

Product 3 – Skills & knowledge catalogue

Wine sensory & wine geography

Wine makers educated / working on EQF level 4 have the following knowledge and skills in the field wine sensory & wine geography.

1.	Triangle Test <ul style="list-style-type: none"> - Tasting of 3 wines – recognise the 2 identical wines - Can be done with alcohol, vintage, acidity, residual sugar, tannin, wood character
2.	Sequence Test <ul style="list-style-type: none"> - Put 3-5 wines in increasing order by means of tasting - Can be done with alcohol, vintage, acidity, residual sugar, tannin, wood character, volatile acidity
3.	Wine faults <ul style="list-style-type: none"> - Recognise and name faults by means of tasting
4.	Varieties <ul style="list-style-type: none"> - Recognise and name varieties (possible varieties: Chardonnay, Sauvignon blanc, Riesling, Muscat, Cabernet Sauvignon, Merlot, Pinot noir, Syrah)
5.	Aromas <ul style="list-style-type: none"> - Recognise aromas in wines (list of 54 aromas)
6.	Wine service <ul style="list-style-type: none"> - Describe one wine orally and present it in English - Choice of glasses, opening of bottle, decanting if necessary, serving temperature time for preparation is given - Glasses, wine service, wine & food pairing will be added after further discussion
7.	Winegrowing countries - list of 10 European countries: <ul style="list-style-type: none"> - Knowledge of general facts - Name the most important wine growing regions - Allocate the most important wines to the regions - Knowledge of the most important white & red varieties - General knowledge of legal requirements in the countries - Allocate wine specialities to the countries

CATALOGUES – WINE SENSORY & GEOGRAPHIE

3) Wine faults
mouldy taste
oxydation
volatile acidity
SO ₂
untypical ageing note
filter taste
Brettanomyces
reduction
cork taint

4) Varieties
Chardonnay
Muscat
Riesling
Sauvignon blanc
Cabernet sauvignon
Merlot
Pinot noir
Syrah

5) Aromas	
aromas following "Le nez du vin"	
acacia	mint
anise	Muscat
apple	muscat-grape
apricot	mushroom
banana	musk
bitter almond	oak
black currant	orange
Blackberry buds	Passion fruit
butter	pear
cacao	pepper
caramel	pine
cherry	pineapple
Chocolate	plum
cinnamon	quince
clove	raspberry
Coconut	rose
coffee	smoke
Grapefruit	strawberry
green pepper (bell pepper)	tar
hay	thyme
hazelnut	Tilia flower
honey	Toasted bread
iodine	Tobacco
Leather	truffle
lemon	vanilla
Lichee	violet
liquorice	walnut

7) Important wine producing countries in Europe

	Austria
	France
	Germany
	Hungary
	Italy
	Portugal
	Romania
	Slovenia
	Spain
	Switzerland

Austria (data 2013)

Facts and figures

- Total hectares of vineyards: 46,000 hectares
- Total production of wine: on average 2.5 mill. hectolitres
- Significance among wine production in Europe: #10 at hectares
- Significance worldwide: 1% of wine quantity

