

GLOBAL COMPANY

# OUR INTERNATIONAL PRODUCTION CHAIN

About NLMK Group companies and the people behind them



#### IN FOCUS

GETTING TO KNOW ONE ANOTHER BETTER

About the making of 'Fusion', NLMK's new corporate film



#### **OUR PEOPLE**

**REACHING THE TOP** 

NLMK's main Blast Furnace Operator talks about climbing Mt. Elbrus

Global company

# NLMK GROUP



# Film a greeting for your chance to win a trip!

# **HOW YOU CAN PARTICIPATE:**

Make a short video greeting lasting less than one minute. Remember to introduce yourself: state your name, your position and the company you work for. Say hello to your colleagues in another NLMK company (e.g. NLMK Lipetsk) and add "We are one team!"



The Record a Greeting — Win a Trip contest is open until the end of October.

The Grand Prize is an all-expenses paid trip to an international NLMK facility! Each of our 18 production sites will have the opportunity to select the best video greeting that was addressed to them.

Search for #teamNLMK to watch the videos.









2 NEWS Company chronicles

# Global company

4

FROM THE FIRST PERSON

10 years of NLMK's international strategy

NLMK Group CEO Oleg Bagrin discusses the evolution of NLMK's business model

6

NLMK Group's production chain

Our key companies shown in a single spread



# Our international production chain

About NLMK Group companies and the people behind them

28

Getting to know one another better

About the making of 'Fusion', NLMK's new corporate film

<u> 38</u>

# Reaching the top

NLMK's main Blast Furnace Operator talks about climbing Mt. Elbrus





Edition prepared by: Sergey Kashkadamov, Natalia Sviridenko, Olga Nikulshina, Yulia Telenkova, Svetlana Olimova, Natalia Kachmasheva, Olga Talalaeva, Gulnara Volkova, Marina Sayfieva, Caroline Marlair, Delphine Bernard, Tom Taborek

Contributing Photographers: Robert Kolykhalov, Kirill Chuy, Anatoly Filippov, Elena Eliseeva, Maksim Brezhnev, Alexander Ulyanenko, Nikolay Tkachenko English Edition Prepared By: Alexander Tseitline, Polina Minor, Paul Friar

NLMK Group's PR Department contacts: E-mail: press@nlmk.com Tel.: +7 (4742) 44-27-32



Design and layout

Office 18, Stroenie 1, 21, Zvyozdny Bulvar, Moscow, 129085 *E-mail*: ask@vashagazeta.com | vashagazeta.com

General Director: Vladimir Zmeyuschenko
Editor: Vilorika Ivanova | Editor: Eugene Peresypkin, Polina Siluyanova
Art Director: Maxim Gelika | Senior designer: Alexander Marochkova
Designers: Julia Ilina, Maria Meszerina, Natalia Tihonkova
Bild editors: Xenia Petrakov | Color Corrector: Alexander Kiselev
Production Director: Oleg Merochkin
Photo: Gettylmages, RIA "Novosti"
Printed by " YunionPrint "



NLMK GROUP

# Leaders of industry

NLMK Group scoops international honour at the Global Metals Awards.

NLMK Group has won the 'Industry Leadership Awards – Steel' category of the prestigious Platts Global Metals Awards 2016. The judges awarded NLMK as a result of our well-defined strategy of international vertical integration and our ongoing strong financial performance, which were cemented by the implementation of our Strategy 2017. They also commended NLMK Group on having the most competitive cash cost in the industry, a significant share of innovative premium products in our product mix; and a focus on increasing energy efficiency.

The awards programme, which is in its fourth year, was hosted by leading international periodical



S&P Global Platts, which provides analytical information on commodities and energy markets. The finalists were chosen from more than 100 nominees from 17 countries. The finalists of the 'Industry Leadership Awards – Steel' category included ArcelorMittal, Nucor Corp, JSW Steel Ltd and Steel Dynamics.

NLMK Group employees can now use a special winner's logo in presentational, advertising and other materials, including email footers.



# Management of international operations

NLMK Group improves management structure for operations in Europe and the USA.

NLMK International B.V., which controls NLMK Group's international operations, has introduced several changes to its organizational structure. These changes are designed to further integrate the European and American facilities into NLMK Group and to facilitate the transfer of best practices and technologies between the Russian and international operations.

Mr. Ben De Vos, Head of NLMK Europe Strip; Mr. Igor Sarkits, Head of NLMK Europe Plate; Mr. Bob Miller, Head of NLMK USA; and Ms. Maria Starostina, International Legal Counsel, were appointed to the Management Board of NLMK International. The position of Director for Operational Efficiency was introduced, with Mr. Cornelius Louwrens appointed to oversee global operational efficiency programmes across NLMK operations in Europe and the USA. Mr. de Vos was appointed as Chairman of the Management Board. Mr. de Vos also joined NLMK Group's Management Board.

The extension and strengthening of the management of NLMK's international division will increase the rate of development of the Group's international operations; improving their integration within the Group and supporting the exchange of best practice and technology between NLMK's Russian and international facilities.

NLMK International B.V. was established in 2006, for the acquisition of rolling facilities in major international target markets.



Sergey Babichenko, Head of PR, accepts the 2016 Platts Global Metals award at the ceremony in London

# New appointments

NLMK Group strengthens its Operational Efficiency, Strategy and Internal Audit practices.

"Strategy 2017 was launched less than two years ago and NLMK Group has already achieved its operational efficiency targets. The focus for the company's management over the next eighteen months will be to achieve the remaining Strategy 2017 goals, before launching the next phase of the Group's strategy. Strengthening the team responsible for strategic planning, implementation of NLMK's Production System and control



Tatiana Averchenkova,
Vice President of Operational Efficienc

brings our company to a new level, solidifying our leading position," NLMK Group President Oleg Bagrin said of the changes made.

Tatiana Averchenkova was appointed as NLMK Group Vice President of Operational Efficiency, having previously served as Director of Controlling. In her new role, Tatiana will coordinate the work of the efficiency improvement department and support the functio of the NLMK Production System



**Dmitry Kolobov,**Director for Strategy

in NLMK Group facilities in Russia and across the world. Operational efficiency projects and management of the NLMK Production System were previously overseen by Yury Larin in his role as Vice President of Technology Development and Operational Efficiency for NLMK Group. Yury now assumes a different role within NLMK Group.

**Dmitry Kolobov** has been appointed Director for Strategy. Dmitry previously held a similar



Mikhail Makeev,

position in SIBUR. One of Dmitry's key goals is to coordinate the development of the next phase of the strategy that will follow on from Strategy 2017, beginning in 2018.

Mikhail Makeev was appointed Director for Audit, having previously held the position of Director for Consolidated Financial Statements of NLMK Group. Mikhail will be focusing on streamlining Corporate Governance, Internal Audit, and Risk Management

# 10 years of NLMK's international strategy



Olea Bagrin, NLMK Group CEO

t was exactly ten years ago that NLMK Group took its first steps across the Russian border, when it became the owner of a small plant in Frederiksværk, Denmark. Following a comprehensive restructuring that included the sale of steelmaking and long product operations; and the launch of a cutting-edge rolling mill in 2011, NLMK DanSteel quickly began to conquer the market, becoming the leading supplier of thick plates for wind energy and shipbuilding in Northern Europe. Key to this success was the reliable delivery of half a million tonnes of slabs from Novolipetsk every year. The logic behind the continued international expansion of NLMK Group has remained unchanged. We search for facilities that have the potential to hold a strong position on strategically important markets and act as an extension of our Russian

The NLMK international production chain. It took a decade of teamwork to create and fine-tune the system which today provides NLMK Group with the leadership it enjoys in Russia and on international markets. Work on expansion and increasing the efficiency of the global business model continues to this day.

production chain. When deliberating on construction of the Blast Furnace No. 7 complex, which today boasts the greatest productivity in the world, we took into account the surplus on the Russian steel market which could not have accommodated an additional 4 million tonnes of rolled products each year. It was therefore decided that we would ship the excess capacity of slabs to NLMK Group's international facilities for production of high value added goods in close proximity to consumers.

Today, shipments of slabs to the Group's plants in the USA and EU account for about a third of Novolipetsk's steelmaking capacity utilization rate, which is around 4 million tonnes of slabs; and 75% of NLMK Group's total exports of slabs. Our plan was implemented in full. The Group has acquired direct access to strategically important markets and meanwhile Novolipetsk steelmaking operations; mining operations at Stary Oskol; and coking and chemical operations in Zarinsk all operate at 100% capacity.

As a result, steel from Novolipetsk is used to make Danish offshore wind turbines and French cruise liners, Mercedes cars and Caterpillar bulldozers, Harley-Davidson motorbikes and even BIC lighters.

10 years ago NLMK Group took its first steps across the Russian border by acquiring its first international company. Today it is the widely recognized leader of the sector

Over the last decade NLMK has become more than just a player on the international stage; today it is the widely recognized leader of the sector. Victory in the 'Industry Leadership Awards – Steel' category of the prestigious Platts Global Metals Awards 2016 was, as the organizers noted, the result of "a sound strategy"



NLMK GROUP

Main control desk of rolling mill at NLMK DanSteel

of international vertical integration". And the advantages of our business model are even clearer in the business environment we encounter today.

