Arnold Dale
EKMAN & CO

The Continued Development of the European Residential Wood Pellet Market

Pellet Fuel Institute Conference
Asheville NC
28 – 30 July 2013

Ekman is one of the world s leading sales and marketing organizations, focusing on the global forest industry.

Ekman at a glance

Pulp

Paper &
Packaging

Recovered
Materials

Bioenergy

Incorporated in
1802

260 employees
40 locations

Represented in
100 + countries

+ 4 500 000 tons/year
US$ 2.5 billion sales

Ekman

Bioenergy – at a glance

- 10 employees in Sweden, Denmark and Latvia
- Trading wood pellets and PKS since 2008
- A leading biomass trader in Europe
- Exclusive agents for 900,000 ton wood pellet plant in Vyborg, Russia
- Delivering to the consumer market in Scandinavia
- Regular trade flows of wood pellets and unrefined wood fuels

Ekman

Industrial vs. residential markets

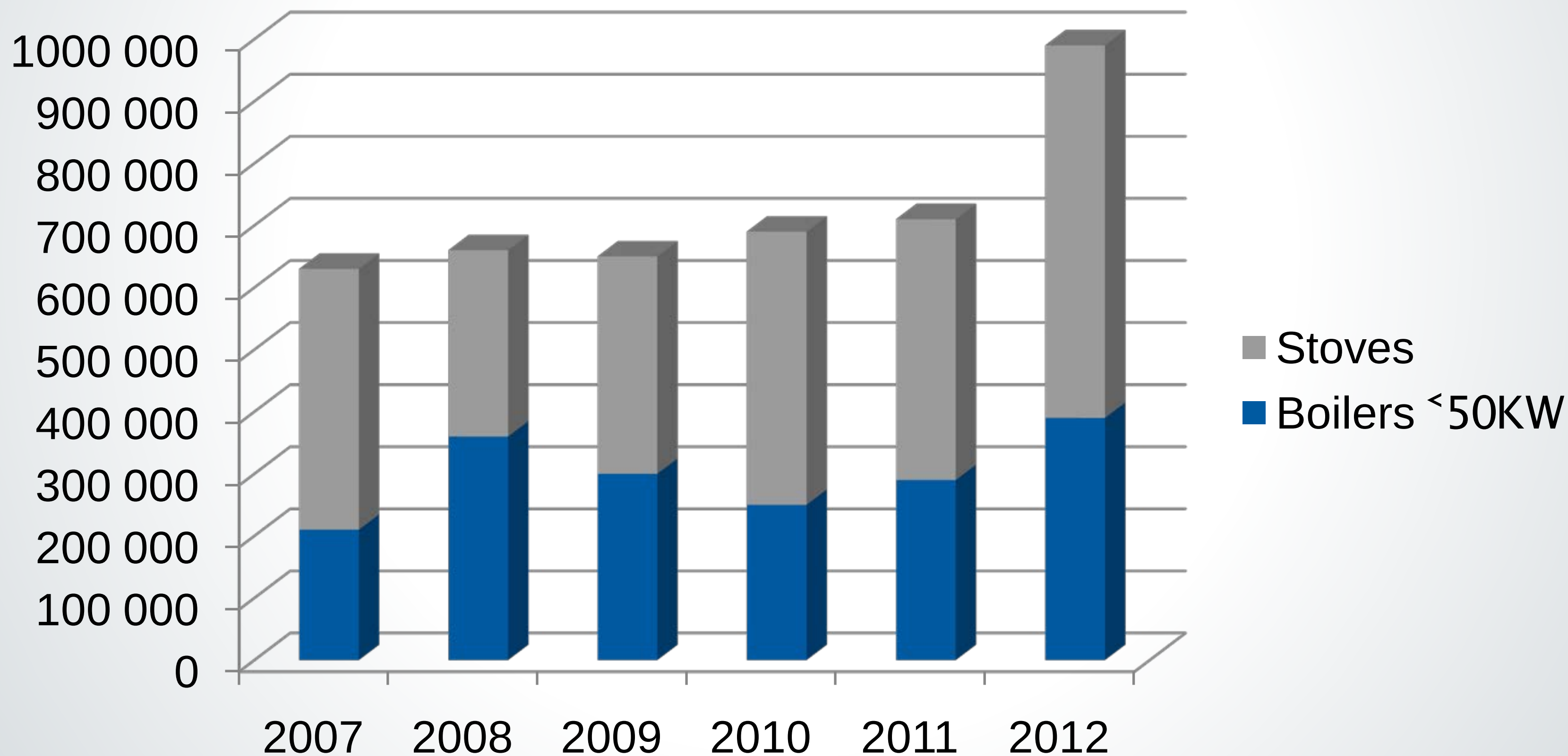
- Industrial wood pellets replace coal. Consumer pellets replace oil = different price drivers
- Quality requirements are different, although strict for both segments
- Logistics and handling for consumer market requires infrastructure
- Buying patterns are different, as are contracts
- The consumer market is more stable in demand

