



# **Wine sector in the Republic of Moldova**

## **WINET BSB-638 Project: Trade and Innovation in Wine Industry**

**Developed by:  
Business Intelligent Services**



**Common borders. Common solutions.**

# contents

Context.....	5
Key Messages.....	7
Methodology and approach .....	13
01 Moldova – a gateway between East and West.....	15
General Information.....	15
Reasons to visit & invest .....	17
02 History of Moldovan wine .....	19
03 Institutional framework of the wine sector .....	24
04 Winegrowing regions. Local grape varieties .....	30
Winegrowing regions.....	30
Local grape varieties .....	37
05 Winery profiles.....	40
06 Analysis of wine production. Production potential.....	45
Global developments. Positioning of Moldova .....	45
Production potential.....	50
Wine production .....	53
Evolution of wine stocks .....	57
07 Sales trends .....	61
Sales of Moldovan wine.....	61
Export markets .....	65
08 Wine tourism.....	78
09 Future prospects .....	83
Annexes.....	87

# Abbreviations

AIPA	Agency for Intervention and Payments for Agriculture
ANTRIM	National Inbound Tourism Association of Moldova
BC	Before Christ
CAGR	Compound Annual Growth Rate
cca.	circa
CEFTA	Central European Free Trade Agreement
CIS	Commonwealth of Independent States
DCFTA	Deep and Comprehensive Free Trade Area
EU	European Union
EUR	euros
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
IA	Investment Agency
JV	Joint Venture
lei	Moldovan Leu
MARDE	Ministry of Agriculture, Rural Development and Environment
NBM	National Bank of Moldova
NBS	National Bureau of Statistics of the Republic of Moldova
NOVW	National Office of Vine and Wine
OIV	International Organization of Vine and Wine
p.p.	percentage points
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
USD	american dollar
VWR	Automated Information System "Vine and Wine Register"
WINET BSB-638	Trade and Innovation in the Wine Industry
WTO	World Trade Organization

**Common borders. Common solutions.**

# Measurement units

---

dal	decalitres
ha	hectares
hl	hectolitres
k	thousands
kha	thousands of hectares
khl	thousands of hectolitres
m	millions
mha	millions of hectares
mhl	millions of hectolitres
p.p.	percentage points
t	tonnes

# Context

Viticulture and winemaking in Moldova have a history of many centuries and are an inseparable part of the life and culture of Moldovan people. Shaped like a grape bunch on the map, **the Republic of Moldova is located in the south-east of Europe, between Ukraine and Romania, in the Black Sea basin area - the place of origin of the grape vine.** The region's climate is continental, at times with maritime influences, ideal for growing grapes: about 5% of the area of agricultural land here is planted with vines. Located between latitude 46-47°, similar to other renowned wine regions in Europe, the vineyards occupy a territory favourable for the production of quality wine, red in the southern regions and white predominantly in the central part of the country.

Wine has been traditionally one of the most important products to export for Moldova. In Soviet times, Moldovan wine was consumed in enormous quantities on the USSR territory. At the time, it was exported as raw material and enjoyed a great popularity.

Despite uneasy developments in the sector over the last 15 years, marked especially by Russian embargoes in 2006 and subsequently in 2013, **the wine sector remains of strategic importance for the national economy.** The fact that many winemakers have been more immune to the last embargo (of 2013) shows that the sector has a future. The trademarks **"Vinul Moldovei. O legendă vie"**, **"Вино Молдовы. Живая легенда"**, **"Wine of Moldova. A legend alive"** also represent the binder towards which all efforts are made in order to become more competitive in export markets. These are trademarks of quality guarantee and control of wine and / or wine-based products that have country brand status.

According to the latest data available, **wine producers generate over 5% of Moldova's exports** (5.2% in 2018). Wine manufacturing also accounts for **15.2% of the total food and beverage industry** and for an estimated 6.1% of the total value of industrial production.

In 2017 wine producers generated around 16 lei out of 100 lei in sales among all companies in the food and beverage industry. In terms of companies in overall economy winemakers generate cca. 1.1 out of 100 lei in sales.

The relevance of the winemaking industry in the national economy is also determined by the fact that this sector offers a source of income for a significant part of the population. Wineries alone employ on average 11 out of 1000 employees in the national economy. But if we consider the entire value chain, **the estimated number of the population with a source of income in the wine sector is approx. 200,000 people.** The state should therefore support the sector to become more competitive not only for economic reasons, but also in terms of significant social effects.

In this context, the fact that the Republic of Moldova is a leading and implementing partner in the WINET BSB-638 Project - the first cross-border project in the Black Sea Basin region that comprises three countries (Moldova, Romania and Bulgaria), is an important matter, given that Moldova has an offer within wine partnerships, with both quality wines and a quite strong wine tourism potential.

WINET BSB-638 Project's main goals are to increase the opportunities in cross-border trade, to modernize the agricultural, winemaking and other related fields. The project also envisages the creation of a network of relevant actors in the wine sector in the 3 countries.

# Key Messages

---

1. Wine has been a living legend of Moldova and Moldovans for thousands of years. It represents our people as history, culture and lifestyle. Wine has been produced on our lands for over 3 thousand years, facing centuries of hard struggles. The wines and the vineyards survived Burebista's order to burn them down and the invasions of nomadic hordes, they remained after the Ottomans restricted their production, they survived Gorbachev's deforestation and ploughed towards new exports and new markets following the multiple embargoes imposed by the Russian Federation since 2006.
2. The Russian embargoes, but also the globalization conditions, openness to the rest of the world and the competitiveness of foreign markets drove the domestic wine sector to move to another level of customer relations, with increasingly refined taste and high quality technical demands. The wine sector has thus managed to reposition itself in relation to external markets and consolidate around an ambitious working agenda. Winemaking committed to a strategic framework of activity with clear laws and separate institutional responsibilities for the industry relaunch and sustainable development.
3. The principal objective of the government is the modernization of the winegrowing sector in order to increase its competitiveness and boost the exports of wine products. Its policies are implemented through the National Office of Vine and Wine (NOVW) - a functional structure created in 2013 based on best international practices. The Office manages the Wine of Moldova national band and takes useful actions in protecting the interests of winemakers. The NOVW can act independently and its initiatives can thus overcome the political interference more easily.
4. In recent years Moldova has continuously reformed and improved its regulatory framework in the wine sector in keeping with European best practices, but also to gain recognition at European level. As of 18 October 2016, the geographical indications designating three winegrowing areas of the Republic of Moldova: Valul lui Traian, Codru, Stefan-Voda but also Divin (used for "aged wine spirit", manufactured across the entire country), obtained protection on the territory of the European Union.
5. In order to further the sector, in 2017 the Regulation on the record-keeping and traceability method of the Vine and Wine Register (VWR) of the Republic of Moldova was approved. The registration of wineries and vineyard plantations

of the Republic of Moldova with the VWR ensures increased transparency in the wine producing process in Moldova, so that no doubt arises regarding its quality or origin. The registration with the Vine and Wine Register is compulsory for all companies that operate in this field and is carried out free of charge.

6. Vineyards and wineries in the country are encouraged to work and invest in the sector via the National Fund for Agriculture and Rural Development, with supports measures aimed at grubbing up old vineyards, setting up plantations with productive wine grape varieties, installation of modern support systems in young plantations; encouraging wineries to invest in machinery and technological equipment used in processing wine grape varieties.
7. The authenticity and the unique character of the Moldovan wine are ensured by the local varieties, such as Feteasca Alba, Feteasca Regala, Feteasca Neagră, Rara Neagra, Viorica, etc., which cover 5% of the areas under vine. They are continually expanding, driven by the growing interest of international consumers, but also due to the support of various sectoral programs. Indigenous varieties are of particular importance for the development of the wine industry in the Republic of Moldova: they lay the path for Moldovan wines on the international market, as each producer seeks to find an original taste to represent the country.
8. Half of the Moldovan wineries (51%) are located in the Central wine region. About 30% of them are located in the Southern winegrowing region, another 19% are found in the South-Eastern region. The degree of fragmentation of plantations is highest in the Central region: although the Central wine region has the largest vineyard surfaces, only 6.4 kha of vineyards growing wine grape varieties are managed by agricultural enterprises and farming households that own at least 10 ha of agricultural land, compared with 13.3 kha in the Southern region.
9. Most wineries (about 75%) are owned by local private investors. Foreign investments are prominent in the winegrowing sector. An estimated 25 wineries (22% of the total) are 100% owned by foreign investors or co-owned with local investors. The state is the sole shareholder in four companies: JSC "Combinatul de Vinuri Cricova" and JSC "Milestii Mici", also in divin and brandy producers JSC "Barza Alba" and JSC "AROMA" (currently undergoing restructuring). The state owns 60.4% of JSC "Vinuri-Ialoveni".
10. The Moldovan wine sector is dominated by micro, small and medium-sized wineries. Most wineries (51 or 46%) processed up to 1,000 tonnes of wine grapes each. Medium-sized wineries, which each process between 1,000 and 10,000 tonnes are as numerous (52 or 47%) as micro and small ones. About 6% of wineries can be classified as large winemaking companies. In 2018 each of them have processed over 10,000 tonnes of wine grapes.



11. According to the data of 2018, out of the total number of companies (110), 71% are producing red wines, 64% - white wines, 17% - fortified wines, with an alcohol concentration above 15%, an estimated 12% produce sparkling wines.
12. Moldova is a global wine "power" and its position is validated by a series of indicators:
  - ranking 1st in the world, with the highest density of vineyards per capita. Moldova has cca. 3.44 ha of vineyards per 100 inhabitants.
  - 14th in the world, with 133 kha of vineyards, or 1.8% of the world surface;
  - 21st in the world, with an estimated production of 720 k tonnes in 2018 (654 k tonnes in 2017);
  - 19th place in the world and 11th in Europe with about 1.9 mhl of wine produced in 2018.
13. In 2018 Moldova had cca. 133 thousand ha of vineyards plantations (95.5% bearing fruit). Since 2008 their surface has decreased on average by 1.2% per year. In recent years more vineyards have been grubbed up than new ones were planted.
14. Since 2010 the structure of vineyards by use of variety has not changed significantly: in 2018 on 85.5% (113.7 thousand ha) of the vineyard surfaces were growing wine grapes, and 14.5% (or 19.3 thousand ha) were accounted for by table grapes. In 2018 the area of plantations growing wine grape varieties with Protected Geographical Indication increased by 22%, to 9,200 ha - (35% in PGI Valul lui Traian region, 28% in PGI Divin region, 35% in PGI Codru and 12% in the PGI Stefan Voda).
15. The average wine grape harvest was 5.48 t/ha. The average grape productivity by household category shows that agricultural enterprises obtain harvests 58% higher compared to common households and 2.2 times higher than farming households.
16. Following the slight decline in 2015-2016, wine production increased significantly in 2017 (+22% YoY), up to 17,234 kdal. This occurred due to the international context, marked by a historically low global wine production in 2017 in most top wine producing countries, caused by adverse weather. In these conditions, the Moldovan producers have filled some of the shortage, also "taking advantage" of the favourable climatic conditions that resulted in high yields. The upward trend continued in 2018: the volume of wine production increased slightly by 3.6% YoY, to 17.849 kdal - highest record since 2007.
17. Overall, the co-ratio between white vs. red and rosé wine production is close in value. Their prevalence differ from year to year, depicting a highly volatile

dynamics. In 2014 the white vs. red and rosé wine production ratio was 52% vs. 47%. In the next 4 years red wines took over. In 2016 red and rosé wines accounted for the largest share in still light wine production (58%), white wines accounted for 40%. In 2017 and 2018, the divergence has decreased, with 54% vs. 44%.

18. The largest quantities of stock accumulated in 2014 (7,029 kdal) and 2015 (7,951 kdal), as a result of the Russian embargo imposed on Moldovan wines in 2013. In 2016 and 2017 stocks decreased due to export growth (recovery) and the penetration of new markets (that compensated for the loss of the Russian market), but also due to a stronger positioning in certain markets (particularly EU). This change was also driven by the international context - 2017 saw unfavourable weather conditions in many winegrowing countries. The 2017 stocks (5,753 kdal) recorded the lowest level during 2014-2018. Winemakers failed to capitalize on the full production potential though, given that this year's sales declined slightly.
19. Wine sales volume during 2014-2018 followed the export evolution: an upward trend with an average CAGR of 8%. Wine sales decreased markedly in 2014 (-18.6%) as a result of the Russian embargo of 2013. The sector recovered slightly in 2015 and in 2016 sales volumes already reached pre-embargo figures (14,928 kdal). In 2017 sales gained significant strength: 17.265 kdal, a record high for the previous 10 years. Sales fell slightly in 2018, to 16,699 kdal (-3.3% YoY).
20. During 2014-2018, red and rosé wines showed stability and improved sales rates. During this period red and rosé wines accounted for over 50% in total sales - in 2018 an estimated 53.8%. However, in the last 3 years there has been a slight increase in the share of white wines. In terms of sales volume, red, white and rosé wines have been on an upward trend in the last 5 years: between 2014-2018, white wine sales increased with a CAGR of 8.9%, red and rosé wines - by 8.3%.
21. Wine is Moldova's one of the main export products, ranking 3rd in the top most exported products; ranking 2nd in Top 20 recognized wine exporting countries in terms of this product's dependence in the export structure (5.1%). The 137.9 m USD revenues in 2018 generated by wine exports came from over 50 countries, a performance with which no other domestic product can boast.
22. The Russian embargo imposed in September 2013 led to a 25.2% contraction in exports value in the following year. The trend continued in 2015 with a reduction of the revenues in dollars by another 12.6% caused by a drop in prices internationally. In the last 3 years Moldovan wine exports have increased steadily - the amount of exports in 2018 of 137.9 M USD is close to the best results of 2012 and 2013 (prior to the embargo).

23. The structure of exports by group of countries shows a clear reorientation towards the European Union: in 2011 over  $\frac{3}{4}$  of the export revenues came from the CIS, in 2018 wine exports to the EU - 54.7 m USD or 39.6% in total wine exports - surpassed for the first time the exports to the CIS countries - 50.6 million or 36.7% per total. These developments occurred in the context of the R USD embargo as well as due to the combined efforts of the industry, authorities and the development partners to create the NOVW and the country brand Wine of Moldova. This offered the Moldovan wines a new image and identity on a highly competitive global market.
24. Bottled wines generate more than half of the export revenues (52%) with a 27.6% share of the exported volume. Bulk wines account for 69.9% in total exported volume while generating 43.3% of the revenues. With a share of 1.8% of the exported quantity, sparkling wines have a value quota of 4.2%.
25. In 2018 exports of bottled wine reached a record high for the last 5 years, both in volume and value, to 39.6 million litres (2.6% YoY), or USD 72.8 million (6.7% YoY). In 2018 Moldovan bottled wines were exported to 56 countries. The first 10 destination countries concentrate 84.3% of the total export volume and 82.8% in value. Romania, China, Poland, the Czech Republic and Russia imported the largest numbers of bottles.
26. On average 2 out of 3 exported wine bottles were red and rosé (64.6% in volume and 67.2 in value). In 2018 Moldova exported 25.6 million litres of red and rosé wine worth 48.7 m USD. On the other hand, the 14.0 m litres of exported white wine were worth 23.8 m USD. Red and rosé wines were exported in 2018 with an average price 12% higher than whites'.
27. The classification by variety shows that varietal wines account for the dominant share (58.5% in volume and 57.8% in value) with export revenues of 42.1 m USD in 2018. These are followed by blended wines that generate 21.6 m USD (31.9% in volume and 29.6% in value). In recent years the price divergence between varietal and blended wines was seen decreasing: in 2018 their purchase price was 1.82 USD and 1.72 per litre respectively.
28. The most positive novelty of 2018 concerning bottled wine is the 1.8 times increase in the export volume of PGI-quality wines (over 1.7 m litres) and the 2.5 times increase of the related revenues, which amounted to USD 4.9 million. About 72% of the exported PGI wines are red and rosé. PGI wines account for the highest export price - 2.86 USD/l. - which is also a 37.4% increase on the previous year. The rise in the deliveries and prices of Moldovan PGI-quality wines may be explained including through the recognition in 2016 by the EU of the 4 winegrowing areas with protected geographical indication.
29. Between 2014-2018 the volume of bulk wine exports increased every year with an average 9.4% CAGR, to 96.7 m litres in 2018. The record high value for the period was reached in 2018 with 59.7 m USD or 9.8% higher compared to

the previous year. The CIS remains by far the dominant market (60% in volume, 54% in value).

30. Compared with bottled wines, the proportion between red and rosé bulk wines vs. white wines is balanced with a slight prevalence for whites (50.6% in volume and 50.8% in value). The classification by variety shows that highest revenues in bulk wine exports are generated by variety wines - 35.9 m USD. Blended wines return 22.2 m USD, fortifies wines - 1.6 m USD.
31. As a tourist destination, Moldova is at the beginning of the road, focusing on sustainable wine tourism and developing niche tourism offers to attract more foreign visitors. In 2018 Moldova hosted the most important international event in the field of wine tourism - the third Global Conference on Wine Tourism. The event was organized in Chisinau under the aegis of the World Tourism Organization of the UN (UNWTO) - an official recognition of the fact that our country is an important wine destination on the world map of tourism.
32. Moldova stands out by organizing the 18th National Wine Day, the only celebration of its kind in the world. In 2019 the event attracted over 70 thousand people. The demand for hotel rooms during the event days is at its highest for the year.

# Methodology and approach

The study on the wine sector in the Republic of Moldova was carried out in accordance with the structure proposed in the Specification, containing the following distinct chapters:

1. Moldova – a bridge between East and West;
2. History of Moldovan wine;
3. Institutional framework regarding the winegrowing sector;
4. Winegrowing areas of the Republic of Moldova and the local grape varieties;
5. Profile of wineries;
6. Analysis of wine production;
7. Sales trends;
8. Wine tourism;
9. Future prospects by creating a network of relevant actors in the winegrowing sector.

In order to outline the main trends in the wine industry, the authors of the study used a wide spectrum of data sources relevant to the comprehensive coverage of the content. Information came from open sources, as well as from the National Bureau of Statistics (NBS), the Customs Service, the Ministry of Agriculture, Rural Development and Environment (MARDE), the National Office of Vine and Wine (NOVW), the Vine and Wine Unions of Designated Geographical Regions (Valul lui Traian, Codru, Stefan-Voda and Divin), the Association of Small Wine Producers of Moldova, the National Inbound Tourism Association of Moldova (ANTRIM), Data also came from relevant stakeholders such as donors supporting this field.

The data from the United Nations Food and Agriculture Organization (FAO), data from the International Organization of Vine and Wine (OIV), and data from the UN statistical division UnComtrade were also utilized comprehensively. Last but not least, the most relevant normative acts in the field were analyzed and summarised.

The most representative in terms of grape varieties were the data provided by NOVW, which is the legal manager of Moldova's Vine and Wine Register Authorized Information System (VWR) – an instrument that allows to increase the traceability and transparency of the whole technological process and implicitly the increase of the competitiveness in the external markets.

The study also analyzed the **profile of the wineries**, identifying a series of wineries that are representative of the situation in the sector. Thereby, short descriptions were made for both large export-oriented companies, for emerging medium-sized

businesses that have advanced in recent years, and for small producers that produce high value-added wines on a small scale. The series also identifies a number of wineries that combine winemaking with the tourist activity.

The wineries in the specified list are also found in the deliverable that is part of the second phase of the project, namely **Elaboration of a structured data set with at least 100 relevant actors in the wine sector, with contact details, main activities and a brief description**. Each of the wineries in the list have been contacted to give their consent to be included in the list and, where necessary, to provide any missing information about them.

For the most part, the **sales trends** analysis consulted Moldova's wine exports: mainly the key export markets as well as the shipping method - bulk or bottled. The analysis also includes export prices. Data were collected and collated based on the classification in the Combined Nomenclature of goods of the Republic of Moldova. Thus, the figures related to tariff heading 2204 were broken down - Wine from fresh grapes, including wines enriched with alcohol; grape must, other than the one listed in heading 2009. The tariff position in subheadings 6 and 9 was also examined, which allowed for the detailed itemization of wine exports according to their shipping method (bulk, bottled) and, where necessary, by categories of wines, colour and quality.

# 01 Moldova – a gateway between East and West

## General Information

Moldova is a small country in Eastern Europe. Its rich soil and temperate continental climate with warm summers and mild winters have made the country one of the most productive agricultural regions since ancient times, and a major supplier of agricultural products in southeastern Europe. Moldova's fertile soil produces fruits, vegetables and grain products and one of the most important industries of the country is wine - making, for which Moldova is known far beyond its borders. For many years, wine-making in Moldova was the basic occupation of the population.

## History

The Republic of Moldova is a sovereign and democratic state of law, by its Form of government being a parliamentary republic. It declared its independence on 27 August 1991. On 2 March 1992 the Republic of Moldova adhered to the United Nations Organization, and on 29 July 1994 adopted the Constitution. On 28 April 2014 the Republic of Moldova liberalizes the visa regime with the European Union member states and on 27 June 2014 signs the Association Agreement with the European Union.

## Geographical location

The Republic of Moldova is located in Southeastern Europe between the rivers Prut and Dniester and covers an area of 33,843 km<sup>2</sup>, ranking 32nd in Europe. Its neighbor to the West is Romania and the one to the East and South is Ukraine. The Republic of Moldova belongs to the group of the countries located in the Black Sea Basin. Its southern border extends almost to the Black Sea, having access to the sea through the Dniester Liman and the Danube River.

## International Membership

The Republic of Moldova is a member state of the United Nations Organization, Council of Europe, Partnership for Peace, WTO, OSCE, GUAM, CIS, BSEC, UNWTO, OIV and other organizations.



## Language

Romanian (official), Russian (Language of interethnic communication), Gagauz (a Turkish dialect).

## Population

The Republic of Moldova has a usual resident population of 3.54 million people (excluding Transnistria). The urban population constitute 1.52 million people and the rural population - 2.02 million people.

## Capital

Chisinau is the capital and the administrative, politic, economic, scientific, cultural and tourist center of the Republic of Moldova.

## Religion

At the moment, on the territory of Moldova 23 registered religious cults that hold in total 2319 component parts (congregations, monasteries, theological institutions, missions, etc.) carry out their activity. According to the population census carried out in 2014, the vast majority of the population is orthodox (96.8%).

## Major tourist attractions

### **NATURAL MONUMENTS:**

Butesti Keys, Magura Knoll.

### **WINE CELLARS:**

Cricova, Milestii Mici, Purcari, Chateau Vartely, Branesti, Cojusna.

### **NATURAL RESERVES:**

Padurea Domneasca, Codrii, Lagorlic, Prutul de Jo", Plaiul Fagului.

### **MONASTERIES:**

Capriana, Curchi, Chitcani, Calarasauca, Dobrusa, Frumoasa, Hancu, Harjauca, Harbovat, Japca, Raciula, Rudi, Saharna, Tipova, Zabriceni.

### **MUSEUMS:**

National Museum of Ethnography and Natural History, National History Museum of Moldova, National Arts Museum of Moldova.

### **HOUSES-MUSEUMS:**

Alexei Mateevici, Aleksandr Puskin, Alexandru Donici, Constantin Stamati, Constantin Stere.

### **FORTRESSES:**

Soroca, Tighina.

### **CAVES:**

Emil Racovita Cave, Cave of Surprises.



**LANDSCAPE RESERVES:**

Old Orhei, Toltrele Prutului, The Hundred Knolls, Duruitoarea Gorge, Trinca Gorge.

**UNESCO MONUMENTS:**

Struve Geodetic Arc.

**GUINNESS BOOK OF RECORDS:**

Wine cellar Milestii Mici.

**Time**

The Republic of Moldova is situated in the East-ern European time zone, 2 hours ahead of Greenwich Mean Time (GMT +2, summer time GMT +3).

**Money and parity**

The national currency of the Republic of Moldova is Moldovan Leu (MDL). The credit cards are accepted in banks, hotels, travel agencies and shops. The banks are open From 09:00 am to 16:00 pm From Monday until Friday. The money exchange is done by all the banks, and also the exchange of-fices, located on the entire territory of the Republic of Moldova.

**Reasons to visit & invest****10** Reasons to visit the Republic of Moldova:

1. Land of wine and underground wine cities;
2. Medieval jewels;
3. Interference of civilizations;
4. Hospitable people;
5. Gastronomy and special cuisine;
6. Historical and archeological monuments;
7. Splendid and intact nature;
8. Diverse popular art;
9. Traditional holidays;
10. Churches and monasteries with a world architectonic and historic value.

## 10 Reasons to Invest in the Republic of Moldova:

1. Favorable geographical position at the crossroads of commercial routes and proximity to large world markets (European Union and Commonwealth of Independent States);
2. Platform for manufacturing and exporting both to the CIS and to the EU;
3. Competitive general corporate income tax rate in the region – 12%;
4. Tax and customs framework similar to that of the EU;
5. Considerable network of operational Double Tax Treaties and Investment Protection Agreements;
6. Market access through three Free Trade Agreements including:
  - WTO members (worldwide);
  - Deep and Comprehensive Free Trade Area (DCFTA);
  - CEFTA members (most Balkan countries);
  - CIS members (with certain exceptions).
7. Entrepreneurial activities under preferential terms and conditions developed in free economic zones;
8. Well-skilled multilingual workforce and relatively low employment costs
9. Favorable visa regime;
10. Starting a business – fast and easy to handle.

## 02 History of Moldovan wine

*Wine has been a living legend of Moldova and Moldovans for thousands of years. It represents our people as history, culture and lifestyle. Wine has been produced on our lands for over 3 thousand years, facing centuries of hard struggles. The wines and the vineyards survived Burebista's order to burn them down and the invasions of nomadic hordes, they remained after the Ottomans restricted their production, they survived Gorbachev's deforestation and ploughed towards new exports and new markets following the multiple ongoing embargoes imposed by the Russian Federation since 2006.*

Moldovan wine's path went through various periods of ascension and decline. These can be classified within a time frame as follows:

### Ancient period

Vine growing and wine making on the current territory of Moldova started 4-5 thousand years ago, when the Dacians discovered the production of wine from grapes. The existence of viticulture was revealed by an imprint of grape seeds on clay pot sherds, dated 3750-3500 BC. One seed belonged to the grape variety. The winemaking intensified with the Greek colonists who arrived on the Black Sea coast towards the end of the 3rd century BC. They brought their own winemaking traditions that they shared with the locals.

As shown by archaeological excavations carried out on the territory of the Republic of Moldova, the Greek colonists familiarized the native population with their traditional winemaking, which was a key branch of the economy of the ancient Greece. At that time, wine started to be produced on Moldovan lands on an "industrial scale" (relative to the realities of the time) for household consumption and in exchange for other goods. Around 50 years BC, king Burebista, in order to avoid the increased consumption of wine, decreed that the Dacians and the Getae cut the vineyards and refrain from wine consumption. This decree largely restrained the development of viticulture and winemaking, as it lasted for about 150 years up until the conquest of Dacia by the emperor of Rome - Trajan (106 AD).

The Romans stimulated the development of viticulture and winemaking on the territory of Moldova in every respect. They introduced new systems of vine cultivation, brought new varieties of grapes from Rome, which have been preserved until the twentieth century. Roman settlers passed their winemaking methods to the local population. The great impact of the roman period is revealed in the inherited terminology, which people use to this day for everything related to winemaking.

## Medieval period and Stephen the Great

With the foundation of the Country of Moldova in the fourteenth century, viticulture has grown at a faster pace. It reached its peak in the fifteenth century, during the reign of Stephen the Great, who ordered to import new varieties of vines and stimulated the manufacture of quality wines.

