# **northvolt** Drei

A guide to the opportunities of working at Northvolt Drei



111

# Take on the challenge

An industrial revolution is being born, and it's electric. Society and industry will change for the better and we'll tackle the climate crisis in the process.

At Northvolt, we're rising to the challenge by establishing a European manufacturing base for a key component in the new energy landscape – batteries.

Today, we are recruiting for Northvolt Drei – a new battery gigafactory under planning. Joining us means a fresh new career in the industrial revolution that will define the 21st century.

WE NEED YOU

# Contents

JOIN NORTHVOLT DREI

# 04 About Northvolt

The story behind the world's greenest batteries, and the part you can play in our future.

# We need you

07

Who we're recruiting, what roles are available and what we're looking for.

# **Employee benefits**

Pension, healthcare insurance, stock options and more.

11

12

# Moving to Germany

Perspective on moving to northern Germany to work at Northvolt Drei.

13

15

# Challenge accepted

A look at what Northvolt Drei would mean for the European and German energy transition.

# **Batteries & factories**

Insights on what it's all about – batteries and factories.



# About Northvolt

There is a great and historic change taking place today. The switch from fossil-fuels to electric is impacting every corner of society and industry. The world is changing for the better and there is one common factor to it all... batteries.

The world needs batteries. Lots of batteries. And for Europe in particular, we need to establish an entirely new manufacturing industry in order to ensure we can supply Europe from Europe.

Northvolt is Europe's first homegrown battery company and a direct response to the new industrial revolution.

Through our factories we intend to deliver sustainable battery cells for the automotive industry, as well as other industries and applications including heavy industrial machinery, grid energy storage, electric scooters and much, much more. Northvolt was founded in Sweden and has established its first battery gigafactory in the north of the country – a state-of-the-art facility, built with circularity and sustainability in mind.

We also have facilities in Poland and Norway. Today, we are also planning a battery gigafactory in northern Germany – Northvolt Drei.

Behind the technology, we know that it's people that will make this all a success.

Some of Europe's largest companies have put their faith in Northvolt, but now we're looking to you to help us drive this mission forward.

So join us on the journey to a greener future. Find your place in Northvolt and choose to work with something that will define your career.



# northvolt Lingonberry Lite NV INPSO/103/215-L1 NV INP27/51/145 L1



# About Northvolt Drei

Powered by the cleanest electricity grid in Germany, Northvolt Drei has the potential to produce the cleanest batteries in continental Europe with capacity up to 60 GWh/year.

#### What is the status of the project?

After signing a Memorandum of Understanding with the north German state of Schleswig-Holstein and the region of Heide for the development of a 60 GWh lithium-ion battery manufacturing plant, in May 2023 we secured support from the German government for the development of Northvolt Drei. The state aid is subject to approval by the EU Commission.

#### Why plan for a location in Heide?

The region hosts the cleanest energy grid in Germany, one which is characterized by a surplus of electricity generated by onshore and offshore wind power and reinforced by clean energy provided through grid interconnections to Denmark and Norway. This is key to producing sustainable batteries.

In addition to being centrally positioned in the emerging European battery supply chain connecting Scandinavia and continental Europe, the region also provides the space required to establish a battery plant of sufficient size to leverage the economies of scale in production which are key to reducing battery costs.

#### **Does Northvolt have customers?**

We have several customers from the European automotive industry with customers including BMW, Volvo Cars, premium brands of the VW Group, Volvo Cars and Scania. "We're excited to announce Northvolt Drei – a project which fits well into a promising future cluster of clean technology ventures emerging in northern Germany and advances the wider European transition towards a sustainable society within which Germany plays a crucial role."