…but…

- With some adjustments, most pellet producers can make premium pellets
- Large shipments of consumer grade pellets from the USA to Europe expected
- Trading companies are starting to be active in both market segments

Annual Increase of pellet demand for European residential pellet heating

(Source: European Pellet Council)



Several forces create push to small-scale

- Stable continuous growth creates a predictable market without political intervention
- Annual increase for residential market will exceed 1 million tons during 2013
- Will the current confusion on sustainability rules create too much risk in the industrial segment?
- Is a multi-year fixed-price contract always more attractive than what the small-scale market can offer?
- Historically, haven't ex mill prices been higher to the consumer segment?
- Will changing subsidy schemes in power markets attract biomass from existing markets?

Installed pellet boilers <50KW

*Estimation (Source: European Pellet Council)

	2007	2008	2009	2010	2011	2012*
Austria	3 284	10 470	7 815	7 510	10 400	12 400
Belgium	500	800	450	200	300	400
Denmark	4 500	3 000	5 000	4 000	4 000	4 500
France	798	5 510	4 300	3 100	4 200	5 460
Finland	4 500	3 500	2 000	2 000	2 000	2 000
Germany	13 000	22 000	20 000	15 000	15 000	25 000
Italy	2 200	1 900	1 800	1 570	2 000	5 000
Spain	500	1 000	1 700	2 900	3 800	3 000
Sweden	3 500	5 000	2 500	3 500	3 500	3 500
Switzerland	1 026	1 197	885	1 180	1 300	1 500

Ekman

Annual pellet stove sales

*Estimation (Source: European Pellet Council)

	2007	2008	2009	2010	2011	2012*
Austria	1 750	3 050	2 600	3 273	5 000	7 000
Belgium	4 400	4 200	4 200	4 200	3 000	3 000
France	13 787	17 100	23 000	27 000	38 000	53 200
Finland	300	300	300	400	600	600
Germany	7 000	9 000	24 000	15 000	7 000	7 000
Italy	193 000	143 000	147 000	176 000	182 000	195 000
Spain	-	-	7 000	16 000	10 000	11 000
Switzerland	913	949	800	756	800	800

