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ElixirZorka

FABRIKA U SUBOTICI PRETEČA ŠABAČKE „ZORKE“

**ZORKA ŠABAC JEDNO JE OD
NAJZNAČAJNIJIH POSTROJENJA
HEMIJSKE INDUSTRije
NA BALKANU TOKOM 20. Veka**

Zorka Šabac jedno je od najznačajnijih postrojenja hemijske industrije na Balkanu tokom 20. veka. **Njena preteča bila je fabrika u Subotici, osnovana 1904. godine u tadašnjoj Austrougarskoj.** Ova fabrika poslovala je u sastavu firme „Clotild“ iz Budimpešte, koja se bavila proizvodnjom sumporne kiseline svih gradacija i plavog kamena i bila je jedna od najvećih fabrika u oblasti hemijske proizvodnje u našim krajevima koji su bili u sklopu Austrougarske monarhije.

Po okončanju Prvog svetskog rata fabriku su privremeno nacionalizovale vlasti tadašnje Kraljevine Srba, Hrvata i Slovenaca sa ciljem prenosa vlasništva u ruke domaćih akcionara, pa je tako **1920. godine osnovano Prvo jugoslovensko društvo za hemijsku industriju na deonice – „Zorka“ sa sedištem u Zagrebu.**

„Zorka“ je dobila ime po **kneginji Zorki Karađorđević**, supruzi kralja Petra I Karađorđevića i čerki crnogorskog kralja Nikole I. Ujedno je to bio znak poštovanja i uspomena na Osmi pešadijski puk „Kneginja Zorka“ iz sastava Dunavske divizije vojske Kraljevine Srbije, koji je u završnim operacijama Prvog svetskog rata oslobođio Suboticu 1918. godine.

Već 1922. godine paket akcija „Zorke“ prodat je „Hungariji“, fabrici hemijskih proizvoda iz Budimpešte, koja je bila u vlasništvu firmi „Spolek pro hemickon a hutny viroby“ (Društvo za hemijsku industriju i metalurgiju) iz Praga i „Solway and son“ iz Brisela, koje su rukovodile „Zorkom“ do 1941. godine.

Kneginja Zorka Karađorđević
Princess Zorka Karađorđević



THE FACTORY IN SUBOTICA THE FORERUNNER OF "ZORKA" ŠABAC

Already in 1922, a package of "Zorka" shares was sold to "Hungary", a chemical products factory from Budapest, which was owned by "Spolek pro hemickon a hutny viroby" (Society for Chemical Industry and Metallurgy) from Prague and "Solway and son" from Brussels, which managed "Zorka" until 1941.

Zorka Šabac was one of the most important chemical industry facilities at the Balkans during the 20th century. **Its predecessor was the factory in Subotica that was founded in the territory of the former Austro-Hungarian Empire in 1904.** The factory carried out its operations as a part of the "Clotild" company from Budapest that was involved in production of sulphuric acid of all grades and copper sulphate and was considered to be one of the most significant factories in the field of chemical production in the regions that used to be the part of the Austro-Hungarian Monarchy.

After the end of the First World War, the factory was temporarily nationalized by the government authorities of the former Kingdom of Serbs, Croats and Slovenes with the aim of transferring ownership into the hands of local shareholders, so in 1920 the **First Yugoslav Chemical Industry Stock Company - "Zorka" was founded with headquarters in Zagreb.**



"Zorka" was named after **Princess Zorka Karađorđević**, wife of King Peter I Karađorđević and daughter of Montenegrin King Nikola I. It was also a sign of respect and memory of the Eighth Infantry Regiment "Princess Zorka" from the Danube Division of the Army of the Kingdom of Serbia, which liberated Subotica in 1918 with the final operations of the First World War.

1920.
osnovano Prvo jugoslovensko društvo
za hemijsku industriju Zorka





**ZORKA ŠABAC WAS ONE OF THE MOST
IMPORTANT CHEMICAL INDUSTRY
FACILITIES AT THE BALKANS DURING
THE 20TH CENTURY**

OSNIVANJE „ZORKE“ U ŠAPCU



Usled snažne ekspanzije proizvodnje i potražnje za proizvodima hemijske industrije tokom tridesetih godina 20. veka, uprava „Spoleka“ odlučila je da se postojeći kapaciteti prošire, te se delom napuštaju postrojenja u Subotici i pristupa izgradnji novih. Budući da je Subotica bila pogranični grad, ova odluka se podudarala sa **strategijom vlasti Kraljevine Jugoslavije da se važna industrijska postrojenja prebace u unutrašnjost zemlje**. Istovremeno, u interesu uprave „Spoleka“ bilo je da se podigne moderna hemijska industrija na povoljnijoj lokaciji pri čemu se računalo na osvajanje tržišta Jugoistočne Evrope i Bliskog istoka.

U užu selekciju lokacija za izgradnju nove fabrike ušli su Šabac, Godominsko polje kod Smedereva, Zabreže kod Obrenovca i Bosanski Brod. Izbor Šapca nije bio slučajan. Usledio je zbog niza pogodnosti koje je Šabac pružao, a to su: raspoloživost radne snage zbog industrijske nerazvijenosti mačvanske oblasti, izuzetno bogati resursi vode, odlične komunikacione veze vodom i kopnom koje su bile povezane putnim i železničkim saobraćajem, blizina reke Drine kao izvora električne energije i bogato poljoprivredno područje koje je kao takvo predstavljalo potencijalnog potrošača proizvoda hemijske industrije, pre svega iz oblasti poljoprivrede, a podrazumevalo je i odsustvo ulaganja u infrastrukturu od strane investitora, što ne bi bio slučaj sa ostalim lokacijama.

Po dobijanju građevinske dozvole od grada Šapca 1936. godine, investitor je izradio nov program koji je podrazumevao preseljenje dela postrojenja iz Subotice u Šabac, a delom i izgradnju novih.

**TAKO JE 1936. GODINE, U ŠAPCU NA PROSTORU
OD 80 ha PORED REKE SAVE, OTPOČEЛА
IZGRADNJA FABRIKE ZA KOJU SU SREDSTVA
U VISINI OD 30.000.000 TADAŠNJIH DINARA
OBEZBEDILI „SPOLEK“ 74%, A OSTATAK OD 26%
NJIHOV PARTNER „SOLWAY“, OSNIVAJUĆI NOVO
HEMIJSKO DRUŠTVO SA SEDIŠTEM U BEOGRADU
KOJE JE ZADRŽALO IME ZORKA.**

**Program izgradnje bio je predviđen u dve etape:
u periodu 1937–1942. i 1942–1947. godine.**

FOUNDING OF "ZORKA" IN ŠABAC

Due to the strong expansion of production and demand for chemical industry products during the thirties of the 20th century, the management of "Spolek" decided to expand the existing capacities, and partially abandon the plants in Subotica and start building new ones. Since Subotica was a border town, this decision coincided with the **strategy of the government authorities of the Kingdom of Yugoslavia to move important industrial facilities to the interior of the country**. At the same time, the interest of the management of "Spolek" was to build a modern chemical industry facilities in a more favorable location, counting on conquering the markets of Southeast Europe and the Middle East.

Šabac, Godominsko polje near Smederevo, Zabrežje near Obrenovac and Bosanski Brod were shortlisted for the construction of the new factory. The choice of Šabac was not accidental. It was a result of a series of benefits offered by Šabac such as: the availability of work force due to the industrial underdevelopment of the Mačva region, extremely rich water resources, excellent communication links by water and land that were connected by road



THUS, IN 1936, IN ŠABAC, ON THE AREA OF 80 ha NEXT TO THE SAVA RIVER, THE CONSTRUCTION OF A FACTORY BEGAN. THE FUNDS IN THE AMOUNT OF 30,000,000 DINARS FROM THAT TIME WERE PROVIDED BY "SPOLEK" (74%), AND THE REST BY THEIR PARTNER "SOLWAY" (26%), ESTABLISHING A NEW CHEMICAL COMPANY BASED IN BELGRADE THAT KEPT THE NAME ZORKA.

and rail traffic, the proximity of the Drina river as a source of electricity and a rich agricultural area, which as such represented a potential consumer of chemical industry products, mainly in the field of agriculture, and implied the absence of investment in infrastructure by investors, which would not be the case with other locations.

Following the obtaining of a building permit from the city of Šabac in 1936, the investor drew up a new program that entailed the relocation of part of the plant from Subotica to Šabac, and partly the construction of new ones.

The construction program was planned in two stages: in the period from 1937 to 1942 and from 1942 to 1947.



PRVA ETAPA IZGRADNJE (1937-1942) I PUŠTANJE U RAD PRVIH FABRIKA

U prvoj etapi izgradnje planirano je podizanje pogona za proizvodnju sumporne kiseline i plavog kamena.

8. novembra 1938. godine svečano je puštena u rad fabrika sumporne kiseline po kontaktnom postupku kapaciteta 14.500 t. Pored nje, proradila je **fabrika plavog kamena kapaciteta 8.150 t**, kao sredstva za zaštitu bilja, koji se pokazao kao izuzetno rentabilan artikal za tadašnju fabriku i njenu proizvodnju. Podignuti su i infrastrukturni objekti: **upravna zgrada, mehanička radionica, industrijski koloseci i kotlana**.

Ovom izgradnjom u Šapcu je postavljen temelj modernog industrijskog centra. Nova fabrika je oslobođila zemlju uvoza sumporne kiseline i plavog kamena. Pored toga, „**Zorka**“ je sa svojim **proizvodima u početnim godinama poslovanja izašla na tržišta Rumunije, Bugarske, Grčke i Turske, a paralelno sa tim je zagospodarila tržištem teških hemikalija u Jugoslaviji.**

THE FIRST STAGE OF CONSTRUCTION (1937-1942) AND COMMISSIONING OF THE FIRST FACTORIES

In the first stage of construction, it was planned to build a plant for the production of sulfuric acid and copper sulfate.

On November 8, 1938, a sulfuric acid factory using the contact procedure production with a capacity of 14,500 tons was officially put into operation. Next to it, **a factory of copper sulfate with a capacity of 8,150 tons was opened**. This product was used for protecting plants and it proved to be an extremely profitable item for the then factory and its production. Infrastructural facilities were also built: **an administrative building, a mechanical workshop, industrial railway tracks and a boiler room**.

With this construction, the foundation of a modern industrial center was laid in Šabac. The new factory freed the country from importing sulfuric acid and copper sulfate. **“Zorka” entered the markets of Romania, Bulgaria, Greece and Turkey with its products in the initial years of operation, and in parallel dominated the market of heavy chemicals in Yugoslavia.**

8.11.1938.

