



**northvolt**  
Lingonberry Power  
Cylindrical 2170



## Hi there,

**Almost four years ago, in 2017, I visited Skellefteå for the first time and saw the great opportunities to build a large-scale battery factory. Now, a few years later, we can see the Northvolt Ett factory buildings that have been established for the first phase of construction. The construction management, together with many parties involved, has done a fantastic job and we are working to get the factory ready to produce the first batteries at the end of 2021 before scaling up and expanding the factory.**

In the coming years, we will need to employ at least 500 new people a year to Northvolt Ett. It will be one of Europe's most exciting workplaces – where chemistry, process engineering and the latest automation technology meet under one

roof. A new industry is being created; one which is the key to tackling climate change and that will also attract a number of other establishments to Sweden and Västerbotten. Here we will be able to build the world's most advanced battery factory and develop a fully circular cycle with our battery recycling factory Revolt, which will be built and integrated in 2022.

In this magazine, we want to share our story with you and tell you about factories, jobs and people who are already in place. The entire Northvolt family and I look forward to getting started!

**Peter Carlsson**

Grundare och Chief Executive Officer





# We must do our part. Before it's too late.

**In 2016, leaders of the world signed the Paris Agreement. In short, the agreement means that we must do everything in our power to keep global warming below 2 degrees celsius.**

**Since then, a question has resonated around the world: How?**

According to most reports, one of the clearest causes of global warming is the massive amount of carbon dioxide formed when fossil fuels are burned to generate energy. In the truck's diesel engine, in the coal-fired power plant's incinerator, in all the earth's mining machines, cars, mopeds and chainsaws. This energy production creates a total of almost three-quarters of all climate emissions.

This is where we at Northvolt come in – this part of the problem the lithium-ion battery can help solve. That is why a revolution is now taking place – vehicle by vehicle, machine by machine. Soon they can all be powered by renewable electricity instead of burning oil. When battery storage makes it possible for sun, wind and water to give us energy around the clock, the fossil power plants can be phased out.

In 2019, the three inventors of the lithium-ion battery received the Nobel Prize, with the motivation that they “enable a fossil-free world”. This revolution should have taken place several years, or perhaps several decades ago. But it is happening now, and there is no time to lose. We do not have the complete solution to climate change, but we must do our part – a crucial part – and we must do it before it is too late.



# Let's take it from the beginning

Northvolt is based on an idea that is very simple, and at the same time very difficult.

The simple part was born during Peter Carlsson's and Paolo Cerruti's time as managers at the American electric car company Tesla. They saw that many European vehicle manufacturers switched to the production of electric vehicles, but that battery production took place almost exclusively in Asia. Predicting that Europe would soon have a huge demand for sustainably produced lithium-ion batteries was therefore quite simple. The difficult part? The rest.

– We realized that we would need to gather world-leading expertise, massive financing and build a huge organization to be able to mass-produce lithium-ion batteries, Peter explains. In addition, it would be done on a continent that has never done it before. But, it's a bit like eating an elephant, you can – you have to take one piece at a time.

Step by step, the task began to be solved. An engineering team was built under the leadership of Chief Development Officer Yasuo Anno, where experts from around the world came together.

Today, men and women of over 75 different nationalities side by side at the Northvolt.

Efforts towards sustainability and recycling were established under the leadership of Chief Environmental Officer Emma Nehrenheim – whose team today is well on its way to developing a battery with a minimal carbon footprint and the world's highest ambitions for recycling.

In parallel, meeting after meeting was held with potential customers, stakeholders and partners. Today, Northvolt collaborates with some of the world's leading companies, with an order book of over \$27 billion.

– If you gather many very passionate people in the same place, with a basically simple idea, and a clear common goal, then you can also quickly achieve results, says Paolo.

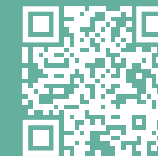
Since the founding of Northvolt 2016, an incredible amount has happened, but it is 2021 that everything is put to test. The eyes of the world are turned to what two years ago was a dense industrial forest north of Bergsbyn in Skellefteå. The

buildings for the first production lines in Northvolt Ett are already rising up over the treetops, in a building complex that will be large as not just one, but more than 3700 African elephants.