Ekman

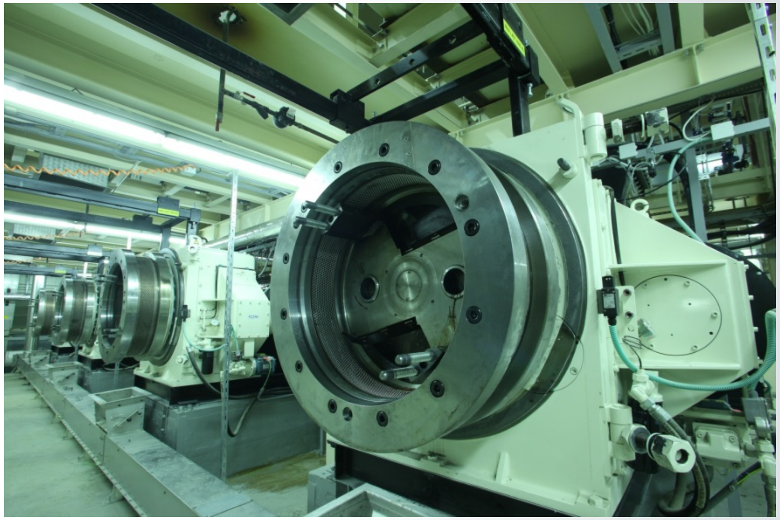
EN Plus A1 Certification will help increase your export sales

- Pellets must have a consistent durability
- There is a long checklist (including pellet analysis)
- If the plant is properly managed and equipped it will be certified
- Adequate plant technology and proper internal quality control are critical
- Certification managed by the European Pellet Council
- Based on EN 14961-2
- A handbook describes the requirements for certification
- Distributers are also certified (simplified procedure)

Ekman

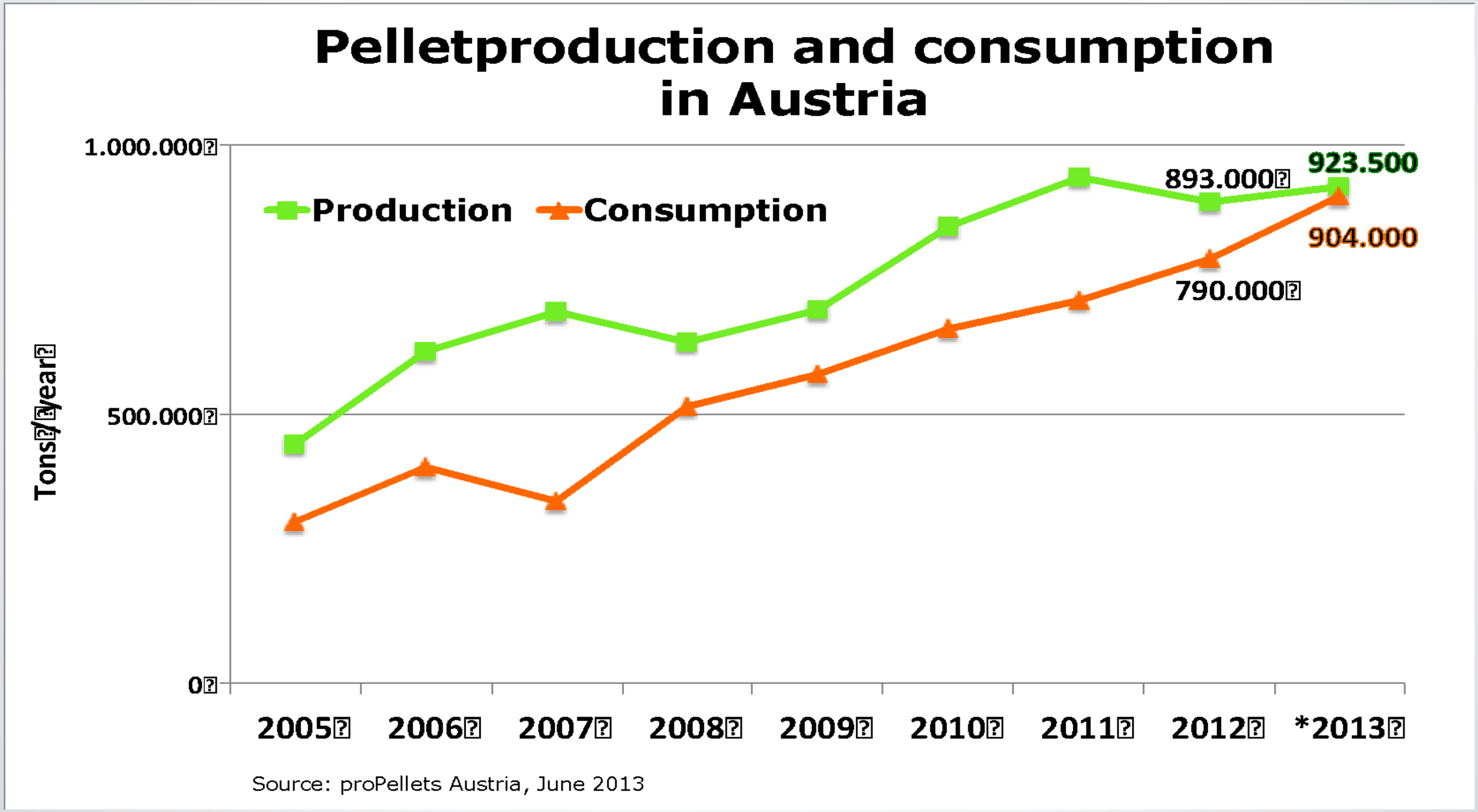
What are the costs for producers?