Peter Carlsson CEO AND CO-FOUNDER OF NORTHVOLT, MARCH 2022 POWER CONSUMPTION

staffing **3,000 employees** 

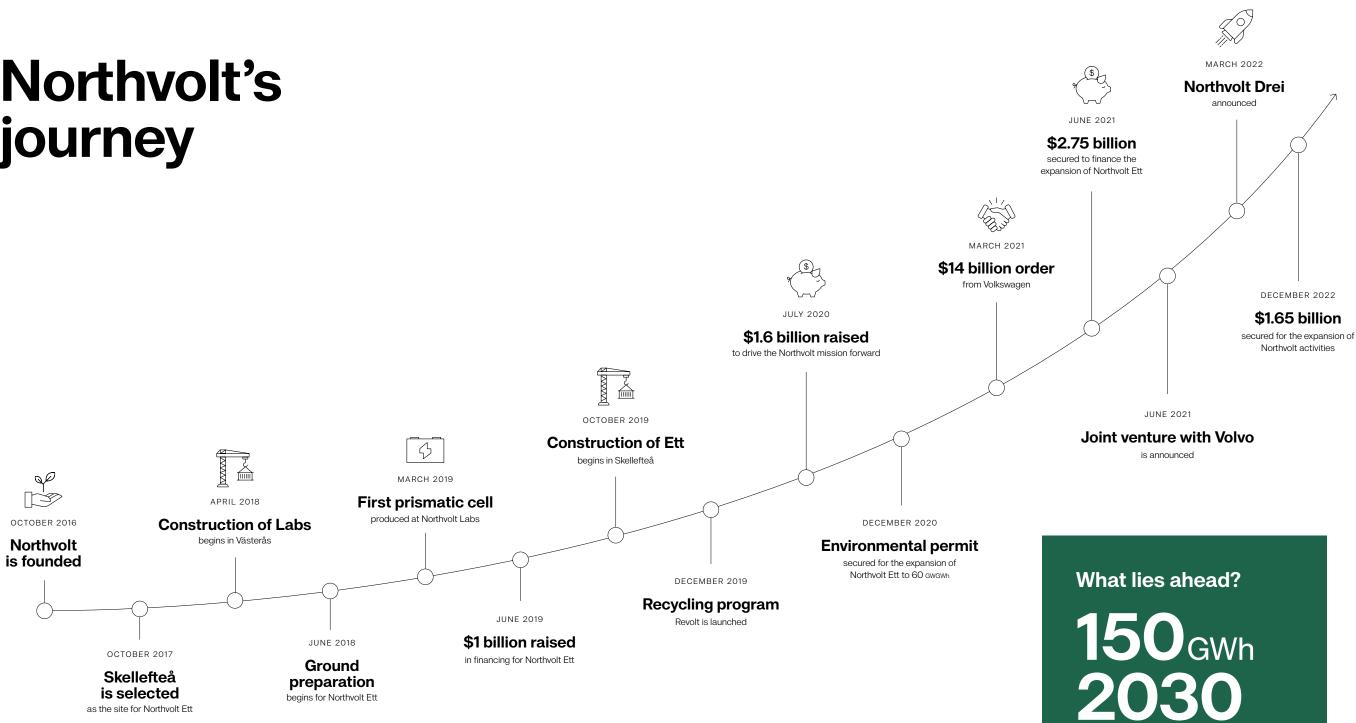
PRODUCTION **60 GWh / year** 

SIZE **1,100,000 m<sup>2</sup>** fully built

Northvolt Drei in numbers

WE NEED YOU

# Northvolt's journey



6

Northvolt plans to build more factories in Europe. The goal is to establish a battery manufacturing capacity of 150 GWh per year, by 2030.

# **Culture and life at Northvolt**

Going to work is much more exciting when you can see how your daily efforts have a direct positive impact on the future. Join us in inventing, manufacturing and recycling the world's greenest batteries! Challenge

# We're here to make oil history

Northvolt is one the world's fastest-growing cleantech companies. We move fast because the climate clock is ticking and we know that we can make a difference. As green tech pioneers we create a brighter future by revolutionizing and setting a global benchmark for sustainability in the battery industry.

We walk the talk and lead by example by finding solutions that deliver on our values, mission and commitments.

With state-of-the-art technology and science, we make batteries and energy storage systems that provide clean energy and will change the way we live.

# We use our purpose as our power

At Northvolt, passionate problem-solvers from all around the world unite to make a meaningful impact and shape history together. We have an entrepreneurial spirit where everyone needs to contribute, be driven and dare to make bold decisions. We are on a mission with a challenging journey ahead, because the path of a pioneer is not always straightforward. Our inclusive and diverse culture energizes us and gives us multiple perspectives, which is crucial to our success.

The importance of our mission and respective responsibilities make every day crucial – and rewarding.

## We level up together

Being a Northvolter is a constant journey in personal and professional growth. With knowledge and skills from all over the world, we share insights, ideas and boost each other. Even when we fail. And when we succeed, we sure know how to celebrate.

Collaboration, kindness, and problem-solving is the way of life at Northvolt. We take each other to the next level by challenging and supporting one another. This sets the stage for how we get things

done: We take ownership, we grow with our tasks, and we go to work knowing we make a difference that matters.