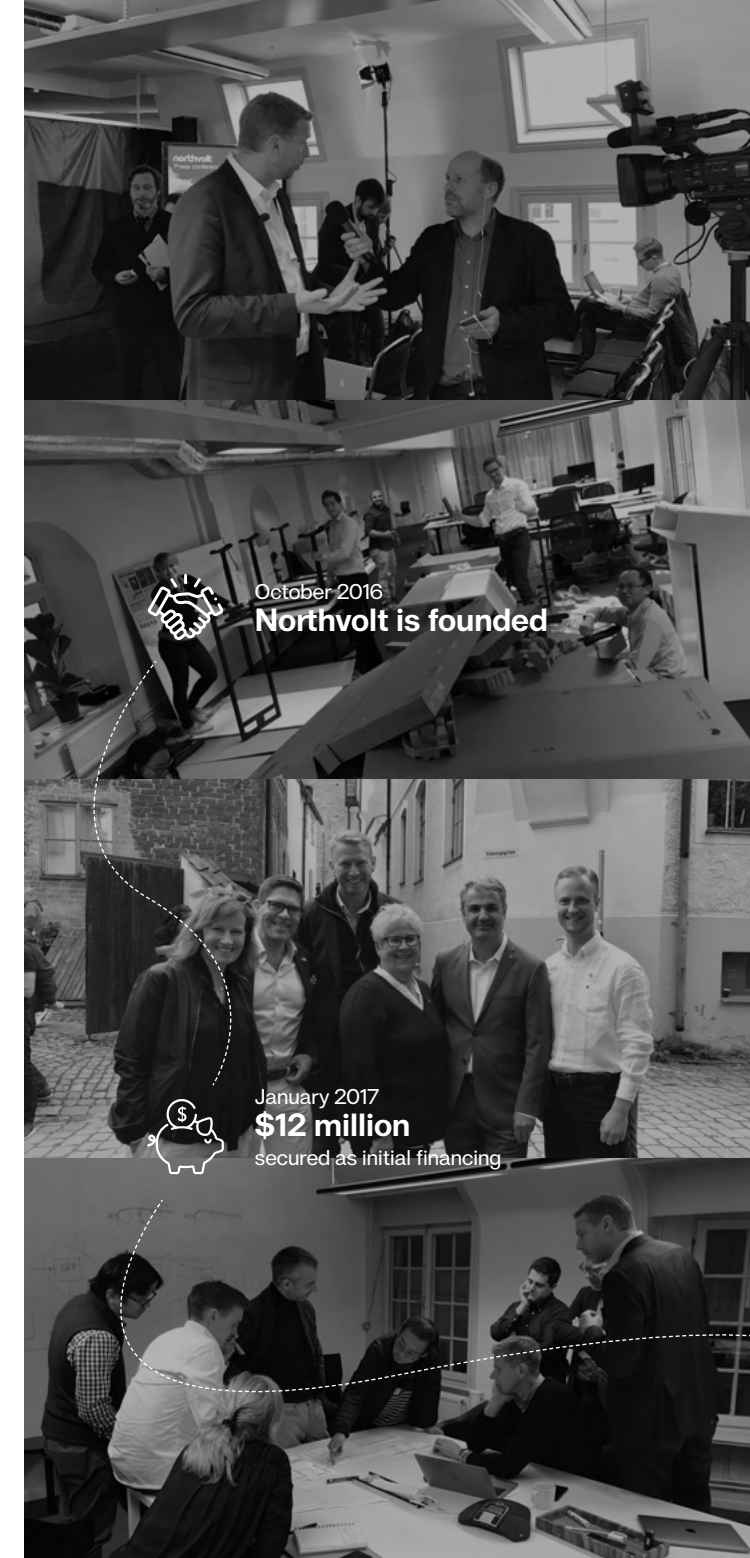
The basis for all the difficult work is simple: Europe is screaming for sustainably produced batteries. Soon it's time for Skellefteå to deliver.

## Did you know?

We use QR codes like these a lot in our production. By scanning them on our batteries, we can read exactly how the manufacturing process went and where the material in the current battery comes from. If you scan this with your mobile camera, you can see even more about how the Northvolt journey started!



[chronicles.northvolt.com](https://chronicles.northvolt.com)



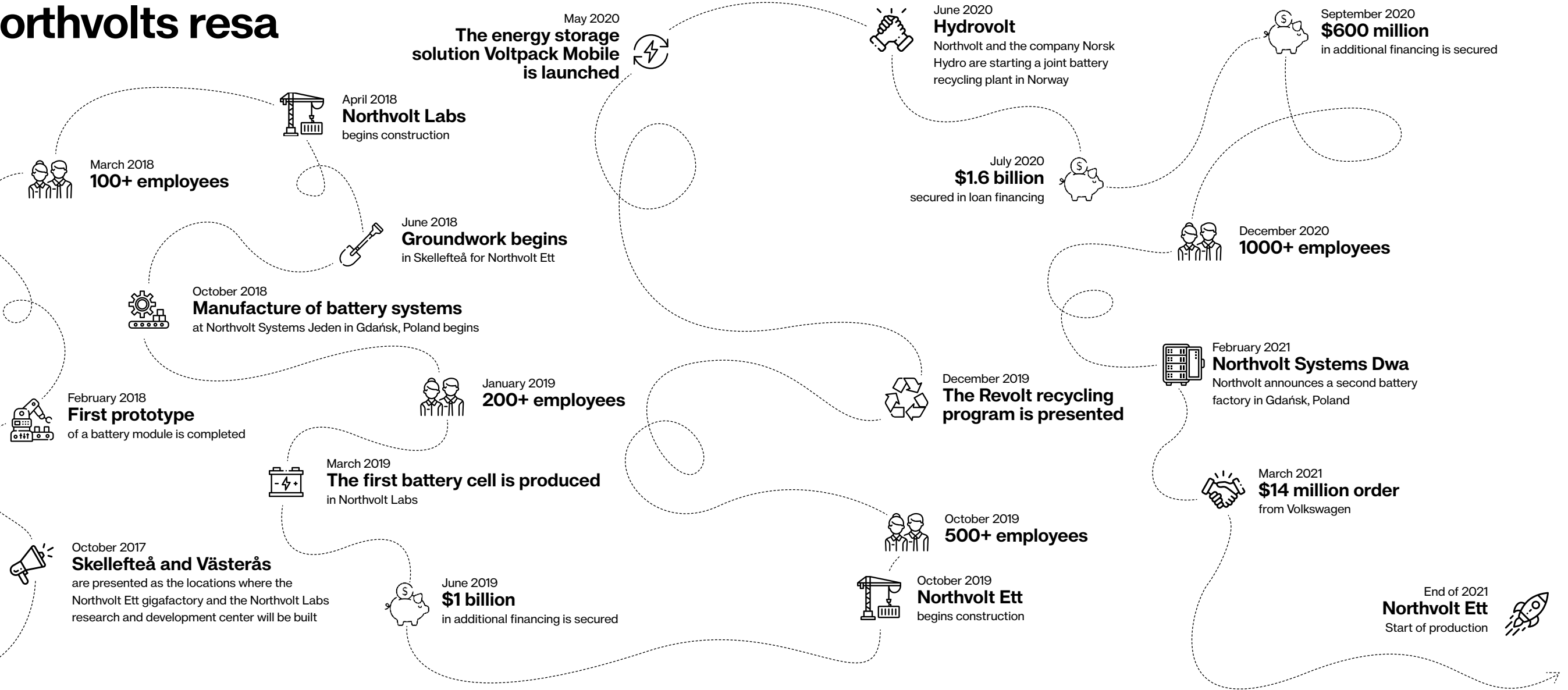
October 2016  
**Northvolt is founded**



January 2017  
**\$12 million**  
secured as initial financing



# Northvolts resa



# Supplying Europe from Europe

1

## Northvolt Ett

Skellefteå, Sweden

Northvolt's first large-scale battery factory. All parts of battery production takes place here, such as preparation of active material, cell assembly and recycling. In addition to roles in production, there are also support services in HR, IT, and more.

