

Global Vanadium Market: Analysis By
Production, By Consumption, By Type
(Vanadium Pentoxide, Vanadium
Ferrovanadium, Aluminium Vanadium Alloys,
Vanadium Chemicals, and Others), By Source
(Co-production, Primary, and Secondary), By
End-User (Steel Alloy, Chemical & Catalyst,
Titanium Alloys, and Energy Storage), By Region
Size and Trends with Impact of COVID-19 and
Forecast up to 2028

July 2023



Global Vanadium Market: Coverage

Executive Summary and Scope

Introduction/Market Overview

Global Market Analysis

Regional Market Analysis

Impact Of COVID-19

Dynamics

Competitive Landscape

Company Profiling

Global Vanadium Market: Coverage

Scope of the Report

Attributes	Details
Title	Global Vanadium Market: Analysis By Production, By Consumption, By Type (Vanadium Pentoxide, Vanadium Ferrovandium, Aluminium Vanadium Alloys, Vanadium Chemicals, and Others), By Source (Co-production, Primary, and Secondary), By End-User (Steel Alloy, Chemical & Catalyst, Titanium Alloys, and Energy Storage), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2028
Coverage	Global and Regional
Regional Coverage	Asia Pacific, Europe, North America, Rest of the World
Market Influencing Variables	Growth Drivers, Challenges, Market Trends
Forecast Period of Market	2023-2028
Competition in the Market	Fragmented
Key Players	Largo Inc., Bushveld Minerals Limited, EVRAZ, Glencore Plc, AMG Advanced Metallurgical Group N.V.(AMG Vanadium LLC), Ferro-Alloy Resources Limited, HBIS Group, Essel Mining & Industries Limited, Western Uranium & Vanadium Corp., Voyager Metals Inc., Australian Vanadium Ltd., and VanadiumCorp Resource Inc.

Global Vanadium Market: Coverage

Executive Summary

Vanadium is a grey, soft, ductile metal that exists in four 'oxidation states' (II, III, IV, and V). The global vanadium market was valued at US\$2.84 billion in 2022. The market value is expected to reach US\$3.93 billion by 2028, growing at a CAGR of 5.55% over the projected period of 2023-2028. The global vanadium market production was valued at 110.53 thousand tonnes in 2022 and is expected to reach 135.16 thousand tonnes by 2028. Whereas, the global vanadium market consumption was valued at 112.19 thousand tonnes in 2022 and is anticipated to grow at a CAGR of 3.2%.

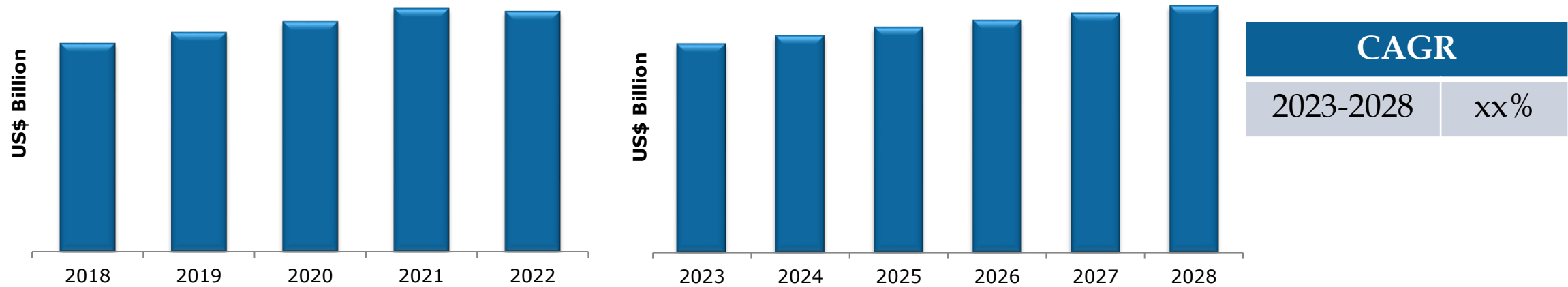
The global vanadium market can be bifurcated based on the type (Vanadium Pentoxide, Vanadium Ferrovandium, Aluminium Vanadium Alloys, Vanadium Chemicals, and Others). In 2022, vanadium pentoxide held the major share of the market. The global vanadium market production can be divided into three segments namely, Co-production, Primary, and Secondary, with co-production holding the major share. The global vanadium market consumption can be divided into four end-users namely, Steel Alloy, Chemical & Catalyst, Titanium Alloys, and Energy Storage. Energy storage is expected to be the fastest-growing segment in the forecasted period.