During this historical period a specific "cult of wine" established itself among the Boyars, which further impelled the development of vinification. Considerable areas of land were distributed for vineyard plantations, the winemaking technology is improved, many underground galleries are built to keep the production. At the royal court, vineyards and cellars were supervised by *dregători* (officials in charge of administrative and protocol activities). It is important to note that for the quality of the wines, especially those served at the voivode's table, the chief cup-bearer (*vel-paharnic*), was literally answering with his own head.

Starting from XIV-th century Moldova started to export wines to Poland and the Cnezate of Moscow. It is from this time that the history of Moldova begins as a permanent exporter of significant lots of wines.

At the beginning of the 16th century, Moldova became vassal to the Ottoman Empire, which significantly limited its winemaking. In the second half of the 13th century the Tatars were engaged in viticulture and winemaking in the steppes of Bugeac, but the quality of their wine was low.

The local population's problem of viticulture and winemaking was dealt with by the representatives of the upper class, who had privileges for the production and sale of wines. The incomes of the noble and spiritual feudalists were not subject to taxation for a long period of time. They were also entitled to undemanding workforce.

Orthodoxy as a dominant religion also contributed to the preservation and development of winemaking under Ottoman rule, given that wine was used in church rituals and in the daily use of temples and monasteries. It is noteworthy that a set of quite rigorous requirements was formulated regarding the quality of the church wine, formulated in the "Slujebnicul" in 1699. Another noteworthy fact is that the "Novodevicii" monastery in Moscow (New nun's monastery) to this day purchases Purcari wines.

## Tsarist rule and World Wars

A distinct period began with the annexation of Basarabia to the Russian Empire in 1812. On the one hand, the metropolitan aristocracy turned the "establishment of winemaking estates" into fashion, for which select varieties were imported from France. On the other hand, the Russian Empire was interested in developing this important branch in its southern regions. Count Paravicini considered it abnormal that Russia was spending annually huge amounts of money to procure foreign wines while the empire had regions with pedo-climatic conditions comparable to France and Italy. As a result, the branch experienced a spectacular development dynamic - the land of

Basarabia occupying first place in Russia with 50% of all wines produced in the Empire. Winemaking increased from 13,000 *desetine* (1 *desetină* = 1.09 ha) and a production of 1 million buckets in 1837 to 74,000 *desetine* and 15 million buckets of wine at the beginning of the following century. Two thirds of these were exported, including to France, who was going through an acute deficit at that time due to loss of plantations.

An important role in the development of the winegrowing branch in Basarabia was played by the governor-general M. Voronțov, who brought vines from Crimea and offered them for free to everybody interested. M. Voronțov influenced positively the development of vineyards in the surroundings of the big cities of Basarabia and especially of Chisinau, which was surrounded by forests at that time. In 1842 the Russian government decided to share out all the free land for planting orchards and vineyards in the surroundings of Basarabian cities. Also in 1842 with the support of Count Voronțov, the Stauceni School was opened within the Nikitsk Botanical Garden - the first educational institution in the winemaking sector in Moldova.

The high quality red wines from Purcari, Tighina County, were awarded in 1878 with the gold medal at the World Exposition in Paris. The Russian imperial family purchased Purcari wines for the court's wine cellar. In the 19th century Negru de Purcari deliveries to the British royal house began. The Romanov family eventually founded in Basarabia its own wine undertaking, called Romanesti. Its production has conquered the refined admirers from all over Europe.

According to a research by scientist Gherasimov, in the years that France's vineyards were destroyed by phylloxera, wines from Basarabia entered the French market in large quantities and were highly appreciated by the consumers. Factories in Odessa were producing champagne using the classical method, as well as sparkling wines from Basarabian wine.

Unfortunately, towards the end of the 19th century, Moldovan winemaking was also affected by the phylloxera epidemic, which destroyed many vineyards. However, by 1906 vine plantations were restored to their normal state by planting grafted varieties, and by 1914 most of the vineyards in the Russian Empire were found on Basarabian territory.

The events of World War I and II had a negative impact on vineyards in the region, many were destroyed and the winemaking stagnated, the revolutions and wars stalling the constant development of the Moldovan winemaking.

### **The post-war boom and the devastating effect of anti-alcohol policies**

In the aftermath of the World War II, Moldovan vineyards began to recover, due to a large campaign of vine planting in the 1950s. By 1960 the total area under vines was 220 thousand hectares. For the next 20 years Moldova had the largest wine production among the Union republics. Every second bottle of wine and every third bottle of sparkling wine were produced in Moldova.

In the sixth decade of the last century, the wine factories were restored, then in the seventh decade, more attention was paid to quarries and cellars. Their galleries have been consolidated, enlarged, organized. Cricova, Milestii Mici, Branesti are currently the largest underground production storage facilities of their kind. They typify whole cities with streets that extend for hundreds of kilometers and host storage spaces for sparkling wines, an estimated 30 thousand tonnes of varietal wines and 2 million collection bottles.

In the mid-1980s, the Moldovan wine industry was hit again, this time by the alcohol prohibition campaign promoted by the Secretary of the USSR CP Mikhail Gorbachev. The prohibition started in 1985, together with the decree issued by Moscow on combating alcoholism in the USSR, which caused the destruction of the vine plantations in different localities and diminished the image of Moldovan wines on the traditional markets. Many of the vineyards were cut down and the wines destroyed.

### **The country's independence, the Russian embargoes and the redefinition of the sector**

Following the declaration of independence from the Soviet Union in 1991, the wine industry began its difficult road to recovery. By the mid-1990s, wineries were privatized, and new owners began to invest in modern equipment. Considerable investments in vineyard plantations were made between 2000-2005, when many wineries decided to plant European clones of popular varieties.

By 2006 indicators characterizing the Moldovan wine industry were apparent evidence of a substantial economic contribution. In reality it reflected the dependence on a single market - that of the Russian Federation. The negative aspects of this lack of diversification of the markets were felt with the loss of hundreds of millions of dollars generated by the multiple embargoes imposed by Russia since 2006. The Russian embargo of 2006 produced a substantial shock for the wine sector and the national economy as a whole. The impact was drastic and immediate. Thus, if in 2005 wine production contributed cca. 9% to the formation of GDP, in 2007 this indicator was estimated at 2.3%. In the following years, winemakers made considerable efforts to penetrate new markets through their own means. However, in the autumn of 2013, the Russian Federation hit Moldova again through its "war ministry" - the Russian sanitary service that announced the ban on imports of Moldovan wines on 10 September 2013.

The Russian embargoes, but also the globalization conditions, openness to the rest of the world and the competitiveness of foreign markets drove the domestic wine sector to move to another level of customer relations, with increasingly refined taste and high quality technical demands. The wine sector has thus managed to reposition itself in relation to external markets and consolidate around an ambitious working agenda. Winemaking committed to a strategic framework of activity with clear laws and separate institutional responsibilities for the industry relaunch and sustainable development.

As a result, in the last decade, the wine industry in the Republic of Moldova has undergone significant transformations by changing the development paradigm of the sector. This fact is visible through several elements:

- Moldova is gradually **transitioning** out of its reputation from the soviet period as a raw material producer towards **a structurally improved quality wine production**, sold increasingly in bottles and with higher added value.
- The times when Moldova depended on the Russian market with over 80 percent are in the past. **Today the export structure is extremely diversified:** in 2018 Moldova carried out exports of more than one million dollars in 18 states.
- Diversification is the principal word also among the producers through the emergence of numerous small wineries, which produce wine with high added value and / or combine with tourist activities.

These developments were largely due to two main factors:

- Creation of a **National Brand** for Moldovan wine to increase its competitiveness on export markets.
- Creation of **the National Office of Vine and Wine (NOVW)** – a functional structure created based on best international practices, which manages the Brand and serves the interests of winemakers. As a public-private entity, the NOVW can act independently and its initiatives can overcome the political interference more easily.



## 03 Institutional framework of the wine sector

### Key institutions and tasks

According to the legislation in effect, the **state policy in the wine sector** is developed and promoted by the Ministry of Agriculture, Regional Development and the Environment (MARDE). Its policies are **implemented** through the National Office of Vine and Wine (NOVW).

The principal objective of the MARDE is the **modernization of the wine sector in order to increase its competitiveness and boost the exports of wine products**. The priority areas of intervention in achieving these objective are:

- improving the legislative-normative base in the field and harmonizing it with the EU legislative framework;
- streamlining the activity of the branch management system;
- reorganization and modernization of the winegrowing sector;
- support winegrowing producers.

The NOVW is a public institution within the MARDE and has legal entity status. The Office is mandated with the following main tasks:

- implementation of state policies in the field of viticultural nursery, viticulture, wine making and circulation, must- and wine-based products, wine by-products and products obtained by capitalizing on wine by-products;
- promoting the marketing of wine products on domestic and foreign markets;
- submitting proposals regarding the elaboration and improvement of the legislation on the manufacture and circulation of wine products;
- establishing the rules and managing the use of wine country brand
- carrying out sectoral analyses to ensure the strategic development of the wine sector;
- managing the manufacture of vine and wine products with protected geographical indication (PGI) and protected designation of origin (PDO) pursuant to the technical regulations approved by the Government;
- monitoring the production potential, including the setting up and grubbing up of vineyards; keeping records of the vine and wine sector.



Both from a management and financial point of view, the NOVW is a structure that combines the public-private partnership. Thereby, the governing bodies of the Office are the director and the Coordination Council - the NOVW superior collegial body that supervises its work, approves the activity plan, the budget and the reports of the Office. The decisions of the Council are adopted by a simple majority of votes of the elected members. The Coordination Council is composed of 13 members and includes:

- 3 representatives of the Ministry of Agriculture, Regional Development and Environment
- 2 representatives of the Wine Association of the Designated Geographical Region "Codru" and 2 representatives of the Association of Wine Producers with Protected Geographical Indication "Stefan Voda".
- 3 representatives of the Wine Union of the Designated Geographical Region "Valul lui Traian"
- One representative each from the Association of Wine Producers with Protected Geographical Indication "Bălți", Moldova Divine and Brandy Producers Association and the Association of Vine Nurseries.

The Office's activity is financed by the Vine and Wine Fund (VWF). Its main financing sources are as follows:

- Mandatory contributions of vine and wine producers;
- Funds allocated from the state budget approved annually through the state budget law, in the amount equal to the sum of the contributions made pursuant to letter a) in the previous year, which may not exceed 5% of the subsidizing fund of farm producers.

Mandatory contributions to the Fund are made by:

- producers of grafted vine for the production of grapes intended for the manufacture of vine and wine products;
- winemakers;
- producers of wine-based beverages, of wine-based products.

The fund resources are used in strict accordance with the annual budget of the Office and with its activity plan, approved by the Coordination Council, for:

- promotion of export of vine and wine products, market research and analysis;
- implementation of viticulture and vinification development programmes;
- elaboration and implementation of projects, investment programs and technical assistance in the vine and wine sector;
- transfer of technologies and know-how;
- carrying out sectoral analyses;
- carrying out training programs;

- development and implementation of programs to ensure the conformity and quality of vine and wine products;
- managing the production of wines with protected geographical indication, protected designation of origin and with country brand;
- staff remuneration and financing of current expenses related to the statutory activity of the Office;
- providing consultancy regarding the vine and wine sector.

Up to 2017 the **state supervision and control** over the execution of the requirements pursuant to the laws and to the technical regulations in effect on wine products were carried out by the State Inspectorate for the supervision of alcoholic production. The Inspectorate was subsequently absorbed by the National Agency for Food Safety (NAFS) and established as the Division on Safety and Quality Control of Wine products, ethyl Alcohol, Beer and Alcohol production. The Division has been attributed the following tasks:

- supervision of compliance with the laws on the manufacture of wine products at all stages of technological process
- exercise control over businesses on their compliance with the legal provisions in the manufacture and/or maintenance and/or wholesale of wines, must- and wine-based products, wine by-products and the products obtained through capitalization of wine by-products;
- carries out inspections on compliance regarding the labeling of wines, products obtained from must and wine products, as well as the use of protected designations of origin and protected geographical indications;
- verifies the tightness of the installations for the manufacture of wine-based products;
- carries out controls on the setting up and grubbing up of vineyards;
- verifies the accuracy of the indices presented in wine declarations and the traceability of wine products;
- verifies the production of wines with protected designation of origin and of wines with protected geographical indication;
- participates alongside other authorized bodies in actions initiated by these, as provided by law, including inspections regarding the quality of wine products in retail and public food networks.

## Regulatory framework

Overall, the main elements that constitute the legislative-normative basis of the wine sector are represented by the following normative acts:

- Law no. 1100-XIV of 30.06.2000 on the manufacture and circulation of ethyl alcohol and alcoholic production;
- Law on vine and wine no. 57 of 10.03.2006, with subsequent amendments and completions;
- Technical regulation "Organization of the wine market", approved by Government Decision no. 316 of 11.06.2015;
- Technical regulation "Definition, description, presentation and labeling of alcoholic beverages", approved by Government Decision no. 317 of 23.05.2012;
- Technical regulation "Definition, description, presentation and labeling of aromatised wine products", approved by the Government Decision no. 741 of 18.09.2017;
- Technical regulation "Manufacture, certification, quality control and marketing of vine propagating and planting material", approved by Government Decision no. 418 of 09.07.2009 (Official Gazette of the Republic of Moldova, 2010, no. 112-114, art. 480).
- Regulation on the method used to keep the Vine and Wine Register of the Republic of Moldova, approved by the Government Decision no. 292 of 10.05.2017

According to the latest changes in the Law on vine and wine of 2017, Wine is a "food product obtained exclusively by total or partial alcoholic fermentation of fresh or frozen grapes, crushed or not, or of the fresh grape must".

The main classification of wines is divided into 4 categories:

1. wine with protected designation of origin (PDO);
2. wine with protected geographical indication (PGI);
3. wine without a protected designation of origin or a protected geographical indication, but with a variety name, designated a *varietal wine*;
4. wine without a protected designation of origin, without a protected geographical indication and without a variety denomination, designated as *wine*.

Another notable event in the development of the sector in the last years in terms of normative framework was the approval in 2017 of the Regulation on the method of maintaining the Vine and Wine Register (VWR) of the Republic of Moldova, which establishes the registration process of vineyards and the winery units. VWR consists of two components:

- data storage on vineyards - provides for the registration and record-keeping of vineyards with a surface area above 0.15 ha, both for wine and table grape varieties;
- data storage on wineries - registration and record-keeping of winery units;

The registration with the Vine and Wine Register is compulsory for all economic agents (natural or legal persons) that operate in this field and is carried out free of charge.

### **Supporting vine and wine producers**

Vineyards and wineries in the country are encouraged to work and invest in the sector via the National Fund for Agriculture and Rural Development approved by Government Decision no. 455 from 21.06.2017, also available throughout 2017-2021. The Fund is administered by the Agency for Intervention and Payments for Agriculture (AIPA). Some of the subventions granted by the Fund are as follows:

- Grubbing up of vineyard plantations – 10 thousand MDL/ha;
- Setting-up plantations with grape varieties for wine with the density of vines per hectare:
  - up to 3 000 – 15 thousand MDL/ha;
  - 3 001 to 3 500 – 30 thousand MDL/ha;
  - 3 501 to 4 000 – 35 thousand MDL/ha;
  - over 4001 – 40 thousand MDL/ha;

The setting up of wine grape vineyards can also benefit from increased subsidies:

1. compact with an area of at least 40 ha on flat land and 25 ha on sloping land - 2.5 thousand MDL/ha;
2. intended for the manufacture of wine products with a protected geographical indication / protected designation of origin – 5,0 thousand MDL/ha;
3. with wine varieties requested on grape markets and with varieties for local wine (Feteasca group, Rara Neagra, Viorica), whose list is approved by MARDE upon proposal by associations in the field and by the NOVW – 2,5 thousand MDL/ha;
4. with planting material of "certified" category, with locally produced planting material – 2,5 thousand MDL/ha.

Support is also provided for the installation of modern support systems in young vineyards of all categories, suited to the use of products (grapes, scions and rootstock). Modernization of support systems in fruit bearing plantations / productive plantations, depending on type of support systems is also subsidised:

- a) „Pergola/Tendon” – 100 thousand MDL/ha and 120 thousand MDL/ha respectively;
- b) „Gable” – 40 thousand MDL/ha and 50 thousand MDL/ha respectively;

- c) vertical trellis with metal alloy stakes, plastics; fastening and tensioning devices – 30 thousand MDL/ha and 35 thousand MDL/ha respectively;
- d) vertical trellis with wooden posts, treated with antiseptics; fastening and tensioning devices – 25 thousand MDL/ha and 30 thousand MDL/ha respectively;
- e) common vertical trellis with new posts of reinforced concrete or wood – 20 thousand MDL/ha;

Also, the public subsidy fund stimulates wineries to invest in machinery and technological equipment used in a set or separately for the processing of wine grape varieties. The equipping of winery units with machines is subsidized 40% of the value of the equipment, but not exceeding 5 mil. MDL.

## 04 Winegrowing regions. Local grape varieties

### Winegrowing regions

Although it has a small surface area, the wines produced by Moldova on its territory have distinguished characteristics, favoured by certain natural and human factors (terroir), which make them unique and unrepeatable. Experts distinguish at least four winegrowing regions on the territory of Moldova: Central, Southern, South-Eastern and Northern regions.

Currently, the Law no. 57 on Vineyards and wine of 10 March 2006 delimits the winegrowing regions (zones), centres (raions) and plateaus (microraions) as areas for the cultivation of wine grape varieties and wine manufacturing.

The decision regarding the creation of four winegrowing areas, which include the following geographical indications: Valul lui Traian, Stefan-Voda, Codru and Balti was taken on 7 April 2011, in an ordinary meeting that included scholars in the field of wine, representatives of the associations of producers and exporters of grapes, wines, other alcoholic beverages.

As a result, throughout 2011 and 2012, 4 Producer Associations that manufacture PGI products (Codru, Ștefan-Voda, Valul lui Traian and Divin) were created by producers engaged in viticulture and winemaking. Said producers operate in the designated geographical area. Most of them built a name for themselves over the years and through tradition became well-known both in the country and abroad.

In 2013, the National Office of Vine and Wine (NOVW) was created, which committed to supporting the wine sector by diversifying the markets and increasing the exports of quality wines. A series of structural reforms, implemented by the National Office of Vine and Wine, redirected the wine industry of Moldova towards a new approach and brought with it a significant leap in quality.

Since 2013 Moldova has adopted a quality system based on the EU model of protected geographical indications (PGI), established around three traditional regions of vine cultivation and based on research on climate differences and growing conditions. The concerned regions were Valul lui Traian, Stefan-Voda and Codru, plus a special geographical name for wine distillates called Divin.

Also in 2013 the State Agency for Intellectual Property (AGEPI) issued certificates on the right to use the protected geographical indications on behalf of the 4 Associations.

Thereby, the four geographical indications obtained protection on the territory of the Republic of Moldova. However, the wineries were not able to instantly produce wines with a geographical indication, as no technical regulation was approved in this regard.

The technical regulation "Organization of the winegrowing market" was approved by the Government in July 2015. Winemakers were therefore entitled to produce such wines starting with the harvest of 2015. In the first year 1.6 million bottles of PGI-quality wine were produced.

As of 18 October 2016, the geographical indications designating three winegrowing areas of the Republic of Moldova: Valul lui Traian, Codru, Stefan-Voda but also Divin (used for "aged wine spirit", manufactured in the whole country), obtained protection on the territory of the European Union.

Winemakers are aware that producing wines that correspond to the geographical indications would require greater effort, but that more competitive products would also help them access the European market. The observance of geographical indications is a recognized standard in Europe. Aligning with these standards would stimulate the export of Moldovan wines to the European Community market.

In order to comply with the requirements laid down by the European regulations regarding record-keeping and traceability of wine products, in 2016 Moldova established the technical concept of the automated information system "Vine and Wine Register" (AIS VWR). In 2017 the Regulation on the record-keeping method of the Vine and Wine Register was approved. With the help of VWR, wineries and the vineyard plantations are monitored to obtain more transparency in the production process, with a view to remove doubts regarding the quality or origin of the wine. The register contains information on vineyard plantations and wine entities.

The surface of the vineyards growing wine grape varieties registered in the Vine and Wine Register amounted to 30,000 ha in 2018, an increase by 40% compared to the same period of the previous year.

In 2018 the surface area of plantations growing wine grape varieties with Protected Geographical Indication increased by 22%, to 9,200 ha. At the same time, the number of winemakers who produce PGI wines increased to 71 or by 15%, most of them registered in the "Valul lui Traian" PGI Region (35%).

### PGI "Valul lui Traian"

This geographical area demarcated for the production of PGI "Valul lui Traian" wines is located within the Southern winegrowing region of the Republic of Moldova and includes the following wine centres: Leova, Cantemir, Cahul, Comrat, Ceadâr-Lunga, Taraclia and Vulcanesti.

The geographical area covers nearly **43.2 thousand ha**, with cca. **3,200 ha** undertaken by the association **for the production of PGI "Valul lui Traian" wines**.



The area expands annually with the increasing credibility of the PGI system among producers and consumers.

The name of the geographical area was inspired by the presence on this territory of the largest and oldest historical monument - Traian's Wall, a fortification of the late ancient period which some specialists say represents either a demarcation point between Romans and the "barbarian" world or remnants of the defensive constructions from the Trajan times. Trajan's Wall was documented in 1489.

The quality, reputation and distinctive organoleptic characteristics of the PGI "Valul lui Traian" wines are favored by natural and human factors (soil, climate, pedology, variety, traditions, know-how, etc.), which ensure the specificity of a wine (being unique and unrepeatable). The combination of these elements is called **terroir**.

The **soils** are well aerated, but light, with limited productivity, which ensures quality and ripening of the grapes at harvest.

The specific **climate** offers significant sunshine period, with high temperatures tempered by the proximity of the Black Sea, but also by the massive forests of the Tigheci Hill.

The **exceptional quality** of grapes and wines is ensured by the human capital of the region, which combines the traditions and rational use of the new technologies of wine manufacturing.

### Historical aspects

The Valul lui Traian historical monument consists of two ramifications: the upper and the lower wall. The lower Traian wall is about 126 km long and stretches from the village of Vadul lui Isac to the city of Tatarbunar on the territory of Ukraine. The upper Traian wall is 138 km long and stretches between the city of Leova (west) and the village of Copanca (east). The height of the wall does not exceed 1.5-4 meters.

The designated geographical area "Valul lui Traian" comprises **3 microregions**:

- **Colinele Tigheciului (Tigheci Hills)** – strongly fragmented relief, maximum altitude at 300 m, soft alfisol soils and mollic chernozomes.
- **Câmpia Bugeacului (Bugeac Plain)** – relief consisting of valleys and ravines, low flow rivers, mostly typical chernozems with a moderate humus content and carbonate chernozems. Saline soils are present in the river beds.
- **Terasele Prutului (Prut Terraces)** – relief covered mostly by terraces of 200-220 m. altitude. Soft alfisol and mollic chernozomes soils.

**Red wines account for 60% of the production volume.** White and rosé wines account for 35% and 5% respectively. One of the **main characteristics is the use of local varieties for blending**, such as Feteasca Alba and Feteasca Regala, which give the final product typical fruity, floral notes and a fresh and lively taste.

In the Valul lui Traian region, top 10 varieties include Cabernet Sauvignon (896 ha), Merlot (693 ha), Sauvignon (371 ha), Chardonnay (300 ha), Muscat Ottonel (210 ha), Saperavi (132 ha), Aligote (100 ha) Feteasca Neagră (56 ha), Riesling (55 ha) and Pinot Gris (53 ha).



The protected geographical indication (PGI) **"Valul lui Traian"** is the **cradle of fortified wines** in Moldova, such as **Ciumai, Trifești, Borceag, Slobozia Mare.**

### **PGI "Stefan Voda"**

The geographical area demarcated for the production of PGI "Stefan-Voda" wines is regarded as the **"birthplace" of the Rara Neagră variety**. The area extends in the South-Eastern wine region of the Republic of Moldova and comprises Stefan-Voda, Căușeni, Basarabeasca and Cîmislia wine centres.

This geographical area covers nearly **10 thousand ha** with cca. **1,100 ha** undertaken by the association for the **production of "Stefan Voda" PGI wines**, but it expands annually with the increasing credibility of the PGI system among producers and consumers.

The quality, reputation and distinctive organoleptic characteristics of the PGI "Stefan-Voda" wines are favored by natural and human factors (soil, climate, pedology, varieties, traditions, etc.). The combination of these elements is called **terroir**.

The **relief** consists of plains, hills and terraces along the Nistru river. The region is distinguished by the climatic zone identical to that of the Bordeaux region (France).

The **climate**, sunny and with limited rainfall, is influenced by the breeze of the Black Sea and the Nistru River. The aquatic surface forms a microclimate conducive to the cultivation of grape vines, especially black berry varieties. It is not by chance that the saying emerged that "great wines grow along great rivers".

### **Curiosities**

The Babeasca Neagra variety has been known over time under several names: Rara Neagră, Cracana, Caldarușă, Raschirata. In Romania this variety is called Babeasca Neagra, in Ukraine - Serecsia.

-----  
According to Ion Neculce's Chronicle, this variety was one of Stefan cel Mare's favourite wines: "Cracana de Nicorești is a liquor for the more sinful saints, like us".  
-----

The Babeasca Neagra got its name during the rule of Stefan cel Mare: during the vineyard harvesting period, Stefan cel Mare set out on the road throughout the country accompanied by his guardsmen. One evening, the chief guardman allowed one of the soldiers to see his lover, who lived in Nicorești (ed. today Galați county), provided that he returned at dawn. On his way back, the soldier was stopped by an old woman. She offered him a glass of wine in memory of his son who was killed by the Turks. Because he could not be late, the soldier refused, but the old woman insisted on giving him two flasks of wine to take to the other soldiers. The soldier arrived back at dawn, but Ștefan cel Mare noticed that he had been missing all night. The soldier revealed the reason he left and in order to appease the ruler, offered him some of the wine he had brought from Nicorești. Stefan liked the wine and, after learning that it had been sent by an old woman from Nicorești, said: "Well, then let's call it Babeasca de Nicorești (Grandmother's Black from Nicorești) and let's empty another cup".

The **soils** are brown and podzolic, common and carbonate chernozems, rich in humus and microelements. The region is located 120-160 metres above sea level.

The conventional **technology** is passed down from generation to generation, but it also successfully combines with modern technology.

In the Stefan-Voda region, we can see that the ratio between red and white grapes changes slightly. The share of white grapes is slightly increasing - 42%, of the red grapes - 58%.

In the top ten, Cabernet Sauvignon preserves the leading spot, but second place is currently occupied by Chardonnay, pushing Merlot to third position. Next are Sauvignon, Pinot Gris, Muscat Ottonel, Malbec, Saperavi, Traminer and Rara Neagra.

## PGI "Codru"

**"Codru"** is one of the four wine regions with Protected Geographical Indication in Moldova. The Russian Romanov family founded in this place their own winery. Here, the taste of dozens of types of wine is intertwined with the history.

The geographical area demarcated for the production of "Codru" PGI wines lies in the Central, South-Eastern and Northern winegrowing regions of the Republic of Moldova. It includes the following wine centres: Hîncești, Razeni, Ialoveni, Bulboaca, Chișinău, Romanеști, Nisporeni, Calarasi, Orhei, Telenești, Dubasari, Tiraspol, Fălești, Bălți and Rascov.

This geographical area covers nearly **61.2 thousand ha**, with cca. **2,300 ha** undertaken by the association **for the production of "Codru" PGI wines**, but it expands annually with the increasing credibility of the PGI system among producers and consumers.

The quality and uniqueness of the "Codru" PGI wines are favored by factors such as soil, climate, pedology, variety, traditions, etc. The combination of these features is called **terroir**.

## Curiosities

The Russian imperial family Romanov established their own winery in the village of Romanеști (Straseni). The production has conquered refined admirers from all over Europe - both sovereigns, aristocrats, politicians as well as the common folk.