godine svečano je puštena u
rad fabrika sumporne kiseline

14.500t

kapacitet fabrike sumporne kiseline

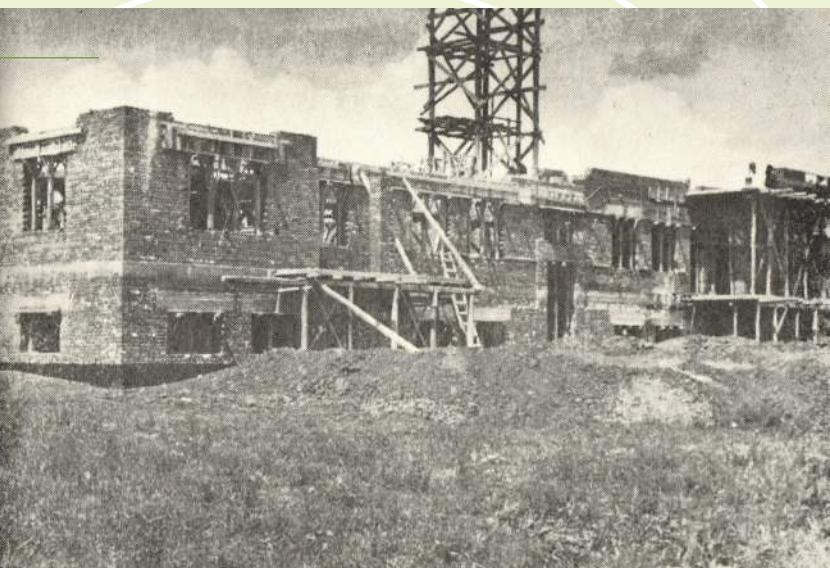
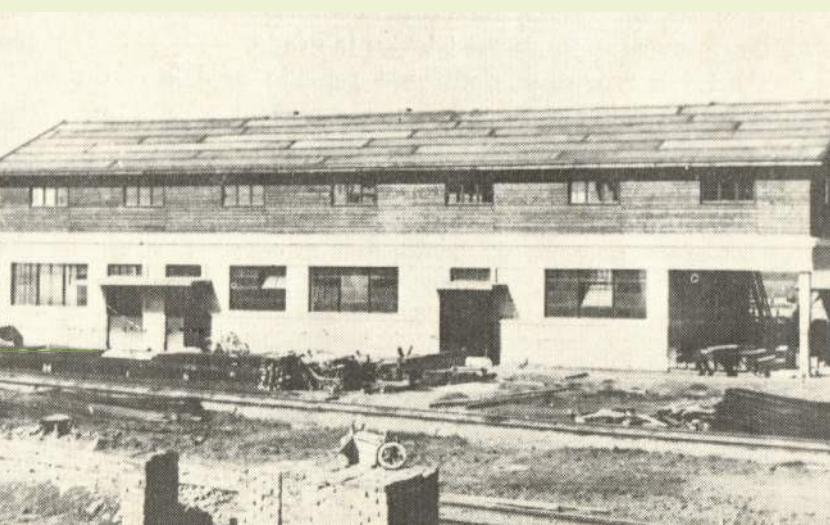
8.150t

kapacitet fabrike plavog kamena

Upravna zgrada
Administrative building

Mehanička radionica
Mechanical workshop

Izgradnja prvog
stambenog objekta
Construction of the first
residential building

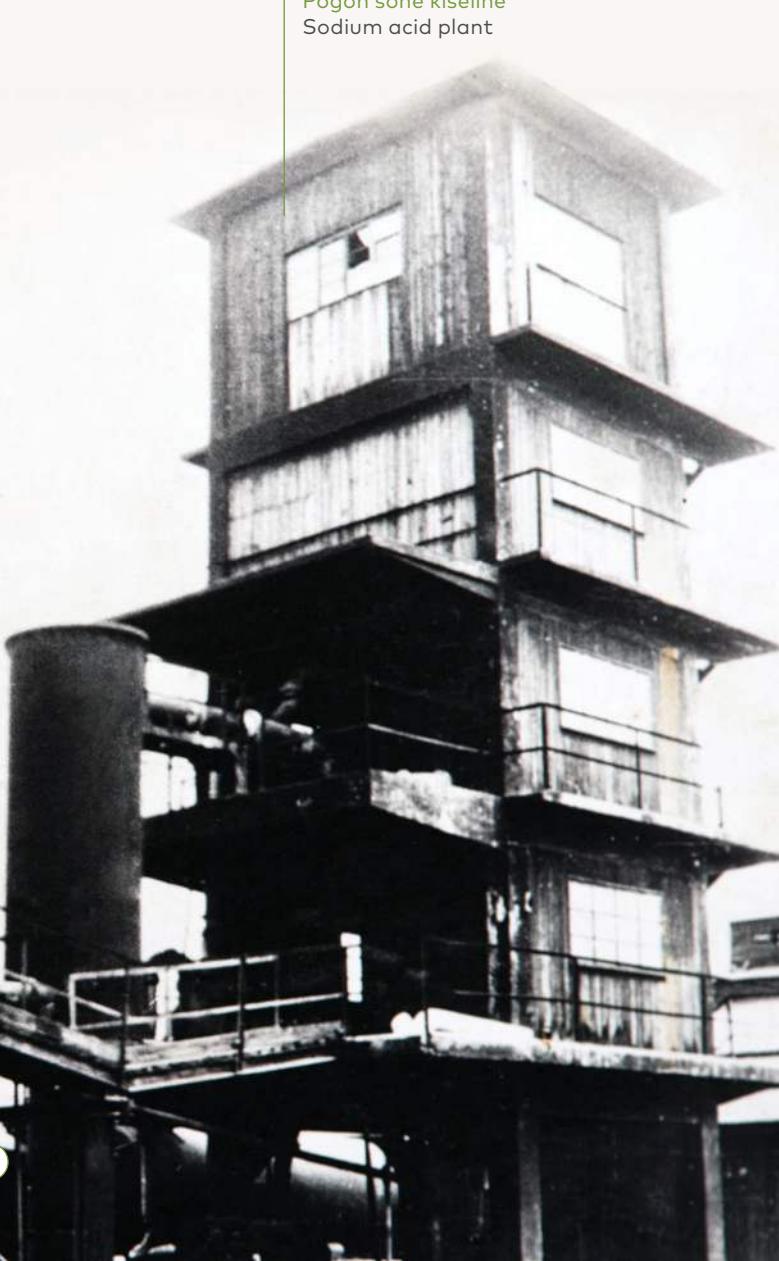


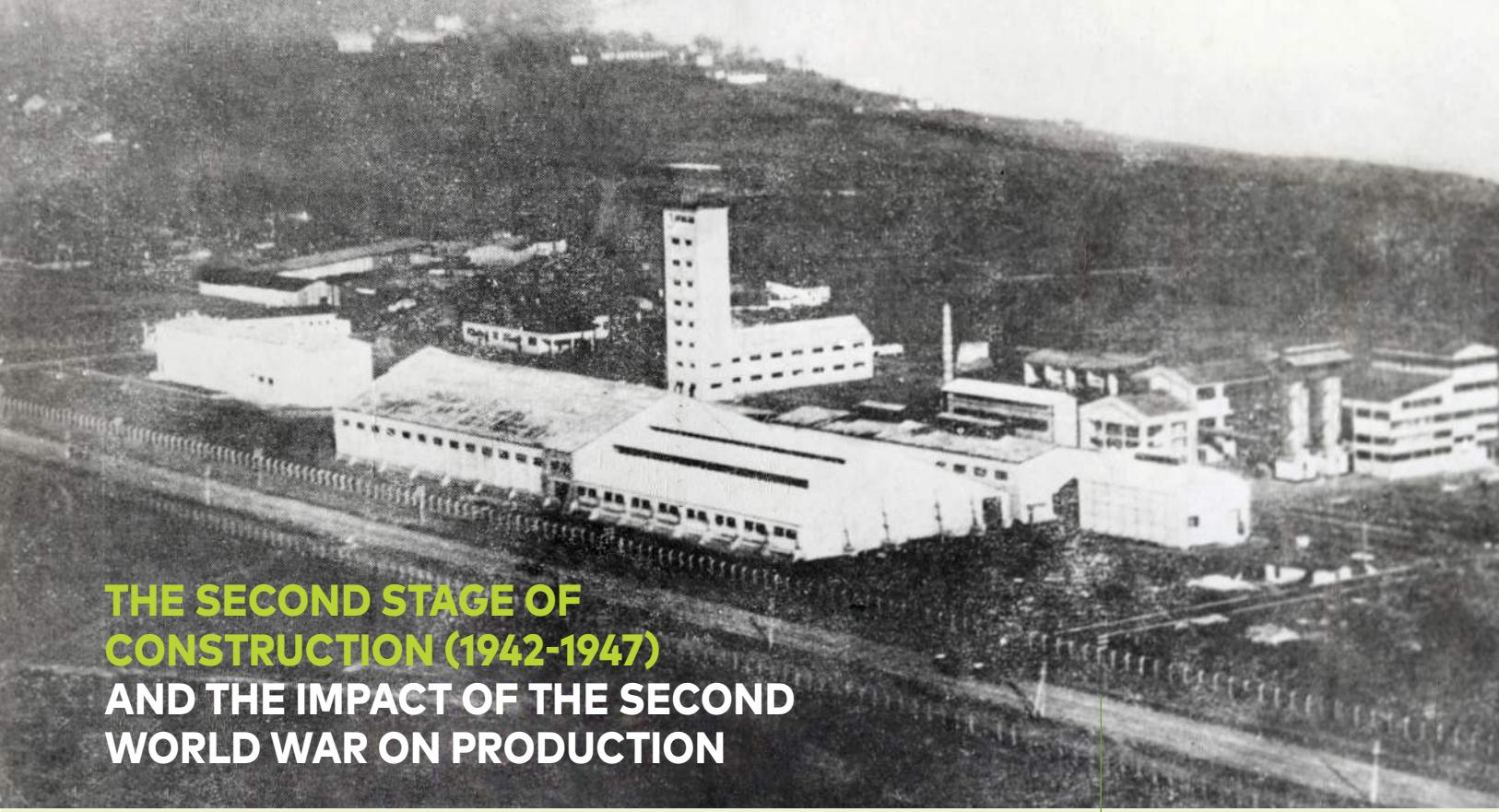
DRUGA ETAPA IZGRADNJE (1942-1947) I UTICAJ DRUGOG SVETSKOG RATA NA PROIZVODNJU

Druga etapa u periodu od 1942. do 1947. godine predviđala je jedan dalekosežan program izgradnje kompleksa novih proizvodnih pogona koji je onemogućen **izbijanjem Drugog svetskog rata** kada su nemačke okupacione vlasti oduzеле firmu prethodnim vlasnicima i stavile je pod svoju upravu raskidajući na taj način suvlasnički odnos između fabrika u Subotici i Šapcu, što će se zadržati i u periodu posle rata, sve do 1970. godine kada su se dva privredna subjekta ponovo integrisala.

Vihor rata uticao je na pad proizvodnje, naročito plavog kamena, jer je fabrika dobijala znatno ograničene količine bakra. Pa, ipak, i u ovakvim uslovima „Zorka“ je radila sa 40% kapaciteta (oko 7.000t) i uspela je u svojim pogonima da proizvede i stavi u promet neka **nova sredstva za zaštitu bilja i tehničke hemikalije** u ograničenim količinama i assortimanu. Takođe, trebalo bi istaći **izgradnju pogona sone kiseline kapaciteta 3.000t** koji je počeo sa radom 1944. godine.