The COVID-19 pandemic has led to disruptions in mining operations, production facilities, and supply chains worldwide. Moreover, reduced construction activities, factory shutdowns, and decreased demand for vehicles have led to a decline in the consumption of vanadium-containing products in the initial period of 2020. However, as economies gradually reopened and stimulus measures were implemented, several industries started to recover, leading to increased demand for vanadium-containing products. In the post-COVID era, the recovery of global economies, infrastructure development projects, and the adoption of energy storage technologies would play significant roles in shaping the future market value of vanadium.

The global vanadium market observed progressive growth in the past few years and anticipations are made that during the forecasted period (2023-2028), the market would further augment at an escalating growth rate. The global vanadium market growth is predicted to be supported by numerous growth drivers such as increasing steel production, growing construction sector, rapid urbanization, escalating medical devices industry, increasing demand for electric vehicles, escalating use in the chemical industry, and many other factors. Conversely, the market growth would be negatively impacted by various challenges such as price volatility, environmental and regulatory considerations, competition from substitutes, etc. Moreover, the market growth would succeed in various market trends like Increasing Demand for the VRFBs, research and development for new applications, exploration, and development of vanadium deposits, technological advancements, etc.

Vanadium Market: Global Analysis

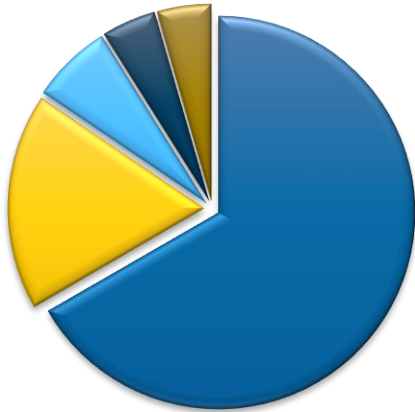
Global Vanadium Market by Value



Global vanadium market was valued at US\$... billion in 2022 and is anticipated to reach up to US\$... billion by 2028 from US\$... billion in 2023, with a CAGR of xx%.

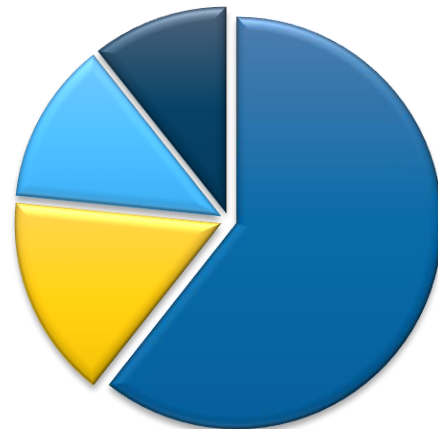
Vanadium Market: Global Analysis

Global Vanadium Market by Type; 2022



Type	Share
Vanadium Pentoxide	xx%
Vanadium Ferrovanadium	xx%
Aluminium Vanadium Alloys	xx%
Vanadium Chemicals	xx%
Others	xx%

