



PRESS KIT 2025

● VINS DE
Loire

Loire Wines, pioneers in adapting to the challenges
of climate change

2

For more than two decades,
the Wines of Loire have
demonstrated their ability
to anticipate and adapt
to the challenges of climate
change, for a resilient and
sustainable vineyard.

“

Convinced that wine is the result of the synergy between nature and humanity, our Interprofessional Organisation has, since the late 1990s, developed a sustainable strategy in collaboration with its stakeholders, making Loire Wines pioneers in adapting to climate change.

To address environmental challenges on a daily and long-term basis, we have built a strategy rooted in real-world analysis and data compilation.

The foundation of this ambitious approach was laid with the launch of terroir mapping in 2000. For viticulture worldwide, this project was groundbreaking in its scope. The goal was to cover the entirety of our winegrowing region—approximately 66,000 hectares—while achieving parcel-level precision. Over 20 years ago, Loire wines professionals demonstrated foresight by recognising the accelerating impacts of climate change and uniting around this shared issue to mitigate its effects on our activities.



3

Collaboration is at the heart of this approach. From understanding the challenges of climate disruption⁽¹⁾ to developing both individual and collective adaptation strategies, this methodology has resulted in strong commitments and the creation of pragmatic tools.

The concept of a ‘toolbox’ centred around a single theme—adapting to climate change—accessible to all 3,000 professionals in the Loire wine sector (winegrowers, advisors, oenologists, educators, etc.), is also innovative.

Today, Loire wines stakeholders can leverage these resources to address questions regarding production: adapting grape varieties and rootstocks, managing climatic risks, water management, selecting locations for new plantations, and more.

In 2025, this dynamic continues with new projects combining data analysis with an in-depth understanding of terroirs. Our collective has successfully anticipated structural changes, leading us to implement innovative measures for adaptation. Today, it encourages us to act in ways that ensure the sustainable development of Loire Wines.”

Camille MASSON,
President of InterLoire

Anticipating and investing in research and experimentation

One of the key values of our industry is the spirit of collaboration. Building on this collective mindset, Loire wines stakeholders are developing shared tools to anticipate changes and shape their adaptation strategies.

1 • Align on the key stakes with all stakeholders in the industry and engage all actors in agricultural practices with a positive impact

A collective commitment: The “Loire 2030” Sector Plan

Following the “États Généraux de l’Alimentation” (General Assembly on Food) in 2017, the Loire became the first French wine region to define a collective strategy in the form of a Sector Plan. Initiated in 2019, the Loire 2030 Wine Sector Plan is rooted in the pillars of CSR: value creation and economic, environmental, social, and societal commitments.

This document serves as a shared strategic roadmap for all stakeholders in the Loire wines industry, guiding research and experimental initiatives across the sector. A set of 100 key indicators measures the outcomes of deployed actions and tracks the evolution of Loire vineyards in addressing identified challenges.

The Loire 2030 Sector Plan formalised efforts initiated since the 2000s to address climate change-related challenges, such as terroir characterisation, mapping frost protection equipment, and establishing a meteorological monitoring platform.

Beyond collective initiatives, all Loire wine estates and producers have set a goal of achieving 100 % organic agriculture or environmental certification by 2030.



Results to date: The progress is significant for the vineyard, as in 2023, **85% of the surface area** (+200% since 2019), or **73% of the wine estates** (+140% since 2019) were under HVE environmental certification or organic farming.

2 • Anticipating climate conditions to adapt production strategies

A shared innovation: The Agroclimatic Atlas

This digital platform enables users to visualise climate evolution projections for 2050 and 2100. To anticipate the effects on vineyards, the mapping system illustrates potential changes in climatic and agroclimatic indicators related to viticulture (e.g., precipitation, average temperature, number of frost nights).

The maps are based on methodological references published by the scientific community (IPCC) and use data from the DRIAS platform. They provide insights into the spatial and temporal evolution of these indicators throughout the 21st century compared to the reference period. The goal is to raise awareness among users about the profound changes likely to affect Loire vineyards as climate change progresses.