Pogon sone kiseline
Sodium acid plant





THE SECOND STAGE OF CONSTRUCTION (1942-1947) AND THE IMPACT OF THE SECOND WORLD WAR ON PRODUCTION

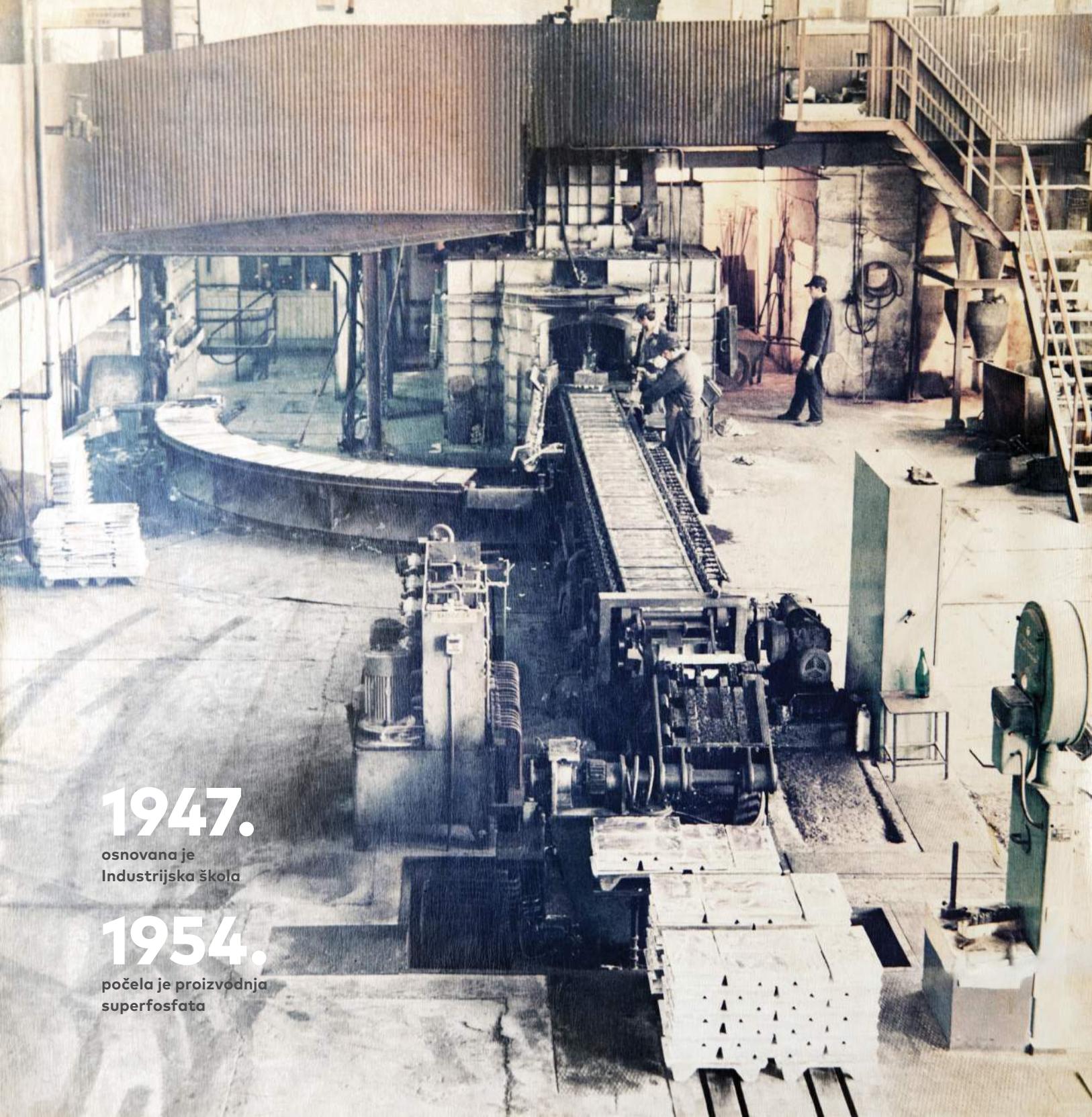
Zorka 1950-ih
Zorka in the 1950s

The second stage in the period from 1942 to 1947 envisaged a far-reaching program of building a complex of new production facilities, which was prevented by the outbreak of the Second World War when the German occupation authorities took the company from the previous owners and placed it under their management, thereby breaking the co-ownership relationship between factories in Subotica and Šabac, which will remain in the post-war period, until 1970, when the two economic entities re-integrated.

The whirlwind of the war had an impact on the decline of production, especially of copper sulfate, because the factory received very limited quantities of copper. Nevertheless, even in these conditions, "Zorka" worked with 40% capacity (about 7,000t) and managed

to produce and put into circulation some **new plant protection products and technical chemicals** in limited quantities and range. The construction of the 3,000t capacity sodium acid plant, which began operating in 1944 should also be noted as very important.

In the first post-war years, until 1952, no investment was made in the development of the factory except for the expansion of the sulfuric acid plant, the production volume of which was increased to 20,500 tons. Despite this, production grew because existing capacities were used better.



1947.

osnovana je
Industrijska škola

1954.

počela je proizvodnja
superfosfata

POSLERATNI RAZVOJ (1947–1954)

1947. godine osnovana je Industrijska škola koja je školovala kadrove za potrebe Hemijske industrije „Zorka“ Šabac. Danas je to **Stručna hemijska i tekstilna škola Šabac**.

U prvim posleratnim godinama, sve do 1952. godine, nije se ulagalo u razvoj fabrike sem proširenja pogona sumporne kiseline čiji je proizvodni obim povećan na 20.500t. I pored toga, proizvodnja je rasla jer su postojeći kapaciteti bolje korišćeni.

Pedesetih godina XX veka „Zorka“ kreće sa intenzivnjim razvojem. Sagledavajući potrebe poljoprivrede i perspektivu proizvodnje, „**Zorka**“ je počela proizvoditi **đubriva**, te se trajno orijentisala na ovu vrstu proizvoda i u prvoj fazi, **1954. godine**, počela je proizvodnju **superfosfata**. Krajem pedesetih podignuto je postrojenje mešanih đubriva u prahu, koje je proizvođeno u raznim varijacijama prema narudžbinama kupaca.

**IZGRADNJOM NOVIH I PROŠIRENJEM
POSTOJEĆIH KAPACITETA FIZIČKI
OBIM PROIZVODNJE U ZORKI ŠABAC
POSLE DRUGOG SVETSKOG RATA
DOSTIGAO JE NIVO OD 330.000t.**

U ovoj deceniji izgrađena su i puštena u rad sledeća postrojenja sa kapacitetima:

- superfosfat 120.000t
- mešana đubriva u prahu (niske koncentracije) 70.000t
- sumporna kiselina (turm sistem) 50.000t
- sumporna kiselina (kontaktni postupak) 22.500t
- DDT (sintetički insekticid) 200t
- elektroliza cinka 12.000t

Paralelno sa ovim investicijama izvršena su proširenja postojećih kapaciteta:

- sumporne kiseline (po kontaktnom postupku) za 2.000t
- DDT za još 200t.



Hemijačka škola Šabac
Šabac Chemistry School

POST-WAR DEVELOPMENT (1947–1954)

In 1947, the Industrial School was founded, which trained personnel for the needs of the "Zorka" Šabac Chemistry Industry. Today it is called **Professional Chemistry and Textile School Šabac**.

In the fifties of the 20th century, "Zorka" began to develop more intensively. Considering the needs of agriculture and the perspective of production, **"Zorka" began to produce fertilizers**, and permanently focused on this type of product, and in the first phase, in 1954, it started producing **superphosphate**. At the end of the fifties, a plant of mixed powdered fertilizers was built. These type of fertilizers were produced in different variations according to customer orders.



In this decade, the following plants with capacities were built and put into operation:

- superphosphate 120,000t
- mixed powdered fertilizers (low concentration) 70,000t
- sulfuric acid (the thrum system) 50,000t
- sulfuric acid (contact procedure) 22,500t
- DDT (synthetic insecticide) 200t
- zinc electrolysis 12,000t.

In parallel with these investments, expansions of existing capacities were carried out:

- sulfuric acid (contact procedure) for 2,000t
- DDT for another 200t.

BY BUILDING NEW AND EXPANDING EXISTING CAPACITIES, THE PHYSICAL VOLUME OF PRODUCTION IN ZORKA ŠABAC AFTER THE SECOND WORLD WAR REACHED THE LEVEL OF 330,000 TONS.

1947

the Industrial School
was founded

1954

the production of
superphosphate started



Izgradnja pogona elektrolize cinka
Construction of zinc electrolysis plant

Pogon superfosfata
Superphosphate production plant



1950



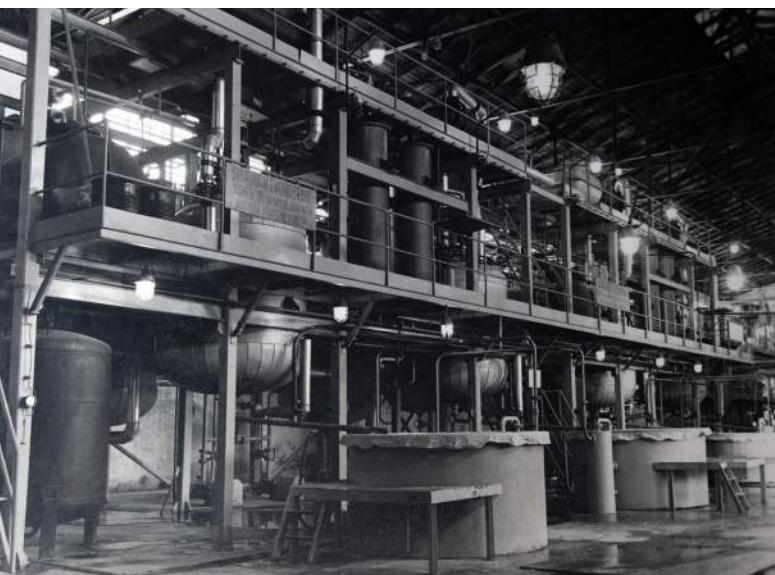
1960



NASTAVAK RAZVOJA „ZORKE“ I ZAVRŠETAK INVESTICIONOG CIKLUSA (1954-1970)

Šezdesetih godina „Zorka“ se i dalje dinamično i efikasno razvijala. Nastavljajući ostvarenje programa proizvodnje mešanih đubriva, a u želji da se modernizuje ponuda na tržištu pristupilo se izgradnji postrojenja za proizvodnju granulisanih mineralnih đubriva. **Krajem šezdesetih pušten je u rad pogon složenih đubriva** što je proširilo assortiman ovih proizvoda, čime je rešeno pitanje snabdevanja poljoprivrede potrebnim količinama đubriva sa poboljšanim performansama u odnosu na đubriva u prahu.

Obim proizvodnje šezdesetih bio je oko 760.000t godišnje, a plasman proizvoda na domaćem tržištu (93%) je dominirao u odnosu na izvoz. U fizičkom obimu proizvodnje prednjacija su mineralna đubriva (oko 340.000t), a ukupna iskorišćenost kapaciteta je bila oko 60%. Udeo veštačkih đubriva u izvozu „Zorke“ bio je 30% od celokupnog plasmana na tržištu.



U OVOM RAZDOBLJU FABRIKA JE IZGRADILA ZNAČAJNE KAPACITETE I REKONSTRUISALA POSTOJEĆE, PA JE ZAVRŠETKOM INVESTICIONOG CIKLUSA U 1970. GODINI „ZORKA“ RASPOLAGALA KAPACitetom od 1.275.000t, OD ČEGA JE UDEO MINERALNIH ĐUBRIVA BIO 730.000t.

Pored ovih investicionih zahvata „Zorka“ je veoma intenzivno radila na uspostavljanju poslovno-tehničke saradnje sa nizom privrednih organizacija, pa su u ovom periodu učinjeni napori na povezivanju sa proizvođačima sirovina, te je tako sklopljen poslovni aranžman sa rudnicima u Mojkovcu i Srebrenici. Sem toga, u sastav „Zorke“ ušli su rudnik nemetalra „Tamnav“ iz Koceljeve i rudnik metala „Veliki Majdan“ iz Ljubovije. Integracijom sa ovim rudnicima „Zorka“ je preuzela odgovornost i za razvoj rудarstva i obojene metalurgije u regionu Zapadne Srbije. Od ovog vremena „Zorku“ sve češće nazivaju hemijsko-metalurško-rudarski kombinat.

1969. godine „Zorku“ je posetio Josip Broz Tito, predsednik Socijalističke federativne republike Jugoslavije. Predsednika SFRJ u „Zorki“ su dočekali tadašnji generalni direktor Krsta Avramović i predsednik opštine Ilija Đurić. Održana je svečana sednica Radničkog saveta, a goste je uveseljavao čuveni šabački hor „66 devojaka“.

CONTINUED DEVELOPMENT OF "ZORKA" AND COMPLETION OF THE INVESTMENT CYCLE (1954-1970)

In the 1960s, "Zorka" continued to develop dynamically and efficiently. Continuing the realization of the program of production of mixed fertilizers, and aiming at modernizing the offer on the market, the construction of a plant for the production of granulated mineral fertilizers was started. **At the end of the 1960s, the plant for compound fertilizers was put into operation**, which expanded the range of these products, thus solving the issue of supplying agriculture with the required quantities of fertilizers with improved performance compared to powdered fertilizers.

The volume of production in the 1960s was about 760,000 tons per year, and the placement of products on the domestic market (93%) dominated compared to exports. In the physical volume of production, mineral fertilizers led the way (about 340,000t), and the total capacity utilization was about 60%. The share of artificial fertilizers in the export of "Zorka" was 30% of the entire placement on the market.

DURING THIS PERIOD, THE FACTORY BUILT SIGNIFICANT CAPACITIES AND RECONSTRUCTED THE EXISTING ONES, SO AT THE END OF THE INVESTMENT CYCLE IN 1970, "ZORKA" HAD A CAPACITY OF 1,275,000t, OF WHICH THE SHARE OF MINERAL FERTILIZERS WAS 730,000t.



In addition to these investment projects, "Zorka" worked very intensively on establishing business-technical cooperation with a number of economic entities, so in this period efforts were made to connect with producers of raw materials, and thus a business arrangement was concluded with mines in Mojkovac and Srebrenica.