Wine growing areas

Weinviertel DAC

Kamptal DAC

Wagram

Kremstal DAC

Thermenregion

Wachau

Carnuntum

Traisental DAC

Neusiedlersee DAC

Leithaberg DAC

Mittelburgenland DAC

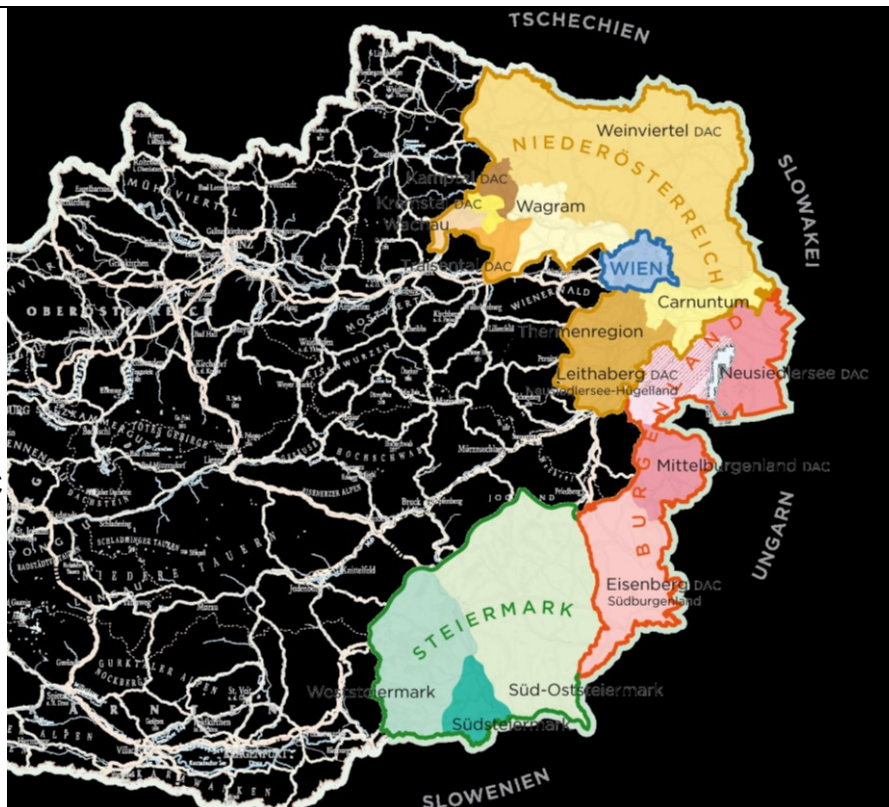
Eisenberg DAC

Südsteiermark

Süd-Oststeiermark

Weststeiermark

Wien



White varieties: Grüner Veltliner (30%), Welschriesling (8%), Weißburgunder (4%), Chardonnay (3%), Müller Thurgau (4%), Riesling (4%)

Red varieties: Zweigelt (14%), Blaufränkisch (7%), Blauer Portugieser (4%), Blauburger (2%), St. Laurent (2%)

Legal requirements: Depending on sugar degrees (in Austria measured in °KMW), the following quality categories are defined:

- Wein
- Landwein
- Qualitätswein
- Qualitätswein (Quality wine)
- DAC (Qualitätswein bestimmter Herkunft, Qualitätswein of controlled origin)
- Kabinett
- Prädikatsweine: Spätlese, Auslese, Beerenauslese, Eiswein, Strohwein, Schilfwein, Ausbruch, Trockenbeerenauslese

Specialities: Uhdler, Schilcher, G'spritzer, Gemischter Satz

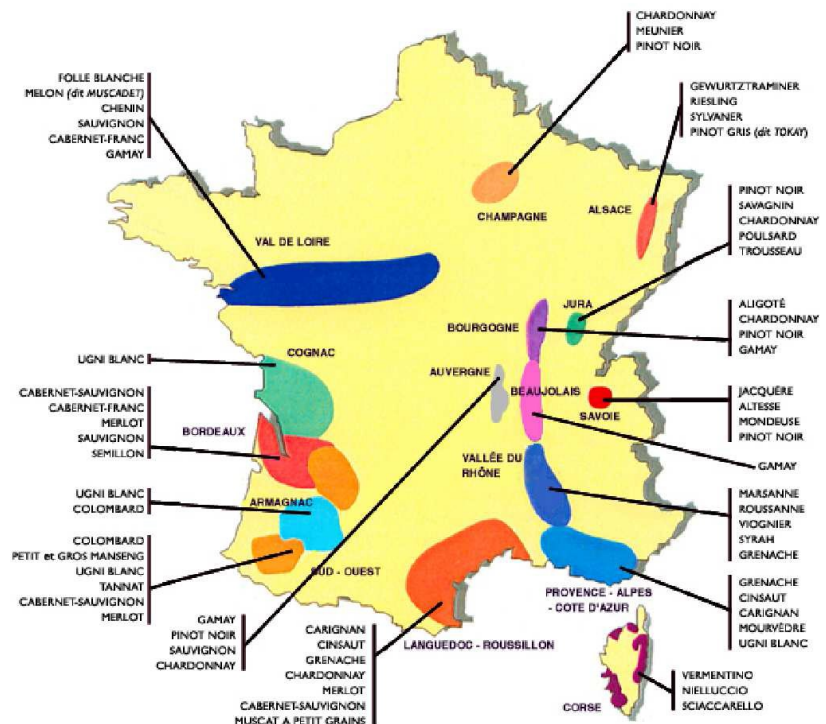
France (data 2013)