2

## Volthouse

Stockholm, Sweden

Many support and strategy functions work here, such as roles in finance, law and recruitment. Development work is also carried out here within Systems: Northvolt's battery modules and energy storage systems.

3

## Northvolt Labs

Västerås, Sweden

Northvolt's center for research, development, test production and recycling. Here we develop the products that will be produced on a large scale in our battery factory Ett.

4

## Northvolt Systems Jeden & Dwa

Gdańsk, Poland

Northvolt's battery modules and energy storage systems are manufactured here with battery cells from Northvolt Ett.

5

## Hydrovolt

Fredrikstad, Norway

Northvolt's first recycling plant, Hydrovolt, is now being built here in collaboration with the aluminum company Norsk Hydro. The recycled material becomes new battery cells in Skellefteå.

## Did you know?

Northvolt plans to build more factories in Europe. The goal is to produce a total of 150 GWh of battery capacity by the year 2030. It will require 4-5 large-scale battery factories.





# How big is the need for batteries?

Electrification is by no means something new, it been a long time since we switched from candles to light bulbs in our homes. A large part of the things you use in everyday life are already powered by batteries – the mobile phone, the screwdriver and perhaps the toothbrush – but there will be more. And with better batteries.

The automotive industry is the locomotive of electrification. **By the way, did you know that some of the very first cars built were battery-powered?** It's true. But they could not travel very far or fast and were therefore overtaken by the development and capacity of the combustion engine.

But since the lithium-ion battery entered the market, the map has been redrawn. This type of battery can efficiently and powerfully provide energy and therefore enable the transformation from combustion engines to electric motors, worldwide – in cars, buses, mining machines and mopeds. In fact, the use of electric vehicles is expected to more than double in large parts of the world over the next 20 years.\*

The lithium-ion battery's ability to store energy is another revolutionary aspect of electrification. Through energy storage systems, energy can be collected when the wind is blowing and used when it is not. The peaks are evened out and the energy supply increases.



So, where will our batteries be used? In all the places combustion engines can be replaced by batteries and where energy is needed. The arguments against batteries are usually that they are not powerful enough, too expensive or are bad from an environmental point of view. Northvolt sees it as its mission to ensure that those arguments no longer hold.

**Make oil history!**



Automotive



Portable

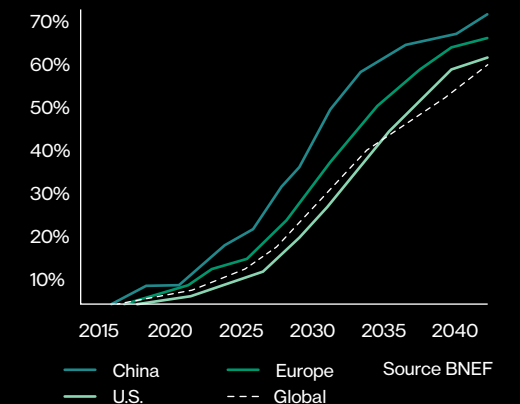


Energy storage



Industrial

\*Expected global increase of electric vehicles per region



Northvolt will make the world's greenest batteries

# What makes a battery sustainable?

Today, up to 95% of all the world's batteries are produced in China, South Korea and Japan. They are most often produced with fossil-based electricity, which produces large emissions of carbon dioxide. Different parts of the battery are also produced in different places and then transported on to the whole world, which leads to long transports and again, large emissions. The minerals in the batteries can also come from outdated and unsustainable mining, which generates – yes, you guessed it – emissions.

## This is what Northvolt is changing.

Through an extensive assessment process, we buy minerals from the most sustainable mines

we can find. As much of the battery as possible is made on-site in Skellefteå, with shorter distances to our customers in Europe, which reduces unnecessary transport. And above all: our batteries will be produced with 100% fossil-free electricity, directly from the Skellefteå river.

Step by step, we reduce emissions throughout the production chain, and on a very large scale, so that prices are also reduced. This is how sustainable batteries are created – which can be used by everyone.



Want to know more about how we want to enable the future of energy?  
**Check this out!**

made from batteries





# Change, for real.

**In the spring of 2017, Emma came into contact with Northvolt for the first time. It was nine o'clock on a Sunday morning when her then boss called to tell her about a large and important customer — with only eight employees.**

– It was only when I met the team that I seriously understood what it was that had landed in Sweden. It's so obvious now, but then it felt so big – like Tesla itself came to town, says Emma.

Just a few months later, she was hired by Northvolt and has since worked on sustainability and environmental issues linked to battery production. At the time she was hired, the electric car industry struggled globally with declining confidence, largely due to the problematic circumstances under which the Asian car batteries were produced. Inspections lead to scandalous articles about child labor, high carbon dioxide emissions and problematic mining in mines.

At the time Emma was hired there was no

battery production in Europe, nor anyone in the entire battery market who could offer batteries for electric cars with a complete sustainability mindset. Emma says:

– We understood that a 100% commitment to both the ethical and environmental aspects of sustainability was a crucial stance for success in Europe but also to be able to attract passionate and committed talent to Northvolt. It is a huge opportunity to both be able to make a fantastic career and at the same time be involved in creating change for real!

One of the things that Emma has been involved in and worked on is the recycling program Revolt. There, batteries that have been damaged or come to end-of-life can be sent to Northvolt, to be discharged and disassembled. The batteries are crushed and all physical metal fractions are separated and sorted in an automated sorting process. When the metal fractions have been removed from the shell and foil then a fine powder



**Emma Nehrenheim**  
Chief Environmental Officer

is sent into the wet chemical process. The process consists of over 40 steps of separating and purifying the metals so they can go back to battery production and become new batteries.