In addition, the non-metal mine "Tamnava" from Koceljeva and the metal mine "Veliki Majdan" from Ljubovija became part of "Zorka". By integrating with these mines, "Zorka" took responsibility for the development of mining and non-ferrous metallurgy in the region of Western Serbia. Since this time, "Zorka" has been increasingly referred to as a chemical-metallurgical-mining combine.

In 1969, "Zorka" was visited by Josip Broz Tito, the president of the Socialist Federal Republic of Yugoslavia. The president of the SFRY was welcomed in "Zorka" by the then general manager Krsta Avramović and the president of the municipality Ilija Đurić. A formal session of the Workers' Council was held, and the guests were entertained by the famous Šabac choir "66 girls".

PERIOD 1970-1990. JE BIO ZLATNO DOBA ZORKE ŠABAC, OBELEŽEN NOVIM INVESTICIJAMA, RAZVOJEM HOLDINGA I REKORDNIM OBIMIMA PROIZVODNJE.

ZLATNO DOBA „ZORKE“ 1970-e

I u sedamdesetim godinama mineralna đubriva imala su široku paletu proizvoda od superfosfata i mešanih đubriva (u prahu i granulama) do trostrukog superfosfata. Međutim, **kako je potražnja za mešanim đubrivima u granulama opadala, fabrika je počela sa proizvodnjom kompleksnih visokokoncentrovanih đubriva boljeg kvaliteta pogonske jačine 250.000t, što je sa ostalim pogonima mineralnih đubriva činilo ukupan kapacitet od preko 700.000t godišnje.** Fabrika mineralnih đubriva sa pomenutim kapacitetima učestvovala je sa oko 50% fizičkog obima proizvodnje i sa blizu 30% ukupnog prihoda „Zorkinog“ holdinga. Udeo u izvozu zajedno sa fabrikom sumporne kiseline u okviru proizvodnje bazne hemije bio je preko 60%.

„Zorka“ je nastavila sa dinamičnom investicionom aktivnošću i u ovom periodu, pa je uz modernizaciju i pojačanje kapaciteta postrojenja proširen assortiman proizvodnih ponuda otvaranjem **fabrike za preradu plastičnih masa, odnosno pogona za plastične ambalaže, duvane plastične ambalaže, kaširanih proizvoda od PVC-a, postrojenja za proizvodnju profila od tvrdog PVC-a i za proizvodnju PVC-a.**

Pored ovih novih pogona, **ulagalo se i u postrojenja nemetalica i građevinskih materijala puštanjem u rad fabrika podnih, glaziranih i keramičkih pločica i fabrike opeke, a pojačana je tehnologija prerađivačke hemije otvaranjem proizvodne linije boja i lakova.**

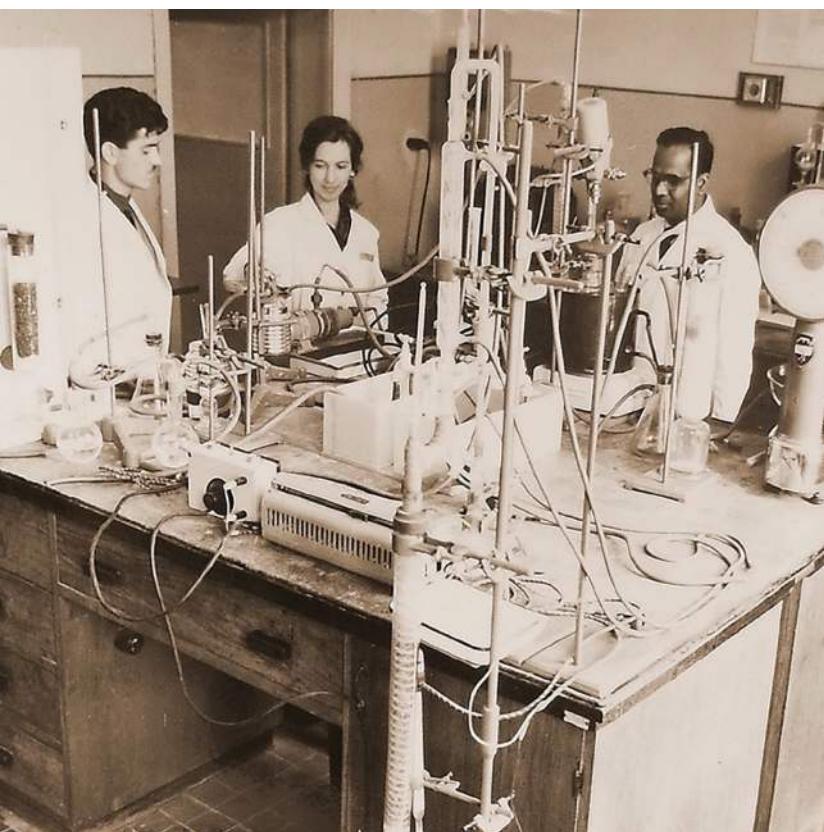
„Zorka“ je sedamdesetih godina ulagala u izgradnju proizvodnih kapaciteta u nedovoljno razvijenim opština podrinsko-kolubarskog regiona inicirajući na taj način brži progres celog kraja, pa je tako **otvorila fabrike u Ljuboviji, Koceljevi, Vladimircima, Bogatiću, Donjem Crniljevu i u Rumi.**

U ovom periodu „Zorka“ je **ostvarivala proizvodnju od oko 1.500.000t po godini.** Iskorišćenost ugrađenih kapaciteta je bila oko 90% sa ostvarenim učešćem izvoza od 30% u ukupnoj vrednosti realizacije, pri čemu se vidi znatno poboljšanje prodora na inostrano tržište.

700.000t
ukupan kapacitet mineralnih đubriva

1.500.000t
ostvarena proizvodnja po godini





THE PERIOD 1970-1990 WAS THE GOLDEN AGE OF ZORKA ŠABAC, MARKED BY NEW INVESTMENTS, DEVELOPMENT OF THE HOLDING AND RECORD PRODUCTION VOLUMES.

GOLDEN AGE OF "ZORKA" 1970s

Even in the seventies, mineral fertilizers had a wide range of products from superphosphate and mixed fertilizers (in powder and granules) to triple superphosphate. However, **as the demand for mixed fertilizers in granules decreased, the factory began to produce complex highly concentrated fertilizers of better quality with a capacity of 250,000t, which together with other mineral fertilizer plants made a total capacity of over 700,000t per year.** The mineral fertilizer factory with the mentioned capacities participated with about 50% of the physical volume of production and with close to 30% of the total income of "Zorka" holding. The share of exports together with the sulfuric acid factory within the production of basic chemicals was over 60%.

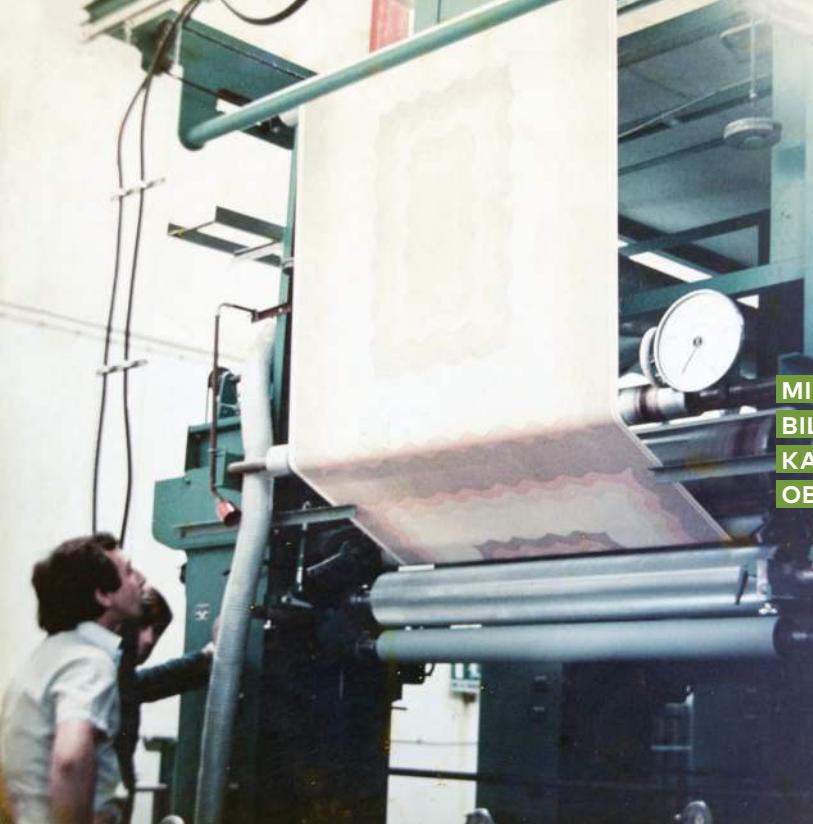
"Zorka" continued its dynamic investment activity in this period as well, so with the modernization and strengthening of the plant's capacity, the range of production offers was expanded by **opening a factory for the processing of plastics, i.e. a plant for plastic packaging, blown plastic packaging, laminated PVC products, plants for the production of hard PVC profiles and for the production of PVC.** In addition to these new plants, **investments were also made in non-metal and building materials plants by putting into operation floor, glazed and ceramic tile factories and a brick factory, and the processing chemistry technology was strengthened by opening a paint and varnish production line.**

In the 1970s, "Zorka" invested in the construction of production capacities in the underdeveloped municipalities of the Podrinje-Kolubara region, thereby initiating a faster progress of the entire region, thus **opening factories in Ljubovija, Koceljeva, Vladimirci, Bogatić, Donje Crniljevo and Ruma.**

During this period, "Zorka" produced about 1,500,000 tons per year. Utilization of the built-in capacities was around 90% with a 30% share of exports in the total value of the realization, whereby a significant improvement in foreign market penetration can be seen.

700.000t
mineral fertilizers total capacity

1.500.000t
achived annual production



ZLATNO DOBA „ZORKE“ 1980-e

MINERALNA ĐUBRIVA SU I U OSAMDESETIM
BILA MOTOR „ZORKINOG“ POSTROJENJA SA
KAPACITETOM OD 760.000t I PROIZVODNOG
OBIMA SA OKO 500.000t GODIŠNJE.



Početkom ove decenije „Zorka“ mineralna đubriva su pored modernizacije postojećih otvorila još jedan pogon kompleksnih đubriva II čime je osavremenjena proizvodnja u skladu sa potražnjom na inostranom tržištu.

Tokom ove decenije „Zorka“ je investirala u fabriku belih limova, jedinu u tadašnjoj Jugoslaviji, proširujući ponudu svojih ionako raznovrsnih proizvoda. U ovoj deceniji firma je poslovala u rekordnoj realizaciji sa 1.900.000t godišnje.

Tokom pet decenija razvoja od male fabrike sa stotinak zaposlenih stvoren je hemijsko-metalurško-rudarski kombinat sa 10.000 radnika u kom se proizvodilo više od 2.000 proizvoda. Bio je to vodeći proizvođač mineralnih đubriva, neorganskih kiselina i hemikalija, cinka i sredstava za zaštitu bilja u tadašnjoj Jugoslaviji, a svoj značaj „Zorka“ je sticala i u proizvodnji plastičnih masa, građevinskih materijala, boja i lakova, farmaceutskih proizvoda itd.