Facts and figures

- Total hectares of vineyards: 770,000 hectares
- Total production of wine: on average 52 mill. hectolitres, of this 7 for Cognac & Armagnac production
- Direct jobs in France: 250,000
- Significance among wine production in Europe: #2 at hectares
- Significance worldwide: 20% of wine quantity (#1 equal with Italy)
- Total export: 14 mill. hectolitres

Wine growing regions

Bordeaux
 Bourgogne
 Côtes du Rhône
 Provence
 Alsace
 Val de Loire
 Champagne
 Jura
 Savoie
 Languedoc-Roussillon
 Sud-Ouest



White varieties: Chardonnay(5,6%), Sauvignon blanc(3,5%), Chenin blanc, Chasselas, Viognier, Muscat, Pinot blanc, Pinot gris, Gewürztraminer, Riesling, Savagnin, Sémillon, Ugni blanc (10,2% pour Cognac et Armagnac)

Rosé varieties: Grenache, Syrah, Cinsault, Mourvedre, Tibouren

Red varieties: Merlot(14%), Grenache(11%), Syrah(8%), Cabernet Sauvignon(6,5%), Carignan(5,3%), Pinot noir(3,7%), Cabernet franc, Gamay(3,5%), Malbec, Petit Verdot, Tannat

Legal requirements:

Authorized under production regions: Irrigation, Mechanical harvest, chaptalisation (max:1,5%vol), acidification

Quality categories:

- Vin de Table (11%)
- Vin de Pays (28%)
- AOC et VDQS (45%)
- Pour production Cognac et Armagnac (16%)

Specialities made from wine: Cognac, Armagnac, Champagne, Vin Jaune

Specialities: le foie gras (Sud-Ouest), les escargots (Bourgogne), les crêpes (Bretagne), la choucroute (Alsace), le cassoulet (Languedoc), la bouillabaise (Marseille), la quiche "Lorraine" et tous les fromages de France

Germany (data 2013)

Facts and figures

- Total acreage: 100,000 ha
- Total production of wine: on average 10 mill. hectolitres
- Number of enterprises (wine warehouses): appr. 80.000 wine growers
- Significance among wine production in Europe: #7 at hectares
- Significance worldwide: 2.7% of wine quantity

Wine growing regions



White varieties (65%): Riesling 22%, Müller Thurgau: 13%, Silvaner: 5%, Grauer Burgunder: 5%, Weißer Burgunder: 4%, Kerner: 3%, Bacchus: 2%, Scheurebe: 1%, Chardonnay: 1%

Red varieties (35%): Spätburgunder: 12%, Dornfelder: 8%, Portugieser: 4%, Trollinger: 2%, Schwarzriesling: 2%, Regent: 2%, Lemberger 2%, St. Laurent: 1%, Merlot 1%

Legal requirements: Depending on sugar degrees (in Germany measured in °Oechsle), the following quality categories are defined:

- Tafelwein: **minimum alcohol content 8.5%**
- Landwein: minimum sugar degree of 47°Oe in berries
- Qualitätswein bestimmter Anbaugebiete (QbA): minimum sugar degree of 57-62°Oe in berries (subject to certain region)
- Qualitätswein mit Prädikat: no sugar must be added before fermentation
 - Kabinett: minimum sugar degree of 67-83°Oe in berries
 - Spätlese: minimum sugar degree of 76-90°Oe in berries
 - Auslese: minimum sugar degree of 83-95°Oe in berries
 - Beerenauslese: minimum sugar degree of 110-128°Oe in berries
 - Trockenbeerenauslese: minimum sugar degree of 150-154°Oe in berries
 - Eiswein: must be processed with frozen berries (min -6°C), min. 110-128°Oe

Specialities:

- Weißherbst: synonym for Rosé wine: wine of red grapes of which only juice is fermented, (like wine produced out of white grapes), but 100% one variety
- Rotling: wine produced out of red and white grapes that are fermented together (like white wine)
- Schillerwein: Rotling wine from Wuerttemberg
- Schorle: mixture of mineral wine and water (>50% wine required)

Hungary (data 2013)

Facts and figures

- Total hectares of vineyards: 76,516 hectares
- Total production of wine: on average 2.8 mill. hectolitres
- Significance among wine production in Europe: #9 at hectares
- Significance worldwide: 1% of wine quantity

Wine growing regions

Alföld
(the Great Plains)

Balaton

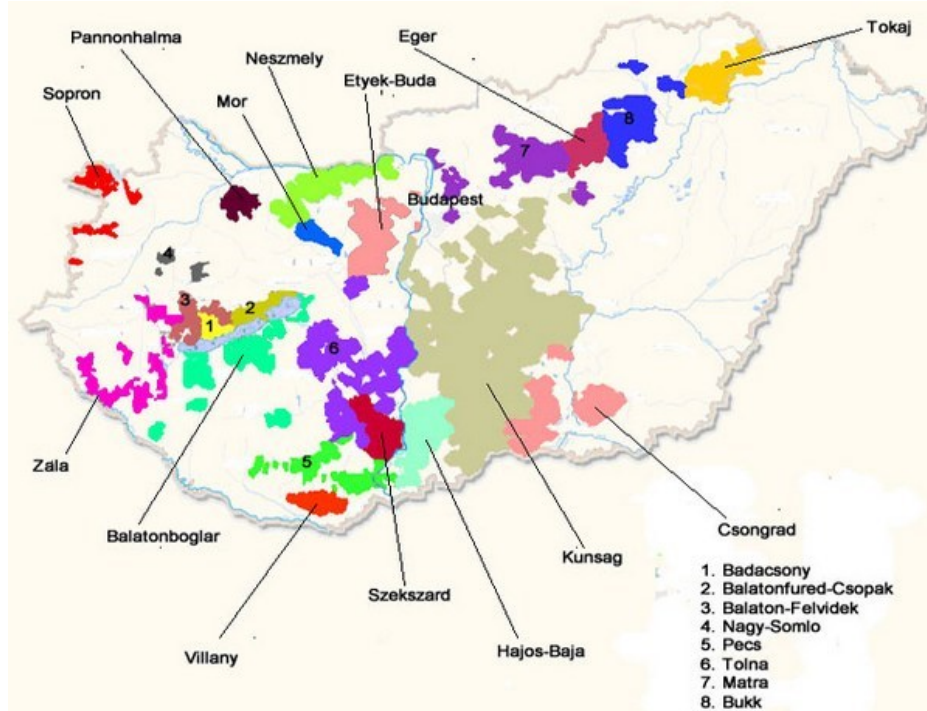
Duna (Danube)

Eger

North-
Transdanubia

Pannon

Tokaj.