– This circular model means that we do not have to rely on fresh raw material for each battery cell, but can to a large extent use recycled materials instead. By showing that this kind of circular production is possible, Northvolt not only increases the sustainability work at its own company, but also influences other battery manufacturers to

do the same. We are involved and influence on a political level and set the standards so high that we ourselves are really challenged. This work is something we are really looking forward to, but which requires strong alliances with our suppliers.

Emma concludes with the words that many at Northvolt can agree with;

**– The big challenge is to do the right thing and to do it fast.**

The cycle of a Northvolt battery

# Closing the loop

1

### Responsible mining

No child labor and no middlemen. We work directly with selected suppliers who work ethically and we want to maximize the proportion of recycled metals.

2

### Preparation and manufacturing of active material

Takes place in our own factories where we can then have full control of the process and the components.

3

### Production

The batteries are assembled in an automated, modern and safe industrial environment without heavy lifting.

4

### Use and tracking

Environmentally friendly batteries for factories and means of transport. The origin of the material can be traced for each battery cell produced.

5

### Recycling

The metals in each battery are separated in our recycling plant Revolt to then be used again in a new battery.



### Let's take a look at the numbers

100%

RENEWABLE ENERGY  
used in manufacturing at Ett

90%

LOWER CO<sub>2</sub> FOOTPRINT\*  
than a Chinese reference battery

1000+

CHARGING CYCLES  
before leaving the battery for recycling

50%

RECYCLED\*  
material in each newly manufactured battery

\*Goal for 2030



The world's greenest battery factory

# Northvolt Ett



Size  
**500 000 m<sup>2</sup>**  
(71 soccer pitches)



Staffing  
**3000 employees**  
(and 600 robots)



Production  
**40 GWh / year**  
(parallel to the need for 800,000 electric cars)



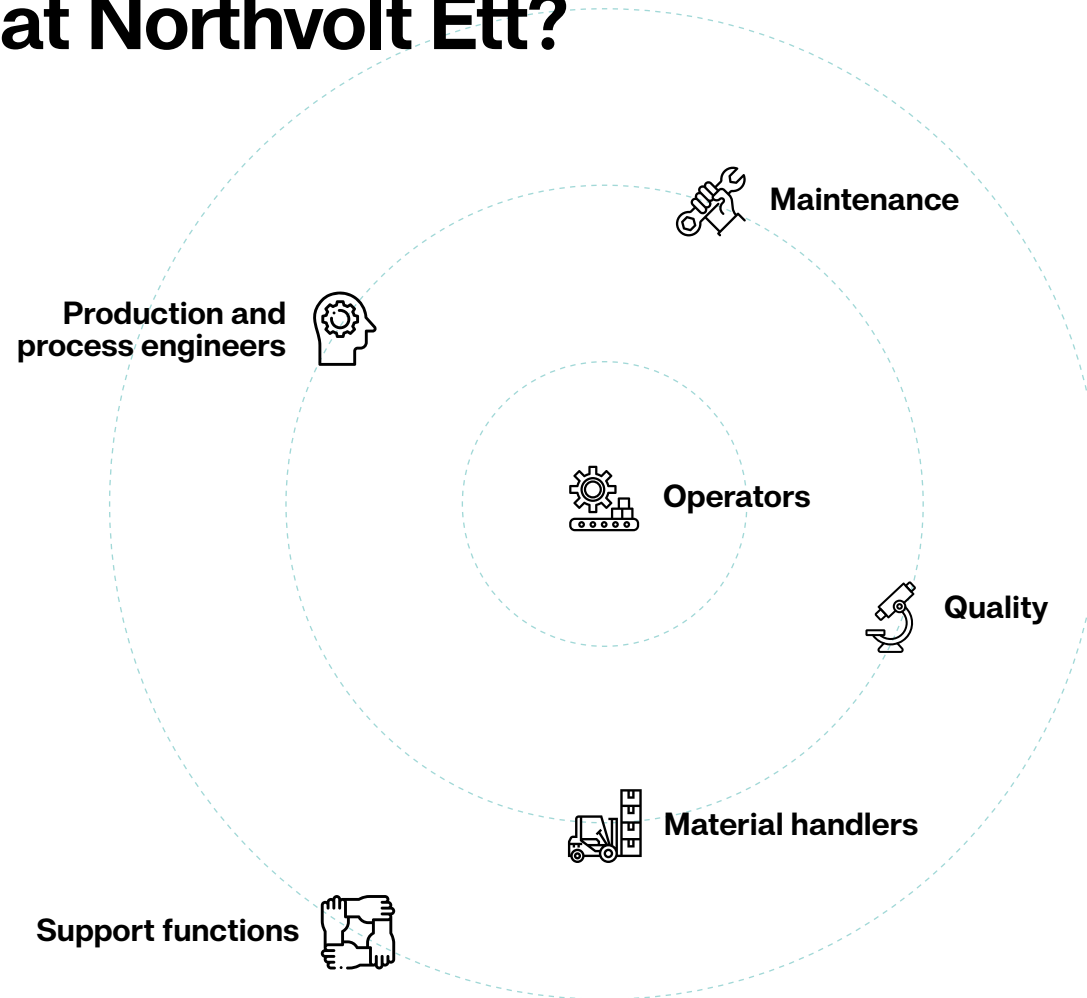
Energy consumption  
**360 MW**  
(1.5% of Sweden's total energy production)



## Did you know?

When Northvolt Ett is fully built, the factory area will be three times larger than Pentagon.

# Who will be working at Northvolt Ett?



## Operators

The operators are the very heart of the production. They ensure that we produce what we need by controlling, monitoring and handling the machines in production. Knowledge from operator training in process or automation is useful, as well as experience from other related production environments.

