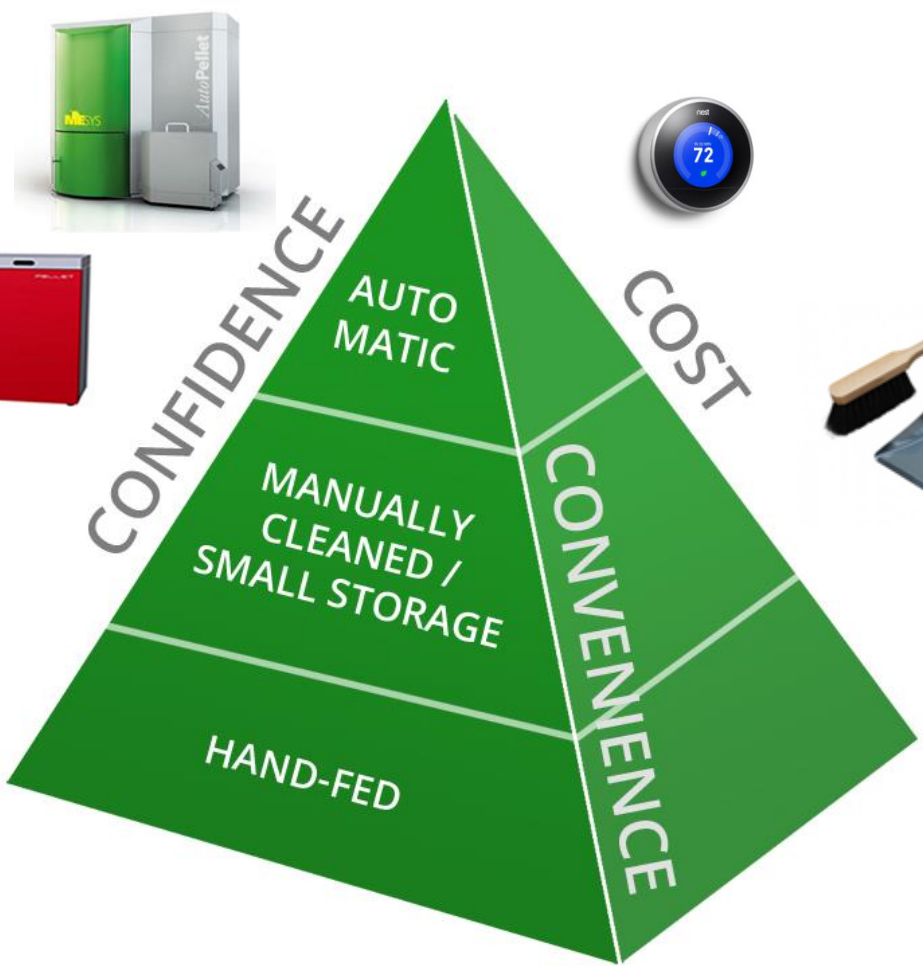
Surrounding the pyramid are various biomass products and tools:

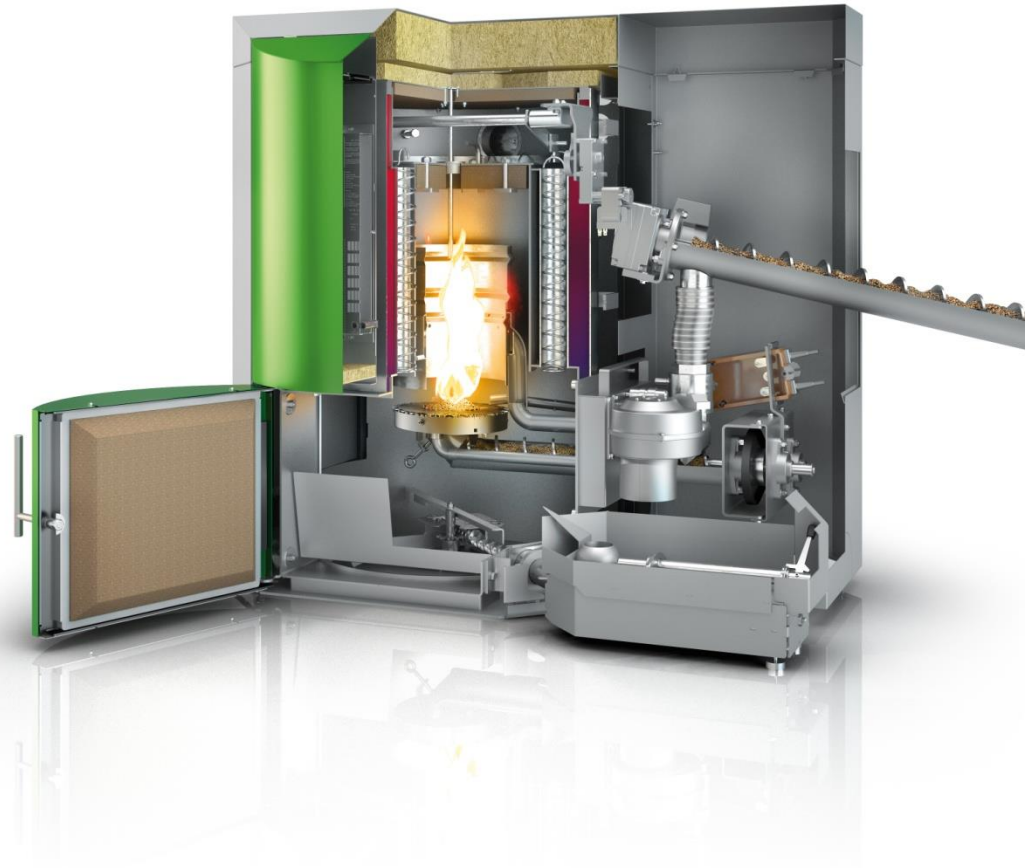
- Top Section (Automatic):** A green and grey "AutoPellet" machine, a circular thermostat showing "72", and a broom and dustpan.
- Middle Section (Manually Cleaned / Small Storage):** A red "fraining" machine, an orange machine with a blue hose, a black "kedel" machine, and a broom and dustpan.
- Bottom Section (Hand-Fed):** A purple "KORO X" machine, a grey machine, and a photo of a man loading a white machine with straw.

Matching products and user expectations



The diagram is a green pyramid divided into three horizontal sections. The top section is labeled 'AUTO MATIC', the middle section is labeled 'MANUALLY CLEANED / SMALL STORAGE', and the bottom section is labeled 'HAND-FED'. The left side of the pyramid is labeled 'CONFIDENCE' and the right side is labeled 'CONVENIENCE'. Surrounding the pyramid are images of various wood pellet stoves and accessories: a green and grey 'AtraoPellet' stove, a red 'trailing' stove, an orange stove with a blue hopper, a black 'kedel' stove, a purple 'KORO X' stove, a blue and white stove, a circular smart thermostat showing '72', a broom and dustpan, and a photo of a man loading a white stove with a bag of wood pellets.





Thank you