- Costs for auditing and pellet analysis are approximately $3500
- Costs for certification is approx. $600
- License costs for using the ENplus trademark 10-15 cent / t
- Auditor inspects the pellet plant and the quality management system, takes pellet samples for analyses

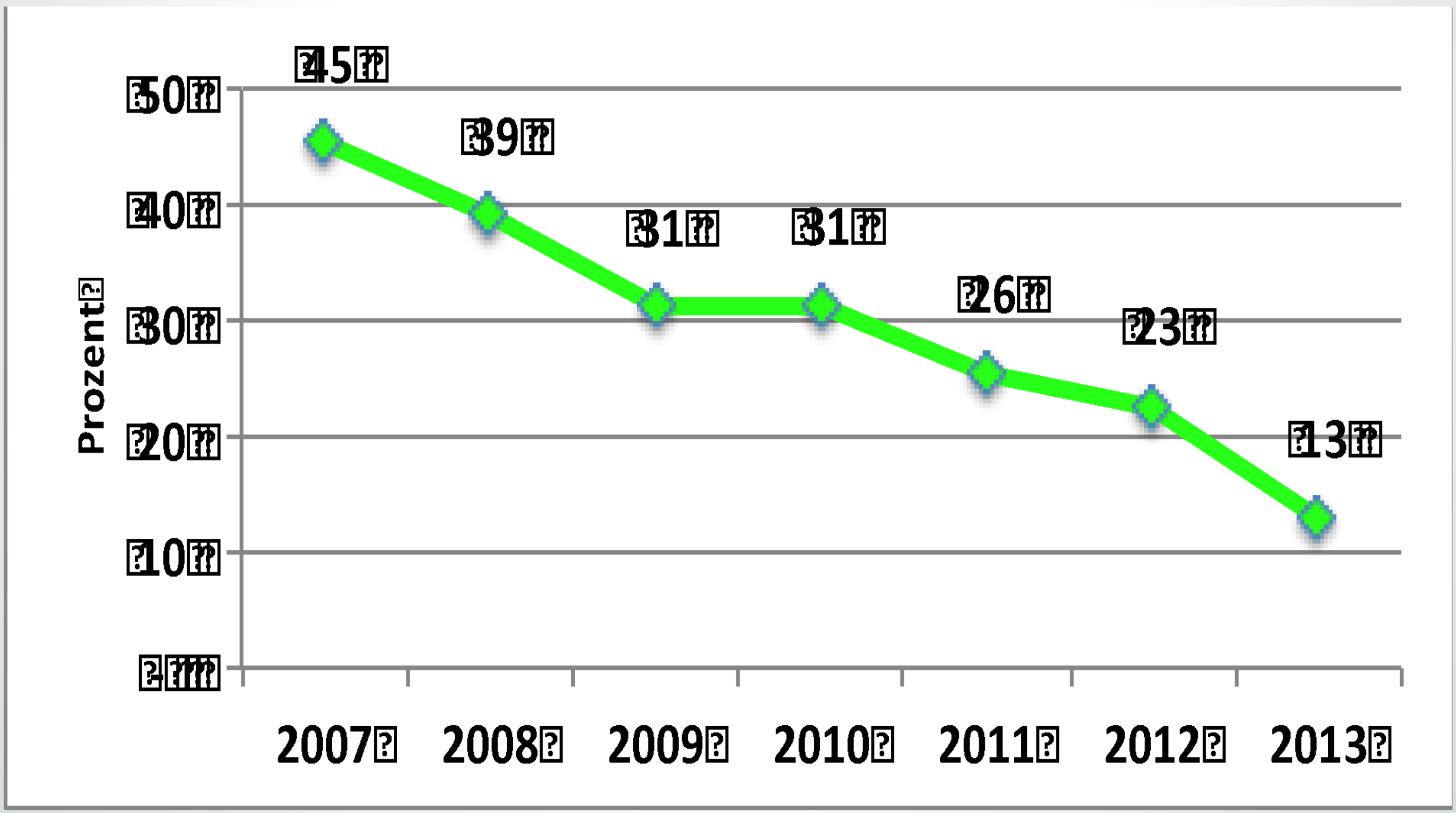


- Auditing report is submitted to a certification body that checks it and issues the certificate
- A license contract is signed with the national pellet association (or EPC) to use the ENplus quality seal

Austria an example of local supply and demand



Percentage of exported production in Germany



Will the industrial and residential markets converge?

- We believe this will happen as more manufacturers realise that having a broader client base will provide greater security than a long term contract
- The residential market is growing steadily and long may this continue however greater professionalism by importers is needed
- In a lot of countries local pellet producers are experiencing difficulty obtaining enough raw material to meet local demand
- The only way to keep growing in these markets will be through imported wood pellets
- Several producers are changing between producing industrial and premium

The future demand for residential pellets in Europe
(a survey of national wood pellet associations)

Country source	2011 (t)	2015 (t)	2020 (t)
Austria **(Propellets Ausria)**	710 000	1 490 000	3 500 000