## Maintenance

This group supports production and colleagues in the various production areas with knowledge, solutions and maintenance work. It is a job for the practical problem solver and here we find mechanics, industrial electricians, instrument technicians and automation engineers.

## Quality

The quality team keeps track of all materials that enter production and ensures that the battery cells that leave production are of the right quality. The team's good analytical ability, curiosity and cutting-edge competence are decisive factors for world-class end products. Both technicians and engineers work here. Relevant engineering educations are, for example, chemical engineering, process engineering or production engineering with a focus on quality systems.

## Material handlers

The material handlers are the ones who ensure that the various production areas receive the right material at the right time. Those who work here need to be structured and always one step ahead. To be able to work as a material handler, you need a fork-truck driver's license.

## Production and process engineers

Surrounding production processes, there is a support system of engineers. These engineers work with a production step all the way from the level of detail to the overall overview. They are on the floor where everything happens and have a proactive approach to constantly improve the processes. An engineer within this group often has an educational background in process engineering, production engineering, chemical engineering, mechanical engineering or similar.

## Support functions

There is a whole set around the production of support functions. To name a few: HR, finance, purchasing, planning, health, environment and safety. They all work to ensure that production runs as planned and is of course also driven by the mission of delivering the world's greenest batteries.





# Making a battery

1

## Upstream

This is where battery manufacturing begins. Raw materials such as lithium, nickel, manganese and cobalt are mixed to create an “active material”. It is the active material that enables the battery to store energy. The building is 35 meters high to accommodate the large machines needed in manufacturing.

2

## Slurry mixing

In this building, the active material is mixed with other contents into a mixture called slurry. The chemicals in the mixture prevent the active material from breaking down – so that we can produce a really durable battery.

3

## Electrode manufacturing

Here, the active material is spread on copper and aluminum foil. The result is two electrodes: anode (+) and cathode (-). These are oven-dried before being pressed in a rolling mill and rolled up on a large roll. The reason why the building is so long is that all steps must take place one after the other in a straight line.

4

## Cell assembly

Here the electrode rolls are fed into machines that shred them into strips, which are then either rolled up or stacked into small packages. They are then placed in a sleeve filled with electrolyte, the function of which is to enable electricity to flow between the poles of the battery and is crucial for the function of the battery.

5

## Formation & ageing

The last step in production takes place in it here the battery is charged for the first time. We do this to make sure that the battery works properly, but also because the battery’s first charge is absolutely crucial to how it will perform for the rest of its life.

### Did you know?

Northvolt Ett is the first factory to gather all parts of the battery production under one roof. We merge two industries that were previously separated into one flow. It gives us better control over the value chain, increases the possibility of using recycled material and creates the opportunity to gain better control over the cost, which ultimately enables more people to use our batteries.

We call this vertical integration.





We are

Northvolt



# Where the new industry meets the old

**Battery production is a completely new industry in Sweden. But despite this, not all elements are new, since similar elements can be found in other industries. Below are several comparisons between parts of our production and other more traditional industries.**

**Upstream**, where the active material is produced, can be likened to a continuous chemical and process industry. There, production is controlled from control rooms in facilities with large furnaces, reactors, tanks and more. It is similar to when making cement and steel or refining different metals. Mass production also has great similarities with what happens in Upstream.

**Slurry mixing** is reminiscent of other activities where things are being mixed. Examples of that could be paint, food and medicines.

**Electrode manufacturing** has great similarities with, among others, the paper and printing industry. The active material is distributed, dried and pressed, and then stored as rolls, just like paper.

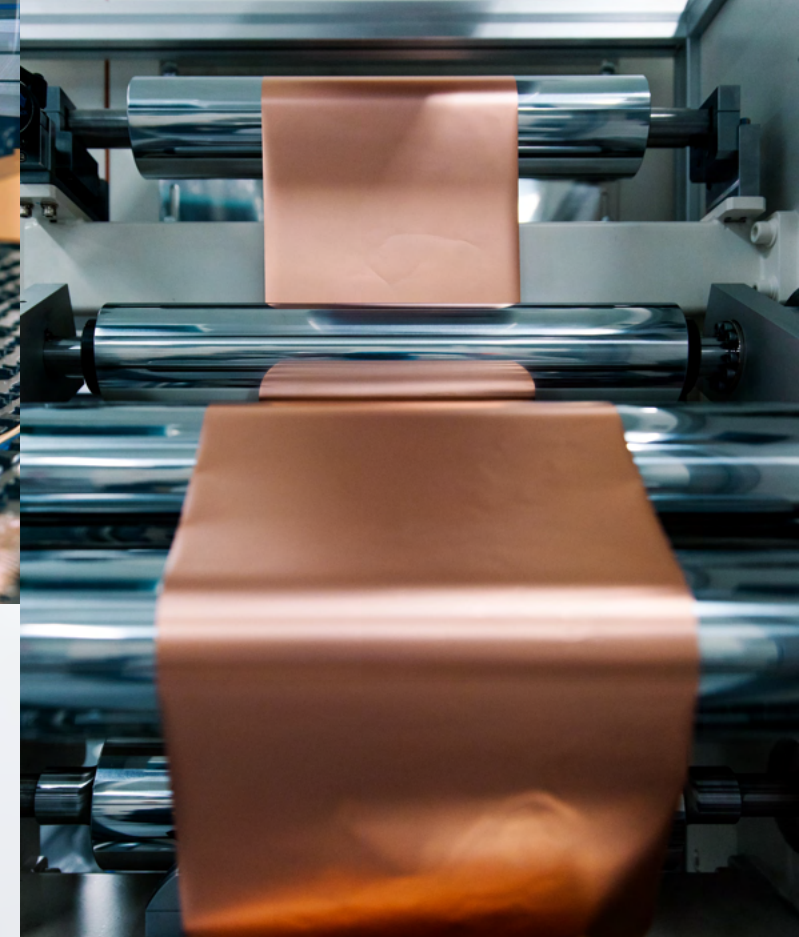
**Cell assembly & Formation** both consist of

high-tech and automated processes. Like other highly automated production lines, it is the robots and machines that do the work, but problem-solving and quality-reviewing people that control them. The biggest similarities with our automated assembly process are found in industries with fine mechanical machines and products and where production is large-scale.

