



Study on the state of play of sustainability initiatives in the wine appellation sector

Annexes

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Annex 1 – Technical specifications of the study



SPECIFICATION – EFOW study State of play of sustainability initiatives in the wine appellation sector

Introduction

The EU's **Farm to Fork strategy (F2F)**, published on 20 May 2020, has become the Union's **blueprint for the agri-food sector's transition towards a green economy**.

The means to achieve this new paradigm towards a sustainable production and consumption of food and drinks vary and range from incentives to change production methods to labelling initiatives, specific products being supported/promoted, to the new priorities of future CAP Strategic Plans. **What has become clear is that all of the EU policies must contribute to the Green Deal and more EU resources** (i.e. economic and policy orientation) **will be allocated to policies that can help achieve the overall objectives of the EU Green Deal**.

Sustainability is based on 3 pillars but the EC focuses mainly on the environmental aspect. The social and economic pillars are not sufficiently taken into account.

EFOW would like to have an understanding of the PDO wine sector's situation with regard to sustainability. We do not have a clear picture of the initiatives and practices which have been developed by the PDO governing bodies that can be considered as meeting the 3 pillars of sustainability. Furthermore, there does not appear to be a homogenous approach in the main wine producing Member States (FR, IT, ES, PT, DE).

It is of essence for the wine appellation sector to understand the state of play of its sustainability to decide what initiatives should be further incentivised and those that need to evolve. To this end a study in the main wine producing Member States should be carried out to determine if and what actions have been undertaken by PDO governing bodies.

Scope of the study

1. Geographical scope

5 key wine producing countries

- France
- Germany
- Italy
- Portugal
- Spain

2. Targets

PDO wine producer groups in the 5 countries mentioned above

3. Analytical scope

The study will cover the following elements:

- Identification and comparative analysis (benchmark) of the public and/or private sustainable schemes used or available for PDO wine groups
- Collection of data on the use of public and/or private sustainable schemes used by PDO wine groups/PDO wine producers

- Collection of data on the actions taken by PDO wine producer groups with regard to the three pillars of sustainability: economic, social and environmental

The research should be based /include on the areas covered by the F2F strategy:

- Actions which reduce the environmental and climate footprint, notably with regard to protecting land, soil, water, air and plant health, but also packaging and re-usable packaging. These may include:
 - nature-based, technological, digital, and space-based solutions
 - reduction of pesticides use (alternative control techniques, weeding, biological active substances)
 - risk-assessment of pesticides
 - reduction of nutrients and fertilisers use
 - measures to better protect plants from emerging pests and diseases
 - plant varieties adapted to the pressures of climate change
 - transition to organic farming
- Actions which help mitigate climate change. EX: carbon sequestration, use of renewable energy, energy efficiency.
- Actions which limit biodiversity loss.
- Actions which develop high standards of safety and quality.
- Actions generating fairer economic returns in the supply chain.
- Actions fostering competitiveness and new business opportunities (ex. information regarding the market, tourism, maintenance rural population).
- Actions promoting fair trade (ex. contractualisation, any relevant discussions).
- Actions promoting healthier lifestyles (ex. moderate consumption of wines)
- Actions ensuring that the key principles enshrined in the European Pillar of Social Rights are respected, especially when it comes to precarious, seasonal workers (ex. social protection, working and housing conditions as well as protection of health and safety).

Preferred research methodology

Considering the different types of actors who could potentially provide useful information for the research, we propose the use of a survey methodology based on a plurality of qualitative and quantitative instruments. In particular:

- A documentary analysis (research reports, national and EU statistics, etc.) aimed at identifying quantitative market trends with reference to sustainability;
- Semi-structured questionnaires (questions with closed answers and questions with codifiable open answers) addressed to PDO wine groups (ex. Consorzi, Consejos Reguladores, Interbranch Organisations etc.) to provide data on the initiatives taken
- Questionnaires to be drafted by the provider but translation of the questionnaires in the different languages will be done by EFOW. EFOW will also provide the emails addresses to which the questionnaires should be sent to but the questionnaires will have to be sent by the provider.

What we expect

The final study report should be ready by end of 2021 and available in English.

The provider to take part in an event organised to present the outcome of the study to EU decision-makers (European Commission officials, Members of the European Parliament, representatives of the Member States' Ministries, other stakeholders involved in wine related matters at the EU level).

The final report should make it possible to show how PDO are interesting levers to be used to promote sustainable development in viticulture.

In an unpublished part given only to EFOW, it should suggest avenues of reflection such as: Should wine PDOs commit to the definition of a common minimum standard to attest their commitment to sustainable development? If so, what directions/actions can be recommended?

Annex 2 – Desk research per country

Desk research – Mapping of initiatives in the 5 target countries

Period covered: 2016-to date

Scope: All sustainability initiatives, schemes and actions initiated by or available to PDO wine producer groups. PGI wine producer groups are out of scope.

Name	Initiator	Nature / Generic vs wine-specific	Main characteristics (Objectives, scope, functioning and evolution over time where relevant)	Stage(s) of the supply chain covered ¹	Sustainability dimension(s) ²	Maturity ³	Does the initiative include... ⁴	Link(s)
INTERNATIONAL								
EQUALITAS	Federdoc and Unione Italiana Vini (UIV) in cooperation with some certification bodies (ex. CSQA, ValorItalia) and financial entities (ex. 3AVino)	Private / Wine-specific	Initiative launched in 2015 by Federdoc and UIV taking stock of the technical knowledge and experience gained over time through the Forum Sustainability Wine and the project Tergeo. The initiative led to the development of a sustainability standard for wine producers that covers the 3 pillars of sustainability and focuses primarily on the following aspects and dimensions relevant to wine-making: 1. Organisation and management of the producing company; 2. Wine as final product and 3. Territory. The standard underpinning the initiative is developed and updated by Scientific and Ethical Committees, gathering representatives from the scientific community, wine producers and consumer groups. The long-term objective of the initiative is to ensure a common shared approach at country level to sustainability viticulture and its communication to the final consumers via a collective logo / mark. The sustainability certification	Viticulture Winemaking	Environmental: Air, Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape Economic: Direct economic impacts Social: Employees, responsible towards people living nearby, responsible towards the community, consumers	Operating	Management tools, calculators, validation, certification, label	General link: https://www.equalitas.it/x List of wine producers certified as sustainable wineries under Equalitas certification system: https://www.equalitas.it/etichette-equalitas/ List of wines certified as sustainable products under Equalitas certification system: https://www.equalitas.it

¹ Viticulture; Winemaking; Aging; Bottling; Storage; Packaging; Distribution.

² **Environmental:** Air ; Water (quality, quantity) ; Soil (erosion, quality, etc.) ; Biodiversity ; Energy management ; Packaging ; Transport ; Pesticides and fertilisers (registration, storage, reasoned use, alternatives, reduction of use) ; Waste management ; Landscape ; Neighbouring land use ; Raw materials (sustainability along the supply chain) ; Site selection ; Variety selection ; Transition to Organic or Biodynamic farming ; **Economic:** Direct economic impacts (including fair trade / fair economic returns within the supply chain); Indirect economic impacts (including actions to improve competitiveness and new market opportunities, eno-tourism, R&D implemented at the local level, etc.) ; Local (Employees and raw materials preferably from local area); **Social:** Employees (health, safety, training, housing and working conditions, social protection, etc.); Responsible towards people living nearby; Responsible towards the community; Consumers (quality, health, transparency, communication).

³ Defined but not tested; Pilot phase ; Operating ; Discontinued.

⁴ Protocol – Document listing the requirements to comply with; Management tools (guidelines, self-assessment tools, training tools, indicators); Calculators - to provide a single measure (e.g. footprint or final sustainability score); Validation - by the initiative or a third party; Certification - by accredited body; Label.

			can be obtained for the wine as a final product but also for the organisation and management of the producing company. The initiative targets mostly the national market but foreign wine producers can and have obtained the Equalitas certification (e.g. Spain).					/vini-certificati-con-lo-standard-equalitas/
Wine Observatory Sustainability	Opera Research Center and Unione Italiana Vini with the support of the Ministry of Environment, Land and Sea (now Ministry for the Ecological Transition) and the Ministry of Agriculture, Food and Forestry.	Mixed / Wine-specific	The Wine Observatory Sustainability is a no-profit web platform aiming to collect, share and coordinate existing experiences on sustainability in the wine sector. The idea to establish such a platform originated at the International Congress "Sustainable Viticulture and Wine Production", which was held on 12-13 November 2013 in Milan. The platform makes freely available to user's relevant documents on sustainability viticulture through a dedicated resources centres and lists under a farm demo section winegrowers who have successfully implemented sustainability practices. However, the platform seems not to have been updated since 2019.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution		Discontinued		<p>General link: http://wineobservatorysustainability.eu/en/home/</p> <p>Resource Centre: http://wineobservatorysustainability.eu/en/resourcecenter/</p> <p>Farm Demo: http://wineobservatorysustainability.eu/en/farmdemo/</p>
VinNatur	Associazione VinNatur	Private / Wine-specific	VinNatur is an initiative that was launched in 2007 in Italy but that has evolved over time now grouping winegrowers of several European countries with the aim to promoting the production and the marketing of 'natural' wines, i.e. wines that are produced with minimal human intervention. In the absence of a regulatory definition of natural wines, the latter are generally produced from organic or biodynamically grown grapes. Grapes are hand-picked, use of sulphites strictly limited, and no sugars, foreign yeasts or bacteria can be used. Currently, over 170 wine producers located across Italy, France, Spain, Portugal, Germany, Austria, Slovenia, Greece and Czech Republic have joined the initiative. In 2016 the association agreed on and published a technical protocol called 'Procedural Regulations for producing VinNatur wines'. Subsequently, an agreement with the certification body ValoriItalia was concluded entrusting that entity with verification / auditing powers. More recently, in 2020 the association eventually decided that producers who have been members for at least two years can display VinNatur logo on the labelling of their wines as a guarantee of quality for consumers.	Viticulture Winemaking	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Variety selection Social: Consumers	Operating	Protocol, management tools, certification, label	<p>General link: https://www.vinnatur.org/en/</p> <p>List of wine producers adhering to VinNatur: https://www.vinnatur.org/en/produttori/</p> <p>Link to technical protocol: https://www.vinnatur.org/wp-content/uploads/2020/03/Disciplinare-VinNatur-2020-ENG.pdf</p>

Vite.Net	Horta srl – spin off UNICATT Piacenza	Private / Wine-specific	Vite.net is an IT expert tool of precision agriculture - notably a DSSs platform - that provides wine-growers with information on weather conditions, water use and plant health, among others, in real time allowing them to take decisions / actions to ensure sustainability of their farming activity. It was created in 2008 and subject to several experimental trials on different pilot vineyards before being marketed commercially on a large scale. While the tool was developed in Italy it is being marketed in other European countries (e.g. Spain, Portugal, Greece). Similar tools have been developed for other agricultural crops, including olive oil, cereals, potatoes and vegetables.	Viticulture	Environmental: Air, Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Variety selection Economic: Indirect economic impacts Social: Consumers	Operating	Management tools, Calculators	General link: https://www.horta-srl.it/vite-net/
Demeter	German cooperative of producers	Private / Generic	Started in 1928; based on biodynamic principles	Winemaking Aging Bottling	Environmental: Air, Energy management, Transport Social: Employees, Responsible towards people living nearby, Consumer	Pilot phase		
Life + BioDiVine	Institut Français de la Vigne et du Vin	Mixed / Wine-specific	This project co-funded by the EU has aimed at demonstrating the benefits of consolidating landscape structures for biodiversity. It has involved several partners in France as well as Portugal and Spain. The guide referenced here was written in French and specifically for the benefit of the Saint Emilion producers.	Viticulture Winemaking Aging Bottling	Environmental: Air, Soil, Biodiversity Economic: Indirect economic impacts Social: Employees, Responsible towards people living nearby	Operating	Management tools, Calculators	General link: https://docplayer.fr/23474866-Guide-techniques-partenaires-du-projet-life-biodivine.html
Porto Protocol	Porto Taylor's	Private / Wine-specific	The Porto Protocol is a pact that a winery makes with itself to improve its way of operating whilst committing to making changes in its practices so as to mitigate the negative effects of climate change. On a broader scale, it connects the wine industry through an on-line think tank, where information and case studies can be shared on a global scale. The Porto Protocol Foundation was established in 2019 and recognised by the national competent authorities in the same year. In 2020 it was singled out as best Green Initiative by the Drinks Magazine Green Awards. Dissemination of good environmental practices to mitigate the effects of climate change via webinars and workshops has been an important part of the activities to date.	Winemaking Aging Bottling Storage Packaging Distribution		Operating		General link: https://www.portoprocol.com/ Letter of Principles of the Porto Protocol: https://www.portoprocol.com/wp-content/uploads/2018/09/Letter-of-PrinciplesPP-2.pdf

Wine in Moderation	Wine in Moderation – Art de Vivre aisbl alongside national coordinators of the countries where this initiative is currently present	Private / Wine-specific	The initiative Wine in Moderation was created in 2008 under the aegis of the European wine sector with the objective to mainstream within wine companies the application of good practices through self-regulation of marketing and sales of wines and by promoting moderate and responsible consumption of alcoholic beverages in general. It is a movement that currently involves 15 countries, including Portugal, France, Italy, Spain and Germany, and with almost 1,500 entities supporting it.	Packaging Distribution	Social: Consumer	Operating	Protocol	General link: https://www.wineinmoderation.eu/pt/
ECO-PROWINE	Centro de Investigación de Recursos y Consumos Energéticos (CIRCE)	Private / Wine-specific	ECO-PROWINE was created in 2012 through funding by the European Commission under the umbrella of the CIP-Eco Innovation program. The project initially lasted three years but was relaunched in 2020. ECO-PROWINE is an environmental sustainability label. The label may be obtained following the implementation of the methodology underpinning this initiative, which is based on a life-cycle analysis approach, specific for the wine production chain. In practical terms, ECO-PROWINE essentially allows wine producers to perform a self-evaluation of their manufacturing processes, in order to detect the environmental impact, as well as costs and main social aspects which determine the winery's sustainable profile. Following this analysis, actions for improvement are proposed in order to reduce the associated impacts. Once the winery demonstrates its commitment to improve the environmental performance of its processes, it will obtain the ECO-PROWINE label.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management Economic: Direct economic impacts Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Management tools, Calculators, Validation, Label	General link: http://ecoprowine.org/
Amethyst	Piedmont Regione (Italy), Consejo Regulador de la Rioja (Spain) y ADEME (France)	Mixed / Wine-specific	This initiative consists in a self-assessment tool to calculate energy and water efficiency for small and medium wine producers. The tool makes wineries aware of their energy and water efficiency and the potential to improve their performance.	Winemaking Aging Bottling Storage	Environmental: Energy management	Operating	Protocol, Management tools, Calculators	Link with info: https://www.infowine.com/intranet/libretti/libretto6831-01-1.pdf
COPPEREPLACE	Plataforma Tecnológica del Vino (Main)	Private / Wine-specific	COPPEREPLACE consists of the development and implementation of new technologies, products and strategies to reduce the application of copper in vineyards and to remedy contaminated soils in the SUDOE region. The project started in 2020 and will end in 2023.	Viticulture	Environmental: Pesticides and fertilisers	Defined but not tested		General link: https://coppereplace.com/

FAIR'N GREEN e.V.	Athenga GmbH, a spin-off of Berlin Denkbank.	Private / Wine-specific	<p>The FAIR'N GREEN certificate was developed by employees of the Athenga GmbH, a spin-off of the Berlin Denkbank. The development was strongly influenced by many years of experience in different industries and practical knowledge from current projects in other industries (consumption goods, events, logistics). The first wineries joined the certification programme in early November 2013. The association managing the programme systematically cooperates with different groups from science and civil society. FAIR'N GREEN is the system for sustainable viticulture which helps winegrowers to develop towards holistic sustainability. The association has a sustainability standard, and the further development of FAIR'N GREEN is also supported by an advisory board of the Geisenheim University and other stakeholders. Based on 150 criteria, a comprehensive consultation and annual binding improvement goals, wineries are supported in producing sustainable wine. After the consultation and the initiation of the first measures, a report (for the certification) is checked by an independent institute (GUTCert GmbH). GUTCert GmbH is involved as an independent partner in the certification process and enables a neutral control of the certified companies. As a member of the AFNOR Group, GUTCert is part of the international network of experts in the field of environmental and sustainability auditing. It also trains auditors and provides expertise on relevant standards and standards through its own academy. FAIR'N GREEN is an international certification programme: besides Germany, wine companies in Austria, France, Israel, Italy and Switzerland adhere to the programme.</p>	Viticulture Winemaking Aging, Bottling Packaging Distribution	<p>Environmental: Water, Soil, Biodiversity, Energy management, Packaging, Transport, Waste management, Landscape, Neighbouring land use Economic: Direct and indirect economic impacts Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers</p>	Operating	Protocol, Validation, Certification, Label	<p>General link:</p> <p>https://www.fairandgreen.de/</p> <p>Link to the standards document:</p> <p>https://www.fairandgreen.de/wp-content/uploads/FAIRN-GREEN-Standard-for-Sustainable-Viticulture.pdf</p> <p>Link to the third-party certifying body:</p> <p>www.gut-cert.de</p>
Fair Choice Certification	German Institute for Sustainable Development at Heilbronn University	Private / Generic	<p>This certification scheme was funded in 2010 by the Federal Office for Agriculture and Food and implemented by a team of experts from science and practice from DINE e.V, the German Institute for Sustainable Development. The seal identifies agricultural products from sustainable production with a focus on the wine and beverage industry. It comprises 44 criteria in the areas of ecology, economy and social issues, which are based on the UN Global Compact and the Global Reporting Initiative (GRI). The prerequisite is the self-commitment to an ecologically</p>	Viticulture Winemaking Storage, Packaging Distribution	<p>Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Variety selection Economic: Direct economic impacts</p>	Operating	Protocol, Label, Certification	<p>General link:</p> <p>https://www.fairchoice.info/</p> <p>Link to the programme standard:</p> <p>https://www.fairchoice.info/wp-content/uploads/anforde</p>

			compatible, socially just and economically viable production and marketing. FairChoice enables positioning as a sustainable company in the national and international market. Products and companies that are marked with FairChoice stand for ecologically compatible, socially just and economically viable production conditions. Certification is carried out by an independent environmental auditor. Minimum requirements must be met, but the criteria do not have to be implemented from the outset. The environmental auditor determines what opportunities a winery has for improvement. If the assessment is positive, the DINE e. V. awards the label. Depending on how well the criteria are met, the label is awarded for one or three years. After that, a new audit is carried out to measure progress. In the event of violations of the award criteria, the DINE e. V. can withdraw the label.		Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers			rung.pdf https://www.dine-heilbronn.de/fairchoice-das-nachhaltigkeitssiegel/
Organic wine	European Union legislation	Public / Wine-specific	European legislation on 'organic wine' (Regulation (EU) No 203/2012). Organic wine is defined as: (in the vineyard) produced from "organic" grapes; (in the cellar) produced using only products and processes authorised by the Regulation. Organic wine growers will be allowed to use the term "organic wine" on their labels if they comply with the Regulation. The labels must also show the EU organic logo and the code number of their certifier.	Viticulture Winemaking	Environmental: Pesticides and fertilisers Social: Consumers	Operating	Protocol, Certification, Label	General link: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=cellex%3A32012R0203
ISO 14001	ISO standards (International Organization for Standardization)	Public / Generic	Global environmental management standard - international standard that allows companies to demonstrate their commitment in protecting the environment through the management of environmental risks associated with their activity. Standards are not publicly available and therefore a full assessment against the matrix of criteria here considered is not possible.	Viticulture, Winemaking Aging Bottling Storage Packaging Distribution		Operating	Protocol, Certification, Label	General link: https://www.iso.org/standard/60857.html
VINEPROTECT	Team of researchers from 7 Institutions in 4 countries (Portugal, Italy, Morocco and turkey)	Mixed / Wine-specific	This project involves northern Universities and Private companies in the Douro Region, and compares sustainable soil and water management practices in the Douro Region terroir. Also monitors the use of local vine-microbiome (local genetic banks) and impact on grape/wine characteristics), improvement of the vines' resilience to climate change (heat and water deficit), together with circular-economy on the terroir.	Viticulture		Operating	Protocol	Source link : https://vineprotect-prima.com/

ITALY								
V.I.V.A. Sustainable Wine	Ministry of Environment, Land and Sea (now Ministry for the Ecological Transition)	Public / Wine-specific	The initiative was launched in 2011 under the aegis of the Italian Ministry of Environment (now the Ministry of the Ecological Transition) and in collaboration with the wine sector and two university research centres (notably, OPERA and AGRINNOVA). Its main objective is to provide a common approach to measure the environmental, economic and social impact of viticulture. After being piloted for few years, the initiative has been fully operational since 2014. The initiative has undergone several changes / updates over time, including the integration of a certification activity performed by a third-party entity (SQNPI). The latest revision of the technical protocol ('Disciplinare VIVA 2.1') took place in 2019. The sustainability certification can be obtained for wine as a final product but also for the organisation and management of the producing company.	Viticulture Winemaking Aging, Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Landscape, Raw materials Economic: Direct and indirect economic impacts Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Protocol, Management tools, Calculators, Validation, Certification, Label	General link: http://www.viticolturastenibile.org/Home.aspx Link to VIVA general guidance on sustainability viticulture: http://www.viticolturastenibile.org/Downloads/Linee_guida_sostenibilita.pdf
Magis	Bayer Cropsience s.r.l. in cooperation with the University of Milan	Private / Wine-specific	Initiative launched in 2012 to promote sustainability in viticulture and minimise environmental impact by using precision agriculture, notably by monitoring vineyards and distributing agrochemicals in a more precise way to enable reduced interventions in the field, as well as reducing the amount of waste and the overall environmental impact. This tool seems now to have been discontinued. In 2014 more than 100 wineries joined this initiative.	Viticulture	Environmental: Water, Packaging, Transport, Pesticides and fertilisers Economic: Direct economic impacts Social: Employees, Responsible towards people living nearby, Consumers	Discontinued		N/A
SOSTain	Ass. Alleanza per la Sostenibilità in Viticoltura / OPERA	Private / Wine-specific	SOSTain is a sustainability certification programme targeting viticulture in the Sicilian region. It is currently managed by a foundation - Fondazione SOSTain Sicilia - promoted by two wine local entities: Consorzio di Tutela Vini DOC Sicilia e da Assovini Sicilia. A Scientific Committee, composed by scientists of the Universities of Piacenza and Palermo, and a Technical Committee, gathering representatives of the regional wine sector, contribute to the development, maintenance and update of the certification programme. The programme is underpinned by a technical protocol setting 10 minimum requirements that must be met to obtain the certification.	Viticulture Winemaking Packaging	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Landscape, Raw materials Economic: Indirect economic impacts,	Operating	Protocol, Management tools, Calculators, Validation, Certification, Label	General link: https://www.fondazione sostainsicilia.it/ Link to the technical protocol: https://www.fondazione sostainsicilia.it/disciplinare/

			SOSStain works in synergy with V.I.V.A. Sustainability Wine certification programme, which is managed by the Italian competent authorities: in fact, in order to obtain SOSStain certification and label, wine producers must meet, among others, the four indicators (notably, water, air, vineyard and territory) currently established under V.I.V.A. programme. SOSStain is open to all wine producers located on the island, regardless the specific method of production used in the vineyard (e.g. conventional, integrated, organic, biodynamic etc.).		Local Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers			
Ita.Ca/Gea.Vite	SATA Studio Agronomico	Private / Wine-specific	Ita.Ca. and Gea.Vite are two sustainability initiatives promoted by SATA Studio Agronomico Sata. SATA in cooperation with Winemakers' Federation of Australia (WFA) created Ita.Ca. in 2011, which is the first carbon footprint calculator based on International Wine Carbon Calculator (IWCC), adjusting it to the specificities of the national wine production. It has been implemented under the supervision of experts from the Faculty of Agricultural Science of the University of Milan. Ita.Ca. is compatible with ISO environmental standards 14064 and 14067, which concern, respectively, the control and determination of GHGs emissions produced at the level of the organisation and of the product. It is used by other sustainability certification programmes at national level (notably, Equalitas). It is one of the tools of Gea.Vite, a broader sustainability programme aimed at assessing wineries' efficiency from a sustainability angle.	Viticulture Winemaking Aging Packaging	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Landscape Economic: Indirect economic impacts, Local Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Protocol, Management tools, Calculators, Validation	General links: https://www.agronomisa.ta.it/gea-vite/ https://www.agronomisa.ta.it/impronta-carbonica/
VinoLibero	Associazione Vino Libero	Private / Wine-specific	Initiative launched in the first years of the last decade, it currently groups 13 national wine-growers and 1 winery in addition to over 600 affiliated restaurants and wine bars across the national territory and in Switzerland. The main objective of the initiative is to promote an alternative model of viticulture which is respectful of the natural environment and of consumer health insofar as: - No chemical substances can be used in agriculture (e.g. pesticides, fertilisers); and - Wines produced in accordance with VinoLibero protocol must have 40% of sulphites less than the maximum limits allowed by law. Vino Libero protocol was last revised in 2015. The initiative was shortly after discontinued because of a fine imposed by the Italian antitrust authority, which	Viticulture Winemaking	Environmental: Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Landscape, Raw materials, Site selection, Variety selection. Economic: Direct economic impacts Social: Employees, Consumers	Discontinued	Protocol, Management tools, Validation, Label	General link: http://www.vinolibero.it/progetto/ Link to the technical protocol: http://www.vinolibero.it/wp-content/uploads/2015/11/Disciplinare-Tecnico-VINO-LIBERO-2015-ed-1rev-4.pdf

			considered misleading for consumer an advertising campaign suggesting that wines with Vino Libero logos were entirely free from chemicals.					
New Green Revolution (Montefalco 2015)	Associazione Grandi Cru Montefalco together with University of Milan, Cratia, Park 3A- Agribusiness Technological Park in Umbria, SATA: Studio Agronomico, Anima Mundi, Arnaldo Caprai's winery	Mixed / Wine-specific	The initiative New Green Revolution was launched in 2010 under the aegis of the Associazione Grandi Cru Montefalco in the Umbria region. The initiative main objective was to introduce a new innovative production practice in viticulture with the aim to improve the quality of end products as well as to reduce the environmental impact of production process. The initiative developed the first sustainability protocol in Italy for viticulture, which subsequently has served as a basis for the development of the Equalitas certification programme.	Viticulture Winemaking	<p>Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Landscape, Raw materials</p> <p>Economic: Direct and indirect economic impacts</p> <p>Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers</p>	Discontinued	Protocol, Management tools, Calculators, Validation, Certification, Label	Link to Caprai's winery: https://www.arnaldocaprai.it/posts/progetto-new-green-revolution
Biodiversity Friend	World Biodiversity Association	Private / Generic	Biodiversity Friend is a sustainability certification programmes managed by the Italian NGO World Biodiversity Association. Established in 2010, the certification programme targets indistinctively all agri-food products, thus including also wine in principle. While there is strong emphasis on preservation of biodiversity and the natural environment, the programme claims that social and economic sustainability are also among its main objectives. Farmers and growers that fulfil the programme's sustainability standard / protocol can display the logo 'Biodiversity Friend' on their food products. Compliance with the standard / protocol is verified by some independent accredited certifying bodies (e.g. CSQA, Bioagricert).	Viticulture Winemaking	<p>Environmental: Air, Water, Soil, Biodiversity, Energy management, Landscape</p> <p>Economic: Direct economic impacts</p> <p>Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers</p>	Operating	Protocol, Management tools, Validation, Certification, Label	<p>General link: https://biodiversityassociation.org/en/what-we-do/projects/biodiversity-friend/</p> <p>Link to the technical protocol: https://biodiversityassociation.org/en/what-we-do/projects/biodiversity-friend/standard/</p>

CasaClimaWine	Energy Agency of Alto Adige - CasaClima	Public / Wine-specific	CasaClimaWine is a quality seal for wineries resulting from a sustainability certification programme developed by the Energy Agency of the Northern Italian province Alto-Adige since 2002. Besides wineries, quality seals exist for tourism accommodations (hotels, B&B etc.), offices and schools and kindergartens. Wineries that have been awarded the seal are located in different Italian regions (Trentino-Alto Adige, Veneto, Lombardia, Marche, Calabria, Toscana and Emilia-Romagna).	Viticulture Winemaking Packaging Distribution	Environmental: Water, Energy management, Packaging, Waste management, Raw materials Social: Employees	Operating	Protocol, Certification	General link: https://www.klimahotel.it/it/cantine-sostenibili/
INNFARES	Consortium led by Sannio Consorzio Tutela Vini and other 6 partners, including the Universities of Sannio and Naples	Mixed / Wine-specific	INNFARES is a three-year project financed through the Rural Development Programme of the Campania Region. Its main objective is to provide know-how and tools to wine producers to mitigate the effects of climate change on the production of Falanghina wine, while preserving its quality. The project started in 2019 and should come to an end in 2022.	Viticulture Winemaking Bottling Packaging Distribution	Environmental: Soil, Biodiversity, Pesticides and fertilisers, Variety selection Economic: Indirect economic impacts Social: Employees, Consumers	Pilot phase	Protocol, Management tools	General link: https://www.innovarurale.it/it/pei-agri/gruppi-operativi/bancadati-go-pei/terroir-intelligent-del-sannio-innovazioni-una
Vi.In.Te.S.	Consortium led by AGRODIGIT s.r.l. and other 6 partners, including wine producers of the Sannio region and the University of Sannio	Mixed / Wine-specific	Vi.In.Te.S. is an ongoing project financed through the Rural Development Programme (RDP) of the Campania Region. Its overall objective is to make accessible and disseminate know-how, good practices and technologies that have been developed in other agricultural contexts, including viticulture. The project also aims at fostering the development of new technologies that guarantee effective solutions for collection and integrated management of big data in agriculture. The project started in 2019 and should come to an end in 2022. Only local wine producers located in the Sannio area can take part in the current project. One of the expected concrete outputs of the project is the development of a software for the application of viticulture precision which is economically affordable for small wine producers / companies.	Viticulture	Environmental: Air, Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Transition to organic and biodynamic farming Economic: Direct and indirect economic impacts Social: Responsible towards people living nearby, Consumers	Pilot phase	Protocol, Management tools	General link: www.vintes.net

SOILUTION SYSTEM	Consortium composed by 9 partners, including the University of Padova, the World Biodiversity Association and two PDO wine groups (notably Consorzio Tutela Vini Soave and Lessini Durello)	Mixed / Wine-specific	This project, which has been financed through the Rural Development Programme of the Veneto Region, essentially aims at developing innovative solutions for mitigating the risks for viticulture deriving from soil erosion and for a better management of vineyards located in hilly and mountainous areas. Participation to the project is limited only to local producers.	Viticulture	Environmental: Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Landscape, Neighbouring land use, Site selection, Variety selection Economic: Direct and indirect economic impacts Social: Responsible towards people living nearby, Responsible towards the community, Consumers	Pilot phase	Protocol, Management tools, Calculators	General link: https://www.soilutionsystem.com/
I.N.T.E.G.R.I.T .A'. (Iniziativa Territoriale per la Gestione delle Risorse paesaggistiche e per la Tutela Ambientale)	Consorzio Tutela Vini Soave together with University of Venice and World Biodiversity Association	Mixed / Wine-specific	This project, which has been financed through the Rural Development Programme of the Veneto Region, essentially aims at preserving the quality of the landscape where Soave vineyards are located and its biodiversity against the threats posed by climate change. In so doing, it also aims at guaranteeing that the recognition as 'rural landscape of historical interest' granted by the Italian authorities in 2012 is maintained in the long term. Participation to the project is limited only to local producers.	Viticulture	Environmental: Air, Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Landscape, Variety selection, Transition to organic and biodynamic farming Economic: Direct and indirect economic impacts Social: Employees, Consumers	Pilot phase	Management tools, Calculators	General link: https://www.ilsoave.com/fondo-europeo-agricolo-per-lo-sviluppo-rurale-leuropa-investe-per-le-zone-rurali/
ECOLOG	Sustainability initiative promoted by Coldiretti Cuneo together with Consorzio di Tutela Barolo, Barbaresco, Alba, Langhe and Doglian.	Private / Wine-specific	This is a project developed in some wine-producing areas of the Piedmont Region (Langhe, Roero and Monferrato), which has the objective to reduce the environmental impact that transport and logistics has on the landscape and biodiversity of viticulture practiced on hilly areas. The aim is to preserve a region that is recognised as UNESCO World Heritage and that is a well-known tourist destination.	Distribution	Environmental: Air, Soil, Transport, Landscape Economic: Indirect economic impacts Social: Consumers	Operating	Protocol, Management tools, Calculators	General link: https://www.progettoecolog.it/