Agroclimatic Atlas:

- Scope: Created at the municipal level, covering nearly 4 million hectares (Loire and its neighbouring territories, viticulture and other crops)
- Data update frequency: Based on updates to the RCP⁽²⁾ scenarios from the Intergovernmental Panel on Climate Change (IPCC)
- Data access: Free
- Number of visits: Over 820 per year
- Investment amount: €38,000
- Tool development duration: 1 year
- Partners: École Supérieure des Agricultures (ESA), Terraclima, and Trydea

Benefits: This adaptation to potential climate scenarios for 2050 and 2100 allows each Domain and Estate to project themselves into the future to understand tomorrow’s climate and identify the most suitable grape varieties for new climatic conditions.

3 • Preserving diversity and creating new grape varieties to address global changes

Vegetal diversity is a key challenge. Since 2018, the Loire wine sector has established conservatories across 17 sites within the region. These conservatories safeguard the extensive genetic diversity found in local grape varieties, such as Chenin (440 accessions⁽³⁾), Sauvignon (404 accessions⁽³⁾), Muscadet (295 accessions⁽³⁾), and Pineau d’Aunis (312 accessions⁽³⁾).

Over the past seven years, in partnership with the IFV (Institut Français de la Vigne et du Vin), InterLoire has invested over €200,000 in selecting new clones and rootstocks and over €400,000 in programs developing resistant grape varieties. By the end of 2023, more than 100 hectares of resistant grape varieties have already been planted, even though the program only started in 2018.

The year 2025 will mark a critical midpoint in this research program aimed at creating resistant grape varieties which is expected to be completed by 2033.

Preserving emblematic grape varieties and their genetic diversity, reclaiming heritage grape varieties, and developing entirely new ones will allow the Loire wine sector with a broad array of plant material solutions. This impressive diversity, with each variety meticulously characterised for agronomic behaviour and sensory profile, represents a major asset for adapting to future challenges, whether climatic, regulatory, or consumer driven.

“

One of the strengths of the Climate Toolbox is its ability to evolve, as it is designed to be enriched by field feedback. For example, the apex-vigne application facilitates winegrowers’ monitoring of water stress while simultaneously providing data to researchers to develop and fine-tune new models.”

Christophe Deschamps,
President of the IFV (Institut Français de la Vigne et du Vin) Val de Loire and Chair of InterLoire’s Technical Committee

Adapting and acting through developed tools

1 • Accurately visualising weather conditions and adjusting vineyard operations daily

A shared innovation: Loire Météo

Loire Météo is a tool developed under the National Vineyard Decline Plan (PNDV) by the National Committee of Wine Interprofessional Organisations (CNIV), which includes InterLoire. This digital platform allows each winegrower to access precise weather forecasts through a network of virtual weather stations on their parcels.

After creating their virtual stations, users can view real-time weather data specific to their vineyard, such as precipitation, wind speeds, temperatures, 10-day forecasts, and 10-year historical records, etc. The tool provides precision down to a kilometre to meet growers' needs. Each business can create as many virtual stations as required, without any subscription fees and with just a few clicks.

Loire Météo:

- Scope: 100 % of the area covered across all vineyards in the Loire
- Data update frequency: Hourly for weather forecasts and daily for historical data
- Data access: Reserved for professionals
- Number of users: 180

- Number of weather stations created: Over 600
- Tool launch date: 2023
- Tool development duration: 1 year
- Partners: CNIV
- Particularities: Several paid weather station services exist in France. Thanks to the collaboration of French wine interprofessional organisations, their contributing producers can access this service for free



The vine is a perennial plant, requiring long-term planning. In a context where fundamental natural and economic balances are being challenged, the adage “alone we go faster, but together we go further” perfectly encapsulates the mindset driving the Loire wine sector. Within the region, a majority of technical projects are conducted collaboratively by InterLoire, the IFV, Chambers of Agriculture, ESA (Ecole Supérieure des Agricultures), and others. All the tools developed in recent years are freely accessible to operators.

2 • Visualising parcel characteristics to maximise viticultural potential

The result of over 20 years of field mapping: E-terroir

The E-terroir online platform provides two types of mapping: soil mapping and water balance mapping.