In slurry mixing, electrode manufacturing and cell assembly, the work takes place in **dry and/or clean rooms**. Similar clean rooms can also be found in industries that produce, among other things, medicines and food.

As in many other industries, the materials and components of production are validated and tested during the process, both manually and with the help of various analysis tools.

As mentioned, there are many similarities, but what distinguishes our production from many other industries is the requirements for cleanliness and quality. In many cases, the working environment in our factories feels more like a large laboratory than an industrial floor.





# Working the first shifts

After just over four years in the mining industry in her hometown of Skellefteå, Petra was forced to look for a new employer, as the company she worked for had to lay off a large number of employees. Petra dared – as one of the first Skellefteå recruitments – to give Northvolt a chance and has since October 2020 been at Northvolt Labs in Västerås. In addition to functioning as Northvolt's research and development facility, Labs is also used as a training facility for those who will be involved in starting up production in Skellefteå in the autumn of 2021. Petra is one of them.

– I knew nothing about batteries, except that they had a plus and minus pole, says Petra and laughs. But I'm glad I took the chance, to be one of those who work the very first shifts in Skellefteå feels great.

Petra works in the part of production called electrode manufacturing. There, the staff receives the active material created in the previous process steps and distributes it evenly on



**Petra Pyhälä**  
Shift Manager





copper and aluminum rolls with the help of highly automated machines. These rolls are the ones that later in the process become the battery's plus and minus pole. Much is automated and machine-controlled, but a solid knowledge of the staff who control the machines is required. To ensure that the quality requirements are met, manual tests and analysis are carried out continuously.

– It's easy to think that it might just be a push of a button, but the work we do is so complicated, I learn new things all the time.

The work is carried out in dry and clean rooms, a clinically clean environment with low humidity, which is a must to produce batteries of the highest quality. The staff work in full safety equipment and communicate via headset to colleagues at the various process steps. Petra compares the work environment with the one she had before and describes it almost as the opposite.

– My previous workplace was quite dirty, here it is really clinically clean. Working in dry and clean rooms is really just what it sounds like – working in dry air. I was almost a little dizzy at first, but I got used to it quickly, she says with a smile.

As battery production previously took place almost exclusively outside Europe, Northvolt has recruited people all over the world. Since the work teams therefore often consist of people from different parts of the world, all communication takes place in English.

– Speaking English is largely about safety, as communication is very important in the steps we perform. But I must say, I really like the

**“I really like the atmosphere when so many different kinds of people come together!”**

atmosphere that has been here when so many different kinds of people come together, a bit of a collective feeling almost, says Petra.

Even though Petra has not worked at Northvolt for that long she will now take on a new role, as Shift Manager.

– That is what happens when a workplace grows fast, new opportunities come all the time, so it all about daring to take the leap.

The new role means that in addition to the role as operator, she will have responsibility for planning the group's work, preparations for the start-up in Skellefteå and recruitment and development of staff for the team she will lead.

– Now I'm so excited. I just want to go back home to Skellefteå with my colleagues and get started!

### **Did you know?**

When the factory is fully built, we will produce around the clock, all year round. We already have customer orders of more than \$27 billion from customers such as Volkswagen, BMW and Scania.





# Isn't it dangerous?

**We often get the question: How does battery manufacturing differ from other industries when it comes to risks? The handling of chemicals and the fire risk that certain parts of battery production entail are the riskiest aspects. We are well aware of these and a large part of the training and learning elements are therefore linked to this. Some of the principles and working methods we work by are:**

## **Isolate the risk**

Handling of chemicals takes in closed containers and machines to as far extent as possible.

## **Clear instructions**

Information and training for our employees in how they carry out their work in a safe way and how they can analyze the risks.

## **Personal protective gear**

We examine the risks with each chemical and assess on the basis of which protective equipment is necessary.

## **Exclude or replace**

The chemicals we use are continuously evaluated and exchanged to less environmentally and health hazardous whenever possible.

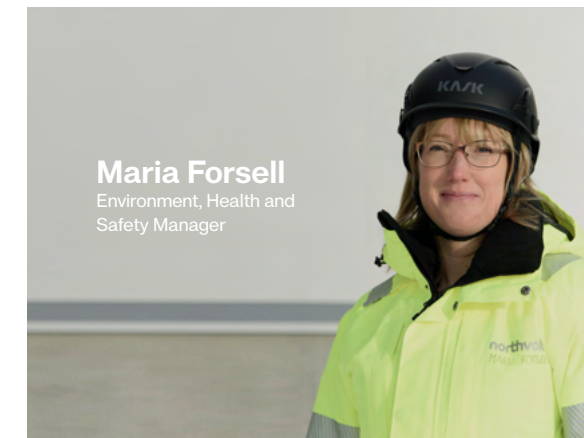
## **And the risk of fire?**

Well, when lithium-ion batteries are charged for

the very first time we examine if any defect has managed to pass the factory's thousands of quality controls in the factory. If that is the case, there is a risk of a short circuit and thus a fire hazard in the battery. The first charges, the formation, therefore takes place in separate compartments – safety cells – one for each battery. These contain automatic extinguishing systems that alarm and alert, and which, if necessary, extinguishes or severely limits a possible fire.

Furthermore, we of course follow all applicable laws and regulations regarding fire safety and work closely with fire safety experts, Skellefteå municipality and the Rescue Service (Räddningstjänsten). We believe in transparency and therefore give them full insight, so that they can contribute with their knowledge in how to build facilities that are as safe as possible.

There are risks in all workplaces, but our systematic work environment work, world-class factories, and risk-conscious employees will together minimize these risks.