SmartMeteo	Sustainability initiative promoted by a consortium led by University Sant'Anna of Pisa, Perugia, Confagricoltura and various farming companies.	Mixed / Generic	SmartMeteo is an IT tool that supports farmers, including wine-growers, in taking decisions related to farming practices in real time based on data supplied and phytosanitary bulletins issued by meteo stations scattered through the territory of the Umbria region. It is the result of a project financed through the Regional Development Program of that region.	Viticulture Winemaking	Environmental: Air, Water, Soil, Energy management, Transport, Pesticides and fertilisers, Waste management, Landscape, Raw materials Social: Consumers	Operating	Protocol, Management tools	General link: https://agronotizie.imagelinetwork.com/agricoltura-economia-politica/2020/09/28/in-umbria-il-meteo-si-fa-smart/67812
RRR (Riduci, Risparmia, Rispetta)	Consorzio Tutela Vini Valpolicella	Private / Wine-specific	RRR is a sustainable production programme based on integrated crop management practices. The programme includes a protocol with guidelines. Compliance with the protocol secure certification for both wines and the grapes. As a prerequisite, wine producers willing to adhere to the RRR must possess SQNPI certification for the whole company production area. Only local producers can join this initiative.	Viticulture	Environmental: Air, Water, Biodiversity, Pesticides and fertilisers, Landscape, Transition to Organic or Biodynamic farming Economic: Indirect economic impacts Social: Consumers	Operating	Protocol, Management tools	General link: https://www.consorziovalpolicella.it/en/technical-area/sustainability/
IN-GEST SOIL	Consortium composed by different entities including a PDO wine group (Consorzio Tutela Vini del Gavi) and single wine producing companies	Private / Wine-specific	This project, which has been financed through the Rural Development Programme of the Piemonte Region, aims at fostering on-site implementation of best practices for soil management in vineyards located in hilly areas with the objective to mitigate the negative effects that typically derive from soil erosion. The know-how and outputs of the project can in principle benefit any wine producer.	Viticulture	Environmental: Soil, Pesticides and fertilisers, Landscape, Neighbouring land use	Operating	Protocol, Management tools	General link: https://www.agrion.it/wp-content/uploads/2018/06/INGEST-SOIL_descrizione-per-pagina-web_DEF.pdf
Biomonitoraggio dell'impatto ambientale tramite le api	Partnership led by Aspromiele Piemonte including different public and private stakeholders, including among others the Piemonte Region, few farmers associations (CIA,	Mixed / Generic	This initiative builds on previous scientific research that started in 2003 and developed into a more structured and regular project as of 2017. It essentially aims at evaluating the impact of agricultural pesticides on the surrounding environment by monitoring bioaccumulation of those substances in bees. There are currently over 40 locations scattered through the Piemonte Region where bees are monitored to that effect: 8 of those are located in vineyards.	Viticulture	Environmental: Air, Pesticides and fertilisers, Neighbouring land use Social: Responsible towards people living nearby	Operating	Management tools	General link: https://www.aspromiele.it/wp/wp-content/uploads/2021/02/BIOMONITORAGGIO-ASPROMIELE.pdf

	Coldiretti) and one PDO wine producer group (Consorzio Tutela Vini del Gavi).							
F.A.R.E.SU.BIO	Consortium led by the PDO Group Consorzio di Tutela Franciacorta also involving the Universities of Milan and Brescia and 18 wine producers.	Mixed / Wine-specific	Project financed through the Regional Development Program (RDP) 2014-2020 of the Lombardy Region that involves several production settings and has the aim to highlight the results of agronomic practices targeting soil from multiple but interacting points of view. The project focuses in particular on the role of organic matter, biological fertility, CO2 sequestration and biodiversity both in the epigeal field and in that explored from the roots.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape, Transition to Organic or Biodynamic farming Social: Consumers	Pilot phase	Protocol, Management tools, Calculators	General link: https://www.faresubio.it/
Guidelines for sustainable viticulture	Initiative of the PDO Group Consorzio di Tutela Franciacorta developed to the benefit of its members.	Private / Wine-specific	Guidelines for sustainable viticulture.	Viticulture	Environmental: Soil, Biodiversity, Pesticides and fertilisers Social: Employees, Consumers	Operating	Protocol, Management tools	General link: www.franciacorta.net
Genetic improvement of an autoctone vineyard	Initiative of the PDO Group Consorzio di Tutela Franciacorta developed to the benefit of its members.	Private / Wine-specific	Initiative aimed at ensuring the improvement of an autochthonous vine variety.	Viticulture Winemaking	Environmental: Biodiversity, Site selection, Variety selection, Social: Consumers	Pilot phase		General link: www.franciacorta.net
Sexual confusion for moth and vineyard guide for treatment reduction for downy mildew	Research project conducted by Universities, public entities and consulting companies operating the Lombardy region to the benefit of	Mixed / Wine-specific	The main aim of the research project is to contribute to the reduction of application of treatments for the pest concerned.	Viticulture	Environmental: Soil, Pesticides and fertilisers Social: Consumers	Operating	Management tools	Link to the research conducted: https://www.researchgate.net/profile/Silvia-Toffolatti-2/publication/299337661_Impiego_del_modello_EPI-peronospora_per_un_uso_sostenibile_dei_fungici

	local wine producers.							di/links/56f112b108ae70bdd6c97fcb/Impiego-del-modello-EPI-peronospora-per-un-uso-sostenibile-dei-fungicidi.pdf
ASTI WINE SUSTAINABILITY	Sustainability initiative under development promoted by the PDO wine group Consorzio della Tutela dell'Asti.	Private / Wine-specific	This initiative aims at covering mainly the environmental and social dimensions of sustainability. It is currently in a piloting phase and a protocol / standard is also under development.	Viticulture	Environmental: Air, Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Neighbouring land use Social: Employees, Consumers	Pilot phase	Management tools	General link: www.astidocg.it
Quality and Sustainability of Traditional Wines of Arezzo Area	Sustainability initiative being implemented by the PDO wine group Consorzio Vini Val di Chiana Toscana.	Private / Wine-specific	Initiative financed through the Regional Development Program (RDP) 2014-2020 of the Toscana Region with the aim to ensure a sustainable and reasoned use of pesticides.	Viticulture	Environmental: Pesticides and fertilisers	Operating		General Link: www.vinivaldichianatoscana.it Specific link to the initiative: www.vinitipiciar.it
Fair pricing to be paid to wine-growers	Sustainability initiative promoted by the PDO group Consorzio di Tutela Alta Langa	Private / Wine-specific	The initiative is based on an agreement taken within the PDO group Consorzio Tutela Alta Langa (Piedmont Region). It consists in ensuring that individual wine-growers receive a fair price for the grapes they produce. It is therefore an initiative that aims at ensuring the long-term economic sustainability of the local viticulture sector while at the same time it contributes towards the preservation of the quality of the concerned PDO wine. Specific guidelines are in the process of being developed with the objective to lay down criteria for the reward of the more virtuous wine-growers.	Viticulture	Economic: Direct and indirect economic impacts Social: Responsible towards people living nearby, Consumers	Operating	Protocol	General link: https://www.altalangadocg.com/

Phytosanitary bulletin	Sustainability initiative undertaken by the PDO group Consorzio per la Tutela del Vino Bardolino D.O.C.	Private / Wine-specific	Every week for the last 20 years the PDO group has made available to wine-growers and to the general public a phytosanitary bulletin, which is the result of the weekly meetings held between agronomists and the main producing PDO wine -making companies. This bulletin contains information that might be used by wine-growers to take the most appropriate decisions to ensure the environmental sustainability of viticulture (e.g. reasoned use of pesticides).	Viticulture	Environmental: Biodiversity, Pesticides and fertilisers	Operating	Protocol	General link: consorziobardolino.it
Asolo Prosecco Method	Sustainability initiative promoted by the PDO group Consorzio Vini Asolo Montello	Private / Wine-specific	This initiative has the aim to disseminate good agronomic practices and reasoned use of pesticides amongst growers of the concerned PDO wine.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape Social: Consumers	Operating	Protocol, Management tools	General link: www.asolomontello.it
Grechetto Gentile Experimental Vineyard	Sustainability initiative promoted by the PDO group Vini Colli Bolognesi in cooperation with the University of Bologna	Mixed / Wine-specific	Sustainability research project focussing on the production of a PDO wine originating from the hilly areas around Bologna in the Emilia-Romagna region.	Viticulture	Environmental: Water, Soil, Pesticides and fertilisers	Pilot phase		General link: www.collibolognesi.it
Eno-tourism programme 'Tra le Torri del Primitivo di Manduria'	Initiative promoted by the PDO group Consorzio Tutela Primitivo di Manduria	Private / Wine-specific	This eno-tourism initiative has been launched in 2019 for the first time and offers an enogastronomic experience combined with a walk among the main local environmental and historical landmarks of the production area of Primitivo di Manduria.	Viticulture Winemaking Bottling, Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Transport, Variety selection Economic: Indirect economic impacts Social: Responsible towards the community, Consumers	Operating	Protocol, Management tools	Link to the initiative: https://www.consorziotutelaprimativo.com/eventi/degustazioni-dop-tra-i-sentieri-pi%C3%B9-nascosti-delle-terre-del-primitivo-di-manduria

Wine Sustainability and Safety Trainings	Initiative promoted by the PDO group Consorzio Tutela Primitivo di Manduria	Private / Wine-specific	Training initiative targeting wine-growers of the PDO wine Primitivo di Manduria and aiming at disseminating knowledge and good practices in terms of sustainability and traceability of the relevant wine production systems.	Viticulture	Environmental: Air, Soil, Biodiversity, Energy management, Packaging, Transport, Landscape, Raw materials Economic: Indirect economic impacts Social: Employees, Consumers			Link to the initiative: https://www.consorziotutelaprimativo.com/eventi/didattica-distanza-ecco-i-workshop-formativi-del-consorzio-di-tutela-del-primitivo-di
Morellino Green	Sustainability initiative promoted by the PDO group Consorzio Tutela Morellino di Scansano DOCG	Private / Wine-specific	This initiative is the sustainability policy manifesto of the wine-growers producing the PDO wine Morellino di Scansano and has the objective to make sure that wine production takes place with minimal impact on the environment and the territory.	Viticulture Distribution	Environmental: Air, Energy management, Transport, site selection Economic: Indirect economic impacts Social: Responsible towards people living nearby, Responsible towards the community	Operating	Management tools	Link to the initiative: www.morellinogreen.it
Morellino Circular Economy Report	Sustainability initiative promoted by the PDO group Consorzio Tutela Morellino di Scansano DOCG in partnership with other like-minded stakeholders (ENEL X Italia)	Private / Wine-specific	The initiative is part of a larger long-term project which has the ambition to certify the sustainability of the production area of the PDO wine Morellino di Scansano. Its main focus is the implementation of a circular economy approach across the whole production chain against specific sustainability requirements, including energy efficiency, transport emissions and green logistics, among others. The development of a specific standard will be soon complemented by a full-fledged third-party verification to be performed by Accredia.	Viticulture Winemaking Aging, Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Energy management, Packaging, Transport, Waste management, Landscape, Raw materials, Site selection	Pilot phase	Protocol, Management tools, Calculators, Validation, Certification, Label	General link: www.visitmorellino.com Link to the initiative: https://www.consorziomorellino.it/wp-content/uploads/2021/09/Premio-smau.pdf

FRANCE								
Terra Vitis	Winemakers from the Beaujolais region	Private / Wine-specific	The Terra Vitis association was founded in 1998 to set a framework for sustainable agriculture. It has evolved over time to incorporate elements on biodiversity, water, soil and energy management. Its rules on the use of chemicals have evolved over time to progressively restrict more substances (since 2019, mutagenic and toxic substances are forbidden). It prescribes analysis of fertiliser use every 10y and sets a maximum limit of 50 units of nitrogen per ha per year.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Waste management, Landscape Social: Employees	Operating	Protocol, Validation, Certification, Label	General link: https://www.mon-viti.com/articles/viticulture/ab-terra-vitis-et-hve-quelles-differences-en-viticulture
AB (Agriculture Biologique)	Ministry of Agriculture, France	Public / Generic	This label created in 1985 establishes requirements for organic production in various sectors, with specific rules for each of them where relevant. Specific rules apply to wine production.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers	Operating	Protocol, Validation, Certification, Label	General link: https://www.mon-viti.com/articles/viticulture/ab-terra-vitis-et-hve-quelles-differences-en-viticulture
HVE (Haute Valeur Environnementale)	Ministry of Agriculture, France	Public / Generic	The HVE was introduced in 2012 as a recognition for the highest level of environmental certification in France. By contrast to less demanding certification levels, HVE sets requirements in terms of outcomes rather than inputs. A target of HVE certification of 50% of all wine producers by 2025 has been set. A guide has been produced specifically for wine producers to facilitate this effort.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Packaging, Pesticides and fertilisers, Waste management, Landscape, Site selection Economic: Indirect economic impacts Social: Employees, Responsible towards the community, Consumers	Operating	Protocol, Calculators, Validation, Certification, Label	General link: https://www.mon-viti.com/articles/viticulture/ab-terra-vitis-et-hve-quelles-differences-en-viticulture https://www.vignevin.com/wp-content/uploads/2019/03/IFV-guide-HVE-16_DEF1.pdf https://odgmedoc.fr/espace-producteur/structure-collective-hve/
Agriconfiance	Coop de France	Private / Generic	The Agriconfiance label was created in 2002. It applies to multiple chains. It evolved in 2018 with a set of area specific rules.		Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers Economic: Direct and indirect economic impacts, local Social: Employees	Operating	Protocol, Management tools, Validation, Certification, Label	General link: https://www.agriconfiance.coop/ https://www.lacooperatonaagricole-occitanie.fr/index.php/fr/nos-missions/developpement-durable/agriconfiance

Système de Management Environnemental du Vin de Bordeaux	Vins de Bordeaux producers	Private / Wine-specific	The SME provides a framework for Bordeaux wine producers to become more sustainable. This follows the ISO14001 standard and aims to eventually lead to HVE certification for all participants. Participation is voluntary.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Water, Soil, Biodiversity, Energy management, Packaging, Pesticides and fertilisers, Waste management, Landscape	Operating	Protocol, Management tools, Calculators, Validation, Certification, Label	General link: https://www.bordeaux.com/fr/Vignoble-engage/labels/le-systeme-de-management-environnemental-du-vin-de-bordeaux-sme-2
Viticulture durable en Champagne	Champagne Committee	Private / Wine-specific	The certification Viticulture Durable en Champagne (VDC) was introduced in 2014 by the Comité Champagne. The underpinning standard covers a wide range of sustainability dimensions. That includes recent developments on variety development to improve resilience to climate change. The objective set for the VDC is to have 100% of Champagne producers certified by 2030.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Waste management, Landscape, Neighbouring land use Social: Employees	Operating	Protocol, Management tools, Validation, Certification	General link: https://www.champagne.fr/assets/files/Developpement%20Durable/flyer-viticulture-durable-en-champagne-fr.PDF https://www.thedrinksbusiness.com/2019/04/champagne-to-be-a-fully-sustainable-region-by-2030/
Vignerons en Développement Durable		Private / Wine-specific	Applies ISO26000 to wine production - since 2010		Environmental: Air, Water, Biodiversity, Energy management, Transport, Pesticides and fertilisers Economic: Direct economic impacts, Local Social: Employees, Responsible towards the community, Consumers			General link: https://vignerons-engages.com/
Engagé RSE		Generic	Applies ISO26000 to wine production		Social: Employees, Responsible towards the community, Consumers			

Plan filière du Val de Loire	Representative organisations of Val de Loire wine producers	Private / Wine-specific	The Plan sets out strategies and targets for strengthening the Val de Loire wine production in view of current and foreseeable challenges:	Viticulture Aging Storage Distribution	Environmental: Air, Water, Soil, Biodiversity, Landscape, Neighbouring land use Economic: Direct economic impacts, Local Social: Employees, Responsible towards people living nearby, Consumers	Operating	Protocol, Management tools	General link: https://eb10d422-b02c-4a4c-8ca5-6f04cf0c2ef0.filesusr.com/ugd/82a54b_4862bde237e4f489441f9dc124b9dac.pdf
Plan filière Centre Loire	Representative organisations of Centre Loire wine producers	Private / Wine-specific	The Plan is under development.		Environmental: Water, Soil, Biodiversity, Packaging, Pesticides and fertilisers, Landscape, Site selection, Variety selection Economic: Direct and indirect economic impacts, Local Social: Employees	Pilot phase	Protocol, Management tools	-
VITIVALO	Université de Savoie	Private / Wine-specific	The project has explored ways of dealing with waste resulting from viticulture through other ways than open air burning.	Viticulture	Environmental: Air, Waste management Social: Responsible towards people living nearby	Pilot phase	Protocol, Management tools	General link: https://www.univ-smb.fr/2020/01/07/la-phase-2-du-projet-vitivalo-est-lancee/
Mesures agroenvironnementales (INAO Protocol)	Comité national des vins AOC / INAO	Mixed / Wine-specific	As of 2017, INAO has validated a protocol of eight (and eventually nine) measures for wine production. They are: grass cover on the edges of the fields, prohibition of chemical weeding anywhere, grass cover within ranks, optimisation of spraying, reduction of the quantities of phytosanitary products used, limitations to nitrogen input, preservation of walls, hedges, trees, bushes, prohibition of changes to the morphology of the soil, prohibition of plastic covering. The measures can be incorporated into the PDO specifications.	Viticulture	Environmental: Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Landscape, Variety selection	Operating	Protocol, Management tools, Validation, Certification, Label	General link: https://www.inao.gouv.fr/content/download/3820/33703/version/1/file/INAO%20DAE%20viti%202021-06.pdf https://www.inao.gouv.fr/content/download/1931/19897/version/1/file/IFV%2024%20GuideAgroEcologie_web.pdf https://www.vignevin.com/outils/outil-pedagogique/?c=1 https://www.vignevin.com

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Expérimentation et réintroduction d'anciens cépages / Variétés d'Intérêt à Fins d'Adaptation (Protocole validé par INAO)	Comité national des vins AOC / INAO (could be usefully confirmed in itw with INAO)	Mixed / Wine-specific	This was agreed in 2018 as an allowance for PDO wines to experiment with varieties selected for the purpose of adaptation (variétés à des fins d'adaptation). A list of up to 20 varieties, and 10 per colour, is to be created. Producers are allowed to experiment with those varieties within the limits of 5% of plantations and 10% of the final blend. The varieties to be included in the list may have characteristics that make them better adapted to climate change, may enable reducing the use of fertilisers and pesticides, reduce the alcoholic level of the wines, enable rehabilitating local genetic resources (non-limitative list) This has been extended to effervescent wines in 2021.	Viticulture Winemaking Storage	Environmental: Biodiversity, Pesticides and fertilisers, Variety selection	Pilot phase	Protocol, Management tools, Validation, Certification, Label	General link: https://www.inao.gov.fr/content/download/2718/25520/version/2/file/210727%20Directive%20VIFA%20valide%CC%81e%20CN%20juin%20signe%CC%81e.pdf
Projet Stratégique pour le Vignoble de Nantes	<i>No data</i>	Private / Wine-specific	<i>No data</i>		Environmental: Pesticides and fertilisers, Neighbouring land use, Variety selection Economic: Direct and indirect economic impacts, Local Social: Employees, Responsible towards people living nearby	Defined but not tested		-
Integration of agro-environmental measures in the specification	Syndicat des Vignerons des Côtes du Rhône / Syndicat des Producteurs de Pineau des Charentes	Private / Wine-specific	Corresponds to the integration of some or all of the measures introduced in the INAO protocol, in the specifications of specific PDOs.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape		Protocol, Management tools, Validation, Certification	General link: https://www.syndicat-cotesdurhone.com https://www.pineau.fr/fr
Promotion de l'emploi en viticulture	Federation Viticole Anjou Saumur	Private / Wine-specific	This has involved the production of a film to encourage applications for jobs in the wine production sector in the area.		Economic: Local Social: Employees	Operating	Management tools	General link: https://federationviticole.com/
Programme Régional Nouvelle	Region Nouvelle Aquitaine	Public / Wine-specific	The VitiREV programme is a large initiative aimed at supporting and accelerating the transition of wine production in the region away from phytosanitary products and towards agroecological practices. It follows a	Viticulture Winemaking	Environmental: Air, Soil, Biodiversity, Pesticides and fertilisers, Waste	Pilot phase	Protocol	General link: https://entreprises.nouvelle-aquitaine.fr/actualites/vi

Aquitaine VitiREV			collaborative approach that involves engagement with citizens living in the region, nearby the fields.		management, Landscape, Neighbouring land use Economic: Indirect economic impacts, Local Social: Responsible towards people living nearby, Responsible towards the community			tirev-innovons-pour-des-territoires-viticoles-respectueux-de-lenvironnement
Charte PNR Medoc	Parc Naturel Regional Medoc	Mixed / Generic	A charter for the Parc Naturel Regional du Medoc has set out objectives for a collective and sustainable development of the territory. This covers many dimensions, from landscapes to tourism, from short supply chains to agro-ecology. The charter includes elements that are directly relevant to wine production in the area, for instance to promote and protect biodiversity.	Viticulture	Environmental: Air, Water, Biodiversity, Energy management, Packaging, Waste management, Landscape, Neighbouring land use Economic: Indirect economic impacts, Local Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Protocol, Management tools	General link: www.pnr-medoc.fr
Integration of environmental certification in the specification	Fédération des Grands Vins de Bordeaux	Private / Wine-specific	This initiative incorporates into the specification the requirements of the main environmental certifications: AB, HVE, ISO 14001, and Terra Vitis.	Viticulture Winemaking Aging Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Waste management, Landscape, Raw materials, Variety selection Economic: Indirect economic impacts, Local Social: Employees, Consumers	Pilot phase	Protocol, Management tools, Calculators, Certification	-

Revision to specification	Union Viticole Sancerre	Private / Wine-specific	The specification for the PDO is being revised, including new sustainability requirements. There is a particular focus on reducing pesticide use and preventing weeding.	Viticulture Winemaking	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape	Defined but not tested		-
Prohibition of weeding	PDO Côtes du Jura	Private / Wine-specific	This prohibits weeding the edges of the fields (tournières)	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape	Operating	Validation	-
Prohibition of weeding between ranks	Syndicat Régional des Vins de Savoie	Private / Wine-specific	This corresponds to the integration into the specification of the PDO the prohibition of weeding between ranks.	Viticulture	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape, Neighbouring land use Social: Employees, Responsible towards the community	Operating	Protocol	-
Prohibition of chemical weeding added to the specification	Federation Viticole Anjou Saumur	Private / Wine-specific	The prohibition of chemical weeding of the space between ranks has been incorporated into the specification for 18 different PDO wines.	Viticulture	Environmental: Air, Water, Soil, Pesticides and fertilisers	Operating	Protocol, Validation	General link: https://federationviticole.com/
Conservation et adaptation du matériel végétal	Fédération des Vins de Bergerac Duras	Private / Wine-specific	The initiative aims to promote the conservation and selection of conservation varieties; the study of varieties resistant to cryptogamic diseases; and the study of varieties with interest for adaptation to climate change.	Viticulture	Environmental: Water, Biodiversity, Pesticides and fertilisers, Variety selection Economic: Direct economic impacts Social: Employees, Consumers		Protocol, Management tools	General link: https://www.fv-bergerac.fr/
Essais d'enherbement	Wine producers in the Duché d'Uzès	Private / Wine-specific	This corresponds to trials of growing the grass cover. These trials are being monitored by the producers' organisation.	Viticulture	Environmental: Soil, Biodiversity, Pesticides	Pilot phase		None provided

Plan d'action régional - Engager nos terroirs dans nos territoires	Bourgogne producer organisations	Private / Wine-specific	The initiative is a regional plan signed by all Bourgogne producer organisations in 2017. An action plan with a schedule sets out actions on 4 levels: training and information, community, reducing drift from sprayers, reducing the use of phytosanitary products. Progress is monitored via an observatory of wine producing practices.		Environmental: Air, Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape, Neighbouring land use Economic: Local Social: Employees, Responsible towards people living nearby	Operating	Protocol, Management tools, Validation	General link: https://cavb.fr/about/ch-arte-regionale-engager-nos-terroirs-dans-nos-territoires/
Modification of the specification for PDO Médoc, Haut-Médoc, Lustrac-Médoc	ODG Médoc, Haut-Médoc, Lustrac-Médoc	Private / Wine-specific	The specification for the PDO have been amended (not yet tested) to incorporate a number of new sustainability requirements. Those include the prohibition of weeding the edges of the fields (tournières), the prohibition of chemical weeding, mandatory calculus of the Treatment Frequency Indicator, prohibition of modification to the original morphology of the soils (already present since 2007), compulsory certification to organic or environmental certification level 2, integration of varieties of interest for the purpose of adaptation to climate change, changes to conditioning dates.	Winemaking Aging	Environmental: Air, Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape, Variety selection Economic: Direct economic impacts Social: Responsible towards people living nearby	Defined but not tested	Protocol, Management tools, Validation, Certification	General link: https://odgmedoc.fr/espace-producteur/boiteaoutils/
Sélection massale des cépages sauvignon et pinot noir	CEPS SICAVAC	Private / Wine-specific	This initiative relates to the selection of varieties and plants for the Centre-Loire producers.	Viticulture	Environmental: Variety selection	Operating	Protocol	General link: https://ceps-sicavac.com/le-cahier-des-charges-ceps-sicavac/
Eno-tourism	PDO Costières de Nîmes et Clairette de Bellegarde	Private / Wine-specific	This refers to initiatives to promote tourism that combine presentations of the wine production activities with the discovery of the landscape and biodiversity found in the fields.		Environmental: Biodiversity, Landscape, Neighbouring land use Economic: Indirect economic impacts	Operating		None provided
Cahier des charges AOC Champagne	Comité Champagne / INAO	Private / Wine-specific	The Champagne PDO requirements have incorporated more sustainability related requirements. For example, the voltis, a variety resilient to cryptogamic diseases has been introduced so as to limit the use of phytosanitary products in areas close to housing. Treatment with hot water and the compulsory coverage of the soil in winter (to avoid the use of herbicides and labounging the soil in winter) have also been added in.	Viticulture Winemaking Aging Storage Packaging	Environmental: Soil, Biodiversity, Pesticides and fertilisers, Neighbouring land use, Variety selection	Operating	Protocol, Management tools, Calculators, Validation, Certification, Label	General link: www.sgv-champagne.fr/wp-content/uploads/2020/09/Cahier-des-Charges-AOC-Champagne.pdf

Charte paysagère environnementale	PDO Costières de Nîmes et Clairette de Bellegarde	Private / Wine-specific	Initiated in 2006, the charter has aimed at identifying the characteristics of the landscape and environment for the PDO Costières de Nîmes et Clairette de Bellegarde, and then to communicate about, promote and preserve them.	Viticulture	Environmental: Biodiversity, Landscape, Neighbouring land use Economic: Indirect economic impacts	Operating	Protocol, Management tools	General link: https://docplayer.fr/36020665-Charte-paysagere-et-environnementale.html
Consigne verre bouteilles syndicales	Glass packaging suppliers in the Occitanie region	Private / Generic	This initiative promotes the re-utilisation of used bottles that are cleaned after use and reconditioned. The objective is to reduce carbon emissions by promoting glass packaging over plastic packaging, and by promoting re-use instead of recycling (which requires much more energy to melt glass before it can be reshaped). The initiative also contributes to local employment by encouraging the development of cleaning and reconditioning facilities, and to local public finances by reducing the financial charges localities need to pay for waste removal.	Packaging	Environmental: Packaging Economic: Local Social: Responsible towards the community	Pilot phase	Protocol	General link: https://www.oc-consigne.fr/
Préservation et mise en valeur des terroirs, de la biodiversité et des paysages	Champagne Committee	Private / Wine-specific	This refers to a range of initiatives started with the BIODIV plan launched in 2005, which aimed to map plant biodiversity in champagne fields. On that basis the Comité Champagne has developed further initiatives, aiming notably to promote hedge planting and supports such initiatives financially.	Viticulture	Environmental: Soil, Biodiversity, Landscape Social: Responsible towards people living nearby	Operating		General link: https://www.champagne.fr/fr/developpement-durable/preservation-terroir-biodiversite
Plan carbone champagne	Champagne Committee	Private / Wine-specific	The initiative aims to reduce carbon emissions from the Champagne sector. It started with an assessment of the carbon footprint of the whole sector in 2003. It corresponds to 16 research and development programmes and around 50 actions completed, ongoing or planned. The objectives are multifarious, aiming to tackle carbon emissions at multiple stages and levels. They include: reducing energy consumption of machines, emissions due to the use of fertilisers, emissions resulting from the fight against freeze, a biomass plan, the promotion of biological and sustainable wine production, reduction of energy in production processes, reducing the impact of travel for all actors in the sector, selecting less polluting means of transport, reduce energy consumption and insulation of buildings, develop renewable energy sources, promoting sustainable building, promote sustainable purchasing of goods and services with a lower footprint, reduce the footprint of packaging, replace raw materials from fossil	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Energy management, Packaging, Transport, Pesticides and fertilisers, Waste management, Raw materials	Operating	Protocol, Management tools, Calculators	General link: https://www.champagne.fr/fr/developpement-durable/defi-energetique-climatique

			origins with agro-resources, create a specific carbon footprint calculator for the Champagne sector and make it available to all producers, raise the awareness of producers and accompany them in their diagnosis and in the elaboration of their own action plan. The initiative has set different targets in terms of carbon footprint reduction and is aiming for a 75% and preferably an 80% reduction by 2050.					
Guide de gestion des déchets	Vins du Centre Loire	Private / Wine-specific	<i>No data</i>		Environmental: Air, Packaging, Waste management	Pilot phase	Management tools	General link: https://www.vins-centre-loire.com/
Développement de la biodiversité AOC Saumur Champigny, Quarts de Chaume et Savennières	PDO Saumur Champigny	Private / Wine-specific	This initiative was initiated in 2004 by growers from the PDO Saumur Champigny. The initiative was initiated to increase biodiversity in the vineyards and in particular encourage the return and proliferation of natural predators of parasites. The initiative was aimed as a way for producers to differentiate their product from others. It led to the plantation of hedges and works through the monitoring of parasites using insect traps in the fields. The initiative received expert support from agronomists / biodiversity experts from local universities.	Viticulture	Environmental: Biodiversity, Pesticides and fertilisers	Operating	Management tools	General link: https://www.researchgate.net/publication/321292761_Biodiversite_et_territoire_viticole_Etude_de_s_interactions_entre_viticulture_et_biodiversite_dans_le_cadre_d'une_initiative_locale_a_l'echelle_d'une_AOC_BIODIVERSITY_AND_ITS_INTERACTIONS_WITH_VITICULTURE https://www.saumur-champigny.com/fra/culture-saumur-champigny-la-biodiversite
Formation Savoir-faire et Savoir déguster	Syndicat des Producteurs de Pineau des Charentes	Private / Wine-specific	<i>No data</i>	Viticulture Winemaking Aging, Bottling Storage	Environmental: Variety selection Economic: Local Social: Employees, Consumers	Operating	Management tools	Contact: Cyril MICHAUD - SPP
Network of weather stations	SICAVAC	Private / Wine-specific	<i>No data</i>		Environmental: Pesticides and fertilisers			General link: https://www.vins-centre-loire.com/fr/1/67/sicavac.html?accept=1
Observatoire des vins	Organisme de Défense et de Gestion des AOC Médoc, Haut-Médoc et Listrac-Médoc	Private / Wine-specific	Based on work begun in 2018, the ODG created in 2019 an observatory of wines to help understand consumer perceptions of the wines produced by the ODG's adherents and to address consumer concerns so as to support the marketing of the wines to consumers.	Packaging Distribution	Environmental: Packaging Social: Consumers	Operating	Management tools, Validation	General link: https://odgmedoc.fr/observatoire/

