

Water Stewardship

GRI Standards:

303-1, 303-2, 303-3: Water

306-1: Effluents and Waste

EXECUTIVE SUMMARY

As part of Sanofi's Planet Mobilization program, our strategy for water stewardship program is based on:

- for each industrial site, the implementation of a **water efficiency management system** supplemented by context-based targets;
- a **focus on priority sites**, presenting higher water-related risks and for which Sanofi implements specific actions for mitigation;
- a continuous assessment of water-related risks; and
- a better knowledge of the water footprint of our products.

At global level, we define our target for reducing water withdrawal by aggregating our local targets (rather than vice versa); after all, France does not face the same challenges as India.

We have estimated that implementing our sustainable water management program will **reduce our global water withdrawals by 15% by 2030** versus the 2019 baseline, despite planned industrial capacity growth.

In 2021 we have achieved:

- 11% of reduction vs 2019 (baseline year); and
- to score A at the CDP Water Security Questionnaire.

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1. Our progress



Our objectives

Reduce our water withdrawals by 15% from 2019 to 2030

Implement water efficiency management plans on our priority sites by 2025 and on 100% of our sites by 2030

Global Performance 2021

11% reduction in water withdrawals compared to 2019

CDP Sanofi was **scored A** to the CDP Water Security questionnaire

Sanofi’s water roadmap is a key part of our environmental sustainability program called **Planet Mobilization**. We have specific consideration for our largest industrial facilities with the largest water usage to be more impactful. We also consider smaller sites to implement water conservation measures: every drop matters!

In 2021, our efforts were again rewarded with the score “A” for the CDP Water Security 2021 questionnaire, the highest score that can be obtained. Sanofi confirms its position in the Leadership band of Companies implementing best practices on water management. This result is the achievement of continuous efforts and encourages Sanofi in its journey to water stewardship.

2. Strategic Approach

Water stewardship is an important goal for Sanofi. We are committed to responsible management of water, in order to have an environmentally sustainable and a socially equitable usage of this essential resource.

The responsible management of water resources concerns key aspects of our business, such as our license to operate our facilities, ensuring our business continuity to guarantee a permanent availability of our products, and our relations with several stakeholders in a regional context.

As a public engagement Sanofi signed the pledge to **the CEO Water Mandate in 2021**.



The Mandate is a special initiative of the United Nations Secretary-General and the UN Global Compact, implemented in partnership with the Pacific Institute. Established in 2007, the initiative was created out of the acknowledgement that global water challenges create risk for a wide range of industry sectors, the public sector, local communities, and ecosystems alike. As such, cross-sectoral collaboration is the most effective and credible path to water security.

<https://ceowatermandate.org/>

2.1. UNDERSTANDING OUR WATER FOOTPRINT

2.1.1. The situation in 2021

Sanofi is on the right path to achieve a reduction of 15% on global water withdrawals in 2030 (considering the 2019 baseline of 35,1 million of m³).

This year, our **water withdrawals have decreased by 11%** vs 2019. This performance is supported in a major part by the six EUROAPI sites, which account for approximately two thirds of total withdrawals.

2.1.2. The different uses of water

At Sanofi, there are two major usages for water:

- **domestic uses** – water used for irrigation, bathrooms, cafeterias, drinking water, etc.; and
- **industrial applications**, that can be summarized as:
 - > heat transfer systems to control temperature of fabrication processes, essentially cooling water applications. In this case, quantity prevails, and the quality of water discharged is only slightly changed after usage,
 - > water that is directly used in the synthesis of ingredients or in the manufacturing processes of pharmaceuticals: high grades of water are required, and water quality is closely monitored at all stages of production and use, and
 - > water that is used for cleaning equipment and vessels: high quality of water is considered as well, to ensure efficiency of the cleaning process. After usage, the effluents are collected and transferred to dedicated facilities for treatment (internal or external).

2.1.3. Sources of freshwater

Source of freshwater varies from one plant to another depending on many factors.

Sanofi has three main sources of freshwater supply:

- **municipal and third-party supply** account for 24% of our total withdrawals in 2021;
- **surface water (lakes, rivers)** represents 22% of our withdrawals in 2021; and
- **ground water** (water pumped from water tables located immediately below Sanofi sites) is our main source of water with 54% of withdrawals in 2021.

Sanofi is committed to sustainable use of water. Regardless of the source, each site must identify potential threats on their source and report issues and events to Corporate HSE.

2.1.4. Water recycling/reuse

Recycling water is a great opportunity to reduce our water footprint and demonstrate our efforts for sustainable water use. We encourage our sites to recycle water in local applications.