**Maria Forsell**  
Environment, Health and  
Safety Manager



# To grow without losing direction and momentum

To cope with the enormous growth that Northvolt has undergone in recent years, there is one team that is perhaps more important than anyone else: the recruiters. In just four years, Northvolt's in-house recruitment team has managed to grow the organization from a handful of entrepreneurs to more than 1300 employees. A work that has been done without losing focus on why we do what we do: enable the transition to renewable energy and to make oil history.

Northvolt has pretty much doubled its number of employees each year\*, a trend that we see continuing. In 2021, we are expected to go from 1000 employees to around 2000. In 2025, we will be 3000, in Skellefteå alone.

To succeed in growing and at the same time not lose momentum, several aspects have been central to us, much of which is about following our values and using them in our daily work.

## **Bold**

Skip the nonsense. Challenge yourself and others to think outside the box and dare to do something that no one has done before. Maybe there are other, better solutions and ways of working?

## **Passionate**

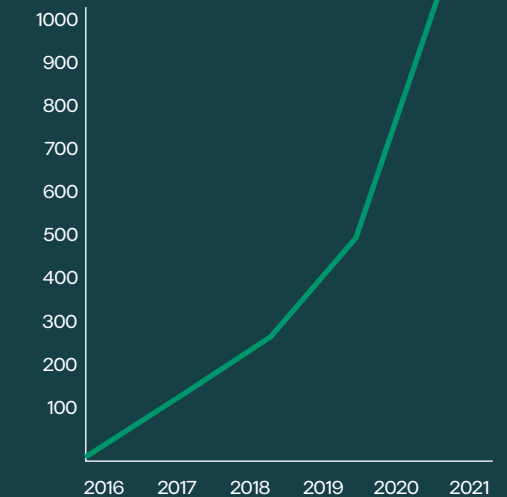
Work hard with colleagues towards common goals for a fossil-free world. We help each other when we encounter problems and celebrate the victories together!

## **Excellent**

Do not settle for "good enough", but constantly strive forward.

## Northvolts growth journey so far

Number of employees at Northvolt\*



**Robel Gebremeskel**

Talent Acquisition Specialist



# From China to Skellefteå

**In a company with more than 75 nationalities, you can easily find people who have moved around the world to be part of the journey towards producing the world's greenest batteries.**

For most people, Northvolt Labs, Northvolts research and development facility, has been the starting point. One of these is Woody. Today he works in the maintenance team in Västerås, but is excited to pack his bag and head north.

Woody is originally from the Anhui region in China.

He moved to Gothenburg in September 2019 to complete his master's degree in systems engineering at Chalmers University of Technology.

– Many of my studies dealt with topics around energy from diesel and petrol engines, but my interest in sustainable energy kept growing bigger during the course of my studies.

After completing his studies, he applied for a job at Northvolt and in November 2020 he began his employment in Västerås while waiting for Northvolt Ett to be completed.

**“Woody” Hao**  
Mechanical Technician

– Starting in Västerås has been good, because here you get the opportunity to solve the challenges for the first time, on a much smaller scale than what awaits us in Skellefteå.

In a work environment where a large part of the production is automated, it is of course of the utmost importance that the machines function and perform as they should. When starting up and commissioning, the high degree of automation means many challenges to solve. This requires creativity and problem-solving ability, but language skills can also prove to be very useful.

## Did you know?



**70 Northvolters**  
has moved to Skellefteå so far



They come from  
**28 different countries**



**10 dogs**  
and 3 cats have moved with





– Since the machines are new to us, we must constantly solve problems and educate ourselves. It has been a great advantage for me and my team that I speak Chinese, just like many of the suppliers of our equipment. Sometimes I have had to be both an interpreter and a technician at work, he says and smiles. It is actually very fun to occasionally get to speak your mother tongue at work.

## “My interest in sustainable energy kept growing bigger”

Woody has not yet visited Skellefteå, but he says that he has already found positive and less positive surprises.

- I love TV and computer games and have heard that there is a whole gaming industry in Skellefteå. I hope to get to know people from it. I have even considered if I might apply for a course in it when I move up.

And his biggest concern?

- I have heard that there is no Burger King there, he says and laughs.

## Hi Sean Stephenson!

**When did you move to Skellefteå to work at Northvolt Ett?**

In January 2020.

**Where did you live before you moved?**

I relocated with my wife and three children from Harrogate in the north of England.

**What do you work with?**

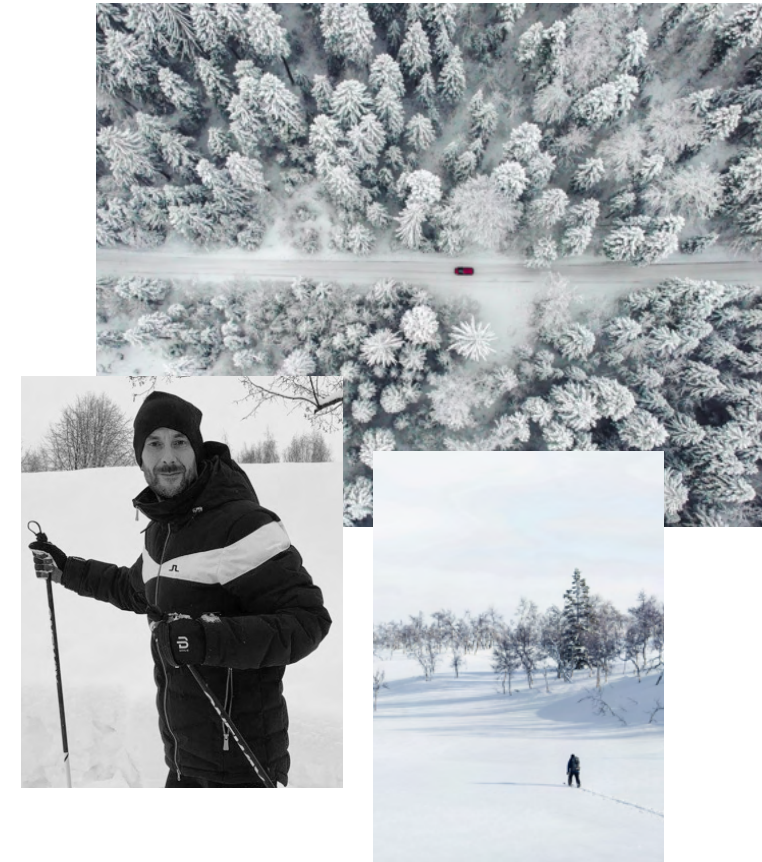
I work with testing and validating the batteries, so that we know that they have good performance, longevity and that they are safe to use.