Démarches volontaires particulières de groupements de producteurs ou d'ODG	Groupe 30000	Private / Wine-specific	This initiative was launched in 2017 by a cooperative Cellar (Les Vignerons de Buxy). Its first objective has been to reduce the use of phytosanitary products and thus improve the image of farmers towards neighbours and users of a cycle lane close to the fields. It has brought together 12 producers. The initiative has involved developing a decision-making tool for using pesticides, using 3 weather stations and a digital tool to help with decisions to use pesticides. The ambitions of the group are to go further and eventually cover all three aspects of sustainability, including ensuring a stable revenue for wine producers, reducing the costs of pesticides/fertilisers, cost sharing AND ensuring the group works as a collective and there is good communication on the job of wine producer towards outsiders. The initiative is supported by the Chambre d'Agriculture Bourgogne Franche Comte.	Viticulture Packaging	Environmental: Biodiversity, Pesticides and fertilisers, Neighbouring land use Economic: Direct economic impacts Social: Responsible towards people living nearby, Responsible towards the community	Operating	Management tools	General link: https://bourgognefranchecomte.chambres-agriculture.fr/saone-et-loire/techniques-infos/agro-ecologie/accompagnement-de-collectifs/groupe-30-000-voie-verte-vers-un-projet-collectif-durable/
Herault'haies	Paysarbre / FRCIVAM Tanguy Gourmelon	Private / Generic	This initiative was launched in 2019 by two associations, Paysarbre and the CIVAM Occitanie. It aims to encourage, train, and support farmers to plant and maintain hedges.	Viticulture	Environmental: Water, Soil, Landscape	Operating	Protocol, Management tools, Validation	General link: https://www.paysarbre.org/plantez-des-haies/ https://www.civam-occitanie.fr/Projet-Herault-Haies-92
Prohibition of the use of herbicides	PDO Touraine	Private / Wine-specific	<i>No data</i>	Viticulture	Environmental: Soil, Pesticides and fertilisers		Protocol	

Ecole de la Vigne, Les Vignerons du Vivant, Université de la Vigne et du Vin en Médoc	Various partners, including the association of producers of Medoc wines	Private / Wine-specific	Several initiatives meant to bring youngsters to the wine production business		Economic: Local Social: Employees	Operating	Management tools	General link: http://www.mfr-saintyzans-medoc.com/formations-5-21-l-ecole-de-la-vigne.html https://www.reussir.fr/vigne/les-vignerons-du-vivant-renouvellent-leur-formation
PORTUGAL								
Implementation of smart sustainable plans in the Douro Demarcated Region including the online calculation of the “Carbon Footprint” and the management of water resources	Instituto dos Vinhos do Douro e do Porto (IVDP)	Mixed / Wine-specific	IVDP is currently developing a study with the following objectives: <ul style="list-style-type: none"> • Monitor the state of the art of technical and scientific development in terms of economic, environmental, and social sustainability and gather the information collected. • Promote comprehensive policies that encourage the adoption of its principles, implementing smart sustainable plans in RDD. • Enable producers to adopt good sustainability practices. • Identify and parameterize factors for calculating the carbon footprint of RDD wines, predicting the influence of the wine sector in reducing the carbon footprint. • Provide a tool for online carbon footprint calculation. • Provide and monitor, on a microsite developed for this purpose, a repository of information on good sustainability practices and related indicators. • Create a sustainability plan for Producers, with more than a hundred indicators in different areas, from viticulture to wine transport, through the training and qualification of its employees, thus allowing the assessment of the degree of sustainability of the Producers. 	<i>Not available yet</i>	<i>Not available yet</i>	On-going	Management tools, Calculators	General link: https://www.ivdp.pt/media/p1ggq4yo/anexo-4-ivdp.pdf

<p>Programa de Sustentabilidade dos Vinhos Alentejanos (PSVA)</p>	<p>Comissão Vitivinícola Regional Alentejana</p>	<p>Mixed / Wine-specific</p>	<p>PSVA, a pioneer initiative in Portugal, was created in 2015 and is a voluntary certification. The programme provides its members with a tool to assess the current state of their activities and gives recommendations in terms of best practices that can be implemented to increase the competitiveness and the sustainability of Alentejo wines. The certification model is based upon a set of requirements that must be met prior to applying to join PSVA. In order to implement this certification, members are first required to perform a self-assessment. The self-assessment consists in the application of a standardised method, developed in line with the programme, that allows to measure the level of performance of a wine company against an assessment matrix. The programme foresees four different rankings in terms of General Sustainability Category (namely, 'Pre-Initial', 'Initial', 'Intermediate' and 'Developed'). The ultimate goal for every PSVA member is its continuous improvement: this will be achieved through the identification of opportunities for improvement and the development and implementation of annual action plans, to achieve the General Sustainability Category of 'Developed'.</p>	<p>Viticulture Winemaking Aging Bottling Storage Packaging Distribution</p>	<p>Environmental: Water, Soil, Biodiversity, Energy management, Packaging, Waste management Economic: Local Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers</p>		<p>Management tools, Calculators, Validation, Certification</p>	<p>General link: http://sustentabilidade.vinhosdoalentejo.pt/</p>
<p>SustainWine</p>	<p>Cluster da vinha e do vinho (ADVID)</p>	<p>Private / Wine-specific</p>	<p>SustainWine, created in 2020, is an environmental education program, which has the objective to raise awareness about the natural heritage of Portugal and promote knowledge about the conservation of nature and biodiversity of the vineyard.</p>	<p>Viticulture</p>				<p>General link: https://www.facebook.com/sustainwine.besustainable (Communication is made through the facebook page)</p>
<p>PORVID</p>	<p>PORVID and its members amongst which there are universities, public institutes, wine companies and a local authority</p>	<p>Mixed / Wine-specific</p>	<p>PORVID is a non-profit association that was established in 2009 with the objective to preserve and valorise the genetical diversity of traditional and autochthone vines in Portugal. Since 2010 the association has a protocol in place with the Ministry of Agriculture, which led to the establishment of a Experimental Hub for the Conservation of the Varieties of the Autochthones Vines in Pegões. The association collects systematically and studies vines to assist national wine-growers in carrying out the optimal varietal selection in terms of efficiency, resilience and sustainability.</p>	<p>Viticulture</p>	<p>Environmental: Variety selection</p>		<p>Protocol, Management tools</p>	<p>General link: https://www.facebook.com/porvid.portugal/</p>

WINEVOLUTI ON - Green Deal Strategy for Douro and Porto Wines	Associação das Empresas de Vinho do Porto	Private / Wine-specific	This is a project that was submitted in 2021 for financing by the national environmental fund and which is framed as an action of the overall strategy for the economic valorisation of ecosystems and climate mitigation and adaptation.	Viticulture Winemaking Aging, Bottling Storage, Packaging, Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Landscape, Raw materials Economic: Indirect economic impacts Social: Consumers		Protocol	General link: www.aevp.pt
PRR - Projeto Integrado da Fileira da Vinha	Associação das Empresas de Vinho do Porto	Private / Wine-specific	This is a project whose primary focus is the implementation of an integrated approach to the wine production chain and for which funding opportunities are currently being sought for.	Viticulture Winemaking Aging, Bottling Storage Packaging, Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Landscape, Raw materials Economic: Indirect economic impacts Social: Consumers			General link: www.aevp.pt
National Certification Programme	ViniPortugal and Instituto da Vinha e do Vinho (IVV)	Mixed / Wine-specific	ViniPortugal, a national Interbranch Organisation (IBO) recognised under the EU Common Market Organisation, is currently preparing with IVV a standard for national wine certification, which is expected to be ready in 2022.	<i>Not available yet</i>	<i>Not available yet</i>	<i>Not available yet</i>	<i>Not available yet</i>	Source link: https://www.jn.pt/economia/vinhos-verdes-iniciam-plano-de-sustentabilidade-13719296.html
Sustainability Strategy for the Vinhos Verdes Region	Comissão de Viticultura da Região dos Vinhos Verdes (CVRVV)	Mixed / Wine-specific	CVRVV is currently developing an environmental, economic and social sustainability plan "Estratégia de Sustentabilidade para a Região dos Vinhos Verdes". The plan is expected to be presented in July 2021 and implemented in December 2021.	<i>Not available yet</i>	<i>Not available yet</i>	<i>Not available yet</i>	<i>Not available yet</i>	Source link: https://www.jn.pt/economia/vinhos-verdes-iniciam-plano-de-sustentabilidade-13719296.html

SPAIN								
Wineries for Climate Protection (WfCP)	Spanish Wine Federation (Federación Española del Vino - FEV)	Private / Wine-specific	Wineries for Climate Protection' (WfCP) certificate, created by FEV in 2015, is the first specific certification programme addressing environmental sustainability for the wine sector. The WfCP certification programme establishes the specific environmental criteria that sustainable wineries must meet. Wineries fulfilling said criteria may request certification from authorised bodies: following a favourable evaluation, they will receive the WfCP certificate accrediting them as an environmentally sustainable winery. WfCP certification is based on four key areas: reduction of greenhouse gases, water management, waste reduction and energy efficiency and renewable energy.	Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Energy management, Packaging, Transport, Waste management, Landscape, Raw materials Economic: Indirect economic impacts Social: Consumers	Operating	Management tools, Calculators, Validation, Certification	General link: http://www.fev.es/sostenibilidad-medioambiental-vino/wineries-for-climate-protection/que-es-wfcp_295_1_ap.html
Programa de Sostenibilidad Integral de la Industria Alimentaria	Ministerio de Agricultura, Pesca y Alimentación (MAPA)	Public / Generic	This programme was created by the Spanish Ministry of Agriculture, Fisheries and Food, which made available to the sector a set of tools to promote the sustainability of the food industry. The programme consists in a self-evaluation through an online tool called e-SIAB (created in 2017), which measures the overall sustainability performance of companies in the social, economic and environmental dimensions. After conducting the self-assessment, the application provides users with customised advices. This allows companies to implement new measures and thus continue to improve their sustainability levels.	Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Waste management Economic: Direct and indirect economic impacts Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Management tools, Calculators	General link: https://www.mapa.gob.es/es/alimentacion/temas/industria-agroalimentaria/sostenibilidad-industria/ 10 Principles: https://www.mapa.gob.es/es/alimentacion/temas/industria-agroalimentaria/decalogodesostenibilidadintegralindus_alimentaria_tcm30-380028.pdf
Registro de Huella de Carbono	Ministerio para la transición ecológica y el reto demográfico	Public / Generic	This registry, created in 2014, includes the efforts of the Spanish organisations in calculating and reducing greenhouse gas emissions generated by their activity. When an organisation joins the registry, it receives a certificate of registration and the right to use a specific seal. There are different seals depending on the type of registration sought for: a) ' <i>Sello de cálculo de huella de carbon</i> ' - This means that the organisation has calculated its carbon footprint and undertaken commitments to reducing it; b) ' <i>Sello de cálculo y reducción de huella de carbono</i> '- This means that the organisation has calculated its carbon footprint and concretely reduced its emissions; c) ' <i>Sello de cálculo y compensación de huella de carbono</i> '-	Viticulture Winemaking Aging, Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Waste management Social: Consumers	Operating	Protocol, Management tools, Calculators, Validation, Label	General link: https://www.miteco.gob.es/es/cambio-climatico/temas/mitigacion-politicas-y-medidas/que_es_Registro.aspx Example of one PDO registered: https://www.tecnovino.com/valdemonjas-logra-el-sello-de-huella-de-carbono-por-su

			<p>This means that the organisation has calculated its carbon footprint and offset its emissions through another programme;</p> <p>d) '<i>Sello de cálculo, reducción y compensación de huella de carbono</i>' - This means that the organisation undertook all actions and steps described above.</p> <p>It is the applicant's responsibility to present all relevant documentation (e.g. with calculations). The documentation will be then subject to the evaluation of the Ministry.</p>					compromiso-contra-el-cambio-climatico/
Proyecto de investigación sobre el control de Lobesia Botrana	Technical working group with several wineries and farmers in which the PDO Cariñena participates	Private / Wine-specific	This programme consists of the use of a technique called "sexual confusion" that allows to control pests very effectively, eliminating or reducing the use of pesticides.	Viticulture	Environmental: Pesticides and fertilisers	Operating	Validation	Information here: https://www.phytoma.com/images/pdf/274_Diciembre_2015_ENCUENTRO_VID_lobesia_botrana_cari%C3%B1ena.pdf
Life Sarmiento	PDO Bullas	Mixed / Wine-specific	<p>LIFE Sarmiento project, supported by the EU's funding instrument for the environment and climate action (LIFE), seeks to demonstrate how an innovative solution for pruned vine shoot management contributes to climate change mitigation and adaption, by replacing the current practices with more sustainable and beneficial methods. Basically, the project is based on the enhancement of such residues and their transformation in by-products by improved composting techniques that provide quality compost with added bio-stimulating properties. This compost can be used to improve the soil status and to contribute to the Circular Economy. The management system anticipates any future administrative restrictions and provides a feasible solution in both economic and environmental terms. Also, it contributes to tackle the cellar wastewater issue through its reuse in the composting phase.</p> <p>The project has been carried out between 2016 and 2020.</p>	Viticulture	<p>Environmental: Air, Soil, Biodiversity, Energy management, Transport, Pesticides and fertilisers, Waste management, Landscape, Neighbouring land use, Raw materials, Transition to organic or biodynamic farming</p> <p>Economic: Indirect economic impacts</p> <p>Social: Consumers</p>	Operating	Protocol, Management tools, Calculators, Certification	<p>General link: https://lifesarmiento.eu/en/the-protected-designation-of-origin-vinos-de-bullas-is-25-years-old/</p> <p>More information: https://www.eurovertice.eu/en/final-results-of-life-sarmiento/</p>
Plan para la protección y potenciación de viñedos viejos y centenarios	Initiative developed by the Consejo regulador Denominación de origen calificada Rioja to the benefit of its members.	Private / Wine-specific	Rioja region has presented an ambitious plan for the period 2021-2025 to protect and enhance the quality of the grape and the personality of its wines. The initiative foresees that, among others, the Regulatory Council will promote legislative changes and, in turn, will adopt internal measures aimed at promoting old and centenary vineyards.	Viticulture	<p>Environmental: Landscape</p> <p>Economic: Indirect economic impacts</p> <p>Social: Consumers</p>	Operating	Protocol	General link: https://www.riojawine.com/wp-content/uploads/2021/03/Plan-Estrate%CC%81gico-DOCa-

								Rioja_Presentacion_2021.03.29.pdf
Calculo Huella Carbono Vinos DOP Montilla-Moriles	Initiative of the PDO wine group Montilla-Moriles developed to the benefit of its members.	Private / Wine-specific	This initiative consists in a tool that allows calculating the carbon footprint of wine supply chain.	Viticulture Winemaking Aging, Bottling Storage Packaging Distribution	Environmental: Water, Energy management, Packaging, Transport, Pesticides and fertilisers, Raw materials	Operating	Protocol, Calculators, Certification	General link: https://www.montillamoriles.es/Documents/huelladecarbonomasinformacion.pdf
#Dejatuhella	Fundación para el Control de la Calidad Agroalimentaria de Andalucía (constituted by various organisations including PDO Montilla-Moriles) with the collaboration of Conserjería de Empleo, Formación y Trabajo Autónomo and Consejería de Agricultura, Pesca y Desarrollo Rural.	Mixed / Wine-specific	#Dejatuhella is an intelligent connectivity system that pivots on the concept of footprint (environmental / emotional) as a connection point between the consumer (user experience) and the winery (value / experience provider). The wine consumer experience helps wineries to be more sustainable as regards the impact of their production on the environment.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Water, Biodiversity, Energy management, Packaging, Transport, Pesticides and fertilisers, Raw materials Economic: Direct economic impacts Social: Consumers	Operating	Protocol, Calculators, Certification	General link: http://www.dejatuhella.wine/

Estrategia de Eficiencia Energética de Castilla y León	Junta de Castilla y León and Ente Regional de la Energía Castilla y León (EREN)	Public/ Generic	The ' <i>Estrategia de Eficiencia Energética de Castilla y León</i> ' 2020 (Energy Efficiency Strategy of Castilla y León) is a support instrument for the coming years, where all the stakeholders involved must carry out actions foreseen in it with a single objective, i.e. to improve energy efficiency in the use and consumption of energy.	Winemaking Aging Bottling Storage Packaging	Environmental: Energy management Economic: Indirect economic impacts	Operating	Protocol, Calculators	General link: https://energia.jcyl.es/web/es/ahorro-eficiencia-energetica/estrategia-eficiencia-energetica-2020.html
Recuperación de variedades ancestrales mejor adaptadas al cambio climático	Consejo regulador de Catalunya and Instituto Catalán de la Viña y el Vino (INCAVI)	Mixed / Wine-specific	This project focuses on a varietal experimentation study to identify and produce grape varieties for wine-making that can better adapt to climate change.	Viticulture Winemaking Aging	Environmental: Water, Soil, Pesticides and fertilisers	Pilot phase	Protocol	General link: https://icea.iec.cat/wp-content/uploads/2020/03/Enoviticultura-62-48-54.pdf
SIPAM - Sistema de producción de la uva pasa en la Axarquía	Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta de Andalucía	Public / Wine-specific	This initiative focuses on the production of raisins in Axarquía where the cultivation techniques are ancestral. It is an agriculture with very basic technology, defender of traditions and which maintains the same cultural practices of the ancient times, without resorting to synthetic products and with a predominance of ecologically sound agricultural practices. In addition to the production, it focuses in particular on the conservation of the environment and rural landscape.	Viticulture Winemaking	Environmental: Biodiversity, Landscape	Defined but not tested	Protocol	General link: https://www.juntadeandalucia.es/export/drupaljda/sector_uva_pasa.pdf More information: https://www.fao.org/3/cb1134es/cb1134es.pdf
Control del viñedo a través de ATRIAS	Group of owners of agricultural holdings (for instance, CRDO Campo de Bojra coordinates 5 ATRIAS)	Private / Generic	ATRIAs (Agrupación para Tratamientos Integrados en Agricultura; in English: Grouping for Integrated Treatments in Agriculture) are entities constituted by owners of agricultural holdings to guarantee: consumer safety, respect for the environment, sustainable use of pesticides, promotion of integrated management against pests of different crops. There is a procedure for the recognition of an ATRIA and there are currently several of such entities in Spain.	Viticulture	Environmental: Air, Water, Soil, Pesticides and fertilisers, Landscape, Neighbouring land use, Raw materials, Variety selection Economic: Direct and indirect economic impacts, Local Social: Employees, Responsible towards people living nearby, Responsible towards the community, Consumers	Operating	Protocol, Certification	General link: https://docampodeborja.com/

<p>Estudio de híbridos de Monastrell adaptados al cambio climático</p>	<p>Instituto Murciano de Investigación y Desarrollo Agrario y Medioambiental (IMIDA)</p>	<p>Mixed / Wine-specific</p>	<p>The overall objective of the project is to generate and identify new grape varieties for quality wine-making adapted to a new edapho-climatic scenario and that allow a more sustainable viticulture. This objective can be achieved by obtaining hybrids derived from Monastrell that present a higher agronomic and grape quality, and that also adapt better to the climatic conditions.</p>	<p>Viticulture Winemaking</p>	<p>Environmental: Water, Variety selection</p>	<p>Pilot phase</p>		<p>General link: https://www.imida.es/documents/13436/1477631/Estrategias+de+adaptaci%C3%B3n+de+la+Monastrell+al+CC_IMIDA_Leonor+RG.pdf/f573d44c-9118-4282-9e37-2e41d7eec20d More information: https://www.vineas.net/pt/7_113/608a777dda1b8e0a237c7a51/La%20variedad%20Monastrell%3A%20adaptaci%C3%B3n%20a%20un%20nuevo%20escenario%20edafo-clim%C3%A1tico.html</p>
<p>Life Priorat + Montsant</p>	<p>VITEC- Fundación Parque Tecnológico del Vino (Coordinador), Montsant (PDO), Priorat</p>	<p>Mixed / Wine-specific</p>	<p>Life Priorat+Montsant is a project financed by the European Commission. Its main objective is to develop and demonstrate a large-scale model of sustainable wine production in the region of Priorat through the application of a set of methodologies for the efficient use of natural resources throughout its value chain, which can subsequently be reproduced in other wine-growing regions of the European Union. The initiative started in 2016 and ended in 2020.</p>	<p>Viticulture</p>	<p>Environmental: Air, Water, Energy management, Pesticides and fertilisers Economic: Indirect economic impacts</p>	<p>Discontinued</p>		<p>General link: http://www.lifeprioratmontsant.eu/ https://www.domontsant.com/es/project/life-priorat-montsant/</p>

Innovación en preoda de vid para su uso como biomasa	Centro de Investigación de Recursos y Consumos Energéticos (Coordinator) with a group of entities and companies of Aragon (including Cariñena PDO)	Mixed / Wine-specific	The PDO wine group Cariñena, some Aragonese companies and institutions have developed the first pre-pruning machine that simultaneously collects waste and shreds it to generate clean energy. This project promotes circular economy, care for the environment and agricultural competitiveness.	Viticulture	Environmental: Waste management	Operating		News: https://www.tecnovino.com/presentan-en-carinena-la-primera-maquina-de-preoda-de-vid-que-transforma-los-residuos-en-energia-limpia/
VINYSOST	Consortium formed by relevant wineries/ companies in the wine sector: Codorníu (leader), La Rioja Alta (PDO), Miguel Torres, Bodega Barbadillo, Francisco Oller, Lallemand Bio, Martín Códax, y Bodegas Roda, supported by 11 Spanish research groups.	Mixed / Wine-specific	Project co-financed by the European Union and by the CDTI with ERDF funds, through the Pluri-regional Operational Program for Smart Growth 2014-2020 within the framework of the Strategic Program National Business Research Consortia (CIEN). The main goal is to improve the quality and competitiveness of Spanish wines through the sustainable management of production in large vineyards. The project started in 2014 and ended in 2018.	Viticulture	Environmental: Pesticides and fertilisers	Discontinued		General link: http://vinyost.com/

Smart Sustainable wine	Unión de Agricultores y Ganaderos de Navarra (líder), D.O. Navarra, 3 wineries.	Mixed / Wine-specific	Smart Sustainable Wine consists of an intelligent management system to improve the sustainability of the wine sector in Navarra. This initiative is based on a web platform to support decision-making adapted to the reality of small and medium-sized wineries in Navarra.	Winemaking	<i>Not available yet</i>	Pilot phase	Management tools, label	General link: https://www.smartsustainablewine.es
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GERMANY

Lively Vineyard Network - Netzwerk Lebendiger Weinberg	Environmental Academy Baden-Württemberg	Public / Wine-specific	Vineyards are ancient, beautiful links between nature and culture. With their structural diversity, dry stone walls, stone bars and sun-drenched slopes, they are an important habitat for warmth-loving animals and plants. But the former diversity of flora and fauna, and thus an irreplaceable natural and cultural heritage of the vineyards, has become rare in many places. When land regroupings cleared the niche vineyards with the dry-stone walls and trees, rare wild animals and plants once lost their habitat. Whether vintners in Baden or Wengert in Württemberg, there are many ways for vintners to help the flora and fauna - and that without making management difficult. This not only demonstrates ecological responsibility, but also increases the attractiveness of the wine-growing regions and the wine at the same time. In addition, the winegrowers strengthen the consumer's identification with the landscape. The "Living Vineyard" campaign shows tried and tested ways in which sustainable viticulture can be successfully	Viticulture	Environmental: Soil, Biodiversity, Pesticides and fertilisers, Landscape, Neighbouring land use, Site selection, Variety Selection, Transition to organic or biodynamic farming Social: Responsible towards people living nearby	Operating	Protocol	General link: https://umweltakademie.baden-wuerttemberg.de/lebendiger-weinberg
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			<p>implemented while protecting local fauna and flora. It brings together actors from the various areas of viticulture, homeland maintenance and landscape conservation, as well as environmental and sustainability education. Science and practice, ecology and economy, nature experience and hospitality, contribute as important pieces of the mosaic to the nature adventure region of Baden-Württemberg. The following goals, among others, are linked to the "Living Vineyard" initiative:</p> <ul style="list-style-type: none"> - Preservation of the natural and cultural heritage of the vineyard for future generations; - Preservation of biodiversity and enrichment of the landscape; - Improvement of the living conditions for wild animal and plant species by upgrading and maintaining characteristic landscape elements on cultivated vineyards and their networking in the cultural landscape; - Environmentally friendly and economical design of viticulture in line with the concept of sustainability; - Raising public awareness of the cultural landscape that is worth preserving; - Promotion of the identification of people with the unique cultural landscape of the vineyard and its products in the nature adventure region of Baden-Württemberg. 					
<p>Steep vineyards create diversity - the Moselle project</p>	<p>Farmers and Vintners Association Rhineland-Nassau</p>	<p>Private / Wine-specific</p>	<p>The project ran for 6 years until end of 2020. At the end of the project, the result was that the number of species of plants, wild bees, diurnal moths, grasshoppers and reptiles in the project period on 20 study areas was significantly higher than before. To promote biological diversity, among other things, vineyards were permanently planted with greenery, flowering fringes were created, and fallow vineyards were released. Different initiatives and actions were undertaken in the fields of biodiversity, viticulture, viticulture, landscape conservation, climate protection and tourism.</p> <p>Intermediate lines were planted with species-rich green plants; Preserve hem structures; Insect hotels, stone bars, storms of life; Keeping steep slopes open; Actions with children in environmental education.</p> <p>A brochure on the Moselle project was created and distributed.</p> <p>No certification - winemakers receive a certificate of participation.</p>		<p>Environmental: Air, Water, Soil, Biodiversity, Pesticides and fertilisers, Landscape, Neighbouring land use</p> <p>Economic: Indirect economic impacts</p>	<p>Operating</p>	<p>Protocol, Management tools</p>	<p>General links::</p> <p>www.moselprojekt.de</p> <p>https://lebendige-agrarlandschaften.de/moselprojekt/ziele/</p> <p>Brochure:</p> <p>https://lebendige-agrarlandschaften.de/wp-content/uploads/2020/12/Steillagenweinschafft-Vielfalt_12_2020_BWV.pdf</p>

Pilot project of the Bavarian State Institute for Viticulture and Horticulture (LWG) - Bayerischer Landesanstalt für Weinbau und Gartenbau (LWG)	Federal State of Bavaria - Bavarian State Ministry for Food, Agriculture and Forests (StMELF)	Public / Wine-specific	Model project to transfer possibilities from research into practice. Organises annual meetings, wine industry days, workshops	Viticulture Winemaking	Environmental: Water, Soil, Biodiversity, Energy management, Pesticides and fertilisers, Landscape, Site selection, Variety selection, Transition to organic or biodynamic farming Economic: Indirect economic impacts	Operating		General link: https://www.lwg.bayern.de/weinbau/rebe_weinberg/070864/index.php
Sustainable management in viticulture (FöNaWein) - supporting certification for reinforcement of the operational sustainability of wineries in Rhineland-Palatinate (FöNaWein)	Federal State of Rhineland-Palatinate	Public / Wine-specific	The aim of this regional public funding is to support small wine-growing businesses on the path to certification that attests the implementation of sustainable business practices. The first certification is eligible for funding. The maximum amount of the grant is a total of 3,000 EUR per company. The following certifications are currently eligible: - Fair'N Green - Fair Choice (Scope of certification: viticulture, cellar management & bottling, wine) - EcoStep Wine. The licensing authority may, on the basis of pre-established criteria, include additional certifications in the list of eligible certifications.	Viticulture Winemaking Aging Bottling Storage Packaging Distribution	Environmental: Air, Water, Soil, Biodiversity, Energy management, Packaging, Transport, Raw materials Social: Employees	Operating	Protocol, Management tools, Calculators, Validation, Certification	General link: https://mwvlw.rlp.de/fileadmin/mwkel/Abteilung_2/8206/09_Nachhaltige_s_Wirtschaften/FoeNaWein/Foerderrahmen_26.02.2021.PDF
Ecovin Biodiversity check	A joint project of Global Nature Fund, Lake Constance Foundation and ECOVIN.	Private / Wine-specific	A joint project of Global Nature Fund, Lake Constance Foundation and ECOVIN, the Federal Association of Ecologically Working Wineries, was founded in 1985 by 35 organic winegrowers from Rheinhessen, the Palatinate, the Moselle and Baden. ECOVIN is one of the leading voices for organic viticulture. The association actively supports research in the field of plant protection and grape variety breeding. Professional training in organic viticulture should, among other things, sensitize winemakers in order to continuously win new members. The trademark, relaunched in 2008, stands for a flourishing wine culture and ecological balance in the vineyards.	Viticulture Winemaking Bottling Packaging Distribution	Environmental: Soil, Biodiversity, Packaging, Neighbouring land use, Raw materials	Operating	Label	Link to guidelines: https://www.ecovin.de/richtlinie/ https://www.globalnature.org/bausteine.net/f/8009/Biodiv_eng_Ecovin.pdf?fd=2

ECOVIN Certification	ECOVIN	Private / Wine-specific	It was founded in 1985 as the largest association of ecologically working wineries in Germany. The aim of the label is to identify organically grown wine. In addition, the circular economy and the maintenance of the ecological balance in viticulture are to be promoted.	Viticulture Winemaking Aging, Storage Packaging	Environmental: Water, Soil, Biodiversity, Packaging, Waste management, Landscape, Raw materials, Site selection, Variety selection, Transition to organic or biodynamic farming	Operating	Protocol	General link: https://www.ecovin.de/wp-content/uploads/2021/05/ECOVIN_Richtlinie_2021_15.Fassung.pdf
EcoStep Wine certification	Hessen Environment Alliance, the Geisenheim University of Applied Sciences together with some wine companies.	Mixed / Wine-specific	EcoStep wine was developed in cooperation with the Hessen Environment Alliance and the Geisenheim University of Applied Sciences together with companies and was further developed as part of an EU LIFE project (2004 - 2007) up to certification capability. The integrated management system EcoStep-Wein contains the currently valid core requirements of ISO international standards, namely: DIN EN ISO 9001: 2015 quality management DIN EN ISO 14001: 2015 environmental management DIN EN ISO 22000: 2018 food safety DIN ISO 45001: 2018 occupational health and safety management. Regular maintenance of the basic EcoStep system is carried out by the system provider - the EcoStep coordination office at RKW Bremen GmbH. The testing institute DQS checks the successful introduction, implementation and continuous application of the management system pursuant to defined, transparent criteria. Detailed sustainability aspects covered by the certification was not found.	Viticulture Winemaking Distribution		Operating	Protocol, Management tools, Calculators, Validation, Label	General link: https://www.ecostep-wein.de/ Example of one such certificate: https://www.wegeler.com/fileadmin/user_upload/Scans/Scans_Urkunden/WW_Ecostep_Wein_Zertifikat_20190312_deutsch.pdf Regional partners: http://www.ecostep-online.de/ueber_uns/regionalpartner/?filter=577
Sustainability award - Rheinhessen	PDO Rheinhessen	Private / Wine-specific	The prize for sustainability honors products, systems, technical processes, developments or services that significantly advance the companies in the wine industry in sustainable management. For the jury it is crucial that the submitted application is convincing in terms of its ecological as well as socially responsible and economic advantages and that it already has a certain amount of practical experience.	Viticulture Winemaking Bottling	Environmental: Water, Soil, Biodiversity, Energy management Economic: Direct and indirect economic impacts, Local Social: Employees, Responsible towards people living nearby, Responsible towards	Operating	Protocol	General links: https://www.rheinhessen.de/nachhaltiges-rheinhessen http://nachhaltiger-weinbau.net/wp-content/uploads/Leitfaden_Erstellung_Nachhaltigkeitsbericht-1.pdf

					the community, Consumers			
Environmentally friendly vineyard - The solidarity based goal. Rheingau and Hessische Bergstrasse	PDO Rheingau and PDO Hessische Bergstrasse	Private / Wine-specific	This initiative led to the elaboration of 2 sustainability brochures. The Hessian winegrowing associations in cooperation with the Hessian Ministry, the Darmstadt Regional Council, Weinbau Eltville Department and Department 41.1, Occupational Safety and Environment Department Wiesbaden and the experts from the Geisenheim University developed a joint concept to found environmentally friendly viticulture. Environmentally friendly viticulture is an obvious addition to the goals of nature conservation and even promotes biodiversity as an independent habitat. Environmentally beneficial measures must harmonize with the needs of an ecological and economically sensible agriculture. The preservation of viticulture in the Rheingau and on the Bergstrasse, especially steep-slope viticulture, is the top priority. Voluntary and self-responsible action is preferable to legal and regulatory pressure in all decisions. Environmental measures for soil and groundwater are only promising if they are implemented across the board - i.e. in solidarity.	Viticulture Winemaking	Environmental: Water, Soil, Biodiversity, Pesticides and fertilisers, Waste management, Transition to organic or biodynamic farming	Operating	Management tools	General links: https://www.rheingau.com/umweltschonenderweinbau Brochure on protecting resources in viticulture - the solidarity goal: https://www.rheingau.com/fileadmin/user_upload/Wein/Wein/Ressourcenschutz_im_Weinbau_Das_solidarische_Ziel_Broschu%C3%BC%88re_Web.pdf Brochure for vintners and those who are eager (thirsty) to learn: https://www.rheingau.com/fileadmin/user_upload/Wein/Wein/Umweltschonender_Weinbau_Das_solidarische_Ziel_Fachschrift_Web.pdf
Industry guide to the German Sustainability Code for viticulture companies	Rhineland-Palatinate - Ministry of Economy, Traffic, Agriculture and Viticulture	Public / Wine-specific	The industry guide developed by the Technical University of Bingen is intended to help wineries to create an online sustainability report (declaration of conformity) that is in accordance with the German Sustainability Code. It is necessary that various company areas (e.g. production, purchasing, human resources, marketing, logistics) are analysed with regard to their ecological, social and economic requirements and effects. Small and very small businesses (only in Rhineland-Palatinate) are to be funded with a grant of up to 3,000 euros. The expenses for the issuing of the certificate as well as the costs for advice are eligible for funding. Around 5,000 small and very small businesses based in Rhineland-Palatinate are eligible to apply. Small and micro enterprises are businesses that cultivate up to 10 hectares of vineyards or produce a quantity of wine (bottle sales) of up to 70,000 litres.	Viticulture Distribution	Environmental: Water, Soil, Biodiversity, Energy management, Waste management Economic: Direct and indirect economic impacts Social: Employees, Responsible towards the community, Consumers	Operating	Protocol	General links: https://mwvlw.rlp.de/fileadmin/mwkel/Abteilung_2/8206/09_Nachhaltige_Wirtschaften/DNK_Weinbau/200824_DNK_Weinbau-online.pdf https://mwvlw.rlp.de/de/themen/wirtschafts-und-innovationspolitik/nachhaltigkeit/