White varieties: Olaszrizling (Welschriesling, %), Szürkebarát (Pinot Gris, %), Tramini (%), Chardonnay (%), Ottonel Muskotály (Muscat Ottonel, %)

Red varieties: Kékfrankos (Blafränkisch, %), Blauer Portugieser (%), Kadarka (%), Merlot (%), Cabernet Franc (%)

Legal requirements: Depending on sugar degrees (in Hungary measured in °KMW), the following quality levels are defined:

- DHC - Districtus Hungaricus Controllatus – Wine with Protected Origin
- OFJ – Oltalom alatt álló földrajzi jelzéssel - Protected Geographical Indication
- FJN – Földrajzi jelzés nélküli – Without Protected Geographical Indication
- OEM - Oltalom alatt álló eredetmegjelölés- Protected Designation of Origin
- HNT – Hegyközségek Nemzeti Tanácsa - National Council of Wine Communities

Specialities:

Tokaji Aszú – Tokay - Hungarian sweet white wine made from grapes affected by the 'noble rot'

Bull's Blood of Eger / Szekszárd – A blend of several selected red varieties

Italy (data 2013)

Facts and figures

- Total hectares of vineyards: 650,000 hectares
- Total production of wine: on average 45 mill. hectolitres
- Number of enterprises: 385,000
- Significance among wine production in Europe: #3 at hectares
- Significance worldwide: 16% of wine quantity

Wine growing areas

North

- Trentino Alto Adige
- Lombardia
- Valle d'Aosta
- Piemonte
- Liguria
- Veneto
- Friuli Venezia Giulia
- Emilia-Romagna

Center

- Toscana
- Umbria
- Marche
- Lazio

South and Islands

- Abruzzo
- Molise
- Campania
- Basilicata
- Puglia
- Calabria
- Sicilia
- Sardegna

White varieties: Trebbiano toscano: 5.3%, Glera: 3.84%, Catarratto: 3.56%, Chardonnay, 3.25%, Pinot grigio: 2.91%, Trebbiano romagnolo: 2.39%, Moscato bianco: 2.07%, Garganega: 1.72%, Malvasia di Candia: 1.17%, Catarratto bianco lucido: 1.10%, Vermentino: 0.89%, Grillo: 0.88%, Ansonica: 0.81%, Trebbiano abruzzese: 0.73%, Sauvignon: 0.60%, Grecanico dorato: 0.55%, Cortese: 0.51%, Verdicchio: 0.50%, Pinot Bianco: 0.50%, Falanghina: 0.47%, Friulano: 0.47%, Malvasia bianca: 0.45%, Nuragus: 0.32%, Zibibbo: 0.25%, Fiano: 0.24%.

Red varieties: Sangiovese: 11.12%, Montepulciano: 4.90%, Merlot: 4.27%, Barbera: 3.49%, Cabernet Sauvignon: 2.53%, Nero d'Avola: 2.33%, Negro amaro: 1.90%, Primitivo: 1.63%, Aglianico: 1.28%, Cannonau: 1.19%, Syrah: 1.06%, Dolcetto: 0.99%, Corvina: 0.98%, Nebbiolo: 0.94%, Croatina: 0.89%, Pinot nero: 0.83%, Cabernet Franc: 0.80%, Lambrusco Salamino: 0.75%.

Legal requirements: the following quality categories are defined:

- DOCG Denominazione di Origine Controllata e Garantita
- DOC Denominazione di Origine Controllata
- IGT Indicazione Geografica Tipica
- Vino

Classification according to age and vinification

- Riserva

Specialities:

- Vino passito
- Vermouth
- Prosecco
- Grappa

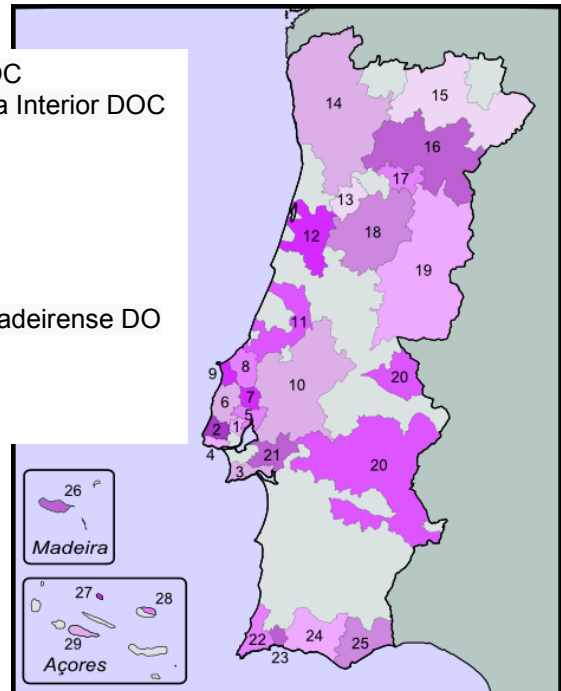
Portugal (data 2013)