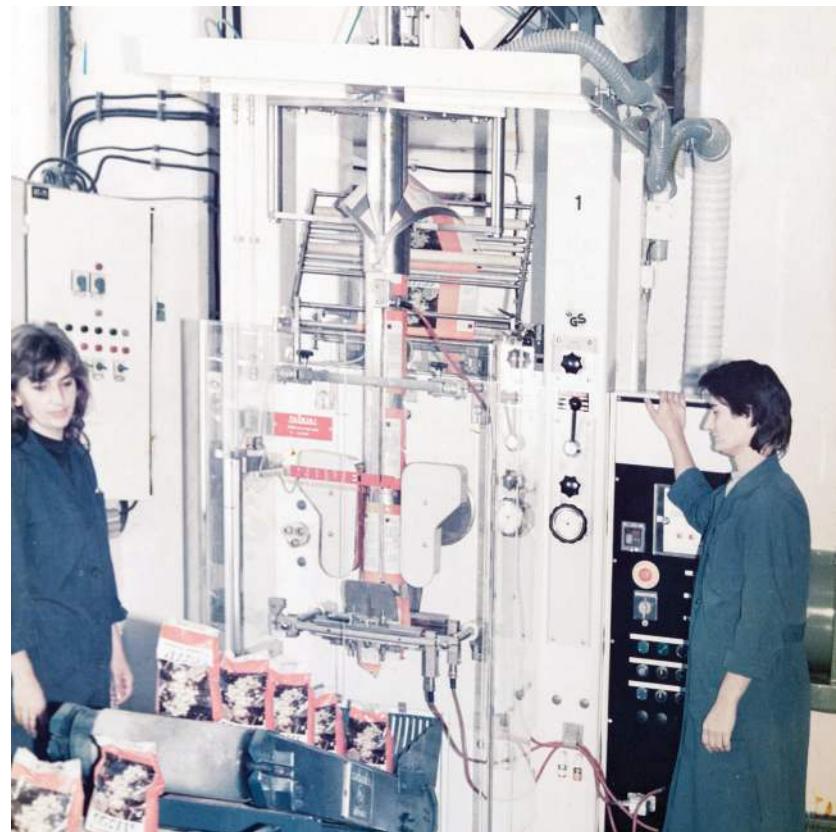
Fabrika belih limova
White sheet metal factory

Raspolažala je sopstvenim transportom, uglavnom železničkim, ali i rečnim. U tu svrhu fabrika je **izgradila kolosečnu mrežu i pristanište na kojem se moglo pretovariti 400.000t robe godišnje** uglavnom mineralnih đubriva, pirita i boksita.

U svojim proizvodnim pogonima „Zorka“ je **realizovala proizvodnju na bazi 16 različitih tehnoloških postupaka** koje je razvila i usavršavala zahvaljujući i sopstvenom naučnom institutu, a koje je sama i u saradnji sa svojim poslovnim partnerima u zemlji i inostranstvu uspela da plasira na tržiste.

Krajem osamdesetih godina „Zorka“ je nudila 2.000 različitih hemijskih proizvoda i vladala sledećim tehnologijama:

1. proizvodnja mineralnih đubriva
 - granulisani jednostruki i trostruki superfosfat,
 - mešano i kompleksno đubrivo i
 - visokokoncentrovano kompleksno đubrivo specijalne namene
2. proizvodnja sumporne kiseline
3. proizvodnja fosforne kiseline
4. proizvodnja sone kiseline
5. proizvodnja neorganskih soli
6. proizvodnja oleuma
7. proizvodnja sredstava za zaštitu bilja (aktivne materije)
8. formulacije sredstava za zaštitu bilj
9. proizvodnja proizvoda obojene metalurgije
10. proizvodnja organskih i neorganskih hemikalija
11. proizvodnja boja i lakova
12. proizvodnja nemetala i građevinskih materijala
13. proizvodnja i preradu plastičnih masa
14. proizvodnja farmaceutskih proizvoda
15. proizvodnja belih limova
16. proizvodnja energetskih fluida.





GOLDEN AGE OF "ZORKA" 1980s

**EVEN IN THE 1980s, MINERAL FERTILIZERS
WERE THE ENGINE OF THE "ZORKA" FACTORY
WITH A CAPACITY OF 760,000 TONS
AND A PRODUCTION VOLUME OF
ABOUT 500,000 TONS PER YEAR.**

At the beginning of this decade, "Zorka" mineral fertilizers, in addition to the modernization of the existing ones, opened another plant of complex fertilizers II, which modernized the production in accordance with the demand on the foreign market.

During this decade, **"Zorka" invested in a factory of white sheet metal, the only one in Yugoslavia at the time**, expanding the offer of its already diverse products. In this decade, **the company operated in a record realization with 1,900,000t per year**.

Over the course of five decades of development, a small factory with about a hundred employees turned into a **chemical-metallurgical-mining combine with 10,000 workers, producing more than 2,000 products**. It was the leading producer of mineral fertilizers, inorganic acids and chemicals, zinc and plant protection products in Yugoslavia at the time, and "Zorka" gained its importance in the production of plastics, building materials, paints and varnishes, pharmaceutical products, etc.

It had its own transport, mostly by rail, but also by river. For this purpose, the factory built a **railway tracks network and a pier with the reloading capacity of 400,000 tons of goods per year**, most of which were mineral fertilizers, pyrites and bauxite.

In its production facilities, "Zorka" **realized production based on 16 different technological procedures** that it developed and perfected thanks to its own scientific institute, and which it managed to market on its own and in cooperation with its business partners in the country and abroad.

At the end of the eighties, "Zorka" offered 2,000 different chemical products and mastered the following technologies:

1. production of mineral fertilizers
 - granulated single and triple superphosphate,
 - mixed and complex fertilizers and
 - highly concentrated complex fertilizer for special purposes
2. production of sulfuric acid
3. production of phosphoric acid
4. production of sodium acid
5. production of inorganic salts
6. oleum production
7. production of plant protection products (active substances)
8. formulations of plant protection products
9. production of non-ferrous metallurgy products
10. production of organic and inorganic chemicals
11. production of paints and varnishes
12. production of non-metals and building materials
13. production and processing of plastics
14. production of pharmaceutical products
15. production of white sheet metals
16. production of energy fluids.

1970



1980





ZORKIN DOPRINOS GRADU ŠAPCU

“Zorka” je neposredno i posredno učestvovala u ukupnom društveno-ekonomskom razvoju grada Šapca u drugoj polovini 20. veka.

**5 DECIJNA INDUSTRIJSKOG
RAZVOJA I INVESTICIJA**
80 ha KOMPLEKS HEMIJSKE INDUSTRIJE
10.000 ZAPOSLENIH
2.000.000 TONA GODIŠNJI
KAPACITETI PROIZVODNJE
2.000 RAZLIČITIH PROIZVODA
16 RAZLIČITIH HEMIJSKIH TEHNOLOGIJA

Zahvaljujući razvoju Hemijske industrije „Zorka”, intenzivno se gradio i razvijao grad Šabac. Tokom zlatnog perioda „Zorke” izgrađeno je oko 3.000 stanova, kompletan naselja Benska Bara i Trkalište, sportski centar sa halom sportova, zdravstveni centar, u Hemijskoj školi su se razvijali novi obrazovni profili za školovanje radnika u razvijenoj šabačkoj industriji.

„Zorka” je obeležila višedecenjski razvoj grada Šapca. Podržavala je i stambenu izgradnju, razvoj zdravstvene zaštite, obrazovanja, kulture i sporta. 1976. godine izgrađena je sportska hala „Zorka” u kojoj je rukometni klub Metaloplastika odigrao utakmicu kojom je nezvanično otvoren ovaj sportski objekat.

„Zorka” je pružila sponzorsku podršku Šampionima Jugoslavije, rukometnom klubu Metaloplastika na čije uspehe su Šapčani izuzetno ponosni.

ZORKA'S CONTRIBUTION TO THE CITY OF ŠABAC

"Zorka" participated directly and indirectly in the overall socio-economic development of the city of Šabac in the second half of the 20th century.

5 DECADES OF INDUSTRIAL DEVELOPMENT AND INVESTMENT
80 HA CHEMICAL INDUSTRY COMPLEX
10,000 EMPLOYEES
2 MILLION TONS OF ANNUAL PRODUCTION CAPACITY
2,000 DIFFERENT PRODUCTS
16 DIFFERENT CHEMICAL TECHNOLOGIES

Thanks to the development of the "Zorka" Chemical Industry, the city of Šabac was intensively built and developed. During the golden period of "Zorka", about 3,000 apartments were built, complete settlements of Benska Bara and Trkalište, a sports center with a sports hall, a health center, new educational profiles were developed in the Chemical School for the education of workers in the developed Šabac industry.

"Zorka" marked the decades-long development of the city of Šabac. It also supported housing construction, development of health care, education, culture and sports. In 1976, the „Zorka“ sports hall was built, where the Metaloplastika handball club played a match that unofficially opened this sports facility.

"Zorka" provided sponsorship support to the Champions of Yugoslavia, the handball club Mletoplastika, whose successes the citizens of Šabac are extremely proud of.



1990-e GODINE RATNA RAZARANJA I PAD PROIZVODNJE

Period devedesetih godina obeležila su ratna razaranja u bivšoj Jugoslaviji koja su značajno uticala na rad „Zorke“ Šabac. Dolazi do drastičnog pada proizvodnje zbog nemogućnosti nabavke sirovina. Usled sankcija pogoršavaju se finansijski uslovi što dovodi do nemogućnosti remonta pogona koji je bio uzrok daljeg propadanja sve do gašenja proizvodnje mineralnih đubriva i većeg dela postrojenja „Zorkinog“ holdinga.

Gigant bivše Jugoslavije, koji je nekada predstavljao mesto razvoja, napretka, nove tehnologije, investicije, zapošljavao na hiljade radnika, u ovom periodu trpi velike gubitke i propadanje.

Objekti koji su nekada odisali životom i velikim kapacitetima proizvodnje postali su prazni, napušteni i devastirani.





1990s WAR DESTRUCTION AND DECLINE IN PRODUCTION

The period of the nineties was marked by war destruction in the former Yugoslavia, which significantly influenced the work of "Zorka" Šabac. There is a drastic drop in production due to the impossibility of obtaining raw materials. As a result of the sanctions, the financial conditions worsen, which led to the impossibility of overhauling the plant, which was the cause of further deterioration until the shutdown of the production of mineral fertilizers and most of the plants of "Zorka" holding.

The giant of the former Yugoslavia, which once represented a place of development, progress, new technology, investments, employed thousands of workers, was suffering great losses and decay in this period.

Buildings that once exuded life and large production capacities became empty, abandoned and devastated.

PRIVATIZACIJA I OBNOVA ZORKINIH POTENCIJALA 2009-2013.

Prepoznajući značaj proizvodnje mineralnih đubriva, kao i sveukupni razvojni potencijal ove grane hemijske industrije koja odgovara potrebama savremene poljoprivrede, Elixir Group privatizuje imovinu „Zorka - Mineralna Đubrica“ koja **od 2011. godine posluje pod nazivom Elixir Zorka - Mineralna Đubrica**.

Elixir Zorka pokreće investicije vredne 40 miliona evra i počinje izgradnju potpuno nove fabrike na lokaciji nekadašnjih prvih proizvodnih objekata iz 1938.godine. Istovremeno je vrši obnavljanje postojećih i izgradnja novih skladišnih prostora i revitalizacija prateće industrijske infrastrukture. Srbija se ponovno vraća na mapu evropskih proizvođača i izvoznika kompleksnih mineralnih đubriva. Već u prvima godinama rada Elixir Zorka je uspela da vrati poverenje domaćih poljoprivrednih proizvođača i izveze preko 60% svojih proizvoda u zemlje Jugoistočne Evrope. Od samog početka svog poslovanja Elixir Zorka je na sigurnom putu povratka na nekadašnje poslovne uspehe Hemijske industrije „Zorka“ Šabac.

Savremena tehnologija i usklađenost sa EU zahtevima

Prilikom projektovanja i izgradnje novih postrojenja primenjene su najbolje dostupne tehnologije (BAT) u saradnji sa francuskom inženjering kompanijom CFIh. Primenjeni su svi BAT zahtevi za proizvodnju NPK đubriva, a proizvodni procesi usklađeni prema HAZOP sistemu analize. Elixir Zorka je ispunila sve domaće i evropske tehnološke i ekološke norme.

Njeni proizvodi su razvrstani prema zakonima Republike Srbije i Regulation (EU) No 2019/1009 koja uređuje oblast mineralnih đubriva u EU, što omogućava slobodan promet i plasman proizvoda unutar cele Evropske unije. Istovremeno, Elixir Zorka je preko svog Only representative u EU registrovala, shodno odredbama REACH Regulation EC No 1907/2006, sve supstance koje ulaze u sastav njenih proizvoda, što u celosti kupcima u EU omogućava slobodan, bezbedan i jednostavan uvoz.

Godine 2014. završena je implementacija ISO standarda Integrisanog menadžment sistema i sada su na snazi sledeće verzije: ISO 9001:2015, ISO 14001:2015 i ISO 45001:2018. U proceduri je implementacija EMAS-a kao nadogradnje na standard ISO 14001:2015.

