



GREENING  
Plan  
2025-2035

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## A WORD FROM THE CEO

*The Port of Québec is much more than a shipping hub. It's a living location, a neighbour, an employer, and an economic and social player deeply rooted in its community. Being conscious of that, we have chosen to go further.*

*With our 2025–2035 Greening Plan, the first of its kind, we are taking a major step forward in our commitment to a Port that is greener, more sustainable, and more caring.*

*The plan is driven by our determination to respond to the major environmental challenges of our time with practical initiatives that will provide structure going forward. In a time of climate change, biodiversity loss, and increased pressure on natural environments, it is no longer enough to limit our impact. We need to regenerate, beautify, and restore. We need to think differently about land use, and that is precisely what our greening plan proposes.*

*We are committed to achieving an ambitious target: 30% canopy cover on our non-industrial property by 2035. That target is in line with best practices in public health and sustainable urban planning. It reflects our desire to become a healthier, more pleasant, and more resilient place for the citizens living near the port as well as the employees and visitors who use it every day.*

*This approach is also consistent with public health recommendations. By increasing vegetation cover and focusing on land uses that promote better air quality, we are addressing concerns raised in recent years and providing a healthier environment for those who live, work, and spend time around the port.*

*We have put a great amount of thought into building this plan, but also a great amount of care. It is supported by scientific data, citizen consultations, and collaboration from committed organizations such as the Association forestière des deux rives (AF2R), the Collectif Canopée, the Centre d'enseignement et de recherche en foresterie (CERFO), and many others. It reflects our conviction that greening is a collective project that tangibly improves quality of life and social cohesion.*

*Planned initiatives include tree planting, beautification, urban agriculture, infrastructure greening, depaving, community partnerships, and more. They are all intended to transform our area and breathe new life into the way we cohabit with nature.*

*The plan is not an end in and of itself, but rather the beginning of an evolving process. We have set up monitoring, reporting, and updating mechanisms to keep it active, relevant, and aligned with people's aspirations and our changing realities.*

*As CEO of the Port of Québec, I am proud to be leading this transformation with our entire team. Above all, I am delighted to be doing it alongside you, because pooling expertise, ideas, energy, and hopes is how we will create an exemplary port that's both an economic driver and an environmental catalyst.*

*Our vision is clear: to be a port recognized for the responsible management of its territory, respect for the environment, and protection of biodiversity. We will be a port that bridges the divide between performance and responsibility.*