The largest underground galleries storing Codru wines are located in Cricova, Milestii Mici and Branesti. They cover an area of hundreds of kilometers and include storage space for more than 2 million bottles of collection wines.

Cuttings of new progressive varieties were planted on the territory of our country in the 19th century. Brought from France by one of the best winemakers - P.C. Cazimir - the cuttings were planted on his estate nearby Milestii Mici. The abandoned stone quarries served as warehouses for the ready production.

The **soils** are well aerated, light, suitable for growing vineyards, especially white grape varieties. The region has a diversity of soils (alfisol, brown, common chernozem, typical, stannic and cambic) and microclimates.

The **relief** is fragmented by a network of valleys, dales, ravines, but mostly by slopes, ridges and hills, intersected by streams and small rivers.

The **climate** is mild, with the average annual temperature of 10-12 degrees Celsius, suitable for exceptional grape ripening conditions, with 2,100-2,200 hours of sunshine annually and the sum of active temperatures of 2900-3100°C.

The average annual **rainfall** is 550-700 mm, including active rainfall of 300-400 mm.

The average **height** of the vineyards is 150-250 metres, mainly on the southern slopes facing west and east.

The **spontaneous vegetation** occupies almost 25% of the designated geographical region (forests of oak and beech, oak and hornbeam, ash, maple, linden).

Surprisingly, the Codru region, a cooler region compared to Stefan-Voda, is dominated by the same variety - Cabernet - which occupies the largest area - 335 hectares. Top 10 include Chardonnay (334 ha), Riesling (260 ha), Sauvignon (218 ha), Merlot (209 ha), Aligote (159 ha), Muscat Ottonel (147 ha), Pinot Noir (124 ha), Rkatsiteli (123 ha), Feteasca Alba (40 ha). Here, white varieties (63%) surpass the red ones (37%).

### PGI "Divin"

Wine spirits (rachiu), cognac and divin are product names that evolved over time with the technological progress. "Divin" became both the name of the production and the country brand in order to avoid confusion with the related drink in France - "cognac", but also to highlight the specificity, personality and originality of this liquor which, at the end of the 20th century, becomes known as the Moldovan divin.

**The geographical area designated for the production of wine spirits with protected geographical indication (PGI) "Divin" extends throughout the entire territory of Moldova**, between the continental area, located to the north among the Carpathian plateaus, covering the Codru region in the centre, and to the south - the Bugeac steppes.

The quality, reputation and distinctive organoleptic characteristics of the PGI wine spirit Divin are favoured by natural and human factors (soil, climate, pedology, variety, traditions, know-how, etc.), which together are called terroir.

The **relief** is strongly fragmented with a network of valleys, dales and ravines.

The **climate**, influenced by Prut and Nistru rivers, provides optimum conditions for grape ripening.

Alfisol, common chernozems, typical, stannic and cambic **soils**, well aerated and light in the North and Central regions, are heavier and richer compared to those in the South and East.

The average **height** of the plantations is 150-250 m.

Spontaneous **vegetation** well preserved and spread over relatively large areas. The presence of aquatic sources, but also the specific relief ensures a positive impact on the quality and health conditions of the grapes.

The PGI-quality wine spirit "Divin" is obtained from the wine produced from European and indigenous vine varieties cultivated in Moldova, distilled in traditional distillation installations and aged at least 3 years in contact with oak wood.

The distillates used for the divin are obtained through fractional distillation of the dry wine as raw material, produced exclusively from grapes of authorized varieties, grown in the winegrowing regions of the Republic of Moldova.

The following varieties of grapes grown on the territory of the Republic of Moldova are used as raw material for the Divin distillate: Aligote, Chardonnay, Feteasca Alba, Luminita, Pervenet Magaracea, grup Pinot, Riesling de Rhin, Riton, Rkațiteli, Sauvignon, Silvaner, Suholimanski belii, Ugni Blanc, Bianca, Alb de Onitcani, Alb de Suruceni, as well as a mixture of these varieties.

The PGI wine spirit "Divin" has a pleasant, glossy appearance, with no particles in suspension and no sediment. Its colour varies from light golden to amber, depending on the stage of maturation, with an impressive bouquet of flower, fruit and ether tints in the first years of aging, which are complemented by flavours of vanilla, chocolate, balsam, aromatic wood, coconut, coffee beans as the aging period increases.

### Curiosities

Between 1896 and 1929 the first factories producing wine spirits were founded. In the post-war period, these units were equipped with high-performance production equipment, which increased the quality of the finished product. During this period the most valuable batches of wine spirits were produced, which today have a minimum maturation period of 40 years, such as President, Aroma, Ambassador, Calarasi, etc.

---

In 1925 - the heir prince of Romania Carol II, and in 1963 - the first explorer of the cosmos - Iurii Gagarin, as well as other prominent personalities of the time tasted and praised the golden liquor of Moldova.

----

In 1990, the total volume of distillate stored to mature amounted to around 3 mil. dal absolute alcohol, of which 70% were distillates with a maturity of 3-7 years. The remaining 30% were distillates with an aging period of 15, 20, 30 and 40 years. This potential allowed for the launch of high quality products on the market, of wine spirits of different maturation periods, aged even 50 years after the 2000s.

Depending on the quality and aging period of the distillates the PGI wine spirit "Divin" may belong to the following categories

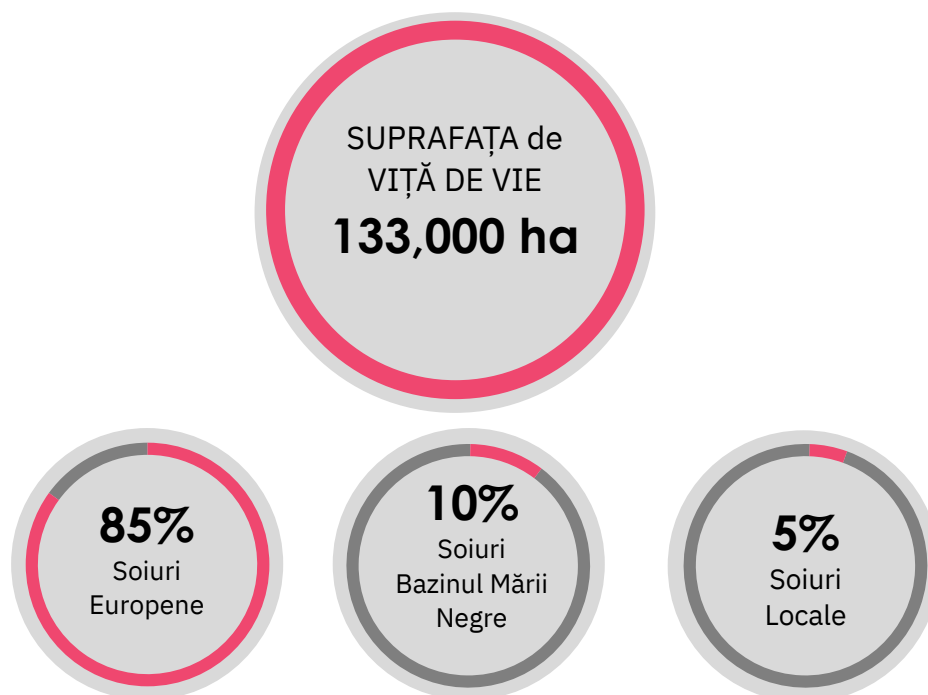
- V.S. (Very Special) – minimum aging period of 3 years;
- V.S.O.P. (Very Super Old Pale) – minimum aging period of 5 years;
- X.O. (Extra Old) – minimum aging period of 7 years;
- X.X.O. (Extra Extra Old) – minimum aging period of 20 years.

## Local grape varieties

The viticulture of the Republic of Moldova is in line with the world trends, covering varieties originating from Western Europe, the Black Sea Basin, but also native types.

The vineyards cultivated with technical (wine) varieties of noble vines *Vitis Vinifera* spread on 81 thousand ha. Of these, 70% are planted with white varieties (Rkatsiteli, Sauvignon Blanc, Chardonnay, Aligote, etc.), located mainly in the Codru region. 30% are red varieties (Cabernet Sauvignon, Merlot, Pinot Noir, Saperavi and others), usually grown in the southern regions. The aromatic varieties occupy about 1/3 of the vineyards.

**Figure 1: Grape varieties in Moldova**



Source: ONVV și BNS

The authenticity and the unique character of the Moldovan wine are ensured by the local varieties, such as Feteasca Alba, Feteasca Regala, Feteasca Neagră, Rara Neagră, Plavai, Viorica, etc., which cover 5% of the areas. They are continually expanding, on the account of the growing interest of international consumers, but also due to the support from various sectoral programs.



**Feteasca Alba** is a traditional Romanian and Moldovan grape variety, grown in most vineyards on the territory of the country. It produces dry or semi-dry wines, with a moderate alcohol content (11.5-12%), acidity and sugar and a natural finesse.

Feteasca Alba produces a fine and elegant, velvety, ample wine with floral, light and fresh flavours. Wines aged in oak barrels and bottles have a bouquet flavour close to that of dried fruits. Feteasca Alba that is cultivated in a cooler temperate climate produces a wine with higher acidity, while having a special freshness and fruitiness. A special feature of the variety is the very high accumulation of sugar in the berry, which places it among the first in the world from this point of view. The amount of sugar accumulated in grapes is typically 180-220 g/l of must. In this variety, it can reach up to 240-250 g/l and even 270 g/l, in over-ripening conditions.

Among the local wineries that produce wine of this variety we can point out **Cricova, Chateau Vartely, Vinăria din Vale, Equinox, Carpe Diem** or **Mimi**.

**Feteasca Regala** it is a white grape variety. The variety is a cross between Feteasca Albă and Grasa de Cotnari. It is relatively young variety, brought on the territory of Romania and Moldova after 1920. Today it is cultivated on large areas. It has medium growth vigor and high fertility, with 80-85% of its shoots being fertile. It recovers easily from weather injuries.

It is a variety with a medium resistance to frost, but it is sensitive to drought. The amount of sugar accumulated in the grape - from 170 - 180 g/l up to 200 - 210 g/l; the overripe capacity is much lower. Feteasca Regala is customarily used to produce table wines, also dry superior wines, raw material wines for sparkling and aged wine distillates. Colour: white-greenish, with pale yellow or yellow-green tinges that change to straw-yellow or golden-yellow as it matures. Moderate strength ranging between 10-12,5%.

Acidity levels of 4.5-6 g/l, sometimes up to 7.5 g/l - ideally suited to give this wine a special flavour, a good balance and a well-defined taste. Feteasca Regala wines are dry and fresh and retain the elegance of the rosé, the wild flower, the dried apricot and the almond flavours.

Among the local wineries that produce wine of this variety we can highlight **Cricova, Chateau Vartely, Gitana, Vinăria Dac, Equinox** and **Carpe Diem**.

**Feteasca Neagra** is an old indigenous grape variety, originally from Prut River valley, used in the production of the wine with the same name. It is cultivated in various regions in our country and is a very vigorous variety, frost and drought resistant. Feteasca Neagra grapes ripen fully starting from September 10th. The grapes accumulate 200-220 g/l of sugar, but can be harvested later when they reach up to 260g sugar.

Wine colour vary from bright ruby to intense red with ruby tints. The wine captivates with the complexity of the aromatic bouquet of berries, sweet bitter cherries, and the long aftertaste of fruits. Feteasca Neagră wines gain more quality by aging in wooden

barrels for up to 2-3 years and aging in bottles for up to 10-12 years, the period also depending significantly on the vintage. This variety makes dry, semi-dry or sweet wines with an alcohol content of about 12-12.5%.

Some of the wineries that produce wines of this variety are **Cricova, Chateau Vartely and Carpe Diem.**

**Rara Neagră** it is a unique variety, cultivated since Geto-Dacians, considered a very rare variety, perfectly adapted to the warm slopes of southern Moldova. In Romania it is known mainly as Babeasca Neagră. The red wines produced by this variety are difficult to mature, but are very sought after due to their pleasant taste. It is the most expensive wine and can be qualified as a business card of Moldova. Viticulture experts say that many companies have tried to cultivate this variety, but its most favourable growth area is southern Moldova. It is a very fertile variety, which ensures great grape production. It has a very developed root system and is drought resistant. Ripe bunches are "branchy", with different-sized loose berries; full ripening in the second half of September.

The wine develops an elegant ruby colour with pomegranate hints. Its taste is full, velvety, with notes of dried fruit and vanilla.

Rara Neagră is an important component in the blend of the most famous Purcari wine, Negru de Purcari. Other wineries that grow this variety are Cricova, Milestii Mici, Equinox and Carlevana.

Another variety that is worth mentioning is **Viorica**. It has recently been included in the European assortment of grape varieties. It is perfectly adapted to the climate of Moldova and gave the largest harvest during the drought in 2012. In recent years Cricova Winery has started to actively produce wines of this variety.

The grape varieties described above are only part of those grown on the territory of our country. All indigenous varieties are of particular importance for the development of the wine industry in the Republic of Moldova: they lay the path for Moldovan wines on the international market, as each producer seeks to find an original taste to represent the country.

## 05 Winery profiles

According to the "The 2018 vintage" report by NOVW, at year-end 2018, 187 winemaking units were registered with the Vine and Wine Register. Of these, 68 were also vineyard owners. They owned 36% of the total area growing wine grapes, an average of 220 ha of vineyards each.

In 2018, 106 wineries submitted production declarations to the NOVW and 110 wineries have reported statistical and financial data to the NBS during the last 2-3 years<sup>1</sup>. We can hereby conclude that a relevant analysis of the winery profiles can be carried out based on the 110 wineries, which operate regularly, on a yearly basis.

The profile of a winery can be made by taking into account a number of criteria, such as:

1. Location of wineries (wine-growing regions);
2. Form of ownership;
3. Production capacity (processing of wine grapes);
4. Categories of wines produced.

### 1. Geographical location

Half of the wineries (51%) are located in the Central wine region. Among the best known wineries here are Cricova, Milestii Mici and Branesti, which have ideal conditions for wine storing and aging and storage capacity of up to millions of decalitres.

About 30% of the wineries are concentrated in the Southern wine region. Wineries such as Bostovan, Fautor, Vinia-Traian or DK Intertrade operate in this area.

About 19% of the wineries are located in the South-Eastern wine region. Among the most popular wineries here are Purcari, Suvorov-Vin, Salcuta.

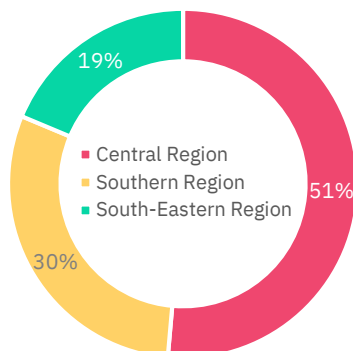
The highest degree of fragmentation of plantations is found in the Central wine region, compared with the Southern region. Although the Central wine region has the largest area under vines, only 6.4 thousand ha of the winegrape vineyards are managed by agricultural enterprises and farming households that own at least 10 ha agricultural land, compared with 13.3 thousand ha in the Southern wine region.

---

<sup>1</sup> This difference is explained by the fact that the VWR contains many farming households, with areas between 0.15 and 10 ha, which are VAT exempted, carry out simplified bookkeeping and are not obliged to report data to the NBS. However, they are required to register with the VWR (maintained by the NOVW) if they wish to benefit from state subsidies.



**Figure 2: Geographical location of the wineries in Moldova**



**Source:** NBS, NOVW and authors' calculations

## 2. Form of ownership

The state is the sole shareholder in only four companies: JSC "Cricova Winery", JSC "Milestii Mici", divin and brandy companies JSC "Barza Albă" and JSC "AROMA" (currently undergoing restructuring). The state owns 60.4% of the JSC Vinuri-Ialoveni.

Most wineries (cca. 75%) are owned by local private investors. Foreign investments are prominent in the winegrowing sector. An estimated 25 wineries (22% of the total) are 100% owned by foreign investors or co-owned with local investors.

Among the wineries that are 100% - owned by foreign investors are Purcari, DK-Intertrade, Bulgari Winery or Barza Neagră Group. Some of the most famous wineries in shared ownership are Bostovan, Vinia Traian, Chateau Vartely, Kazayak-Vin or Dionysos-Mereni.

## 3. Production capacity (processing of wine grapes)

According to the VWR data held by the NOVW, the wine sector is dominated by micro, small and medium-sized wineries.

In 2018 most wineries (51 or 46%) processed up to 1,000 tonnes of wine grapes each. Of these, 41 (or 37% of the total) processed up to 500 tonnes, and 10 wineries (9%) - between 501 and 1,000 tonnes of wine grapes.

Medium-sized wineries that processed between 1,000 and 10,000 tonnes each are as numerous (52 or 47%) as the micro and small ones. Thus, 35 wineries (32% of the total) processed between 1,001 and 5,000 tonnes in 2018, and another 17 (15%) wineries processed between 5,001 and 10,000 tonnes of grapes.

About 6% of wineries can be classified as large winemaking companies. Each of them processed over 10,000 tonnes of wine grapes in 2018.

**Table 1: Number of wineries by volume of processed grapes (tonnes)**

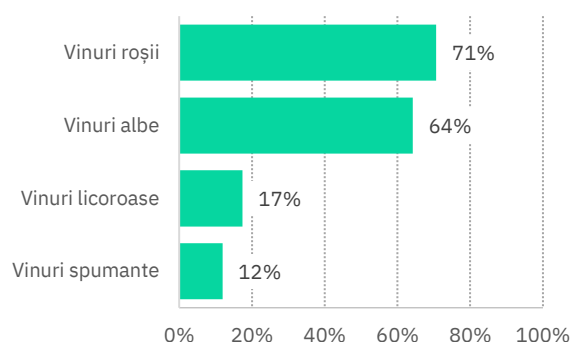
Processed grapes, tonnes	2013	2014	2015	2016	2017	2018
> 10,001	7	3	2	4	7	7
5,001 – 10,000	15	11	11	11	15	17
1,001 – 5,000	50	35	35	28	34	35
501 – 1,000	8	9	19	9	10	10
51-500	27	29	26	26	28	36
< 50	10	12	19	19	12	5

Source: NOVW

#### 4. Categories of wines produced

As of 2018, out of the total number of companies (110), 71% are producing red wines, 64% - white wines, 17% - fortified wines (with an alcohol concentration exceeding 15%), cca. 12% produce sparkling wines.

**Figure 3: Number of companies by category of produced wine (% of total companies), 2018**



Source: Authors' calculations based on NBS data

Within the WINET BSB-638 Project, cca. 35-40 wineries, representative of the sector, will be selected for profiling. Short descriptions will be made for both large export-oriented enterprises, for emerging medium-sized enterprises that have advanced in recent years, as well as for small producers that produce high value-added wines on a small scale. Several wineries that combine winemaking and tourist activities were also added to this list.

The profiles of the selected wineries will be available on an online platform and its mobile applications with a view to promote the wine sector in the three countries and to launch the e-commerce component, which will enable the online sale of wine products globally. The platform will also contain interactive routes, which will help develop the wine tourism.

## Key market players - TOP Manufacturers

The leading wineries in terms of the quantity of wines produced allows for an accurate evaluation of the companies with the highest potential. This is especially important due to the fact that although 187 wineries are contained in the VWR, an analysis of the number of companies listed as wine producers with the NBS reveals that cca. 110 companies have a continuous (yearly) activity.

According to the results of 2018, Cricova Winery is the largest producer of sparkling wines in the country, and Top 5 producers make up 94% of the market.

**Table 2: Top wineries by production volume of sparkling wines**

#	2018		2017	
1	Combinatul de vinuri "Cricova" SA	94% market share	Combinatul de vinuri "Cricova" SA	93% market share
2	ICS "Bulgari Winery" SRL		ICS "Bulgari Winery" SRL	
3	SC "Tartcomvin" SRL		IS "Combinatul de vinuri de calitate "Milestii Mici"	
4	"Basvinex" SA		SC "Tartcomvin" SRL	
5	"Cema" SA		SRL "Calarasi Divin"	

Source: NBS data and authors' calculations

In 2018 JSC "Vinăria din Vale", "Sălcuța" LLC and JV "Grape Valley" LLC produced the largest volume of white wine. The first 10 players in the market produced 55% of the white wines in 2018.

**Table 3: Top wineries by production volume of white wines**

#	2018		2017	
1	"Vinăria din Vale" SA	55% market share	"Mold-Nord" Făleşti SA	59% market share
2	"Sălcuța" SRL		"Vinăria din Vale" SA	
3	ÎM "Grape Valley" SRL		ÎM "Grape Valley" SRL	
4	ÎM "Vinăria Bostavan" SRL		"Sălcuța" SRL	
5	"Vinăria Hîncești" SRL		"FV Slobozia Mare" SA	
6	"FV Slobozia Mare" SA		"Vinăria Hîncești" SRL	
7	"Vierul-Vin" SRL		IM MD-FR "Kazayak-Vin" SA	
8	"Mold-Nord" Făleşti SA		ÎM "Lion-Gri" SRL	
9	"Podgoria Vin" SRL		"Podgoria Vin" SRL	
10	ÎM "Lion-Gri" SRL		ÎM "Vinăria Bostavan" SRL	

Source: NBS data and authors' calculations

For the second consecutive year JSC "Vinăria din Vale", JSC "Mold-Nord Făleşti" and JV "Bostavan Winery" LLC are the leading 3 producers in terms of red and rosé volume. The first 10 companies producing red and rosé wines concentrate 43% of this wine segment.

**Table 4: Top wineries by production volume of red and rosé wines**

#	2018		2017	
1	"Vinăria din Vale" SA	43% market share	"Vinăria din Vale" SA	52% market share
2	"Mold-Nord" Făleşti SA		"Mold-Nord" Făleşti SA	
3	ÎM "Vinăria Bostavan" SRL		ÎM "Vinăria Bostavan" SRL	
4	SC "Vinăria Țiganca" SRL		SA "Cioc-Maidan-Vin"	
5	ÎM "Lion-Gri" SRL		ÎM "Lion-Gri" SRL	

#	2018	2017
6	"Podgoria Vin" SRL	"Imperial Vin" SA
7	"Nexovin" SRL	ÎM "Vinia Traian" SA
8	ÎM "Grape Valley" SRL	"Nexovin" SRL
9	ÎM "Vinăria Purcari" SRL	"Podgoria Vin" SRL
10	"Imperial Vin" SA	IM MD-FR "Kazayak-Vin" SA

**Source:** NBS data and authors' calculations

Vinăria din Vale, Imperial Vin and Vinuri de Comrat lead the ranking of the largest producers of Porto, Madeira, Sheary, Tokay and other fortified wines, with an alcohol concentration exceeding 15%. The first 5 players produced 74% of the fortified wines in 2018.

**Table 5: Top wineries by production volume of fortified wines**

#	2018	2017
1	"Vinăria din Vale" SA	"Imperial Vin" SA
2	"Imperial Vin" SA	"Vinăria din Vale" SA
3	"Vinuri de Comrat" SA	ICS "DK-Intertrade" SRL
4	ICS "DK-Intertrade" SRL	"Fabrica de vinuri Slobozia Mare" SA
5	"Doina Vin" SRL	"Vinuri de Comrat" SA

**Source:** NBS data and authors' calculations

## 06 Analysis of wine production. Production potential

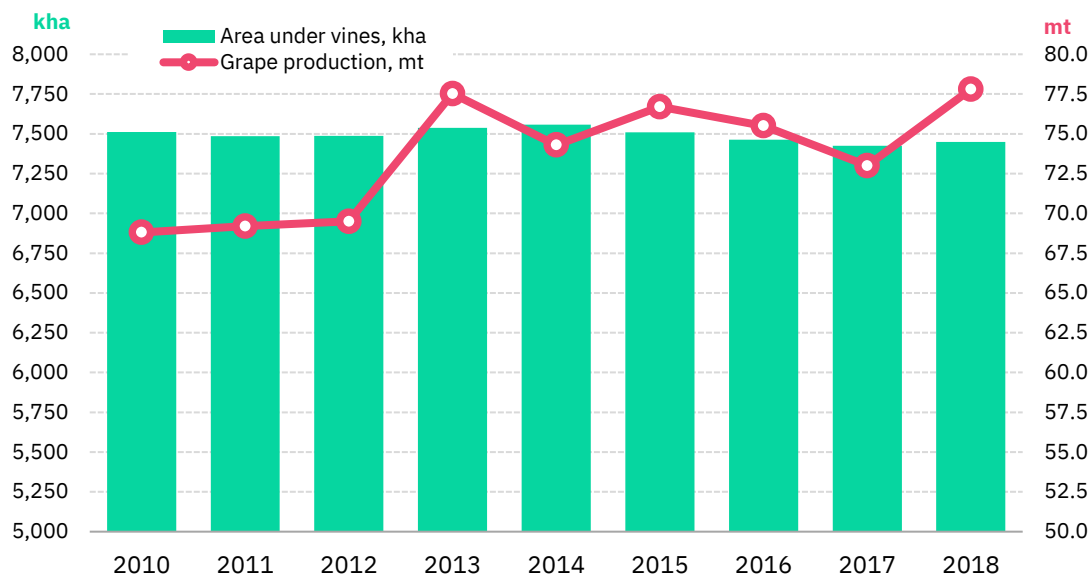
### Global developments. Positioning of Moldova

**Moldova ranks 14th in the world**, with an estimated 133 kha of vineyards, or 1.8% of the world vineyard surface.

According to the data by the International Organization of Vine and Wine<sup>2</sup> (OIV), the estimated **world vineyard surface** amounted to **7.4 mha** in 2018<sup>3</sup>, a slight increase by approx. 0.3% (24 kha) compared to 2017.

A decline can be observed in the world vineyard surface since 2014, caused by the reduction in the vineyard surface areas in Turkey, Iran, the United States and Portugal.

**Figure 4: World vineyard surface and grape production**



**Source:** OIV "State of the Vitiviniculture World Market" reports and authors' calculations

<sup>2</sup> <http://www.oiv.int/>

<sup>3</sup> Including that not yet in production and for all purposes (wine, table and drying).

Europe owns half (50%) of the world vineyard plantation surfaces. The Asian continent ranks second, with 26%, North and South America occupy the third position with 14%. Africa grows 5% of the world vineyard surface, and Oceania ranks last, with 3%.

In Europe, the latest data reveal that vineyard surfaces remained stable in **Spain (969 kha)**, **France (793 kha)**, **Italy (705 kha)**, **Portugal (192 kha)**, **Romania (191 kha)**, **Moldova (133 kha)**, **Greece (106 kha)** and **Germany (103 kha)**.

Five countries own 51% of the world's vineyards: **Spain (13%)**, **China (12%)**, **France (11%)**, **Italy (9%)** and **Turkey (6%)**.