<p>Sustainable viticulture with weed protection through biodegradable mulch mats in the Saale-Unstrut wine-growing region</p>	<p>Society for Sustainable Use of Materials mbH</p>	<p>Private / Wine-specific</p>	<p>The Saale-Unstrut wine-growing area is largely a protected area for groundwater and spring water extraction, which is why solutions are being sought to avoid chemical herbicides and pesticides in cultivation. This is exactly where the mulch mats from GNS come into play. They should prevent unwanted weed growth in the immediate area of the grapevines.</p> <p>The model project "Sustainable viticulture with weed protection through biodegradable mulch mats in the Saale-Unstrut wine-growing area" is to demonstrate the use of mulch mats from the vineyard campus as weed protection on sample areas of the Freyburg-Unstrut winegrowers' association and the Pforta monastery winery. Laying techniques are to be tested with the partners, the effects of the mulch mats are to be scientifically evaluated and transferable, economically sustainable models are to be developed which will strengthen the innovative strength and sustainability of viticulture in the region and beyond.</p>	<p>Viticulture</p>	<p>Environmental: Water, Soil, Biodiversity, Waste management, Raw materials</p>	<p>Pilot phase</p>		<p>General link:</p> <p>https://www.technologie-park-weinberg-campus.de/en/news/nachhaltiger-weinbau-nicht-nur-f-r-die-saale-unstrut-region</p>
<p>VinEcoS</p>	<p>Landgesellschaft Sachsen-Anhalt mbH</p>	<p>Public / Wine-specific</p>	<p>VinEcoS developed innovative and climate adapted viticulture methods, which contribute to higher biological diversity and optimised eco-system services in the vineyard.</p> <p>Cofinancing Life - EU</p> <p>Supporting partners: Ministry of Environment, Agriculture and Energy of Saxony-Anhalt, Landesanstalt für Landwirtschaft und Gartenbau Sachsen-Anhalt, Weinbauverband Saale-Unstrut e.V., Winzerhof Gussek, Herbavinum, Landesschule Pforta, Saale-Saaten, Local beekeepers and shepherds, Agricultural Research and Education Centre Raumberg-Gumpenstein (AT), Debrecen University (HU).</p>	<p>Viticulture</p>	<p>Environmental: Water, Soil, Biodiversity, Landscape, Transition to organic or biodynamic farming</p> <p>Economic: Direct and indirect economic impacts</p> <p>Social: Responsible towards people living nearby, Responsible towards the community</p>	<p>Pilot phase</p>	<p>Management tools</p>	<p>General links:</p> <p>https://www.life-vinecos.eu/en/objectives/index.html</p> <p>https://www.life-vinecos.eu/upload/200821_LGSA_LifeVinEcoS_Brosch_Online.pdf</p>
<p>RL NE / 2014 supported "nature conservation planning for steep and sloping areas"</p>	<p>Land Sachsen</p>	<p>Public / Wine-specific</p>	<p>The "Nature conservation planning for steep and sloping areas in the conflict area of nature conservation and viticulture in the particular wine-growing region of Saxony in the Meißen district" supported within the framework of RL NE / 2014 (processing period: 2016 to 2018) can make a contribution to finding further areas suitable for viticulture. It forms the potential area of steep and sloping</p>	<p>Viticulture</p>	<p>Environmental: Biodiversity, Landscape, Site selection</p>	<p>Discontinued</p>		<p>General link:</p> <p>https://www.gartenbau.sachsen.de/download/06-12-2018_Konzept_Weinbau_Sachsen.pdf</p>

<p>in the conflict area nature conservation and viticulture in the particular wine-growing region of Saxony in the district of Meißen</p>			<p>areas of viticultural development in the district of Meißen with priority given to nature conservation issues and shows the necessary measures for preservation and improvement of the biotope network.</p>					<p>Project selection criteria. Funding period 2014 - 2020: https://www.smul.sachsen.de/foerderung/download/VAK_20210628endg.pdf</p>
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Annex 3 – List of concrete sustainability measures

List of concrete sustainability measures	Examples of existing initiatives including such measures and respective link (if any)
Vitiviniculture practices	
Production of wine using oenological techniques and substances authorised for organic wine	EU legislation Ecovin Biodiversity check (DE): https://www.ecovin.de/richtlinie/
Grass cover on the edges of the fields	Mesures agroenvironnementales (INAO Protocol) (FR): https://www.inao.gouv.fr/content/download/3820/33703/version/1/file/INAO%20DAE%20viti%202021-06.pdf
Grass cover within ranks	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Preservation of walls, hedges, trees, bushes	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Prohibition of plastic covering	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Obligation to treat vine plants with hot water	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Prohibition of weeding / Prohibition of weeding between ranks	<i>Identified via the PDO wine online survey</i>
Micro-irrigation (use of dispensers connected to one another by means of synthetic polymer pipes with low pressure and placed near the plant at its roots, capable of releasing drip irrigation)	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Dead vines must be removed from the parcels. No dead vines may be held on the parcels	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Packaging	
Re-utilisation of used bottles	<i>Identified via the PDO wine online survey</i>
Reducing the weight of the bottles	SOSstain (IT): https://www.fondazionesostainsicilia.it/disciplinare/ CasaClimaWine (IT): https://www.klimahotel.it/it/cantine-sostenibili/
Use of bottles made from recycled materials or replacing glass with alternative containers in PET, Tetra Pak or bag-in-box	CasaClimaWine (IT): https://www.klimahotel.it/it/cantine-sostenibili/
Use of packaging made from recycled materials	<i>Identified via the PDO wine online survey</i>
Use of labels made from recycled materials	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Transport	
Local sourcing of agricultural inputs	SOSstain (IT): https://www.fondazionesostainsicilia.it/disciplinare/

Reduction of the environmental impact that transport and logistics have on the landscape and biodiversity	ECOLOG (IT): https://www.progettoecolog.it/
Transport zero km (Development of processes within the company and distribution of the finished product to the final consumer in nearby markets)	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Soil management	
Mitigate the risk and negative effects derived from soil erosion through innovative solutions or implementing best practices for soil management	IN-GEST SOIL (IT): https://www.agrion.it/wp-content/uploads/2018/06/INGEST-SOIL_descrizione-per-pagina-web_DEF.pdf SOILUTION SYSTEM (IT): https://www.soilutionsystem.com/
Prohibition of changes to the morphology of the soil	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Soil rest: Vine plantations can be done within 7 years and not 3 years after the uprooting	<i>Identified via the PDO wine online survey</i>
Waste management	
Deal with waste resulting from viticulture through other ways than open air burning	VITIVALO (FR): https://www.univ-smb.fr/2020/01/07/la-phase-2-du-projet-vitivalo-est-lancee/
Production of compost from pruning residues	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Use of waste as biomass for energy generation	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Use of bio-bed systems (Prevention of residues' dispersion in the environment through an organic mix)	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Enhancement of residues and transformation into by-products through improved composting techniques that provide quality compost with added bio-stimulating properties	Life Sarmiento (ES): https://lifesarmiento.eu/en/the-protected-designation-of-origin-vinos-de-bullas-is-25-years-old/
Water management	
Collection of rainwater from the roofs of buildings and filtered to remove visible substances to be used for irrigation, vine spaying, etc.	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Self-assessment or evaluation tools of water efficiency use	Amethyst (International): https://www.infowine.com/intranet/libretti/libretto6831-01-1.pdf VIVA Sustainable Wine (IT): http://www.viticolturasostenibile.org/Disciplinari.aspx

Energy management	
Reducing energy consumption of machines	Plan carbone champagne (FR): https://www.champagne.fr/fr/developpement-durable/defi-energetique-climatique SOSstain (IT): https://www.fondazionesostainsicilia.it/disciplinare/
Reduce energy consumption and improve the thermal quality of buildings	Plan carbone champagne (FR): https://www.champagne.fr/fr/developpement-durable/defi-energetique-climatique
Use of renewable energies	<i>Identified via the PDO wine online survey</i>
Use of intelligent agricultural machines (i.e machines with a high level of automation, enabling reduction of energy consumption and optimisation of specific phases of the winemaking process)	SOSstain (IT): https://www.fondazionesostainsicilia.it/disciplinare/
Use of clean energy and energy-saving systems such as solar collection system, biomass combustion or cooling geothermal plant	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Use of evaluation tools to measure energy consumption	<i>Identified via the PDO wine online survey</i>
Buildings	
Use of specific materials and construction techniques that maintain a constant temperature inside the cellars during the year in a view of saving energy	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Hypogeal or partially buried structures, with specific orientation related to natural illumination by the sun and the incidence of wind	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Air emissions	
Reduce emissions resulting from the fight against freeze	Plan carbone champagne (FR): https://www.champagne.fr/fr/developpement-durable/defi-energetique-climatique

Use of evaluation tools to measure carbon footprint	Ita.Ca/Gea.Vite (IT): https://www.agronomisata.it/gea-vite/ Calculo huella Carbono vinos DOP Montilla-Moriles (ES): https://www.montillamoriles.es/Documents/huella%20de%20carbono%20mas%20informacion.pdf VIVA Sustainable Wine (IT): http://www.viticulturasostenibile.org/Disciplinari.aspx Carbon Calculator (IT): https://github.com/ARPA-SIMC/carbonCalculator/wiki
Chemical substances management	
Prohibition of chemical weeding	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i> SOSustain (IT): https://www.fondazioneosostainsicilia.it/disciplinare/
Integrated pest management	<i>Identified via the PDO wine online survey</i>
Reduction of the use of phytosanitary products	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Prohibition of all uses of herbicides	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Prohibition of any use of insecticide (unless in the event of a control measures imposed by the Public Authorities)	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Precision agriculture (e.g. monitoring vineyards and distributing agrochemicals in a more precise way to enable reduced interventions in the field, as well as reducing the amount of waste)	SmartMeteo (IT): https://agronotizie.imagelinenetwork.com/agricoltura-economia-politica/2020/09/28/in-umbria-il-meteo-si-fa-smart/67812 Vit.Net (International): https://www.horta-srl.it/vite-net/
Avoidance of chemical substances (e.g. by reducing sulphite treatments to the minimum required in order to avoid negative effects on consumers' health; by treating grapes with ozone or using indigenous yeasts in fermentation)	Vino Libero (IT): http://www.vinolibero.it/wp-content/uploads/2015/11/Disciplinare-Tecnico-VINO-LIBERO-2015-ed-1rev-4.pdf VinNature (International): https://www.vinnatur.org/wp-content/uploads/2020/03/Disciplinare-VinNatur-2020-ENG.pdf
Limitations to nitrogen input	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
Optimisation of spraying	Mesures agroenvironnementales (INAO Protocol) (FR): <i>see link above</i>
All winegrowers must calculate and record their treatment frequency index (TFI)	PDO Céron specification (FR): https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0714(01)&from=EN
Chemical weed control is prohibited. Only mechanical or physical methods can be used to control weeds on the parcels.	PDO Céron specification (FR): https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0714(01)&from=EN
Evaluation of the impact of agricultural pesticides on the surrounding environment by	Biomonitoraggio dell'impatto ambientale tramite le api (IT): https://www.aspromiele.it/wp/wp-content/uploads/2021/02/BIOMONITORAGGIO-ASPROMIELE.pdf

monitoring bioaccumulation of those substances in bees	
"Sexual confusion" technique that allows to control pests effectively, eliminating or reducing the use of pesticides	Proyecto de investigación sobre el control de Lobesia Botrana (ES): https://www.phytoma.com/images/pdf/274_Diciembre_2015_ENCUESTRO_VID_lobesia_botrana_cari%C3%B1ena.pdf
Protect/support species	
Experimenting new varieties / adapting existing varieties to climate change	Expérimentation et réintroduction d'anciens cépages / Variétés d'Intérêt à Fins d'Aptation (FR) PORVID (PT): https://www.facebook.com/porvid.portugal/ (communication is made through the facebook page)
Land protection and preservation of biodiversity	
Preservation of a minimum amount of natural zones in vineyards	SOSstain (IT): https://www.fondazioneosostainsicilia.it/disciplinare/
Reuse of the stones that are extracted from the ground during breakdown for the planting of vineyards and development of grassing in order to counteract possible landslides	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Creation of a suitable environment to guarantee root activity, balanced and healthy development of the vines and high quality of the grapes	<i>Practice identified in literature with relevance for the sustainability of the wine sector as a whole.</i>
Planting of hedges to protect land and vineyards from wild and farm animals	Herault'haies (FR): https://www.paysarbre.org/plantez-des-haies/
Sustainability social dimension	
Fair pricing to be paid to wine-growers	<i>Identified via the PDO wine online survey</i>

Annex 4 – Online survey results

This document presents the results of the online survey that was performed by Arcadia International in the context of the study conducted by the European Federation of Origin Wines (EFOW) in partnership with DWV on the state of play of sustainability initiatives in the wine appellation sector.

The objective of the survey, in particular, is to contribute towards a better understanding of the sustainability initiatives that have been undertaken, or are available to, producer groups of wines with the status of protected designations of origin (PDO) in the following producing countries: France, Germany, Italy, Portugal and Spain.

For the purpose of the study, a ‘sustainability initiative’ is any initiative that can help PDO wine producers to be more sustainable or help them demonstrate how sustainable they are.

In terms of scope, the survey primarily aimed at identifying sustainability initiatives undertaken collectively by, or available to, PDO wine producer groups. Finally, the survey aimed at identifying sustainability initiatives that were already in place by 2016 in the targeted countries and those that have been introduced or launched after that year until now.

The online survey was launched on 7 July 2021 and closed on 24 September 2021.

Section E of the present annex contains the list of questions that formed part of the online survey.

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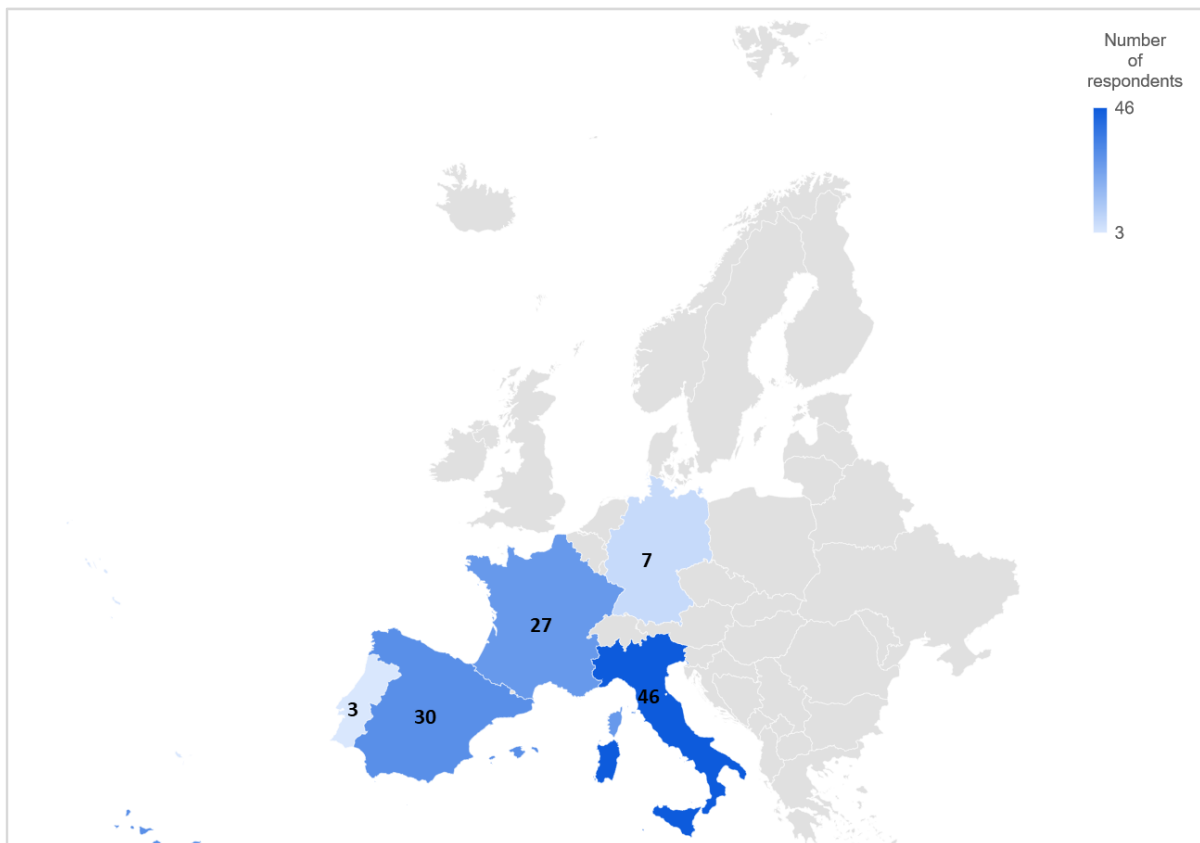
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Section A – Identification of the respondents

114 responses were received through the survey in total. However, 1 response was not considered for the purpose of the analysis as the respondent did not qualify as a PDO wine producer/representative. Therefore, a total of **113 responses** were retained and considered for the analysis.

Figure 1 shows the number of responses received for each producing country under analysis. Of those 46 originated from Italy, 30 from Spain, 27 from France, 7 from Germany and 3 from Portugal.

Figure 1. Number of respondents by country (n=113)



Conversely, Figure 2 shows the type of actor that the various organisations surveyed represent. The vast majority of the respondents (n=98, i.e. 88%) identified themselves as a PDO wine producer group. On the other hand, 15 respondents indicated that their organisation was an entity other than a PDO wine producer group, having one the of the following legal forms: professional/trade/industry association, federation, confederation, interprofessional organisation or regulatory council.

Figure 2. Type of actor (n=113)

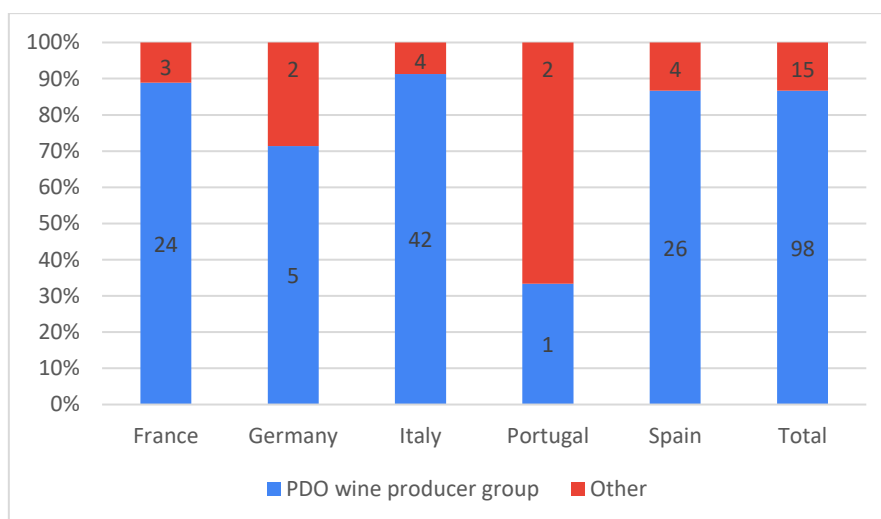


Table A lists the names of the 113 organisations that took part in the online survey. Following the closing of the survey, however, it was clarified that some respondents answered on behalf of several PDO wine groups located in the same region. For such cases, the number of organisations covered by the survey response is identified in the second column of Table A. In total, the number of responses and representativeness obtained was:

- Italy: 46 respondents – 145 PDOs represented (66%*)
- France: 27 respondents – 239 PDOs represented (75%*)
- Spain: 30 respondents – 32 PDOs represented (63%*)
- Germany: 7 respondents – 13 PDOs represented (54%*)
- Portugal: 3 respondents – 2 PDOs represented (100%*)

* Response rate in relation to the total number of EFOR and DWV members.

However, it is important to note that, for the purpose of processing the results of the survey, each answer was considered as a single one.

Table A. List of respondents (n=113)

Name of the organisation	Number of PDO wine groups represented
France	
Syndicat Viticole de l'Aire AOC de Pouilly	1
Syndicat Régional des Vins de Savoie	4
Fédération des Associations Viticoles d'Indre-et-Loire et de la Sarthe (FAV 37-72)	7
Syndicat des Coteaux d'Aix en Provence	1
Côtes de Provence	1
ODG Ventoux	1
ODG des crus du Beaujolais	10
Syndicat viticole de Quincy	1
Syndicat AOP Terrasses du Larzac	1
Syndicat Général des Vignerons de Champagne	3
Confédération des Appellations et des Vignerons de Bourgogne	100
Fédération des Associations Viticoles du Loir et Cher	5
ODG Touraine	1
Fédération des vins de Bergerac et Duras	8
ODG des AOC Médoc Haut-Médoc Listrac-Médoc	3
Groupement intersyndical des AOC de Corse	4

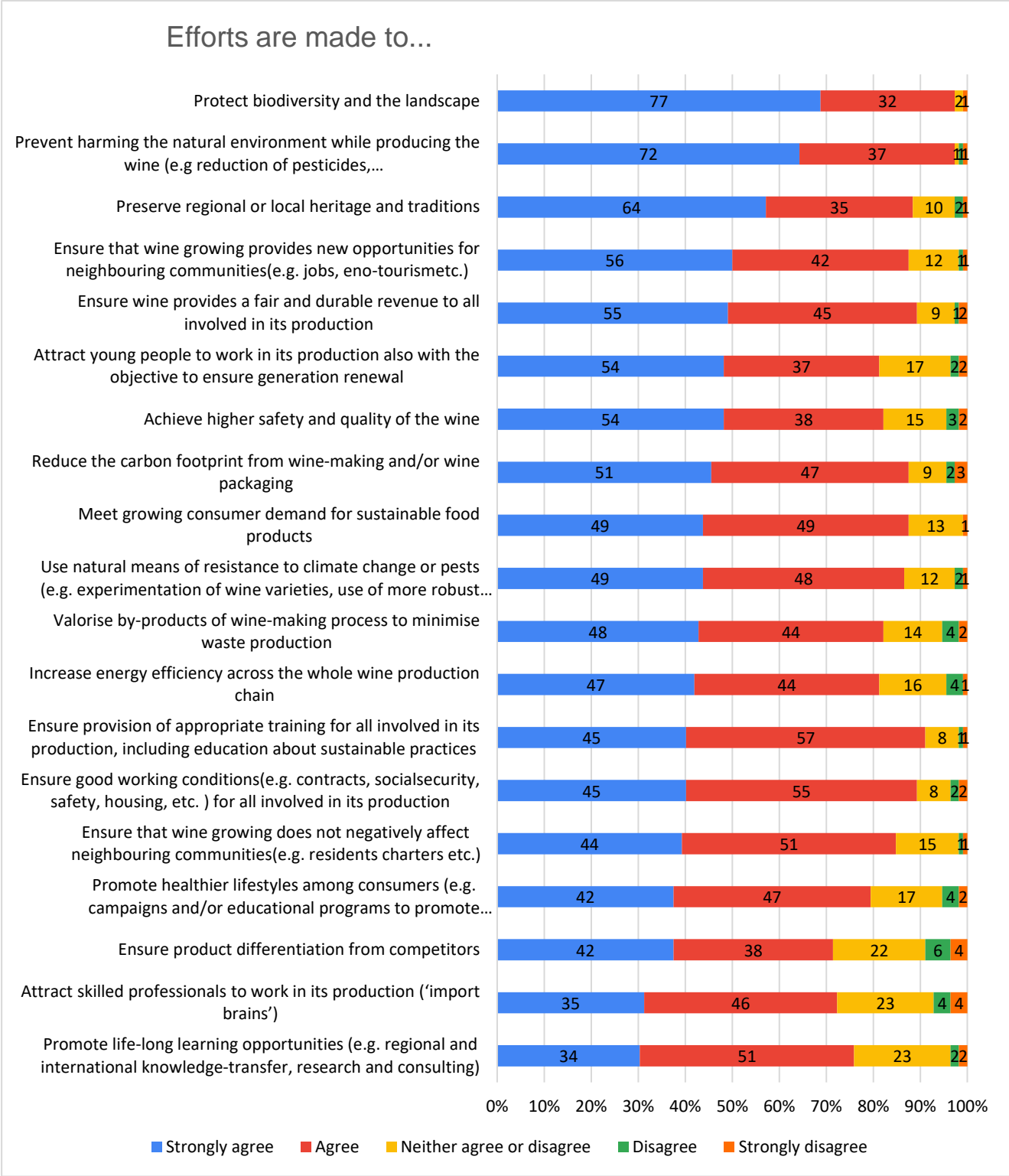
Union Viticole Sancerroise	1
Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	2
Syndicat des Vignerons du Duché d'Uzès	1
Fédération des Grands Vins de Bordeaux	35
Syndicat des Producteurs de Pineau des Charentes	1
AOP Côtes du Jura	1
Fédération Viticole Anjou Saumur	18
ODG Fédération des Vins de Nantes	3
ODG L'Etoile	1
Syndicat des Vignerons des Côtes du Rhône	21
Société de Viticulture du Jura	4
TOTAL PDO wine groups	239
Germany	
Fränkischer Weinbauverband e.V.	1
Rheingauer Weinbauverband e.V.	1
Weinbauverband Mosel	1
Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein	1
Schutzgemeinschaft g.U. Württemberg	1
Weinbauverband Rheinhessen im Bauern- und Winzerverband Rheinland-Pfalz Süd e.V	1
Badischer Weinbauverband e.V.	1
TOTAL PDO wine groups	7
Italy	
Consorzio Salice Salentino	1
Consorzio del Vino Nobile Di Montepulciano	3
Consorzio Tutela Vini Montefalco	3
Consorzio di Tutela Barolo Barbaresco Alba Langhe e Dogliani	10
Consorzio Barbera d'Asti e Vini del Monferrato	13
Consorzio Tutela Vini DOC Lessini Durello	2
Consorzio Tutela Vini Orvieto	2
Consorzio Tutela Vini della Maremma Toscana	1
Consorzio Tutela Vino Custoza DOC	1
Consorzio per la Tutela del Franciacorta	3
Consorzio Tutela del Gavi	1
Consorzio a Tutela del Vino Morellino di Scansano	1
Consorzio di Tutela dei Vini di Valtellina	4
Consorzio Tutela vini d'Acqui	2
Consorzio Vini Valdichiana Toscana	1
Consorzio Alta Langa	1
Consorzio Vini Colli Bolognesi	2
Sannio Consorzio Tutela Vini	4
Consorzio di Valorizzazione e Tutela delle viti e del vino DOC Bivongi	1
Consorzio per la Tutela e la Valorizzazione dei vini doc Cirò e Melissa	2
Consorzio Tutela Vini Valpolicella	4
Consorzio di Tutela del Primitivo di Manduria DOC	2
Consorzio Tutela Lambrusco	6
Consorzio vino Brunello di Montalcino	4
Consorzio Tutela vini Friuli Colli Orientali e Ramandolo	4
Consorzio di Tutela Cerasuolo di Vittoria DOCG	3
Consorzio Tutela Vini DOC Arcole	1
Consorzio per la Tutela dell'Asti	1
Consorzio di Tutela dei vini di Torgiano	2
Consorzio Tutela Vini DOC Soave	3
Istituto Marchigiano di Tutela vini	15
Consorzio Tutela denominazione vini Frascati	2

Consorzio di Tutela Vini Etna Doc	1
Consorzio di Tutela Doc Castel del Monte	4
Consorzio per la Tutela del Vino Bardolino D.O.C.	2
Consorzio Tutela Vini Oltrepò Pavese	9
Consorzio Tutela Vini DOC delle Venezie	1
Consorzio Vini Asolo Montello	3
Consorzio Vini Mantovani	4
Consorzio di Tutela Vini di Sardegna	1
Consorzio Vini Venezia	6
Consorzio Tutela Vini Vesuvio	2
Consorzio Prosecco DOC	1
Consorzio Tutela Vini Piceni	4
Consorzio Valdarno di Sopra doc	1
Consorzio Tutela Vini DOC Friuli Grve	1
TOTAL PDO wine groups	145
Portugal	
Casa do Douro/Federação Renovação Douro	1
ACIBEV - Associação de Vinhos e Espirituosas de Portugal	<i>Sectorial association representing PDOs</i>
Associação das Empresas de Vinho do Porto	1
TOTAL PDO wine groups	2
Spain	
CRDOP Cariñena	1
Consejo Regulador Denominaciones de origen Málaga, Sierras de Málaga y Pasas de Málaga	2
CRDO Arabako Txakolina-txakoli de Álava	1
CRDOP Alicante	1
Consejo Regulador Vinos DOP Valencia	1
Consejo Regulador de la D.O. Bizkaiko Txakolina	1
Consell Regulador de la Denominación d'Origen Penedès	1
CRDO Vinos de Lanzarote	1
Consejo Regulador D.O. Navarra	1
Consejo Regulador DOP Jumilla	1
Consejo Regulador Denominación de Origen Calificada (d.o.ca.) Rioja	1
Consejo Regulador Condado de Huelva	1
Consejo Regulador do Catalunya	1
Consejo Regulador Denominación de Origen Ribeira Sacra	1
ORG. INT. Vitivinicola DOP Manchuela	1
A.P.V.D.O. Ribera del Júcar	1
Consejo Regulador DO Utiel-Requena	1
Consejo Regulador de los Vinos de Jerez	2
CRDO Binissalem	1
Consejo Regulador Denominación de Origen Bierzo	1
C.R.D.O.Tacoronte-Acentejo	1
Consejo Regulador Denominación de Origen Rías Baixas	1
Consejo Regulador de la Denominación de Origen Ribera del Duero	1
CRDO Vinos de Madrid	1
Asoc.Vitivinicola de Uclés Denominación de Origen Uclés	1
DOP Vinos de Bullas	1
CRDOP Getariako Txakolina/Txakoli de Getaria	1
CRDO Campo de Bojra	1
CRDOP Montilla-Moriles	1
CRDOP Yecla	1
TOTAL PDO wine groups	32

Section B – Understanding current sustainability trends in the wine appellation sector

Q: How much do you agree with the following definitions of what 'sustainable wine' means?

Figure 3. Q4a. How much do you agree with the following definitions of what 'sustainable wine' means? (n= 113) (Aggregated data)



This question looks at the respondents' views on what 'sustainable wine' means. To that effect, respondents were presented with a list of different definitions and asked about the extent to which they agreed or disagreed with such definitions (Figure 3).