Logističke prednosti lokacije

Elixir Zorka poseduje dugu tradiciju korišćenja reke Save kao plovног puta i operator je međunarodne Luke Šabac preko koje vrši utovar i istovar teretnih plovila i barži. Pored istočne industrijske zone prolazi moderna saobraćajnica povezana sa magistralnim putevima M-19 i M-21 koji su dobro povezani sa autoputevima E-70 i E-75. Kroz ceo kompleks prolazi železnički kolosek koji je povezan u mrežu Železnica Srbije. Razvijena železnička infrastruktura je takođe važan činilac u logističkoj povezanosti kompanija i transportu sirovina i gotovih proizvoda.

Povoljna pozicija i razvijen železnički, drumske i rečni transport omogućavaju efikasnu logistiku svih vrsta roba i poštovanje rokova prema partnerima, a usluge transporta i logistike Elixir Zorka pruža i trećim licima.



**U JULU 2013. GODINE POČINJE SA RADOM
NOVA FABRIKA ZA PROIZVODNJU
SUPERFOSFATA (SSP I TSP) I
VISOKOKONCENTROVANIH KOMPLEKSNIH
MINERALNIH NPK ĐUBRIVA U GRANULAMA,
KAPACITETA 300.000t GODIŠNJE.**

PRIVATIZATION AND RENEWAL OF ZORKA'S POTENTIALS 2009-2013

Recognizing the importance of the production of mineral fertilizers, as well as the overall development potential of this branch of the chemical industry that meets the needs of modern agriculture, Elixir Group privatizes the property "Zorka - Mineral Fertilizer" which has been **operating under the name Elixir Zorka - Mineral Fertilizer since 2011.**

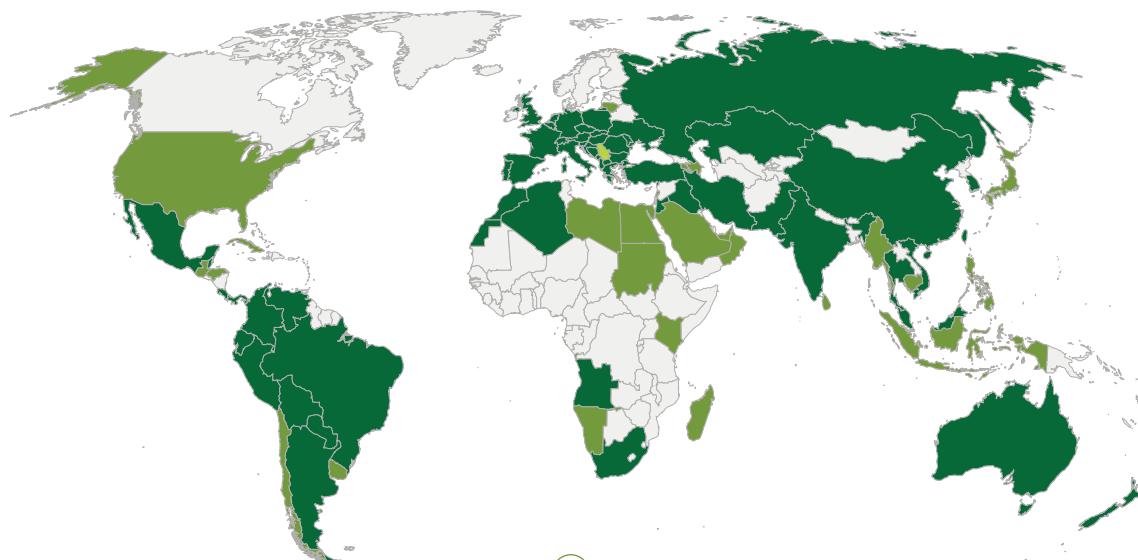
Elixir Zorka initiates investments worth 40 million euros and begins the construction of a completely new factory at the location of the former production facilities from 1938. At the same time, renovation of existing and construction of new warehouses and revitalization of the accompanying industrial infrastructure are carried out.

Serbia was once again on the map of European producers and exporters of complex mineral fertilizers.

Already in the first years of operation, Elixir Zorka managed to restore the trust of domestic agricultural producers and export over 60% of its products to Southeastern European countries. From the very beginning of its business, Elixir Zorka is on the sure path of returning to the former business successes of Chemical Industry "Zorka" Šabac.

Modern technology and compliance with EU requirements

During the design and construction of new plants, the best available technologies (BAT) were applied in cooperation with the French engineering company CFIh. All BAT requirements for the production of NPK fertilizers were applied, and the production processes were harmonized according to the HAZOP analysis system.



Elixir Zorka has met all domestic and European technological and environmental standards. Its products are classified according to the laws of the Republic of Serbia and Regulation (EU) No 2019/1009, which governs the field of mineral fertilizers in the EU, which enables free circulation and placement of products within the entire European Union. At the same time, Elixir Zorka has registered through its Only representative in the EU, in accordance with the provisions of REACH Regulation EC No 1907/2006, all substances included in the composition of its products, which enables free, safe and simple import to customers in the EU.

In 2014, the implementation of the ISO standards of the Integrated Management System was completed and the following versions are now in force: ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018. The implementation of EMAS as an upgrade to the ISO 14001:2015 standard is in the process.



IN JULY 2013, A NEW FACTORY FOR THE PRODUCTION OF SUPERPHOSPHATE (SSP AND TSP) AND HIGHLY CONCENTRATED COMPLEX MINERAL NPK FERTILIZERS IN GRANULES, WITH A CAPACITY OF 300,000T PER YEAR, BEGAN OPERATING.



Logistic advantages of the location

Elixir Zorka has a long tradition of using the Sava River as a waterway and is the operator of the international Port of Šabac, through which cargo vessels and barges are loaded and unloaded. Next to the eastern industrial zone there is a modern road connected to the M-19 and M-21 highways, which are well connected to the E-70 and E-75 highways. A railway track runs through the entire complex and is connected to the Serbian Railways network. The developed railway infrastructure is also an important factor in the logistic connection of companies and the transport of raw materials and finished products.

A favorable position and developed rail, road and river transport enable efficient logistics of all types of goods and compliance with deadlines for partners, and Elixir Zorka also provides transport and logistics services to third parties.



ElixirZorka





GODINA TRADICIJE



ULAGANJE U KVALITET I NOVA TRŽIŠTA

Elixir Zorka je danas lider u proizvodnji mineralnih NPK đubriva u Jugoistočnoj Evropi. Proizvodni portfolio čini preko 30 različitih formulacija kompleksnih NP, PK i NPK đubriva najvišeg kvaliteta, sa visokom koncentracijom hranljivih materija, ujednačenom granulacijom i visokom vodorastvorljivošću u zemljištu. Svi proizvodi Elixir Zorke su dizajnirani tako da poboljšaju ishranu biljaka, povećaju efikasnost primene i profitabilnost u poljoprivrednoj proizvodnji.

Projektovani godišnji kapacitet proizvodnje kompleksnih mineralnih đubriva iznosi 330.000t.

Kontrola kvaliteta se kontinuirano vrši u sopstvenoj laboratoriji, savremeno opremljenoj za sve vrste fizičko hemijskih ispitivanja sirovina i gotovih proizvoda.



Zahvaljujući ulaganjima u tehnologiju, razvoj i kvalitet palete proizvoda, Elixir Zorka je uspela da se pozicionira na najzahtevnijim razvijenim svetskim tržištima i da ispunи zahteve kvaliteta i savremene poljoprivrede u više od 85 zemalja širom sveta.

Proizvodni portfolio Elixir Zorke čine: BASIC, PREMIUM, SUPREME i MICRO GRAN linije.

Proizvodi Elixir Zorke u potpunosti ispunjavaju domaće i evropske standarde kvaliteta, kao i najzahtevnije evropske ekološke normative. Ugrađena tehnologija poseduje niz prednosti u odnosu na ostale dostupne tehnologije, a to su:

- mogućnost dobijanja velikog broja NP, PK, NPK formulacija sa sekundarnim elementima i mikroelementima;
- ujednačen kvalitet granula u gotovom proizvodu.

Elixir Zorka u proizvodnji kompleksnih mineralnih đubriva koristi DRUM DEN tehnologiju koja omogućava homogenost reakcione mase, visok stepen reaktivnosti i iskorišćenja aktivnih supstanci.

Za proizvodnju mikrogranulisanih kompleksnih đubriva primenjuju se najnovije tehnologije:

- Dust Pills Free (DPF) – koja sprečava pojavu čestica prašine u gotovom proizvodu;
- Mikrogran tehnologija koja je namenski projektovana za proizvodnju granula dimenzija 0,5–1,2 mm.

INVESTMENT IN QUALITY AND NEW MARKETS

Today, Elixir Zorka is the leader in the production of mineral NPK fertilizers in Southeast Europe. The production portfolio consists of over 30 different formulations of complex NP, PK and NPK fertilizers of the highest quality, with a high concentration of nutrients, uniform granulation and high water solubility in the soil. All Elixir Zorka products are designed to improve plant nutrition, increase application efficiency and profitability in agricultural production.

The projected annual production capacity of complex mineral fertilizers is 330,000t.

Quality control is continuously carried out in our own laboratory, modernly equipped for all types of physical and chemical testing of raw materials and finished products.

Thanks to investments in technology, development and quality of the product range, Elixir Zorka managed to position itself in the most demanding developed world markets and meet the requirements of quality and modern agriculture in more than 85 countries around the world.

Elixir Zorka's product portfolio consists of: BASIC, PREMIUM, SUPREME and MICRO GRAN lines.

Elixir Zorka products fully meet domestic and European quality standards, as well as the most demanding European environmental standards. The built-in technology has a number of advantages compared to other available technologies, namely:

- the possibility of obtaining a large number of NP, PK, NPK formulations with secondary elements and microelements;
- uniform quality of granules in the finished product.

Elixir Zorka uses DRUM DEN technology in the production of complex mineral fertilizers, which enables the homogeneity of the reaction mass, a high degree of reactivity and the utilization of active substances.

For the production of microgranulated complex fertilizers, the latest technologies are applied:

- Dust Pills Free (DPF) - which prevents the appearance of dust particles in the finished product;
- Micrograin technology, which is specially designed for the production of granules with dimensions of 0.5-1.2 mm.

30
različitih formulacija kompleksnih
NP, PK i NPK đubriva

330.000t
godišnji kapacitet proizvodnje
kompleksnih mineralnih đubriva



ElixirZorka





GODINA TRADICIJE



ELIXIR ZORKA - ČLANICA HEMIJSKE DIVIZIJE ELIXIR GROUP

Sve članice i poslovne divizije Elixir Group su logistički i administrativno umrežene i nalaze se na obalama Dunava i Save, transportnim arterijama regiona.

Hemijska divizija Elixir Group koju čine Elixir Zorka i Elixir Prahovo je pokretačka snaga poslovnog sistema. Počiva na vertikalno integrисаном lancu vrednosti, od procesa proizvodnje do distribucije gotovih proizvoda, sa perspektivama daljeg održivog razvoja kroz diversifikaciju proizvodnih programa i osvajanje globalnog tržišta.

Elixir Prahovo je 1 od 6 evropskih proizvođača fosforne kiseline, strateški važne sirovine za proizvodnju mineralnih NPK đubriva, ali i druge aplikacije u različitim industrijskim granama.

Kompleksna mineralna đubriva Elixir Zorka proizvode se u okviru dva proizvodna kompleksa, u Šapcu i Prahovu.