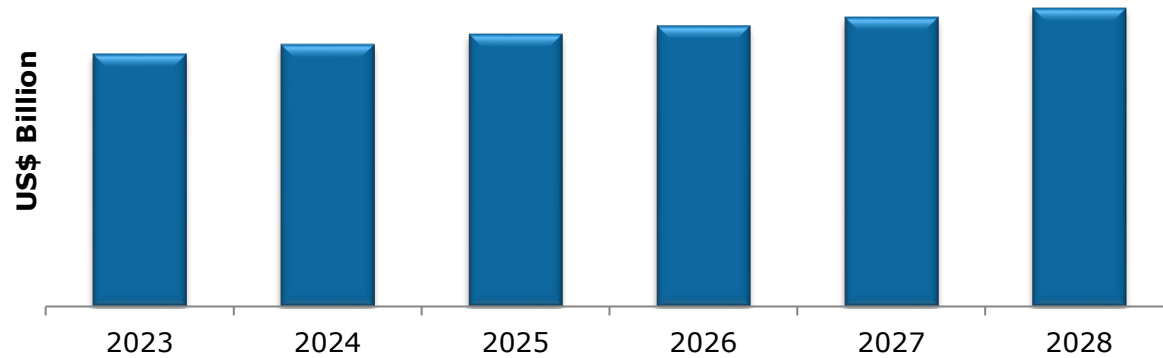
Global Vanadium Market by Region; 2022



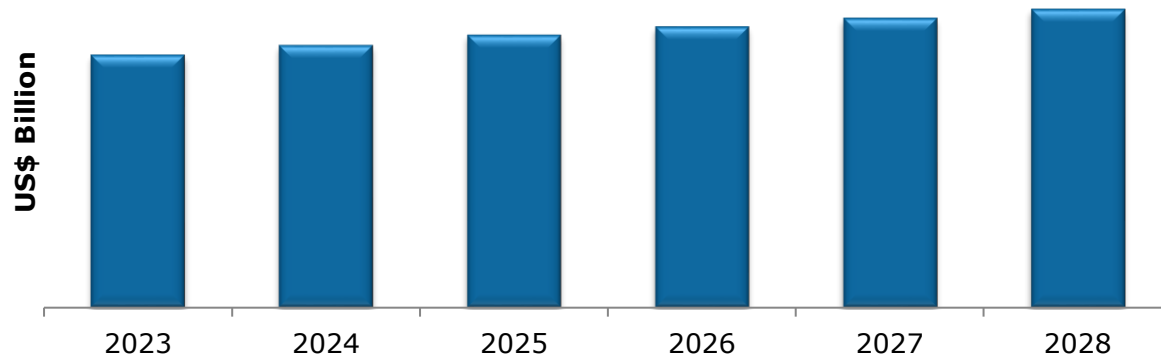
Region	Share
Asia Pacific	xx%
Europe	xx%
North America	xx%
Rest of the World	xx%

Vanadium Market: Type Analysis

Global Vanadium Pentoxide Market by Value



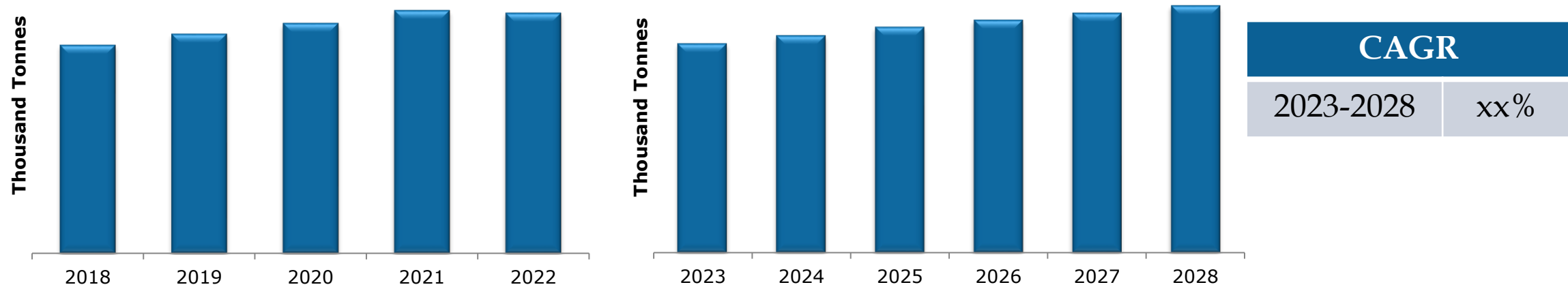
Global Vanadium Ferrovanadium Market by Value