**Table 1: Top countries by vine plantations worldwide, kha**

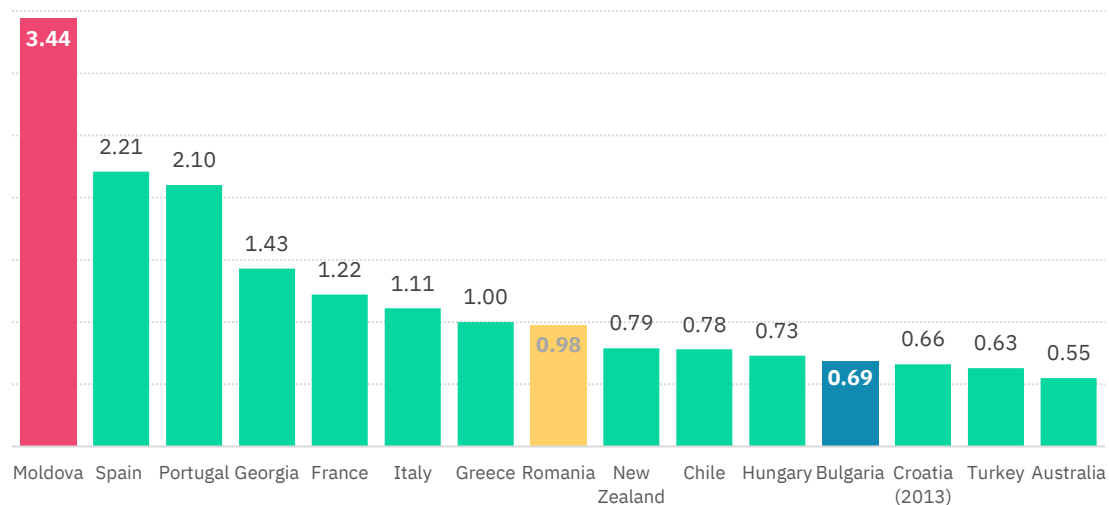
#	Country	2014	2015	2016	2017	2018	2018 / 2017, %	Market share
1	<b>Spain</b>	975	974	975	968	969	+0.1% ▲	13.0%
2	<b>China</b>	813	847	858	865	875	+1.2% ▲	11.7%
3	<b>France</b>	789	785	786	788	793	+0.6% ▲	10.6%
4	<b>Italy</b>	690	685	693	699	705	+0.9% ▲	9.5%
5	<b>Turkey</b>	502	497	468	448	448	0.0%	6.0%
6	<b>USA</b>	450	446	439	434	439	+1.2% ▲	5.9%
7	<b>Argentina</b>	228	225	224	222	218	-1.8% ▼	2.9%
8	<b>Chile</b>	213	214	214	213	212	-0.5% ▼	2.8%
9	<b>Portugal</b>	224	204	195	194	192	-1.0% ▼	2.6%
10	<b>Romania</b>	192	191	191	191	191	0.0%	2.6%
11	<b>Iran</b>	216	195	174	153	153	0.0%	2.1%
12	<b>India</b>	128	129	131	147	151	+2.7% ▲	2.0%
13	<b>Moldova</b>	140	135	135	129.7	133.0	+2.5% ▲	1.8%
14	<b>Australia</b>	154	147	145	145	146	+0.7% ▲	2.0%
15	<b>South Africa</b>	133	133	130	128	126	-1.6% ▼	1.7%
...	...	...	...	...	...	...	...	...
25	<b>Bulgaria</b>	63	64	64	65	66	+1.5% ▲	0.9%
...	...	...	...	...	...	...	...	...
<b>Total</b>		<b>7,557</b>	<b>7,509</b>	<b>7,464</b>	<b>7,425</b>	<b>7,449</b>	<b>+0.3% ▲</b>	<b>100%</b>

**Source:** OIV "State of the Vitiviniculture World Market" reports, NBS and authors' calculations

**Moldova ranks 1st, with the highest density of vineyards per capita in the world.**

According to the American Association of Wine Economists, in 2015, Moldova had about 3.44 ha of vineyards per 100 inhabitants.

**Figure 5: Per capita vineyard area (hectare per hundred population)**



**Source:** American Association of Wine Economists; A Statistical Compendium (2017)

The global grape production amounted to approximately 77.8 mt in 2018, according to OIV data. Depending on the type of grapes, about 57% were technical grapes (wine varieties), 36% table grapes, and 7% of the grapes were used for drying. Since 2000, there has been an increase in the share of unprocessed grapes, mainly driven by a growth in mass grape production.

**Moldova ranks 21st in the world, with a production of cca. 654 kt in 2017 (720 kt in 2018).**

**Romania ranks 17th in the world in 2017, with a production of cca. 1 m tonnes, and Bulgaria is in the 38th position, with a production of 200.5 kt.**

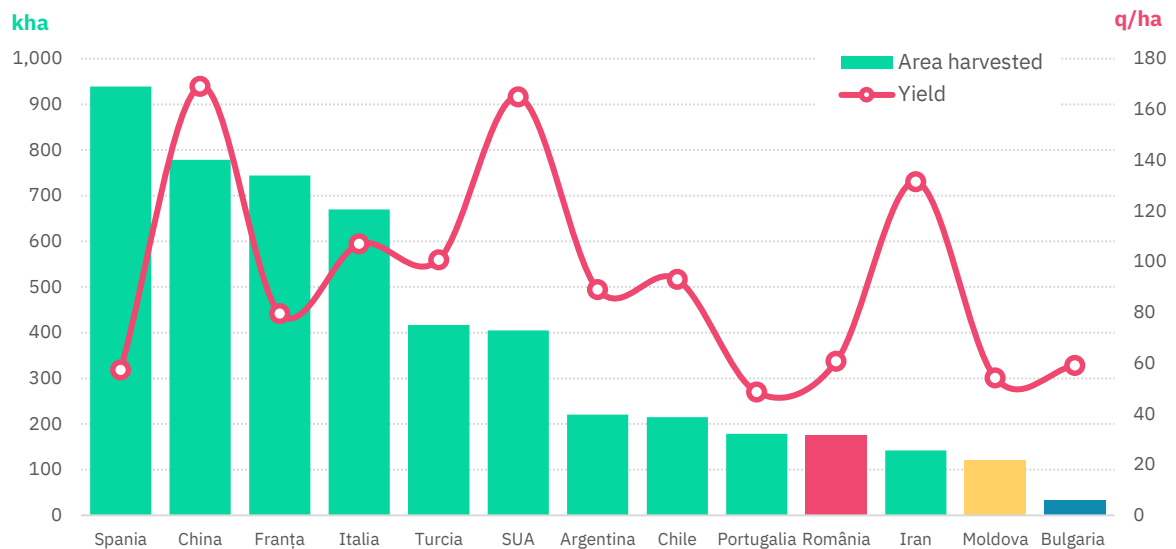
The top 10 grape producers in the world are **China** (11.7%), **Italy** (8.6%), the **USA** and **Spain** (6.9% each), **France** (6.2%), **Turkey** (3.9%), **India** (2.9%), **Argentina** (2.7%), **Chile** (2.5%) and **Iran** (2.3%).

Although the actors are the same, this ranking differs from the top of countries by vineyard surface. This is due to the fact that the productivity of the Asian and American plantations is much higher than that of Europe, but also due to the ecological, geographical and social-economic conditions which determined the European viticulture to focus on growing wine grapes, while the Asian and American sector focuses on grapes and raisins.

The productivity of Moldova's vineyards is comparable to that of Portugal, Romania and Spain, with 5.4 t/ha, but behind counterparts such as France, Italy or Argentina, which have a similar vineyard structure (mainly wine varieties). The lower harvests of Moldovan vineyards did not necessarily have a negative impact on the quality of the grapes, given that the harvest is inversely proportional to the quality.



**Figure 6: Harvested vineyard area (top countries) and yield, 2017**

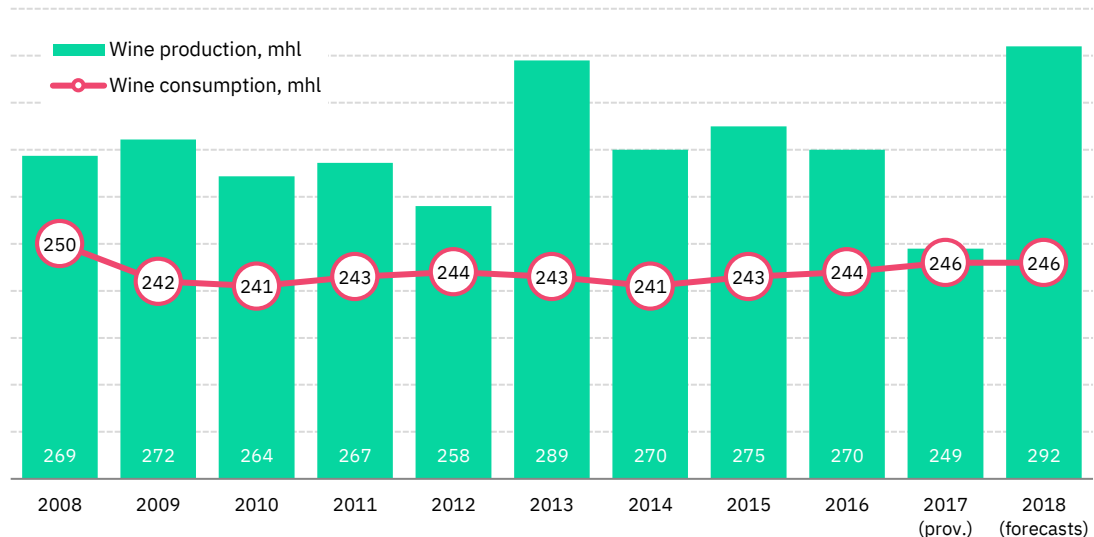


Source: FAOSTAT, NBS, authors' calculations

**Moldova ranks 19th in the world and 11th in Europe, with about 1.9 mhl of wine produced in 2018, or 0.7% of the world production. Its market share has been stable in recent years.**

Worldwide wine production<sup>4</sup> is estimated at **292.3 mhl in 2018**, an increase of 42.5 mhl compared to 2017, a historically low harvest year, mainly due to adverse weather conditions.

**Figure 7: Wine production and consumption worldwide, mhl**



Source: OIV "State of the Vitiviniculture World Market" report and authors' calculations

<sup>4</sup> Except juices and must.

In most European countries production increased significantly compared to 2017.

It is estimated that in 2018 the **European Union** produced **181.9 mhl**, a clear increase of 28.3% compared to 2017 (+40.1 mhl). This is due to extremely favourable weather conditions in the main European producing countries, as opposed to 2017, which recorded multiple unfavorable weather circumstances during the production season.

The biggest players in the world wine market in 2018 are Italy with 18.8% market share, France with 16.6% and Spain with 15.2%. Together these countries own half of the world's wine production. In 2015, the first 10 countries produced 82.5% of the global wine production.

**Table 2: Global wine production (mhl)**

#	Country	2014	2015	2016	2017	2018	2018/ 2017, %	Market share, 2018
1	Italy	44.2	50.0	50.9	42.5	54.8	+28.9%▲	18.8%
2	France	46.5	47.0	45.3	36.3	48.6	+33.9%▲	16.6%
3	Spain	39.5	37.7	39.7	32.5	44.4	+36.6%▲	15.2%
4	USA	23.1	21.7	23.7	23.3	23.9	+2.6%▲	8.2%
5	Argentina	15.2	13.4	9.4	11.8	14.5	+22.9%▲	5.0%
6	Chile	9.9	12.9	10.1	9.5	12.9	+35.8%▲	4.4%
7	Australia	11.9	11.9	13.1	13.7	12.9	-5.8%▼	4.4%
8	Germany	9.2	8.8	9.0	7.5	10.3	+37.3%▲	3.5%
9	South Africa	11.5	11.2	10.5	10.8	9.5	-12.0%▼	3.3%
10	China	13.5	13.3	13.2	11.6	9.1	-21.6%▼	3.1%
...	...	...	...	...	...	...	...	...
13	Romania	3.7	3.6	3.3	4.3	5.1	+18.6%▲	1.7%
...	...	...	...	...	...	...	...	...
19	Moldova	1.6	1.6	1.5	1.8	1.9	+5.6%▲	0.7%
20	Switzerland	0.9	0.9	1.1	0.8	1.1	+37.5%▲	0.4%
21	Bulgaria	0.8	1.4	1.2	1.1	1.0	-9.1%▼	0.3%
...	...	...	...	...	...	...	...	...
Others								
<b>Total</b>		<b>270.0</b>	<b>275.0</b>	<b>270.0</b>	<b>249.0</b>	<b>292.0</b>	<b>+17.3%▲</b>	<b>100%</b>

**Source:** OIV "State of the Vitiviniculture World Market" report, NBS and authors' calculations

**Romania ranks 13th in the world in 2018, with cca 5.1 mhl of wine, Bulgaria is positioned 21st, with a 1 mhl production.**

The steady upward trend of the world wine consumption that started in 2014, owing mainly to the increasing consumption in the US and China and stabilization of the consumption in the main European countries (traditionally established as consumers too) ended in 2018 on account of a slight decrease in consumption in China and the UK.

**World wine consumption in 2018** is estimated at **246 mhl**, a slight decline compared to 2017 (-0.3%). Given the margin of error in tracking global consumption, this figure should be considered with caution. This estimate should take into account the low

levels of wine production in 2017 which narrowed down consumption in most producing countries.

The biggest global wine consumers are the US, France, Italy, Germany and China: which account for half of the global wine consumption.

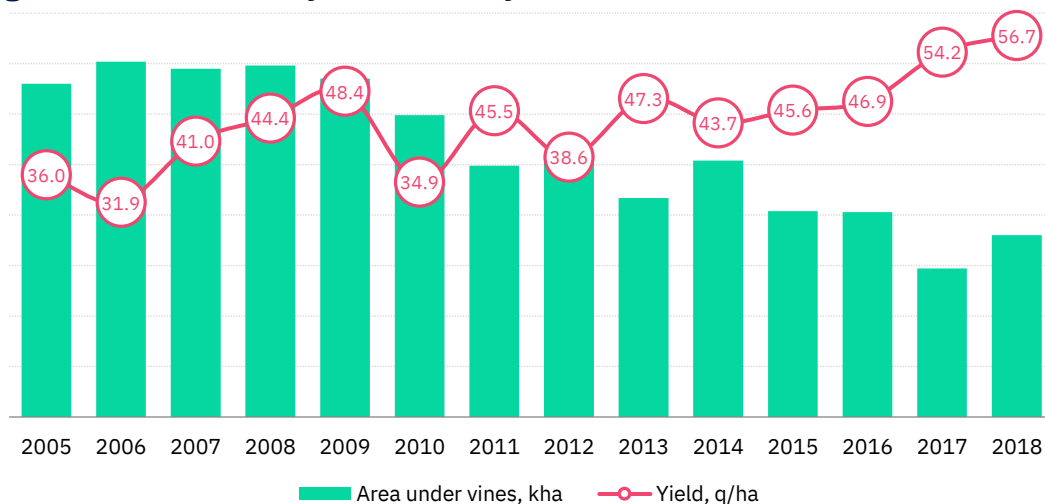
In Romania domestic consumption increased between 2017 and 2018 by 8.7%, to 4.5 mhl. **Romania** is the **12th largest wine consumer in the world**.

## Production potential

In 2018 Moldova had 133 thousand ha of vineyard surface (95.5% harvested area). Since 2008 its surface area decreased on average by 1.2% per year. In recent years old vineyards were grubbed up faster than new vineyards were planted.

Various market sources, including the AIPA data on subsidization reveal that viticulture undergoes a renewal process: vineyards dating from the Soviet period are demolished/grubbed up and new, more fertile varieties are being planted to cater to modern consumer needs.

**Figure 8: Moldovan vineyard area and yields (2005-2018)**



**Source:** NBS and authors' calculations

In the last 5 years the average productivity of the vineyards in Moldova has grown every year. According to the NBS data, the average crop was approx. 5.67 t/ha in 2018. In two consecutive years the average harvest exceeded 5t/ha, favoured by opportune weather, quality vineyards and planting material and improved vineyard growing technologies.

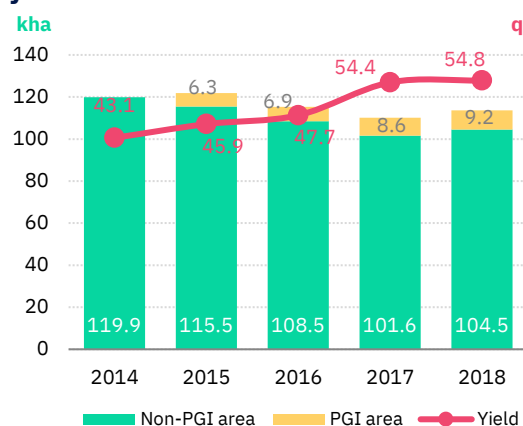
Since 2010 the structure of vineyards by use of variety has not changed significantly: in 2018 on 85.5% (113.7 thousand ha) of the vineyard surfaces were growing wine-making grapes, and 14.5% (or 19.3 thousand ha) were accounted for by table grapes.

During the 2018 vintage the registration of winegrape vineyard surfaces with Protected Geographical Indication increased by 22%, reaching 9,200 ha (35% in the

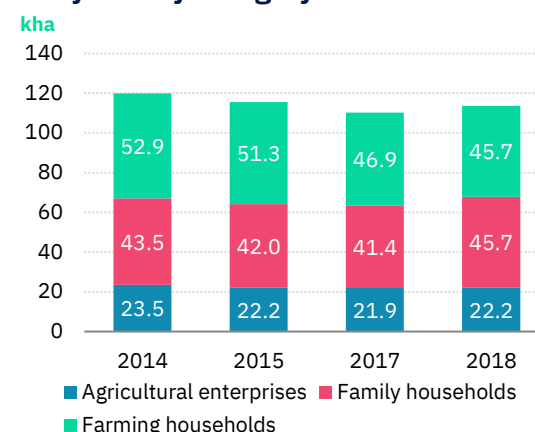
PGI Valul lui Traian region, 28% in the PGI Divin region, 35% in the PGI Codru region and 12% in the PGI Stefan Voda region).

The average winegrape harvest was 5.48 t/ha. The average grape productivity by household category shows that agricultural enterprises obtain harvests 58% higher compared to common households and 2.2 times higher than farming households.

**Figure 9: Moldovan wine grape area and yield**



**Figure 10: Surface area of wine grape vineyards by category of household**



**Source:** NBS and authors' calculations

In 2018, 80% of the total area of the vineyards planted with wine varieties was owned by the individual sector (farming households) and population (family) households). The remaining 20% belonged to agricultural enterprises.

From 2010 onwards emerges a trend of slow growth in the share of winegrape surfaces owned by individual sector, from 76% in 2010 to 80% in 2018.

Within the individual sector, most winegrape vineyards (46 thousand ha) are owned by farming households. However, in recent years surface areas owned by farming households are slightly decreasing in favour of family households.

NBS data show that in 2018 agricultural enterprises and farm households, owners of 10 ha and above of vineyard area, were managing 24.5 thousand ha (22%) of winegrape varieties. The remaining 78% were accounted for by farming households with winegrape vineyards surfaces of less than 10 ha or by family households - mainly on lots beside the house or outside the locality – commonly used to secure food and other needs for the family.

The establishment and modernization of multiannual vineyard plantations, as well as the clearing of the old or non-qualitative ones, are stimulated by the state through subsidizing measures.

A conclusive picture regarding the developments of the new plantations, as well as the grubbed-up vineyards can be made based on the data from the Agency of Intervention and Payment for Agriculture (AIPA) reports.

The data provided by AIPA refer to farmers who are eligible for the said subsidy measures. There is also a large number of agricultural holdings (common households, a number of agricultural enterprises and farming households) which are not eligible for subsidies, but are actively involved in setting up vineyard plantations and grubbing-up of non-productive ones.

Thus, according to the data provided by AIPA, between 2015 - 2018 new vineyard surfaces increased by an estimated 3,065 ha (of which cca. 1,183 ha were wine grape plantations). During this time, about 9,447 ha of plantations (both wine and table varieties) were grubbed-up. Accordingly, for every hectare of newly planted vineyard about 3 hectares of vineyards were grubbed-up.

In 2018, 309 vine plantations were set up on an area of 1,067 ha (88 winegrape plantations with an area of 390 ha). Grape growers (that applied for subsidization) made investments of MDL 220.5 mil. and received subsidies in the amount of MDL 37.1 mil.

**Table 3: New vineyard plantations vs. grubbed-up plantations (ha)**

	2015	2016	2017	2018
<b>New vineyard plantations</b>	<b>500</b>	<b>573</b>	<b>925</b>	<b>1,067</b>
<i>Wine grapes</i>	253	279	261	390
<i>Table grapes</i>	247	294	664	677
Grubbed-up vineyard plantations (subsidized, AIPA data)	86	1,060	3,695	4,606
Grubbed-up vineyard plantations (NBS data)	na	na	1,706	1,444

**Source:** NBS, AIPA and authors' calculations

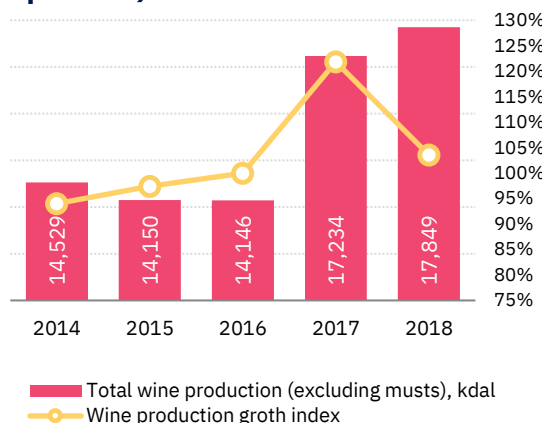
## Wine production

The analysis of the developments in the wine production of Moldova during 2014-2018 was carried out based on summarised data collected from the annual statistical Research of industrial products developed by the NBS (PRODMOLD-A)<sup>5</sup>.

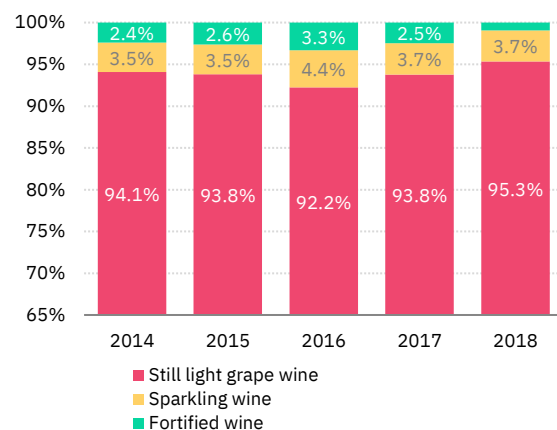
Following the slight decline by 2.6% YoY in 2015-2016, wine production increased significantly in 2017 (+22% YoY), up to 17,234 kdal. This occurred due to the international context, marked by a historically low global wine production in 2017 in most top wine producing countries caused by adverse weather. In these conditions, the Moldovan producers have filled some of the shortage, also "taking advantage" of the favourable climatic conditions that resulted in high yields. The upward trend continued in 2018: the volume of wine production increased slightly by 3.6% YoY, to 17,849 kdal - highest record since 2007.

The volume index of wine production is more volatile compared to the general trend recorded in the food industry and overall industry. Thus, in 2017 wine production recorded a sharp growth while the total industrial and food production in the total national economy recorded slight increases. These deviations result from the fact that winemaking is more dependent on the processes and fluctuations in agriculture and on the demand (foreign, mainly), given that wine is predominantly exported.

**Figure 11: Wine production (except grape must)**



**Figure 12: Wine production structure**



**Source:** Author's calculations based on NBS data

Wine production structure reveals a dominant share of still light wines: a 92% record low in 2016 due to the increase of production of sparkling and fortified wines and highest with 95% in 2018, on the account of a reduction in the share of fortified wines.

<sup>5</sup> The data on wine Production, Stocks and Sales are presented based on PRODMOLD-A annual statistical Research of industrial products which examines both companies with Industry as main activity (CAEM 1102 - Manufacture of grape wines) and companies with Industrial production listed as secondary activity (main activity other than industrial). The data on wine production based on PRODMOLD-A cover cca. 94-96% of the total wine production in the country based on OIV (NOVW) data. The figures are therefore representative for analysis in both structure and developments.

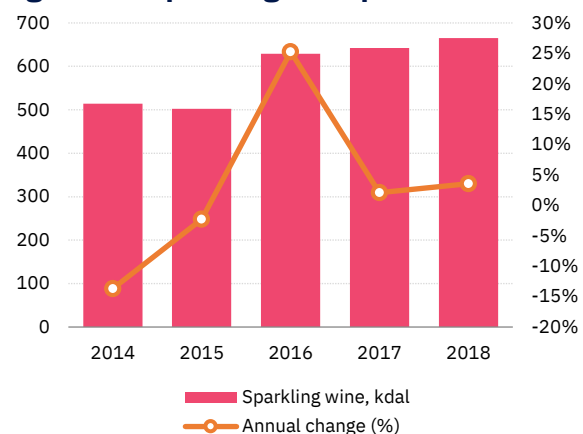
The 2018 vintage produced 855,629 dal of wine with Protected Geographical Indication. The largest volume was recorded in the PGI "Valul lui Traian" region (55%).

## Sparkling wines

The production of sparkling wines decreased in 2014 and 2015 to 500 kdal, due to the decline in export demand, mainly caused by the loss of an important segment of the Russian market following another embargo imposed by Russia in 2013.

In 2016 the production of sparkling wines recovered: 629 kdal (+25.3% YoY). In 2017 and 2018 the production increased slightly by 2.1% and 3.6%. In 2018 Moldovan winemakers produced 665 kdal of sparkling wine.

**Figure 13: Sparkling wine production**



During 2014-2018, the share of sparkling wines in total wine production ranged between 3.5% (in 2015 and 2016) and 4.4% (in 2016).

**Source:** Author's calculations based on NBS data

## Still light wines

Still light wines have the biggest influence on market trends by virtue of their significant share in total wine production. For this reason, the dynamics of these wines is almost similar to the overall market dynamics: moderate decreases in 2015 (-2.9%) and 2016 (-1.7%), a robust recovery of 24% in 2017, followed by a slight growth in 2018 (5.3%). In 2018 Moldova produces 17,017 kdal of still light wines.

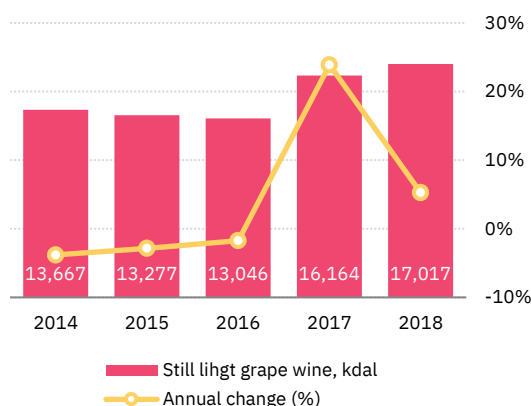
The white vs. red and rose co-ratio wine production is close in value. Their prevalence differ from year to year, depicting a highly volatile dynamics. As most domestic producers also state, there is no clear preference in the medium and long term among consumers in this regard.

Thus, in 2014 the white vs. red and rosé wine production ratio was 52% vs. 47%. In the next 4 years red wines took over.

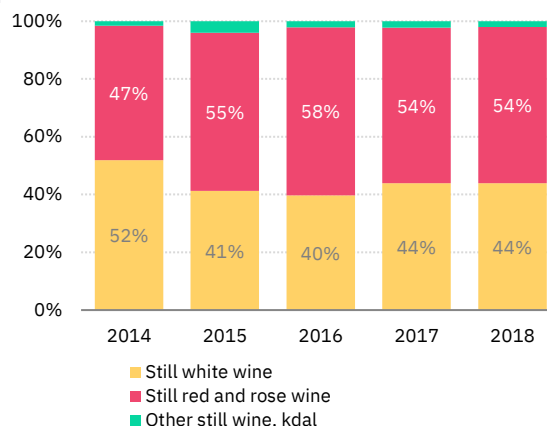
In 2016, red and rosé wines accounted for the largest share in still light wine production (58%). White wines accounted for 40%. In 2017 and 2018, the divergence has decreased, with 54% vs. 44%.



