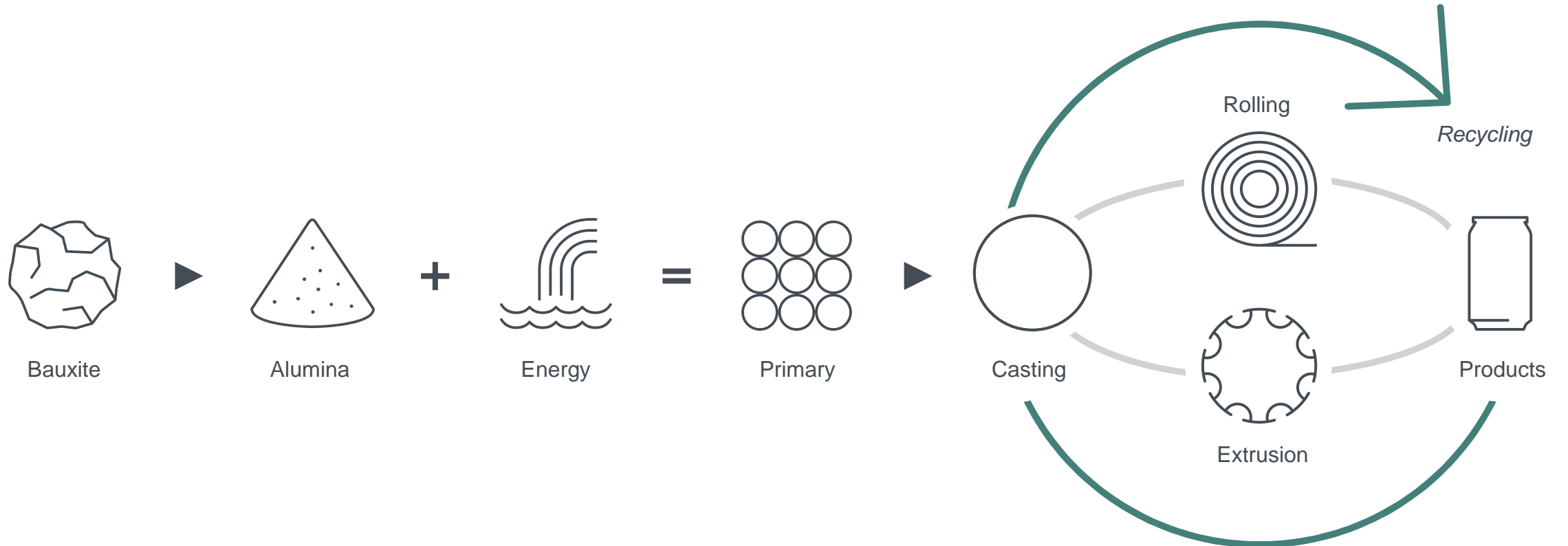




Hydro presentation - Mozees

8 November 2019

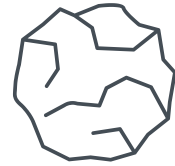
Engaged in the entire aluminium value chain



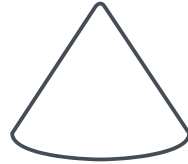
Energy is a key differentiator in the aluminium industry



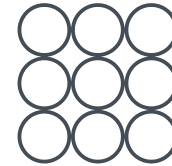
Center of energy excellence in Hydro



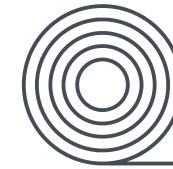
Bauxite



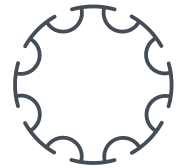
Alumina



Primary



Rolling



Extrusion

Energy cost*	~25%	~35%	~35%	~10%	~8%
	~50%				
Energy business area's contribution to Hydro	<ul style="list-style-type: none"> • Power sourcing 	<ul style="list-style-type: none"> • Power sourcing • Fuel switch project (LNG) • Energy mix long term, renewables, storage 	<ul style="list-style-type: none"> • Power sourcing and production • Gas sourcing 	<ul style="list-style-type: none"> • Power sourcing • Gas sourcing 	<ul style="list-style-type: none"> • Power sourcing • Gas sourcing

Market understanding. Framework advocacy. «Greener» support & energy efficiency support. Security of supply