Type	CAGR (2023-2028)
Vanadium Pentoxide	xx%
Vanadium Ferrovanadium	xx%
Aluminium Vanadium Alloys	xx%
Vanadium Chemicals	xx%
Others	xx%

Vanadium Market Production: Global Analysis

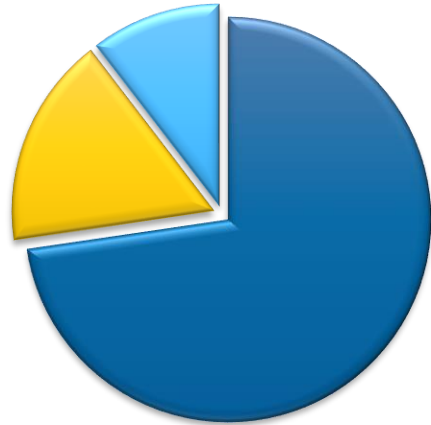
Global Vanadium Market by Production



Global vanadium market production was ...thousand tonnes in 2022 and is anticipated to reach up to ... thousand tonnes by 2028 from ... thousand tonnes in 2023, with a CAGR of xx%.

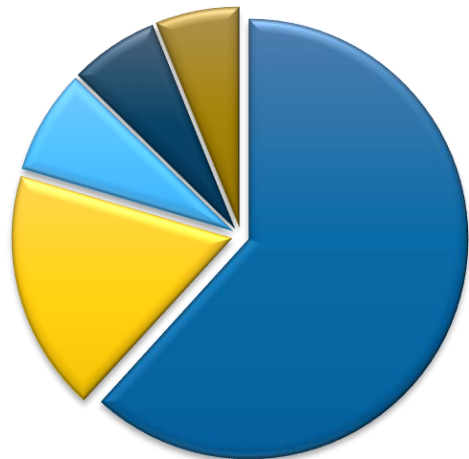
Vanadium Market Production: Global Analysis

Global Vanadium Market Production by Source; 2022



Source	Share
Co-production	xx%
Primary	xx%
Secondary	xx%

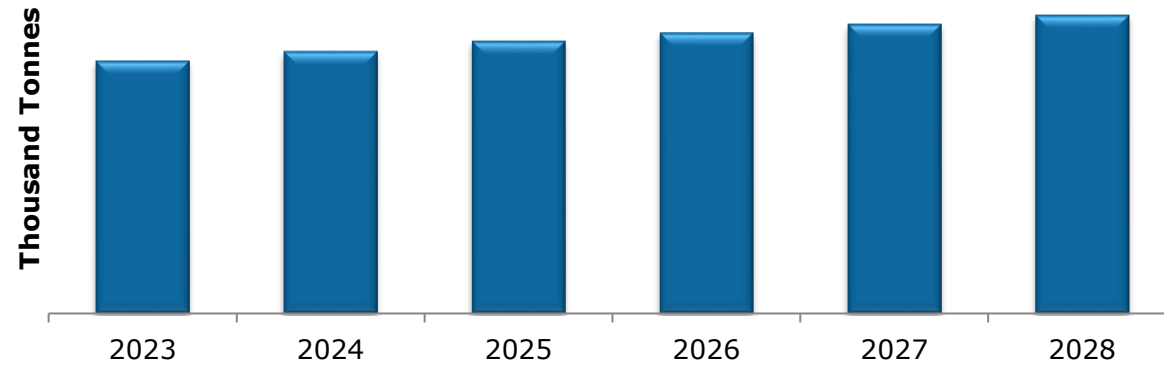
Global Vanadium Market Production by Region; 2022