At a meeting of the Organisation for Fconomic Co-operation and Development (OECD) Steel Committee in Paris at the end of 2015, a report was delivered on the protectionist measures which continue to affect steel imports. The OECD noted the growing tension in the steel sector, against a backdrop of attempts by governments to "employ trade policy measures in response to the crisis, which the global steelmaking sector is coming up against." The report stated that excess steel production caused an increase in imports and a sharp drop in price, which poses a threat to the sustainability of many steelmakers. As a consequence, in 2015 the employment of trade protection measures against steel imports reached an unprecedented level. The OECD astutely observed that trade measures and government support could bring only temporary relief without addressing the root causes that put the global steel industry on an inevitable path towards prolonged crisis. Unfortunately, this

ABOUT A THIRD OF NLMK'S
STEELMAKING CAPACITY
UTILIZATION RATE

SHIPMENTS OF SLABS TO

THE GROUP'S INTERNATIONAL

**OPERATIONS ACCOUNT FOR** 



Blast furnace No.7 at Novolipetsk, the most productive blast furnace in the world

report has not led to the introduction of any counter-measures.

Forty investigations into steel imports in various countries were launched during 2015, one fifth of which involved Russian steel. Some investigations resulted in the introduction of tariffs or minimum prices, despite the fact that Russian producers are not engaged in dumping. This year investigations have begun or measures were introduced by the USA, the EU, India and Egypt that impact upon Russian rolled products, while plans for new investigations have been announced by Turkey and India.

Meanwhile, thanks to the implementation of the Group's international strategy over the course

of a decade, NLMK is increasing production and sales on international markets which are now local to us. Our companies outside of Russia rely on the increasing and reliable delivery of high quality steel from our companies in Russia, which are following their own programmes for growth and efficiency enhancement. All of this combined represents a key aspect of Strategy 2017.

This issue is dedicated to the NLMK Group international production chain. You can get acquainted with all our key operations and, just as importantly, with your colleagues from seven countries around the world — all members of the global NLMK team. @

**NLMK EUROPE** 

0.04 million tonnes

**NLMK INDIA** 

hot-rolled steel (HRC)

cold-rolled steel (CRC)

limestone



0.9

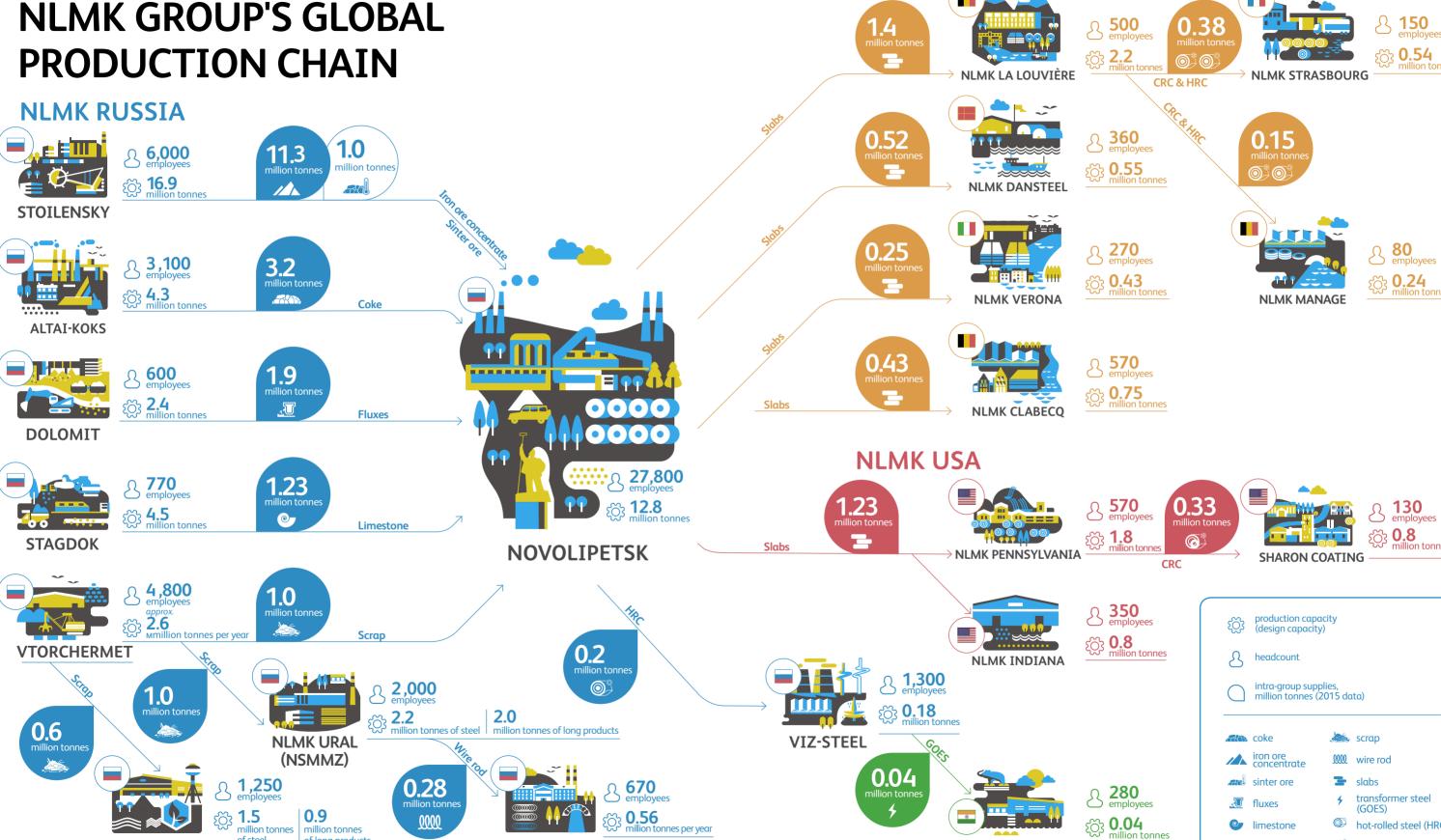
of long products

**NLMK METALWARE** 

million tonnes | million tonnes

of steel

**NLMK KALUGA** 



Global company

NLMK GROUP

Novolipetsk (Lipetsk site)

Lipetsk, Russia

12.8
million tonnes per year production capacity

& **27,800**employees

headcount

### **Novolipetsk**

Novolipetsk is the largest and most modern vertically integrated steelmaking plant in Russia. Novolipetsk produces 18% of all the steel produced in Russia; and around 80% of the steel produced by NLMK Group. The plant performs every stage of steel production from the processing of raw materials through to the manufacture of high value added products. Steel output has doubled over the past 15 years thanks to an upgrade programme, whilst the environmental impact of the plant has been cut by 50%, as a result of which Lipetsk has gained recognition as the most environmentally friendly city in which metallurgy is the economic mainstay.

<u>Products:</u> Pig iron, slabs, cold- and hot-rolled steel, transformer steel, galvanized steel, dynamo steel, pre-painted steel, by-products.

Consumers: International NLMK Group companies which roll slabs produced by Novolipetsk into high-value added steel products in close proximity to customers; as well as a variety of strategically important industries within the Russian economy, ranging from construction and machine-building to the manufacture of power generation equipment and large-diameter pipes. Products are exported to more than 70 countries around the world.



Storage of finished transformer steel



Andrey Titov, Shop Foreman, Sinter Shop №1

I began working in the Sinter shop at Novolinetsk in 1999. When I was in college I already knew I wanted to work at the plant. As a schoolboy I had dreamed of going to the Zhitomir Higher Military Rocket School, however this required Ukrainian citizenship and so I did not go. I do not regret my decision to work in steelmaking one bit. I had several opportunities to try my hand at something else, but I am a production manager. I cannot sit for hours behind a computer screen. I need to see the fruits of my labor and to communicate with other people. It is vital to be able to listen to what they have to say, to control them properly and to motivate them. The plant has changed massively during the time I have worked here. The equipment has been updated and new control systems implemented. The quality of raw materials has increased and investment has been made into

environmental performance. In the past the sinter plant was widely known as 'the chocolate factory', because emissions caused the snow that fell around the plant to turn the color of chocolate. Today we operate the cleanest sinter plant in Russia. I live nearby, so I know what I am talking about. Our sinter plant is also the most productive. In 2015 we set a new record, producing 15 million tonnes of sinter, and we don't plan to allow our output to drop.

There are many employees here from families in which several generations work at the plant. Every member of my family either works at the plant or worked here in the past: my father, my twin brother, my father- and mother-in-law, my wife, my daughter, my son and my brother-in-law. It is with good reason that our plant is referred to as the backbone enterprise in our town. Every third family in Lipetsk has a connection with NLMK, which provides employment not just to the employees of NLMK but also to employees of many other organizations. The connection between the plant and the city is very strong: the city provides the plant with a workforce and the plant ensures that the city has stability today, and confidence in what tomorrow will bring. It's little wonder that the Day of the City and the Metallurgist Day are celebrated at the same time.



© 0.18

million tonnes per year production capacity

& 1,300 employees

#### **VIZ-Steel**

One of the five leading producers of transformer steel, one of the most technically difficult types of high-value added steel to produce. Steel produced by VIZ-Steel can be found in every second transformer produced in Russia. The company has more than a 6% share of the global transformer steel market. VIZ-Steel and Novolipetsk together account for an 11% share of the global market.

Products: Transformer (grain-oriented) steel is used in the manufacture of the magnetic core of power and distribution transformers, generators, motors and other electro-technical equipment.

Consumers: Russian and foreign power engineering enterprises. Around 90% of VIZ-Steel products are exported, with deliveries to more than 30 countries around the world.