**Figure 14: Production of still light wine**



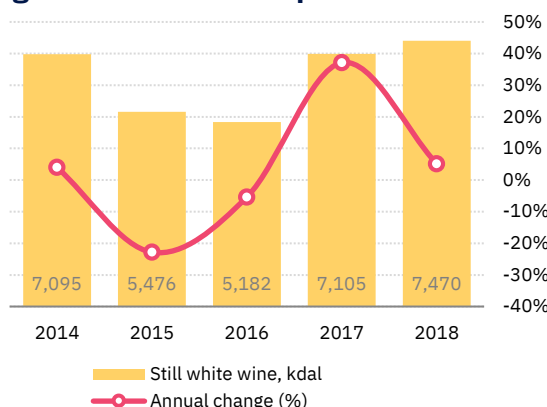
**Figure 15: Structure of still light wine production**



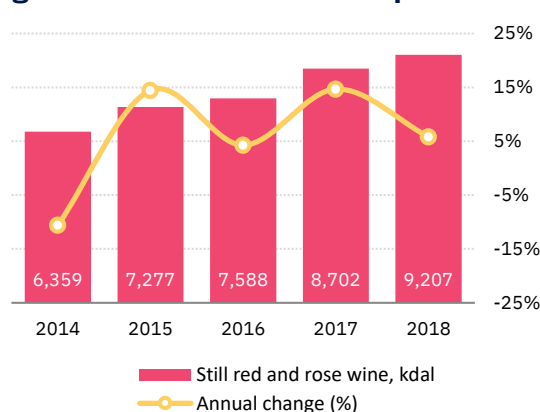
**Source:** Author's calculations based on NBS data

White wine production decreased substantially in 2015 (-22.8%). The downward trend continued in 2016 (-5.4%). White wines were the main driver for the overall decline of wine production during 2015-2016: their share fell by 11-12 p.p. White wine production recovered in 2017, returning to the 2014 figures, and increased to 7,470 kdal (+5.1% YoY) in 2018.

**Figure 16: White wine production**



**Figure 17: Red and rose wine production**



**Source:** Author's calculations based on NBS data

Red and rosé wine production recorded an upward trend with double-digit growths in 2015 (+14.4%) and 2017 (+14.7%). In 2018 red and rosé wine production increased by 5.8%, to 9,207 kdal, a record high since 2010.

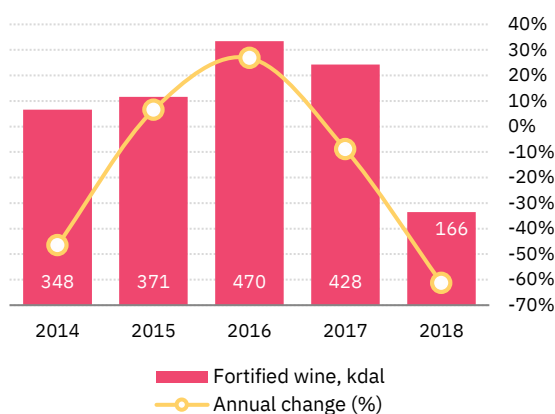
## Fortified wines & grape must

In 2018 only 166 kdal of fortified wines were produced, a record low since 2011. The share of fortified wines is traditionally insignificant, with 2-3% in total wine production: in 2018 they accounted for 0.9%.

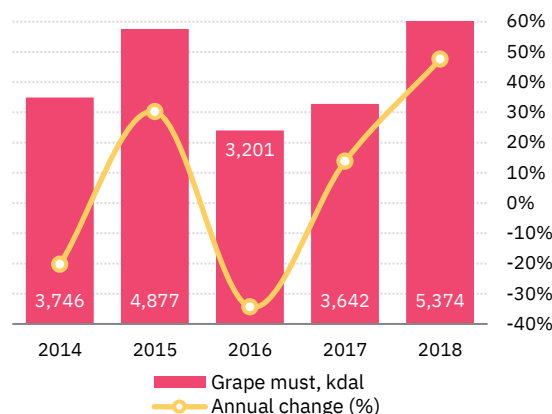
The data on the changes in grape must production reveal a fluctuating trend YoY, but with a general tendency of growth.

In 2018 must production increased to 5,374 kdal or +47.5% YoY.

**Figure 18: Fortified wine production**



**Figure 19: Grape must production**



**Source:** Author's calculations based on NBS data

An analysis by territory of the wine production potential reveals that 70.5% of the sparkling wines are produced in the PGI Codru region, home of Cricova winery - the largest producer of sparkling wines. PGI Valul lui Traian region produces 45.5% of the still light wines and 75.2% of the strong wine production with an alcohol concentration of over 15%.

**Table 4: Wine production by winegrowing regions, 2018**

Regions	Production, kdal			Structure, %		
	Sparkling wine	Still light wine	Fortified wine (conc. alc. > 15%)	Sparkling wine	Still light wine	Fortified wine (conc. alc. > 15%)
<b>Total Moldova</b>	<b>665.4</b>	<b>16,956.6</b>	<b>165.8</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Central Region</b>	<b>469.0</b>	<b>7,721.9</b>	<b>38.5</b>	<b>70.5%</b>	<b>45.5%</b>	<b>23.2%</b>
mun. Chisinau	454.3	3,560.4	25.5	68.3%	21.0%	15.4%
Făleşti		843.8			5.0%	
Sîngerei		7.2				
Anenii Noi		107.9			0.6%	
Calarasi	7.3	347.1		1.1%	2.0%	
Hînceşti	0.6	594.3		0.1%	3.5%	
Ialoveni		801.1	5.2		4.7%	3.1%
Nisporeni	2.8	678.6		0.4%	4.0%	
Orhei		270.4	1.0		1.6%	0.6%
Straseni	4.0	506.8	6.8	0.6%	3.0%	4.1%
Ungheni		4.3				
<b>South-Eastern Region</b>	<b>16.0</b>	<b>1,515.1</b>	<b>2.7</b>	<b>2.4%</b>	<b>8.9%</b>	<b>1.6%</b>

Regions	Production, kdal			Structure, %		
	Sparkling wine	Still light wine	Fortified wine (conc. alc. > 15%)	Sparkling wine	Still light wine	Fortified wine (conc. alc. > 15%)
Basarabeasca		87.4			0.5%	
Căușeni		791.2			4.7%	
Cimislia		98.1			0.6%	
Stefan Voda	16.0	538.4	2.7	2.4%	3.2%	1.6%
<b>Southern Region</b>	<b>180.4</b>	<b>7,719.6</b>	<b>124.6</b>	<b>27.1%</b>	<b>45.5%</b>	<b>75.2%</b>
Cahul		1,962.6	6.8		11.6%	4.1%
Cantemir		2,676.7	72.6		15.8%	43.8%
U.T.A Gagauzia	180.4	3,080.3	45.2	27.1%	18.2%	27.3%

**Source:** Author's calculations based on NBS data

## Evolution of wine stocks

Stocks are a variable dependent mainly on production volume and sales. Changes in stocks also depend on the quantity of wines undergoing maturation.

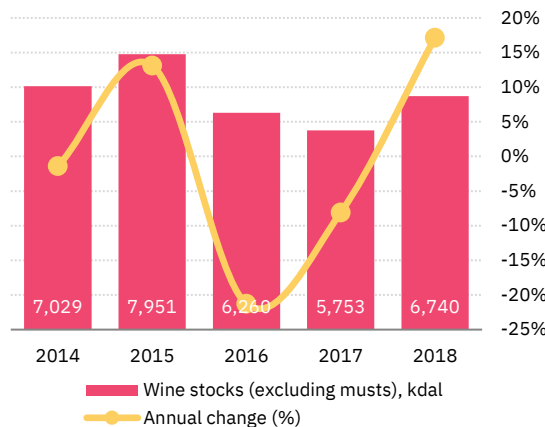
The largest quantities of stock have accumulated in 2014 (7,029 kdal) and 2015 (7,951 kdal), as a result of the Russian embargo imposed on Moldovan wines in September 2013 and, respectively, by the loss of positions on this market.

In 2014 winegrowers managed to avoid the pressure of excessive stock accumulation caused by a visible contraction of sales due to the Government's offer of excise duty exemption for wine distillates, since many wineries complained about the lack of storage capacities. In 2015 this measure was not maintained, and wine stocks increased by 13.1% to 7,951 kdal, comparable to 2011 levels.

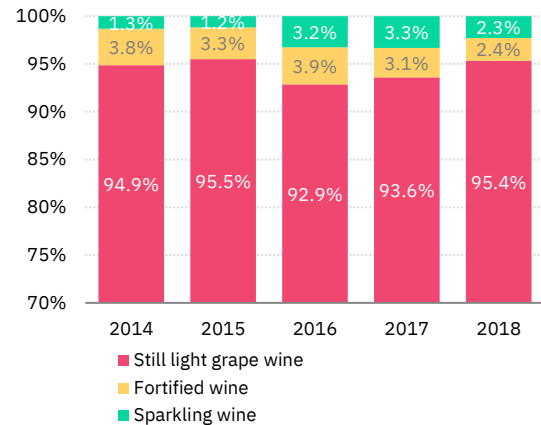
In 2016, stocks decreased to 6,260 kdal (-21.3% YoY), due to export growth (recovery) and the penetration of new markets (that compensated for the loss of Russian market), but also due to a stronger positioning in certain markets (particularly EU).

In 2017 stocks continued to diminish (-8.1% YoY), even though wine production increased significantly (24%). This change was also determined by international context - 2017 saw unfavourable weather conditions in many winegrowing countries. This scenario allowed Moldovan producers to fill the wine deficit globally by selling remarkable quantities of stock. Stocks decreased to 5,753 kdal, the lowest level during 2014-2018. In 2018 however, stock levels rose by 17.4% due to a slight decrease in sales.

**Figure 20: Wine stock (except grape must)**



**Figure 21: Structure of wine stock**



**Source:** Author's calculations based on NBS data

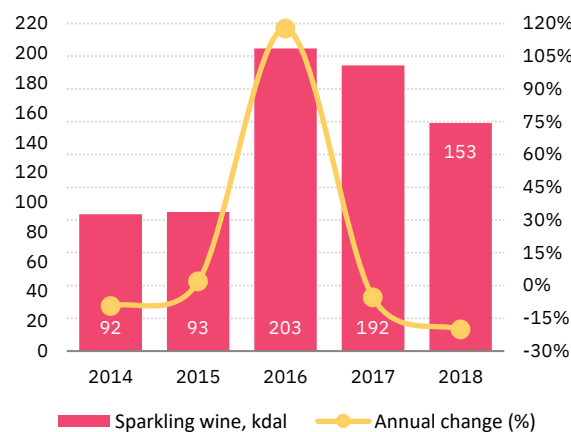
As with production, still light wines have the dominant share in the stocks structure.

The share of natural wine stocks decreased to 93-94% in 2016 and 2017 due to its higher sales performance. Stocks of other categories are fairly oscillating, given their insignificant shares and inconstant demand.

### Sparkling wines

The share of sparkling wine stocks is lower (2.3% in 2018) compared to their production share (3.7%). This is due primarily to their lower dependence on foreign markets, even though a quite large volume is sold domestically every year.

**Figure 22: Sparkling wine stocks**



**Source:** Author's calculations based on NBS data

## Still light wines

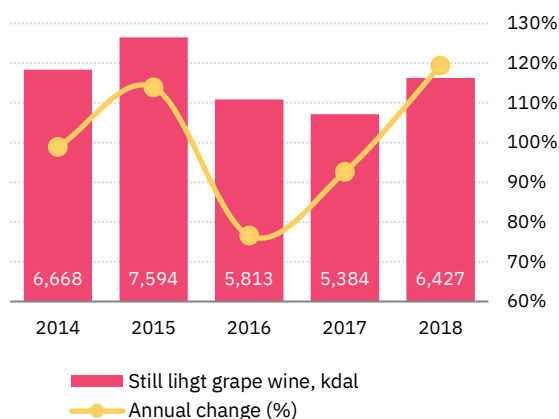
Stocks of still light wines followed the overall stock trends: an increase by 34% in 2014 following the Russian embargo of 2013 (6,668 kdal). In the following year stocks increased by 14% to 7,594 kdal.

In the next two years the stocks have diminished. In 2016 they fell by 23.4%, to 5,813 kdal, on the account of a slight decrease of production and a significant export growth. The 2017 stock reduction occurred due to higher sales rate growths vs. production growth rates, in the context of the 2017 global wine shortage. In 2018 stocks increased by 19.4%, to 6,427 kdal.

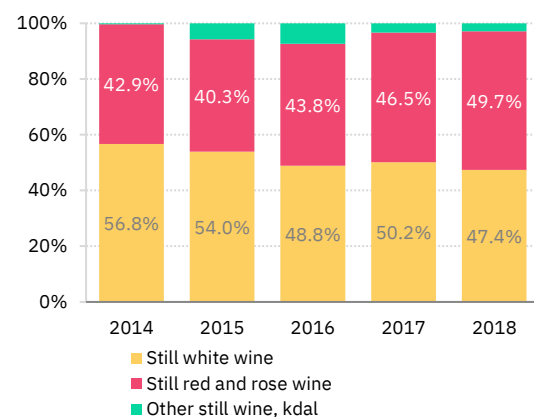
During 2014-2017, red and rosé stocks showed stability and improved sales, which resulted in a higher share of white stocks.

In 2018, white wine sales have increased, and stocks of reds and rosés surpassed white stocks for the first time since 2014.

**Figure 23: Still light wine stocks**



**Figure 24: Structure of still light wine stocks**

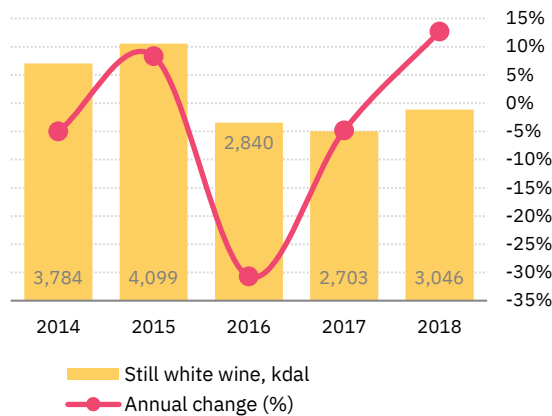


**Source:** Author's calculations based on NBS data

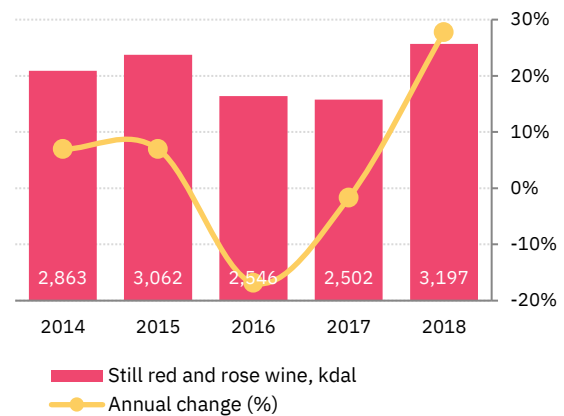
In the past five years white stocks were seen decreasing steadily with a CAGR of 5.3%. The share of whites in total stocks decreased from 53.8% in 2015 to 45.2% in 2018. White wine stocks amounted to 3,046 kdal at year-end 2018.

Red and rosé wine stocks were volatile between 2014-2018. After the 2013 Russian embargo and the substantial fall in exports on this market, they continued to grow over the next 2 years, to 3.062 kdal in 2015.

**Figure 25: White wine stocks**



**Figure 26: Red and rose wine stocks**



**Source:** Author's calculations based on NBS data

In 2016 and 2017 sales rates outperformed the production, which allowed for selling part of the stocks. The stock volume was 2,502 kdal in 2017, a record low of the 2014-2018 period.

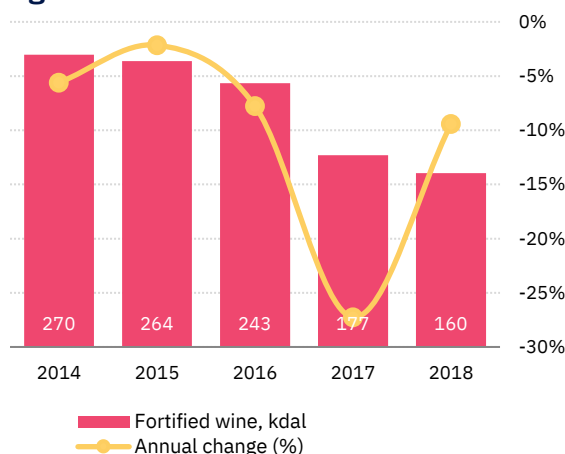
However, in 2018 stocks were up 27.8% to 3,197 kdal. Winemakers were not able to harness the full production potential, given that this year's sales were down.

### Fortified wines

Fortified wine stocks are declining between 2014 and 2018, with a more pronounced downward trend over the last 2 years. The stock of 2018 was 160 kdal, 40% lower than in 2014: sales surpassed production (in volume) in each of these 5 years.

The share of fortified stocks in overall stocks decreased from 3.8% in 2014 to 2.4% in 2018.

**Figure 27: Fortified wine stocks**



**Source:** Author's calculations based on NBS data

## 07 Sales trends

### Sales of Moldovan wine

The analysis of sales trends of Moldovan wines between 2014-2018 was carried out consistent with the aggregated data based on PRODMOLD-A annual statistical research of industrial products carried out by the NBS.

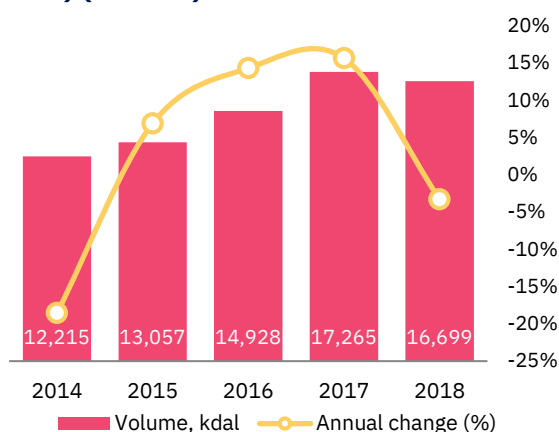
The sales volume of wines in 2014-2018 followed the export evolution: an upward trend with an average CAGR of 8%.

Wine sales decreased markedly in 2014 (-18.6%) as a result of the Russian embargo of 2013. The sector recovered slightly in 2015 and in 2016 sales volumes already reached pre-embargo figures (14,928 kdal).

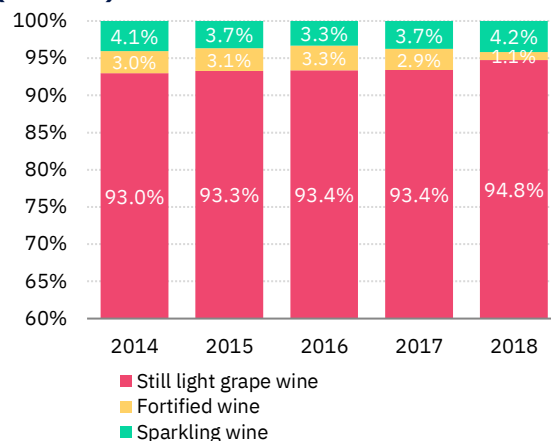
2017 was a very strong year for wine producers: with sales of 17,265 kdal, a record high for the previous 10 years. The extraordinary results were achieved on the background of international context, 2017 being a year with adverse weather conditions in most of the top wine producing countries.

Sales fell slightly in 2018, to 16,699 kdal (-3.3% YoY).

**Figure 28: Wine sales (except grape must) (volume)**



**Figure 29: Structure of wine sales (volume)**



**Source:** Author's calculations based on NBS data

The quantitative structure of sales (by main wine categories) is dominated by still light wine, with a maximum share of 94.8% in 2018 - due to lower sales of fortified wines.



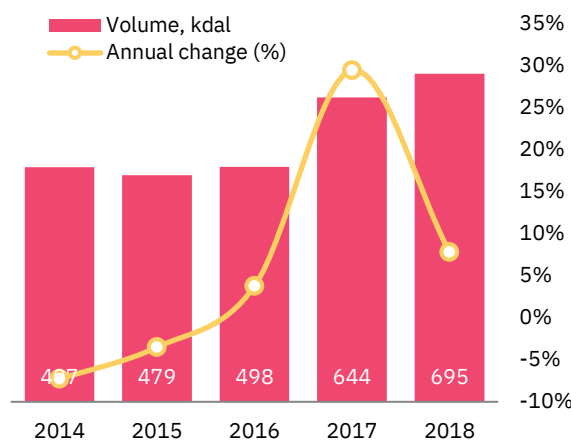
## Sparkling wines

Following the embargo, Moldova sold 25% less sparkling wine (in volume) in 2014-2016: an estimated 500 kdal. This category was most strongly affected by the embargo.

On the other hand, the imposition prompted producers to better explore the domestic market. As a result, between 2014-2018 the quantities delivered on the internal market had an annual average increase (CAGR) of 9.4%. In 2018, the volume of sparkling wine deliveries reported a 7.8% increase on the previous year.

Sparkling wines are the only category of wines for which the local market is the main market. On average 7 out of 10 bottles were delivered to the local market.

**Figure 30: Sparkling wine sales (volume)**



**Source:** Author's calculations based on NBS data

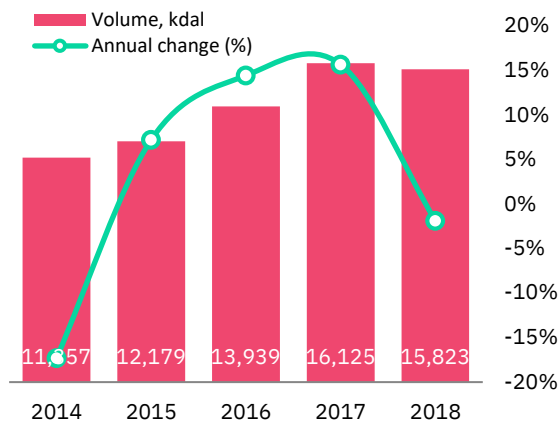
## Still light wines

Due to their dominant share, still light wines determine the overall changes on the market, therefore reporting similar trends.

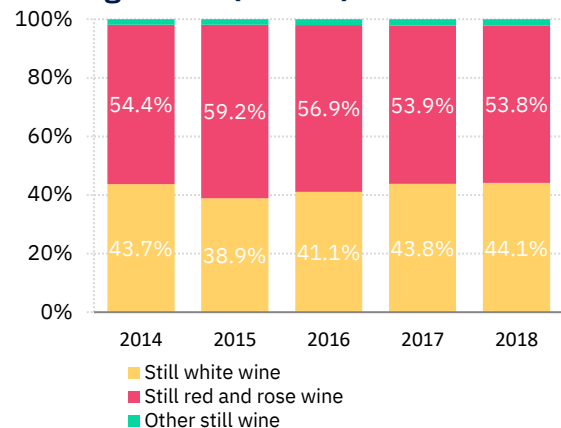
Sales volumes recovered only in 2016, when deliveries were comparable with figures preceding the 2013 embargo. Thus, in 2016 wine sales amounted to 13,939 kdal.

In the context of the global shortage, sales of Moldovan wine increased by 15.7% in 2017 to 16.125 kdal, a record high in the previous 10 years. In 2018, wine deliveries fell slightly, by 1.9% YoY.

**Figure 31: Sales of still light wine (volume)**



**Figure 32: Sales structure of still light wine (volume)**



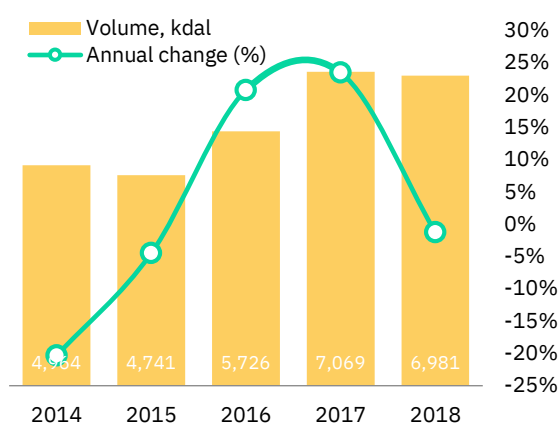
**Source:** Author's calculations based on NBS data

During 2014-2018, red and rose wines showed stability and improved sales rates. During this period red and rose wines accounted for over 50% in total sales: in 2018 - an estimated 53.8% of the sales volume. However, in the last 3 years there has been a slight increase in the share of white wines.

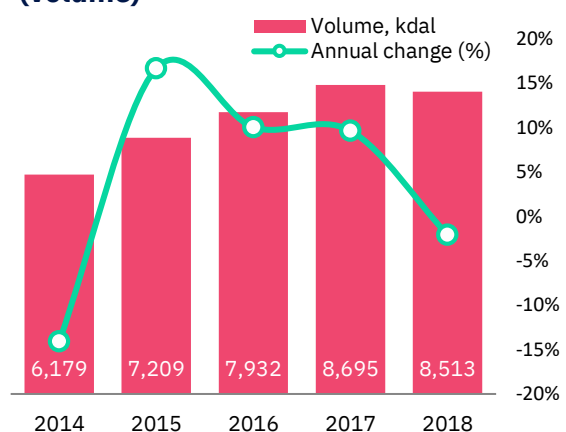
In terms of sales volume, red, white and rose wines have been on an upward trend in the last 5 years: between 2014-2018, white wine sales increased by a CAGR of 8.9%, red and rose wines - by 8.3%.

In 2018 sales of white, red and rose wines fell slightly, to 6,981 kdal (-1.3%) and 8,513 kdal (-2.1%). Foreign markets absorb 71.6% of the whites sales volume and 72.4% of the reds and rose.

**Figure 33: Still white wine sales (volume)**



**Figure 34: Still red and rose wine sales (volume)**



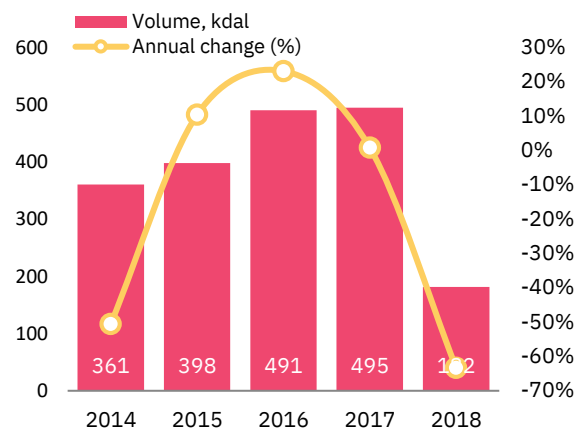
**Source:** Author's calculations based on NBS data

## Fortified wines

The dynamics of fortified wines was extremely indecisive during the analyzed period, explained both by their lower share and value base.

In 2018 fortified wine sales fell by 63.3% YoY. Sales declined by 85% on the domestic market and 40% on foreign markets. In 2016 and 2017 their share on domestic and foreign markets were approximately equal.

**Figure 35: Fortified wine sales (volume)**



Source: Author's calculations based on NBS data

## Markets of Moldovan wines (domestic, external)

In order to establish the trends of Moldova's wine market it is important to delimit the markets by sales volume. Although Moldovan winemakers focus mainly on foreign markets, lately the internal market has become a priority for many companies. As many experts in the field say, **it is difficult for the Republic of Moldova to be identified on the map as a wine country without a solid internal market.**

Part of the sales on the internal market are bulk deliveries: inter-company intermediate sales, given that many local businesses have limited access to foreign markets. It should be noted therefore that some of the sales reflected in the domestic market end up on external markets. Another share of internal deliveries is accounted for by wines sold for the production of wine distillates.

Thus, the analysis of the wine deliveries in terms of their destination market reveals the following:

- The largest disparity in the market structure occurred in 2014, when domestic sales had a 29% decrease, while export deliveries dropped by 14%. This development can also be explained by the fact that in the aftermath of the Russian embargo inter-company sales decreased significantly, due to the limited access to the Russian market.
- Overall, in the years marked by an embargo, or the years following the embargo, deliveries on the domestic market decrease sharply and conversely, in the best years of export, such as 2017, internal deliveries increase significantly.
- Sparkling wines are the only category of wines for which the local market is the main market. The substantial reduction of deliveries on the foreign market, especially in the Russian Federation, translated into increasing coverage on

the local market: in 2018 on average 7 out of 10 litres of sparkling wine are delivered domestically.