Facts and figures

- Total acreage: 230,000 hectares
- Total production: on average 6 mill. hectolitres
- Significance among wine production in Europe: #5 at hectares
- Significance worldwide: 2% of wine quantity

Wine growing regions

- | | |
|---------------------------|---------------------------------|
| 1. Bucelas DOC | 17. Távora-Varosa DOC |
| 2. Colares DOC | 18. Dão DOC |
| 3. Setúbal DOC | 19. Beira Interior DOC |
| 4. Carcavelos DOC | 20. Alentejo DOC |
| 5. Alenquer DOC | 21. Palmela DOC |
| 6. Torres Vedras DOC | 22. Lagos DOC |
| 7. Arruda DOC | 23. Portimão DOC |
| 8. Óbidos DOC | 24. Lagoa DOC |
| 9. Lourinhã DOC | 25. Tavira DOC |
| 10. Ribatejo DOC | 26. Madeira DOC & Madeirense DO |
| 11. Encostas de Aire DOC | 27. Graciosa IPR |
| 12. Bairrada DOC | 28. Biscoitos IPR |
| 13. Lafões IPR | 29. Pico IPR |
| 14. Vinho Verde DOC | |
| 15. Trás-os-Montes DO | |
| 16. Porto DOC & Douro DOC | |



Regions with special significance:

Alentejo, Bairrada, Dao, Douro, Madeira, Porto, Vinho Verde

White varieties: Alvarinho, Arinto, Bical, Loureiro, Marfá Gomes (Fernao Pires)

Red varieties: Baga, Castelao franco, Tinta Roriz, Touriga Nacional, Trincadeira

Legal requirements

- Quality Wine Produced in a Specific Region (QWPSR) or VQPRD - Vinho de Qualidade Produzido em Região Demarcada
- Wines D.O.C. (**Denominação de Origem Controlada**) which secures a superior quality.
- Wines that have more regulations placed upon them but are not in a DOC region fall under the category of **Indicação de Proveniência Regulamentada** (IPR, Indication of Regulated Provenance)
- Regional Wine - **Vinho Regional** Carries with it a specific region within Portugal.
- Table Wines - **Vinho de Mesa** carries with it only the producer and the designation that it's from Portugal.

Designation for special bottlings:

- Reserva
- Garrafeira

Specialities: Port wine, Madeira, Moscatel de Setubal

Romania (data 2013)

Facts and figures

- Total acreage: 181,011 hectares
- Total production: on average 4 mill. hectolitres
- Number of enterprises (wineries): 163
- Significance worldwide: -

Wine growing regions and the most important vineyards

Podișul Transilvaniei

Moldova

Muntenia and Oltenia

Banat

Crișana and Maramureș

Dobrogea

Danube Terraces

Southern Lands



White varieties: Fetească albă (12%), Fetească regală (16%), Grasă de Cotnari(2%), Frâncușă (1,2 %), Galbenă de Odobești (1%), Tămâioasă românească (0,7%)

Red and rose varieties: Fetească Neagră (2%), Băbeasca Neagră (3%), Cadarcă (1,3 %), Roșioară (1,6%), Negru de Drăgășani (1,7%)

Legal requirements

Legislation according to the methodological norm of 28 July 2010 on Grapes and Wine Law no. 244/2002

- Table wine
- Wine with GI
- **DOC-wines (wine with appellation of origin)**
- Harvested at full maturity (DOC-CMD)
- Late harvest (DOC-CT)
- Noble harvest (DOC – CIB)