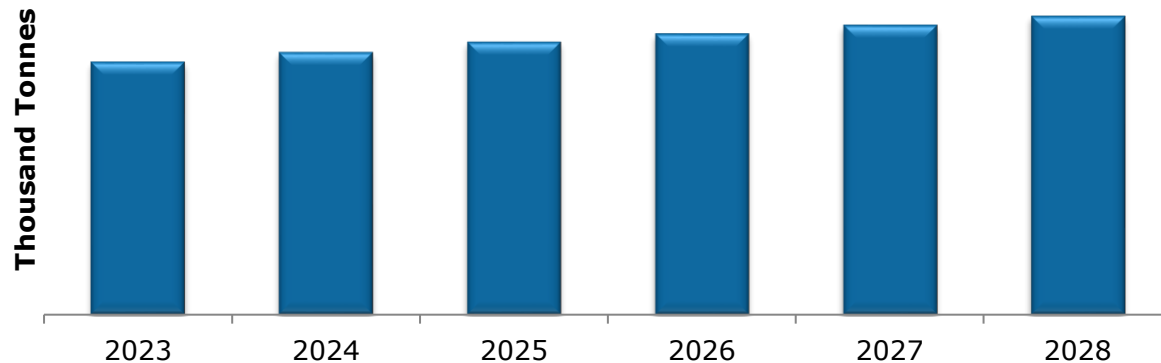
Region	Share
China	xx%
Russia	xx%
South Africa	xx%
Brazil	xx%
Rest of the World	xx%

Vanadium Market Production: Source Analysis

Global Vanadium Market by Co-production



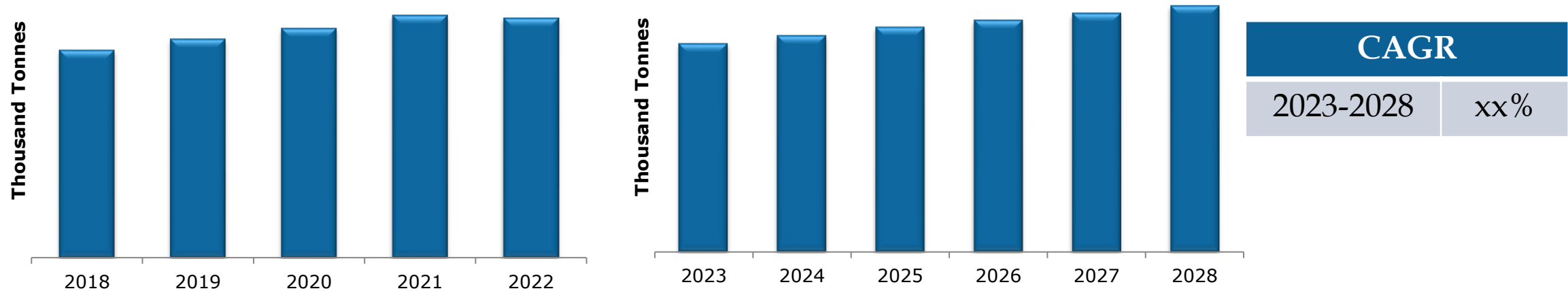
Global Vanadium Market by Primary Production



Source	CAGR (2023-2028)
Co-production	xx%
Primary	xx%
Secondary	xx%

Vanadium Market Consumption: Global Analysis

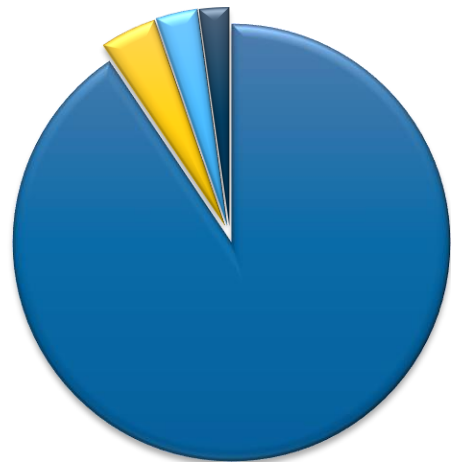
Global Vanadium Market by Consumption



Global vanadium market consumption was ... thousand tonnes in 2022 and is anticipated to reach up to ... thousand tonnes by 2028 from ... thousand tonnes in 2023, with a CAGR of xx%.