- Foreign markets purchase the highest share of both still white and still red and rose wines, with 71.6% and 72.4% respectively. In 2018, the share of still white wines on the foreign market has reached a record high in the last 5 years.
- 78.7% of the fortified wines (volume) were delivered on external markets in 2018. In 2018 the share of exports increased significantly, conditioned by a significant restriction of sales on the local market (by 85%).

**Table 5: Volume shares of main wine categories: internal market vs. external market**

Wine categories	INTERNAL market					EXTERNAL market				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
<b>TOTAL wine (excluding musts)</b>	28.1%	32.7%	32.8%	35.0%	30.8%	71.9%	67.3%	67.2%	65.0%	69.2%
<b>Sparkling wine</b>	68.8%	74.5%	76.3%	71.9%	70.5%	31.2%	25.5%	23.7%	28.1%	29.5%
<b>Still white wine</b>	29.4%	35.8%	32.9%	30.4%	28.4%	70.6%	64.2%	67.1%	69.6%	71.6%
<b>Still red and rose wine</b>	23.2%	27.3%	27.5%	32.6%	27.6%	76.8%	72.7%	72.5%	67.4%	72.4%
<b>Fortified wine</b>	21.0%	21.4%	48.1%	51.8%	21.3%	79.0%	78.6%	51.9%	48.2%	78.7%

**Source:** Author's calculations based on NBS data

## Export markets

Wine is one of the main export products of the Republic of Moldova, as validated by several relevant figures. **In 2018 Moldovan wines ranked third in the top most exported products** (surpassed by cables in Automotive and Sunflower seeds), accounting for 5.1% of the total value of Moldovan exports or 62.6% of export of beverages (alcoholic and non-alcoholic) (informative: in 2014 wine exports accounted for 4.7% of the total value of Moldovan exports or 58% of beverage exports).

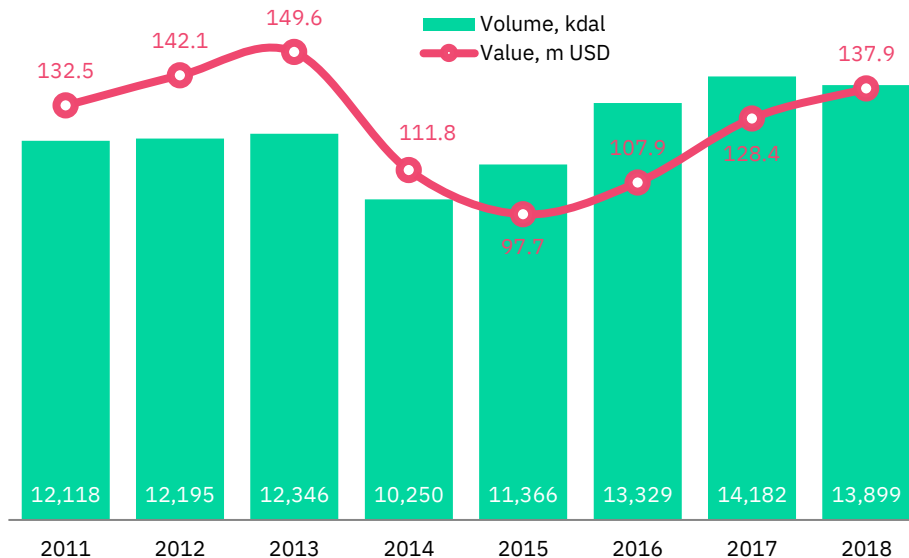
At the same time Moldova ranks second in terms of the dependence of wine in the exports structure among all the states acknowledged as wine exporters (Top 20). The **137.9 m USD revenue from wine exports in 2018** came **from over 50 countries**, a performance with which no other domestic product can boast.

## Overall trends

During 2011-2018 the export of Moldovan wines experienced oscillating evolutions conditioned by various external and internal factors. Following a steady increase between 2011-2013, the Russian embargo imposed in September 2013 led to a contraction of the export value by 25.2% in the following year. The trend continued in 2015 with a reduction of the revenues in dollars by another 12.6% caused by a drop in prices internationally. In the last 3 years Moldovan wine exports have increased steadily - the amount of exports in 2018 of 137.9 m USD is close to the best results of 2012 and 2013.

In terms of volume, the lowest export volume in the last 8 years was recorded in 2014, followed by the period 2014-2018 when the average compound annual growth rate of the exported quantities was 7.9%. However, the 2018 exported volume of 13.9 mdal is 2% lower compared to the previous year, a result of the overproduction trend that occurred worldwide.

**Figure 36: Wine exports (volume and value)**

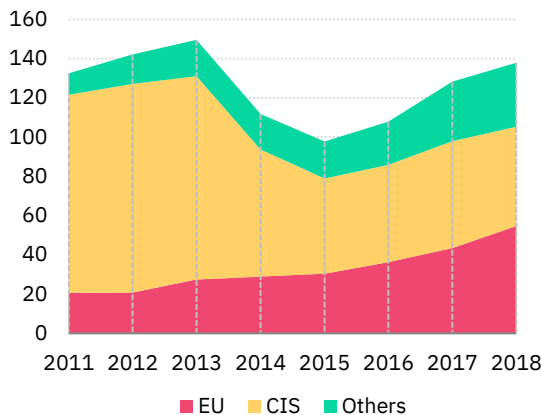


**Source:** UN Comtrade data

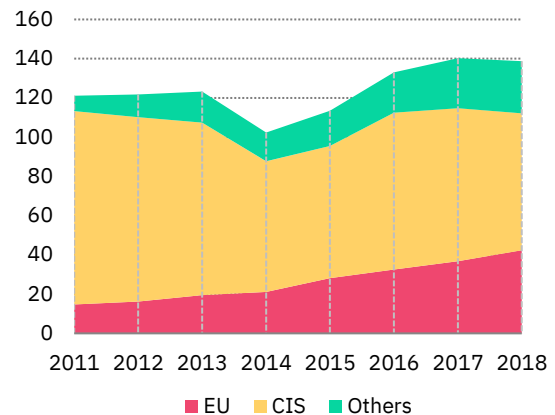
The structure of exports by group of countries shows a clear reorientation: the share of exports to the CIS countries is steadily decreasing while deliveries to the European Union and Other states are on the rise. As a result in 2018 the revenues generated by deliveries to the EU of 54.7 m USD or 39.6% per total surpassed for the first time the exports to the CIS countries - 50.6 m USD or 36.7% of the total. The receipts from exports to Other countries have also been on an upward trend in recent years: in 2018 these added up to 2.6 m USD or 23.6 % in total export.

Given that 8 years ago more than 3/4 exports were accounted for by the CIS, the structural changes are significant. The decrease of the dependence on only 1-2 markets occurred in the context of the Russian embargo as well as due to the combined efforts of the industry, authorities and the development partners to create the NOVW and the country brand Wine of Moldova. This offered the Moldovan wines a new image and identity on a highly competitive global market.

**Figure 37: Wine exports by groups of countries (m USD)**



**Figure 38: Wine exports by groups of countries (m litres)**

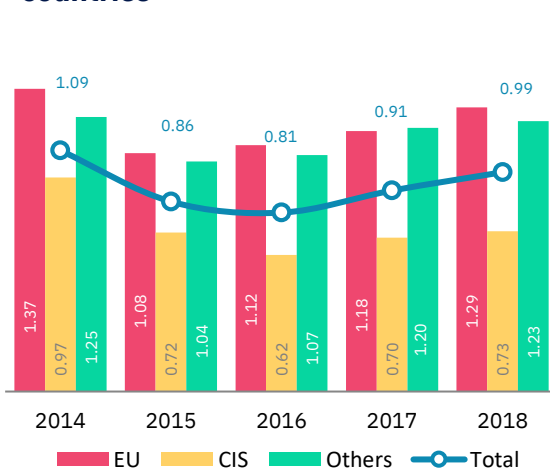


**Source:** Author's calculations based on UN Comtrade data

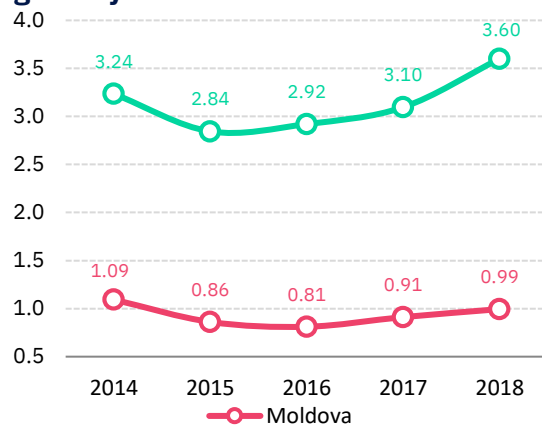
At the same time, in terms of exported volume, the CIS countries still hold priority positions. On average 1 out of 2 litres of wine reach this market. This is due to the fact that Moldova remains anchored in this market with bulk wines, especially through deliveries to Belarus. On the other hand, 30.6% of the exported volume arrive on EU markets; Other countries account for 19.2% of the export volume.

Overall, the average price for Moldovan wines evolved in trend with international developments. However, the comparison with the average export price of the top 5 wine exporters worldwide (Spain, Italy, France, Chile and Australia) shows a slower growth rate. Thereby, while in 2014 Moldovan wines were on average 3 times cheaper compared to Top 5 exporters in the world, in 2018 this discrepancy increased to a 3.6 ratio. In 2018 Moldovan wines were sold at an average 0.99 USD price per litre, compared to the average price of 3.6 USD by the Top 5 world exporters.

**Figure 39: Average export price of Moldovan wines (USD/l) by group of countries**



**Figure 40: Average export price of Moldovan wines (USD/l) compared to the average of the top 5 exporters globally**



**Source:** Author's calculations based on UN Comtrade data

By groups of countries, the highest average price of Moldovan wines is obtained on the EU markets with 1.29 USD/l and Other countries with USD 1.23 per litre, while the average sale price in the CIS area is 0.73 USD/l.

The dynamic display of the Top 10 destinations of Moldovan wines shows substantial ranking changes and an increasing diversification of the markets. In 2011 the Top 3 export markets were Russia, Belarus and Ukraine with a cumulative share of 64.7%. In 2018 the highest export receipts came from Belarus, Romania and the Czech Republic with a significantly lower cumulative share of 41.3%.

A comparison of the market shares of 2018 and 2011 shows that Romania was the main export driver: its market share increased 5.2 times, China - 3.6 times and the Czech Republic - 2.3 times. Concurrently, exposure to the Russian market in the structure of exports decreased 3 times, to Kazakhstan - 3 times and to Ukraine - 4 times.

**Table 6: Top 10 export destinations for Moldovan wines (in value)**

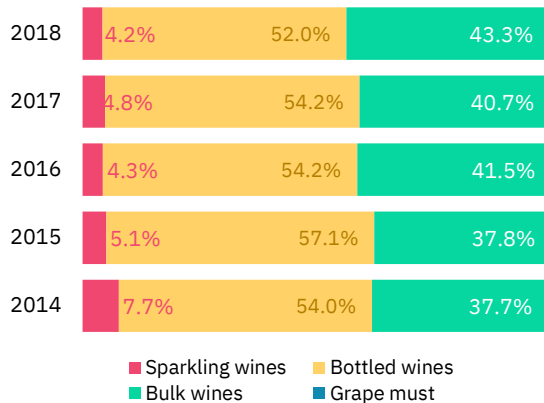
#	Top 10	2011	Top 10	2014	Top 10	2018
1	Russia	25.1%	Belarus	29.3%	Belarus	20.3%
2	Belarus	22.9%	Kazakhstan	11.1%	Romania	11.5%
3	Ukraine	16.7%	Russia	9.1%	Czech Rep.	9.4%
4	Kazakhstan	9.7%	Poland	7.9%	Russia	8.3%
5	Poland	5.1%	Georgia	7.0%	China	8.1%
6	Czech Rep.	4.2%	Czech Rep.	6.5%	Poland	7.3%
7	Georgia	3.0%	Ukraine	6.4%	Georgia	6.8%
8	China	2.2%	China	4.3%	Ukraine	4.4%
9	Romania	2.2%	Romania	4.1%	Kazakhstan	3.3%
10	SUA	1.5%	Slovakia	2.3%	Germania	3.3%

**Source:** Author's calculations based on UN Comtrade data

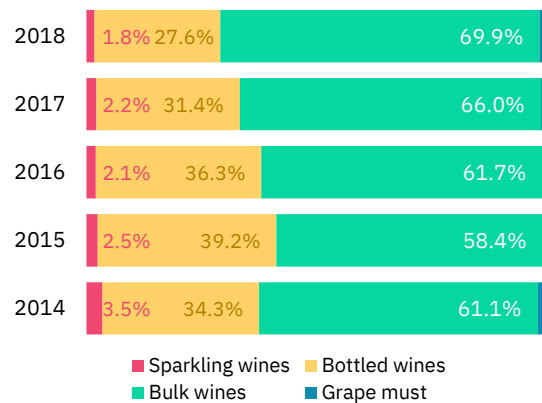
Bottled wines generate more than half of the export revenues (52%) with a 27.6% share of the exported volume. Bulk wines account for 69.9% in total exported volume while generating 43.3% of the revenues. With a share of 1.8% of the exported quantity, sparkling wines have a value quota of 4.2%.



**Figure 41: Structure of Moldovan wine exports (value)**



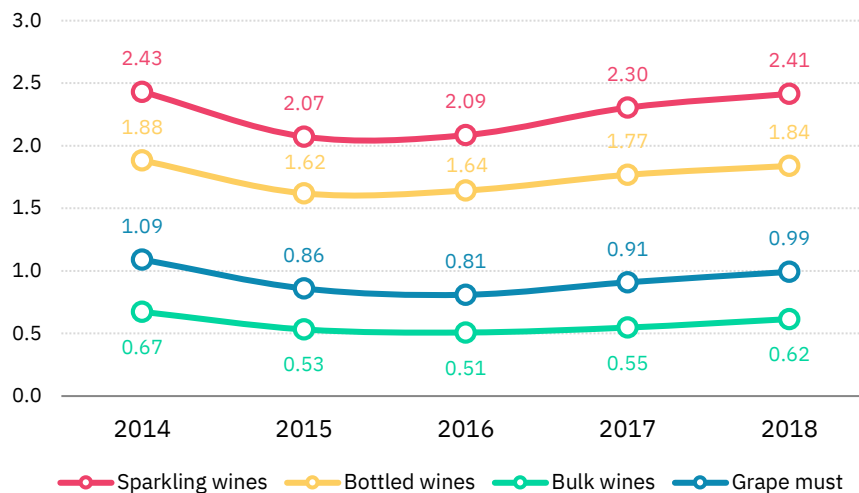
**Figure 42: Structure of Moldovan wine exports (volume)**



**Source:** Author's calculations based on UN Comtrade data

In 2018 sparkling wines recorded the highest average price on export - 2.41 USD/l, followed by bottled wines with 1.84 USD per litre. At the opposite end, bulk wines were sold on foreign markets at an average price of 0.62 USD/l.

**Figure 43: Average prices of Moldovan wines by types of wine**



**Source:** Author's calculations based on UN Comtrade data

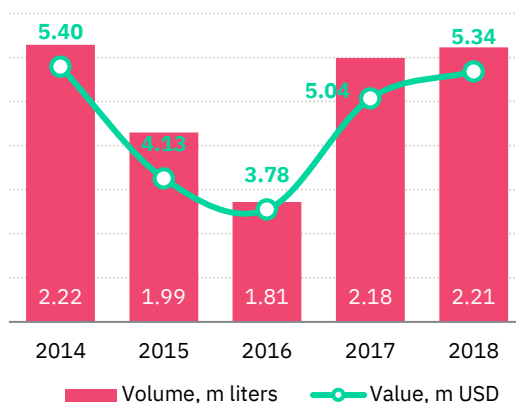
The highest prices in the analyzed period were recorded in 2014. Following the significant reductions in 2015, prices recovered in the following 3 years - the prices of the last year of analysis returning to the figures of 5 years ago.

## Sparkling wine

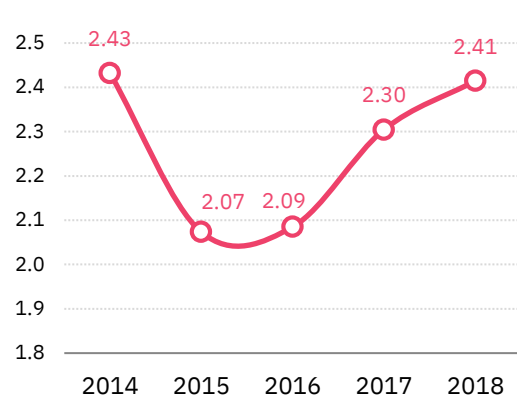
In 2018 the exports of sparkling wines amounted to 2.21 m litres (+1.2% compared to 2017), which is only 1.8% of the total exported volume. These exports generated revenues of 5.34 m USD (+6.1% compared to 2017) or 4.2% in total revenues.

In 2015 and 2016 exports recorded successive decreases in both value and volume. In 2017 (particularly) and 2018 exports reclaimed some lost ground: value indicators of 2018 are close to the 2014 figures (98.9% in value and 99.5% in volume).

**Figure 44: Sparkling wine exports (volume and value)**



**Figure 45: Average export price of sparkling wine (USD/l)**



**Source:** Author's calculations based on UN Comtrade data

The lowest export price for sparkling wines was recorded in 2015 (2.07 USD/l), while 2014 and 2018 recorded the highest prices - 2.43 and 2.41 USD per litre.

**Table 7: Top 10 export destinations for Moldovan sparkling wines (value)**

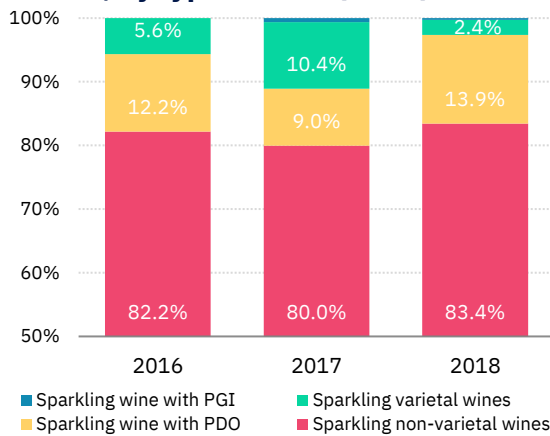
#	Top 10	2011	Top 10	2014	Top 10	2018
1	Russia	49.0%	Kazakhstan	34.4%	Romania	17.7%
2	Kazakhstan	18.1%	Russia	13.4%	Kazakhstan	14.9%
3	Ukraine	12.9%	Belarus	11.5%	USA	11.6%
4	USA	4.3%	Ukraine	10.3%	Russia	7.5%
5	Belarus	3.8%	USA	2.7%	Ukraine	5.7%
6	Nigeria	2.0%	Romania	2.7%	Belarus	3.2%
7	Romania	1.7%	Kyrgyzstan	2.3%	Poland	2.8%
8	Poland	1.5%	Poland	2.1%	Georgia	1.9%
9	Georgia	1.3%	Nigeria	1.6%	Israel	1.5%
10	Israel	1.3%	Cyprus	1.5%	China	1.2%

**Source:** Author's calculations based on UN Comtrade data

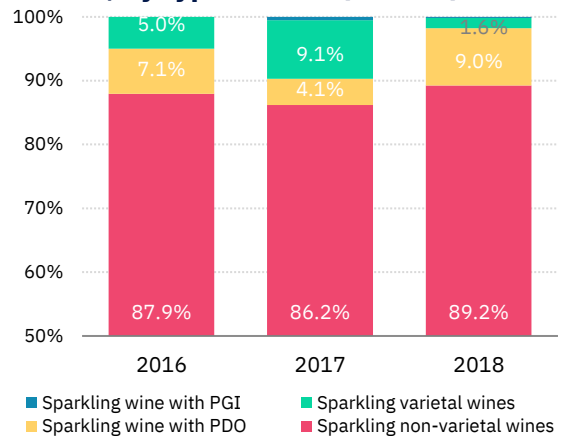
In terms of sparkling wine destination markets, in 2018 the Top 3 positions were accounted for by Romania, Kazakhstan and the USA. Sparkling wines were among the most affected category by the Russian embargo of 2013, considering that prior to the embargo an average of 1 of 2 bottles were exported to Russia.

The export structure of sparkling wines is dominated by blended styles (89.2% in volume and 83.4% in value), followed by sparkling wines with Protected Designation of Origin (PDO) with 9.0% in volume and 13.9% in revenue.

**Figure 46: Export structure of sparkling wines, by type of wine (value)**



**Figure 47: Export structure of sparkling wines, by type of wine (volume)**

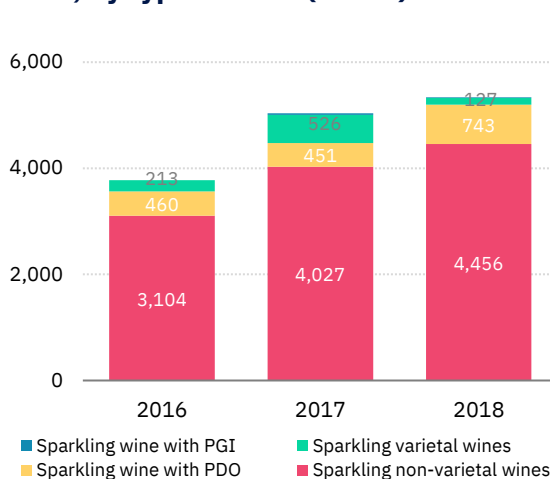


**Source:** Author's calculations based on UN Comtrade data

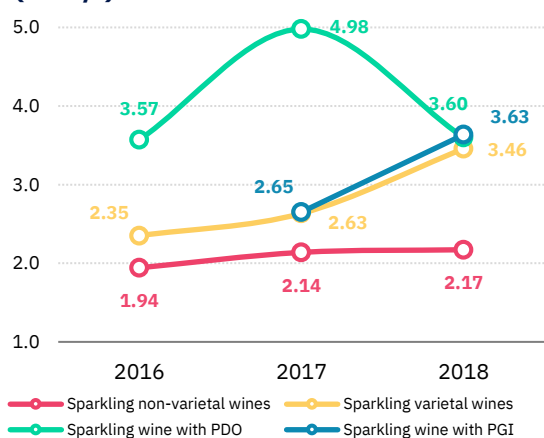
In the past 2 years, exports of sparkling wines increased mostly on the account of blended types, with successive increases of 29.7 and 10.7% up to 4.45 m USD in 2018. PDO sparkling wines also reported a significant increase, from 451 k USD in 2017 to 743 k in 2018.

Non-varietal wines, which account for an average of 9 out of 10 bottles in exports, are delivered at the lowest price with 2.17 USD/l. On the other hand, varietal wines' selling price is 59.4% higher - on average 3.46 USD per litre. PDO- and PGI-quality sparkling wines are the priciest in exports structure: an average 3.60 and 3.63 USD/l.

**Figure 48: Export revenues of sparkling wines, by type of wine (k USD)**



**Figure 49: Average export price of sparkling wines, by type of wine (USD/l)**



**Source:** Author's calculations based on UN Comtrade data

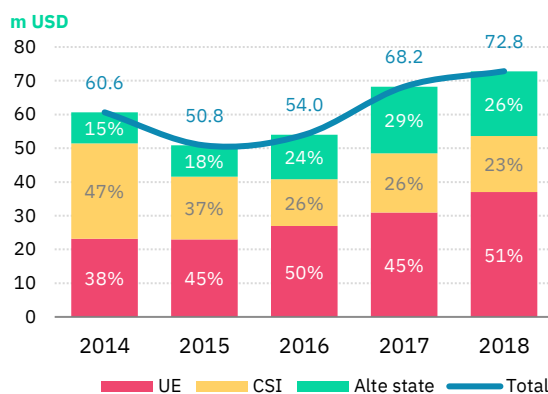
## Bottled wine

In 2018 exports of bottled wine reached the highest level for the last 5 years, both in volume and value, to 39.6 million litres (2.6% YoY), or 72.8 m USD (6.7% YoY). In the last 5 years exports of bottled wine have increased with a CAGR of 5.3% in volume and 4.7% in value.

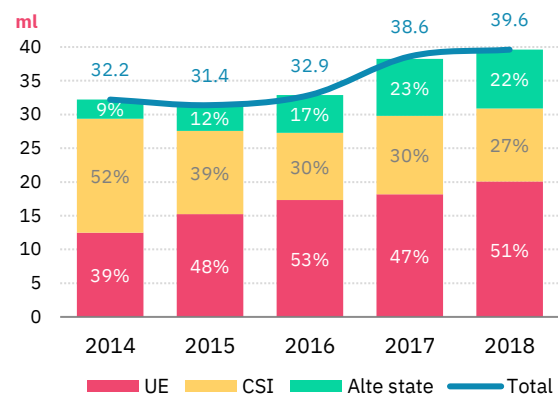
In this wine segment, with the highest value added on export, the EU countries became market leaders starting in 2015, both in volume and in value. In 2018, 20.1 million litres were delivered to these countries with a total value of 37.0 m USD. The share of exports to EU countries in 2018 constituted 51% in both exports volume and value. Throughout the past 5 years the share of exports to the EU countries was on an upward trend, from 39% to 51% in volume and 38% to 51% in value.

In the last five years exports of bottled wines to the CIS countries continued to drop considerably as a result of the war in Ukraine, customs restrictions and duties, also due to the significant depreciation of currencies in Russia, Belarus and Kazakhstan. In 2018, 10.9 m litres (-6.8% YoY) worth 16.6 m USD (-5.9% YoY) were delivered on the CIS market. The share of exports to these countries depict a sharp decline for the last 5 years, from 52% to 27% in volume and 47% to 23% in value.

**Figure 50: Bottled wine exports (value)**



**Figure 51: Bottled wine exports (volume)**

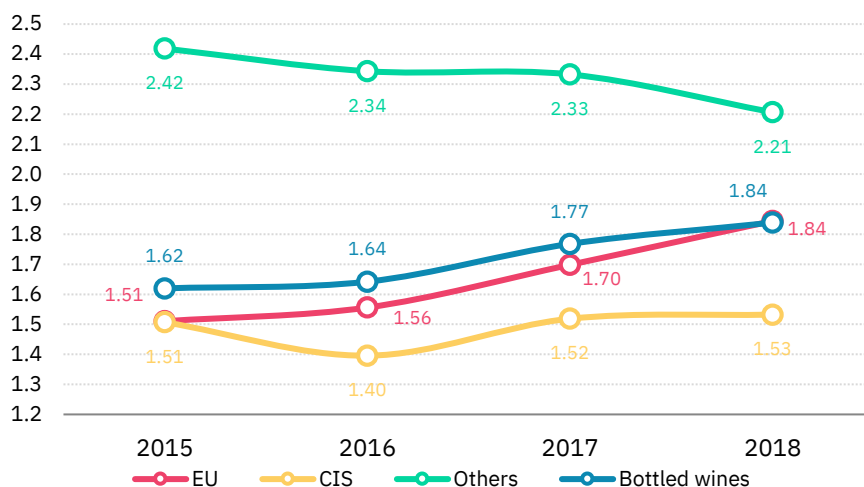


**Source:** Author's calculations based on UN Comtrade data

Exports of bottled wines to Other countries increased in the last 5 years with a 32.3% CAGR in volume and 20.2% in value. Throughout 2014-2018 the share of exports to these countries increased from 9% to 22% in volume and from 15% to 26% in value.