**Olga Farman**  
CEO



**BACKGROUND**

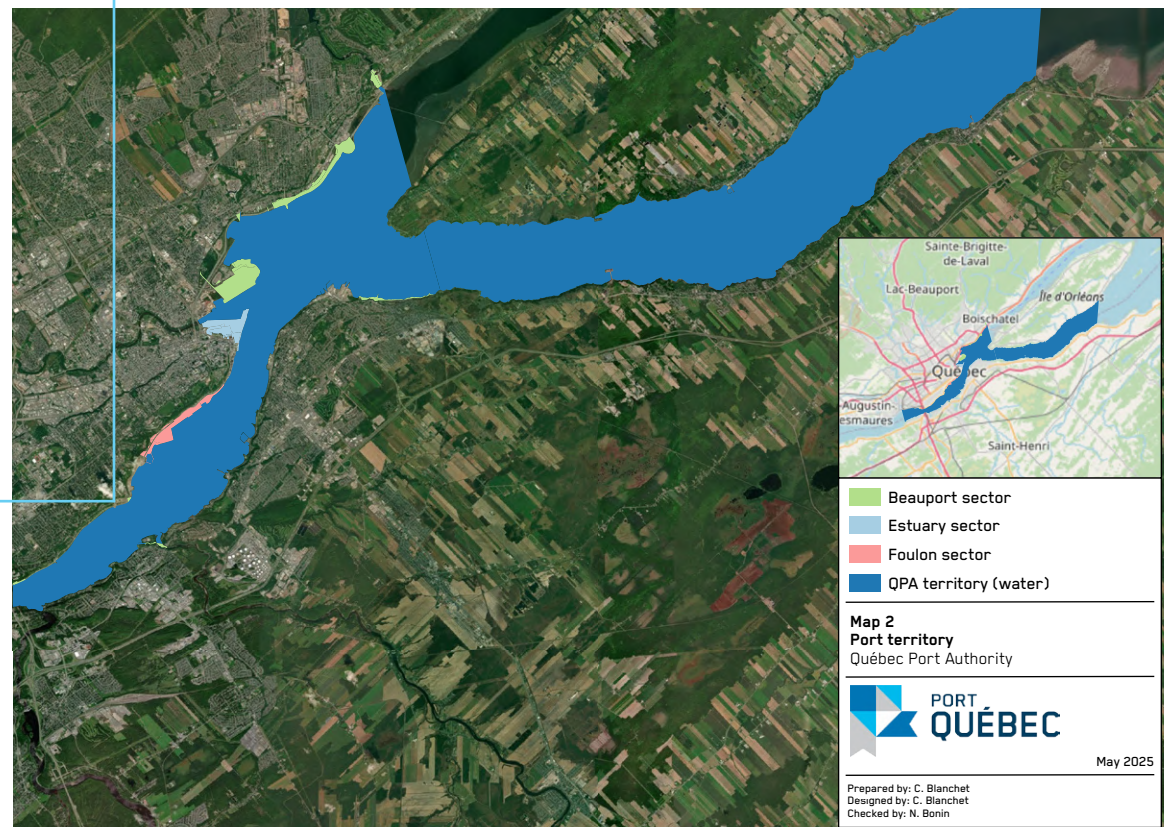


# THE PORT OF QUÉBEC

The Port of Québec has 325 ha of land and 10,000 ha of water under its charge. Industrial, recreational, and tourism activities primarily take place in three different sectors: Beauport, Estuary, and Anse au Foulon (Figure 1).

The Port of Québec is a true continental gateway for international trade. It facilitates commercial relations with 50 countries and handles nearly 30 million tonnes of goods every year. It is also a port of call for around 30 cruise ships a year, and it offers a plethora of recreational and tourism activities, including swimming, shows, sports, and dining.

Figure 1 Port of Québec territory



# THE IMPORTANCE OF GREENING

In current times, where the impacts of climate change are becoming increasingly clear (heat waves, extreme weather, flooding, biodiversity loss, etc.), it is vital to take action and use our land in a sustainable way. Greening is an effective measure for adapting to climate change in urban areas, and offers numerous benefits for the environment and people's health, including:

- ✓ Reducing airborne pollutants
- ✓ Reducing noise
- ✓ Sequestering carbon
- ✓ Lowering the risk of overflow (runoff management)
- ✓ Reducing heat islands
- ✓ Increasing biodiversity
- ✓ Adding social spaces for the community
- ✓ Reducing some chronic diseases

According to many studies,<sup>1</sup> optimal urban greening that has 30–40% canopy cover, rather than the current 10–20% in our inner cities, could reduce the prevalence of stress by around 39% and the risk of overweight or obesity by 40%.<sup>2</sup> The Port of Québec's location makes it a key player in urban greening, which is why it wants to help improve quality of life for citizens.

For equitable access to the urban forest, the Institut national de santé publique du Québec (INSPQ) recommends that all have access to the following<sup>3</sup>:

- ✓ A view of three trees from their window
- ✓ 30% canopy cover in their neighbourhood
- ✓ A park or green space less than 300 metres away

<sup>1</sup> "Green spaces and mortality: a systematic review and meta-analysis of cohort studies." Rojas-Rueda, David et al. *The Lancet Planetary Health*, Volume 3, Issue 11, e469–e477. Green spaces and mortality: a systematic review and meta-analysis of cohort studies – The Lancet Planetary Health

<sup>2</sup> "Des médecins se mobilisent pour le verdissement urbain." *Le Devoir*, November 23, 2019. Des médecins se mobilisent pour le verdissement urbain | Le Devoir

<sup>3</sup> "The 3-30-300 Rule for Urban Forestry and Greener Cities." Konijnendijk, Cecil. *Biophilic Cities Journal*, Vol. 4, no. 2. [https://static1.squarespace.com/static/5b0d32d6e6669016a6a7e2/r/6101ce2b17dc51553827d644/1627508274716/330300+Rule+Preprint\\_7-29-21.pdf](https://static1.squarespace.com/static/5b0d32d6e6669016a6a7e2/r/6101ce2b17dc51553827d644/1627508274716/330300+Rule+Preprint_7-29-21.pdf)







# THE PORT OF QUÉBEC'S COMMITMENTS

The Port of Québec has made a number of greening commitments to promote sustainability on its property in line with its 2035 Vision.