Soil Mapping: This interactive interface enables wine producers to visualise terroir characteristics, such as soil depth, stoniness, precocity, and maximum usable water reserves. The mapping is parcel-specific (1:5,000 or 1:10,000 scale, equivalent to 1–2 soil sampling points per hectare) and currently covers nearly 60,000 hectares. New mapping projects are underway in 2025 for Touraine Oisly and the terroirs of Deux-Sèvres (Anjou Saumur vineyards).

With this data, users can identify the soil's potential for vigour and precocity, determine constraints for future vine rooting, and anticipate erosion risks. The tool is especially valuable for plantations, offering insights into: Selecting plant material (grape variety and rootstock), preparing land (drainage and terrain preparation before planting) and managing soil maintenance post-planting (e.g., types of grass cover and coverage area).

Water Balance Mapping: This online interface estimates soil water availability for vines based on weather data and terrain characteristics. Calculations are performed daily (current day) and simulated for +7 days using the Walis model.

The tool allows growers to monitor soil water content in real time and assess the water stress levels experienced by the vines. InterLoire publishes hydric bulletins during the growing season based on the tool's results, offering growers actionable recommendations to adapt to current hydric conditions: Soil management and grass cover adjustments, modifying canopy height, leaf thinning and crop thinning for young vines ...

E-terroir:

- Scope: 60 000 ha, or 91% of the Loire Wines appellation area
- Data update frequency:
 - With each new soil mapping
 - Daily for the water balance
- Data access: Free
- Number of visits: Nearly 3,700 per year
- Investment amount: €34,000
- Tool development duration:
 - Soil mapping: 1 year
 - Water balance mapping: 6 months
- Partners: Institut Français de la Vigne et du Vin (IFV)

“

A new platform is expected to be added soon to this Climate Toolbox. Climate zoning maps at a fine scale are now available to Loire PDOs. These maps provide detailed insights into the main climatic, bioclimatic, and eco-climatic indicators for Loire wines appellations, along with their current spatial variability at a very fine scale.

These datasets will allow winegrowers and technicians to identify zones with differing climatic behaviours within an appellation, a commune, or even a single parcel. This local variability can lead to distinct vine responses. Combined with other data (notably terroir mapping), these insights will refine knowledge about viticultural potential and constraints.

It will then be possible to determine the most suitable plant material (grape variety, rootstock, clone) and consider different agronomic approaches (e.g., vegetation covers, pruning techniques, trellising systems). This contributes to the technical expertise and precision of the region's finest crus.”

Etienne Goulet, Director of the Institut Français de la Vigne et du Vin Val de Loire and Technical Director of InterLoire

Looking ahead to continue collective progress

By being the first interprofessional organisation in France to join Vignerons Engagés - the first French sustainability and CSR certification in wine industry - the Wines of Loire once again demonstrate their convictions and reinforce their position as pioneers.



“

With its long-standing commitment to environmental knowledge and preservation, the Loire region has notable assets and key success factors essential for creating a resilient and sustainable vineyard. To continue moving forward and progressing collectively, Loire Wines have chosen the Wine Pilot platform as a powerful tool to measure both the individual carbon footprint of operators and the collective carbon footprint at the regional level. The goal is to identify major areas for improvement and share key actions to reduce carbon footprints, enabling the implementation of these measures and subsequent monitoring of progress. The tool will be rolled out on a large scale and made available to all Loire operators at the beginning of 2025.”

Sophie Talbot,
CEO of InterLoire

1 • Capitalising on data and collective intelligence

Existing maps and tools raise awareness of climate change and support discussions on adaptation strategies at various levels. Across the Loire vineyards, working groups and initiatives are flourishing to leverage data from the Climate Toolbox.

At the individual level:

Each winegrower can use the tools for their own estate.

At the collective level:

Reflections are being initiated at the commune, appellation, or regional level, with the support of advisors, technicians, and ODGs (Organization for Defense and Management of a specific wine designation) working together.

In education:

Knowledge updates and training tools are integrated into teaching programs and technical conferences.