Although on a downward trend, the most expensive bottled wines are sold to Other countries for 2.21 USD per litre, while deliveries to EU countries are priced 1.84 USD/l, which is coincidentally the average price of bottled wines in total exports. On the other hand, bottled wine is sold on the CIS market for an average 1.53 USD/l, which is only 83.3% of the total average price.

**Figure 52: Average prices of bottled wines by group of countries, USD/l**



**Source:** Author's calculations based on UN Comtrade data

In 2018 Moldovan bottled wines were exported to 56 countries. The first 10 destination countries concentrate 84.3% of the total export volume and 82.8% of the value. Romania, China, Poland, the Czech Republic and Russia imported the largest numbers of bottles.

The dynamics of the Top indicates a clear trend of diversification and reorientation of the markets. E.g. In 2011 on average 1 in 3 bottles of Moldovan wine was delivered to Russia, compared to only 1 in 11 bottles in 2018. In contrast, during the same period Romania's share has increased more than 7 times: in 2011 on average 2 out of 100 bottles reached the Romanian market, in 2018 the average was 15 bottles.

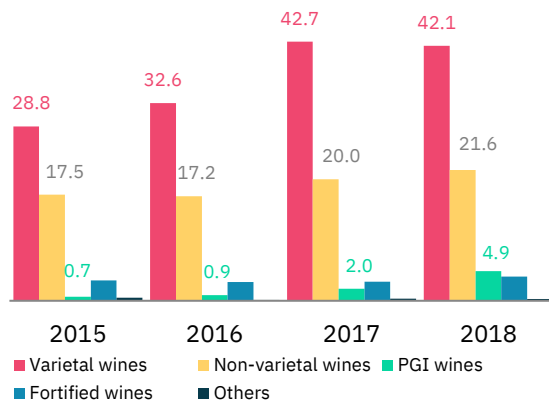
**Table 8: Top 10 export destinations of bottled wines (value)**

#	Top 10	2011	Top 10	2014	Top 10	2018
1	Russia	33.8%	Kazakhstan	17.2%	Romania	15.4%
2	Kazakhstan	15.4%	Poland	14.1%	China	13.3%
3	Ukraine	10.8%	Belarus	9.3%	Poland	13.3%
4	Poland	9.1%	Ukraine	9.2%	Czech Rep.	12.3%
5	Czech Rep.	6.7%	Czech Rep.	9.1%	Russia	9.1%
6	Belarus	6.1%	Russia	8.7%	Ukraine	5.2%
7	China	3.9%	China	7.9%	Kazakhstan	5.1%
8	Romania	2.1%	Romania	4.0%	Canada	3.4%
9	SUA	2.1%	Slovakia	3.7%	Belarus	2.8%
10	Germania	1.7%	Nigeria	2.2%	Latvia	2.0%

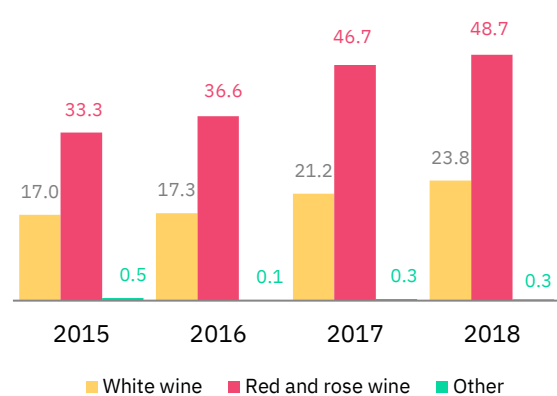
**Source:** Author's calculations based on UN Comtrade data

The classification by colour shows that during the analyzed period on average 2 out of 3 bottles of the exported wine were red and rosé (64.6% in volume and 67.2 in value). In 2018, Moldova exported 25.6 m litres of red and rosé wine worth 48.7 m USD. On the other hand, the 14.0 m litres of exported white wine generated revenues of 23.8 m USD.

**Figure 53: Structure of bottled wines exports, by variety (m USD)**



**Figure 54: Structure of bottled wines exports, by colour (m USD)**



**Source:** Author's calculations based on UN Comtrade data

The classification by variety shows that Varietal wines account for the dominant share (58.5% in volume and 57.8% in value) with export revenues of USD 42.1 million in 2018. These are followed by blended wines that generated USD 21.6 million (31.9% in volume and 29.6% in value).

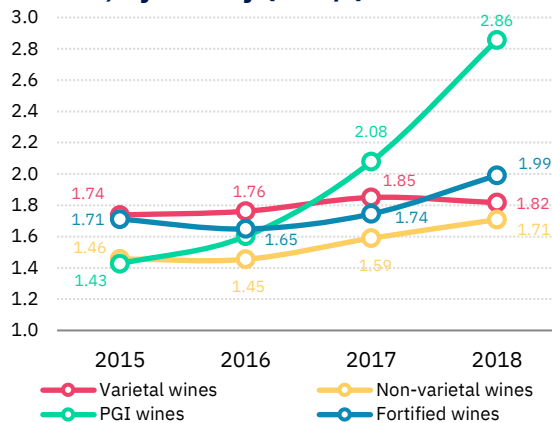
The most positive novelty of 2018 concerning the bottled wine is the 1.8 times increase in the export volume of PGI-quality wines (over 1.7 m litres) and the 2.5 times increase of the related revenues, which amounted to 4.9 m USD. About 72% of the exported PGI wines are red and rosé. Their main export destinations are Romania with a 60% share and Russia with ¼.

The average price of bottled wine according to its colour shows that red and rosé wines were exported in 2018 with an average price 12% higher compared to whites. In the last year of analysis, red and rosé wines were delivered at an average price of 1.91 USD/l (+3.6% YoY), while white wines were priced at 1.70 USD/l, up 5.2% on the previous year.

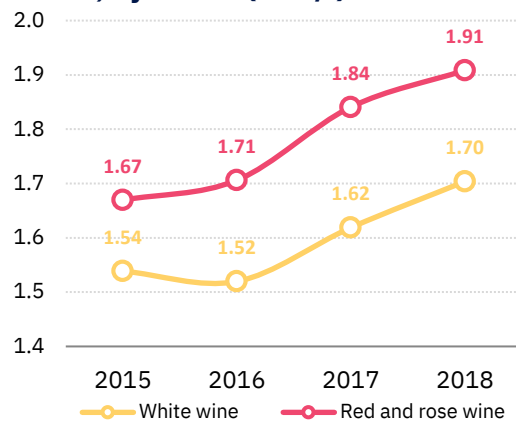
The classification by variety shows that the highest export price is obtained for PGI wines - 2.86 USD/l; it also reveals a 37.4% price increase on the previous year. The rise in the deliveries and prices of Moldovan PGI-quality wines may be explained including through the recognition in 2016 by the EU of the 4 winegrowing areas with protected geographical indication.

At the same time, in recent years a reduction in the price divergence between varietal and blended wines was noted. In 2018 their purchase price was 1.82 USD and 1.72 per litre.

**Figure 55: Average price of bottled wines, by variety (USD/l)**



**Figure 56: Average price of bottled wines, by colour (USD/l)**



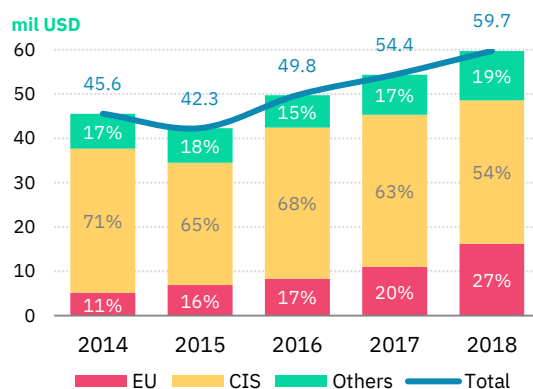
**Source:** Author's calculations based on UN Comtrade data

## Bulk wine

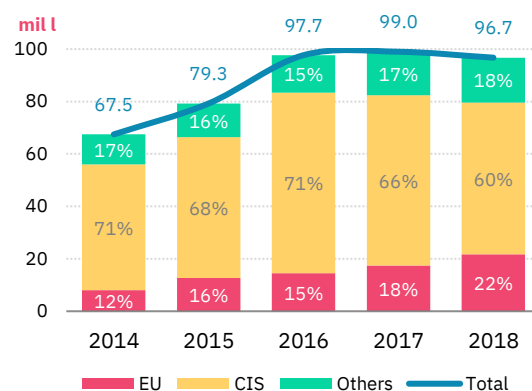
Between 2014-2018 the volume of bulk wine exports increased every year, with an average 9.4% CAGR. The peak of the period occurred in 2017: in 2018 bulk exports volume decreased by 2.3% on the previous year, to 96.7 m litres. The record high value for the period was reached in 2018 with exports worth 59.7 m USD or up 9.8% compared to the previous year.

By groups of countries, the CIS market remains by far dominant for bulk wines (60% in volume, 54% in value). However, the share of CIS countries in this category is declining. In contrast, deliveries to the EU increased in the past 5 years from 12 to 22% in volume and from 11 to 27% in value. The share of Other countries recorded insignificant fluctuations in the structure of bulk wines: 18% in volume and 19% in value in the 2018 exports.

**Figure 57: Bulk wine exports (value)**



**Figure 58: Bulk wine exports (volume)**



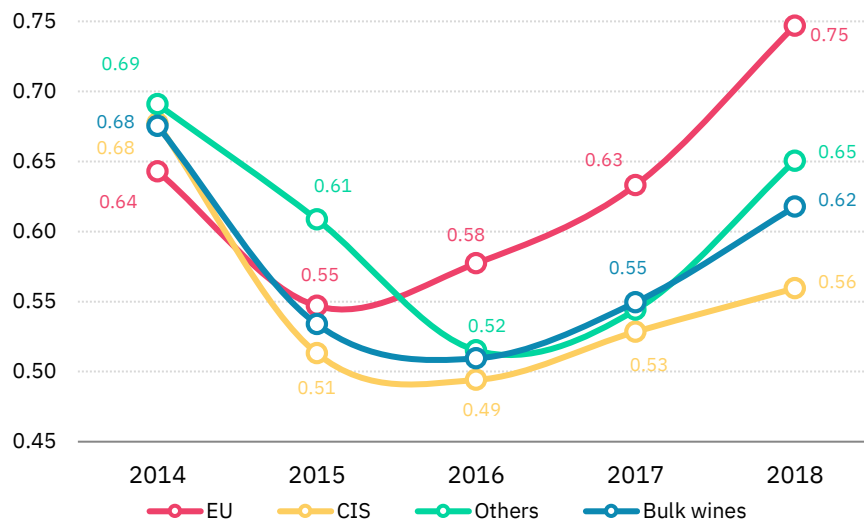
**Source:** Author's calculations based on UN Comtrade data



The best average selling price of bulk wines was registered in 2014, followed by 2 years of successive decreases and another 2 years which saw the prices return to an upward trend. In 2018, the average price of 0.62 USD/l was 12.4% higher compared to 2017.

Exports to the EU have the highest price: 0.75 USD/l or 20.9% higher compared to the overall average price. The export price to the CIS countries (0.56 USD/l) constitutes 90.6% of the overall average.

**Figure 59: Average prices of bulk wines by group of countries (USD/l)**



**Source:** Author's calculations based on UN Comtrade data

In 2018, Belarus remains by far the main destination for Moldovan bulk wines with 43.2% in value, followed by Georgia and Russia with 15.3 and 7.4%. The first 10 export markets for bulk wine hold a total share of 96.2%. At the same time, a significant decrease of Ukraine's share can be noted as compared to 8 years ago, but also an increasing presence in several EU countries - the Czech Republic, Romania, Germany and the United Kingdom.

**Table 9: Top 10 export markets for bulk wines (value)**

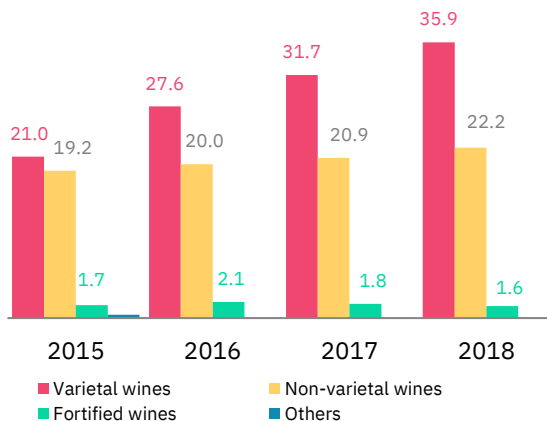
#	Top 10	2011	Top 10	2014	Top 10	2018
1	Belarus	51.2%	Belarus	58.2%	Belarus	43.2%
2	Ukraine	26.2%	Georgia	17.0%	Georgia	15.3%
3	Russia	8.2%	Russia	9.1%	Russia	7.4%
4	Georgia	7.5%	Romania	4.5%	Czech Rep.	6.7%
5	Romania	2.5%	Czech Rep.	3.7%	Romania	6.3%
6	Azerbaijan	2.0%	Ukraine	2.4%	Germany	5.5%
7	Czech Rep.	1.4%	Lithuania	1.5%	UK	5.3%
8	Italia	0.3%	Azerbaijan	1.4%	Ukraine	3.3%
9	China	0.2%	Slovakia	0.7%	China	2.3%
10	Poland	0.1%	Poland	0.4%	Slovakia	1.0%

**Source:** Author's calculations based on UN Comtrade data

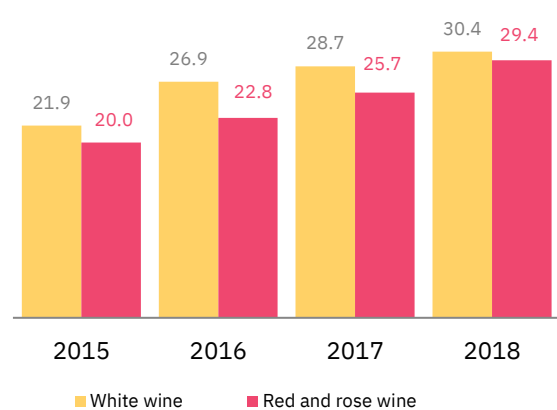
Compared with bottled wines, the proportion between red and rosé bulk wines vs. white wines is balanced with a slight prevalence for white wines (50.6% in volume and 50.8% in value).

The classification according to the variety shows that highest revenues in bulk wine exports are generated by variety wines - 35.9 m USD. Blended wines return 22.2 m USD, fortified wines - 1.6 m USD.

**Figure 60: Export structure of bulk wines, by variety (m USD)**



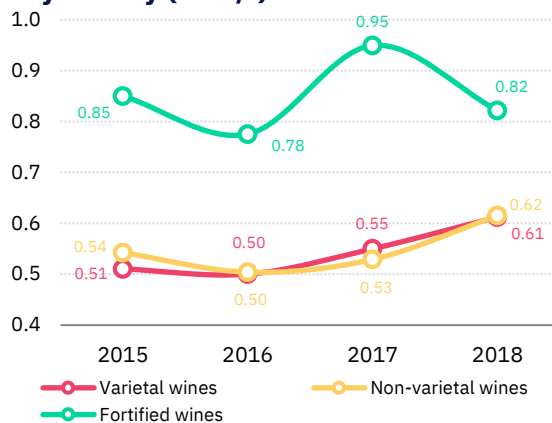
**Figure 61: Export structure of bulk wines, by colour (m USD)**



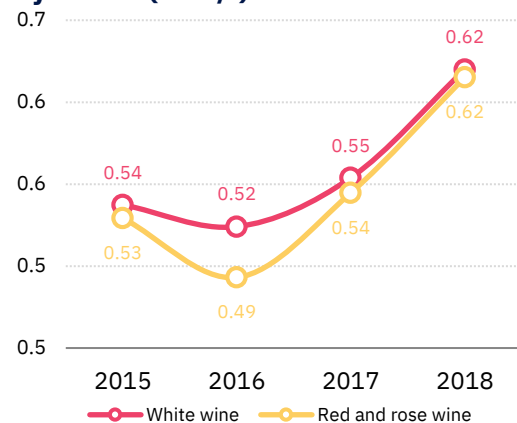
**Source:** Author's calculations based on UN Comtrade data

In terms of price, in 2018 virtually no difference was noted in bulk wine exports structure, either by colour or by variety. Reds and rosés had on average the same delivery price as whites; varietal wines were marketed at the same prices as blended wines.

**Figure 62: Average price of bulk wines, by variety (USD/l)**



**Figure 63: Average price of bulk wines, by colour (USD/l)**



**Source:** Author's calculations based on UN Comtrade data

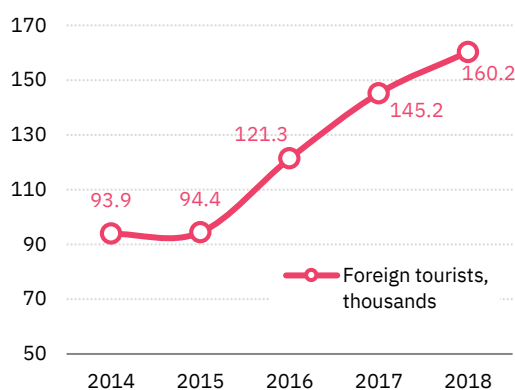
## 08 Wine tourism

### Key figures regarding the inbound tourism in Moldova

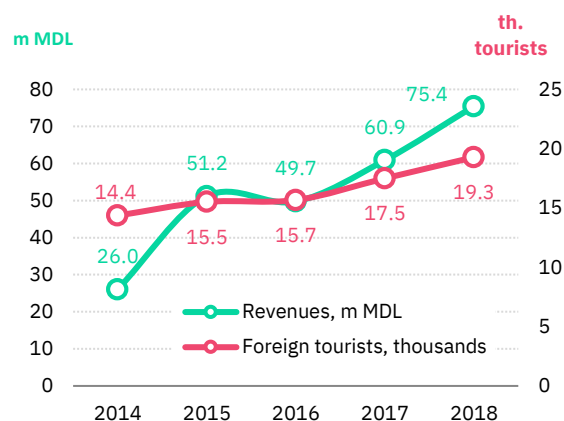
Although the Republic of Moldova is still in an incipient phase of developing the inbound tourism, in recent years the touristic visibility of the country has increased significantly, a fact declared by both foreign experts and international surveys, also confirmed by statistical data. The number of foreign tourists accommodated in collective establishments in 2018 amounted to 160.2 thousand. This is a 70% growth compared to the indicator of 5 years ago.

On average, every 8th accommodated foreign tourist arrives in Moldova through travel agencies / tour operators. Concurrently, in the last years, revenues generated by inbound tourism grew faster relative to the number of tourists. This indicates an increase of the service value added, including by a more exhaustive and more qualitative use of tourist attractions.

**Figure 64: Foreign tourists accommodated in collective tourist structures with accommodation functions**



**Figure 65: Foreign tourists arriving through travel agencies/tour operators; related revenues**



Source: NBS data

## **Reputation of the Moldovan wine industry in the world**

The growing notoriety and tourist numbers coincides with the major qualitative leap recorded by the wine industry and the increasing orientation of wineries towards tourism. But in order to have wine tourism, one must first own good wine. In just a few years, thanks to the visionary actions of the Government and the support of strategic partners, the Republic of Moldova has evolved from a producer of mediocre bulk wines to a producer of bottled wines of excellent quality, which are exported to over 60 countries worldwide. The wine industry was virtually reinvented, including by creating a country wine brand and a specialized institution - NOVW - directly responsible for promoting Moldovan wines, but also for carrying out extensive campaigns to attract tourists. The smart regulation promoted by the state encouraged the emergence of new small and medium-sized boutique wineries, which, together with well-known wineries such as Cricova and Milestii Mici transformed the industry, including by opening up to tourism.

Wine tourism in Moldova is now promoted more easily thanks to the figures recorded in the wine industry which place our country in International Tops. Moldova is one of the top 20 wine producers in the world. With an area of vineyards that occupy 4% of the country's territory or 7% of the arable land, Moldova has the highest density of vineyards in the world. Our country is ranked 6th in Europe by area of vineyard plantations.

Due to its unique cellars, Moldova was included in the Guinness World Records Book. As a tourist destination, Moldova is at the beginning of the road, focusing on sustainable wine tourism along with developing niche travel offers in order to attract more foreign visitors.

## **Wine tourism - a global approach in Chisinau**

In September 2018, Moldova hosted the most important international event in the field of wine tourism - the third Global Conference on Wine Tourism. The event was organized in Chisinau under the aegis of the World Tourism Organization of the UN (UNWTO).

Holding the event in Moldova denotes an official recognition of the fact that our country is an important wine destination on the world map of tourism, and is also a good opportunity to promote the image of the Republic of Moldova internationally.

The conference brought together over 200 high-ranking guests from the wine tourism sector from around 60 countries of the world, who had the opportunity to get to know and "taste" the wine tourism offer of the country by visiting a range of wineries and representative touristic complexes.

## Perception of foreign tourists

**A study<sup>6</sup>** on the evaluation of how the tourists perceive Moldova as a tourist destination developed for the National Inbound Tourism Association of Moldova (ANTRIM) on a sample of 1025 foreign tourists shows that:

- the experience they had in Moldova exceeded their expectations, to a extent of 4.1 points on a scale of 1 to 5
- 76% of foreign tourists are interested in visiting the Republic of Moldova over again.
- 70% of foreign tourists would recommend visiting Moldova to relatives and friends on a 9/10 note
- About 52% foreign tourists did not have any difficulty in organizing the trip

The research, which included interviews during the Wine Festival, reveals several data that highlight the priority importance of wine tourism in the country's tourism system, specifically:

- "Wine" and "traditional food" are the first things that foreign tourists think of when they think about Tourism in Moldova.
- An analysis of the tourists' satisfaction regarding several aspects of their trip to Moldova revealed higher satisfaction degrees for "moldovan food" - 94%, "wines" - 93%, "hospitality of local people" - 92%.
- Asked to mention Top 3 things to do in Moldova, about 39% of the participants in the survey (highest share) mentioned the option of "drinking wine".
- Asked to indicate the factors that motivated them to visit the Republic of Moldova as a tourist destination, the options "I wanted to taste Moldovan wine" and "I wanted to visit Moldovan wineries and cellars" were mentioned most frequently (43% and 33%). The analysis of tourist profile that stayed in a hotel during their visit to Moldova revealed a higher share of respondents who mentioned the option of "drinking wine" as an important thing to do in Moldova - 47%.

## The Wine Route

**The Republic of Moldova** has adopted a National Program in the field of tourism designated as The Wine Route of Moldova<sup>7</sup>. In 2015 its revision was initiated in order to update it, in the context of integrating national routes into the international circuit. According to the document, the concept of Wine Tourism is designated as "a form of tourism practiced by tourists for visiting vineyard and wine regions, vineyard households and wineries in order to combine the tasting of wine products with the

---

<sup>6</sup> <http://consulting.md/rom/noutati/prezentarea-studiului-privind-evaluarea-perceptiei-turistilor-despre-republica-mol>

<sup>7</sup> <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=302972>

knowledge of local life, cultural environment and rural activities". Its main objectives are:

- promote Moldova internationally as a wine tourism destination;
- establish the link between the tourism and the winemaking sector;
- offer visitors quality tourism products;
- enhance the economic potential and harness the human potential in rural areas;
- improve the profitability of wineries and businesses that are engaged in the tourism activity;
- protect, conserve and develop the national heritage of tourist value and use it at a competitive level;
- extend the awareness process of the importance of developing the vine and wine tourism.

The last landmarks on the list of wineries in the given circuit are updated by the Ministry of Economy and Infrastructure. In 2018 the ministry approved the list that contained 38 wine tourism objectives included in the tourist routes approved by the Investment Agency and recommended for inclusion in the National Program in the field of tourism "Wine Road in Moldova". At the same time, it was decided that the State Road Administration, will be guided by this list in the activity of installing tourist information indicators. According to the document, the 38 wineries come from wine regions as follows:

- 19 from Codru Wine Region,
- 9 from Ștefan Voda Wine Region and
- 10 from Valul lui Traian Wine Region.

At present, the National Office of Vine and Wine operates with 17 wineries, which meet a number of criteria and standards for serving tourists, such as:

**Table 10: 17 Wineries included in Moldovan wine route**

#	Wineries	Wine region
1	Asconi	Codru
2	Atu Winery	
3	Castel Mimi	
4	Chateau Vartely	
5	Cricova	
6	Migdal P	
7	Milestii Mici	
8	Pivnițele Branesti	
9	Vinăria Poiana	
10	Crama Mihai Sava	
11	Crama Tronciu	
12	Purcari Winery	Ștefan Voda
13	KaraGani Winery	Valul lui

#	Wineries	Wine region
14	Vinia Traian	Traian
15	Vinuri de Comrat	
16	Barza Alba	Divin
17	Kvint	

**Source:** Moldovan Wine Route (NOVW)

## National Wine Day - the only national wine holiday in the world

Another emblematic event for the local wine sector is the yearly organization of the National Wine Day in the first weekend of October. The event reached its 18th edition this year, attracting more than 70 thousand people.

The National Wine Day brought together a record number of 68 winemakers gathered under the national wine brand „Wine of Moldova. A living legend”. About 1600 people worked alongside the National Office of Vine and Wine to make the largest wine holiday in Eastern Europe happen.

Winemakers celebrated the 18th edition of the industry's most important holiday as well. They managed to sell over 80 thousand bottles of wine products and filled over 45 000 times the glasses of the Tasting Card holders. Over 400 tourists were accompanied by 42 tour guides through the wineries stands in the Grand National Assembly Square (Piata Marii Adunari Nationale).

A "Wine School" was set up where 450 visitors learned more about the PGI areas and the terroir that shape Moldova's pride product, due to the master classes organized by experts of the National Office of Wine and Wine and sommeliers. In order to promote a fair and moderate consumption of wine, 1500 disposable alcohol testers were distributed.

The National Wine Day contributes not only to the promotion of Moldovan wine as a quality product, but also to the **tourism potential of the country**, each time managing to attract an increasing number of tourists to the country's wineries. This year, the wineries in the country opened their doors for an estimated 9,000 visitors who bought over 13 thousand bottles of wine at producer price and tasted another 900 bottles.

Wineries offered gastronomic treats and a tailored cultural program which convinced guests that Moldova is a wine tourism destination worth visiting.

As the only national holiday dedicated to wine in the world, the National Wine Day celebration in Moldova attracts thousands of foreign tourists annually. Discussions with the hoteliers revealed that the demand for accommodation hits year record high during the Wine Day period.



## 09 Future prospects

The latest international figures show that between 2015-2017 wine consumption increased by 0.5 percent annually, which translates into a 250 million glasses of wine growth every year. Interestingly, the growth is driven by the consumption of fine wine and imported wine. This increase is higher than the average growth rate of the 2007 - 2017 decade, when global consumption increased by 0.2 percent per year<sup>8</sup>. These developments take place in the context where in the 1997-2007 decade the global consumption of wine grew by over 1% per year. A number of factors have contributed to the slowdown of wine consumption over the past decade, such as volatile economic conditions around the world (e.g. the global financial crisis) and consumption decline or stagnation on wine markets such as France, Italy, Germany, Spain and Argentina, as well as on mature markets, such as the United Kingdom.

