

Österreichischer Biomasse-Verband
AUSTRIAN BIOMASS ASSOCIATION

Bioenergy in Austria

the small big business

Backbone
of energy
transition

Part of
sustainable
forestry
and
industry

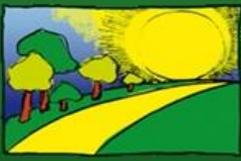
Huge
benefits
and low
emissions

klimaaktiv

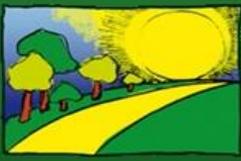

DI Christoph Pfemeter
Twitter: @chpfat
<http://www.biomasseverband.at>

Mit Unterstützung vom
 Bundesministerium
Nachhaltigkeit und
Tourismus





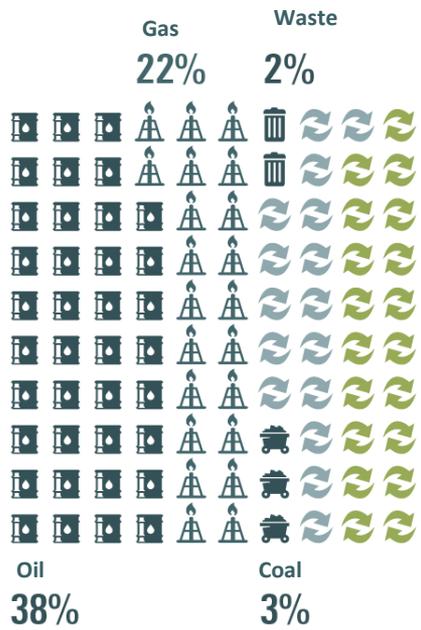
- 1 Kg of solid sun light (ATRO)
- 5 KWH for 0,225 €
- Home grown during 6 months on less than 1 m2 sustainable managed forest
- >2 Kg CO₂, stored for two years
- can replace ½ Liter of oil, ½ m³ of gas or 1 Kg of coal



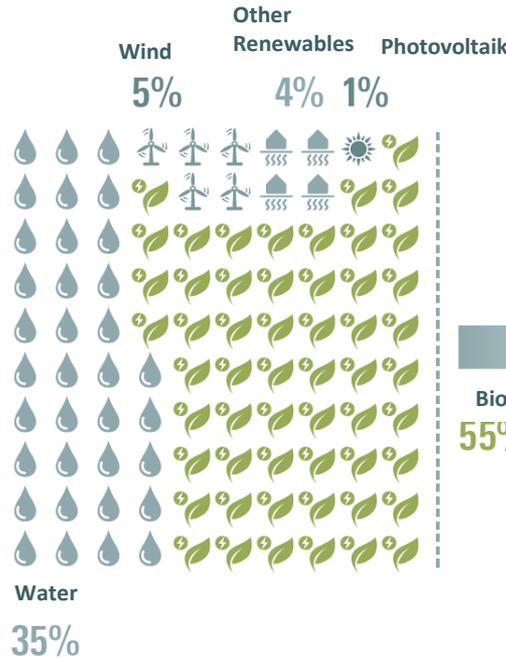
Final energy use: 1 121 PJ

Renewable energy: 391 PJ

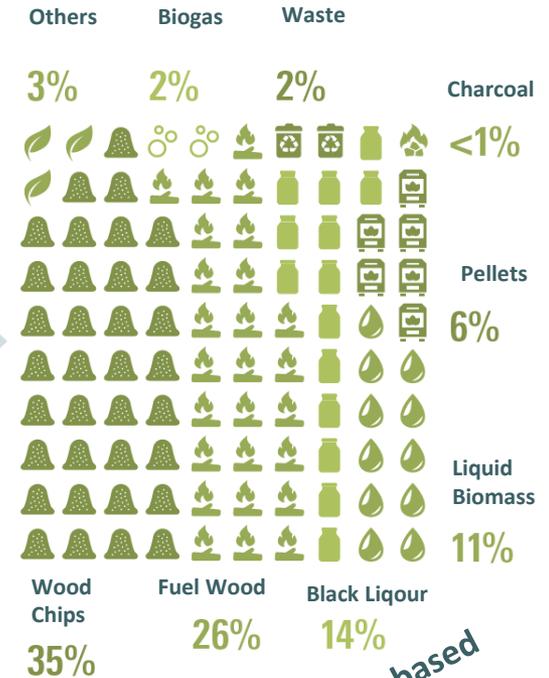
Bioenergy: 217 PJ



Renewables
35%



Biomass
55%



Bioenergy users:

- 30% industry
- 27% households
- 14% CHP
- 9% power plants
- 9% transport

Bioenergy is used:

- 81% as heat
- 11% as fuel
- 8% as electricity

Source of woody biomass:

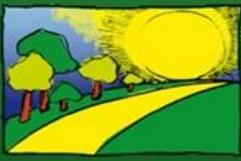


80% of bioenergy is based on woody (solid) biomass.

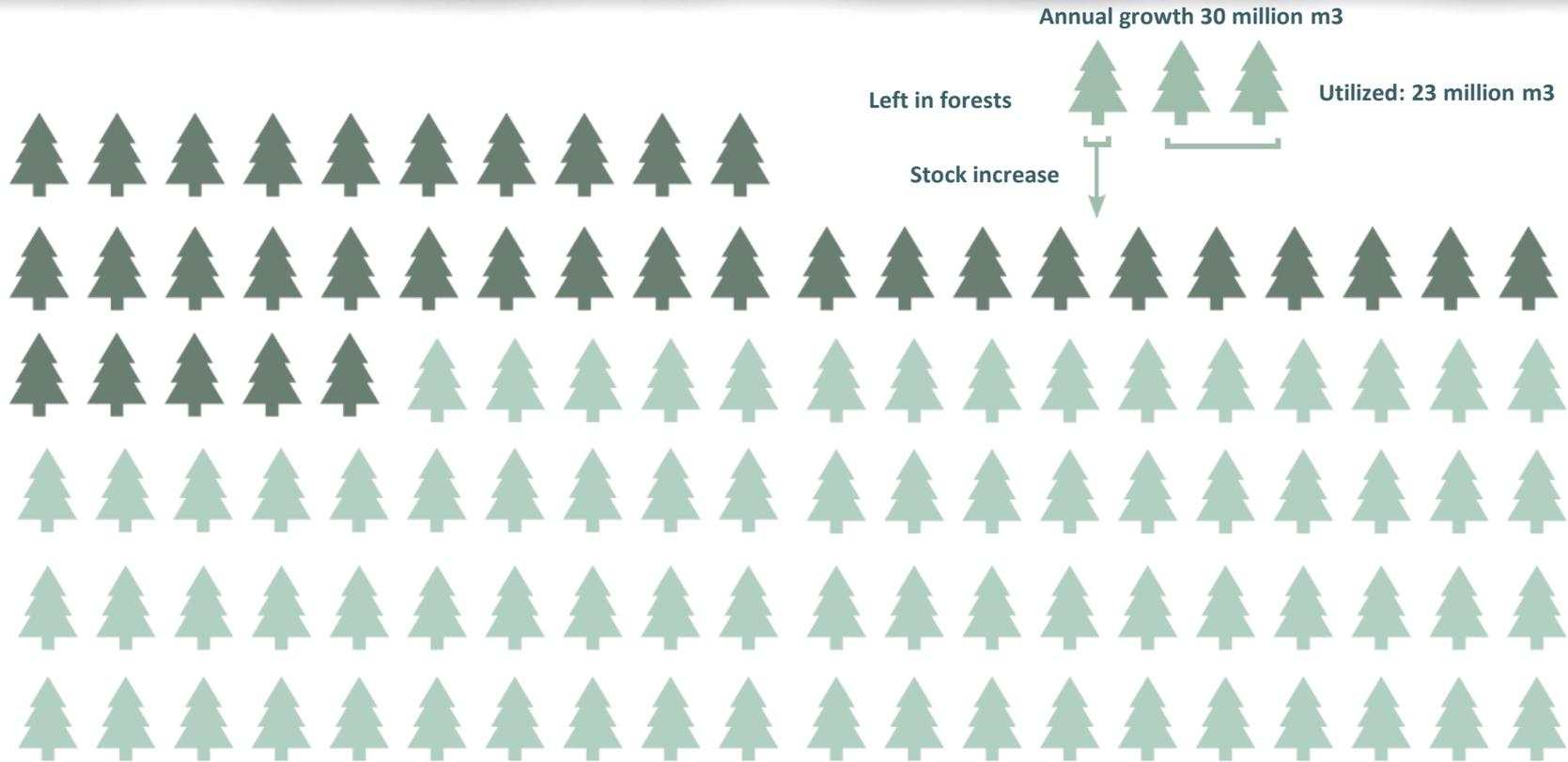
Only 25% of used biomass is converted to energy