9

VIZ-Steel's cold-rolling shop

# Anton Podchinenov,

Hydrogen Production Specialist, Power Plant

I consider myself to be a VIZ-Steeler by birth, as my father has worked for VIZ-Steel for more than 20 years. My brother joined the plant last year as well. I came to VIZ-Steel in 2006 as



Anton Podcheninov participates in the Young Leader competition

a student in a distance learning capacity, during my third year at Ural Polytechnic. I began as a mechanic and repairman; and five years later I became shift foreman at the power plant. Another five years later I became a specialist in hydrogen production.

When our company became a part of NLMK Group, life in our plant became a lot more exciting. Production was modernized and we mastered the manufacture of premium-class transformer steel, which experiences tremendous international demand thanks to its special characteristics.

Our power plant is being modernized too and I personally am leading the commissioning works for the upgrade of the hydrogen station.

Our production technology is complex, and operation of the equipment we employ requires highly-qualified individuals. Many of my colleagues participate in a variety of programmes for improving skills. As for me, my victory in the 'Young Leader' and the 'Specialist of the Year' competitions played a key role in my rapid career growth.

I am proud to work at the plant not only because of the excellent corporate culture here, but also due to the plant's history which stretches back for centuries. VIZ-Steel is the successor to the Verkh-Isetsky plant, which is the oldest metallurgical enterprise in Russia. Verkh-Isetsky, which turns 290 years old this year, gained international recognition in the 19th century when iron roofing produced at the plant was used in the construction of the Houses of Parliament in London and the Cathedral of Notre Dame in Paris. We VIZ-Steelers strive to be worthy of the glory of our legendary predecessors.

Stoilensky

Stary Oskol, Belgorod Region, Russia

ore concentrate per year ore per year production capacity **6,000** 





# Alexander Ivanenko.

Excavator Driver, Railway Dumping Site, Mining Division

I came to Stoilensky straight from school in 1980. The beneficiation plant was under construction and my father worked as a machinist in the mine. I saw an advert in a newspaper saying 'electricians wanted'. I learned my trade right there in the plant. When I had completed my military service I was hired as an electrical fitter some shifts we move 5000-6000 in the railway dumping site. There were colossal machines working there: excavators with 8 cubic meter buckets which scooped the rock so deftly that I was hooked on them once and for all. I had a burning desire to learn how to operate the excavators, and after a year of practice I was able to get behind the controls by myself. My first vehicle was excavator number 33, we stripped and loaded overburden, which is waste rock. We used to say: "There is no ore without overburden" and so I believe we performed the very important task of 'opening' our deposit.

In 2011, I switched to a new and modern excavator –

the FKG8-US, which has a 10 cubic meter bucket. All the new equipment was assembled by hand, although not only mine, of course. Our team is made up of real men, in every sense they are professionals, friends and colleagues. We understand one another perfectly, we wouldn't be able to work together if we didn't. Teamwork is essential, given the complexity of the task at hand. We strive to never let one another down; and to perform our duties with dedication. Sometimes I'm holding the joystick for 12 hours straight. The new hardware is operated using that very convenient device. During cubic meters of earth and we also have to keep the excavators in working order. It is with good reason that they say you must love your machine as if it were a woman. She needs to be oiled and cleaned regularly and then she won't let you down. The principle we take to our work at Stoilensky is to strive to reach our goal, in the understanding that everyone involved is essential to our success. Today, more than ever before, I feel a part of the large and successful company that is NLMK Group. This gives me confidence in what tomorrow brings, as together we are a team of true professionals.

# Stoilensky

Producing 17% of Russia's iron ore products, Stoilensky is one of three market leaders and one of the most profitable mining companies in the world. With the launch of an ultra-modern pelletizing plant in 2016, Stoilensky will fully meet NLMK Group's demand for iron ore. Stoilensky has licensed reserves of 6 billion tonnes of ore, which will last for 140 years at the current rate of development. The deposit is part of the largest iron ore basin in the world: the Kursk magnetic anomaly.

**Products:** Iron ore concentrate, sinter ore, associated rock: chalk, gravel, sand.

**Consumers:** Stoilensky is only 300 km, or 5-6 hours by rail, from Novolipetsk, which is the main consumer of products from Stoilensky. Associated products are supplied to a cement factory and to construction companies.



The new pelletizing plant under construction at Stoilensky

Altai-Koks

Zarinsk, Altai Territory, Russia

million tonnes per year

production capacity

ه 3,100



Coking coal is obtained by heating coal to a temperature of between 950-1100 °C whilst ensuring that no oxygen is present. Coking coal is used as a high-quality smokeless fuel in steelmaking.

### Altai-Koks

Altai-Koks is the largest and most modern single-site coking-chemical plant in Russia, producing 15% of the coke produced in Russia. The plant performs all of the technological stages, from the processing of coal concentrate through to the production of coke and chemical products. Alta-Koks operates a unique closed water cycle, which eliminates discharges of effluent into natural water bodies.

**Products:** Coke, coal tar pitch, crude benzene, ammonia sulphate.

Consumers: 80% of production is used within NLMK Group, whilst the rest is sold to steelmakers, aluminium producers, chemical manufacturers and agricultural companies in Russia, Kazakhstan, Uzbekistan, Germany, Belgium and elsewhere.



I have loved sport ever since

Shift Foreman, Recovery Shop

I was a child. I graduated from the sports faculty of the Pedagogical Institute and even worked for a few years teaching physical education in a school. In 1983 my brother invited me to join him for the construction of the Altai Coking Plant. I haven't once regretted my decision. Yes, I had to learn a new profession from scratch, gradually grasping all the intricacies of the trade. However, my brother helped me and I consider him to be my main mentor and teacher. Of course, sometimes it was challenging, but sport teaches us to overcome difficulties. Today I consider myself to be a metallurgist and I think I have earned the right to do so. I never forget about my first love: sport. Luckily for me, Altai-Koks pays particular attention to sport. The corporate sports competition is especially impressive! There are numerous ways to test yourself here, with teams competing in dozens of different sports. Most of all I enjoy skiing, biathlon and swimming. My son Alexey is following in my footsteps. He works as a gas-blowing unit operator in our shop and he takes his skiing seriously too.

My nephew Andrey also works at Altai-Koks in the coking shop. My brother is enjoying his wellearned retirement. So we have developed quite a strong working dynasty here. Altai-Koks is not just a small part of our lives; it is everything to us.

> "My son Alexey is following in my footsteps: he works in our shop. Altai-Koks is not just a small part of our lives, it is everything to us"



Yevgeny and Alexey Kozhevin, winners of the cycling race



million tonnes per year production capacity



Dolomite is a mineral that contains calcium and magnesium. It is used in the smelting process as a flux; an inclusion that makes it easier to separate metal from ganque

# **Dolomit**

Dolomit is developing the Dankovskove dolomite deposit, the largest dolomite deposit in Europe, which is located just 90 km from the Lipetsk site. Dolomit accounts for up to 70% of the fluxing dolomite on the Russian market and, in conjunction with Stagdok, is able to meet NLMK Group's demand for the basic types of fluxes in full. Dolomit has licensed reserves of 367 million tonnes of dolomite; which is sufficient for 100 years of mine operation at the current rate of development.

**Products:** Flux and converter dolomite, dolomite powder, crushed aggregate for construction and roadbuilding.

Consumers: NLMK, Russian steel and construction companies.



Dolomite is loaded into railway cars for transportation to Novolipetsk

# **Anatoly Averkin, Excavator Driver**

I began working for Dolomit as a trainee excavator driver in January of 1978. I was 20 years old and had just completed my military service. Both of my parents worked at the plant, but it was my

neighbour that invited me to work at Dolomit. He had worked here for many years and invited me to come and see. So I came, I saw and I decided to stay, and have now been working here for 38 years.

The company has a long history and is very important to our small town. The first mine was launched in 1932. Back then it was called the Dankov Aggregate Plant. In the 1990s the company became Dolomit JSC, and then part of NLMK Group. We satisfy 100% of the Group's demand for the minerals we produce. The plant has been built up and developed gradually. Times have changed, but the plant's operation has remained a constant.

We extract fluxing dolomite here in the mine. First we bore down; set explosive charges; extract the rock; and load it into BelAZ trucks. The rock is delivered to the crushing and beneficiation plant; and is then loaded into railway wagons and transported to Novolipetsk. There isn't a spare moment to kick our heels. The mining crew is always friendly. The generations change, of course, but we teach the youngsters how to work, preparing them as our generation was once prepared. We perform an important function. Our dolomite is a raw material for the production of steel; steel which is used to make everything. Maybe the excavator which I operate is made from our steel.

# Stagdok Lipetsk, Russia

Lipetsk, Russia



million tonnes per year

in the 1990's that the company

Staadok

Stagdok is one of the largest producers of fluxing limestone in Russia. Fluxing limestone is used in metallurgy, cement production, the construction industry and in agriculture. Stagdok is developing the Sitovskoye part of the Sokolsko-Sitovskoye deposit, 2.5 km from Lipetsk. The deposit has balance reserves of 141 million tonnes of fluxing limestone, which is sufficient for 21 years of mining operations.

**Products:** Fluxing limestone.

Consumers: Novolipetsk, NLMK Long Products companies and third party metallurgical companies.