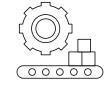
# Who are we recruiting?

We expect to recruit around 100 persons into the Northvolt Drei team through 2023.

This core team will lead the way on program management, factory design, environmental management and procurement.

Key roles we're recruiting:





Construction

Engineering



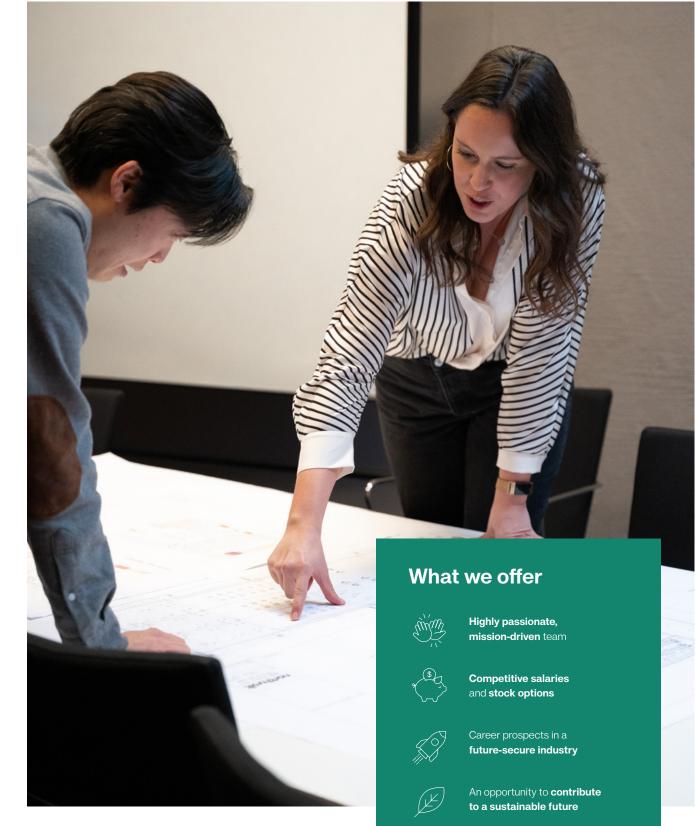
Strategy



Commercial



Corporate Functions



# Workstreams we're recruiting

# Construction

Northvolt Drei is a massive project, and construction lies at the heart of it. We are leveraging experience from having built our first battery gigafactory in northern Sweden, but Northvolt Drei is its own project. We will need to build a core team of construction specialists to drive the project through planning, purchasing, commissioning and execution.

#### **Beneficial previous experiences**

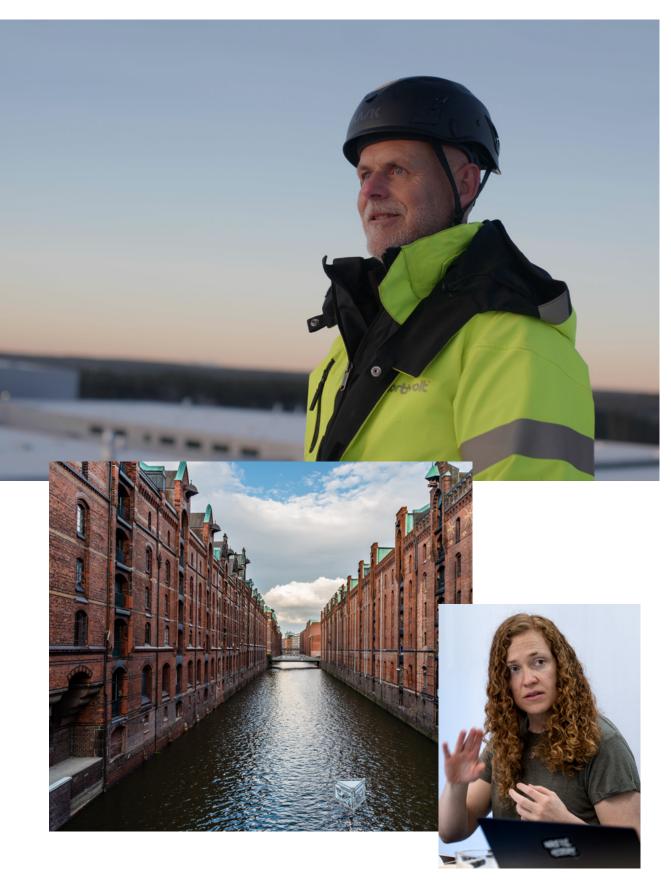
Construction experience from the industry, with proven track-record of delivering results in large, greenfield construction projects.