A lot of emotions, no knowledge and no focus on the big picture



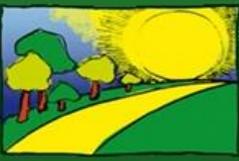
Wood stock (and growth)



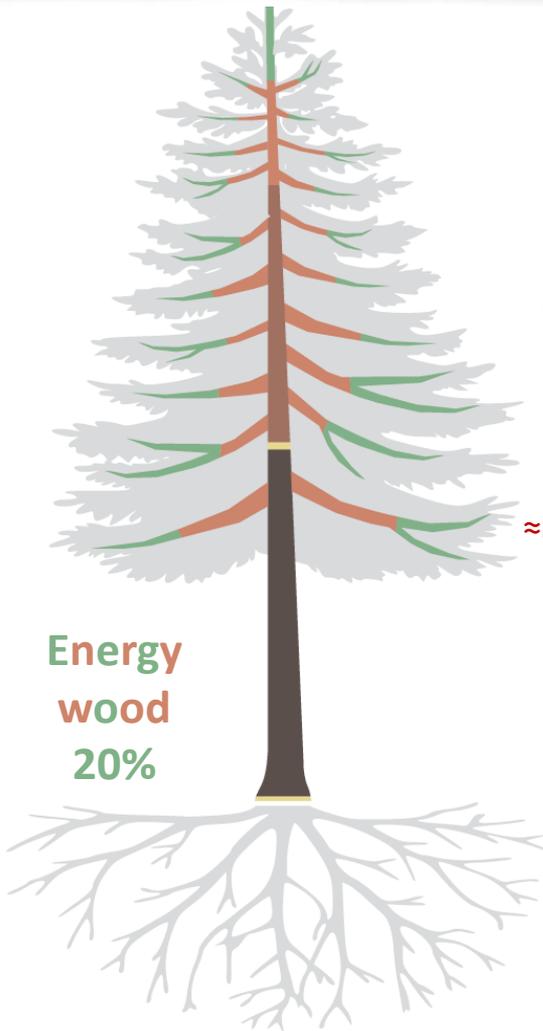
Wood stock increase from 1960 till today: 350 million solid m³