Limestone mining at the Sokolsko-Sitovskove mine



# Alexander Sevostyanov,

Deputy Head of the Electromechanical Shop

I was 27 years old when I came to work in the electromechanical shop at Stagdok. I progressed through each stage and worked as the deputy head and head of the shop. At Stagdok we perform extraction of fluxing limestone which is supplied to Novolipetsk for use in the blast furnace and refractory shops. Our department is tasked with the supply of electrical energy to the plant and the servicing of mining hardware. If anything in the plant breaks down then we don't put off the repair until the following morning: everything must be in working order at all times. Our company has existed for a long time, since 1928 in fact. Back then it was the Studenovskove Mining Administration; it was only

became the Studenovskove Mining Company (Stagdok). At first I worked at the old Studenovskove mine, which is in a different location, where we had a small one-storey shop. In 1986 we relocated to the Sokolsko-Sitovsky mine. Everything has been built during my time here and the difference between the facility today and that of the previous era is striking: today the hardware is more powerful. the processes are mechanized and the shop is equipped with heavy lifting gear. My parents worked here as well. My father was a mechanic at the crushing and processing plant. He worked here from 1947 until he retired, and he participated in the construction of the plant. My mother worked as an accountant, and it was here that they met. Today, my daughter works here as an economist in the Payroll department. Our family has turned out to be quite the working dynasty. I have worked here for the longest to date. Much has happened during the 38 years I have worked here, but in my opinion the most important thing is to always remain calm and not to panic. Everything will turn out fine, you just need to work hard and apply yourself.

# NLMK Ural

Nizhniye Sergi, Revda, Berezovsky Sverwdlovsk Region, Russia

of steel per year

products per year

production capacity





Billet discharging from rolling mill furnace

# NLMK Ural (NSMMZ) – the leading

producer of billets and long products in the Ural region. NLMK Ural is the longest plant in Russia, stretching over 150 km with EAF operations in Revda; where scrap metal is melted to produce billets; and rolling operations in Nizhny Sergi and Berezovsky; where the billets are made into rebar and wire rod.

**Products:** Continuously-cast steel billets with square cross-section, long products, wire rod.

**Consumers:** Companies in the construction industry in Russia, Germany, Poland, Finland and Belarus.



# Alexander Popov.

Head of Rolling Shop №5, Nizhny Sergi

I joined NLMK Ural 14 years ago, starting out as a trainee rolling mill operator on Mill-150. I progressed through each mill stand: the pressing roll, roughing roll and intermediate roll stands; and from there I progressed to become a specialist on Mill-250. It didn't take me long to fit in as our team mastered the thermal hardening technology for rebar, increasing the productivity of the mill to reach its design capacity. Our shift became a leader in terms of rolling output as a result of this.

The fruits of our labour are not dependent on the contribution of any individual, but on the team as a whole. We have a superb team; friendly, strong and highlyqualified. I believe that improving qualifications should be an ongoing process. Today, in my capacity

"The plant is of huge importance to everyone from Nizhny Sergi. I am proud to work here"

> as head of the rolling mill, I am always learning. I have never regretted transitioning through all the sections of the shop, as it is a great help for my decision-making. What does the plant mean

to us? The plant is of huge importance to everyone from Nizhny Sergi, as it is the mainstay of the local economy. The plant's rich history goes back to the times of Demidov. We are especially proud of the fact that so many generations work here. Over the last three centuries, the plant has continuously changed, updating the technology and equipment we employ. In 2008 we became the foundation of the NLMK Long Products division. Since the beginning of 2016 we have introduced and executed a programme of product certification according to the European DIN, BS and EN quality standards. Today we are faced with the important task of establishing a foothold in the international long products market. I look to the future of our company with optimism. NLMK Ural is the foundation for stability and development and I am proud to work here.

NLMK Kaluga

Vorsino Industrial Park Kaluga Region, Russia

of steel per year

products per year production capacity

million tonnes of long

**1,250** 



# NLMK Kaluaa

production capacity

Launched in July 2013, NLMK Kaluga is the youngest company in NLMK Group and the largest producer of rolled steel for the construction industry in the Central Region of Russia. At the heart of NLMK Kaluga is the concept of the mini-mill, which combines EAF and rolling shops in close proximity to both feedstock sources and core customers. Each year, NLMK Kaluga sets new records of international best practice for the volume of production output it achieves and the duration of its heat series.

**Products:** High quality rebar and other steel products for use in the construction industry, continuously cast square billets.

Consumers: 90% of products are delivered to construction companies in the Central Economic Region of Russia, and also to CIS, Europe and elsewhere.



EAF shop, NLMK Kaluga



# Andrey Kulaga, Specialist in the Continuous Casting

I have worked in steelmaking for 34 years; in plants in Russia, Belarus and Jordan. I studied production efficiency at a plant in Germany. Are steelmakers born into the industry? Partially. I was born in Magnitogorsk, where my father worked in the plant; and my grandfather was a blacksmith. This kind of succession is very important, of course, but you cannot become a steelmaker if you don't study. A good knowledge of chemistry and technology is essential. The hardware at NLMK Kaluga is state of the art. We produce 120 tonnes of metal in just 45 minutes. To put this into context, the plant in Vyksa can produce only a quarter of this volume, because they don't have a casting line or ladle furnace on par with those we operate here. In Vyksa, the city of metallurgists, the

"The process of steelmaking is inspiring, there is nothing quite as beautiful as molten steel"

> workers know their metallurgy, they have tradition on their side. NLMK Kaluga is a plant that has been launched relatively recently; and our story is only just beginning. With time, the profession of steel-maker will be in great demand. We work with massive, high-temperature moving ladles. You must be a guick thinker and need good reactions. You cannot get by without strong teamwork: the pourers, the smelters and engineers are all part of the same team.

A sense of togetherness and compassion is greatly valued here. A steelmaker's shift lasts for 12 hours, from morning to night. We have a day to rest and then a day off. A strong base helps me to recharge my batteries; my wife, my children and grandchildren. I take pleasure from my work and put my heart and soul into it. When I control the furnace I have a direct impact on our finished product. The metal is poured and then made into rebar or angles which are used to construct buildings. So everyone plays their part and works toward the common cause. Ferrous metallurgy is full of life. The process of steelmaking seems harsh and hot at first glance, but it's inspiring. There is nothing quite as beautiful as molten steel.

Global company

NLMK GROUP

# MLMK Metalware

Berezovsky, Revda, Sverdlovsk Region, Russia

© 0.56
million tonnes per year

production capacity

& 670 employees

# **NLMK Metalware**

NLMK Metalware is one of the five largest Russian producers of metalware. The plant can produce 885 different sizes and types of metalware. The company holds a share in excess of 20% of the market for low-carbon metalware products.

# **Products:**

Wire for reinforced concrete, galvanized wire, welding wire, construction nails, fasteners.

### **Consumers:**

Construction and transport engineering industries in Russia and 18 other countries throughout Europe and the CIS.



Steel Wire Shop, NLMK Metalware



# Natalya Markova,

Finished Products Specialist, Steel Wire Shop

When I joined the company it specialized in the production of precision alloys. It was my sister that recommended I come to work here, as she has been here since the plant first opened. I joined as an apprentice, as everyone did, before I reached grade five and was assigned the role of operator. I was put forward for the position of specialist in the micro-ribbon and wire shop in the early 2000's. In order to get the job I had to pass

an exam set by the director of the plant. As I recall, the exam featured a wide variety of questions concerning occupational safety and production technology.

2004 heralded a new page in the plant's history when it was refocused entirely on the production of metalware. The plant was completed refitted with modern equipment from leading European manufacturers. I was transferred to the finished products part of the steel wire shop, which is where I continue to work to this day. Today we produce more than a hundred varieties of thread-forming screw for fastening drywall, wood and metal in the construction industry.

I really enjoyed my work from day one, we have an open and friendly team.

In the 27 plus years that I have worked here, we have taken part in the comedy competition 'KVN' (Club of Funny and Inventive People), sports competitions and professional skills contests more times than I can remember. This year NLMK Metalware turns 40 years old. Our company is rich in tradition and naturally has a number of dynasties. When I began work at the plant my daughter Marina was only a year old; and today she is already a pre-production engineer here at NLMK Metalware. She wanted to work at our plant ever since she was a child, a decision I have always supported because I know from experience that there are good prospects for employees here. I am relaxed about the future for my daughter.

"Our company is rich in tradition and naturally has a number of dynasties.

When I began work at the plant my daughter was only a year old; and today she is already a pre-production engineer"

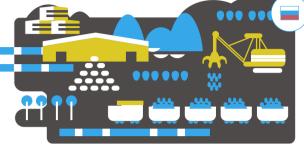
# NLMK Vtorchermet

33 regions of Russia

about 2 6

million tonnes per year production capacity

گ**4,800** employees



### **NLMK Vtorchermet**

NLMK Vtorchermet is one of the largest scrap metal companies in Russia, operating more than 214 sites in 33 regions of the country. The company performs collection, processing and delivery of ferrous metal scrap, which accounts for 85% of the raw material needs of Novolipetsk, NLMK Ural and NLMK Kaluga. NLMK Vtorchermet is the industry leader in terms of the technology it employs in the steel recycling process.

**Products:** Scrap.

Consumers: Novolipetsk, NLMK Ural and NLMK Kaluga.



Shredder, Vtorchermet NLMK

"Today every single NLMK Vtorchermet site is equipped with the most up-to-date hardware produced by leading European engineering companies"



# Vasily Bobykin, Technical Director NLMK Vtorchermet

I came to work for NLMK Vtorchermet in 2004, when I graduated from Ural State Technical University. It did not take me long to decide where I wanted to work, as there was a vacancy for an engineer in the Chief Mechanic department. I am driven by having the ability to develop in parallel with the organization in which I work; to explore new directions and to keep forging onwards. When Vtorchermet became a par of NLMK Group in 2008, I was appointed to the post of head of the Operations and Maintenance department. I took part in the 'Leader 2020' programme, which enables young specialists to develop leadership skills in order to

prepare the leaders of the future. The skills I was able to develop have allowed me to achieve significant career progression and I was made technical director of NLMK Vtorchermet in 2015. I believe that the most important factors in achieving success are to work hard every day; to display initiative; and, of course, to love the work you do.