Belgium **(Ekman)**	100 000	150 000	200 000
Denmark **(Ekman)**	700 000	1 000 000	1 250 000
France **(ProPellets France)**	560 000	1 400 000	2 500 000
Finland **(FPEA)**	70 000	150 000	450 000
Germany **(DEPV)**	1 400 000	1 900 000	3 500 000
Ireland (irbea)	40 000	60 000	70 000
Italy **(AIEL)**	1 900 000	3 100 000	4 250 000
Spain **(Avebiom)**	150 000	450 000	1 150 000
Sweden **(PIR)**	1 000 000	1 200 000	1 400 000
Switzerland **(Propellets CH)**	160 000	250 000	400 000
UK **(UKPC)**	50 000	500 000	1 250 000
Other countries **(Ekman)**	1 100 000	1 600 000	2 200 000
	7 990 000	**13 370 000**	**22 370 000**

The Continued Development of the European Residential Wood Pellet Market
Conclusions

- With some adjustments, most pellet producers can make premium pellets
- The European residential wood pellet market is growing at more than 1 million tons per year
- Many European countries cannot meet demand with existing production facilities
- The only option is to start importing wood pellets
- Certified wood pellets will always be more desirable than non certified
- Producers should co-operate and seek ways to enter the export market
- Ekman can help smooth the way for exporters
- EN Plus is the only recognized European certification system for wood pellets and is accepted throughout Europe

Ekman

ONE OF THE WORLD'S LEADING SALES AND MARKETING ORGANIZATIONS FOCUSING ON THE GLOBAL FOREST INDUSTRY.