**What is the biggest difference between Harrogate and Skellefteå?**

It's much more spacious up here, that's great.

**How do you like it in Skellefteå?**

I really like it. Here is everything you need. We have had great experience of schools, healthcare and public transport. Great restaurants too!



**What do you like most about Skellefteå?**

That it is so easy to get out and enjoy nature. I have recently started learning cross country skiing and I love it! And in the summer, there will be mountain biking in the forest, walks around the river, swimming and a lot of soccer.





More than just a huge building

## A new work culture is emerging

**With the rapid growth, Northvolt is going from being a Stockholm-based startup to being a big industrial player with several facilities. It sets new requirements but also provides opportunities to do something new and to open up the industrial sector to new target groups.**

How does the reasoning go when you have the opportunity to do the right thing from the start? How do you keep the startup feeling while the focus is shifted to safe production processes and structured shift work? Niclas Stengård highlights a couple of areas as particularly important.

### Individual development

We think that everyone should be able to develop and become their very best self, and that it probably means doing several career changes for most of us. Northvolt wants to be able to offer an environment where all this is possible without changing employer. That is why we build in the career paths from the start, not least in production.

### Self-leadership

Everyone leads at least one person: themselves. We have therefore chosen to initiate a self-leadership program for all employees who joins us. Through our program “True North” every employee gets the opportunity to get to know themselves a little better, as well as to better understand others. All in all, this gives us the right conditions to cope with the rapid growth required in the coming years.

### Close leadership

We believe that present leadership is important to give individuals the right conditions to grow. That is why we work with a key figure that is common throughout the business: that each work team consists of a maximum of 15 people. With more than that, it is challenging to focus on the individual development for each individual employee.

### Even gender balance

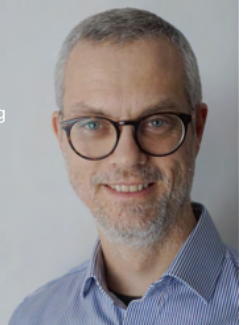
Our industry is well suited for both women and men and we want to work hard to build as gender-balanced an organization as possible. This is not easy, as there is a built-in belief that industrial work is more suitable for men. That is not at all true of the industry we are currently building. We therefore work actively to find experienced women in all our areas and to also design a basic program aimed at women who today lack relevant experience.

### Different backgrounds

One of the strengths of Northvolt is the mix of different cultures and backgrounds. That is something we want to retain. We already see a good mix between native Skellefteå residents and relocaters, as well as between different professional backgrounds. Northvolt becomes a bit of a melting pot where our common mission is what unites us.

**All this together creates an incredible power.**

**Niclas Stengård**  
Senior Director of Manufacturing





# What happens next at Northvolt Ett?



**Start of production**  
in the end of the year



**~500 employees**



**First group**  
who have completed  
Northvolt's external educations  
are ready for work

2021



The first phase of the factory in  
**full production**



**~1500 employees**



**Revolt's facility**  
at Ett is in use and recycles old  
batteries

2023



**Ett fully built**



**~3000 employees**



Ett is used as a blueprint when  
constructing more large scale  
**battery factories**

2025





# northvolt.com/career



join@northvolt.com

## Educations in Skellefteå:

### Automation operator

20 weeks

This education provides you a good basic knowledge to be able to take the step into our production organization. It can be a way into roles both in logistics and production.

### Industrial electrician Automation technician

1.5 years

Gives you a broad education for work in maintenance and installation in a highly automated production.

### Production technician Process technician

2 years

After completing the education, you are well-equipped to work either in our production flow or in our chemical process. You can also be a good fit in our maintenance team.

Read more at [skelleftea.se/yrkesutbildning](https://skelleftea.se/yrkesutbildning) & [skelleftea.se/yrkeshogskolan](https://skelleftea.se/yrkeshogskolan)



Here you can read  
the magazine online

→ [northvolt.com/skelleftea](https://northvolt.com/skelleftea)



# At last,

2021 is going to be an important year for us. This is the year that we go from planning and preparation to delivery. It is also the year that Skellefteå and Northern Sweden will start to really experience the resulting growth and expansion. With the establishment of Northvolt Ett, we are writing world history and taking large steps towards a more sustainable future.

We hope that this magazine has answered some of the questions you may have had, but also that it has given you some inspiration to how you could be a part of the Northvolt journey. Let's enable the future of energy together!

**Cheers!**

**Paolo Cerruti**

Founder and Chief Operating Officer



We are Northvolt ——— A battery manufacturer, sure  
But also a unifying force ——— A force to fight dirty oil  
with clean batteries ——— Combustion with recharging  
Exhaust with recycling ——— That paves the way to a  
brighter future — A future less dependent on oil — But  
more dependent on collaboration & inventions ———  
Because the road towards electrification will not be  
straight — Excuses to keep on burning oil, will be as  
strong as they are wrong — But they can be silenced  
With improved performance at lower prices ———  
——— Recyclable lithium and humane cobalt mining —  
Renewable energy and longer lifespans — This is why  
we turn up to work — To undo the past  
To recharge the future — Making green  
batteries so powerful — We'll one day

**MAKE OIL  
HISTORY.**