Our company has undertaken a serious journey of development and restructuring. Today every single NLMK Vtorchermet site is equipped with the most upto-date hardware produced by leading European engineering companies. This enables us to perform highly-efficient processing of scrap metal, which ensures that we supply quality raw materials to NLMK Group companies. I believe scrap processing plays a significant role for Russia in both economic and ecological terms; and I have no doubt in my mind that we are doing a great and very important job.



Loading and processing of scrap

# NLMK La Louvière

La Louvière, Belgium

million tonnes per year



Packaging area, NLMK La Louvière

# NLMK La Louvière

A plant with a rich history of more than 160 years. Based on a coal deposit, the plant was previously a full cycle metallurgical producer. However, with the coming of the 21st Century, the blast furnace and converter process operations were shut down. In 2011, NLMK Group took over the plant's rolling operations. Thanks to a well-developed transport network; a modernized production environment; and the quality of its products, the La Louvière plant is today the main facility of NLMK Europe Strip division.

**Products:** Hot-rolled and cold-rolled products.

**Consumers:** Manufacturers of metal structures, ship hull builders, parts for road engineering, supporting structures, pipes and hardware.



# Girolamo di Piazza.

Head Machinist Overhead Levelling Crane

When I came to work here in 1982, the plant was called the 'Gustave Boel Plant'. I'm a machine operator by training and I began my career at an equipment manufacturing company. However, I came to La Louvière as a labourer when my previous employer closed down. I soon became a crane operator on the cold-rolling line, and later the Head Machinist of overhead levelling cranes. My professional skills have developed along with the company. The plant used to employ 3500 people, now there are 590. Back then, all the production stages were performed in-house, so everything rested on our shoulders and we believed in the stability of the work. However,

"Two of my sons work at NLMK La Louvière: one in the rolling shop, the other in the steel processing shop. I sincerely hope that the plant continues to operate for many years, even after I retire, and that it has a bright future ahead of it"

together with La Louvière. we were forced to experience tough times. The plant was on the verge of bankruptcy. It was bought out by the Dutch company Hoogovens before it passed into the hands of Duferco and then became part of NLMK Group. This enabled us to stay in employment and today we again have a feeling of confidence in what tomorrow holds.

I value my colleagues greatly. We get along extremely well and can rely on one another when necessary. Our team has 10 members, we load steel coils onto trucks and wagons for delivery to NLMK Strasbourg and NLMK Manage; and to external customers as well.

Two of my sons work at NLMK La Louvière. One son works in the rolling shop, the other in the steel processing shop. I sincerely hope that the plant continues to operate for many years, even after I retire, and that it has a bright future ahead of it.

production capacity

# **NLMK Strasbourg**

The history of the plant began in 1890, when it bore the name of Forges de Strasbourg. Today the plant is part of NLMK Europe Strip, utilizing hot-rolled steel supplied by NLMK La Louviere. The company has a cuttingedge service centre in Strasbourg that delivers increased customer service quality to consumers.

Strasbourg, France

**Products:** Galvanized steel, coated steel.

NLMK Strasbourg

#### **Consumers:**

Construction companies, white goods manufacturers, automotive manufacturers including Volkswagen General Motors, Ford, Daimler, Fiat Chrysler.

Products from the service center at NLMK Strasbourg



# Kadir Altun.

Control Station Machine Operator Hot-Dip Galvanizing Line

I began working for NLMK Strasbourg in 2011. After I finished school I worked in our family business, which provides painting services. I never thought about working for such a serious enterprise as NLMK Strasbourg. Initially, having had no idea what to expect, I remember my amazement at the size of the equipment and the scale of the plant itself. The last 5 years have simply flown by, and now I can say with certainty that I enjoy my work.

In order to explain what we do at NLMK Strasbourg in simple terms, I would say the following: we take rolls of metal, unroll them, dip them into a bath of zinc to stop them from rusting; and then we roll them back up. I like that my work is completely autonomous. Regardless of the job I have performed in the plant, I have always been allowed to act independently. At the same time I have always felt, and continue to feel, that I have great responsibility. Any mistake I make could have a direct impact on the quality of our products.

My brother is now working in the plant too. I remember I told him all about what I do and he applied to work

> "There is a very warm atmosphere among my colleagues. The most important thing is that we have mutual respect for one another"

with us. I'm very happy that he found work with us. I am grateful to NLMK Strasbourg, because since the moment that I had regular work I could begin my own life in earnest. I got married two years ago. I became a father, I have a nine-month old daughter. I consider myself to be a successful

There is a very warm atmosphere among my colleagues, regardless of the difference in age and nationality. The most important thing is that we have mutual respect for one another. Our team consists of 11 members. We work in pairs and I spend a lot of time with my partner, sometimes more than I do with my own wife (laughs). I'm lucky to have an experienced colleague as a mentor, he taught me almost everything I know. He's very friendly, he's like a grandfather to me. I am very grateful to him, he has done so much for me. Soon he will retire but I'm certain that we'll stay in touch.

Global company NLMK GROUP 21

# NLMK Manage

Manage, Belgium

© 0.24
million tonnes per year production capacity

80 employees



A service centre that is part of the NLMK Europe Strip division. The center specializes in the processing and sale of rolled products, the majority of which originate from NLMK La Louviere. The centre is equipped with two decoiling lines and a slitting line.

**Products:** Thin plates, narrow rolls.

Consumers: Automotive, construction and agroindustrial sectors in Germany, France, Poland and Benelux countries.



NLMK Manage products — thin coils



# Erdal Aydin,

Head of Procurement at NLMK Manage

The plant was called 'Bombardier' in 1989 when I first came to work here as a fitter-welder. During my time here I have held a number of different roles: I was a foreman, a team-leader and a procurement service specialist. Today I am the Head of this service. In fact I began work here when I was still a school boy, as back then the company representatives would select employees straight from the senior classes at school, and I had to wait a month until my 18th birthday to begin.

When 'Bombardier' was closed down, the company came under the control of Duferco and then NLMK Group. We were lucky as we didn't end up unemployed. Today, NLMK Manage is wellknown and held in high regard

by our partners in the industry. The results of the company's work also improved markedly: with our rate of working increasing from 60-70% to 90% and an increased order portfolio. This is the result of the work of our entire team, and I am proud to be a part of it. I have learned lot from my colleagues, as I have risen from fitter-welder to a management position. We have a friendly atmosphere in the team, with warm relationships. Everyone is willing to come to the aid of their colleagues. Management encourages employees in their desire to take on initiative and stimulate personal development.

I have three sons and a daughter. I will be very proud if one of my sons follows in my footsteps and comes to work at NLMK Manage. At the moment it's difficult to explain to them exactly what I do, but they know for certain that I enjoy my work.

NLMK Clabecq

Ittre, Belgium

million tonnes per year

570 employees headcount



Finishing mill at NLMK Clabecg

# **NLMK Clabecq**

NLMK Clabecq is the only plant in the world that can produce unique steel sheets which are both thin and wide, with a thickness of only 3 mm and a width of up to 2.7 m. The plant is located at an intersection of the largest railways and highways in Belgium and close to the Port of Antwerp, which provides an advantage for the delivery of products to many destinations around the world. NLMK Clabecq uses modern quenching and tempering (Q & T) technology, which enables top quality high-strength and abrasion-resistant sheets to be produced from low-alloy steel. The RMS Queen Mary 2; one of the largest passenger ships in the world; and the bridge on the French island of Mont Saint-Michel were made using steel from NLMK Clabecq.

<u>Products:</u> Thick plates, premium branded abrasion resistant Quard steel and extra high strength structural Ouend steel.

Consumers: Construction companies, energy sector companies, manufacturers of mining equipment and other yellow goods, shipbuilding, manufacturing of pipes on European and world markets.



# **Didier Bricmont,** Head of Quality Service

If I had to explain my job to a child in simple terms, I would say that the plant in which I work produces high quality steel and prior to selling it we have to check whether it is good enough. This is the essence of quality control, and this is my job.

I arrived at NLMK Clabecq in 2003. I worked in a project bureau prior to metallurgy, but my current position is far more interesting and varied, as I managed to combine my previous technical experience with management. There are 18 people in my team. I'm very lucky, I have outstanding staff with whom I have a wonderful relationship. We have shared interests, some of us play sports together after work.

When I first arrived at the plant, it was the heyday of steel production in Europe: production was at full capacity and we were hiring new

employees. Since then we have been through a lot, but these difficulties have only strengthened our solidarity and today we are working toward common goals. I value human relationships, primarily within my team and with our partners across the globe.

000

Last year, my son underwent undergraduate training here at NLMK Clabecq. Today he is working for our Logistics service. He says he is really enjoying his work and that his team also has an excellent atmosphere.



NLMK Clabecq products – thick plates

# NLMK DanSteel

Frederiksværk. Denmark

million tonnes per year



### **NLMK DanSteel**

production capacity

DanSteel is the only producer of heavy steel plates in Denmark, featuring the most modern heavy plate mill in Europe. Steel slabs produced by Novolipetsk are delivered to DanSteel, which is able to produce fully customizable products. Customers can request a variety of plate dimensions and grades of steel, as well as extremely fast delivery. The plant is conveniently located just an hour from Copenhagen. DanSteel's dedicated port make the receipt of shipments of raw materials and dispatch of finished products significantly more straightforward.