It also made several commitments with the Comité intersectoriel sur la contamination environnementale et la qualité de l'air dans l'arrondissement de La Cité-Limoilou (CICEL) in the committee's most recent action plan, with the aim of meeting the annual objectives in this greening plan. This committee was created in 2013 by the Regional Director of Public Health in response to concerns about air quality in Limoilou.

The QPA has also publicly expressed its commitment to implementing clear measures to meet the recommendations in reports from air quality experts regarding all or part of the Port of Québec (MEMS, 2023; GTCA, 2023). Given that a number of the experts' recommendations directly involve greening, the initiatives proposed in this document will make a true difference in improving ambient air quality in the area.

In its 2022–2025 strategic plan, the Port of Québec's strategic orientations involved actively participating in the energy transition, the fight against climate change, and air quality improvement, while its priorities included greening and beautifying Port property, as well as placing ESG culture at the heart of QPA operations, among other things.

The Port of Québec has also drawn up an ESGSD (environment, social, governance, and sustainable development) action plan for 2024–2028 that sets out the main priorities that emerged from

consultations with various stakeholders. The purposes of these initiatives include making sure Port property benefits from sound environmental management and adopting a comprehensive greening plan that is consistent with the community's goals.

Lastly, the Port of Québec aims to become a leader in community involvement. An annual fund dedicated to citizen initiatives has been set up to encourage community projects, including greening projects in Québec City.

## The QPA's 2035 Vision

To be a port recognized by citizens for the responsible management of its territory, respect for the environment, and protection of biodiversity, while positioning itself as a world leader in establishing sustainable supply chains for a more resilient economy.



## GREENING OBJECTIVES

The Port of Québec is implementing greening initiatives in an effort to:



**Make the Port an industry leader in greening Québec City**



**Encourage citizens, the Port, and the city to coexist harmoniously**



**Provide more ecosystem services through greening projects**



**Take action on air quality**



**Beautify the area and contribute to the well-being of Port employees and partners**



# OVERVIEW OF THE AREA



# CURRENT STATE

In order to make informed choices and guide future greening efforts, the Centre d’enseignement et de recherche en foresterie de Sainte-Foy (CERFO) took an exhaustive inventory of the trees on Port property. The ecosystem services provided by the trees were also quantified in an effort to better understand the benefits of having vegetation in the port area.

A thorough analysis of CERFO’s raw data revealed that 18% of the port area is covered by vegetation, 3% of which is tall vegetation (over 2 m). The data also made it possible to target the areas most severely affected by heat islands and measure the trees’ carbon sequestration, as well as their ability to capture runoff and atmospheric pollutants (Table 1). For example, since they were planted, the trees at the Port have captured over 250 tonnes of CO<sub>2</sub>, which is equivalent to what 200 cars emit in a year.

This information will help us better prioritize what measures to take to green the Port property and get a better sense of what the results might be in 20 years’ time.

Table 1 Ecosystem services provided by Port of Québec trees: Current impact (2024) and projected impact in 20 years (2044)

ECOSYSTEM SERVICES	CURRENT IMPACT OF ALL TREES (2024)	PROJECTED IMPACT OF ADDITIONAL YOUNG TREES IN 20 YEARS (2044)		
		PLANTED	NATURAL	TOTAL
CARBON STORAGE – T	252.13	75.71	36.52	+112.23
POLLUTANT CAPTURE – KG/YEAR	143.73	48.25	26.45	+74.70
RUNOFF REDUCTION – M³/YEAR	750.70	241.20	99.60	+340.80




# COMMUNITY NEEDS

Over the past few years, the Port of Québec has frequently invited citizens to express their views and discuss a variety of issues to better understand their needs, ideas, and concerns. The importance of greening was emphasized at many of the meetings, and citizens were unanimous in their wish to make the area greener by adding vegetation to industrial facilities and parking spaces, creating community gardens, and providing spaces for pollinators. Furthermore, the community wants to be involved in the projects from early on and participate in greening activities (e.g., tree planting).