The majority of respondents strongly agree that 'sustainable wine' involves efforts to 'protect biodiversity and the landscape' (68%), 'prevent harming the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)' (65%) and 'preserve regional or local heritage and traditions' (57%).

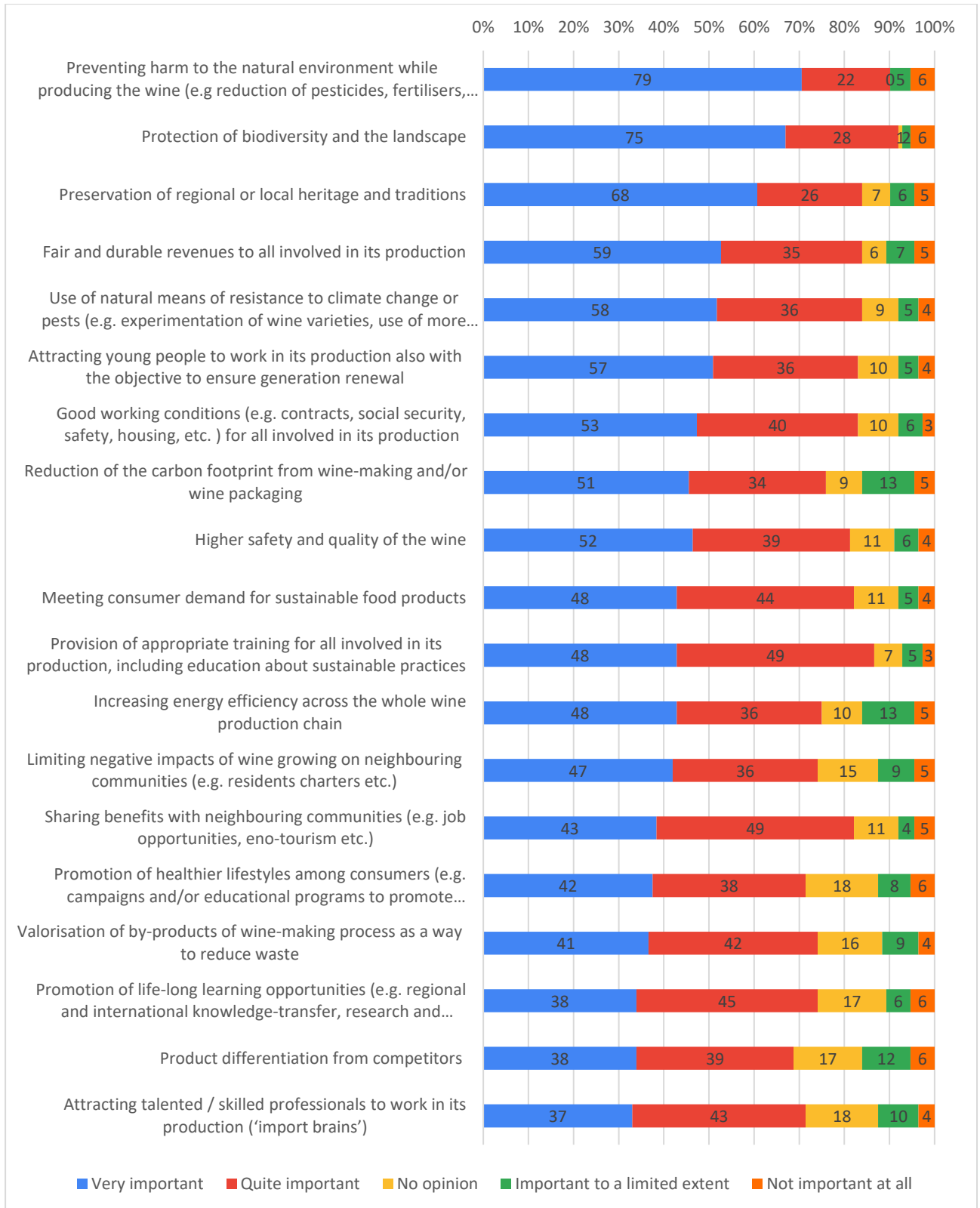
Of the definitions presented, respondents are more likely to disagree with the definition according to which 'sustainable wine' means that efforts are made to 'ensure product differentiation from competitors' (11 respondents corresponding to 10% of the sample surveyed indicated that they 'disagree' or 'strongly disagree' with such a definition). However, more than one third (37%) strongly agree with this definition of 'sustainable wine'.

A relatively significant number of respondents do not agree with 'sustainable wine' meaning that efforts are made to 'attract skilled professionals to work in its production (import brains)' (8 respondents (i.e. 7%) said they 'disagree' or 'strongly disagree' with that). Even if it is one of the definitions on which most respondents disagree, still 72% of the sample surveyed indicated that they agreed or strongly agreed with that definition.

About 8 respondents mentioned that sustainability of wine must consider all three pillars of sustainability, i.e. environmental, social and economic. Most respondents also agree that it is important to ensure that sustainability initiatives are developed and implemented in light of these three dimensions.

Q: What is the importance that your organisation attaches to the following aspects which can contribute to making a wine 'sustainable'?

Figure 4. Q5a. What is the importance that your organisation attaches to the following aspects which can contribute to making a wine 'sustainable'? (n=113) (Aggregated data)



Respondents were asked about their opinion regarding the importance that their organisation attaches to certain aspects that can contribute to making a wine 'sustainable' (Figure 4).

The vast majority of respondents (71%) consider that their organisation attributes great importance to 'preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)'. Also, a large part gives great importance to the 'protection of biodiversity and the landscape' (66%) and 'preservation of regional or local heritage and traditions' (61%).

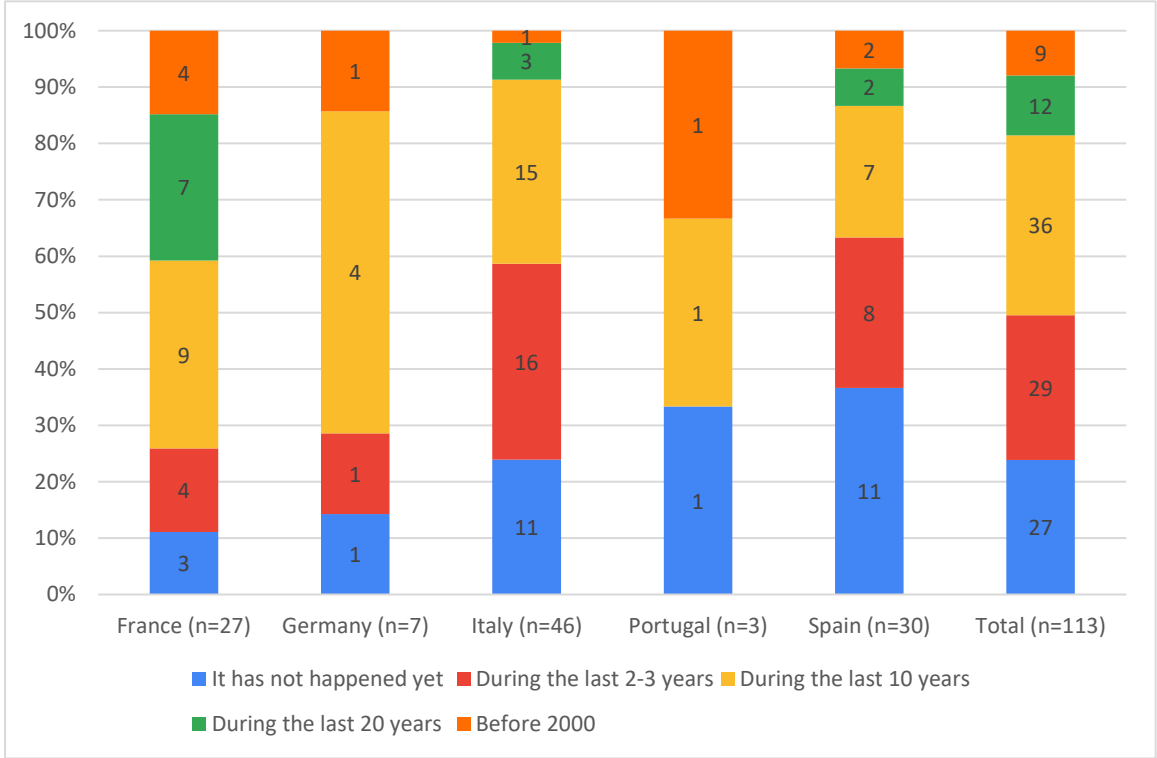
Of all the aspects listed, 'product differentiation from competitors', 'reduction of the carbon footprint from wine-making and/or wine packaging' and 'increasing energy efficiency across the whole wine production chain' are those to which currently most organisations do not attach importance or attach importance only to a limited extent (16%).

Analysing the results obtained for the different countries under analysis, in France and Italy the aspect that most respondents indicated as 'very important' for their organisation is 'preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)' (namely, 81% of respondents in France and 76% in Italy indicated so). In the case of Germany, 71% of respondents indicated that their organisation attached greater importance to the 'protection of biodiversity and the landscape'. Conversely, in Spain, the aspect that was most frequently rated as 'very important' is the 'preservation of regional or local heritage and traditions' (70%). In Portugal, several aspects were mentioned as 'very important' by all three respondents, namely: 'preventing harm to the natural environment while producing the wine'; 'increasing energy efficiency across the whole wine production chain'; 'preservation of regional or local heritage and traditions' and 'protection of biodiversity and the landscape'.

In addition, about 10 respondents indicated that all the aspects listed were important for the sustainability of the wine. Several respondents also mentioned that their organisation had various initiatives in place for the different dimensions of sustainability. In particular, CRDOP Yecla mentioned that the aspects listed in the question were all very pertinent and relevant and that, while their organisation was trying to integrate them in the management and wine production, resources were limited to ensure their full implementation.

Q. Since when has your organisation developed or adhered to a sustainability initiative?

Figure 5. Q6. Since when has your organisation developed or adhered to a sustainability initiative? (n=113)



Overall, the survey results show that only 8% of the organisations surveyed developed or adhered to a sustainability initiative before the year 2000. Conversely, 11% developed or adhered to such an initiative during the last 20 years, 32% during the last 10 years and 26% during the last 2-3 years. Finally, 24% of the respondents indicated that this had not happened yet at the time of survey (Figure 5).

Analysing the results obtained by country, it emerges that Spain is the country with the highest percentage of organisations that have not yet developed or adhered to a sustainability initiative (37%), while France is the country with the lowest percentage (only 11%).

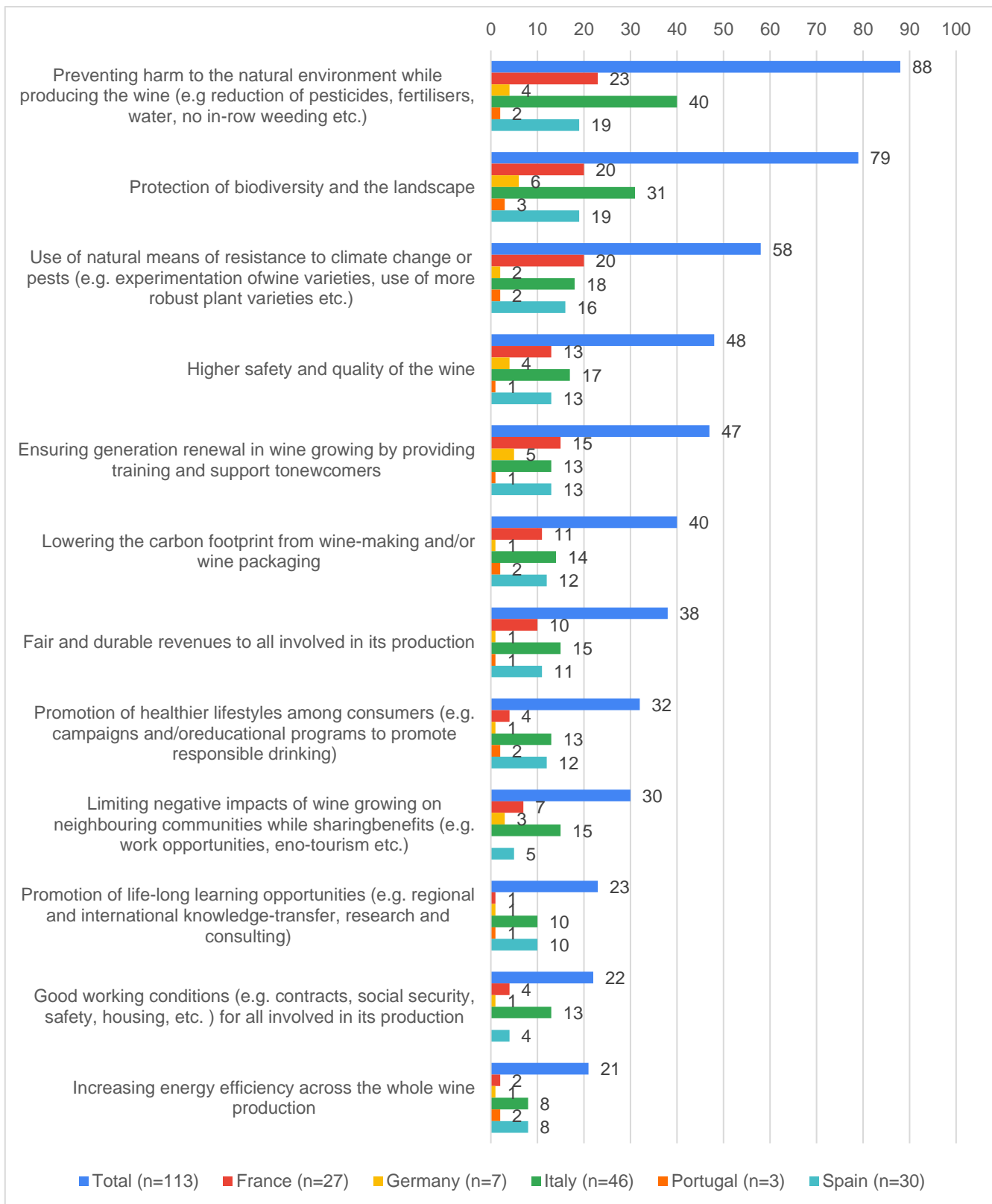
On the contrary, France is the country with the greatest number of organisations that have developed or adhered to a sustainability initiative for the longest time. 41% of the organisations surveyed in France have developed or adhered to an initiative with a sustainability focus in the last 20 years or even before 2000.

In the case of Italy, the organisations that have developed or adhered to a sustainability initiative have done so mostly during the last 2-3 years (35%) and in the last decade (33%).

In the case of Germany, 4 of the 7 organisations surveyed have developed or joined a sustainability initiative in the last 10 years. In Portugal, of the three responding organisations, one developed or adhered to an initiative before 2000, another in the last 10 years and, finally, one that has not yet developed or adhered to any.

Q: In the coming years, which are the sustainability aspects to which your organisation plans to allocate more resources?

Figure 6. Q7a. In the coming years, which are the sustainability aspects to which your organisation plans to allocate more resources? Why? (please indicate up to 5 aspects in total) (n=113)



The figure above shows the sustainability aspects to which respondents' organisations plan to allocate more resources in the near future (Figure 6).

Overall, the sustainability aspects to which organisations plan to allocate more resources are 'preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)' (78%), followed by 'protection of biodiversity and the landscape' (70%) and 'use of natural means of resistance to climate change or pests (e.g. experimentation of wine varieties, use of more robust plant varieties etc.)' (51%).

The sustainability aspects that were least mentioned by respondents in the context of this question are 'increasing energy efficiency across the whole wine production' (18%), 'good working conditions (e.g. contracts, social security, safety, housing, etc.) for all involved in its production' (19%) and 'promotion of life-long learning opportunities (e.g. regional and international knowledge-transfer, research and consulting)' (20%).

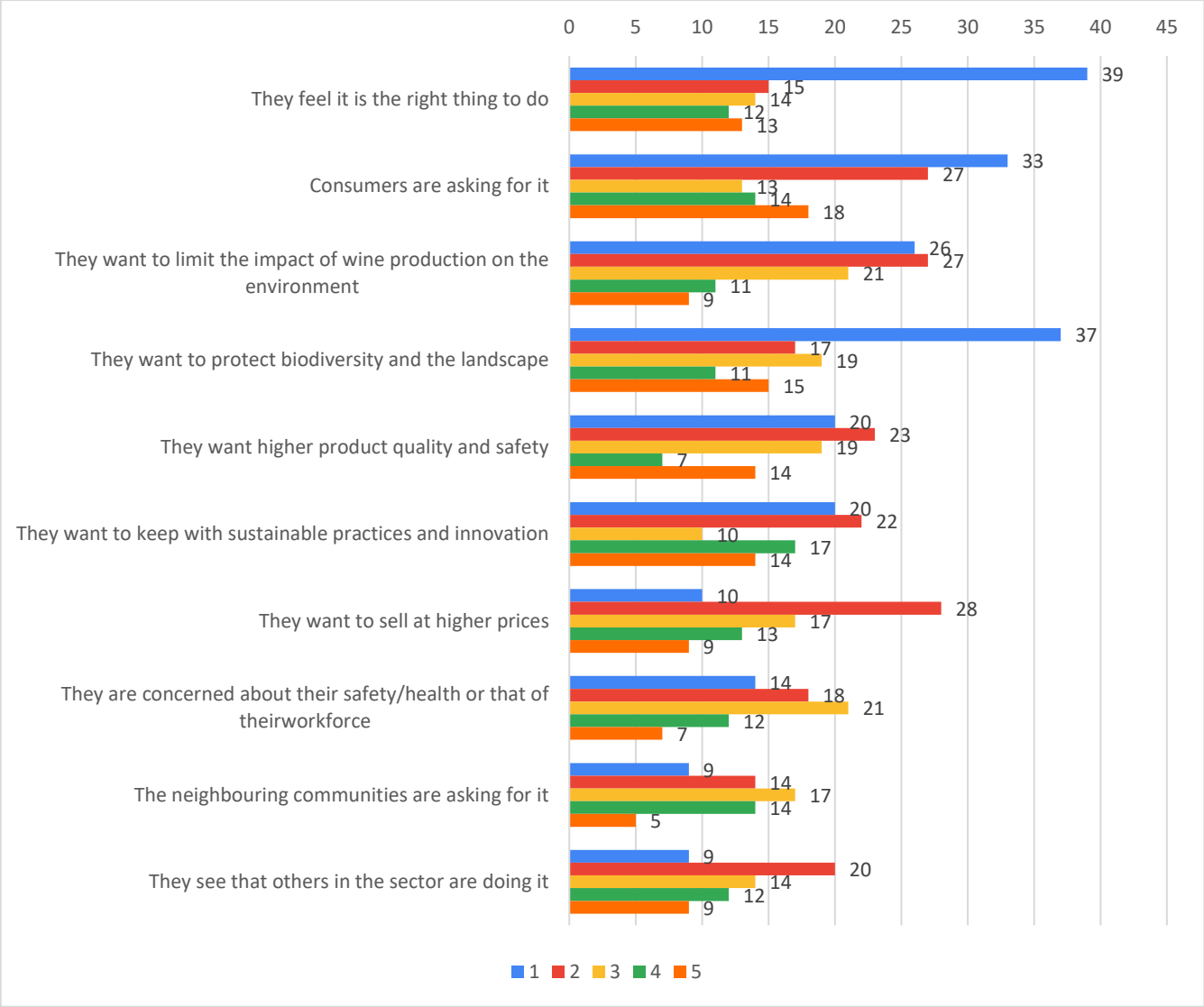
Analysing the results obtained by country, the sustainability aspect to which respondents from France and Italy intend to allocate more resources in future is 'preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)' (namely, 85% of the respondents in France, while 87% in Italy).

In the case of Germany and Portugal, the sustainability aspect to which respondents plan to allocate more resources is the 'protection of biodiversity and the landscape' (86% in Germany, 100% in Portugal).

In Spain, 'preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)' and 'protection of biodiversity and the landscape' are the aspects to which most respondents plan to allocate additional resources in the coming years (63%). Two respondents, C.R.D.O.Tacoronte-Acentejo and CRDOP Getariako Txakolina/Txakoli de Getaria in Spain indicated that the deployment of resources for sustainability practices was limited and, therefore, training and raising-awareness initiatives about sustainability across the sector was essential.

Q: In your view, why are PDO wine producers in your country developing or adhering to sustainability initiatives?

Figure 7. Q8a. In your view, why are PDO wine producers in your country developing or adhering to sustainability initiatives? (please select the 5 most important drivers among those listed below by rating them in order of importance being '1' the most important driver while '5' the least important) (n=113) (Aggregated data)



For the question “In your view, why are PDO wine producers in your country developing or adhering to sustainability initiatives”, respondents were asked to select the 5 most important drivers and rate them by order of importance (‘1’ being the most important to ‘5’ being the least important) (Figure 7).

In general, according to the opinion of respondents, the most important drivers that push a PDO wine producer to develop or adhere to a sustainability initiative are that ‘consumers are asking for it’ (93% respondents selected this driver as one of the five most important ones), ‘they want to protect biodiversity and the landscape’ (88% respondents selected this driver as one of the five most important ones), ‘they want to limit the impact of wine production on the environment’ (83% respondents selected this driver as one of the five most important ones) and ‘they feel it is the right thing to do’ (82% respondents selected this driver as one of

the five most important ones and 34% respondents selected this option as the most important driver).

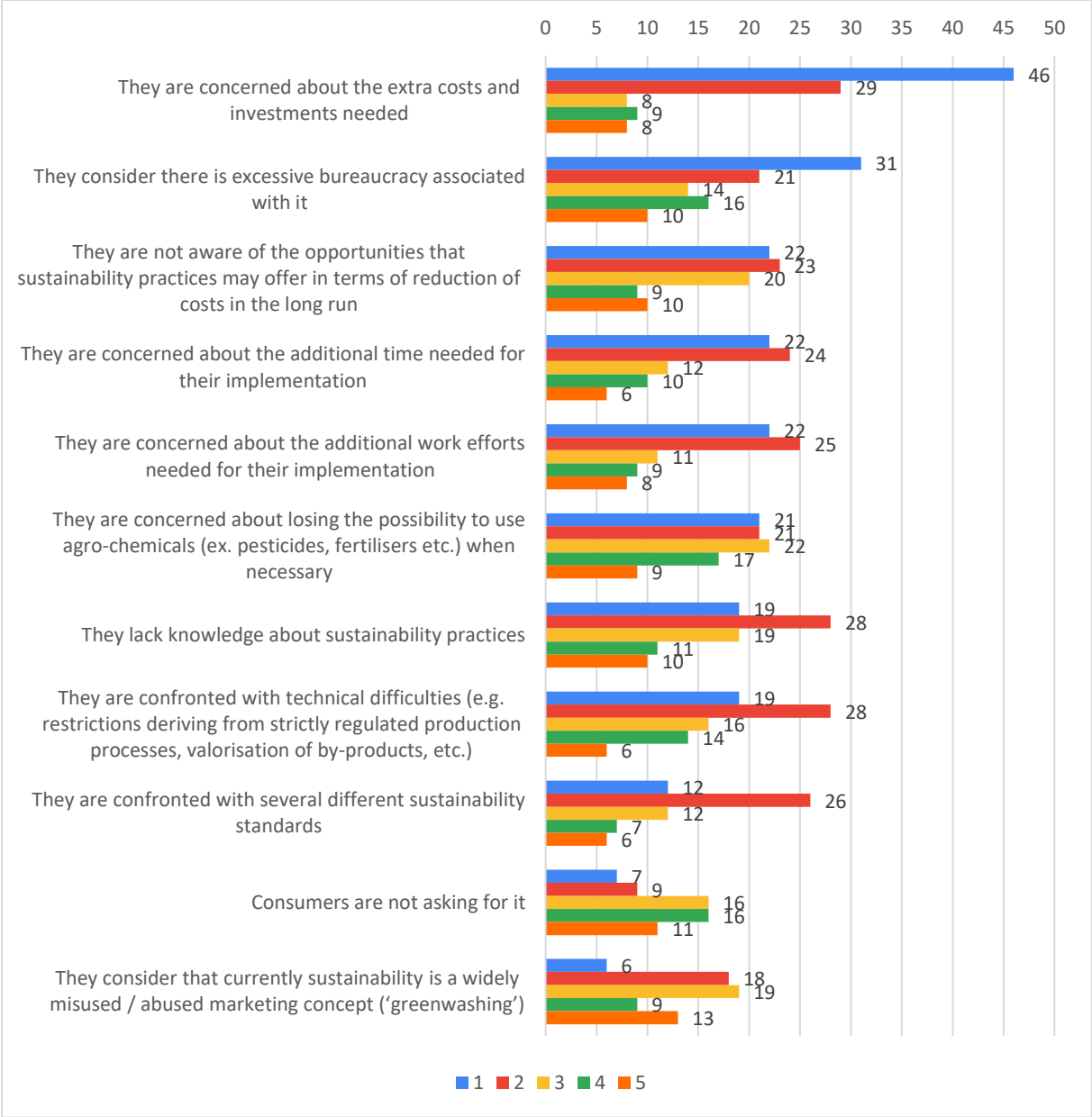
In contrast, the driver that was least mentioned by respondents is 'the neighbouring communities are asking for it' (only 52% respondents selected this option as one of the five most important drivers and only 8% selected this option as the most important driver).

Analysing the results obtained by country, the driver that is considered most important in France to lead PDO wine producers to develop or adhere to a sustainability initiative is that 'consumers are asking for it' (52%). Conversely, in Germany 'they want to protect biodiversity and the landscape' (43%) and in Italy 'they feel it is the right thing to do' (39%) are the most important sustainability drivers for national PDO wine groups. In Portugal, all respondents agree that the most important drivers for the development or adherence to a sustainability initiative by PDO wine producers are 'they feel it is the right thing to do' and 'they want to protect biodiversity and the landscape'. In Spain, the drivers considered most important are 'they feel it is the right thing to do' and 'they want higher product quality and safety' (37%).

In general, respondents who justified their responses indicated that PDO wine producers are concerned with producing wines with higher safety and quality and are interested in protecting the environment and future generations.

Q: In your view, why are PDO wine producers in your country NOT developing or adhering to sustainability initiatives?

Figure 8. Q9a. In your view, why are PDO wine producers in your country NOT developing or adhering to sustainability initiatives? (please select the 5 most important barriers among those listed below by rating them in order of importance being '1' the most important barrier while '5' the least important) (n=113) (Aggregated data)



For the question “In your view, why are PDO wine producers in your country NOT developing or adhering to sustainability initiatives?”, respondents were asked to select the 5 most important barriers and rate them by order of importance (‘1’ being the most important to ‘5’ the least important) (Figure 8).

Overall, the barrier most frequently indicated by the respondents is the ‘concern about the extra costs and investments needed’ (88% respondents selected this barrier as one of the five most important barriers), followed by the ‘excessive bureaucracy associated with it’ (81% respondents selected this barrier as one of the five most important barriers).

Conversely, the barriers that were indicated less frequently are that 'consumers are not asking for it' (52% respondents selected this barrier as one of the five most important barriers and only 6% respondents indicated it as the most important barrier), 'they are confronted with several different sustainability standards' (56% respondents selected this barrier as one of the five most important barriers but only 11% respondents indicated it as the most important barrier) and 'they consider that currently sustainability is a widely misused / abused marketing concept ('greenwashing')' (57% respondents selected this barrier as one of the five most important barriers though only 5% respondents indicated it as the most important barrier).

Analysing the results obtained by country, the barrier considered most important in France (63%), Italy (33%) and Portugal (67%) is the 'concern about the extra costs and investments needed'.

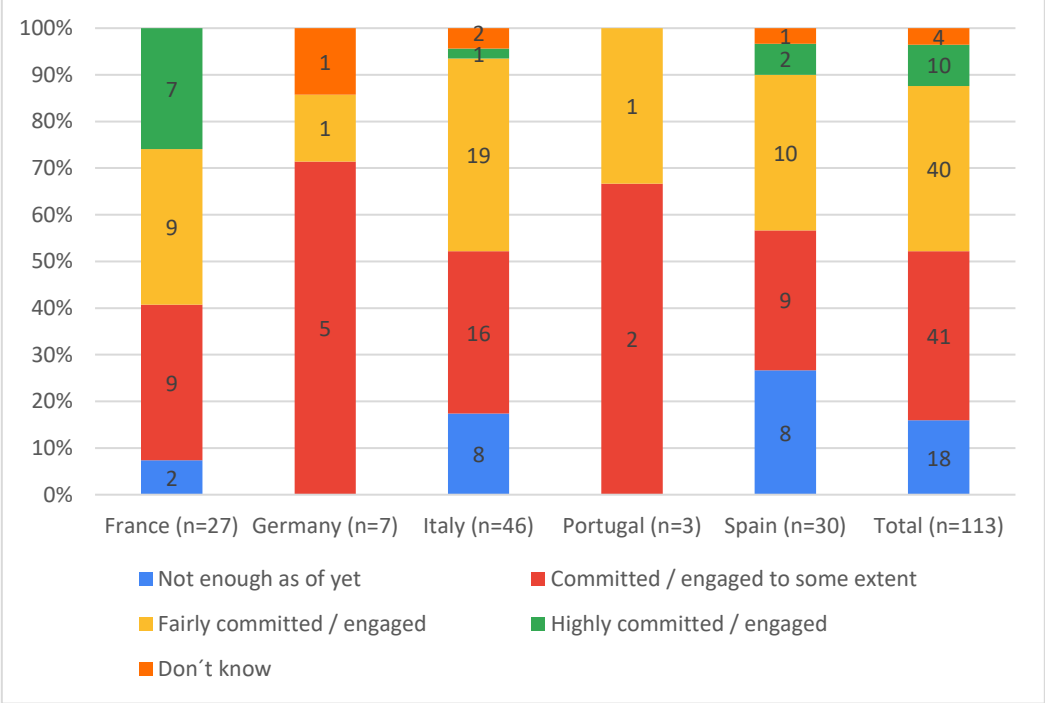
In Germany, the most important barriers are the 'concern about the extra costs and investments needed' and the 'concern about losing the possibility to use agro-chemicals (ex. pesticides, fertilisers etc.) when necessary' (43%).

In Spain, the barrier considered most important is the 'excessive bureaucracy associated with it' (40%). In fact, two respondents, DOP Vinos de Bullas and Consejo Regulador do Catalunya justified their answer indicated that the procedure should be made easier as administrative and bureaucratic red tape is a significant structural limitation. In addition, one Spanish respondent, mentioned that a small winery sees bureaucracy and the additional time and efforts for the implementation as an important barrier.

Overall, a respondent in Spain (Consejo Regulador DO Utiel-Requena), France (Fédération des vins de Bergerac et Duras – representing 8 PDOs) and Germany (Weinbauverband Mosel) indicated that there is also a certain fear of change among PDO wine producers.

Q: Overall, in your view, how committed / engaged in sustainable viticulture is the PDO wine sector of your country?

Figure 9. Q10. Overall, in your view, how committed / engaged in sustainable viticulture is the PDO wine sector of your country? (please select one option) (n=113)



This question analyses the perceptions of respondents about the level of commitment / engagement in sustainable viticulture of the PDO sector in their country (Figure 9).

The survey results show that, overall, 16% of the respondents consider that at present the PDO wine sector in their country is not enough committed / engaged in sustainable viticulture. Conversely, 36% of the respondents are of the view that that the sector is committed / engaged to some extent. For 35% of the sample surveyed the national sector is fairly committed / engaged, while only 9% think that it is highly committed / engaged.

Looking at the results by country, it emerges that Italy and Spain are the countries with the highest number of respondents who consider that the PDO wine sector is currently not enough committed / engaged in sustainable viticulture (17% and 27% of the national sample surveyed, respectively). In the case of Italy, two respondents indicated that if there were more incentives available, more PDO wine producers would certainly undertake sustainability initiatives. Two other respondents indicated that in the national market efforts were stepped up to achieve sustainability goals (one respondent indicated that this was also due to the demand from foreign markets). In the case of Spain, 5 respondents are of the opinion that more can be done about sustainability. While there is still some lack of information on the topic, one respondent considers that PDO wine groups should provide this information to the sector, which still does not know very well what sustainability is and how to commit to it.