Specialities: Vin pelin, Vermut

Slovenia (data 2013)

Facts and figures

- Total acreage: ~16,000 hectares
- Total production: on average 0.55 mill. hectolitres
- Number of enterprises (wineries): ~28,000 winegrowers
- Significance worldwide: -

Wine growing regions and areas

Podravje (6,780 ha)

- Štajerska Slovenija
- Prekmurje

Posavje (2703 ha)

- Dolenjsk
- Bizeljsko-Sremič
- Bela krajina

Primorje (6490 ha):

- Vipavska dolina
- Slovenska Istra
- Goriška brda
- Kras



White varieties (70%, 37 varieties): Laški rizling, Chardonnay, Sauvignon, Malvazija, Rebula

Red varieties (30%, 15 varieties): Refošk, Merlot, Žametna črnina, Modra Frankinja, Cabernet Sauvignon

Legal requirements

Depending on sugar degrees (in Slovenia measured in °Oechsle), the following quality categories are defined:

- namizna vina (table wine) (min sugar degree 64°Öe)
- deželna vina (land wine)
- kakovostna vina (quality wine) (min sugar degree 75°Öe)
- vrhunska vina (premium quality wine) (min sugar degree 83°Öe)
- predikatna vina
 - pozna trgategv (late harvest) (min sugar degree 92°Öe)
 - izbor (selection) (min sugar degree 108°Öe)
 - jagodni izbor (berry selection) (min sugar degree 128°Öe)
 - ledeno vino (ice wine) (min 128°Öe, frozen berries 3-4 days, min -7°C)
 - suhi jagodni izbor (dry berry selection) (min sugar degree 154°Öe)

PGO (priznana geografsko oznako) (with geographical indication)

ZGP (zaščiteno geografsko poreklo) (produced in specified region)

PTP (priznana tradicionalno poimenovanje) (recognised traditional denomination)

Specialities: Cviček (PTP), Teran (PTP)

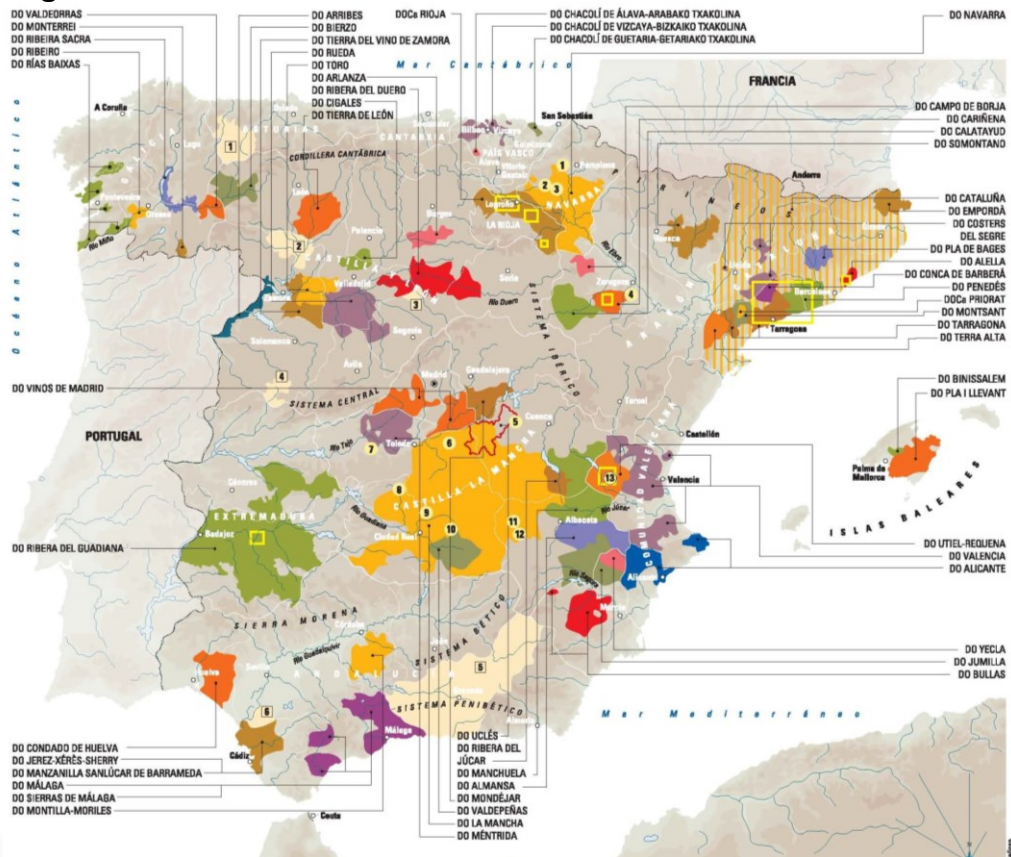
Spain (data 2013)