**70% PROIZVODNJE HEMIJSKE
DIVIZIJE ELIXIR GROUP
SE IZVOZI U 85 ZEMALJA SVETA
NA SVIM KONTINENTIMA.**

ELIXIR ZORKA - MEMBER OF THE ELIXIR GROUP CHEMICAL DIVISION

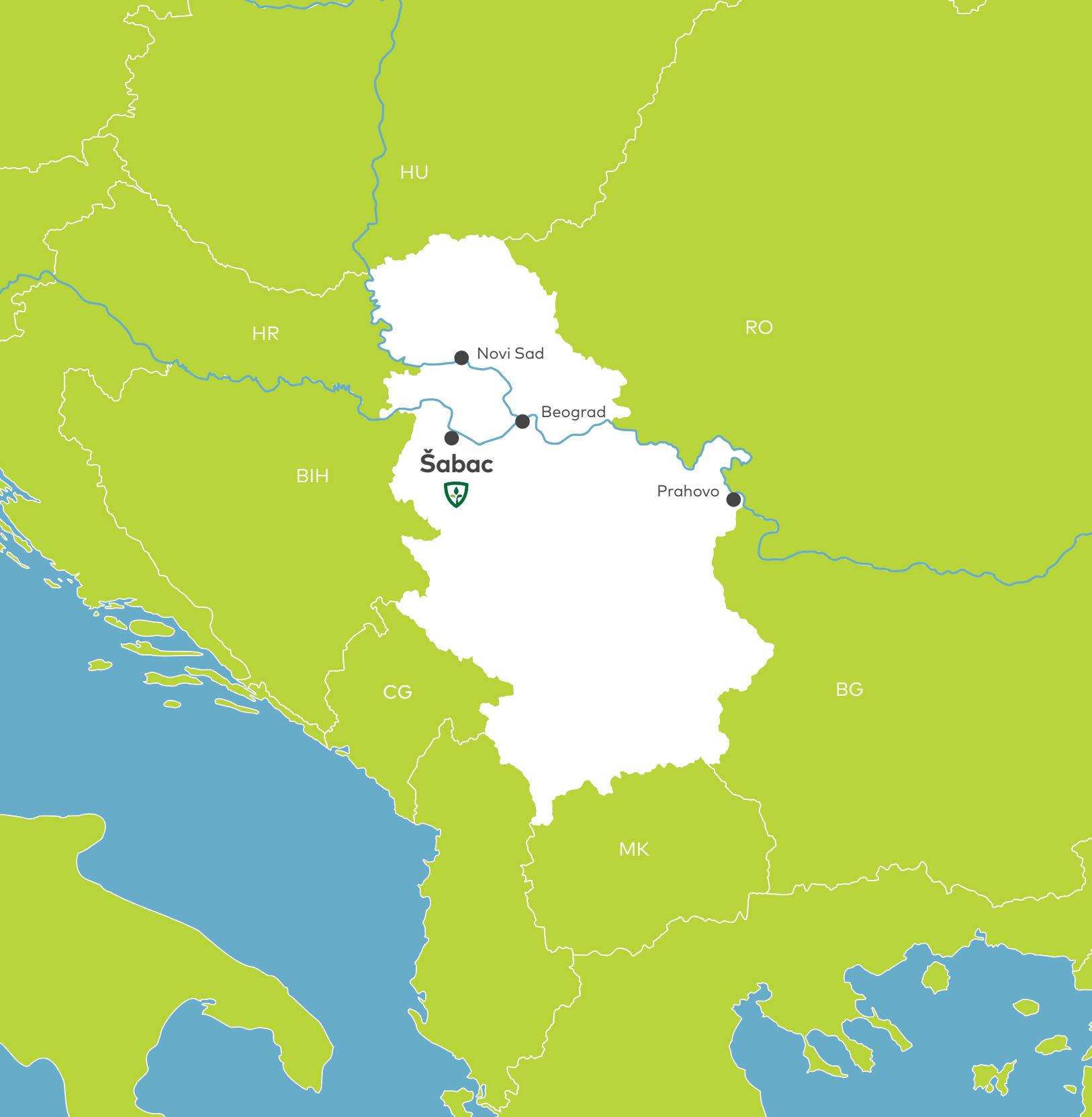
All Elixir Group members and business divisions are logically and administratively networked and are located on the banks of the Danube and Sava, the transport arteries of the region.

The Elixir Group chemical division consisting of Elixir Zorka and Elixir Prahovo is the driving force of the business system. It rests on a vertically integrated value chain, from the production process to the distribution of finished products, with prospects for further sustainable development through the diversification of production programs and conquering the global market.

Elixir Prahovo is 1 of 6 European producers of phosphoric acid, a strategically important raw material for the production of mineral NPK fertilizers, but also other applications in various industrial branches.

Complex mineral fertilizers Elixir Zorka are produced in two production complexes, in Šabac and Prahovo.

**70% OF THE ELIXIR GROUP CHEMICAL
DIVISION'S PRODUCTION IS
EXPORTED TO 85 COUNTRIES OF
THE WORLD ON ALL CONTINENTS.**



Šabac



Novi Sad

Beograd

Prahovo

BIH

CG

HU

HR

RO

BG

MK

CIRKULARNA EKONOMIJA I DEKARBONIZACIJA – IMPERATIVI SAVREMENE INDUSTRIJE

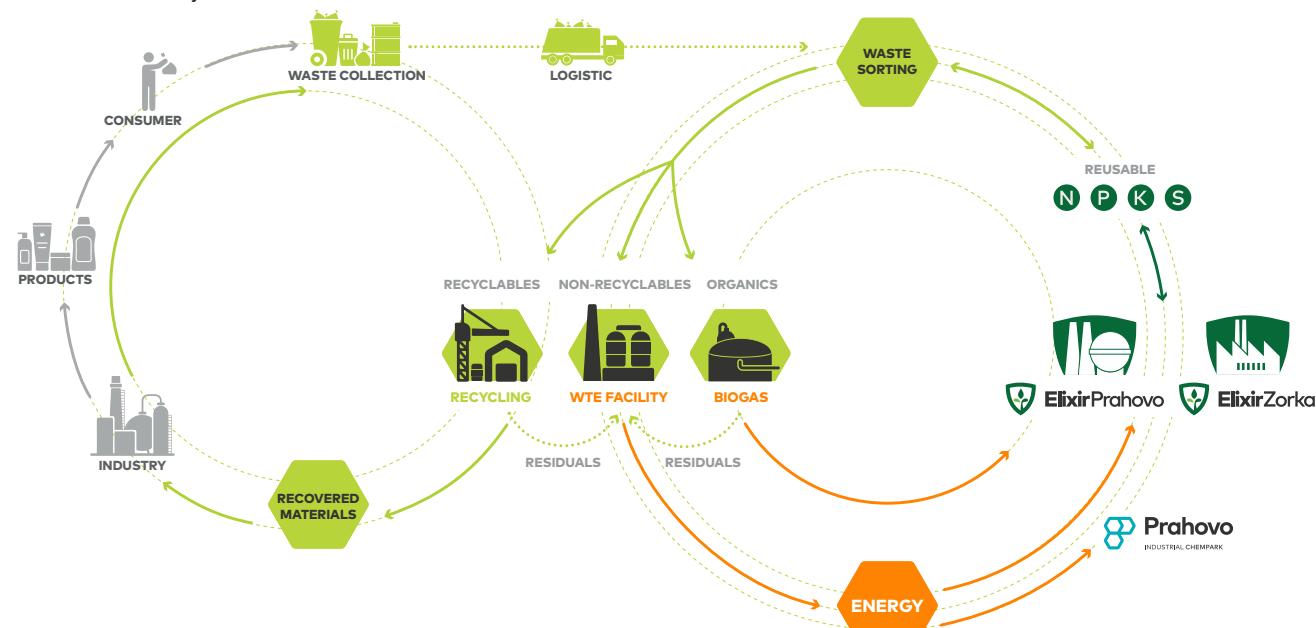
Imperativ i strateški prioritet Elixir Group te Elixir Zorke kao članice hemijske divizije jeste ulaganje u razvoj cirkularne ekonomije, kao sastavni deo Zelene agende Grupe i strategije dekarbonizacije proizvodnih procesa. Ona je komplementarna sa svim drugim prioritetima, poslovnim, razvojnim, tehnološkim, ekološkim i socijalnim. Cirkularna ekonomija nije samo koncept i model posovanja, već put ka održivosti.

Ovaj koncept podrazumeva inovativno razmišljanje o procesu proizvodnje, produžavanju životnog veka proizvoda i reciklaži koja podrazumeva reproizvodnju i ponovno korišćenje.

Cirkularna ekonomija je obnovljiva industrijska ekonomija koja ima promjenjeni koncept proizvodnje i potrošnje u odnosu na dizajn proizvoda, upotrebu resursa i odnos prema stvaranju otpada. U konceptu cirkularne ekonomije otpad ne postoji, već samo sirovina koja se može ponovo upotrebiti za iste ili druge proizvodne procese.

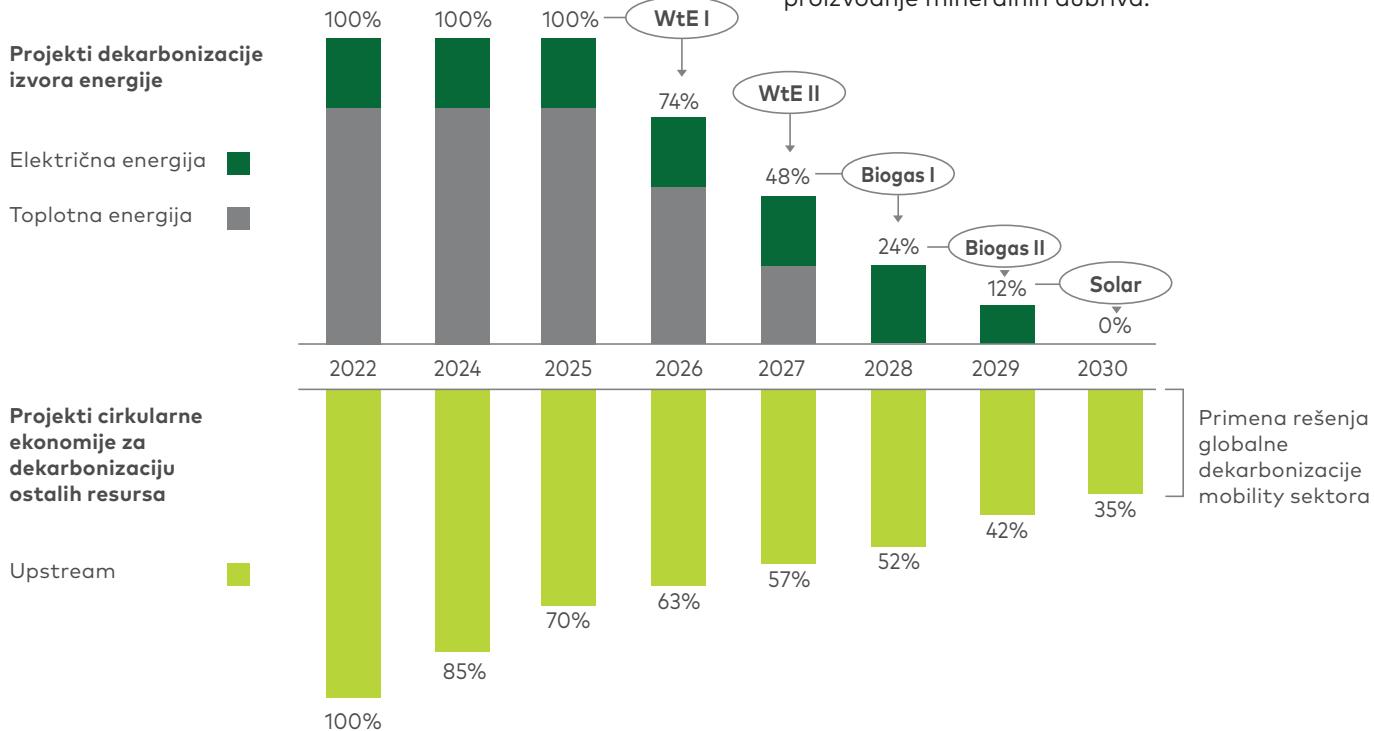
Potencijal za primenu cirkularne ekonomije u hemijskoj diviziji Elixir Group je veliki.

To je snažan spoj upravljanja otpadom i zaštite životne sredine, odnosno tehnologije i ekonomije. Podrazumeva maksimiziranje cirkularnosti u proizvodnim procesima i životnom ciklusu proizvoda, a istovremeno i cirkularnu synergiju sa drugim industrijama i različitim tehnološkim procesima.