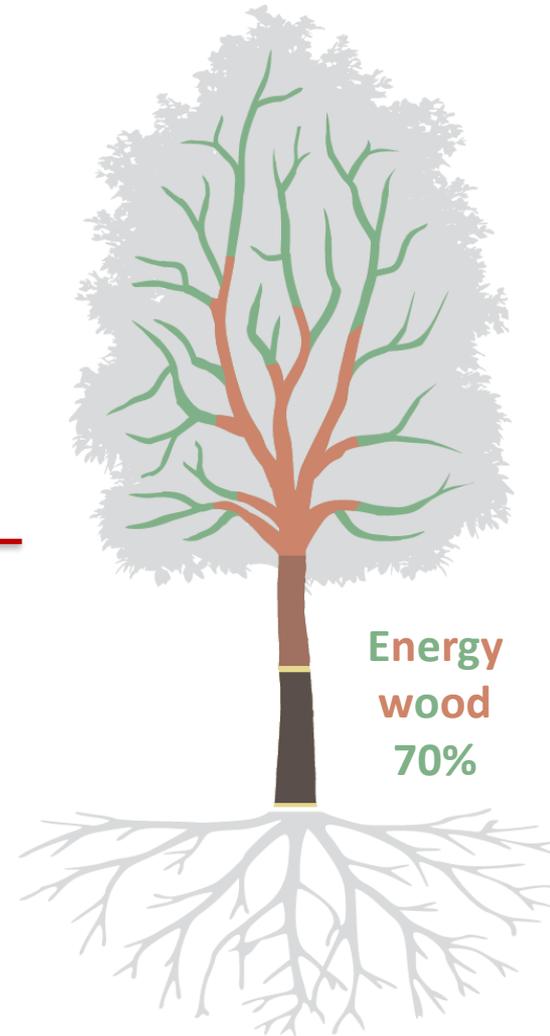
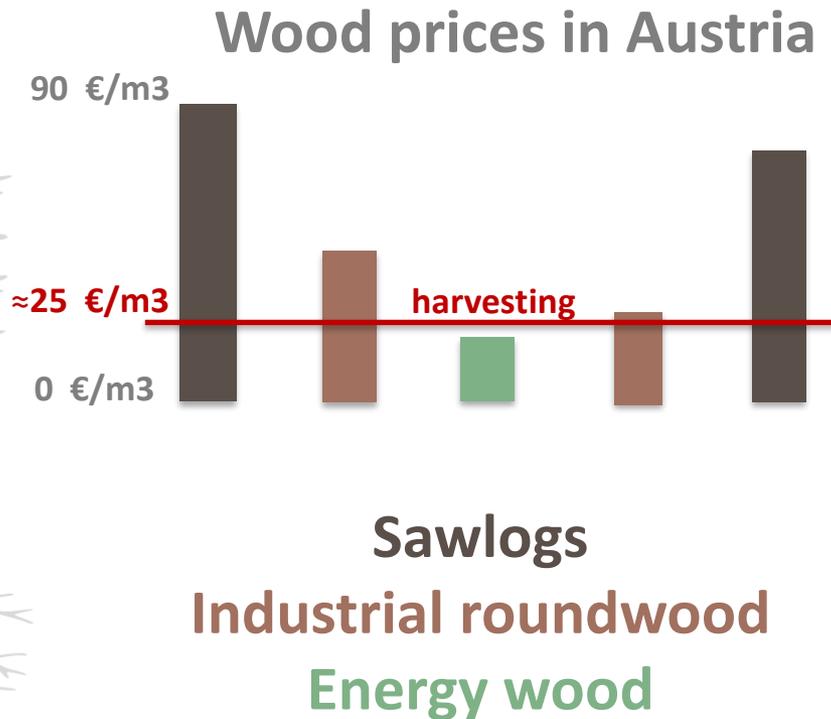
Wood stock 1960: 750 million solid m³