# Engineering

We will be designing Northvolt Drei in-house. This means we need specialist engineers to take lead on everything from production line planning and building layout to utilities, infrastructure and supporting site services.

## **Beneficial previous experiences**

Experience from the industry, with proven track-record of delivering results in large, complex engineering projects.



#### WE NEED YOU

# Strategy

We need big-picture thinkers to drive the development of Northvolt Drei strategy in Germany, aligned with Northvolt group strategy towards expansion. The Strategy team works closely with the operational and functional teams (both technical and business related) to drive our strategic initiatives.

## **Beneficial previous experiences**

Engineering or mixed business/ engineering degree, preferably in physics, electrochemistry, mechanical or industrial engineering.

Deep experience from top-tier consulting, strategy department or program management.

Experience from working in/with the electric vehicle, energy or battery industry.

Great quantitative and qualitative analysis and communication skills.

# **Commercial**

The batteries produced at Northvolt Drei will be delivered to leading automotive customers. A project of this size requires people with excellent commercial skills within project controls, contract management and purchasing.

## **Beneficial previous experiences**

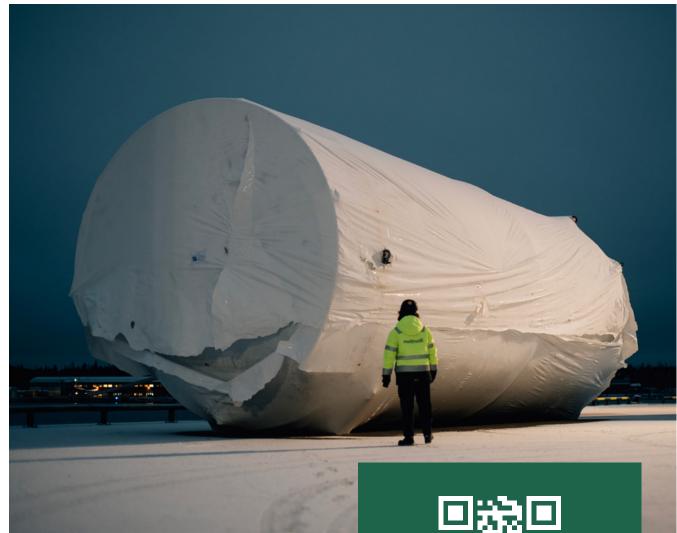
Depending on your role, experience in German law and regulations, contracts, supply chain or strategic sourcing of materials or equipment would be required.

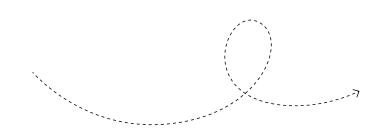
# **Corporate Functions**

We are looking for key persons to join our finance, business control, HR and legal teams.

## **Beneficial previous experiences**

Earlier involvment in ramping up one of the corporate functions identified above in a start-up or scale-up environment is required.