Facts and figures

- Total hectares of vineyards: 1,000,000 hectares
- Total production of wine: on average 40 mill. hectolitres
- Significance among wine production in Europe: #1 at hectares
- Significance worldwide: 13% of wine quantity

Wine growing regions

Regions with special significance: Rioja, Ribera del Duero, Jerez, Catalunya, Galicia, Rueda, Mediterraneo (Valencia, Alicante, Murcia).



White varieties: Airen (25%), Macabeo (2% Cava) Palomino (1% Jerez), Verdejo (1% Rueda), Albariño (0.5% Rias Baixas-Galicia).

Red varieties: Tempranillo (19%, Rioja, R. Duero), Bobal (7%, La Mancha), Garnacha (7%), Monastrell (6%, Mediterraneo), Mencia (1%, Galicia - Bierzo).

Legal requirements:

IGP:

- Vino de la Tierra

DOP:

- Denominación de Origen
- Denominación de Origen Calificada
- Vino de Calidad con indicación geográfica
- Vino de Pago
- Vino de Pago Calificado

Classification according to age: Joven, Crianza, Reserva, Gran Reserva

Specialities: Cava (sparkling wines), Under veil wines ageing wines, Oxidative ageing wines (Sherry), Sweets wines

Switzerland (data 2013)

Facts and figures

- Total hectares of vineyard: 15'000 hectares
- Total production of wine: 1 million hectolitres
- Significance among wine production in Europe: place #15; 0,5% of European production
- Significance worldwide: very little significance

Wine growing regions

Valais – 5200 ha, red dominant.

Vaud – 3800 ha, white highly dominant.

Geneva – 1500 ha, red dominant.

Neuchâtel – 3 Lakes
- 950 ha, white slightly dominant.

Ticino – 1000 ha, almost only red.

Swiss German part
– 2600 ha, red mostly highly dominant.



White varieties: Chasselas (27%), Müller-Thurgau (3%), Chardonnay (2%), Sylvaner (1,5%), Pinot gris (1,5%).

Red varieties: Pinot noir (29%), Gamay (10%), Merlot (7%), Gamaret (2,5%), Garanoir (1,5%).

Legal requirements

Legislation according to the Swiss Federal Law for Wines no. 916.140.

According to region of production, natural sugar content and grape yield, wines are classified in the three European-like quality level system:

- Table wine = wine with no geographical indication
- Wine with GI = „vin de pays”, „Landwein”
- **AOC wines (wine with appellation of origin)**

All kind of wines are allowed to be produced (still wines, sparkling wines, late harvest, ice wine, licor wines, ...).

Under the Swiss Federal law, every wine region has its own regulations which are more restrictive.

Specialities:

- Native Swiss grape varieties: Petite Arvine, Amigne, Completer, Cornalin, Diolinoir, Humagne blanche, Humagne rouge, Räuschling, ...
- All the wines produced out of varieties that are not the five principal ones (Pinot noir, Chasselas, Gamay, Merlot and Müller-Thurgau) are called “specialities”, are quite rare and very demanded among wine connoisseurs.

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