Forest products

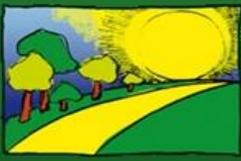


Energy
wood
20%

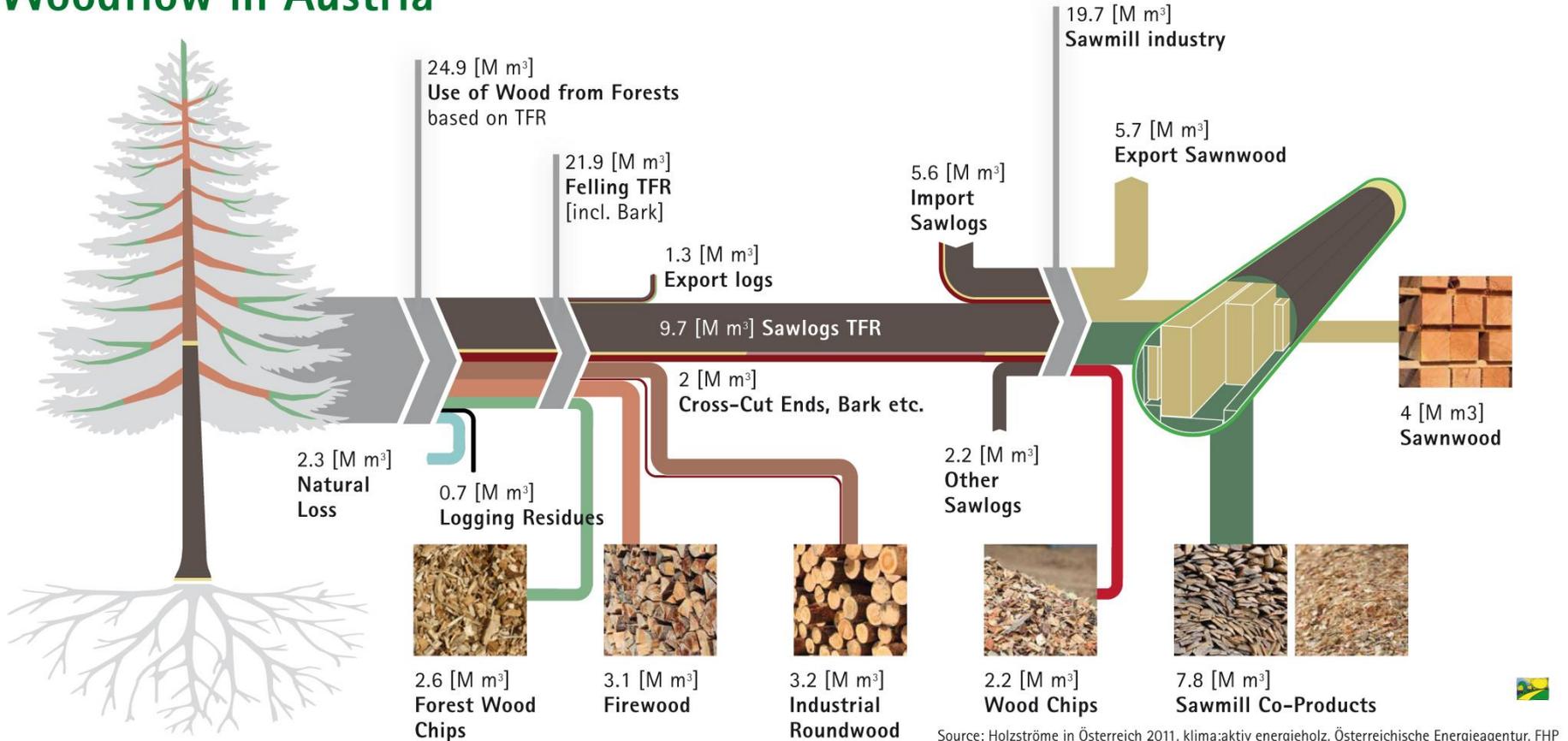


Energy
wood
70%

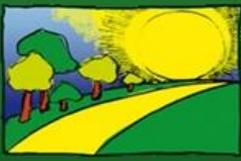
Energy wood is a by product of sustainable forestry