An aerial photograph of a city harbor, likely New York City, showing a mix of industrial and residential areas. In the foreground, there are large white cylindrical structures, possibly part of a water treatment plant or industrial facility. The harbor is filled with various boats, including tugboats and larger vessels. In the background, the city skyline is visible with several prominent skyscrapers. A large blue geometric overlay, consisting of several overlapping squares and rectangles, covers the left side of the image. The text "GREENING PROJECTS" is written in white, bold, sans-serif capital letters on a solid blue rectangular background within the overlay.

# GREENING PROJECTS



## OVERALL GREENING TARGET

The Port of Québec has set a number of greening targets to meet its commitments to the CICEL and act as a strong leader in greening while focusing on the ecosystem services vegetation provides and improving biodiversity.

As explained earlier, the INSPQ recommends 30% canopy cover in a neighbourhood to support health, and this informed the Port of Québec's 30% canopy target. Smaller, more specific targets will contribute to reaching this overall target.

Reach 30% canopy cover on non-industrial Port property by 2035



# SPECIFIC GREENING TARGETS

## COMPLETE 3 FLAGSHIP PROJECTS

Flagship projects are innovative, unifying, large-scale projects that promote greening research and development. They aim to enhance the port area and significantly improve ecosystem services.

A number of flagship projects, such as projects to create a wooded park and a green barrier wall, are already underway or scheduled to be completed in the next few years. While they are technically and financially complex, they are critical to achieving the 30% canopy target on non-industrial Port property. Not only do they meet several specific objectives at once, but they also provide an opportunity to plant a massive quantity of vegetation, considerably increasing the canopy in a given area.



## CARRY OUT 2 BEAUTIFICATION PROJECTS PER YEAR

Beautification projects aim to create new green spaces or improve existing ones by planting additional vegetation and installing outdoor furniture and artwork to attract passersby.

Through these initiatives, the Port aims to make spaces more aesthetically pleasing and offer a more pleasant environment for workers at the port, citizens enjoying the recreational areas, and tourists passing through. Artistic and modern trends from around the world can inspire future initiatives of this kind.

The Port will look to foster partnerships with local artists through large- and small-scale architectural works and installations.





## CARRY OUT AT LEAST **ONE DEPAVING PROJECT** PER YEAR

More specifically, depaving initiatives are intended to reduce the prevalence of asphalt surfaces, particularly non-essential paved surfaces and parking spaces where possible, by replacing them with permeable surfaces like bioswales and green spaces. They also encourage choosing more environmentally friendly solutions than asphalt (e.g., grow-through paving) for new projects and infrastructure restoration.

These measures may be taken to correct certain situations when the opportunity arises. Otherwise, their purpose will be to improve future projects at the Port. While the QPA aims to significantly reduce asphalt surfaces and bolster ecosystem services, these depaving projects will be implemented based on the resources available for port operations and future projects. They will need to be justifiable in terms of the Port Authority's budget priorities and result in as few maintenance and safety constraints as possible.

## CARRY OUT AT LEAST **3 INFRASTRUCTURE GREENING PROJECTS**

Greening infrastructure, i.e., installing green walls, green roofs, or green fences, helps reduce the impact of heat islands, better manage runoff, and more effectively capture airborne dust and pollution. Opportunities for larger-scale projects such as green roofs and green walls will have to be studied in collaboration with the Port of Québec's Engineering Department.



## CARRY OUT AT LEAST **2 URBAN AGRICULTURE PROJECTS**

Urban agriculture projects are meant to enhance the Port's commitment to the community and the environment and create a sense of belonging. Some larger-scale projects could also be carried out in collaboration with community organizations, with harvests distributed to local food banks.

## IMPLEMENT 2 PROJECTS FOR DIFFERENTIATED MANAGEMENT OF GREEN SPACES

Differentiated management is a way of maintaining and promoting biodiversity in green spaces. Typically, green spaces are mowed systematically and uniformly, which depletes species diversity and results in high maintenance costs. Differentiated management is achieved by mowing less often and maintaining fewer areas, resulting in lower maintenance costs. It can also include mowing with greater awareness of key periods (for example, avoiding mowing as early as May, or mowing only once in October) to promote biodiversity. Differentiated management must be done in collaboration with the Port of Québec's Maintenance Department.