#### **Products:**

Thick steel plates.

**Consumers:** Shipbuilders, manufacturers of equipment for the construction, drilling platforms and infrastructure industries primarily in Northern Europe and Germany. NLMK DanSteel is the exclusive supplier of high-strength steel for the European programme of offshore wind power stations.



Thermal treatment of plates at NLMK DanSteel



# Lars Meldgaard Nielsen,

Shot Blasting, Priming Foreman

I have been working in this plant since 1990, when it was still called Det Danske Stålvalseværk. When I finished high school I planned to enter university and study to become a doctor, but I decided to have a year off from my studies. Two weeks later, my father had enough of me lying on the sofa watching television, so he arranged a job for me at the plant. I knew that I had found my calling from my very first day here.

Do I regret that I didn't go on to become a doctor? Not for a second! I have a fulfilling job that presents many interesting challenges during the work day, in a plant full of very skilled

co-workers. I have an extensive family that I hope loves me as much as I love them: a wonderful wife and two beautiful loving children. My family has worked in the factory ever since it was built. My grandfather; grandmother; father; mother; sister; uncles; aunts and cousins.

It's great to have people that share their experience with you and help you develop within your profession. Our plant has experienced hard times on occasion, for example at the beginning of the 21st Century the plant declared bankruptcy. We overcame these difficulties however and the plant began to operate again as part of NLMK Group. There isn't a particular part of my job I consider to be my favourite. because each different aspect of the job is interesting in itself. For example, interaction with my co-workers or being completely focused on finishing an order for a customer on time, everything is important. The atmosphere in the factory is very good and we have good relationships with one another. We often meet up together outside of work and at parties. No-one is left out, which is very important because we can all learn from each other and help one another when required.

# NLMK Verona Verona, Italy

million tonnes per year production capacity

#### **NLMK Verona**

A small full cycle steel plant, which nevertheless is Europe's largest producer of steel ingots, thanks to high-productivity equipment. The plant also produces slabs and steel plates of a unique thickness of up to 1.2 meters. NLMK Verona produces around 15% of alloyed steel in Europe, which is noteworthy for a plant of this size.

**Products:** Slabs, thick plates, alloyed tool steel, forging and forged ingots.

### **Consumers:**

Manufacturers of moulds for the automotive and white goods markets, manufacturers of rolls, plates and turbine rotors. Around 2/3 of products are sold in Italy, whilst the rest are sold in Asia and America.



Plate thickness check, NLMK Verona



# Alessandra Gitto.

Commercial Sales Department Tool Steel

I came to work for NLMK Verona in June of I came to work for NLMK Verona in June 2008, and it was then that changes began to occur in my life. I previously worked on reception in a hotel, which

I found tedious and monotonous. I wanted to acquire a different experience and to work as part of a team. When I was given the opportunity to join NLMK Verona, I agreed without hesitation. My work became a challenge. I was 24 years old and I arrived from another town and so I had to begin afresh, in new surroundings, with new people and new obligations.

During the eight years I have been at NLMK, I have worked in the purchasing department, in administration and in the tool steel commercial sales department. Work here is very dynamic, every day can bring the unexpected, but I am certain that we have the ability to meet any challenge that comes our way. In the two years I have worked in the sales department I have managed to create a relationship with our customers

based upon mutual trust, which is very important to me.

NLMK Verona employs extremely able specialists that know the products we offer our customers back to front. What's more, they're also simply fantastic colleagues, who will always extend a helping hand if necessary. Each of us is responsible for sales in a different geographical region, but all our guys are altruistic and think about our common goals rather than about their own personal interests. We have a young team with a positive vibe and a lively. energetic and yet relaxed atmosphere. Naturally, our department has some difficult days, but we support one another and that helps to iron out any problems.

In fact, it was here at NLMK Verona that I met my husband, as he has worked in the shipping department for five years now.

# NLM Pennsylvania, USA Farrell, Pennsylvania, USA

million tonnes per year production capacity

# **NLMK Pennsylvania**

NLMK Pennsylvania is the largest plant within NLMK USA. The plant was founded at the end of the 19th Century and today the majority of its products are made using slabs delivered from Novolipetsk. Almost all major carmakers in America use high-carbon steel products made by NLMK Pennsylvania for automotive components such as body parts and fasteners.

**Products**: High-carbon and alloyed steel, including hot-rolled, cold-rolled and full-hard steel.

Consumers: Automobile and machinebuilding industries; manufacturers of railway equipment, pipes; electrical energy, aerospace and mining industries; service centres.



Marking up a coil for shipping at the Shearline



Slab discharged from reheat furnace heads back towards the roughing mill, NLMK Pennsylvania



# Scott Williams. Assistant Roller, Hot Strip Mill

The work I do on the finishing end of the Hot Mill has a major effect on the quality of our products. I can help make sure the steel we roll meets, or exceeds our customers' requirements. It's all about knowing what the customer wants and working with our process engineers to produce the products our customers are looking for. People here care about getting the job done. Our entire team works hard

to ensure we produce high quality steel, because we understand that customer satisfaction is dependent upon it.

I'm not the only member of my family working at the Farrell Mill. My cousin, Brian Harris, works in the Cold Rolling department. He's been with NLMK Pennsylvania for eight years. Another cousin of mine retired from NLMK Pennsylvania last year. His name is Howard King; he worked on the railroad crew. I've been working for 42 years, and this is the best workforce I've been a part of, in any of the organizations I've worked for. In a lot of ways, our work group is like a family. We look out for each other, we look out for the team, and we do what is needed to ensure the Company is successful and competitive.

NLMK Sharon Coating

Sharon, Pennsylvania, USA

million tonnes per year production capacity

# **Sharon Coating**

Sharon Coating is located three kilometres from its main substrate supplier NLMK Pennsylvania. The plant was created within an unused transformer factory. The first hot-galvanized steel was produced here in 1995. The plant was modernized in 2005 and a cutting-edge zinc-galvanizing line was constructed.

**Products:** A variety of hot-dip galvanized steel products including steels for deep drawing, high-strength steels, dual-phase steels, and bake-hardenable steels.

**Consumers:** Manufacturers of automobiles and railway equipment; machine-building enterprises; and electricity and aerospace industries, among others.



Galvanizing line recoiler at Sharon Coating



# Rob Bartel. Millwright

I came to work at Sharon Coating in July 1998, long before it became a part of NLMK Group. I was 25 years old and just starting a family. I wanted to build a career, I didn't want to just have a job. The local economy was weak and there weren't many jobs around. I was excited to find a real job in which I could grow. As a Millwright, I enjoy diagnosing problems and figuring out how to fix them. It's rewarding to resolve the more complicated situations. I've always been mechanically inclined, and I like the challenges that go with maintaining the equipment in our plant.

We are a small team, and the people I work with are extremely loyal, both to the Company and to each other. Everyone brings their own skills to the job, and together we find a way to complete the

"Steelmaking is part of our family history. My son is studying to become a mechanical engineer. My career as a millwright has influenced him in his academic studies"

task at hand. As a group, we're like brothers. It often seems that over the many years we've all worked together, we have grown up like a family. As any family, we sometimes disagree among ourselves, but we always seem to come together to accomplish our

My father worked in the hot-rolling shop at NLMK Pennsylvania for more than thirty years, so steelmaking is part of our family history. My son has asked me about the work I do. and I've told him it's challenging and sometimes difficult. It's not always fun but it's definitely worthwhile. He's studying to become a mechanical engineer. My career as a millwright has influenced him in his academic studies. He likes taking on challenges and solving problems. He's very good at it and I'm confident he'll use that ability to become a good engineer. He gets excellent grades and I'm very proud of him.

Global company

NLMK GROUP

# NLMK Indiana...

Portage, Indiana, USA

**8.0** 

million tonnes per year production capacity

ه 350

employees headcount

# **NLMK Indiana**

A steel mill which features EAF and rolling operations. NLMK Indiana boasts a convenient location in the port of Indiana on the shores of Lake Michigan, and close to an established portfolio of customers; which enables the plant to compete with the largest steelmakers in America.

Products: Slabs, hot-rolled steels.

Consumers: Manufacturers of pipes, agricultural and construction equipment; cars and trucks; railway hardware, containers and machinebuilding enterprises.



"Since we've become
part of the NLMK Group, there
have been many positive changes"



LMF (Ladle Metallurgical Furnace) pulpit, NLMK Indiana



# Adam Jones,

Reheat Furnace Operator

Before coming to NLMK Indiana I had a umber of different jobs. I worked as a clerk in a pawn shop, before becoming a dock worker with the International Longshoremen. We had just had a baby and I was looking for a stable career that would allow me to grow as a person; to support my family and enable us to have our own home. I wanted to find employment that would give me the opportunity to learn and to advance. In 2007 the Steel industry was doing well and I thought being hired to work at the plant would be good for me and my family. I began by strapping rolls in the hot rolling shop, and today I am a reheat furnace operator.

I enjoy my job at NLMK and I like to work hard. My teammates are hardworking and dedicated. We work together as a unit in order to do what

is expected of us: producing quality steel. NLMK is a good place to work and the employees are an important part of the Company. Since we've become part of NLMK Group, there have been many positive changes. The most significant improvement is in Safety and emphasizing the idea that keeping the team safe is everyone's responsibility. Emphasizing safety at work and at home is important, because I have a 9-year-old daughter and a 3 year old son. I tell my daughter that I work hard to make steel coils. When we see trucks on the road transporting coils of steel I tell her that this is what her daddy makes; and she is impressed.