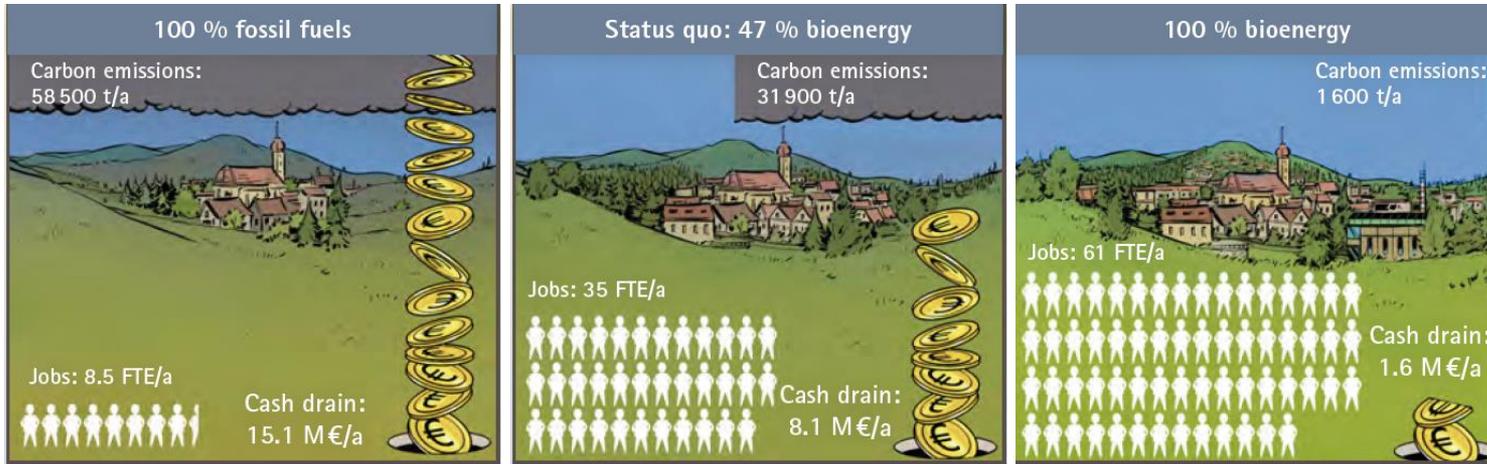
Woodflow in Austria



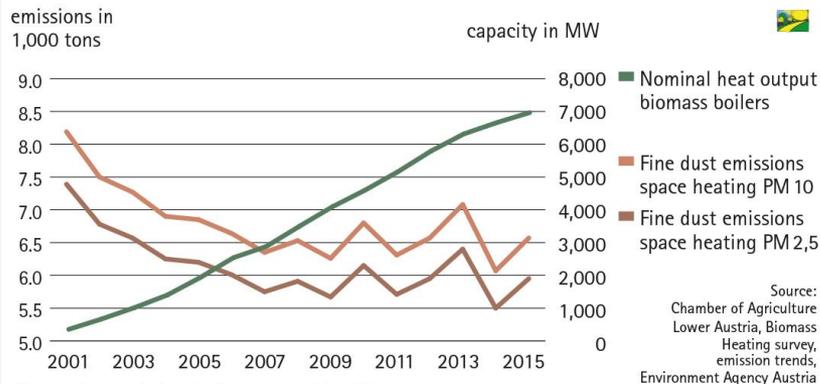
80% of used freshwood is processed by the industry, only 20% is used for direct energy production. The income for forestry out of selling biomass for energy varies between 3 and 10%. **1m³ solid wood product leads to 6m³ by products > Build with wood!!!!**



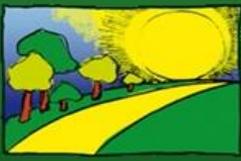
Case study region Hartberg



Development of the new installed capacity of biomass boilers < 100kW* and fine dust emissions of space heating