Obzirom na činjenicu da je proizvodnja fosforne kiseline veliki potrošač energije, investicije u razvoj Waste to Energy koncepta u Prahovu omogućće energetsko iskorišćenje otpada, odnosno potpunu supstituciju fosilnih goriva za dobijanje toplotne i električne energije.

Elixir Zorka od 2019. godine ulaze i u razvoj cirkularne ekonomije primenom Waste to Chemicals koncepta i ponovne upotrebe reciklabilnih hemikalija u proizvodnim procesima hemijske industrije, nakon njihove inicijalne upotrebe u nekim drugim industrijskim aplikacijama nakon kojih su sačuvane fizičko hemijske karakteristike i vrednost aktivne supstance.



Postulati Elixir Group u primeni cirkularne ekonomije su:

- da primenjena tehnologija podržava upotrebu alternativnih sirovina;
- da nema štetnih uticaja na životnu sredinu;
- da nema negativnih uticaja na kvalitet gotovog proizvoda.

Trenutno stanje u proizvodnim procesima hemijske divizije Elixir Group, koju uz Elixir Zorku čini i Elixir Prahovo, podrazumeva:

- NULA otpada i otpadnih voda iz procesa proizvodnje mineralnih NPK đubriva;
- 100% reciklaža sopstvenog ambalažnog otpada;
- 100% reciklaža sopstvenih nestandardnih proizvoda;
- izvršene tehnološke i logističke investicije za primenu cirkularnog modela;
- sprovedena regulatorna procedura za ponovnu upotrebu alternativnih sirovina u procesu proizvodnje mineralnih đubriva.



Dalja implementacija cirkularne ekonomije u hemijskoj diviziji Elixir Group obuhvata sledeće ciljeve:

- NULA otpadnih voda iz procesa proizvodnje fosforne kiseline do 2026. godine;
- smanjenje upotrebe vode kao resursa za 30% do 2026. godine;
- ponovnu upotrebu alternativnih sirovina u procesima proizvodnje, sa akcentom na fosfor kao neobnovljivi resurs na planeti, min 30% do 2030. godine.

Svi planirani projekti cirkularne ekonomije i dekarbonizacije su komplementarni i podrazumevaju poštovanje 5R hijerarhije u upravljanju otpadom.

Ambicija Zelene agende Elixir Group je da bude prva evropska karbon neutralna industrija fosforne kiseline i mineralnih NPK đubriva.

Investicijama u obnovljive izvore energije, kao i projektima proizvodnje energije iz otpada, hemijskom reciklazom i upotrebom alternativnih sirovina u procesima proizvodnje, poslovni sistem Elixir Group doprinosi dekarbonizaciji svog poslovanja, povećanju cirkularnosti ekonomije Republike Srbije i ostvarivanju ciljeva definisanih nacionalnim i evropskim planovima i regulativama.

CIRCULAR ECONOMY AND DECARBONIZATION – IMPERATIVES OF MODERN INDUSTRY

The imperative and strategic priority of Elixir Group and Elixir Zorka, as members of the chemical division, is investing in the development of the circular economy, as an integral part of the Group's Green Agenda and the Strategy of decarbonization of production processes. It is complementary to all other priorities, business, development, technological, environmental and social. The circular economy is not only a concept and business model, but a path to sustainability.

This concept implies innovative thinking about the production process, extending the life of the product and recycling, which implies remanufacturing and reuse.

The circular economy is a renewable industrial economy that has a changed concept of production and consumption in relation to product design, resource use and attitude towards waste generation. In the concept of circular economy, waste does not exist, but only raw material that can be reused for the same or other production processes.

The potential for the application of the circular economy in the chemical division of Elixir Group is great.

It is a strong combination of waste management and environmental protection, i.e. technology and economy. It implies the maximization of circularity in production processes and the life cycle of products, and at the same time circular synergy with other industries and various technological processes.



Considering the fact that the production of phosphoric acid is a large consumer of energy, investments in the development of the Waste to Energy concept in Prahovo will enable the energy utilization of waste, that is, the complete substitution of fossil fuels for obtaining heat and electricity.

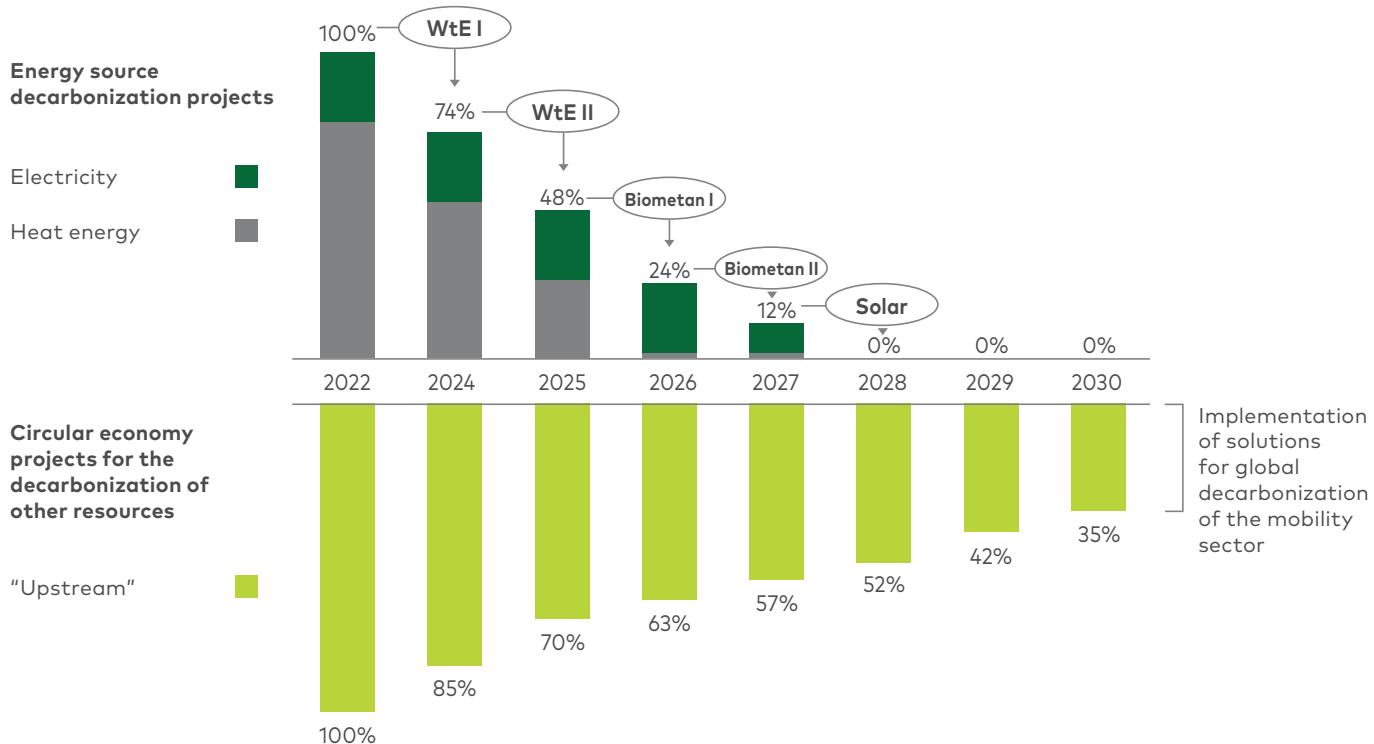
Since 2019, Elixir Zorka has also been investing in the development of the circular economy by applying the Waste to Chemicals concept and the reuse of recyclable chemicals in the production processes of the chemical industry, after their initial use in some other industrial applications, after which the physical and chemical characteristics and value of the active substance have been preserved.

Elixir Group's postulates in the application of the circular economy are:

1. the applied technology supports the use of alternative raw materials;
2. there are no harmful effects on the environment;
3. there are no negative effects on the quality of the finished product.

The current situation in the production processes of the Elixir Group chemical division, which includes Elixir Zorka and Elixir Prahovo, implies:

- ZERO waste and wastewater from the production process of mineral NPK fertilizers;
- 100% recycling of own packaging waste;
- 100% recycling of own non-standard products;





- made technological and logistical investments for the application of the circular model;
- implemented regulatory procedure for reuse of alternative raw materials in the process of production of mineral fertilizers.

Further implementation of the circular economy in the Elixir Group chemical division includes the following goals:

- ZERO waste water from the phosphoric acid production process until 2026;
- reducing the use of water as a resource by 30% by 2026;
- reuse of alternative raw materials in production processes, with emphasis on phosphorus as a non-renewable resource on the planet, min 30% by 2030.

All planned circular economy and decarbonization projects are complementary and imply respect for the 5R hierarchy in waste management.

Elixir Group's Green Agenda ambition is to be the first European carbon-neutral phosphoric acid and mineral NPK fertilizer industry.

With investments in renewable energy sources, as well as energy production projects from waste, chemical recycling and the use of alternative raw materials in production processes, the Elixir Group business system contributes to the decarbonization of its operations, increasing the circularity of the economy of the Republic of Serbia and achieving goals defined by national and European plans and regulations.

ODRŽIVI RAZVOJ I DRUŠTVENA ODGOVORNOST

Kao jedan od regionalnih lidera u agroindustriji, Elixir Group posvećen je odgovornom poslovanju u svim sferama svog delovanja, od saradnje sa primarnim poljoprivrednim sektorom, preko prerade i proizvodnje, do podrške razvoju lokalnih zajednica u kojima posluje.

Podršku društveno odgovornom poslovanju svih članica Elixir Group daje Elixir Fondacija, kao pokretač i nosilac brojnih projekata i partner lokalnim zajednicama.



Elixir Zorka kao deo Elixir Group je prepoznata ne samo samo kao značajni privredni subjekt i poslodavac sa preko 400 zaposlenih, već i kao organizacija koja se društveno odgovorno ponaša prema svojim zaposlenima, poslovnim partnerima, društvenoj zajednici, a očuvanje životne sredine predstavlja neizostavni deo svih tehnoloških rešenja.

Elixir Zorka učestvuje u promociji društveno važnih projekata, povezuje privredu i društvo, podstiče solidarnost i zajedništvo i stvara partnerske odnose kako bi omogućila bolju budućnost društva i zajednici. Aktivnosti kompanije usmerene su ka pomoći ugroženim kategorijama stanovništva, podršci profesionalnom i dečijem sportu, promociji zdravog načina života, podršci naučno-istraživačkim aktivnostima i kulturnim institucijama i učvršćivanju partnerskih odnosa sa lokalnom zajednicom.

Elixir Zorka predstavlja kompaniju koja kroz lanac vrednosti pruža veoma efikasna rešenja za poljoprivrednike širom sveta oslanjajući se na duboko poznavanje njihovih zahteva.

Ciljevi Elixir Zorke su sigurnost hrane, zaštita ljudi, dobara i okoline, humano radno okruženje i odgovorno poslovanje, a njena sredstva su inovacije i investicije.

**Elixir Zorka
Dobro za zemlju!**

SUSTAINABLE DEVELOPMENT AND SOCIAL RESPONSIBILITY

Being one of the regional leaders in the agro-industry, Elixir Group is committed to responsible business in all spheres of its activities, from cooperation with the primary agricultural sector, through processing and production, to supporting the development of local communities in which it operates.

Support for socially responsible business operations of all members of the Elixir Group is provided by the Elixir Foundation, as the initiator and holder of numerous projects and a partner to local communities.

Elixir Zorka, as part of the Elixir Group, is recognized not only as a significant business entity and employer with over 400 employees, but also as an organization that behaves socially responsibly towards its employees, business partners, and the community, and environmental protection is an indispensable part of all technological solutions.

Elixir Zorka participates in the promotion of socially important projects, connects the economy and society, encourages solidarity and togetherness and creates partnership relations in order to enable a better future for society and the community. The company's activities are aimed at helping vulnerable categories of the population, supporting professional and children's sports, promoting a healthy lifestyle, supporting scientific research activities and cultural institutions, and strengthening partnership relations with the local community.



Elixir Zorka represents a company that through the value chain provides highly effective solutions for agricultural producers around the world relying on a deep knowledge of their requirements.

The goals of Elixir Zorka are food safety, protection of people, goods and the environment, a humane working environment and responsible business, and its means are innovations and investments.

**Elixir Zorka
Good for the land!**







GODINA TRADICIJE