NLMK India

Daman, Mumbai, India

280 employees

### **NLMK India**

Almost a quarter of the electrical steel on the Indian market is supplied by NLMK Group. Transformer steel is produced at VIZ-Steel and Novolipetsk in Russia and then delivered to a service centre in the city of Daman, 200 km from Mumbai in India. Transportation is made straightforward by the presence of our own warehouse near to the port of Mumbai. 21% of electrical steel produced by NLMK is sold in India.

<u>Products:</u> Plates for transformer cores, processing of plates delivered from NLMK Europe.

Consumers: Production of transformers and transformer steel in India: ABB, Schneider, Siemens, Crompton Greaves, etc.



Cutting line at NLMK India

"I really appreciate and like the conducive work environment and friendly management style. We value relationships before everything else"



# Madhusudan Kamatadarkar,

Production Manager NLMK India

I was nearly 30 years old when I started working at National Laminations, before NLMK took over the service center in 2012. I take pride in understanding and converting the requirements of the biggest of transformer manufactures into CRGO laminations. It's all about what customer wants. I always try to meet, or exceed our customers' requirements. It's all about knowing what customers want, and working with our process engineers to produce the products our customers are looking for. I like having the ability to understand the customer's drawings and requirements and converting those into real products;

it's a never-ending quest we approach as a team. The team here is young and I have this opportunity to nurture this young talent as the future of NLMK India.

I've been working for 41 years, and this is the best workforce I've seen amonast all the organizations I've worked for. When I compare working at the same plant under the umbrella of National Laminations with present management under NLMK, I find drastic changes. The entire approach has changed from reactive working to proactive working. People are genuinely concerned and safety is a priority. I really appreciate and like the conducive work environment and friendly management style.

I have a small family to support at home besides satisfying my passion to excel at the workplace. My job at NLMK helps me with all those things. As a father, I believe it's important for my daughter to know about my job. One day several years ago, she visited our plant and witnessed what I do first hand. She knows some of what we manufacture at plant, and I think she's proud of what I do.

NLMK GROUP In focus 29



Getting to know one another is the driving force behind the film "Fusion", as well as dozens of fascinating videos, competitions and materials we prepared for you this year. Our "We are one team!" global communications campaign kicks off with the release of "Fusion".

Olga Nikulshina

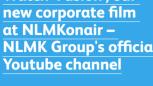
he idea of a film about NLMK Group employees was conceived two years ago. We had only just begun to shoot quality corporate video productions at the time: perhaps you remember "Made of Steel", about NLMK veterans; or "Special Steel", about steel for wind energy generation. Next we decided to show not only the history or production, as important as they are, but our unified team of

professionals which is more important still. We want to demonstrate how our cultures; that differ so much in ideas, dreams and aspirations; come together for the greater cause.

### **OPENING UP**

It was undoubtedly challenging to fly around the world over the course of just a few months. So many different countries; not to mention the jetlag! It was certainly worthwhile, every single

Watch 'Fusion', our new corporate film at NLMKonair -**NLMK Group's official** 





Michela Boni , NLMK Verona: "It was very unusual to shoot right in the heart of Verona."

Some of our characters opened up to the camera immediately; for others, filming was a real challenge







moment was special. Filming began in August last year at NLMK Kaluga, concluding in October on a different continent at NLMK Indiana.

In between we had to shoot 12 production sites and many locations around the plants; the streets of Verona and Brussels, Elsinor in Denmark and ships on the North Sea, cars in the fields of America, and Lipetsk from a birdseye view. And not only did we have to gather shots, we had to take dozens of interviews with our characters, with hours upon hours of staged photography.

"I'm quite a shy person and get nervous in front of the camera, so at the beginning it was a bit difficult,"

said Michela Boni, secretary at **NLMK Verona.** "But the film crew were professionals, they helped me to cope with my nerves. It was very interesting and unusual to shoot scenes for the film right in the heart of Verona."

Some of our characters opened up to the camera immediately, taking a fresh perspective on themselves or even joking around with the film crew. The most musical character that we met was the good natured guy **Ray** Gholson of NLMK Indiana, who began to repeat his line over and over; then he began to rhyme with it before breakdancing right there in the workshop, which he took great pleasure in.





Ray Gholson, our most musical character

WE HAVE SOME INCREDIBLE PEOPLE WORKING IN OUR COMPANY, THEY CAN AMAZE, INSPIRE AND LIVEN THINGS UP

In other cases, filming was a real challenge. The episode of the film in which Lyudmila Malysheva of

**Novolipetsk** delivers the line "Be open" was filmed in Lipetsk at Swan Lake. In the script, a young couple are walking along the edge of the lake and feeding the swans, in practice this encounter with the birds didn't quite go to plan. The same applied to the Australian Emu that immediately let out a threatening drumming sound. "The birds made a racket, before coming ashore and attempting to bite one of the film crew," recalls Sergey Ivantsov, Public Relations Specialist. So as not to irritate the birds, we decided to change filming location, moving over to the opposite bank of the river. Lyudmila had only just managed to deliver her line, before she added: "They're swimming over here!" The hostile swans came ashore. We began to back away from them until we heard a familiar drumming sound behind us. So we fled, or rather, we were driven back to our original filming location by the ostrich.

When all the inhabitants of the lake finally fell silent, we had enough time to capture a few takes. "Be open," smiled Lyudmila Malysheva, heroically. "That's a wrap!"

We managed it just before the rain started.

# DANES, LIKE RUSSIANS, ARE A BIT **CRAZY**

We filmed some shots of workers at several sites during the "blue hour": which is at dawn when the horizon is pink; as well as at dusk. Dawn was at around 4.30am. At our Russian sites, this is part of the regular work day, but in Europe only two employees were up to the challenge: Lars Nielsen and Mikkel Andersen of NLMK DanSteel.

According to plan, they were to arrive in Elsinor, around an hour's drive from Frederiksværk, by 5am in order to begin

filming at Hamlet's castle. "It must be said that for quite some time no one agreed to attempt this," said Maria Simonova, the Head of External Communications for NLMK Group. "We even planned to have DanSteel overalls delivered to us at the airport in Copenhagen, so either the director Boris Mamlin or I would walk in front of the castle and say "What makes steel strong" in Danish. I learned this phrase in Danish and can still remember it. In the end we didn't have to, as just before our flight to Copenhagen we learned that two of the plants employees were prepared to film early in the morning. And they arrived on time. We later decided that, just like the Russians, Lars is a little crazy in a good way. In fact, his wife has Russian



Lyudmila Malysheva of Novolipetsk



Lars Nielsen, NLMK DanSteel: "The idea of making this film was so cool!'

ancestry. Although what drove Mikkel to join in is a mystery to us."

"Participating in the film wasn't that easy for me, but it was an interesting experience," explained Lars Nielsen, Supervisor, S & P Department (Shot

12 NLMK GROUP 33

"We are all colleagues in NLMK Group; there are differences between us but it is from this that we derive our strength and significant competitive advantage"













Filming at NLMK Verona

Blasting and Priming) at DanSteel. "It was my first such experience, and I felt very self-conscious. The most difficult part for me was being aware of two cameras on the ground and the drone hovering above, but I really hope that the shots came out well. I won't be giving Brad Pitt a run for his money anytime

soon, he's a great actor and looks a lot better than me (laughs). The idea of making this film was so cool! It will show the world what we're capable of!"

#### **STEEL IS IN OUR BLOOD**

Circumstances have an impact upon the plot of any kind of film. This



Filming at Altai-Koks. "We are daring, if someone says it is impossible we say: bring it on!"

is how **Dionisio Cotti of NLMK** 

Clabecq came to tell us about making chocolate, whilst pouring chocolate into a mould. In our initial script, Dionisio was supposed to cook something in a frying pan in his kitchen but when the film crew were already on their way to Belgium, his kitchen was somehow transformed into a chocolate workshop.

We have some incredible people working in our company, they can amaze, inspire and liven things up. For example when Marc Bianchi, Sales & Marketing Director, Q&T, of NLMK Europe discussed the script with us, he bristled: "Who wrote this thing? Who decided that following rules is a character trait of the Belgians?" Where did you meet these Belgians?" Then he took us around the plant, sticking closely to the marked out pedestrian walkways,

"Good steel, just like the best chocolate, has to be heated to the perfect temperature. It requires the right mix of components and strict adherence to standards"

"We produce premium-grade steels: high-strength Quard and abrasion-resistant Quend. This would not be achievable without the truly Belgian qualities of hard work and common sense"

without setting foot outside the yellow line by so much as a millimetre! Even in places where it wasn't obligatory, he would follow the zigzags marked out on the floor. Exactly as per the rules.

Gunnar Larsen, Supervisor,
Dispatch Department of NLMK
DanSteel, is also a living testament

to the character of his compatriots, the Danes. He walked between the rows of thick plates in the plant's port and read the script verbatim, as he found nothing to be out of line in it.