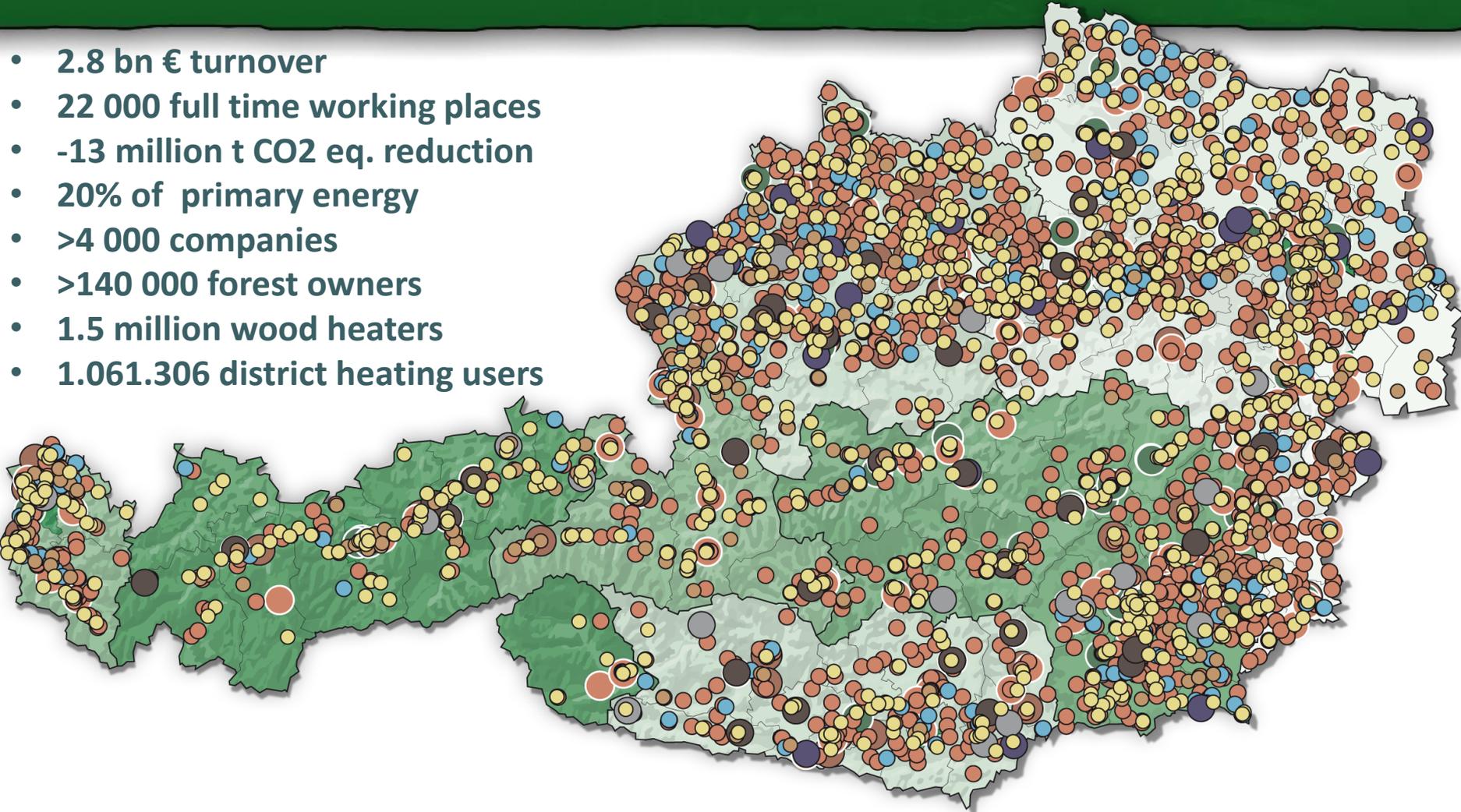


- More jobs
- More income
- Less CO2 emissions
- Less cash drain
- Less fine dust emissions through modern efficient installations

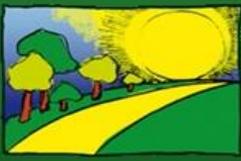


The bioenergy sector in Austria

- 2.8 bn € turnover
- 22 000 full time working places
- -13 million t CO2 eq. reduction
- 20% of primary energy
- >4 000 companies
- >140 000 forest owners
- 1.5 million wood heaters
- 1.061.306 district heating users



- | | | | | |
|-----------------|------------|-----------------|--------------------|-------------------------|
| ● Plumbers | ● Biogas | ● Heating plant | ● Pellet producers | ● Research and teaching |
| ● Stove fitters | ● Biofuels | ● Wood gas CHP | ● CHP Generation | ● Components, planning |

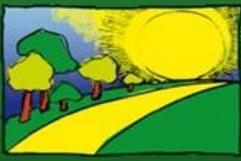


There is a lot to do, let's start!

Backbone
of energy
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Part of
sustainable
forestry
and
industry

Big benefits
and low
emissions



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Bioenergy in Austria

A factor creating added value



Austrian Bioenergy

Wood Chips From Harvest to Fuel

klimaaktiv

Visit us at the next
Central European Biomass Conference
19th to 20th January 2017, Graz, Austria

Advantage Austria

Österreichischer Biomasse-Verband

MIT UNTERSTÜTZUNG VON
BUNDEMINISTERIUM FÜR
Klimawandel, Umweltschutz
UND TOURISMUS

Effects of renewable energies
Final energy consumption in Austria
Development of gross domestic consumption of biomass
Development of new installed capacity of biomass
Development of new installed capacity of biomass

Advantage Austria logo

Österreichischer Biomasse-Verband logo

MIT UNTERSTÜTZUNG VON BUNDEMINISTERIUM FÜR KLIMAWANDEL, UMWELTSCHUTZ UND TOURISMUS

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