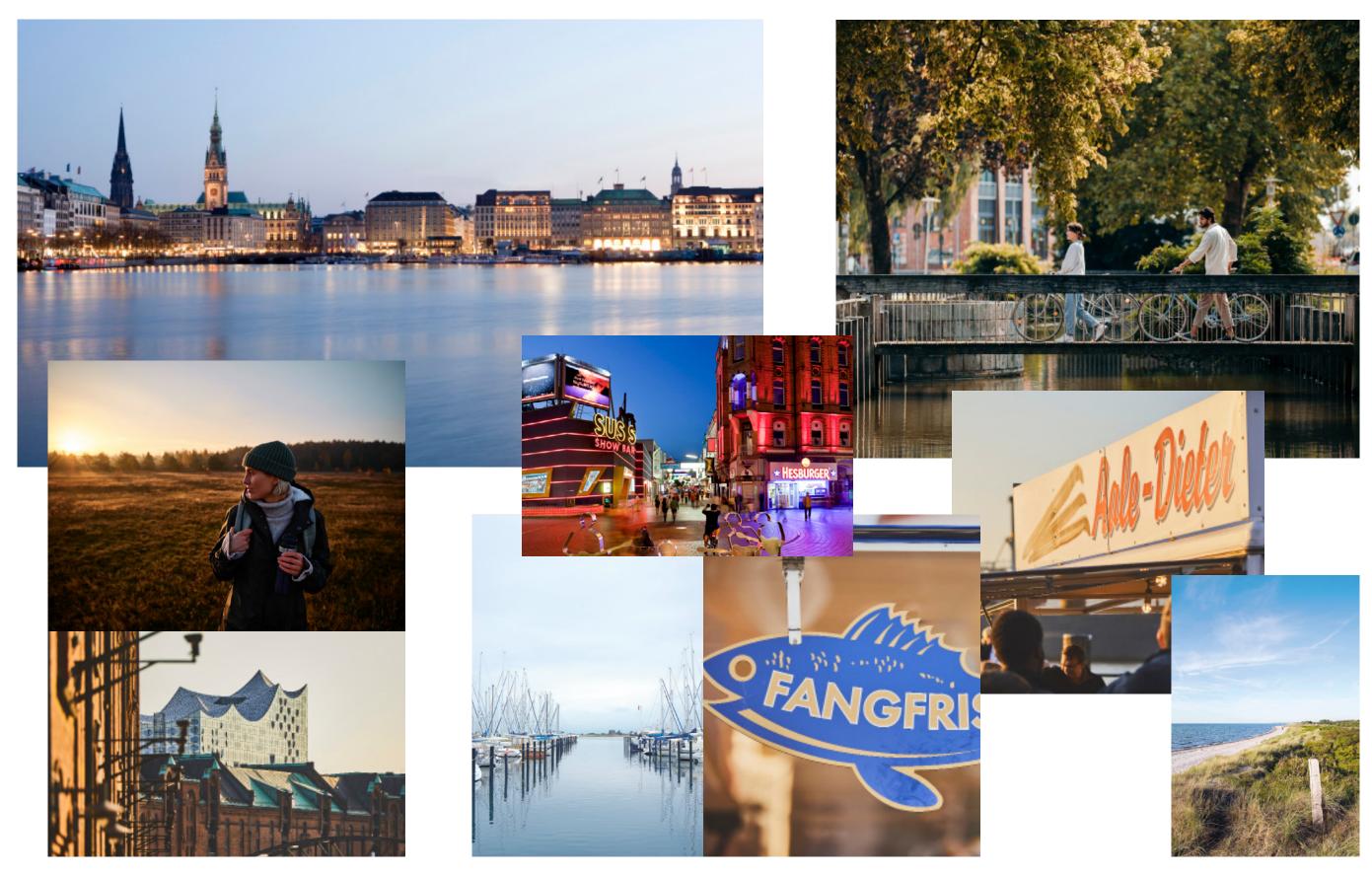


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## Looking for more?

Search the complete list of positions available at Northvolt on our career webpage.

northvolt.com/career



# **Employee benefits**

At Northvolt, our employees are just as important as our mission. Which is why we offer a variety of benefits to each and every one of our team.



#### Pension

Receive an occupational pension providing additional savings on top of the statutory pension.



### **Relocation support**

We will support with finding accommodation and schooling if your family decides to join, as well as support with travel tickets and moving your belongings for you and your family.



### Stock options

Share in the success you've played a key part in achieving by participating in the Northvolt incentive program offering the opportunity to acquire Northvolt shares at a fixed price.



# Take the front seat in transforming Germany's industry

Northvolt Drei is positioned to emerge as a landmark on the industrial landscape of Germany's energy transition.

The plan for Northvolt Drei represents a leading example of how sustainability, technology and engineering can be combined to accelerate the shift to a cleaner industry and a brighter future.

Today, the German automotive industry is known around the world. The arrival of electric vehicles, however, represents a major shift for the industry — one requiring specific responses. By embracing a new battery industry, however, Germany can retain its position as a global automotive leader.

To make this a reality, we must build up a battery industry in Germany. We need battery factories, and we need to them to operate with sustainable business models — with ethically sourced raw materials, powered by clean energy and a commitment to recycling. Northvolt Drei will deliver this — a state-of-the-art battery gigafactory, established with a committment to sustainability.

But factories alone are not enough. Behind this we must build up experience and competence in battery technologies.

At the same time as we establish the gigafactory in Heide, we will be engaging with various public, private and academic stakeholders to nurture an ecosystem of battery expertise.