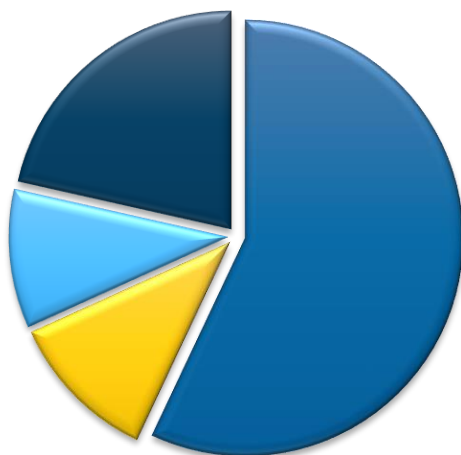
Vanadium Market Consumption: Global Analysis

Global Vanadium Market Consumption by End-User; 2022



End-User	Share
Steel Alloy	xx%
Chemical & Catalyst	xx%
Titanium Alloys	xx%
Energy Storage	xx%

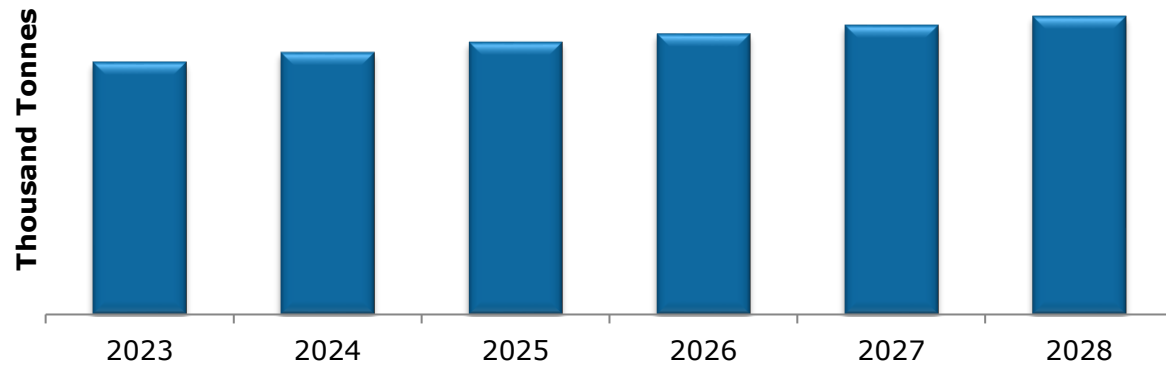
Global Vanadium Market Consumption by Region; 2022



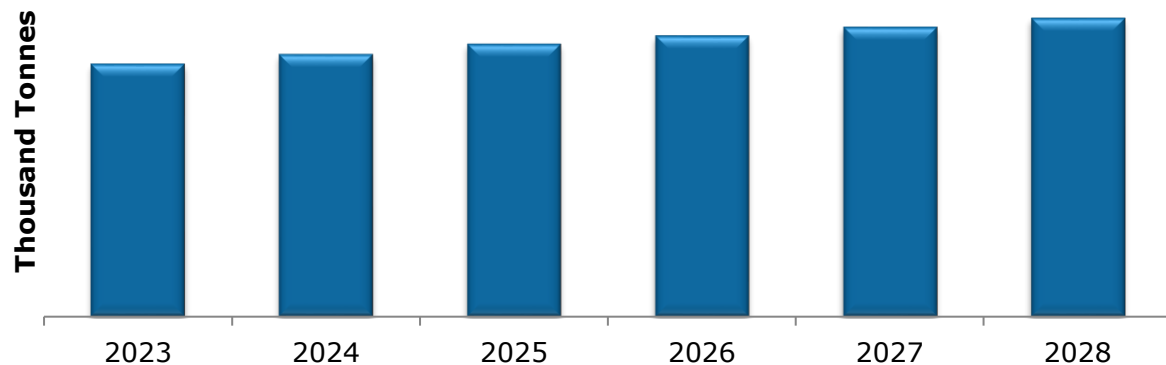
Region	Share
China	xx%
Europe	xx%
North America	xx%
Rest of the World	xx%