On the other hand, France is the country with the highest number of respondents indicating that the PDO wine sector is highly committed / engaged in sustainable practices (26%). 3

respondents in France (Société de Viticulture du Jura – representing 4 PDOs ; Syndicat des Vignerons du Duché d'Uzès; Syndicat des Producteurs de Pineau des Charentes) indicated that the wine sector is committed to sustainable viticulture as witnessed by the steady increase in the production areas that are certified by an environmental label.

In the case of Germany and Portugal, more than half of the respondents indicated that the PDO wine sector is committed / engaged in sustainable viticulture only to some extent. In the case of Portugal, one of the respondents (ACIBEV - Associação de Vinhos e Espirituosas de Portugal) indicated that a national sustainability plan is missing, while another respondent (Associação das Empresas de Vinho do Porto) referred that the country's wine sector is mostly composed of small producing companies, which do not have the human and financial resources to invest more on the sustainability front. In the case of Germany, two respondents (Weinbauverband Mosel and Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein) indicated that PDO groups' awareness about sustainability is just at the beginning.

Section C – Mapping of sustainability initiatives relevant to the wine appellation sector

Altogether, the survey identified **158 sustainability initiatives** undertaken by PDO wine groups or in which these organisations take part (Figure 10). Overall, Italy was the country with the highest number of initiatives mapped out (51), followed by France (50), Spain (41), Germany (10) and finally Portugal (6).

Figure 10. Number of sustainability initiatives identified through the survey (n=158)

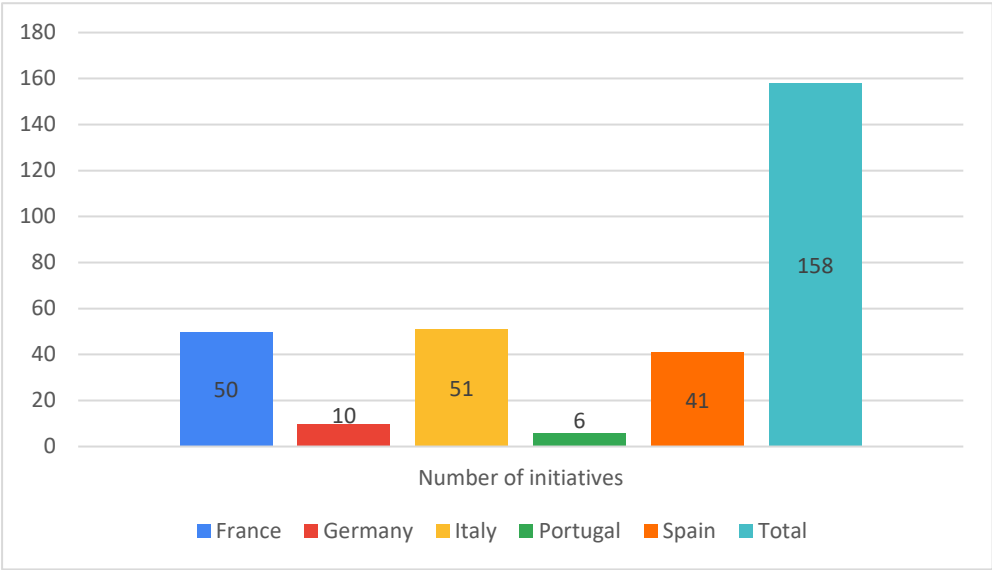
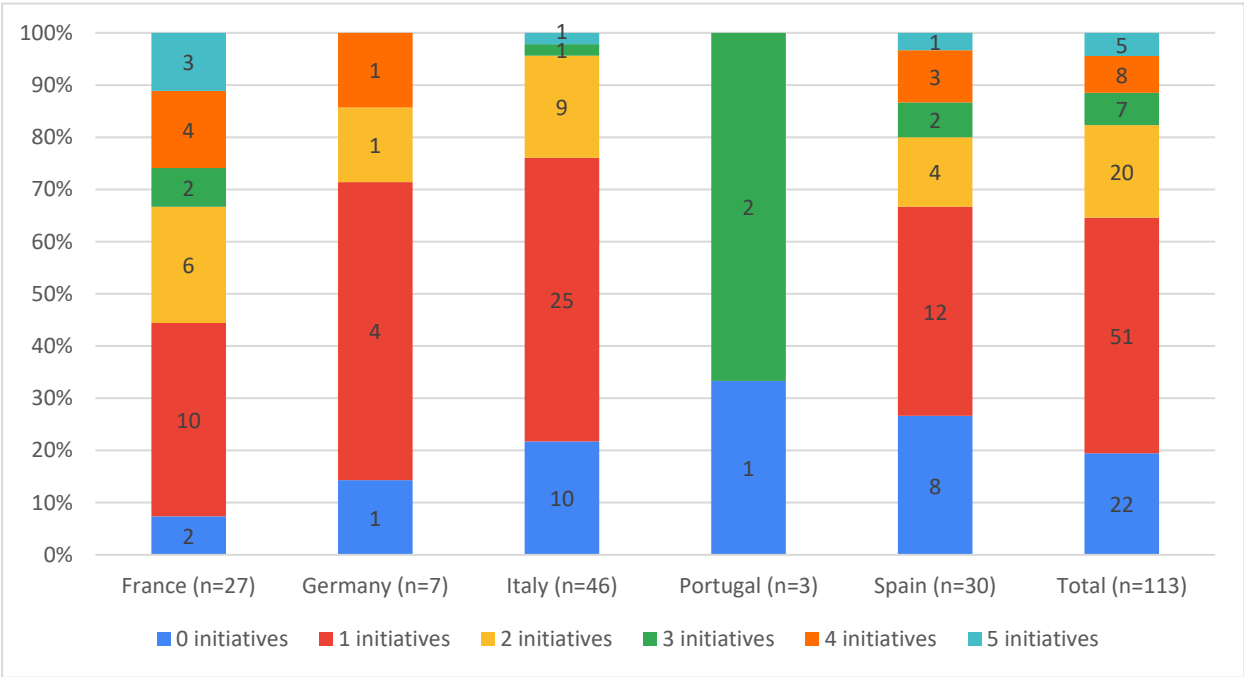


Figure 11 provides an overview of the number of initiatives identified per respondent.

Figure 11. Number of sustainability initiatives identified per respondent (n=113)



Overall, 47% of the respondents identified only one sustainability initiative, 18% identified 2 initiatives, 7% identified 3 and 4 initiatives and 2% identified 5 initiatives. In contrast, 23 respondents (i.e. 20%) did not identify any sustainability initiative.

Of the countries under analysis, Italy and Spain were the countries where most respondents did not identify any sustainability initiative in the survey (10 and 9 respondents, respectively). On the other hand, France was the country with the higher number of respondents indicating 4 or 5 initiatives.

Table B provides the full list of the sustainability initiatives mapped out as they were identified by the respondents in the survey. Of the 158 initiatives mapped out, 10 were described by respondents, but their names were not provided. Therefore, the table presents only the names of 148 initiatives. The last column on the right indicates whether all or only some of the PDO wine groups are adhering to or implementing the initiative under study.

Table B. List of initiatives indicated by the respondents (n=148)

Initiative		PDOs	All / only some PDO members
France			
Agro écologie		ODG des crus du Beaujolais	Some
Mesures Agro-environnementales (INAO)	Mesures agro-environnementales	Syndicat des Coteaux d'Aix en Provence	All
	Interdiction utilisation herbicide sur inter rang	Fédération Viticole Anjou Saumur	
	Non désherbage des tournieres de vigne	AOP Côtes du Jura	
	Mise en place de mesures agro-environnementales dans les cahiers des charges	Syndicat des Vignerons des Côtes du Rhône	
	Enherbement des rangs	Syndicat Régional des Vins de Savoie	
	Révision du Cahier des Charges de l'AOC	Syndicat des Producteurs de Pineau des Charentes	
	Intégration de cépages à fin d'adaptation	Syndicat des Vignerons du Duché d'Uzès	
	Mesures agro-environnementales du cahier des charges	Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	
	Interdiction du désherbage chimique total	ODG Touraine	
Plan Filière du Val de Loire		Fédération des Associations Viticoles d'Indre-et-Loire et de la Sarthe (FAV 37-72)	Some

VIFA	Expérimentation et réintroduction d'anciens cépages	Syndicat Régional des Vins de Savoie	Some
	Variétés d'intérêt à fin d'adaptation	Société de Viticulture du Jura	Some
	Test de cépages afin d'adaptation au changement climatique	Société de Viticulture du Jura	Some
HVE 3		Syndicat viticole de Quincy Groupement intersyndical des AOC de Corse Syndicat des Vignerons des Côtes du Rhône	Some
		ODG des AOC Médoc Haut-Médoc Lustrac-Médoc	All (see below 'Intégration de l'obligation de certification environnementale dans les cahiers des charges AOC')
Biodivea		Syndicat AOP Terrasses du Larzac	Some
Cahier des charges AOC Champagne		Syndicat Général des Vignerons de Champagne	All but still under development
Plan filière Centre-Loire		Syndicat Viticole de l'Aire AOC de Pouilly	Some
Consigne verre bouteilles syndicales		Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	Some
Intégration de l'obligation de certification environnementale dans les cahiers des charges AOC		Fédération des Grands Vins de Bordeaux	All but still under development
		ODG des AOC Médoc Haut-Médoc Lustrac-Médoc	All
Sélection massale des cépages sauvignon et pinot noir		Union Viticole Sancerroise	Some
Plan d'action régional Engager nos terroirs dans nos territoires (dès 2017)		Confédération des Appellations et des Vignerons de Bourgogne	Some
Essais d'enherbement chez les Domaines en cours d'étude de mise en place.		Syndicat des Vignerons du Duché d'Uzès	Some
Conservation et adaptation du matériel végétal		Fédération des vins de Bergerac et Duras	Some
Laboratoire d'Innovation Territorial Pineau des Charentes		Syndicat des Producteurs de Pineau des Charentes	Some
Nouveau Projet Stratégique pour le Vignoble de Nantes		ODG Fédération des Vins de Nantes	Some
Biologique		Syndicat viticole de Quincy	Some
Herault'Haies		Syndicat AOP Terrasses du Larzac	Some
Charte Paysagère et Environnementale		Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	Some
Révision du cahier des charges de l'appellation en cours		Union Viticole Sancerroise	Some
Préservation du Patrimoine et des traditions Préservation de la biodiversité, du paysage : travaux avec le PNR		ODG des AOC Médoc Haut-Médoc Lustrac-Médoc	Some
La Fabrique des transitions VitiRev		Fédération des vins de Bergerac et Duras	Some
Promotion emploi en viticulture		Fédération Viticole Anjou Saumur	N/A it is a raising-awareness action

VITIVALO	Syndicat Régional des Vins de Savoie	N/A project on-going
Viticulture durable en champagne/certifications environnementales	Syndicat Général des Vignerons de Champagne	Some
Life + BioDiVine	Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	Some
Réseau de station météo	Union Viticole Sancerroise	Some
Observatoire des Vins	ODG des AOC Médoc Haut-Médoc Lustrac-Médoc	N/A it is a wine observatory
Certification environnementale	Société de Viticulture du Jura	Some
Plan carbone Champagne	Syndicat Général des Vignerons de Champagne	Some
Guide de gestion des déchets	Union Viticole Sancerroise	Some
Développement de la biodiversité AOC Saumur Champigny, Quarts de Chaume et Savennières	Fédération Viticole Anjou Saumur	Some
Formation Savoir-faire et Savoir déguster	Syndicat des Producteurs de Pineau des Charentes	Some
Préservation et mise en valeur des terroirs, de la biodiversité et des paysages	Syndicat Général des Vignerons de Champagne	Some
Activités oenotouristiques diverses	Syndicat des Vignerons AOC Costières de Nîmes et Clairette de Bellegarde	Some
Germany		
Pilotprojekt der Bayerischen Landesanstalt für Weinbau und Gartenbau (LWG)	Fränkischer Weinbauverband e.V.	Some
Umweltschonender Wein	Rheingauer Weinbauverband e.V.	Some
Steillagenweinbau schafft Vielfalt – das Moselprojekt	Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein Weinbauverband Mosel	Some
Netzwerk Lebendiger Weinberg	Schutzgemeinschaft g.U. Württemberg	Some
Fair Choice	Badischer Weinbauverband e.V.	Some
Lebendige Moselweinberge (mit Leuchtpunkten der Artenvielfalt)	Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein	Some
Fair´n Green	Badischer Weinbauverband e.V.	Some
Wasserschutzberatung RLP	Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein	Some
Mittelrhein Riesling Charta	Weinbauverband und Schutzgemeinschaft Mosel; Weinbauverband und Schutzgemeinschaft Mittelrhein	Some
Italy		
F.A.RE.SU.BIO	Consorzio per la tutela del Franciacorta	Some
INNFARES	Sannio Consorzio Tutela Vini	Some
Valorizzazione biodiversità, tutela aree boschive, sensibilizzazione viticoltori e piantumazione piante tartufigene	Consorzio Alta Langa	Some
RRR – Riduci, Risparmia, Rispetta	Consorzio Tutela Vini Valpolicella	Some
Certificazione SQNPI	Consorzio Tutela Vino Custoza DOC; Consorzio Tutela vini Friuli Colli Orientali e Ramandolo;	Some

	Consorzio di Tutela Doc Castel del Monte	
Biologico	Consorzio di Tutela dei vini di Torgiano	Some
Enel	Consorzio Tutela Vini Montefalco	Some
Equalitas	Consorzio prosecco DOC Consorzio Barbera d'Asti e Vini del Monferrato Consorzio di Tutela Doc Castel del Monte	Some
	Consorzio Del Vino Nobile Di Montepulciano	All
Abbandono del diserbo	Istituto Marchigiano di tutela vini	Some
Tra le Torri del Primitivo di Manduria	Consorzio di Tutela del Primitivo di Manduria DOC	Some
Bollettino fitosanitario	Consorzio per la Tutela del Vino Bardolino D.O.C.	Some
Lotta guidata	Consorzio Tutela denominazione vini Frascati	Some
Stesura di un metodo di buone pratiche agronomiche e dell'utilizzo dei prodotti fitosanitari	Consorzio Vini Asolo Montello	Some
Riduzione fitofarmaci e conservazione della biodiversità	Consorzio di Tutela dei Vini di Valtellina	Some
Vigneto sperimentale di Grechetto Gentile	Consorzio Vini Colli Bolognesi	Some
Morellino Green	Consorzio a Tutela del Vino Morellino di Scansano	Some
Progetti di agricoltura di precisione	Consorzio Vino Brunello di Montalcino	Some
Progetto ecologico per ridurre l'impatto ambientale che il trasporto delle merci provoca in ambienti di viticoltura collinare	Consorzio di tutela Barolo Barbaresco Alba Langhe e Dogliani	Some
Riduzione di pesticidi e diserbanti	Consorzio Tutela Vini Vesuvio	Some
ASTI WINE SUSTAINABILITY	Consorzio per la Tutela dell'Asti	Some
SOILUTION SYSTEM	Consorzio Tutela Vini DOC Lessini Durello Consorzio Tutela Vini DOC Soave	Some
Scelta del biologico da parte di molte cantine del Consorzio	Consorzio di Tutela Cerasuolo di Vittoria DOCG	Some
Biomonitoraggio api	Consorzio tutela del Gavi	Some
Qualità e sostenibilità dei vini tipici nell'aretino	Consorzio Vini Valdichiana Toscana	Some
V.In.Te.S.	Sannio Consorzio Tutela Vini	Some
SmartMeteo	Consorzio Tutela Vini Montefalco	Some
I.N.T.E.G.R.I.T.A'. (Iniziativa Territoriale per la Gestione delle Risorse paesaggistiche e per la Tutela Ambientale)	Consorzio Tutela Vini DOC Soave	Some
Ingestsoil	Consorzio tutela del Gavi	Some
Sostenibilità aziendale e corretta tracciabilità di filiera	Consorzio di Tutela del Primitivo di Manduria DOC	Some
Linee guida per una viticoltura sostenibile	Consorzio per la tutela del Franciacorta	Some
Equo compenso delle uve	Consorzio Alta Langa	Some
Circular Economy Report	Consorzio a Tutela del Vino Morellino di Scansano	Some
Ricambio generazionale	Consorzio Tutela Vini Vesuvio	Some
Biodiversity Friend	Consorzio Tutela Vini DOC Arcole; Consorzio Tutela Vini DOC Lessini Durello; Consorzio Tutela Vini DOC Soave	Some
Miglioramento genetico di un vitigno autoctono	Consorzio per la tutela del Franciacorta	Some

Confusión sexual por tignoletta e vigneti guida per riduzione trattamenti per la peronospora	Consorzio per la tutela del Franciacorta	Some
Creación de una red de centralinas meteorológicas muy densa con compartición de datos entre todos los productores	Consorzio per la tutela del Franciacorta	Some
Portugal		
Certificação – Produção Integrada	ACIBEV - Associação de Vinhos e Espirituosas de Portugal	Some
PORVID	ACIBEV - Associação de Vinhos e Espirituosas de Portugal	Some
Projeto: WINEVOLUTION – Estratégia ‘Green Deal’ para o Vinho do Douro e Porto	Associação das Empresas de Vinho do Porto	N/A - Future project to be financed
Wine in Moderation	Associação das Empresas de Vinho do Porto ACIBEV - Associação de Vinhos e Espirituosas de Portugal	Some
PRR – Projeto Integrado da Fileira da Vinha	Associação das Empresas de Vinho do Porto	Some
Spain		
Plan de sostenibilidad DOP Valencia – Cálculo de huella de carbono – Cálculo de huella hídrica – Certificación en vino ecológico	Consejo Regulador Vinos DOP Valencia	Some
Proyecto de investigación sobre el control de Lobesia Botrana	CRDOP Cariñena	N/A project ongoing
SIPAM Sistema de producción de la uva pasa en la Axarquía	Consejo Regulador Denominaciones de origen Málaga, Sierras de Málaga y Pasas de Málaga	Some
Producción Integrada	Consejo Regulador de la D.O. Bizkaiko Txakolina CRDOP Montilla-Moriles	Some
Uso energías renovables	Consell Regulador de la Denominación d'Origen Penedès	Some
Proyecto de promoción de producto local ecológico en hoteles-vitivinicultura ecológica-Fundación TUI	CRDO Vinos de Lanzarote	Some
Estudio de la evolución del clima en la DOP Jumilla para adaptación al cambio climático	Consejo Regulador DOP Jumilla	N/A project ongoing
Plan para la protección y potenciación de viñedos viejos y centenarios	Consejo Regulador Denominación de Origen Calificada (d.o.ca.) Rioja	Some
ENOCIRCLE	Consejo Regulador Condado de Huelva	Some
Recuperación de variedades ancestrales mejor adaptadas al cambio climático	Consejo Regulador do Catalunya	Some
Tratamientos con Ozono en campo en vez de pesticidas	ORG. INT. Vitivinícola DOP Manchuela	Some
Incremento superficie viñedo con lucha biológica con feromonas contra la polilla del racimo. Ha hecho que incrementemos viñedo y bodegas en ecológico	Consejo Regulador DO Utiel-Requena	some
Autoabastecimiento energético	CRDO Binissalem	Some
Reducción del uso de pesticidas y productos químicos en la lucha de enfermedades	C.R.D.O.Tacoronte-Acentejo	some
Certificación de la Producción Ecológica	Consejo Regulador de la Denominación de Origen Ribera del Duero	some

	CRDO Binissalem	
Aumentar la eficiencia energética, reducir la huella de carbono	Asoc.Vitivinicola de Uclés Denominación de Origen Uclés	Some
Life Sarmiento. Compost con la poda del viñedo	DOP Vinos de Bullas	Some
Control del viñedo a través de atrias	CRDO Campo de Borja	Some
Calculo huella carbono vinos DOP Montilla-Moriles	CRDOP Montilla-Moriles	Some
Estudio de híbridos de Monastrell adaptados al cambio climático	Consejo Regulador DOP Jumilla	N/A project on-going
Informe técnico sobre el estado del conocimiento de factores de la producción vitícola relevantes en la calidad del vino: el suelo, la densidad de plantación y el material vegetal disponible para las variedades autorizadas en la DOCa Rioja	Consejo Regulador Denominación de Origen Calificada (d.o.ca.) Rioja	N/A it is a study
Producción de vino con menor huella de carbono	Consejo Regulador do Catalunya	Some
Conservación biodiversidad y selección clonal de la variedad autóctona Bobal	Consejo Regulador DO Utiel-Requena	Some
Reducción de la huella de carbono	CRDO Binissalem	Some
Uso eficaz de las energías	C.R.D.O.Tacoronte-Acentejo	Some
Autoconsumo fotovoltaico	Consejo Regulador de la Denominación de Origen Ribera del Duero	Some
Reducción de pesticidas, fertilizantes, uso de agua y energía	Asoc.Vitivinicola de Uclés Denominación de Origen Uclés	Some
Promoción consumo mercado doméstico	DOP Vinos de Bullas	Some
AMETHYST	Consejo Regulador Denominación de Origen Calificada (d.o.ca.) Rioja	Some
Wineries for climate Protection	Consejo Regulador do Catalunya	Some
Proyecto educativo en los centros de enseñanza obligatoria de la comarca	Consejo Regulador DO Utiel-Requena	Some
Formación adecuada de todas las personas que participan en la producción	Asoc.Vitivinicola de Uclés Denominación de Origen Uclés	Some
DEJATUHUELLA	CRDOP Montilla-Moriles	Some
Monitor de enoturismo en Rioja	Consejo Regulador Denominación de Origen Calificada (d.o.ca.) Rioja	N/A it is a study
Formación continua a viticultores, bodegas y otros agentes sociales relacionados con la DO y los vinos	Consejo Regulador DO Utiel-Requena	Some
Desarrollo enoturismo	CRDO Binissalem	Some
Zonificación DOP Montilla-Moriles	CRDOP Montilla-Moriles	N/A project on-going

Considering the list presented in the table above, it is important to take into account the following elements:

- Few sustainability initiatives were listed by more than one respondent (e.g. organic farming, agro-environmental measures, Equalitas certification, HVE, Soilution system, etc.);
- There are initiatives that, in the absence of a proper characterisation by the respondent, it is difficult to consider and assess for the purpose of the present analysis (e.g. 'Uso eficaz de las energías', 'Autoconsumo fotovoltaico' etc.)
- There are few sustainability initiatives that are not national or local initiatives but rather EU-level initiatives, namely:
 - 'Organic farming' – which was referred by 5 respondents.
 - 'Integrated production' – referred by 2 respondents.

However, taking into account the heterogeneity of the initiatives mapped out through the survey, for the analysis of the survey results, it was deemed appropriate to consider all the responses that were received and validated individually. Based on this premise, in the pages that follow the results of all 158 sustainability initiatives surveyed are analysed.

Q: Does the sustainability initiative address any of the following topics?

Figure 12. Q12a/Q14a/Q16a/Q18a/Q20a. Sustainability initiative - Does the sustainability initiative address any of the following topics? (n=158)
(Aggregated data)

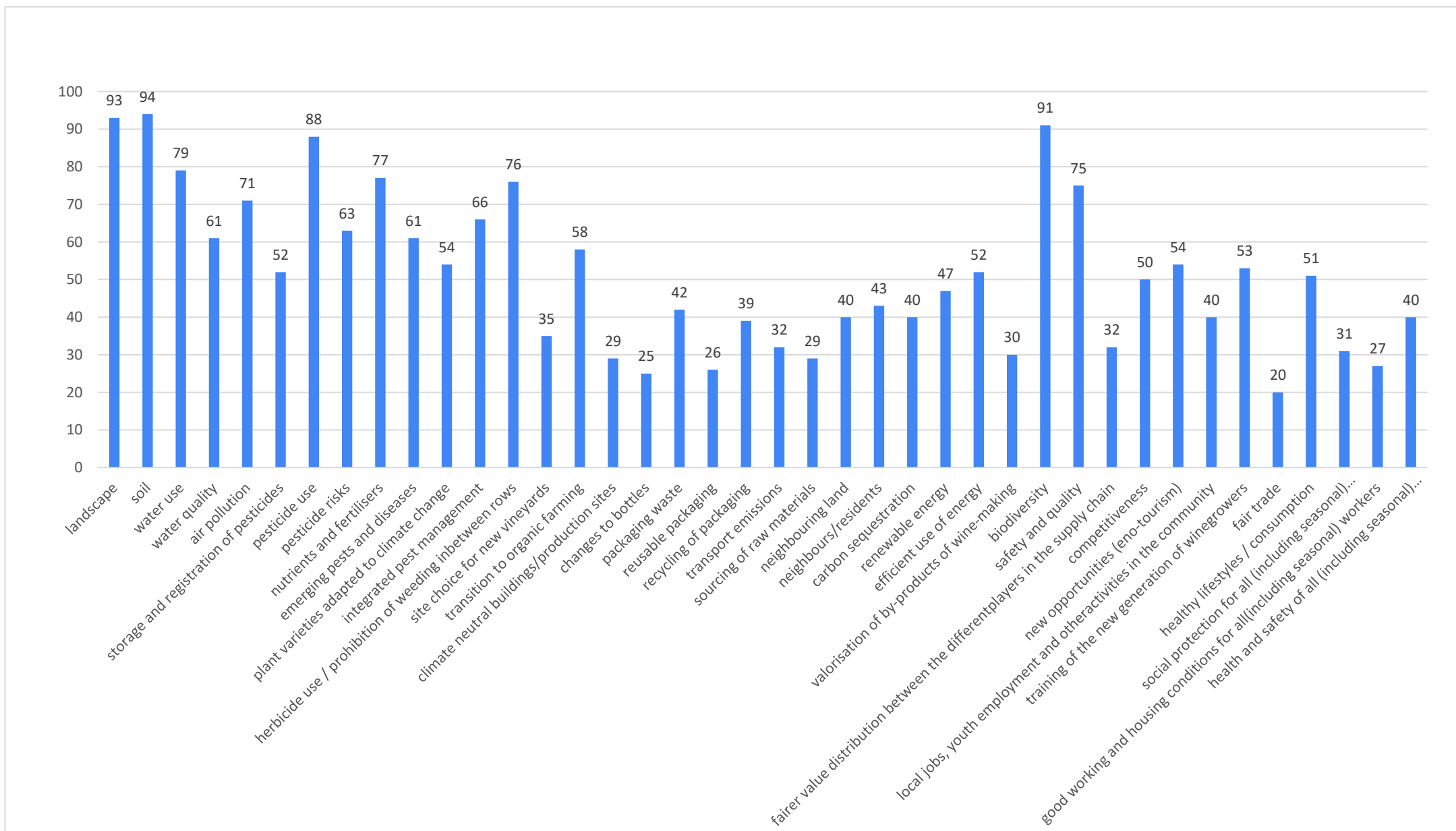


Figure 12 provides a quantitative overview of the topics covered by the sustainability initiatives mapped out.

As shown, of the 158 initiatives surveyed in the five countries in study, 'soil' (n=94), 'landscape' (n=93) and 'biodiversity' (n=91) are by far the topics most covered by the initiatives. In addition, 'pesticide use', 'water use', 'nutrients and fertilisers', 'herbicide use / prohibition of weeding in between rows' and 'safety and quality' are likewise among the topics more frequently covered by the initiatives mapped out.

On the contrary, amongst the topics covered the least there are 'fair trade' (n=20), 'changes to bottles' (n=25), 'reusable packaging' (n=26) and 'good working and housing conditions for all (including seasonal) workers' (n=27).

Table C shows, for each country under study, the topics most and least frequently addressed by the sustainability initiatives identified via the online survey.

Table C. Most and least addressed topics by country

	France	Germany	Italy	Portugal	Spain
Most addressed topics by country	<ul style="list-style-type: none"> ▪ Biodiversity (n=31; 62%) ▪ Soil (n=30; 60%) ▪ Landscape (n=29; ▪ Pesticide use (n=28; 58%) ▪ Herbicide use / prohibition of weeding in between rows (n=27; 54%) 	<ul style="list-style-type: none"> ▪ Biodiversity and nutrients & fertilisers (n=7; 70%) ▪ Landscape, water use, water quality and neighbouring land (n= 6; 60%) 	<ul style="list-style-type: none"> ▪ Soil (n=41; 80%) ▪ Pesticide use (n=37; 72%) ▪ Safety and quality (n=34; 67%) ▪ Biodiversity (n=33; 66%) ▪ Landscape, water use, nutrient & fertilisers (n=32; 63%) 	<ul style="list-style-type: none"> ▪ Landscape, soil, water use, water quality, air pollution and biodiversity (n= 3; 50%) 	<ul style="list-style-type: none"> ▪ Landscape (n=23; 56%) ▪ Water use, safety & quality (22; 54%) ▪ Soil (n=19; 46%)
Least addressed topics by country	<ul style="list-style-type: none"> ▪ Sourcing of raw materials (n=1; 2%) ▪ Transport emissions (n=2; 4%) ▪ Fair trade (n=3; 6%) 	<ul style="list-style-type: none"> ▪ Local jobs (n=0) ▪ Soil, recycling of packaging, transport emission, sourcing of raw materials, neighbours/residents, valorisation of by-products of wine marking (n=1; 10%) 	<ul style="list-style-type: none"> ▪ Fair trade (n=7; 14%) ▪ Valorisation of by-products of wine-making (n=8; 16%) ▪ Carbon sequestration (n=9; 18%) 	<ul style="list-style-type: none"> ▪ Transition to organic farming, climate neutral buildings/production sites, changes to bottles, packaging waste etc.(n=0). 	<ul style="list-style-type: none"> ▪ Fair trade (n=7; 17%) ▪ Climate neutral buildings/ production sites, reusable packaging, neighbouring land; good working and housing conditions, social protection (n=8; 19%)

Q: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Figure 13. Q12b/Q14b/Q16b/Q18b/Q20b. Sustainability Initiative: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative? (n=158)

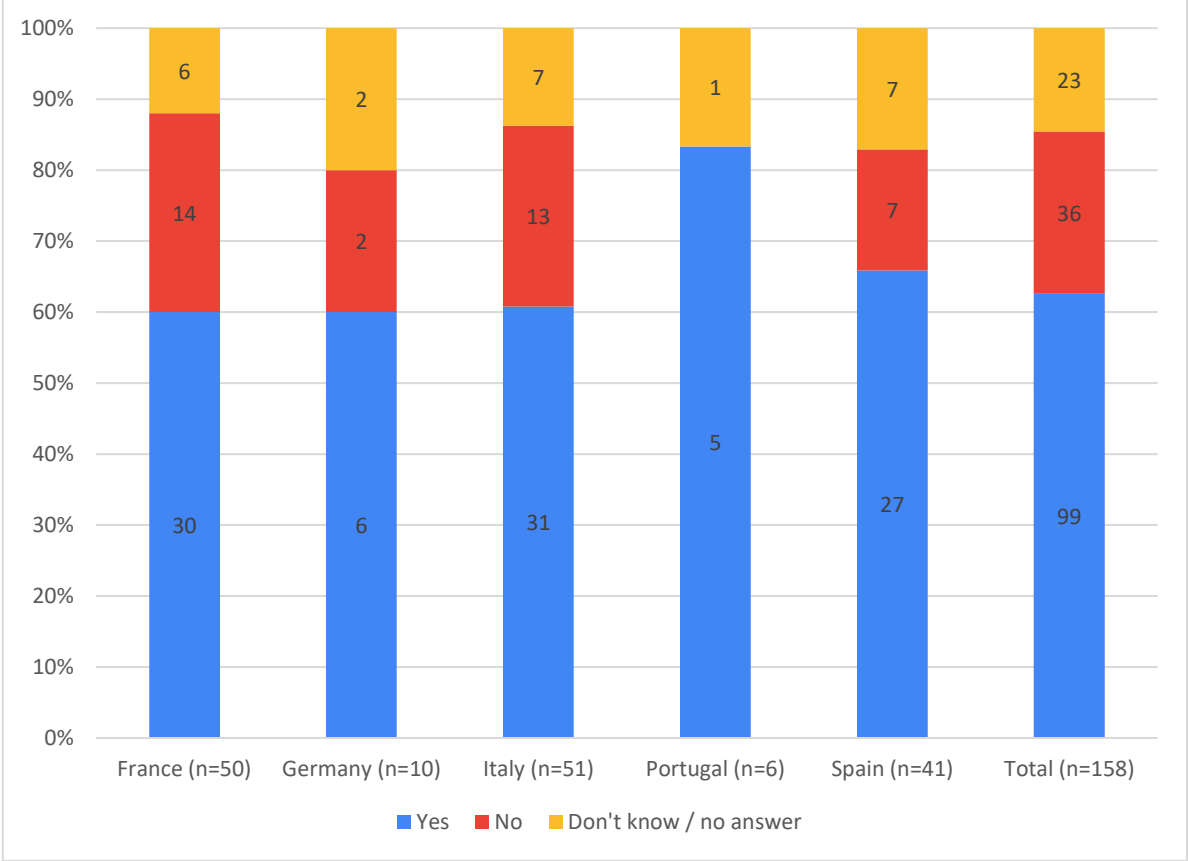


Figure 13 shows whether the sustainability initiatives identified have a document (a protocol or a standard) setting out what one needs to do to be part of the initiative. According to the responses obtained, out of the 158 initiatives, in 63% of the cases this document exists while in 23% of the initiatives mapped out does not.