Several methods exist to recycle/reuse water: harvesting rainwater, optimizing cooling water systems with multiple loops, implementing quaternary treatments in our wastewater treatment plants so the reclaimed water can be used as make-up for cooling towers or boilers, etc.

In 2021, 26 of our sites report practices of water recycling/reuse for all applications.

2.2. WATER-RELATED RISKS ASSESSMENT

2.2.1. Identification of priority sites

Our objective is to define appropriate responses for sites facing water stress risk.

In 2015, Sanofi has defined its first list of priority sites to identify sites where actions must be implemented with no delay.

In 2020, Sanofi implemented a new program, WRAP: Water Risk Assessment Program. Its objective is to have a relevant analysis of the water risk at our sites. This analysis was carried out using tools specially designed for Sanofi, supported by an external consultant.

We asked each site to evaluate, through a survey, how they address water risks considering three categories: Physical Risks, Regulatory Risks and Reputational Risks. The resulting vulnerability scores were compared to results from the World Resources Institute (WRI) and World Wildlife Fund (WWF) databases.

In 2020, we were able to update our list of priority sites which is composed of 12 sites located in Algeria, Italy, South Africa, Mexico, Pakistan, India, China and Saudi Arabia.

2.2.2. Environment risk assessment

As a Company rule, every site must manage a program to identify, evaluate, prioritize and control the impact of its past and present activities on the environment. Some specific risks on water may be directly reported by sites during these assessments: these risks will then be incorporated into a broader environmental risk matrix.

This assessment is updated regularly. An annual action plan is established and implemented to improve and control the prioritized actions identified. Beyond the annual plan, long-term opportunities to optimize resources and expenditures dedicated to better protecting the environment are, when appropriate, identified in the local capital expenditure action plan.

Depending on the conclusions of the environmental risk assessment and regulatory requirements, the action plan may include:

- an internal or external audit on water use, comprised of a detailed water balance and the characterization of all effluents produced by the site;
- a water withdrawal and water consumption reduction plan, based on the modernization of some equipment, of water treatment facilities or on the change in operational procedures; and
- the installation of additional in-line analyzers and instruments to increase monitoring, and track efficiency.

2.2.3. Due diligence processes

During site purchasing due diligence, water intake and discharge are taken into consideration as one aspect of overall Health, Safety and Environment (HSE) actions.

Our key water concerns are related to regulatory compliance for water usage and discharge and assessment of local sensitivity.

2.2.4. Health, Safety and Environment (HSE) audits

HSE internal audits of all Sanofi facilities are led by a team of Experienced Auditors and supported by the Sanofi HSE Expertise Community.

These audits are performed over a rolling three-year program covering all HSE internal requirements and related standards – of which two are dedicated to water management and wastewater management.

2.2.5. Suppliers

We acknowledge that our environmental responsibility is extended all along the value chain of our products, and with this purpose Sanofi is engaged with its suppliers and subcontractors and has mobilized a dedicated Taskforce to coordinate all the actions engaged by the Company.

Sanofi is actively working on different initiatives to increase water security in its value chain:

- **Water Stress Risks Assessment** of our key API suppliers is of very high concern, as it is intended to anticipate and/or mitigate the immediate and long-term adverse consequences on the availability of some of our key products, including life-saving medicines. Impacts of climate change on our direct

operations and in our value chain are continuously assessed by a dedicated Taskforce within the Company;

- **Onboarding** of Suppliers and Contract Manufacturing Organizations (CMOs) on good practices in water management:
 - > as a Pharmaceutical Supply Chain Initiative (PSCI) active member, Sanofi has very recent history of inviting our key API suppliers to seminars focusing on water-related issues, including the release of pharmaceuticals in the environment and wastewater treatment technologies. We also continue to progress on our commitment to fight antimicrobial resistance, by raising awareness, clarifying our requirements and by sharing with our Partners good practices on risk management.
- **HSE Audits** (internal & external) of suppliers include questions on water and wastewater management. The risks identified are communicated to business leadership for decision-making. Despite the context of a global pandemic, we have preserved activities to ensure high level of control on management of environmental risks.

2.3. WATER STEWARDSHIP IN OUR DIRECT OPERATIONS

2.3.1. Water efficiency management plans

Water efficiency is a key pillar of water stewardship.

In 2021, Sanofi launched a new program to have Water Efficiency Management Plans (WEMPs) implemented at all our sites based on the new ISO 46001:2019 standard. Its objective is to define a global methodology to map water usage and to identify opportunities to reduce withdrawals, power, and chemical consumptions specific to each site.