Vanadium Market Consumption: End-User Analysis

Global Steel Alloy Vanadium Market by Consumption



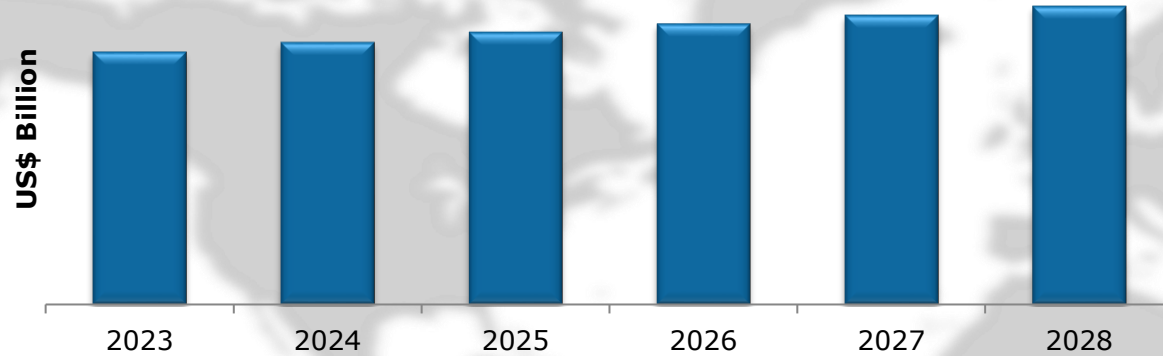
Global Chemical & Catalyst Vanadium Market by Consumption



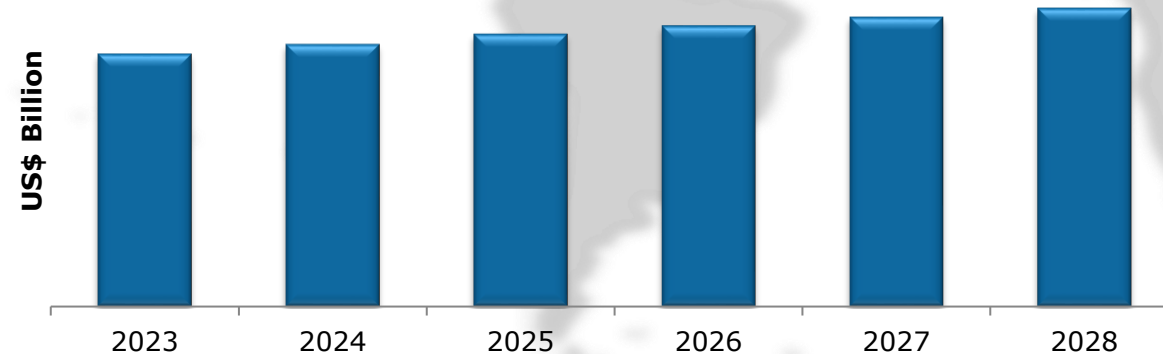
End-User	CAGR (2023-2028)
Steel Alloy	xx%
Chemical & Catalyst	xx%
Titanium Alloys	xx%
Energy Storage	xx%