"We're the only metals company in Denmark to have existed since 1940," explained Gunnar Larsen. "I get



Dionisio Cotti, NLMK Clabecq



Marc Bianchi, NLMK Europe



Gunnar Larsen, NLMK DanSteel

a feeling of immense pride to know that I am a part of that history. I have had a connection to metallurgy for a long time now. I'm the youngest in a family of seven brothers and sisters, and one of my

older brothers worked at the Det Danske Stålvalseværk plant (DanSteel since 2002 – *Ed.*). In 1977, my brother persuaded me to work at the plant and since then I have had steel in my

heart and soul. The creation of the film 'Fusion' is a superb idea; an opportunity to show NLMK Group as a single entity; and the workforce as a cohesive team of likeminded individuals."

There were also situations when we were on the brink of failure. There is a shot in which a pickup truck is driving elegantly alongside an American cornfield, as the camera sweeps above it. The shot lasts for just over a second, but it took more than three hours to film. It took us almost an hour to find the ideal location. We needed the archetypal provincial American scene, with a road and pickup trucks. We drove through settlements and forests, but there wasn't a field in sight. As night began to close in, we were despondent and on the brink of giving up, when... hooray! We came upon a field. We pulled up and waited, the quadcopter and camera at the ready, waiting for a pickup truck to cruise by... but there was not a single



Filming at VIZ-Steel's cold-rolling shop



Filming at NLMK Verona coincided with the testing of a new manipulator

NLMK GROUP



"We know how to build things to last. It doesn't take much: an agile mind, decency, honesty"

pickup to be seen! In the end our luck turned and pickups of a variety of sizes and colours came by.

"We went through three quadcopter batteries, before we managed to get a beautiful shot," recalled Sergey Babichenko, Head of Public Relations, "but it transpired that during our pursuit of perfection we didn't notice that we had used up a full tank of gasoline and soon our car conked out right on the highway. We were rescued by our colleague Alexander Tseitline of NLMK Indiana, who kindly brought us an emergency canister of fuel and showed

"Our company is strong because of our specialists, our technologies, our traditions and the approach we take to our work"











us the way to the nearest gas station. Many thanks, Alexander!"

There are many such wonderful, bright and caring people in our company, it's just a pity that so many are only behind the scenes of our film. Most importantly though is that they are with us; and not working for our competitors.

#### **WE ARE UNBEATABLE**

"This film has given NLMK a face." said Maria Simonova. "Corporate films made by metals companies are all strikingly similar to one another.

'Fusion' is a superb idea; an opportunity to show NLMK Group as a single



Sergey Disyun, Altai-Koks

entity

When you walk around the 'Metal-Expo' exhibition, you'll see the same thing on the video monitors of each stand: explosions in an open mine; the tapping of pig iron from a blast furnace; the hot rolling process; and neat rolls of product. This film shows who we are and how we are different from everyone else." "Our company is strong because of our specialists, our technologies, our

traditions and the approach we take to our work. This film talks about all of these things," said Sergey Disyun, Head of the Mechanical Bureau at **Altai-Koks.** "It is fascinating because it has been done on such a grand scale, bringing together incredible, true stories from all our facilities in Russia and abroad, which is cool!"

There are many interesting meetings, moments, interviews and improvisation, but we don't want to give away any 'spoilers' now which would detract from your enjoyment of our film.

"We filmed tonnes of material that didn't make it into the first film due to the nature of the film's format as 'short'," said Sergey Babichenko. "You will definitely be seeing them this year, though. Better you see them once than hear about them a hundred times, as the saying goes. I was struck by the openness and hospitality, the genuine fascination and drive to participate by everyone that we met



Filming at NLMK DanSteel

in the course of making the film, in Russia, Europe and the USA. We are all colleagues in NLMK Group; there are differences between us but it is from this that we derive our strength and significant competitive advantage. As

we come to know one another better and understand that we are a part of a global team of like-minded individuals, we begin to share our unique experience and individual qualities with each other, which together make us unbeatable." @



'Picture of the World' film crew launching a camera-equipped quadcopter in Lipetsk

"We are one team!" is the motto of our video greeting relay! Join in on NLMK's social media sites!

37













Roman Nekhoroshev, Altai-Koks. Filming at the highest point of the coal warehouse

# Reaching the Top

Ivan Kurunov, NLMK's main
Blast Furnace Operator, is one of
the hundred most-cited experts
in metallurgy. He holds more than
150 patents and has published
300 scientific works, including four
books. He is used to achieving
results; to reaching any summit.
Recently, Ivan reached yet another
summit; this time the summit of
a mountain. Our interview tells
the story.

Olga Nikulshina



Ivan Kurunov was born in 1939 in the town of Satka, Chelyabinsk Oblast. He graduated from Chelyabinsk Polytechnic Institute. Ivan worked in the blast furnace laboratory at the Chelyabinsk Metallurgical Institute. He attended grad school at the National Institute of Science and Technology, where he defended his Ph.D. and continued work at the department before he became a professor, having defended his doctoral dissertation. Ivan has worked for NLMK since 2000, initially as an expert within the company management, and then as main Blast Furnace Operator from 2005. He speaks Russian, English and French; he enjoys swimming and mountain-climbing. Ivan is married

and has a daughter, Tatiana.

# Ivan, Elbrus is the highest summit in Europe, and scaling Elbrus requires significant physical preparation and determination. How did your desire to climb Elbrus come about?

The story began in a fairly mundane fashion. I was relaxing at a wellness resort in Kislovodsk in the North Caucasus; and Elbrus was among the many different excursions available. When I saw Elbrus for the first time I could not help but be impressed. The mountain that Pushkin waxed lyrical over certainly draws attention to itself, it is simply captivating and draws you in. And that was how I caught the 'mountain bug', even if it was a little late in life. And so without knowing very much about Elbrus at all, I signed up online to climb the North route, which starts from the base camp at Emmanuel Glade, at an altitude of 2500 meters. The route is very picturesque, as the view isn't spoiled by a chairlift. You have to carry all the equipment that you need for the climb; special boots, crampons,



On the East summit of Mt. Elbrus

an ice axe, a harness, a sleeping bag, a down jacket; in a rucksack to a hut at an altitude of 3800 meters. After a night in the hut and a day's rest to acclimatize to the altitude, you set off with a small rucksack containing just a snack, a flask of tea and water. Everything would have been just fine, but as it transpired my legs weren't ready for the climb and I was only able to make it to the 3500 meter mark. I realized it would be very difficult for me to go further and so I fell by the wayside. As it turned out, my group didn't reach the summit due to strong winds and the freezing cold conditions. Meanwhile I was back at basecamp, where I spent the next three days taking different routes, reaching the same altitude without any difficulty each time. Elbrus, whilst a straightforward proposition for the mountain climber, still requires physical preparation; an essential acclimatization period of not less than 3-4 days; and respect for the safety rules and weather conditions. Failure to do so can lead to tragic consequences.

# This failure didn't put you off, and a year later you made another attempt to climb Elbrus.

The second time I approached from the South, which is much more straightforward. You ascend to an altitude of 3700 meters by chairlift, to a hut which serves as your base. I opted, as many people do, to then travel to Pastukhov Rocks at an altitude of 4800 meters by Snowcat, a small tracked vehicle designed to move on

snow-capped mountains. You can then reach the summit direct from Pastukhov Rocks. In my experience, the most important thing was the four day acclimatisation period that my tour operator offered, with staged ascents to altitudes of 3200, 4200 and 4800 meters. This time I would make it as far as the saddle, at an altitude of 5300 meters, before I began to fall behind the group, even though the group was small. Our guide began to doubt me and I just didn't have enough wind in my sails to make it to the top. There were only 350 meters left, although admittedly they are the most difficult. There is low pressure at this altitude and at the summit of Elbrus the pressure can fall as low as 380 mmHq, which is two times less than the usual level and a very low 10-11% oxygen level. This is why preparation is key; and acclimatisation is essential. The guide I was with was rather surprised that I got as far as the summit and made it back down without too much difficulty. He had been forced on a number of occasions to take exhausted people down from the mountain, but when I told him that I swim a kilometre every day he stopped questioning me. The third time I was very well-prepared for my climb. Swimming does not prepare the legs adequately, and so I would go crosscountry every summer evening after work for at least an hour. As a result, I had no further issues with my legs, which really helped.

# And at the third time you managed to tame Elbrus.

This time everything was fine, although I wouldn't use the word 'tame'. Let's say that I was lucky with the weather and Elbrus allowed me to reach the summit. I was paired with a guide and we set off at night, at three o' clock in the morning. A night approach is very beautiful. A column of climbers wearing head-mounted flashlights walking up the slope, a chain of lights that can be seen from afar. We were lucky, the wind wasn't

"Elbrus requires physical preparation; an essential acclimatization; observance of safety rules; and consideration of the weather conditions"

very strong so there was only a small amount of snow being whipped across the slope; and the temperature was 15 degrees below zero. I had to use my ice axe on one occasion, when I slipped and fell and began to slide down. We were walking roped in to one another, of course so I was secure but the ice axe came to my assistance. By 10 o'clock we had reached the top. Such incredible beauty! When the weather is good you can see the Black Sea and the entire Caucasus mountain range from the peak of Elbrus. The mountain is certainly worth a visit.

### You didn't plant an NLMK flag at the peak, as they always show in the movies?

That idea didn't spring to mind, but maybe next time.

# So that means you have plans for another climb?

I do wish to climb again. I want to try to climb Montblanc and am currently researching this. But I also want to visit Elbrus again, as I only made it to one summit so far.

# What advice would you give to someone that has just decided to climb a mountain?

The most important thing is to see it and fall in love with it! And to get going! 

Output

Description:

# WHAT IS IT MADE INTO AND WHERE IS IT USED?

FIND OUT IN OUR NEXT ISSUE









Keep in touch: press@nlmk.com