We started this program in the manufacturing site of Ploërmel (France). A strong water stewardship program was already in place, nevertheless, this study showed several levers to optimize water efficiency. The project was carried out using a toolbox (tools, templates, guidelines, etc.) prepared after the ISO 46001 standard and was supported by a consultant for the performance review of equipment/processes using water.

The next step is to deploy the methodology at all sites before 2030, starting with our priority sites before 2025.



[Overview of Sanofi site in Ploërmel, France.](#)

2.3.2. Context based targets

We acknowledge that water challenges are specific to each watershed and need to be addressed at local level. Context-based targets are defined after thorough review of water usage and related risks in the water basin, aligned with the conclusions of the 2020 Sanofi WRAP study.

Our goal is that context-based targets enrich action plans of each WEMP with sustainable solutions contributing to improve local water resources condition.

In 2021, we worked with the Water Council, a non-profit organization, to prepare a reference document that provides guidance for all Sanofi sites to better grasp the water issues at local scale.

The same year, we experimented the methodology in two of our priority sites located in Mexico.

2.4. RESPONSIBLE MANAGEMENT OF WASTEWATER

2.4.1. Key principles

We strive to reduce the impact of our emissions on water bodies by implementing efficient and reliable strategies to limit the presence of contaminants in effluents generated by our manufacturing activities.

Each site implements a specific wastewater management program based on an environmental impact assessment and applicable regulatory framework. These programs include:

- the quantification and characterization of contaminants; and
- the implementation of **specific solutions and technologies** to limit adverse effects on aquatic ecosystems.

We dedicate ourselves to a continuous improvement of the efficiency of our wastewater treatment installations. This program is supported by continuous inspections of our sites, by lab-scale testing of existing new solutions and the upgrade of existing facilities.

2.4.2. Monitoring wastewater quality

Sanofi sites are also engaged in monitoring effluents discharged to sewers or water bodies in order to ensure regulatory compliancy and the absence of negative environmental impacts.

Chemical Oxygen Demand (COD) is a key parameter to assess the quality of wastewater discharge, as an indicator of organic content (biodegradable and non-biodegradable) in effluents.

Most of our industrial facilities have dedicated wastewater treatment plants, whether the wastewater is discharged directly to the natural environment or not. If discharge is to a public or private sewerage system, then treatment is handled by a third party who complies with locally applicable regulations. Consequently, the overall quantity of COD calculated within our site boundaries (rather than at the point of discharge into the natural environment, as reported in previous years) would appear to be a more reliable and relevant indicator of our efforts to reduce the environmental impacts of our operations on aquatic ecosystems.

In 2021, the residual amounts of COD released by our sites have decreased by approximately 13% compared to the baseline (2019). The many programs under way to upgrade our onsite treatment plants, and the embedding of new environmental criteria into the design of our facilities, suggest that levels will stabilize/decrease in the years ahead despite the ongoing expansion of our industrial capacities.

3. Highlights of 2021

3.1. PROMOTING WATER RECYCLING



RO skid of the pilot unit

In 2021, all Sanofi employees were invited to participate in the Company's first environmental sustainability ideation program. Three different projects were awarded, with their implementation financed by Sanofi's Planet Mobilization fund.

The IDRA project is one of the winners this year. Its objective is to produce recycled water for several industrial applications on-site by implementing appropriate technologies. This initiative was led by three of our largest manufacturing sites located in Italy, France and Belgium.

In 2021, pilot tests were completed in one of the sites to confirm feasibility and future performance of the water reuse system.

The three units will have the total capacity to save up to **220 million liters of water per year** (equivalent of 70 Olympic pools).

3.2. DEMONSTRATING WATER STEWARDSHIP

In 2021, Sanofi commissioned a new wastewater treatment plant for the production site in Orël (Russia). The project was in response to newly promulgated regulations of restrictive discharge limits.

This new challenge asked for a specific design that considers the implementation of advanced technologies in water treatment, with all equipment and tanks installed inside a dedicated building to address harsh climatic conditions.

Effluents are also now discharged to a small creek, also used by locals as a source of water for irrigation of gardens. Before commissioning, Sanofi agreed with local authorities to **restore the banks of the river**, so communities could also benefit the outcomes of this project. It was also a good opportunity to engage discussions with our neighbors and communicate our commitments for a healthy planet.



[Orël new WWTP](#)

3.3. TARGETTING WATER EFFICIENCY EVERYWHERE

Our tertiary sites globally are strongly committed to the reduction of our water footprint at many levels, from raising awareness about local water challenges to the installation of new water systems. Sanofi is dedicated to **encouraging water efficiency initiatives** wherever an impactful opportunity is identified by our teams.

In Chile, we have replaced all the bathroom fixtures of our 800 m² office in Santiago de Chile by hands-free infrared taps.