Vanadium Market: Regional Analysis

Asia Pacific Vanadium Market by Value

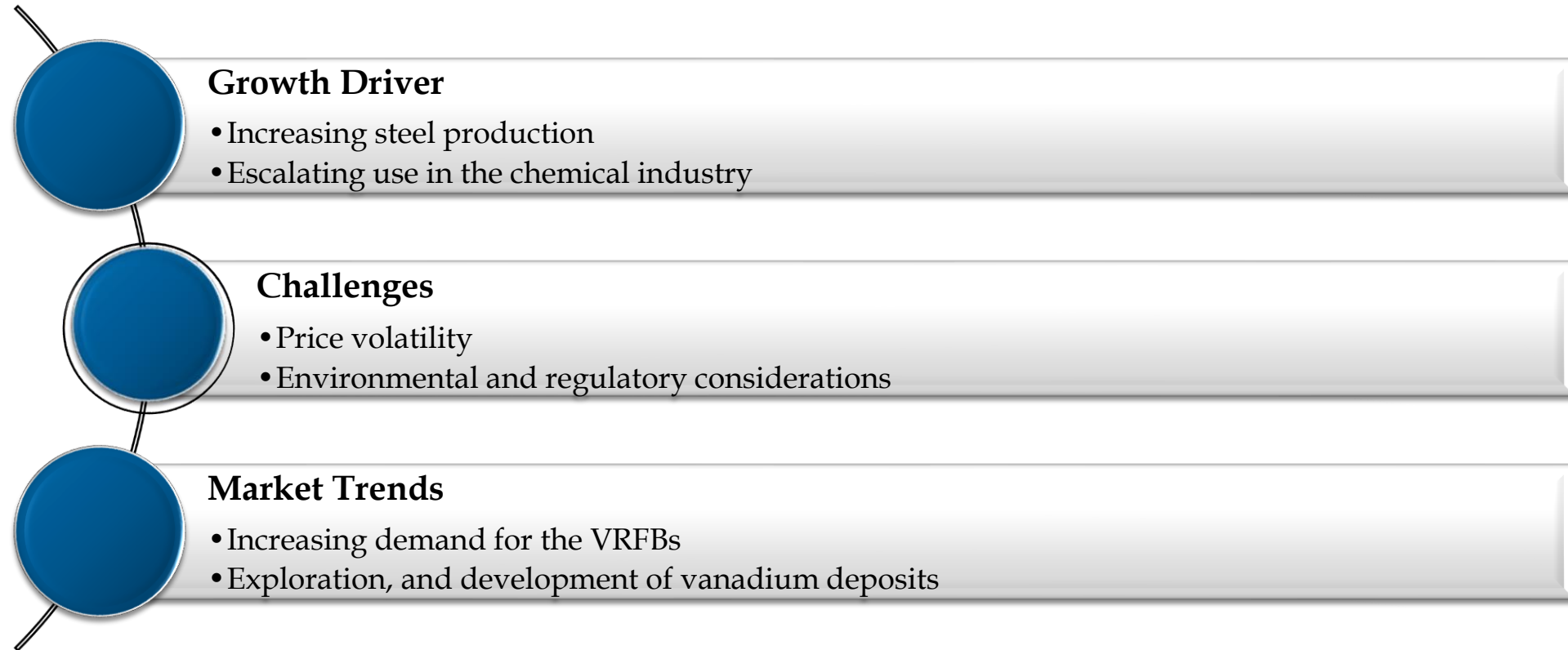


North America Vanadium Market by Value



Region	CAGR (2023-2028)
Asia Pacific	xx%
Europe	xx%
North America	xx%
Rest of the World	xx%

Global Vanadium Market: Dynamics



Global Vanadium Market: Competitive Landscape

Players Profiled

- ❑ Largo Inc.
- ❑ Bushveld Minerals Limited
- ❑ EVRAZ
- ❑ Glencore Plc
- ❑ AMG Advanced Metallurgical Group N.V.(AMG Vanadium LLC)
- ❑ Ferro-Alloy Resources Limited
- ❑ HBIS Group
- ❑ Essel Mining & Industries Limited
- ❑ Western Uranium & Vanadium Corp.
- ❑ Voyager Metals Inc.
- ❑ Australian Vanadium Ltd.
- ❑ VanadiumCorp Resource Inc.