The results by country obtained for this response are comparable, overall. More than half of the initiatives in all countries have a document that defines the conditions under which an economic operator can be part of the initiative. In the case of Portugal, the percentage is higher as 5 out of the 6 sustainability initiatives identified through the survey have this document in place.

Q: Is there a guideline or other tools (including training) one can use to be more sustainable?

Figure 14. Q12c/Q14c/Q16c/Q18c/Q20c. Sustainability Initiative: Is there a guideline or other tools (including training) one can use to be more sustainable? (n=158)

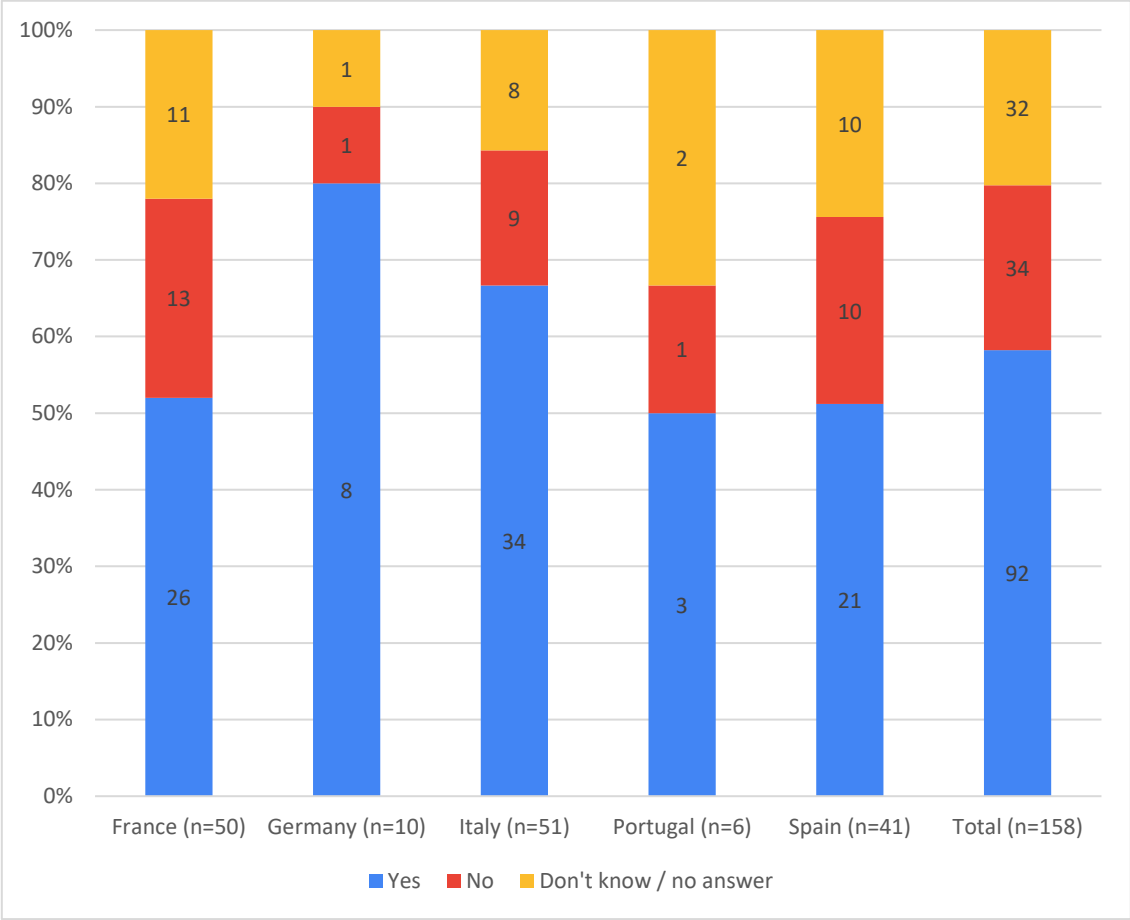


Figure 14 shows whether the sustainability initiatives mapped out have a guideline or other tools (including training) that one can use to be sustainable. In a similar way to the previous question, the majority of the sustainability initiatives (almost 60%) identified have guidelines or other tools that one can use to be more sustainable, while 21% of them do not.

The results by country obtained for this response are quite similar to each other. More than half of the initiatives in all countries have guidelines or tools that can be used to be more sustainable. In Germany, 8 of 10 initiatives have such guidelines or tools in place. On the other hand, France and Spain are the countries with the highest percentage of initiatives that do not have such guidelines or tools (26% and 24%, respectively).

Q: Is there a tool for calculating one’s sustainability score (for instance, carbon footprint or water footprint)?

Figure 15. Q12d/Q14d/Q16d/Q18d/Q20d. Sustainability initiative: Is there a tool for calculating one’s sustainability score (for instance, carbon footprint or water footprint)? (n=158)

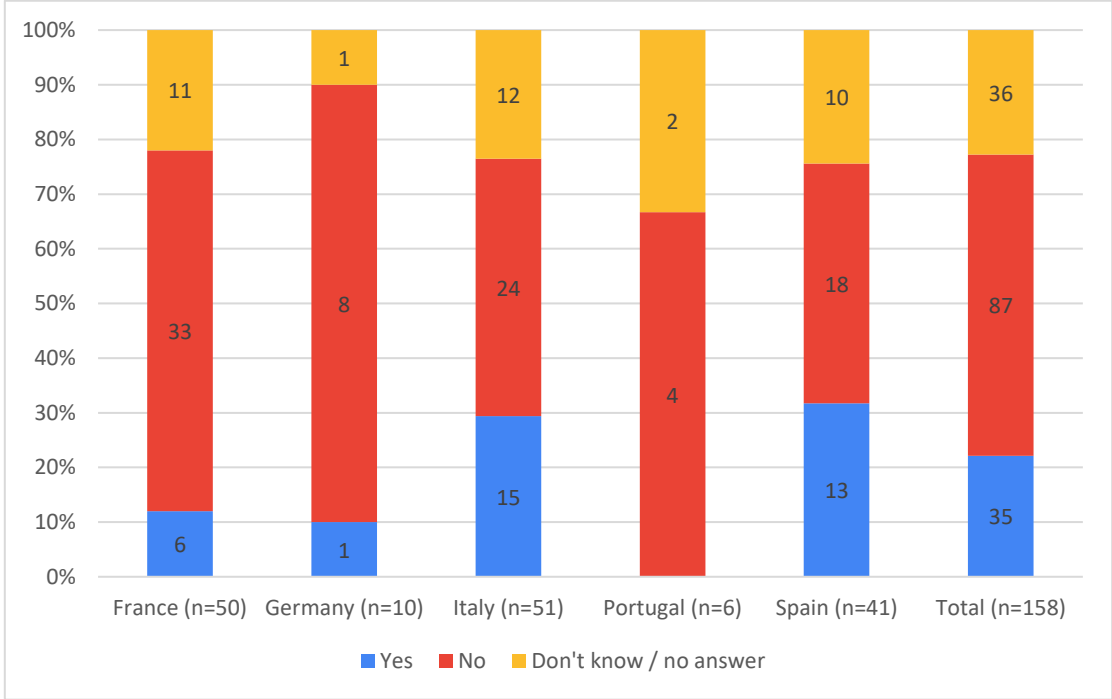


Figure 15 shows whether the sustainability initiatives mapped out have a tool for calculating the sustainability score (for instance, their carbon footprint or water footprint). Overall, most sustainability initiatives (55%) do not have any tool in place for calculating their sustainability performance. On the other hand, 35 initiatives, corresponding to 22% of the sample analysed, have this tool in place.

Analysing the results by country, it appears that Spain and Italy are the countries with the highest number and percentage of initiatives that make use of a sustainability score calculation tool (32% and 29% respectively).

As for France, Germany and Portugal, most of the initiatives identified do not have any calculation tool (66%, 80% and 67%, respectively).

Q: Is one's participation in the programme certified?

Figure 16. Q12e/Q14e/Q16e/Q18e/Q20e. Is one's participation in the programme certified? (n=158)

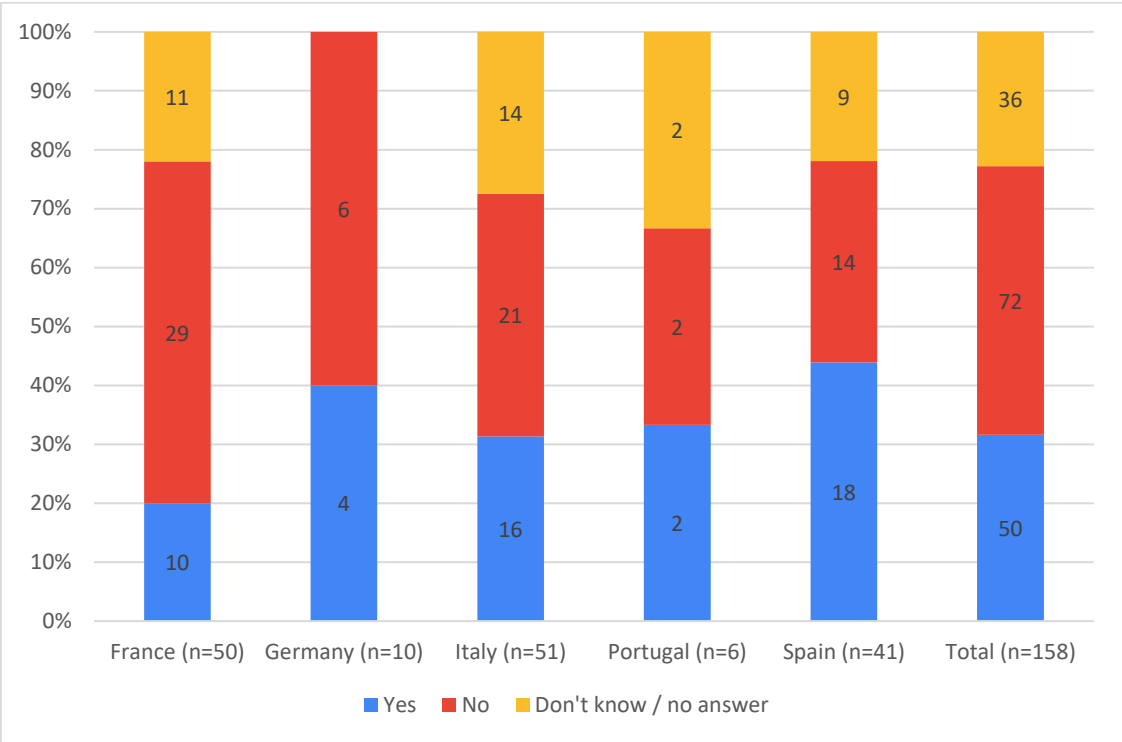


Figure 16 shows whether the participation in the sustainability initiative is certified. In general, in 46% of the initiatives identified the participation / adherence by a business operator is not certified, while in 32% of the cases this certification is foreseen.

Germany and Spain are the countries with the highest percentage of initiatives that certify participation / adherence by business operators (40% and 44%, respectively). France is the country with the lowest percentage of initiatives involving a certification process (20%).

Q: Is the initiative...

Figure 17. Q12f/Q14f/Q16f/Q18f/Q20f. Is the initiative... (n=158)

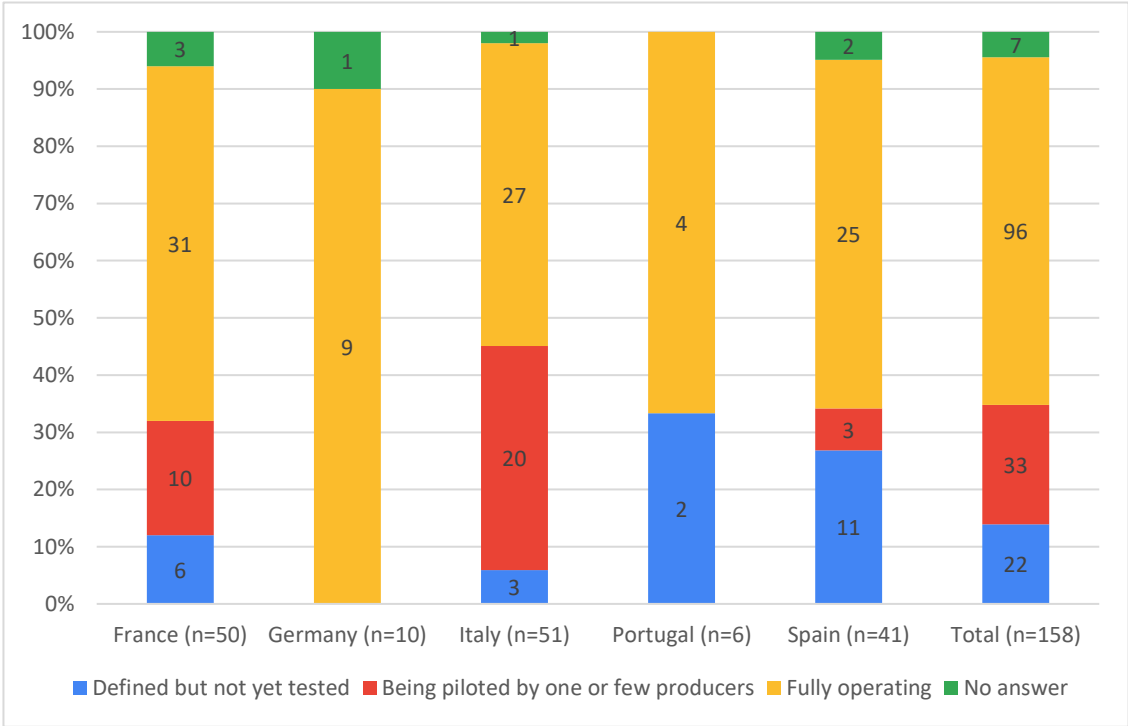


Figure 17 shows the status of the sustainability initiatives mapped out. While 61% of the initiatives identified were fully operational when the survey took place, 21% were being piloted and 14% had been defined but not yet tested.

Amongst the countries under analysis, Spain is the country with the highest number of defined but not tested initiatives (in total 11 initiatives, corresponding to 27%). Italy, on the other hand, is the country with the largest number of initiatives that are currently being piloted (in total, 20 initiatives, corresponding to 39%). In Germany, 9 out of 10 initiatives are fully operational. In the case of Portugal, 4 initiatives are fully operational, while the remaining 2 are defined but have not been tested yet. Finally, France has the largest number of fully operating initiatives (31 initiatives, corresponding to 62% of the total number of sustainability initiatives identified in this country).

Q: Which of the following stages of wine production does the initiative cover?

Figure 18. Q12g/Q14g/Q16g/Q18g/Q20g. Sustainability initiative: Which of the following stages of wine production does the initiative cover? (n=158)

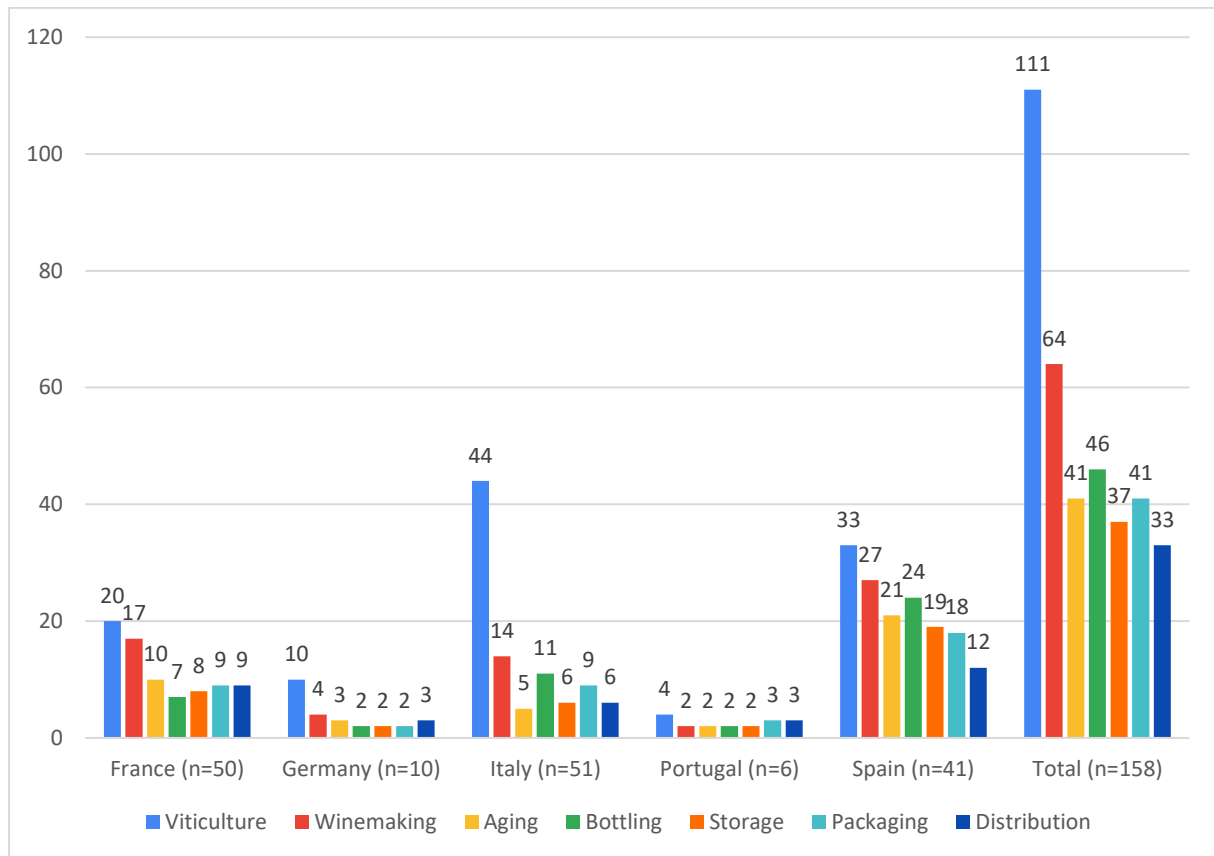


Figure 18 provides an overview of the stages of wine production covered by the sustainability initiatives that were identified through the survey. Overall, viticulture is by far the wine production stage more frequently covered by the initiatives under study (111 initiatives, corresponding to 70% of the total number of initiatives mapped out), followed by winemaking (64 initiatives, corresponding to 41%). Conversely, distribution is the least covered stage at present (only 33 initiatives, corresponding to 21%).

Analysing the results by country, for all countries analysed, viticulture is the wine production stage most recurrently covered by the various initiatives identified. In fact, in Germany all initiatives identified cover viticulture. The percentage of initiatives that cover viticulture is above 60% in Portugal and 80% in the case of Italy and Spain.

Based on the survey results, it appears that Spain has the largest number of initiatives that cover stages of the wine production chain other than viticulture. In fact, Spain has the highest number of initiatives covering winemaking, aging, bottling, storage, packing and distribution.

Q: Who can join/adhere to/follow the initiative?

Figure 19. Q12h/Q14h/Q16h/Q18h/Q20h. Sustainability initiative: Who can join/adhere to/follow the initiative? (n=158)

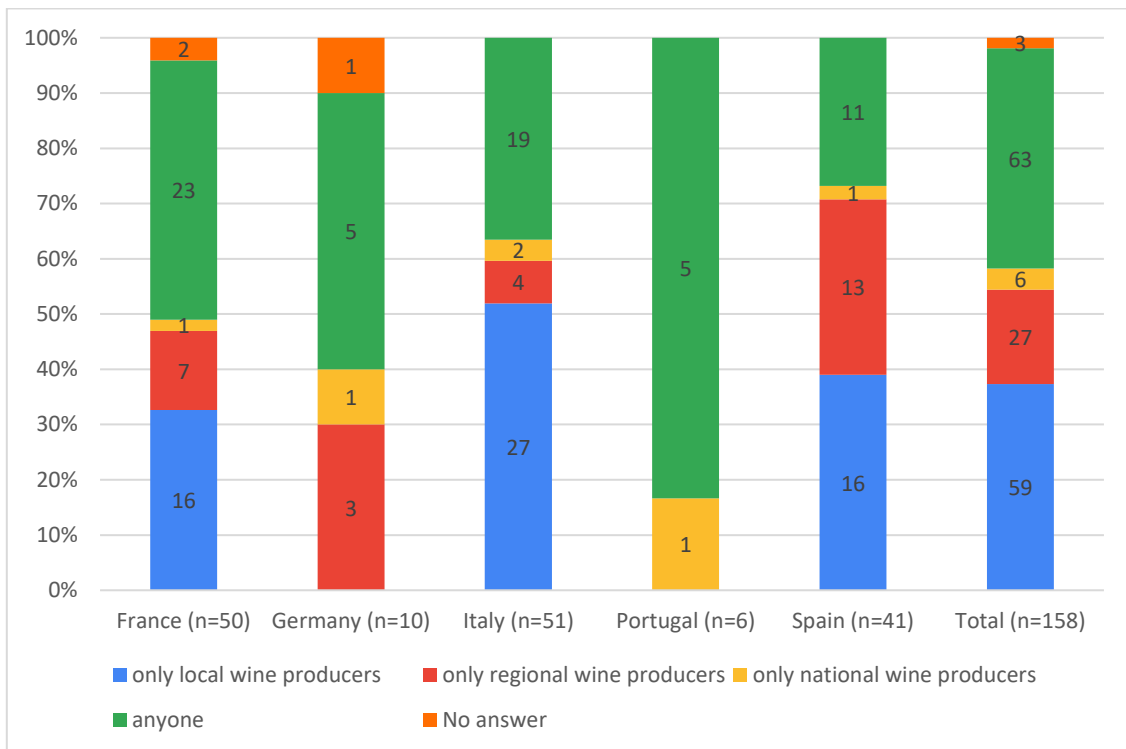


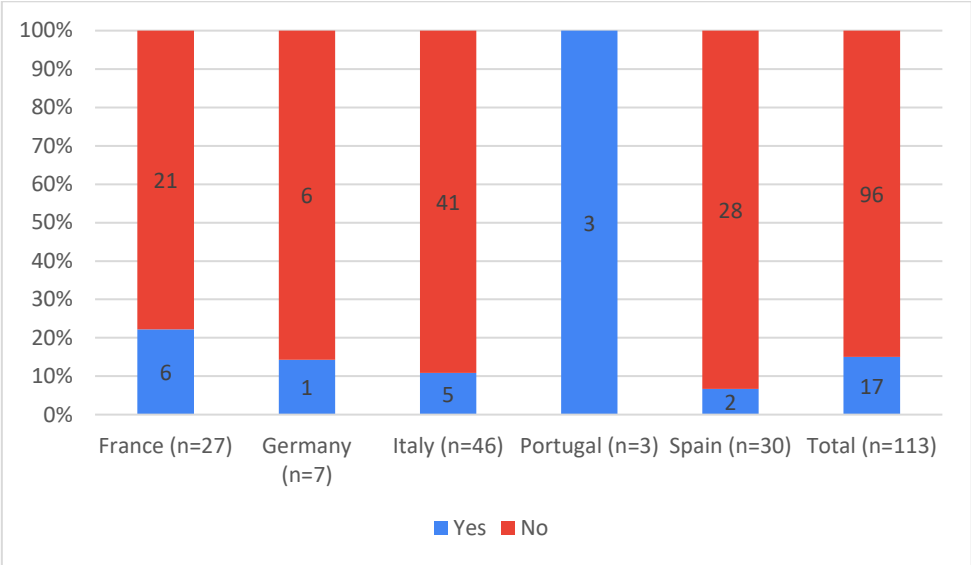
Figure 19 shows who can join/adhere to/follow the sustainability initiative. Overall, 37% of the initiatives mapped out can be joined only by local producers, 40% can be joined potentially by anyone interested, while 17% can be joined only by regional producers. A small percentage of the initiatives under exam (4%) are initiatives targeting national producers only.

In Italy and Spain, the highest percentage of initiatives are intended for local wine producers (53% and 39%, respectively). In the case of France, Germany and Portugal, the highest percentage of initiatives are initiatives that anyone can join, adhere to, or follow.

Section D – Other questions

Q: Has your wine appellation been recognised as UNESCO world heritage?

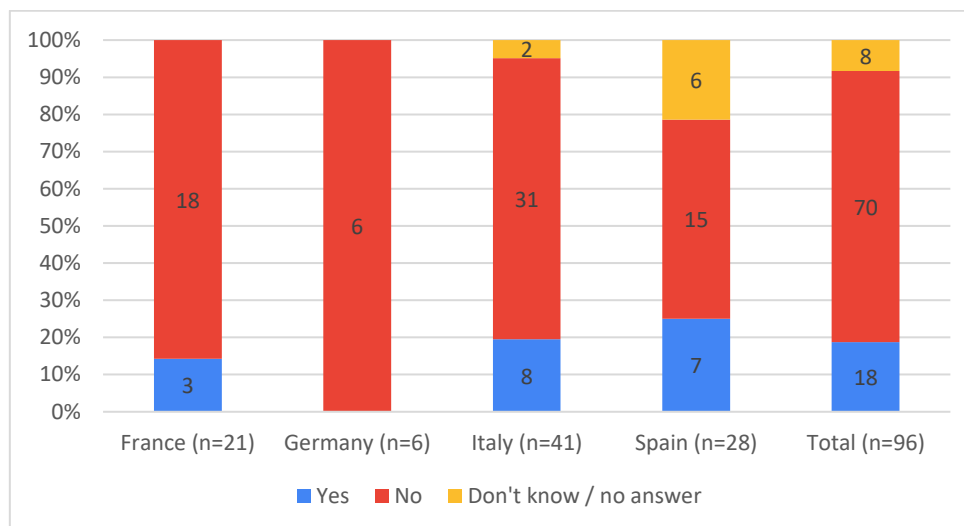
Figure 20. QD2. Has your wine appellation been recognised as UNESCO world heritage? (n=113)



As it can be seen in Figure 20, only 15% of the respondents indicated that their wine appellation had been recognised as UNESCO world heritage. All respondents in Portugal, all belonging to Douro Valley, have obtained this recognition. In addition, among the countries under analysis, France is the one with the highest number of respondents with wine appellations recognised to that effect.

Q: In case you have responded 'no' to the previous question, are you or any of your members considering putting forward a candidature for the recognition of your wine appellation as UNESCO world heritage in the near future?

Figure 21. QD3. In case you have responded 'no' to the previous question, are you or any of your members considering putting forward a candidature for the recognition of your wine appellation as UNESCO world heritage in the near future? (n=96)



To this question most of the respondents indicated that they are not considering presenting a request for the recognition of their wine appellation as UNESCO world heritage (73%). Only 19% of the sample surveyed is considering that (Table D).

Table D. PDOs considering putting forward a candidature for the recognition of wine appellation as UNESCO (n=18)

PDO
France
Côtes de Provence
Syndicat Viticole de l'Aire AOC de Pouilly
Union Viticole Sancerroise
Italy
Consorzio Tutela Vini DOC delle Venezie
Consorzio Tutela Vini DOC Lessini Durello
Consorzio Tutela Vini Valpolicella
Consorzio Tutela delGavi
Consorzio per la Tutela e la Valorizzazione dei vini doc Cirò e Melissa
Istituto Marchigiano di Tutela vini
Consorzio Tutela vini Friuli Colli Orientali e Ramandolo
Consorzio Tutela Vini Piceni
Spain
CRDOP Alicante
Consejo Regulador DOP Jumilla
Consejo Regulador Condado de Huelva
Consejo Regulador Denominación de Origen Ribeira Sacra
Consejo Regulador DO Utiel-Requena
DOP Vinos de Bullas
CRDOP Montilla-Moriles

Section E - Online survey questions

Study on the State of play of Sustainability Initiatives in the Appellation Wine Sector

The European Federation of Origin of Wine (EFOW) is the trade organisation representing the appellation wine sector at EU level. In May 2021, EFOW members (notably, CECRV, CNAOC, Federdoc and IVDP) together with DVW have commissioned an external study to Arcadia International, a European consultancy specialised in the agri-food chain, with the objective to provide the state of play of sustainability initiatives in the appellation wine sector. Sustainability is based on three pillars, encompassing an environmental, an economic and a social dimension, which are all equally important for the appellation wine sector.

In the context of the above study, Arcadia International is carrying out an online survey, which should contribute towards a better understanding of the sustainability initiatives that have been undertaken, or are available to, producer groups of wines with the status of protected designations of origin (PDO) in the following producing countries: France, Germany, Italy, Portugal and Spain. For the purpose of the study, a 'sustainability initiative' is any initiative that can help PDO wine producers to be more sustainable or help them demonstrate how sustainable they are.

Overall, the survey and the study being conducted should support the appellation wine sector in defining its long-term strategy and positioning in the context of the EU Farm-to-Fork Strategy, which, published by the European Commission in May 2020, places great emphasis on the sustainability of the future agri-food systems.

Personal and business data that will be collected through this survey will be treated by Arcadia International in a strictly confidential manner and used only for the purpose of the study.

In terms of scope, the survey primarily aims at identifying collective sustainability initiatives undertaken, or available to, PDO wine producer groups. As such, initiatives led by individual producers are out of the scope of this survey. Finally, the survey aims at identifying sustainability initiatives that were already in place by 2016 in the targeted countries and those that have been introduced or launched after that year until now.

Please note that the survey can be filled in English, French, German, Italian and Spanish. Completing the survey should not take more than 30 minutes maximum.

The survey will be open from 7 July 2021 until 10 September 2021.

For any question regarding this survey, please feel free to contact in your national language the following member of Arcadia's team:

France: Julien Etienne
Email: julien.etienne@arcadia-international.net

Germany & Italy: Francesco Montanari

Email: francesco.montanari@arcadia-international.net

Portugal & Spain: Inês Ferreira

Email: ines.ferreira@arcadia-international.net

Further information about the study can be requested from Arcadia's Project Manager Francesco Montanari (francesco.montanari@arcadia-international.net) or directly from EFOW Secretariat (d.zandona@efow.eu or d.thual@efow.eu).

*Required

1. Email *

SECTION A – Identification of the respondent

2. Q1a. Identification and contact details of the respondent - Name of your organisation: *

3. Q1b. Identification and contact details of the respondent - Country: *

4. Q1c. Identification and contact details of the respondent - Address:

5. Q1d. Identification and contact details of the respondent - Email:

6. Q1e. Identification and contact details of the respondent - Telephone number:

7. Q1f. Identification and contact details of the respondent - Website:

8. Q1g. Identification and contact details of the respondent - Contact person: *

9. Q2a. What type of actor is your organisation? (please select as appropriate) *

Mark only one oval.

PDO wine producer group

Other

10. Q2b. What type of actor is your organisation? if other, please specify:

11. Q3. Are you answering as or on behalf of PDO wine producers? *

Mark only one oval.

Yes *Skip to question 12*

No *Skip to section 3 (End of the survey)*

End of the survey

SECTION B – Understanding current sustainability trends in the appellation wine sector

12. Q4a. How much do you agree with the following definitions of what 'sustainable wine' means? (please select one option for each one of the definitions provided): *

Mark only one oval per row.