Northern Germany is ideally placed to support this vision. The factory will be powered by one of the cleanest energy grids in the country, and will contribute to Germany's energy transition by making use of the region's renewable energy surplus and creating demand for more renewable power. Northvolt Drei will also benefit from close access to the port of Hamburg providing an ideal hub for inbound and outbound logistics.

Joining the team behind Northvolt Drei is not only an opportunity to contribute to a remarkable project, but a chance to take the front seat in transforming Germany's industry.

"Germany can look forward to one of the most significant lighthouse projects of the energy and transport transition, which will create thousands of green tech jobs."

Robert Habeck

FEDERAL MINISTER FOR ECONOMIC AFFAIRS AND CLIMATE ACTION, MAY 2023

## **Did you know?**



110 nationalities



le're aiming for at least 50% women



Average age at Northvolt is 36 years





14

Like what you see?

Moving to Germany

Northvolt Drei is planned to be developed just a few kilometers outside the town of Heide, around 100 km north of Hamburg. We expect a lot of the our team will arrive from other cities or countries. Relocation is something we plan for and support you with. Rest assured, you have a fantastic region waiting for you.

#### What can I expect from Heide and Hamburg?

The region makes for a perfect home if you love nature, but don't want to miss out on access to the buzz of an international metropolis. With one of the world's largest ports, Hamburg is a vibrant mix of historical culture and modern life — a city that defines itself as Germany's gateway to the world.

Just fifteen minutes away from Northvolt Drei in Heide, you can enjoy walks in a UNESCO world heritage park or days relaxing on white sand beaches of the North Sea.

#### Can you help me find accommodation?

Absolutely! We have employees in Drei working to make sure your move is easy.

## My partner will also need a job. Can you help out with that?

Sure. We're in contact with a number of recruitment agencies and can support your partner's way into working life.

## What schools are there in the region for my children?

There's great options for education at every level, including college and university. Alongside English-language schools, the city offers education in English from grade 1 to 12 (ages 7 to 18).

## Can you support me getting

## a residency permit?

Yes! So we're familiar with the processes of getting you settled. We have processes and people to help with everything from registration to bank accounts and schools.

# The planned factory at a glance

## Slurry mixing

The step in the manufacturing process involves producing anode and cathode mixtures called 'slurries'. The chemicals in the mixture prevent the active material from breaking down – so that we can produce a safe, high-performance and long-lasting battery.

## Electrode manufacturing

Here, the anode and cathode slurries are coated onto copper and aluminum foils to create anode and cathode electrodes. The anaode and cathode electrode is oven-dried before being pressed and collected into large rolls.

## Cell assembly

At this point in the production process, the electrode rolls are fed into machines that cut and prepare the material into smaller products. The electrode is then either rolled up (for cylindrical cells) or stacked (for prismatic cells) into small packages, which are then fitted into a metal can. Finally, the cells are filled with electrolyte and sealed.

## Formation & aging

This is the last step in production process and it's about bringing the battery cells to life. To do this, we complete many charge-discharge cycles under controlled conditions. After a final quality inspection, the cells are ready to be sent to customers.

## Recycling

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We will have on-site recycling at Northvolt Drei. By recycling batteries and production scrap we can recover valuable raw materials which can circulated back into manufacturing processes.



200

#### Conceptual illustration of a battery gigafactory

# Making a battery cell

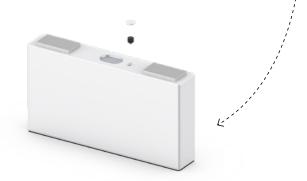
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(5)

The slurry coated aluminum (cathode) and copper (anode) rolls are dried to create **electrodes**. After a quality check, the coated foils are treated to fit with a particularly cell type.

3 The anode and cathode sheets are then stacked alternatively in between a separator to form a small package referred to as **jelly-roll**.

6 The jelly-rolls are then fitted with some additional components and the whole package is inserted into a **metal cell can** and sealed.



The cell is then filled with **electrolyte**, before it is sent onward to the final step of production – formation and aging.

The **jelly-roll** is then wrapped, taped and pressed tight. Next, the tabs of the jelly-roll are welded to create positve and negative **current collector**.

(4)



## **Prismatic vs Cylindrical**

olt, we produce two types of battery cells cal and prismatic. Cylindrical cells look classic AA-battery, while prismatic cells d-fashioned video tapes.



A cylindrical battery cell

# Join us!

OUR PARTNERS

😪 Epiroc

SCANIA

VOLKSWAGEN

VATTENFALL

VOLVO

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join@northvolt.com

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