2 • Measuring carbon footprints⁽⁴⁾ to identify CO₂ reduction pathways

A practical shared tool, available to all winemakers, merchants and technicians: Wine Pilot

Carbon dioxide is one of the main greenhouse gases (GHGs) driving climate change⁽⁴⁾, which already affects the wine sector by impacting grape varieties, climatic hazards (frost, disease, hail), vineyard working conditions, and even wine typicity.

Winegrowers, merchants, and cooperative cellars now have a dedicated tool to measure and manage their carbon footprint. By 2025, this will consolidate the overall carbon impact of the Loire wine sector and help direct collective actions more effectively.

InterLoire leverages the work of Adelphe, an eco-organisation helping businesses reduce the environmental impact of their packaging. Wine Pilot, co-developed by Adelphe and FoodPilot, is an accessible and educational platform.

It provides each company with the ability to calculate its annual carbon footprint and design its own reduction plan. **With various dashboards and indicators,**

winegrowers and wine operators can project different decarbonisation scenarios (e.g., reducing packaging weight, reusing bottles, managing energy in the vineyard and cellar, team travel, etc.).

3 • Sharing best practices and encouraging stakeholder collaboration

This year, the major technical event is the “Climate Tour 2025.”

This event is one of the professional meeting example aimed at sharing best practices, analysing the results of completed projects, and identifying the future challenges. **Our vineyard is one of four pilot sites experimenting with new practices in the vineyard and cellar to adapt to climate change.**

In 2026, the key event will be the Terroir Congress in Angers.

Loire Wines, pioneers in adapting to the challenges of climate change

2000

Launch of terroir mapping following work initiated by René Morlat in Anjou

2013

Launch of the platform E-terroir accessible to the entire sector for terroir mapping data

2018

Launch of the program to create regionally resistant grape varieties, and strengthening of selections and conservation of grape varieties and rootstocks

2020

Launch of the Water balance mapping on E-terroir (awarded SIVAL Silver)

2022

Launch of the Agroclimatic Atlas (awarded SIVAL Bronze)

2023

Launch of Loire Météo and regular hydric bulletins throughout the growing season

2024

InterLoire joins Vignerons Engagés

2025

- Deployment of the Wine Pilot platform
- Climate Tour in the region

2026

Terroir Congress in Angers



(1) Climate Disruption

In line with the recommendations of the IPCC (Intergovernmental Panel on Climate Change), France has committed to achieving carbon neutrality by 2050. The goal is to limit the increase in average temperature to +2°C, and ideally to +1.5°C. In practical terms, this means reducing GHG emissions by a factor of six compared to 1990 levels through the implementation of the Climate Plan.

(2) RCP Scenarios

Scenarios defined by the IPCC (Intergovernmental Panel on Climate Change) that model climate projections based on greenhouse gas emissions.

(3) Accession

For each grape variety, there is intra-varietal diversity due to natural micro-mutations. We refer to an individual. An accession is a unique individual within a variety that has been cataloged.

(4) Carbon Footprint

The carbon footprint is a calculation method used to measure greenhouse gas (GHG) emissions generated by an "entity" (a company, industry, service, etc.). It considers both "primary" emissions, which are directly linked to the entity (e.g., fuel consumption, energy use, application of fertilisers), and "secondary" emissions, which occur outside the organisation (e.g., production of agricultural machinery, manufacturing of pesticides, etc.). The results are then expressed in terms of a functional unit (UF).

Interloire Press Service:

GULFSTREAM RP & INFLUENCE AGENCY

Keyvne Grah • kgrah@gs-com.fr • +33 (0)6 86 06 18 26
Julie Fullana • jfullana@gs-com.fr • +33 (0)6 45 06 82 75

LOIRE WINES COUNCIL

62 Rue Blaise Pascal - 37019 Tours • contact@vinsdeloire.fr • +33 (0)2 47 60 55 00
Hélène Kermorvant • presse@vinsdeloire.fr • +33 (0)2 47 60 55 00

● VINS DE
Loire



www.vinsdeloire.fr

InterLoire - Trade association for Loire Valley wines
62 Rue Blaise Pascal - 37019 Tours
presse@vinsdeloire.fr