The trends are once again confirming that the global wine market remains extremely competitive, and all stakeholders in the wine sector of the Republic of Moldova must take all necessary measures and remain connected to international trends in order to withstand competition. The sector achievements in recent years can serve as a solid foundation for future developments, and by observing the trends and transformations that the wine industry undergoes internationally, Moldovan producers can harness new opportunities. In this context, the wine sector can remain competitive and grow qualitatively in the following years. Its prospects have the potential to be realized by setting objectives such as:

1. **Predictable legal framework and a consolidated NOVW.** Further improvements of the regulatory framework in the wine sector by aligning it with best international practices. This process can occur in parallel with the strengthening and expansion of the NOVW capabilities as a pennant institution in protecting the interests of the sector and promoting on foreign markets. An important aspect the NOVW should place greater emphasis on is strengthening the business intelligence part by providing valuable market information to the producers. In addition, the vine and wine Register must be updated in order to offer an in-depth picture of the sector. The data will be used as support in the correct elaboration of public policies, and as a guide for vine and wine producing entities to meet market requirements and standards.
2. **Competitiveness subsidy.** Constant support of the wine sector through the subsidy method. Modification and adaptation of the support provisions regarding

---

<sup>8</sup> <https://www.wineaustralia.com/news/market-bulletin/issue-143>

the allocation of public resources towards a sustainable and competitive development of winemaking throughout its entire value chain.

3. **Diversification and targeting the value-added markets.** As showed by the study, winemakers have made considerable efforts in recent years to reconfigure export markets following the Russian embargoes. This process must be continued in parallel with the valorization of the country offer. At present, the average export price of the top 5 wine exporting countries in the world is over 3 times higher compared to Moldova's export price. Thereby, there is room for improvement, but there is potential too, including through the dozens of small wine producers that have emerged in recent years, with most of them focusing exclusively on the high value-added price segment.
4. **Differentiation and uniqueness through PGI wines.** Moldova has made sustained efforts so that as of October 2016, the geographical indications designating three wine-growing areas of the Republic of Moldova: Valul lui Traian, Codru, Stefan Voda as well as Divin (used for "aged wine spirit", manufactured across the entire country), obtained protection in the territory of the European Union. As a result, in 2018 the exported volume of PGI-quality wine increased by 1.8% (over 1.7 mil. litres); related revenues increased 2.5 times, to USD 4.9 mil. Given this context, PGI wines can still serve as a source of sustainable growth of value added wines. As CBI research shows, PGI wines can serve as a valuable tool to distinguish the product from competition. High quality PGI wines from developing countries are particularly more likely to reach the premium segment. The market will be more comfortable with the integrity of labels and less concerned about smuggling, counterfeit or illegal mixings.
5. **Developing the wine tourism at a large scale.** As revealed in representative surveys "wine" and "traditional food" are the first things that foreign tourists mention when thinking about Tourism in Moldova. There are currently 17 wineries that meet a series of criteria and standards for serving tourists and are included on the tourist map of the country. This number has the potential to reach up to 40 units in the coming years. In addition to extending the network of wineries included in the Wine Route, the scale and scope of the National Wine Day is also growing, being the only national holiday dedicated to wine in the world. At the same time, cross-border projects such as WINET BSB-638 can provide additional impetus to the development of wine tourism in the country.
6. **Drive for authenticity.** The goal of increasing global supply is the drive for authenticity among wine consumers, especially in the premium segment. There is an increasing awareness of the authenticity among the most discerning consumers, regarding the traditional production of wine and viticulture, the use of endemic varieties, but also the way in which the wine is transported and packaged. Producers in developing countries, such as Moldova, are to dispel the feeling of doubt among consumers regarding the origin, new varieties, exotic image and the correct manufacturing conditions of the product. In this context, as

of late, many producers focus on local varieties such as Rara Neagră or Feteasca, in order to create favourable conditions for enhancing the uniqueness of Moldovan wines.

7. **Deliveries / Sustainable offers.** Sustainability is a trending topic in the wine industry. The sustainable production of wine refers not only to organic or biodynamic production, but also to the conservation of energy and water, the use of renewable resources (wind or solar energy) or the reduction of CO2 emissions. Sustainable practices can provide not only lower production costs or favorable taxes, but also promotion opportunities based on sustainable practices among buyers. These types of sustainable practices are increasingly imperative in the mainstream markets<sup>9</sup>. For various sustainable practices, certificates can be obtained from third parties. Sustainable practices extend into all business aspects, including grape growing, harvesting, wine-making, bottling, storage and transportation.
8. **Demographic trends.** An important aspect that will mark the future prospects is the aging of the population. Demographic data show that Europe faces an aging population issue. It is estimated that 28% of the European population will be 65 and over by 2050, compared to 19% in 2015. This demographic shift leads to a growing niche on the European wine market of consumers who drink wine less often. The wine industry is tapping into this development by selling wine in smaller packages or in packages which preserve wine better and longer. On the other hand, younger generations of wine consumers, millennials (people born between 1982 and 2000) are often perceived as being more adventurous in their tastes. They have a thirst for new regions, accessible pricing and particularly wines that are thoughtfully produced. The impact of the millennials on the wine market is increasing. According to a British study, millennials view wine as a social drink and preferably buy wine in the on-trade channel, accounting for 29% of its volume (Wine Intelligence, 2016). The wine industry will need to become more responsive to their needs, requiring a stronger emphasis on experiential and emotional engagement with consumers in communication.
9. **Packaging innovations.** The push for other packaging than glass bottles stems from a multitude of factors, such as price, sustainability and quality conservation. The acceptance of technological innovations in packaging, such as the use of screw caps or bag-in box differs from country to country. Whereas Northern and Western European countries seem to have embraced these technologies in packaging for the high-volume segment, Eastern European consumers seem to have more difficulties accepting these innovations. In most import markets, the general public has been hesitant to convert from traditional glass, especially in the premium and super-premium segment. Nevertheless, alternatives such as single-serve PET and Bag-in-box solutions are steadily growing and will be increasingly accepted by the public.

---

<sup>9</sup> <https://www.cbi.eu/node/2419/pdf/>

10. **Online sales are becoming more important.** Global online wine sales were around 600% higher in 2015 compared to 2006, amounting to approximately EUR 5.4 billion. Nevertheless, online sales are still small. In most of Europe, existing wine retailers with an offline presence lead the development. They use the same warehouse for both their offline and online sales. For the moment, large internet retailers have not yet succeeded to enter the wine market in a meaningful way. Nevertheless, online sales have the potential to become a significant market channel in the long term<sup>10</sup>. The online market development can be interesting for new market entrants from developing countries, as they can use the online space to provide more information on their products. This serves as an instrument to convince consumers of the value of their products.
11. **Climate change will also expand the wine map.** As shown in an analysis by NY Times<sup>11</sup>, wine, which is one of the most sensitive and nuanced agricultural products, demonstrates how climate change transforms centuries old traditions and practices. Winemakers are now growing grapes in places once considered too cold for fine wines and are planting vineyards at altitudes once considered inhospitable to growing wine grapes. Producers also take into account grape varieties that have long been associated with their region and whether to change the essence of what they have been doing, in some cases for centuries. Another aspect influenced by climate change is that the weather is no longer as predictable. Without a doubt, Moldovan producers must take into consideration the climate influences as well, given that, in the long run, their export competitors can change, along with consumer markets and preferences.

---

<sup>10</sup> <https://www.wineintelligence.com/global-trends-in-wine-the-who-what-and-how/>

<sup>11</sup> <https://www.nytimes.com/interactive/2019/10/14/dining/drinks/climate-change-wine.html?fbclid=IwAR0AEdrVa7uRNUsdEGL3cOYZXQHbljCPybKXQ647wDUfDR7guvvQACLERE>

# Annexes

## Annex 1: Wine production (by category) according to PRODMOLD, mdal (2014-2018)

Wine category	2014	2015	2016	2017	2018
<b>Sparkling wine</b>	<b>514</b>	<b>502</b>	<b>629</b>	<b>642</b>	<b>665</b>
<b>Still light wine</b>	<b>13,667</b>	<b>13,277</b>	<b>13,046</b>	<b>16,164</b>	<b>17,017</b>
Still white wine	7,095	5,476	5,182	7,105	7,470
Still red and rose wine	6,359	7,277	7,588	8,702	9,207
Other still wine	213	524	276	357	340
<b>Fortified wine</b>	<b>348</b>	<b>371</b>	<b>470</b>	<b>428</b>	<b>166</b>
<b>Grape must</b>	<b>3,746</b>	<b>4,877</b>	<b>3,201</b>	<b>3,642</b>	<b>5,374</b>
<b>Total wine production (excluding musts)</b>	<b>14,529</b>	<b>14,150</b>	<b>14,146</b>	<b>17,234</b>	<b>17,849</b>

Source: Author's calculations based on NBS data

## Annex 2: Wine stocks (by category) according to PRODMOLD, mdal (2014-2018)

Wine category	2014	2015	2016	2017	2018
<b>Sparkling wine</b>	<b>92</b>	<b>93</b>	<b>203</b>	<b>192</b>	<b>153</b>
<b>Still light wine</b>	<b>6,668</b>	<b>7,594</b>	<b>5,813</b>	<b>5,384</b>	<b>6,427</b>
Still white wine	3,784	4,099	2,840	2,703	3,046
Still red and rose wine	2,863	3,062	2,546	2,502	3,197
Other still wine	21	434	428	180	184
<b>Fortified wine</b>	<b>270</b>	<b>264</b>	<b>243</b>	<b>177</b>	<b>160</b>
<b>Grape must</b>	<b>3,604</b>	<b>4,277</b>	<b>2,621</b>	<b>2,362</b>	<b>3,234</b>
<b>Total wine production (excluding musts)</b>	<b>7,029</b>	<b>7,951</b>	<b>6,260</b>	<b>5,753</b>	<b>6,740</b>

Source: Author's calculations based on NBS data

## Annex 3: Volume of wine sold domestically (by category) by Moldovan wineries, according to PRODMOLD, mdal (2014-2018)

Wine category	2014	2015	2016	2017	2018
<b>Sparkling wine</b>	<b>342</b>	<b>357</b>	<b>380</b>	<b>463</b>	<b>489</b>
<b>Still light wine</b>	<b>3,021</b>	<b>3,832</b>	<b>4,281</b>	<b>5,321</b>	<b>4,621</b>
Still white wine	1,460	1,695	1,886	2,152	1,985
Still red and rose wine	1,433	1,969	2,185	2,838	2,353
Other still wine	128	168	210	331	283
<b>Fortified wine</b>	<b>76</b>	<b>85</b>	<b>236</b>	<b>257</b>	<b>39</b>
<b>Grape must</b>	<b>820</b>	<b>1,470</b>	<b>809</b>	<b>452</b>	<b>1,155</b>
<b>Total wine production (excluding musts)</b>	<b>3,438</b>	<b>4,275</b>	<b>4,897</b>	<b>6,041</b>	<b>5,149</b>

Source: Author's calculations based on NBS data

#### Annex 4: Volume of wine sold on the external market (by category) by Moldovan wineries, according to PRODMOLD, mdal (2014-2018)

Wine category	2014	2015	2016	2017	2018
<b>Sparkling wine</b>	<b>155</b>	<b>122</b>	<b>118</b>	<b>181</b>	<b>205</b>
<b>Still light wine</b>	<b>8,336</b>	<b>8,347</b>	<b>9,658</b>	<b>10,804</b>	<b>11,202</b>
Still white wine	3,504	3,046	3,840	4,917	4,996
Still red and rose wine	4,746	5,239	5,747	5,858	6,160
Other still wine	86	61	72	29	46
<b>Fortified wine</b>	<b>285</b>	<b>313</b>	<b>255</b>	<b>239</b>	<b>143</b>
<b>Grape must</b>	<b>459</b>	<b>707</b>	<b>747</b>	<b>816</b>	<b>642</b>
<b>Total wine production (excluding musts)</b>	<b>8,776</b>	<b>8,782</b>	<b>10,031</b>	<b>11,224</b>	<b>11,550</b>

**Source:** Author's calculations based on NBS data

#### Annex 5: Volume of wine sold on the internal and external market (by category) by Moldovan wineries, according to PRODMOLD, mdal (2014-2018)

Wine category	2014	2015	2016	2017	2018
<b>Sparkling wine</b>	<b>497</b>	<b>479</b>	<b>498</b>	<b>644</b>	<b>695</b>
<b>Still light wine</b>	<b>11,357</b>	<b>12,179</b>	<b>13,939</b>	<b>16,125</b>	<b>15,823</b>
Still white wine	4,964	4,741	5,726	7,069	6,981
Still red and rose wine	6,179	7,209	7,932	8,695	8,513
Other still wine	214	230	282	361	329
<b>Fortified wine</b>	<b>361</b>	<b>398</b>	<b>491</b>	<b>495</b>	<b>182</b>
<b>Grape must</b>	<b>1,280</b>	<b>2,176</b>	<b>1,556</b>	<b>1,268</b>	<b>1,798</b>
<b>Total wine production (excluding musts)</b>	<b>12,215</b>	<b>13,057</b>	<b>14,928</b>	<b>17,265</b>	<b>16,699</b>

**Source:** Author's calculations based on NBS data



## Annex 6: Wine exports by countries (k USD), 2011-2018

Importers	2011	2012	2013	2014	2015	2016	2017	2018
Belarus	30,318	36,383	40,384	32,773	25,441	23,847	26,933	28,002
Romania	2,929	3,861	4,585	4,607	5,984	8,733	12,968	15,919
Czech Republic	5,518	4,826	8,177	7,222	8,007	8,971	9,544	13,030
Russian Federation	33,243	40,468	34,359	10,160	9,125	11,021	13,959	11,431
China	2,954	4,962	3,698	4,803	5,916	8,812	12,430	11,115
Poland	6,702	7,680	8,797	8,848	7,477	8,496	9,278	10,101
Georgia	3,928	6,264	10,353	7,809	7,129	6,978	8,126	9,427
Ukraine	22,106	12,197	11,641	7,202	4,886	10,270	7,916	6,105
Kazakhstan	12,893	14,711	14,240	12,396	8,230	3,627	4,945	4,608
Germany	1,201	1,076	1,238	1,344	2,285	2,151	2,546	4,535
United Kingdom	498	235	204	314	770	1,923	2,989	4,021
Area Nes	0	0	1,444	1,365	1,263	1,759	2,645	3,359
Canada	26	88	41	79	136	356	2,784	2,514
United States of America	1,937	1,661	826	897	1,794	1,469	1,475	1,859
Slovakia	740	1,037	1,967	2,565	1,981	1,680	1,805	1,776
Latvia	376	454	796	1,127	1,418	1,458	1,381	1,615
Netherlands	31	9	4	10	33	55	183	1,341
Lithuania	858	855	1,112	1,794	1,269	1,140	1,033	1,129
Nigeria	953	717	864	1,414	583	524	647	991
Japan	95	264	184	154	442	291	404	679
Kyrgyzstan	1,202	1,372	1,503	1,108	599	590	454	429
Serbia	25	41	132	396	365	174	314	401
Bosnia and Herzegovina	75	186	220	320	394	360	380	318
Mexico	0	0	0	0	0	0	15	318
Israel	262	324	255	248	209	263	280	292
Korea, Republic of	213	0	89	45	116	95	117	265
Italy	1,048	123	71	449	80	325	559	202
Estonia	148	134	145	300	509	530	414	198
Belgium	104	148	91	48	103	54	136	171
Burkina Faso	0	0	0	0	0	62	26	168
Croatia	36	35	66	66	70	97	127	134
Taipei, Chinese	40	83	59	120	103	124	123	128
Turkey	0	55	69	82	88	118	111	124
Hong Kong, China	27	0	30	87	0	33	24	111
France	97	19	0	0	9	350	285	108
Greece	149	35	64	89	52	88	82	107
Côte d'Ivoire	0	0	0	0	0	40	47	92
Kenya	0	128	38	53	43	41	61	75
Tajikistan	46	178	149	157	96	17	39	74
Albania	48	18	47	28	20	20	20	72
Austria	0	11	51	75	38	25	26	66
Ghana	172	22	20	14	40	49	12	59
Guinea	0	0	0	0	0	0	55	56
Cyprus	78	70	116	122	47	49	31	52
Portugal	0	0	0	10	9	11	15	47
Viet Nam	15	16	16	0	45	94	0	43
Angola	0	0	0	0	0	0	0	38
Bulgaria	24	177	10	35	102	131	30	34
Switzerland	0	0	0	30	5	7	20	34
Spain	56	0	0	0	20	0	0	30
Iraq	0	0	0	124	0	4	0	30
Finland	10	0	0	0	0	9	0	22
Sweden	0	43	5	5	37	0	5	13



Importers	2011	2012	2013	2014	2015	2016	2017	2018
Congo	0	0	0	0	0	49	14	13
Gabon	0	0	0	0	0	14	41	13
Korea, Democratic People's Republic of	0	0	0	0	0	0	0	13
Luxembourg	0	0	0	0	0	0	0	9
Montenegro	0	0	0	9	13	10	0	8
Ireland	38	0	28	0	25	78	20	4
Denmark	35	24	13	0	72	5	3	1
Afghanistan	0	0	0	0	0	0	0	1
Armenia	0	19	21	21	0	0	0	0
Azerbaijan	975	990	1,176	656	0	184	174	0
Turkmenistan	121	60	66	184	172	0	92	0
Uzbekistan	22	0	0	0	0	51	0	0
Australia	0	0	0	0	25	58	0	0
Benin	0	0	0	0	0	22	0	0
Central African Republic	0	0	0	0	0	0	19	0
Chile	0	0	0	0	0	21	0	0
Congo, Democratic Republic of the	0	0	0	0	0	22	0	0
Lebanon	0	0	20	0	0	0	3	0
Malaysia	0	0	41	0	0	0	0	0
Mali	0	0	0	0	0	0	17	0
Micronesia, Federated States of	0	0	10	0	0	0	0	0
New Caledonia	0	0	18	0	0	0	0	0
Niger	0	0	20	31	0	16	0	0
Norway	68	37	0	33	0	0	0	0
Qatar	0	0	0	0	0	2	0	0
Singapore	0	0	0	0	0	24	93	0
South Africa	0	0	0	0	25	25	25	0
Tanzania, United Republic of	43	0	21	0	0	1	34	0
Thailand	0	0	0	0	17	0	0	0
Togo	0	32	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	29	0
<b>World</b>	<b>132,485</b>	<b>142,128</b>	<b>149,590</b>	<b>111,830</b>	<b>97,719</b>	<b>107,903</b>	<b>128,368</b>	<b>137,934</b>

Source: UN Comtrade data

## Annex 7: Bottled wine exports (by countries) (k USD)

	2011	2012	2013	2014	2015	2016	2017	2018
<b>Romania</b>	1,522	1,378	1,704	2,410	3,746	5,788	8,850	11,229
<b>China</b>	2,821	4,016	3,661	4,762	5,037	8,568	11,877	9,702
<b>Poland</b>	6,479	7,367	8,435	8,550	7,218	8,097	8,896	9,655
<b>Czech Republic</b>	4,767	3,774	5,230	5,509	5,964	6,974	7,152	8,986
<b>Russian Federation</b>	24,154	29,923	25,484	5,266	5,563	4,340	6,374	6,635
<b>Ukraine</b>	7,724	8,001	7,368	5,564	2,167	2,915	3,923	3,804
<b>Kazakhstan</b>	11,022	12,834	12,386	10,456	6,845	2,937	4,104	3,695
<b>Canada</b>	26	79	41	78	93	242	2,541	2,480
<b>Area Nes</b>	0	0	690	747	723	1,088	1,657	2,124
<b>Belarus</b>	4,358	5,111	6,118	5,659	3,384	3,180	2,701	2,018
<b>Latvia</b>	369	454	791	1,072	1,302	1,355	1,242	1,429
<b>United States of America</b>	1,501	1,535	790	748	1,288	1,143	1,063	1,233
<b>Germany</b>	1,201	1,073	1,235	1,324	1,050	889	857	1,220
<b>Slovakia</b>	716	980	1,882	2,255	1,569	1,679	1,685	1,206
<b>Netherlands</b>	24	4	4	10	33	51	183	994
<b>Nigeria</b>	752	671	820	1,328	506	450	647	991
<b>United Kingdom</b>	496	234	196	302	513	466	609	843
<b>Lithuania</b>	802	851	1,108	1,081	785	751	663	631
<b>Japan</b>	47	141	124	99	357	207	304	588
<b>Kyrgyzstan</b>	1,106	1,298	1,358	979	428	458	413	363
<b>Bosnia and Herzegovina</b>	75	186	220	320	363	360	371	299
<b>Serbia</b>	25	35	122	396	341	160	256	288
<b>Korea, Republic of</b>	213	0	89	41	112	85	111	226
<b>Estonia</b>	148	112	145	300	467	484	414	198
<b>Israel</b>	120	200	129	141	116	123	199	189
<b>Georgia</b>	43	0	11	0	0	17	24	176
<b>Burkina Faso</b>	0	0	0	0	0	62	26	168
<b>Croatia</b>	36	35	66	66	70	97	127	134
<b>Taipei, Chinese</b>	34	58	52	114	99	112	121	128
<b>Turkey</b>	0	52	69	82	70	103	98	122
<b>France</b>	89	19	0	0	3	60	23	106
<b>Hong Kong, China</b>	27	0	30	87	0	33	24	104
<b>Côte d'Ivoire</b>	0	0	0	0	0	40	47	92
<b>Italy</b>	30	46	49	34	18	32	26	83
<b>Kenya</b>	0	128	38	53	43	41	61	75
<b>Tajikistan</b>	46	178	147	155	92	17	39	70
<b>Greece</b>	108	29	52	66	49	68	78	68
<b>Austria</b>	0	11	51	74	38	25	26	63
<b>Ghana</b>	172	22	20	10	35	49	12	59
<b>Albania</b>	38	9	31	15	14	14	20	58
<b>Belgium</b>	75	116	60	37	11	9	39	47
<b>Portugal</b>	0	0	0	10	9	8	10	39
<b>Angola</b>	0	0	0	0	0	0	0	38
<b>Switzerland</b>	0	0	0	1	2	2	15	29
<b>Finland</b>	7	0	0	0	0	9	0	22
<b>Spain</b>	0	0	0	0	0	0	0	21
<b>Iraq</b>	0	0	0	124	0	0	0	14
<b>Bulgaria</b>	0	4	0	13	0	39	9	13
<b>Congo</b>	0	0	0	0	0	49	14	13

	2011	2012	2013	2014	2015	2016	2017	2018
<b>Gabon</b>	0	0	0	0	0	14	41	13
<b>Korea, Democratic People's Republic of</b>	0	0	0	0	0	0	0	13
<b>Sweden</b>	0	43	5	5	37	0	0	9
<b>Luxembourg</b>	0	0	0	0	0	0	0	9
<b>Montenegro</b>	0	0	0	9	11	10	0	8
<b>Ireland</b>	38	0	17	0	19	72	9	4
<b>Denmark</b>	29	24	13	0	72	4	2	1
<b>Turkmenistan</b>	121	60	66	184	103	0	70	0
<b>Cyprus</b>	26	2	36	40	16	0	0	0
<b>Norway</b>	53	37	0	33	0	0	0	0
<b>Niger</b>	0	0	20	31	0	16	0	0
<b>Tanzania, United Republic of</b>	43	0	21	0	0	1	34	0
<b>Uzbekistan</b>	22	0	0	0	0	32	0	0
<b>Australia</b>	0	0	0	0	25	58	0	0
<b>Azerbaijan</b>	0	0	16	0	0	0	7	0
<b>Benin</b>	0	0	0	0	0	22	0	0
<b>Chile</b>	0	0	0	0	0	21	0	0
<b>Congo, Democratic Republic of the</b>	0	0	0	0	0	22	0	0
<b>Lebanon</b>	0	0	20	0	0	0	2	0
<b>Malaysia</b>	0	0	41	0	0	0	0	0
<b>Mali</b>	0	0	0	0	0	0	17	0
<b>Mexico</b>	0	0	0	0	0	0	15	0
<b>Micronesia, Federated States of</b>	0	0	10	0	0	0	0	0
<b>New Caledonia</b>	0	0	3	0	0	0	0	0
<b>Qatar</b>	0	0	0	0	0	1	0	0
<b>Singapore</b>	0	0	0	0	0	22	93	0
<b>South Africa</b>	0	0	0	0	0	1	0	0
<b>Thailand</b>	0	0	0	0	10	0	0	0
<b>Togo</b>	0	32	0	0	0	0	0	0
<b>United Arab Emirates</b>	0	0	0	0	0	0	19	0
<b>Viet Nam</b>	0	0	0	0	23	25	0	0
<b>World</b>	<b>71,506</b>	<b>81,163</b>	<b>81,074</b>	<b>60,641</b>	<b>50,838</b>	<b>53,999</b>	<b>68,243</b>	<b>72,825</b>

Source: UN Comtrade data

## Annex 8: Bulk wine exports (by countries) (k USD)

Importers	2011	2012	2013	2014	2015	2016	2017	2018
<b>Belarus</b>	25,573	31,083	33,967	26,496	21,895	20,442	23,889	25,813
<b>Georgia</b>	3,749	6,054	10,160	7,754	6,767	6,855	8,102	9,153
<b>Russian Federation</b>	4,087	7,318	7,450	4,168	3,025	6,187	6,713	4,396
<b>Czech Republic</b>	718	1,052	2,893	1,705	2,039	1,970	2,375	4,012
<b>Romania</b>	1,237	2,431	2,792	2,051	2,047	2,697	3,672	3,744
<b>Germany</b>	0	0	0	2	1,229	1,240	1,638	3,285
<b>United Kingdom</b>	0	0	0	7	250	1,453	2,372	3,171
<b>Ukraine</b>	13,061	3,523	3,130	1,081	2,618	7,300	3,660	1,994
<b>China</b>	81	761	26	2	854	214	428	1,347
<b>Slovakia</b>	24	24	55	310	412	1	120	570
<b>Lithuania</b>	25	0	4	688	446	381	362	459
<b>Netherlands</b>	0	0	0	0	0	0	0	347
<b>Mexico</b>	0	0	0	0	0	0	0	318
<b>Poland</b>	66	217	292	181	143	284	252	297
<b>Latvia</b>	0	0	5	55	74	93	109	155
<b>Belgium</b>	0	20	0	0	83	42	84	120
<b>Kazakhstan</b>	26	9	16	82	13	25	60	117
<b>Serbia</b>	0	0	0	0	12	14	58	110
<b>Italy</b>	151	63	22	178	63	93	17	71
<b>Guinea</b>	0	0	0	0	0	0	55	56
<b>Kyrgyzstan</b>	0	0	0	3	32	114	0	55
<b>Japan</b>	16	16	36	55	44	62	48	49
<b>Area Nes</b>	0	0	30	19	25	12	38	42
<b>Israel</b>	14	0	16	33	23	22	29	22
<b>Canada</b>	0	0	0	1	37	114	225	14
<b>Iraq</b>	0	0	0	0	0	0	0	12
<b>United States of America</b>	0	0	0	2	0	16	39	7
<b>Tajikistan</b>	0	1	2	2	3	0	0	4
<b>Switzerland</b>	0	0	0	29	1	3	5	2
<b>Azerbaijan</b>	975	990	1,130	656	0	0	2	0
<b>Spain</b>	56	0	0	0	0	0	0	0
<b>Bulgaria</b>	21	167	0	0	91	90	0	0
<b>Greece</b>	17	5	0	0	0	0	0	0
<b>Albania</b>	3	7	3	0	0	0	0	0
<b>Norway</b>	3	1	0	0	0	0	0	0
<b>Taipei, Chinese</b>	3	1	0	0	0	2	0	0
<b>Estonia</b>	0	0	0	0	42	10	0	0
<b>France</b>	0	0	0	0	6	0	0	0
<b>Ireland</b>	0	0	0	0	0	0	1	0
<b>Portugal</b>	0	0	0	0	0	3	5	0
<b>Bosnia and Herzegovina</b>	0	0	0	0	12	0	0	0
<b>Korea, Republic of</b>	0	0	0	0	1	0	0	0
<b>South Africa</b>	0	0	0	0	25	25	25	0
<b>Thailand</b>	0	0	0	0	2	0	0	0
<b>World</b>	49,908	53,742	62,027	45,562	42,314	49,763	54,387	59,740

Source: UN Comtrade data