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
Efforts are made to prevent harming the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to increase energy efficiency across the whole wine production chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to reduce the carbon footprint from wine-making and/or wine packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to use natural means of resistance to climate change or pests (e.g. experimentation of wine varieties, use of more robust plant varieties etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to valorise by-products of wine-making process to minimise waste production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to preserve regional or local heritage and traditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to protect biodiversity and the landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to achieve higher safety and quality of the wine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Efforts are made to ensure product differentiation from competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to ensure wine provides a fair and durable revenue to all involved in its production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to ensure good working conditions (e.g. contracts, social security, safety, housing, etc.) for all involved in its production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to ensure provision of appropriate training for all involved in its production, including education about sustainable practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to attract young people to work in its production also with the objective to ensure generation renewal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to attract skilled professionals to work in its production ('import brains')	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to ensure that wine growing does not negatively affect neighbouring communities (e.g. residents charters etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to ensure that wine growing provides new opportunities for neighbouring communities (e.g. jobs, eno-tourism etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are made to meet growing consumer demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

for sustainable food products

Efforts are made to promote healthier lifestyles among consumers (e.g. campaigns and/or educational programs to promote responsible drinking)

Efforts are made to promote life-long learning opportunities (e.g. regional and international knowledge-transfer, research and consulting)

13. Q4b. Please justify your answers:

14. Q5a. What is the importance that your organisation attaches to the following aspects which can contribute to making a wine 'sustainable'? (please select one option for each aspect) *

Mark only one oval per row.

	Not important at all	Important to a limited extent	No opinion	Quite important	Very important
Preventing harm to the natural environment while producing the wine (e.g reduction of pesticides, fertilisers, water, no in-row weeding etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing energy efficiency across the whole wine production chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduction of the carbon footprint from wine-making and/or wine packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of natural means of resistance to climate change or pests (e.g. experimentation of wine varieties, use of more robust plant varieties etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Valorisation of by-products of wine-making process as a way to reduce waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preservation of regional or local heritage and traditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protection of biodiversity and the landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Higher safety and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

quality of the wine

Product differentiation from competitors

Fair and durable revenues to all involved in its production

Good working conditions (e.g. contracts, social security, safety, housing, etc.) for all involved in its production

Provision of appropriate training for all involved in its production, including education about sustainable practices

Attracting young people to work in its production also with the objective to ensure generation renewal

Attracting talented / skilled professionals to work in its production ('import brains')

Limiting negative impacts of wine growing on neighbouring communities (e.g. residents charters etc.)

Sharing benefits with neighbouring communities (e.g. job opportunities, eno-tourism etc.)

Meeting consumer demand for sustainable food products

Promotion of healthier lifestyles among consumers (e.g. campaigns and/or educational programs to promote responsible drinking)

Promotion of life-long learning opportunities (e.g. regional and international knowledge-transfer, research and consulting)

15. Q5b. Please justify your answer:

16. Q6. Since when has your organisation developed or adhered to a sustainability initiative? *

Mark only one oval.

- It has not happened yet
- During the last 2-3 years
- During the last 10 years
- During the last 20 years
- Before 2000

17. Q7a. In the coming years, which are the sustainability aspects to which your organisation plans to allocate more resources? Why? (please indicate up to 5 aspects in total)

Tick all that apply.

- Preventing harm to the natural environment while producing the wine (e.g. reduction of pesticides, fertilisers, water, no in-row weeding etc.)
- Use of natural means of resistance to climate change or pests (e.g. experimentation of wine varieties, use of more robust plant varieties etc.)
- Increasing energy efficiency across the whole wine production
- Lowering the carbon footprint from wine-making and/or wine packaging
- Protection of biodiversity and the landscape
- Higher safety and quality of the wine
- Fair and durable revenues to all involved in its production
- Good working conditions (e.g. contracts, social security, safety, housing, etc.) for all involved in its production
- Ensuring generation renewal in wine growing by providing training and support to newcomers
- Limiting negative impacts of wine growing on neighbouring communities while sharing benefits (e.g. work opportunities, eno-tourism etc.)
- Promotion of healthier lifestyles among consumers (e.g. campaigns and/or educational programs to promote responsible drinking)
- Promotion of life-long learning opportunities (e.g. regional and international knowledge-transfer, research and consulting)

18. Q7b. Please justify your answers:

19. Q8a. In your view, why are PDO wine producers in your country developing or adhering to sustainability initiatives? (please select the 5 most important drivers among those listed below by rating them in order of importance being '1' the most important driver while '5' the least important)

Mark only one oval per row.

	1	2	3	4	5
They feel it is the right thing to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consumers are asking for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They want to limit the impact of wine production on the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They want to protect biodiversity and the landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They want higher product quality and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They want to keep with sustainable practices and innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They want to sell at higher prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are concerned about their safety/health or that of their workforce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The neighbouring communities are asking for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They see that others in the sector are doing it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. Q8b. Other(s): please specify

21. Q9a. In your view, why are PDO wine producers in your country NOT developing or adhering to sustainability initiatives? (please select the 5 most important barriers among those listed below by rating them in order of importance being '1' the most important barrier while '5' the least important)

Mark only one oval per row.

	1	2	3	4	5
They are concerned about the extra costs and investments needed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They lack knowledge about sustainability practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are not aware of the opportunities that sustainability practices may offer in terms of reduction of costs in the long run	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are confronted with technical difficulties (e.g. restrictions deriving from strictly regulated production processes, valorisation of by-products, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consumers are not asking for it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are concerned about losing the possibility to use agro-chemicals (ex. pesticides, fertilisers etc.) when necessary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They consider that currently sustainability is a widely misused / abused marketing concept ('greenwashing')	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They consider there is excessive bureaucracy associated with it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are confronted with several different sustainability standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are concerned about the additional time needed for their implementation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They are concerned about the additional work efforts needed for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

their implementation

22. Q9b. Other(s): please specify

23. Q10a. Overall, in your view, how committed / engaged in sustainable viticulture is the PDO wine sector of your country? (please select one option) *

Mark only one oval.

- Not enough as of yet
- Committed / engaged to some extent
- Fairly committed / engaged
- Highly committed / engaged
- Don't know

24. Q10b. Please justify your answer

SECTION C –
Mapping of
sustainability
initiatives
relevant to the
appellation wine
sector

In this section please name all sustainability initiatives (up to 5) that help PDO wine producers be more sustainable or help them demonstrate how sustainable they are, and which you or any of your members have developed or adhered to. For each of sustainability initiatives please provide additional informational.

25. Q11a. Sustainability initiative 1 - Name

26. Q11b. Sustainability initiative 1 - Reference/Weblink/Contact:

27. Q12a. Sustainability initiative 1 - Does the sustainability initiative address any of the following topics?

Mark only one oval per row.

	Yes	No	Don't know
landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
storage and registration of pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nutrients and fertilisers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
emerging pests and diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
plant varieties adapted to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
integrated pest management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
herbicide use / prohibition of weeding in between rows	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
site choice for new vineyards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transition to organic farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
climate neutral buildings/production sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changes to bottles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reusable packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recycling of packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sourcing of raw materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

neighbouring land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neighbours/residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
efficient use of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
valorisation of by-products of wine-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
safety and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fairer value distribution between the different players in the supply chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
new opportunities (eno-tourism)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
local jobs, youth employment and other activities in the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
training of the new generation of wine growers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fair trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
healthy lifestyles / consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
social protection for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
good working and housing conditions for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
health and safety of all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. Q12b. Sustainability Initiative 1: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Mark only one oval.

- Yes
 No
 Don't Know

29. Q12b1. Sustainability initiative 1: Please provide additional details

30. Q12c. Sustainability Initiative 1: Is there a guideline or other tools (including training) one can use to be more sustainable

Mark only one oval.

- Yes
 No
 Don't Know

31. Q12c1. Sustainability initiative 1: Please provide additional details

32. Q12d.Sustainability initiative 1 : Is there a tool for calculating one's sustainability score (for instance, carbon footprint or water footprint?)

Mark only one oval.

- Yes
 No
 Don't Know

33. Q12d1. Sustainability initiative 1: Please provide additional details

34. Q12e. Sustainability initiative 1: Is one's participation in the programme certified?

Mark only one oval.

- Yes
 No
 Don't Know

35. Q12e1. Sustainability initiative 1: Please provide additional details

36. Q12f. Sustainability initiative 1: Is the initiative...

Mark only one oval.

- Defined but not yet tested
- Being piloted by one or few producers
- Fully operating

37. Q12g. Sustainability initiative 1: Which of the following stages of wine production does the initiative cover?

Tick all that apply.

- Viticulture
- Winemaking
- Aging
- Bottling
- Storage
- Packaging
- Distribution

38. Q12h. Sustainability initiative 1: Who can join/adhere to/follow the initiative?

Mark only one oval.

- only local wine producers
- only regional wine producers
- only national wine producers
- anyone

39. Q12i. Sustainability initiative 1: Do you have another sustainability initiatives that help PDO wine producers be more sustainable or help them demonstrate how sustainable they are, and which you or any of your members have developed or adhered to? *

Mark only one oval.

- Yes *Skip to question 40*
- No *Skip to question 99*

SECTION C – Mapping of sustainability initiatives relevant to the appellation wine sector

Please name the second sustainability initiative

40. Q13a. Sustainability initiative 2 - Name

41. Q113b. Sustainability initiative 2 - Reference/Weblink/Contact:

42. Q14a. Sustainability initiative 2 - Does the sustainability initiative address any of the following topics?

Mark only one oval per row.

	Yes	No	Don't know
landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
storage and registration of pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nutrients and fertilisers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
emerging pests and diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
plant varieties adapted to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
integrated pest management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
herbicide use / prohibition of weeding in between rows	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
site choice for new vineyards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transition to organic farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
climate neutral buildings/production sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changes to bottles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reusable packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recycling of packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sourcing of raw materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

neighbouring land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neighbours/residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
efficient use of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
valorisation of by-products of wine-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
safety and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fairer value distribution between the different players in the supply chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
new opportunities (eno-tourism)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
local jobs, youth employment and other activities in the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
training of the new generation of wine growers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fair trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
healthy lifestyles / consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
social protection for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
good working and housing conditions for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
health and safety of all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. Q14b. Sustainability Initiative 2: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Mark only one oval.

- Yes
 No
 Don't Know

44. Q14b1. Sustainability Initiative 2: Please provide additional details

45. Q14c. Sustainability Initiative 2: Is there a guideline or other tools (including training) one can use to be more sustainable

Mark only one oval.

- Yes
 No
 Don't Know

46. Q14c1. Sustainability Initiative 2: Please provide additional details

47. Q14d.Sustainability initiative 2 : Is there a tool for calculating one's sustainability score (for instance, carbon footprint or water footprint?)

Mark only one oval.

- Yes
- No
- Don't Know

48. Q14d1. Sustainability Initiative 2: Please provide additional details

49. Q14e. Sustainability initiative 2: Is one's participation in the programme certified?

Mark only one oval.

- Yes
- No
- Don't Know

50. Q14e1. Sustainability Initiative 2: Please provide additional details

51. Q14f. Sustainability initiative 2: Is the initiative...

Mark only one oval.

- Defined but not yet tested
- Being piloted by one or few producers
- Fully operating

52. Q14g. Sustainability initiative 2: Which of the following stages of wine production does the initiative cover?

Tick all that apply.

- Viticulture
- Winemaking
- Aging
- Bottling
- Storage
- Packaging
- Distribution

53. Q14h. Sustainability initiative 2: Who can join/adhere to/follow the initiative?

Mark only one oval.

- only local wine producers
- only regional wine producers
- only national wine producers
- anyone

54. Q14i. Sustainability initiative 2: Do you have another sustainability initiatives that help PDO wine producers be more sustainable or help them demonstrate how sustainable they are, and which you or any of your members have developed or adhered to? *

Mark only one oval.

- Yes *Skip to question 55*
- No *Skip to question 99*

SECTION C – Mapping of sustainability initiatives relevant to the appellation wine sector

Please name the third sustainability initiative

55. Q15a. Sustainability initiative 3 - Name

56. Q15b. Sustainability initiative 3 - Reference/Weblink/Contact:

57. Q16a. Sustainability initiative 3 - Does the sustainability initiative address any of the following topics?

Mark only one oval per row.

	Yes	No	Don't know
landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
storage and registration of pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nutrients and fertilisers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
emerging pests and diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
plant varieties adapted to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
integrated pest management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
herbicide use / prohibition of weeding in between rows	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
site choice for new vineyards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transition to organic farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
climate neutral buildings/production sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changes to bottles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reusable packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recycling of packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sourcing of raw materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

neighbouring land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neighbours/residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
efficient use of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
valorisation of by-products of wine-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
safety and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fairer value distribution between the different players in the supply chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
new opportunities (eno-tourism)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
local jobs, youth employment and other activities in the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
training of the new generation of wine growers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fair trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
healthy lifestyles / consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
social protection for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
good working and housing conditions for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
health and safety of all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

58. Q16b. Sustainability Initiative 3: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Mark only one oval.

- Yes
 No
 Don't Know

59. Q16b1. Sustainability initiative 3 : Please provide additional details

60. Q16c. Sustainability Initiative 3: Is there a guideline or other tools (including training) one can use to be more sustainable

Mark only one oval.

- Yes
 No
 Don't Know

61. Q16c1. Sustainability initiative 3 : Please provide additional details

62. Q16d.Sustainability initiative 3 : Is there a tool for calculating one's sustainability score (for instance, carbon footprint or water footprint?)

Mark only one oval.

- Yes
 No
 Don't Know

63. Q16d1. Sustainability initiative 3 :Please provide additional details

64. Q16e. Sustainability initiative 3: Is one's participation in the programme certified?

Mark only one oval.

- Yes
 No
 Don't Know

65. Q16e1. Sustainability initiative 3: Please provide additional details

66. Q16f. Sustainability initiative 3: Is the initiative...

Mark only one oval.

- Defined but not yet tested
- Being piloted by one or few producers
- Fully operating

67. Q16g. Sustainability initiative 3: Which of the following stages of wine production does the initiative cover?

Tick all that apply.

- Viticulture
- Winemaking
- Aging
- Bottling
- Storage
- Packaging
- Distribution

68. Q16h. Sustainability initiative 3: Who can join/adhere to/follow the initiative?

Mark only one oval.

- only local wine producers
- only regional wine producers
- only national wine producers
- anyone

69. Q16i. Sustainability initiative 3 : Do you have another sustainability initiatives that help PDO wine producers be more sustainable or help them demonstrate how sustainable they are, and which you or any of your members have developed or adhered to? *

Mark only one oval.

Yes *Skip to question 70*

No *Skip to question 99*

SECTION C – Mapping of sustainability initiatives relevant to the appellation wine sector

Please name the fourth sustainability initiative

70. Q17a. Sustainability initiative 4 - Name

71. Q17b. Sustainability initiative 4 - Reference/Weblink/Contact:

72. Q18a. Sustainability initiative 4 - Does the sustainability initiative address any of the following topics?

Mark only one oval per row.

	Yes	No	Don't know
landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
storage and registration of pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nutrients and fertilisers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
emerging pests and diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
plant varieties adapted to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
integrated pest management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
herbicide use / prohibition of weeding in between rows	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
site choice for new vineyards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transition to organic farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
climate neutral buildings/production sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changes to bottles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reusable packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recycling of packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sourcing of raw materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

neighbouring land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neighbours/residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
efficient use of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
valorisation of by-products of wine-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
safety and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fairer value distribution between the different players in the supply chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
new opportunities (eno-tourism)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
local jobs, youth employment and other activities in the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
training of the new generation of wine growers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fair trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
healthy lifestyles / consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
social protection for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
good working and housing conditions for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
health and safety of all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

73. Q18b. Sustainability Initiative 4: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Mark only one oval.

- Yes
 No
 Don't Know

74. Q18b1. Sustainability Initiative 4: Please provide additional details

75. Q18c. Sustainability Initiative 4: Is there a guideline or other tools (including training) one can use to be more sustainable

Mark only one oval.

- Yes
 No
 Don't Know

76. Q18c1. Sustainability Initiative 4: Please provide additional details

77. Q18d. Sustainability initiative 4 : Is there a tool for calculating one's sustainability score (for instance, carbon footprint or water footprint?)

Mark only one oval.

- Yes
 No
 Don't Know

78. Q18d1. Sustainability initiative 4 : Please provide additional details

79. Q18e. Sustainability initiative 4: Is one's participation in the programme certified?

Mark only one oval.

- Yes
 No
 Don't Know

80. Q18e1. Sustainability initiative 4 : Please provide additional details

81. Q18f. Sustainability initiative 4: Is the initiative...

Mark only one oval.

- Defined but not yet tested
- Being piloted by one or few producers
- Fully operating

82. Q18g. Sustainability initiative 4: Which of the following stages of wine production does the initiative cover?

Tick all that apply.

- Viticulture
- Winemaking
- Aging
- Bottling
- Storage
- Packaging
- Distribution

83. Q18h. Sustainability initiative 4: Who can join/adhere to/follow the initiative?

Mark only one oval.

- only local wine producers
- only regional wine producers
- only national wine producers
- anyone

84. Q18i. Sustainability initiative 4: Do you have an another initiative ? *

Mark only one oval.

- Yes *Skip to question 85*
- No *Skip to question 99*

SECTION C – Mapping of sustainability initiatives relevant to the appellation wine sector

Please name the fifth sustainability initiative

85. Q19a. Sustainability initiative 5 - Name

86. Q19b. Sustainability initiative 5 - Reference/Weblink/Contact:

87. Q20a. Sustainability initiative 5 - Does the sustainability initiative address any of the following topics?

Mark only one oval per row.

	Yes	No	Don't know
landscape	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
soil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
water quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
air pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
storage and registration of pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pesticide risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
nutrients and fertilisers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
emerging pests and diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
plant varieties adapted to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
integrated pest management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
herbicide use / prohibition of weeding in between rows	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
site choice for new vineyards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transition to organic farming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
climate neutral buildings/production sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
changes to bottles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
packaging waste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reusable packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
recycling of packaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transport emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sourcing of raw materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

neighbouring land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neighbours/residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
carbon sequestration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
efficient use of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
valorisation of by-products of wine-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
safety and quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fairer value distribution between the different players in the supply chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
new opportunities (eno-tourism)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
local jobs, youth employment and other activities in the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
training of the new generation of wine growers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
fair trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
healthy lifestyles / consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
social protection for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
good working and housing conditions for all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
health and safety of all (including seasonal) workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

88. Q20b. Sustainability Initiative 5: Is there a document ('protocol' or 'standard') setting out what one needs to do to be part of the initiative?

Mark only one oval.

- Yes
 No
 Don't Know

89. Q20b1. Sustainability Initiative 5: Please provide additional details

90. Q20c. Sustainability Initiative 5: Is there a guideline or other tools (including training) one can use to be more sustainable

Mark only one oval.

- Yes
 No
 Don't Know

91. Q20c1. Sustainability Initiative 5: Please provide additional details

92. Q20d. Sustainability initiative 5 : Is there a tool for calculating one's sustainability score (for instance, carbon footprint or water footprint?)

Mark only one oval.

- Yes
 No
 Don't Know

93. Q20d1. Sustainability initiative 5 : Please provide additional details

94. Q20e. Sustainability initiative 5: Is one's participation in the programme certified?

Mark only one oval.

- Yes
 No
 Don't Know

95. Q20e1. Sustainability initiative 5 : Please provide additional details

96. Q20f. Sustainability initiative 5: Is the initiative...

Mark only one oval.

- Defined but not yet tested
- Being piloted by one or few producers
- Fully operating

97. Q20g. Sustainability initiative 5: Which of the following stages of wine production does the initiative cover?

Tick all that apply.

- Viticulture
- Winemaking
- Aging
- Bottling
- Storage
- Packaging
- Distribution

98. Q20h. Sustainability initiative 5: Who can join/adhere to/follow the initiative?

Mark only one oval.

- only local wine producers
- only regional wine producers
- only national wine producers
- anyone

SECTION D – Closing questions

99. QD1. Among the sustainability initiatives you have listed under section C, please indicate those you consider good practices for the appellation wine sector and explain why

100. QD2. Has your wine appellation been recognised as UNESCO world heritage? *

Mark only one oval.

Yes

No

101. QD3. In case you have responded 'no' to the previous question, are you or any of your members considering putting forward a candidature for the recognition of your wine appellation as UNESCO world heritage in the near future?

Mark only one oval.

Yes

No

102. QD4. Please feel free to provide any additional comment / feedback which you consider relevant for the study we are conducting:

Annex 5 – Online Focus Group Minutes

Participants: Max Hendgen (MH) (Germany); Helena Fernandez Castro (HFC) (Spain); Carine Herbin (CH) (France); Nuno Oliveira (NO) (Portugal); Margherita Vialetto (MV) (Italy)

EFOW Secretariat: David Thual (DT); Daniela Ida Zandonà (DIZ)

Arcadia International: Francesco Montanari (FM), Julien Etienne (JE), Inês Ferreira (IF)

Understanding the current sustainability approach in the wine appellation sector

1. Why is there such fragmentation in the ways PDO wine producers approach sustainability in Europe?

The main reason given by almost all participants is the high level of differentiation between different regions in Europe. In particular, HFC mentioned that the fragmentation under exam may be due to the fact that sustainability is being used as a concept to increase the value of the product and, in order to increase the value, each territory selects the most relevant and beneficial aspects.

NO mentioned that there is a ‘historical’ problem in Europe as people believe that they are all different when they are actually very similar to each other. In his opinion, wine groups are too focused on the idiosyncrasy of each small region and not enough focused on the strength that they would have if they had solid national / European approach to wine sustainability initiatives.

Key conclusions

The main reasons for the fragmentation in the ways PDO wine producers approach sustainability in Europe are: high level of differentiation in EU regions; each territory selects different aspects according to their needs; ‘historical’ problem in Europe (people are too focused on their differences and not enough focused on their commonalities).

2. What are the biggest obstacles to convergence within terroirs, regions, countries, and across countries?

According to MH, currently the biggest obstacle to convergence is the historical tradition rooted in PDO regions alongside the absence of a clear definition of sustainability that goes beyond the three pillars model. Also, because of historical dimensions/traditions it is not so easy to call for and make changes over a short period time (‘mindset issues’).

To NO, there are two main obstacles at present: a cultural one to the extent that it is not easy to smooth out cultural differences and a fear factor as most small wine producers fear to be excluded from this process and often consider that only big players can undertake such actions.

According to HFC, even if a consensus is reached on the most general aspects, elaborating specific indicators is a difficult task as the needs are different across and within regions.

Key conclusions

The biggest obstacles to convergence within terroirs, regions, countries, and across countries are: absence of a clear definition of sustainability besides the three pillars model; historical tradition in PDO regions and ‘mindset issues’; cultural differences between regions; fear of small wine producers to be left behind.

3. Why overall does there seem to be less emphasis on the social and economic pillars of sustainability as opposed to the environmental one?

According to NO, the division into pillars is not a good definition of sustainability: this approach is reductive as there are hybrid dimensions to be considered too, for instance, when talking about biodiversity and landscape, heritage and culture, pesticides control etc.

MH agreed that pillars were highly interconnected and it was not possible to separate one from another. MV added that for sustainability to acquire increased credibility in future the PDO wine sector would need to focus more and more on the social and economic aspects.

FM asked the participants the reasons behind the lack of initiatives in the wine sector focusing on fair prices. Regarding this question, MH mentioned that in Germany the vast majority of wines is sold on the grocery market, which is dominated by few companies and very focussed on prices and for wine producers there is a high level of economic pressure and, as a result, no room for negotiations.

JE asked the participants regarding the importance of the social dimension of training and sourcing of workforce in the local area. Regarding this point, NO mentioned that in Portuguese rural areas, professional schools are very important in terms of preparing students, workers and managers to deal with sustainability. Also, he mentioned that a Portuguese study shows that when SMEs start working on sustainability, they are actually able to reduce costs. Therefore, the idea that sustainability costs more is not true as such, as there are studies proving that business costs can actually decrease over time.

Key conclusions

Overall, the division of sustainability into pillars is reductive as there are hybrid dimensions to be considered too. Therefore, the idea that there is less emphasis in the social and economic pillars is not necessarily true as all dimensions/pillars are interconnected. Nonetheless, there are specific economic and social issues (e.g. fair prices) on which it seems that PDO wine groups have less freedom to act upon.

4. Should PDO wine groups play a more active role in sustainability? Can they be a lever to go towards more sustainability? How?

For HFC, PDO wine groups should have a more active role (e.g. by raising awareness, providing training and tools to operators, networking, sharing best practices etc.). PDO groups can also limit the production of grapes and could for instance do the same with the use of pesticides, etc. CH mentioned that PDO wine groups could have a more active role (e.g. promotion of PDO wine, attractiveness of work etc.).

According to NO, PDO wine groups must understand that there is the need now to shift from 'nice to have' to 'must have'. In the short term, it will be very difficult for those who do not undertake sustainability initiatives to be and remain competitive on the market. The heart of sustainability is the production/management model and not the wine in itself.

MH agreed that sustainability should be a commitment for PDO wine regions for the future although there will be difficulties especially in the case of small wineries, which fear to be left behind in the process. In tune with that, according to HFC, in Spain there are some PDOs that refuse to take action in the field of sustainability because they consider themselves too small; nonetheless, small wineries can also be sustainability levers: for example, in Spain there is one small PDO which is currently a reference of sustainability

Finally, CH mentioned that PDO groups' participative approach may help in pushing operators to take responsibility and elaborate a sustainability programme or policy.

Key conclusions

PDO wine groups should play a more active role in sustainability by: raising awareness, providing training and tools to operators, networking, sharing best practices, promoting PDO wine, ensuring attractiveness of work, etc. The size of the PDO is factor that may impact on their ability of being sustainability levers. Also, it is believed that the heart of sustainability should be the production/management model rather than the wine in itself.

Streamlining sustainability in the wine appellation sector: possible pathways for the future

5. What would be the benefits and drawbacks of harmonising sustainability requirements for the wine appellation sector?

For MH, harmonisation across Europe would be a major benefit in itself. The main obstacle, however, is to reach an agreement taking into account the diversity of regions, aims/objectives, distribution channels etc., as it would be very hard to harmonise sustainability management standards across Europe. Also, if the level of harmonisation is too general, the risk is that it may trigger little interest from the sector; on the other hand, if the level of harmonisation is high, this might be an approach that might not fit all regions. At the end of the day, it is important to have a wine label that consumer recognise and trust.

For CH, one of the benefits resulting from harmonisation is the possibility of drawing comparisons of wine producers' performance against common standards. One of the main drawbacks are the additional costs to be sustained to implement this approach.

According to NO, ensuring a more common ground to the different existing approaches to sustainability can make life easier for wine companies and regulatory bodies. While not all programmes / solutions should be the same, there is a need to develop a common narrative.

HFC highlighted that harmonisation would make PDOs stronger in the eyes of consumers. Conversely, the main drawback / risk ensuing from harmonisation would be the loss of uniqueness and differentiation.

Finally, MV mentioned that it would be easier for everyone in the wine sector to work with a harmonised system for sustainability, while she conceded that specific needs at PDO level cannot be ignored.

Key conclusions

The benefits of harmonising sustainability requirements for the appellation sector would be: the harmonisation in itself; the possibility to compare wine producers' performance against common standards; a common wine label that everyone knows and trusts. Conversely, the drawbacks of harmonising sustainability requirements for the wine appellation sector would be: the additional costs involved and the risk of losing uniqueness and differentiation across PDO sector.

6. What would be the best route to harmonising sustainability requirements for the wine appellation sector amongst the following ones? a) Maintaining the status quo: sustainability is a differentiation policy for wine operators and should not be regulated at the EU or national level; b) Self-regulation: each PDO group may define and regulate the requirements they see fit in their specification; c) Sectoral GI legislation: EU legislation should define specific requirements and tools for the wine sector. Why so? And what may this look like?

According to NO, PDOs do not need to have a single and unique system governing sustainability but rather operate on the basis of a common understanding of that concept. In such a context, there is in particular the need to provide small wine growers with the necessary tools to be part of the solution;

at the same time, it is necessary to elaborate a strategy that is relevant to and contribute to the competitiveness of larger players.

MH highlighted that establishing a certification framework might be an easy solution, but in that context especially small growers need special attention and protection. The challenge that PDOs face today is to decide if it is more suitable to create a mandatory framework for sustainability certification or, instead, if it is more helpful to formulate common framework / ideas and from there provide support to small producers.

Key conclusions

There is no need to have a single and unique system governing sustainability but rather a common understanding of the concept. However, in this context there seems to be consensus that there is special need to protect small wine growers and provide them with tools to address sustainability.

7. Should sustainability requirements for the wine appellation sector be set as mandatory or rather voluntary measures? Why?

For NO, voluntary measures may result in more wine operators adhering to them and implementing them. While voluntary measures would be more inspirational, mandatory ones would be more democratic. MH mentioned that in Germany mandatory requirements are generally defined by governmental entities and wine growers tend to have some sort of 'natural aversion' towards them. Therefore, in Germany, voluntary measures would probably work better.

MV referred that measures that are totally voluntary may not be entirely perfect / ideal and that some mandatory basic rules must be integrated. According to HFC, a voluntary approach might be good especially for small wineries that cannot reach some targets. However, some level of regulation would be needed to reach a minimum level / common denominator of sustainability.

Key conclusions

There seems to be no consensus across the participants on whether sustainability measures for the PDO wine sector should be voluntary or mandatory. While some indicated that sustainability requirements should be set as voluntary measures, others referred that mandatory measures, even if basic, should be set.

8. Should they be mandatory, to what extent transitional arrangements would be needed so that PDO wine producers can adjust their production over a reasonable period of time?

According to MH, at least 10 years would be needed for this process to take place in Germany (of which 2-5 years for discussion within the PDO wine groups).

HFC indicated that, in the case of Spain, the exact timing would depend mostly on the scope of the sustainability requirements that will be defined. Overall, 2-3 years could be enough if, for example, the application of mandatory requirements was coupled by appropriate financing and training. However, should such requirements be too general, it could take up to more than 5 years.

MV stated that a minimum of 10 years would be needed in the case of PDO wine groups in Italy as the process to change basic rules for the sector is huge.

NO added that in any event PDO wine groups did not have so much time as, in accordance with EU's ambitions, by 2050 a number of sustainability measures – including carbon neutrality, restriction on the use of pesticides, transition of organic farming, etc. - will have to be in place.

Key conclusions

Overall, in case mandatory sustainability requirements are set the timeframe needed by PDO wine producers to adjust their production is at least 10 years, on average.

9. Should they be voluntary, how likely and quickly will there be progress in terms of more PDO wine producers adhering to sustainability initiatives/frameworks?

NO provided two examples to support his answer. The sustainability initiative undertaken in Alentejo by the regional wine sector began 5 years ago and now represents almost 80% of the wine sector in that region. It is a good example that demonstrates how a well-designed voluntary scheme can speed up the evolution of many companies towards sustainability. On the other hand, the same cannot be said of another existing governmental mandatory scheme in Portugal, which, by setting minimum requirements, does not provide any stimulus to wine companies to go beyond them.

MH referred that, in Germany, the main problem is not to achieve pre-established results over a certain period of time but rather to further progress from there onwards. Indeed, most sustainability measures in Germany are supported through public fundings and, as soon as the measures are in place and funding ends, there is no further evolution or progress. It is therefore important to ensure that this process takes place over a longer period of time.

Key conclusions

Overall, it depends on each specific initiative. There are good and bad examples of the uptake of voluntary sustainability initiatives in the wine sector; besides, it seems important to keep such initiatives running for a longer period of time.

10. In terms of scope, should sustainability requirements for the wine appellation sector cover all sustainability dimensions (i.e. environmental, economic and social) or rather focus only on some of them? Why so?

11. To what extent should sustainability be also understood as encompassing public health aspects (e.g. campaigns to advise responsible drinking, health/nutrition labelling, reformulation to limit alcohol levels, etc.)?

According to CH, it is possible to think in stages, starting from the consolidation of existing environmental aspects (e.g. biodiversity, soil, air, water, etc.) and then paving the way to social and economic aspects.

For NO, the best approach would be to rely on a combination of mandatory and voluntary requirements. Also, providing a roadmap of the whole process with specific targets may accelerate this process within many PDOs.

In the opinion of HFC, wineries are more focussed on these main aspects: emission footprint, renewable energy usage (production and consumption), local employment and circular economy. Therefore, these aspects should be the main focuses of any future regulation of sustainability.

According to MH, in Germany, the best approach would be for the different PDO regions to reach an agreement, firstly, over what exactly sustainable wine production means and, secondly, to elaborate a roadmap with progressive stages / goals.

Key conclusions

Different approaches were expressed by participants regarding the scope of sustainability requirements: approach with stages (first, consolidation of existing environmental aspects and then focus on social and economic aspects); roadmap with progressive stages / goals; and scope focussing on specific environmental aspects (e.g. emission footprint, renewable energy usage, etc.).