With 400 employees, our Buenos Aires office (Argentina) is our flagship in the South Cone. In 2021, three international certifications were achieved (LEED Gold, Fitwell and TRUE), marking this building as one of the most outstanding in sustainability. The installation of new high efficiency irrigation system in 2021 has resulted in the reduction of on-site water use by 3%. We expect to further reduce our consumption with an upcoming project of rainwater harvesting and reuse.

3.4. DESIGNING LOW EMISSION FACTORIES

As part of our Planet Mobilization commitment to operate Low Emission Factories, this year we have completed the upgrade of our wastewater treatment plant located at our production site in Compiègne, France. The new unit, implemented as a tertiary treatment downstream of existing facilities, is designed to **increase performance** on removal of suspended solids, phosphorus and organics of all type, for 100% of effluents produced by the site.

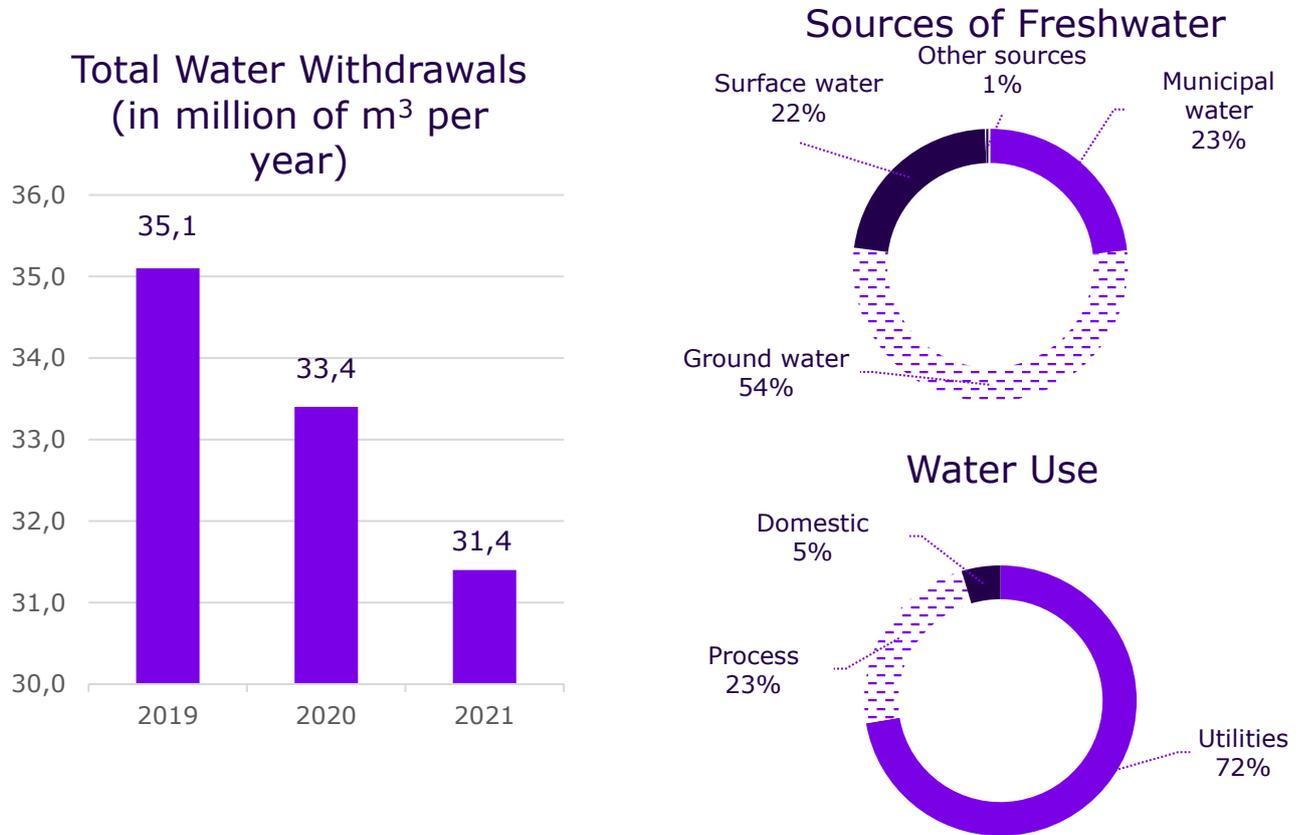
The high grade of water after treatment is a valuable source of freshwater for on-site recycling projects in the near future.



[New Tertiary Treatment at Compiègne Wastewater Treatment Plant](#)

4. Dashboard

4.1. WATER WITHDRAWALS & USAGE



4.2. WATER QUALITY