*Share of Business Operating Cash Cost



**Lifting
profitability**



**Driving
sustainability**

Energy's ambitions: Profitability & Sustainability



Power production – Competence center – New business

1 Deliver value from strong performance and new business models in the power industry

2 Hydro's energy competence center, providing competitive sourcing and optimal energy system solutions

3 Build complementary new business in the renewable energy space to create and capture new value

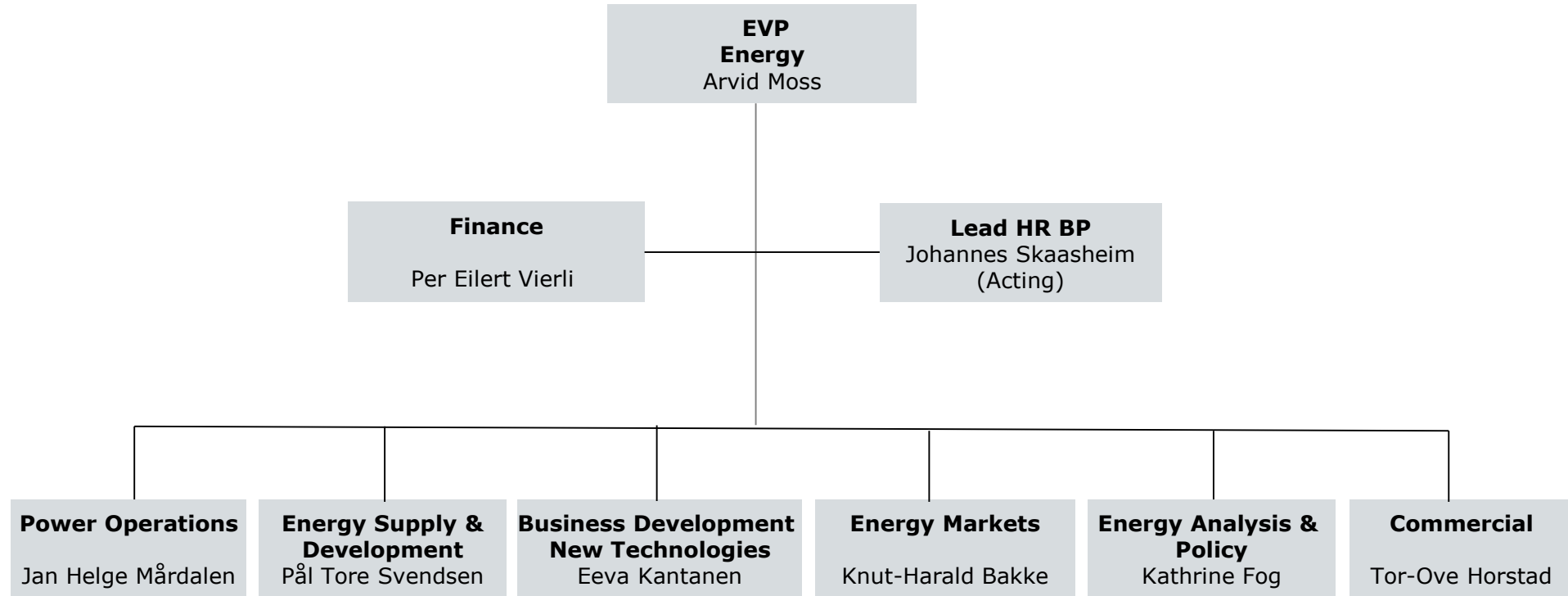


On the podium measured in terms of cost, safety and environmental factors (Nordic benchmarks)

Best energy competence in any aluminium company
Lower sourcing cost, lower risk, more renewables

Unique competence cluster. Asset light models.
Attractive returns. Value + lowered risk for Hydro group

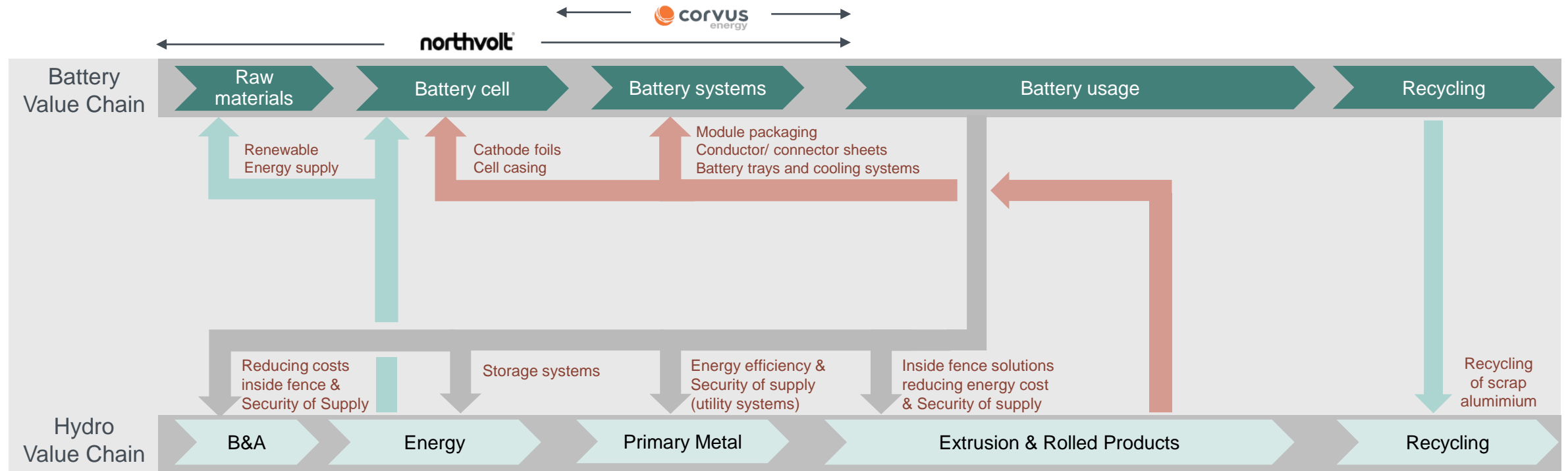
Energy



Batteries link well to Hydro businesses and capabilities



Hydro is engaged as an investor, user and supplier



- **MoZEES focuses on battery and hydrogen value chains, systems, and applications where Norway can take a leading position in the future => a good match with Hydro's agenda and capabilities**
 - Industrial development
 - Renewable producer
 - Norway
 - Battery value chain
- **Hydro's strategic rationale for participation**
 - Contribute to increased knowledge and competence
 - Learning and access to information and competence
 - Building knowledge and partners within the industry for our battery agenda



Hydro

We are aluminium

