

# Energy efficient supply chain of an aluminium product in Sweden

What can be done in-house and between the companies?

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# Aim

Identify the actual status in terms of implemented energy efficiency measures in a supply chain of an aluminium product produced in Sweden and to analyse potentials for improvements

- Both in-house at the individual companies and joint work for improved energy efficiency

# Supply chain studied

- Delivers a motor component for cars



# Methods

- Questionnaire
  - For energy efficiency in-house
  - 75 measures listed
  - Possibility to add more measures
- Focus group
  - For the joint work
  - Discussion between respondents from all 3 companies

# Annual energy use (in-house)

- Secondary aluminium producer: 60 GWh/year
- Foundry: 67 GWh/year
- Car producer: 76 GWh/year
- Total: 203 GWh/year

# Applicability of measures (in-house)

- 75 measures in total
  - 9 measures not applicable at any of the companies
  - The rest:

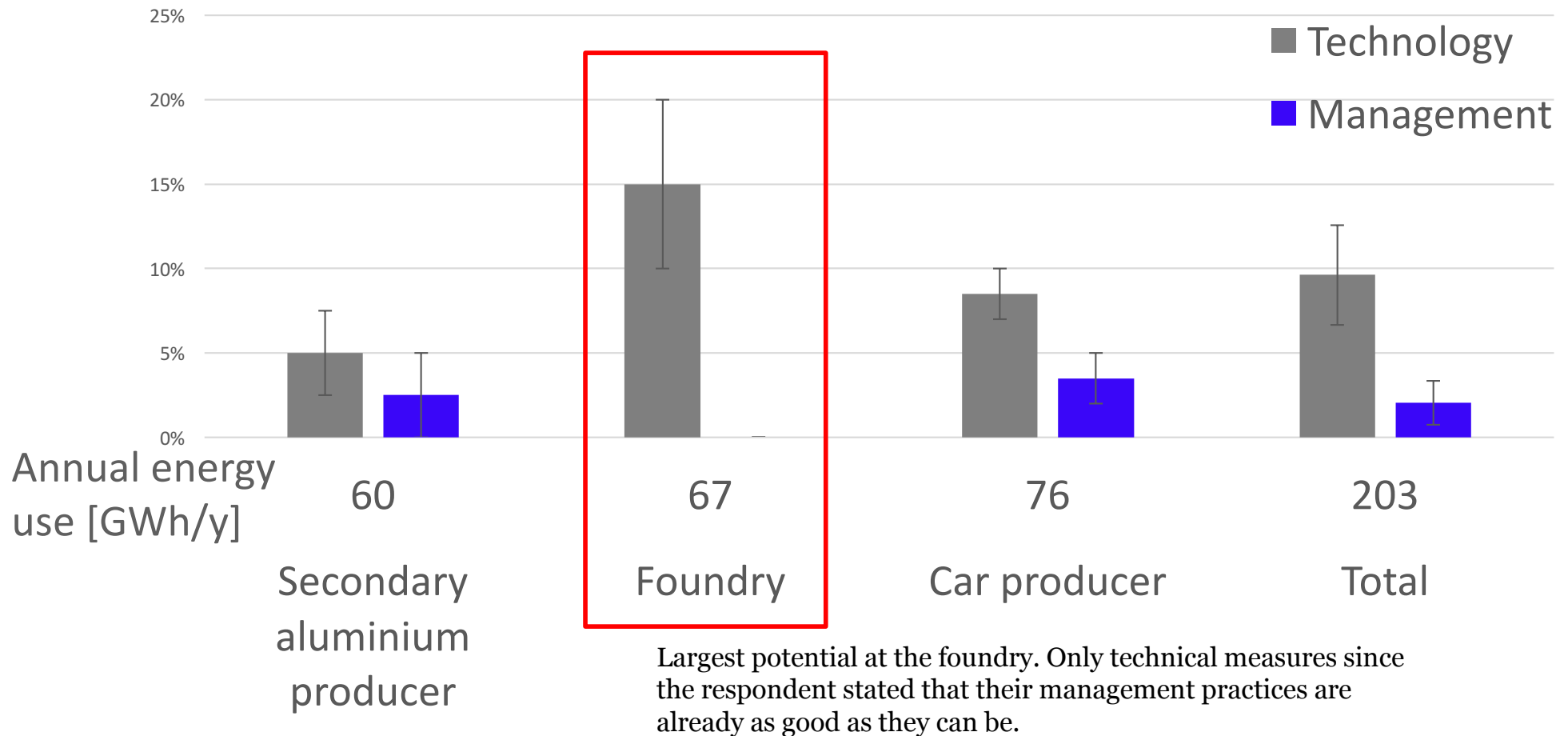
The numbers in the table are the number of times that each alternative has been chosen, and the sum of these is 3 times 66 since it is 3 companies and 66 measures.

	Imple- mented	Implemen- tation in progress or planned	Possible but not planned	Not applicable	Unknown to the respon- dent
Total	40	32	66	46	14

A number of measures have been implemented at the companies. However, there are still work to be done, since there are measures that are possible but not implemented yet.

# Estimated energy efficiency potentials (in-house)

The respondents perceptions of the energy efficiency potentials. The actual potential could be different.



# Energy efficiency measures (joint work)

- Product design
- Communication and collaboration
- Secondary instead of primary aluminium
- Closed-loop remelting
- Delivery of molten aluminium
- Transportation
  - Optimisation
  - Increased load factor
  - Local sourcing of raw materials
- Mapping the energy use



# Energy efficiency potential (joint work)

- The respondents were asked to estimate the energy efficiency potential for the entire supply chain
- Too hard to estimate
  - Need to examine the supply chain
- Largest potential within the companies

# Conclusions

- The companies have come some way in their work with energy efficiency in-house
- Still further improvements to be done in-house
- Even larger potential possible with joint work

Thank you for listening!

Questions?

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