## CARRY OUT AT LEAST 2 INNOVATIVE GREENING PROJECTS

Innovative greening projects aim to “test” new technologies to beautify and green the port area. The main purpose of these innovative projects is to collaborate with startups, local organizations, and even Port partners to make the Port of Québec an open-air laboratory.

## CONTRIBUTE TO AT LEAST 5 GREENING PROJECTS BEYOND THE PORT

By supporting greening projects beyond its property, the Port aims to have a positive impact on urban greening while demonstrating its commitment to the community in terms of protecting biodiversity and improving air quality. The intention is to work with local players who are committed to enhancing their neighbourhoods and supporting a healthy quality of life for residents.

For the QPA, which cannot operate as freely beyond its property as it can within it, this is a way to demonstrate environmental leadership and encourage stakeholders in the area to take action for a healthier environment.





# PLANNING



# PRIORITIZATION METHOD

STEP 1	MAP GREENING OPPORTUNITIES
STEP 2	PRIORITIZE GREENING OPPORTUNITIES USING A MULTI-CRITERIA ANALYSIS GRID
STEP 3	INTEGRATE PRIORITY GREENING OPPORTUNITIES INTO BUDGETS

Potential greening opportunities with a higher score will be incorporated into the following year’s budgets, or carried out as a priority in the current year if budgets allow. With upstream planning, the Port can make the best possible use of partners operating on the property, as well as stakeholders involved in greening the region. It also provides more time to put together realistic financial packages for projects, and draw on other sources of funding as needed.

One of the main purposes of this integrated greening plan for the Port property is to institute more predictability and better planning for greening opportunities. It is intended to integrate greening projects into the Port of Québec’s annual planning and budgeting processes and encourage more participation from stakeholders in the area.

To do so, the first step is to map potential greening opportunities on Port property by way of field visits and geomatics tools (see Figure 2; this map will continue to evolve as industrial projects are carried out on Port property). It is also vital to hold consultations internally and with Port partners to ensure that greening opportunities are realistic. For projects that involve the community, citizen round tables can be scheduled beforehand to gather their suggestions and concerns.

The second step consists of evaluating each potential greening opportunity using a multi-criteria analysis grid, followed by map requests.

That way, greening projects can be prioritized, and greening opportunities can be re-evaluated each year if there are changes, operational or otherwise. Priority indices for the analysis include:

- › Ecosystem services
- › Operational constraints
- › Costs
- › Community relations
- › Well-being of Port employees/partners

**Figure 2 Example of potential greening opportunities in the Estuary sector**







# INITIATIVE SCHEDULE

To plan each year’s greening initiatives, an annual greening schedule will be prepared based on the prioritization method presented on the previous page, as well as the available greening budget. The schedule will include the following information for each project:

- › Category (beautification, depaving, flagship project, etc.)
- › Name
- › Start date
- › Projected end date
- › Allocated budget

# FUNDING

There are several ways to fund greening projects at the Port of Québec. Firstly, the Québec Port Authority (QPA) provides recurring funding each year for greening. Furthermore, some large-scale capitalizable projects carried out on Port property will be required to allocate a certain amount to greening. In collaboration with Port partners, the Impact Assessment and Mitigation Process (IAMP) can be used to incorporate greening into projects, making the Port a more enjoyable place to work. Special financial packages can also be made available for specific greening projects (e.g., flagship projects), and projects can include compatible soil recovery where possible as part of a soil reclamation approach. Lastly, there are a growing number of grant programs for greening projects that the Port of Québec may be eligible for, either on its own or through current or potential community partners.

% OF TOTAL QPA BUDGET	IAMP	SPECIAL FINANCIAL PACKAGES	GRANTS
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## MONITORING

To ensure that greening projects meet objectives, an accountability section will be included in the QPA's annual report. The section will document greening projects, and a summary sheet can be created for each project with details such as project explanations, costs, benefits, and before-and-after pictures. Furthermore, a final report will be prepared in 2035, compiling all the greening projects carried out over the 10 preceding years.

The greening plan will be updated after five years to adjust targets if they are unrealistic or already nearing completion. The plan will also include mid-project reviews to document greening efforts with pictures and concrete data.





# MANAGEMENT AND MAINTENANCE







## MAINTAINING THE VEGETATION

The Environment Department will manage greening projects and involve other departments where necessary (e.g., Engineering for infrastructure greening or Maintenance for the differentiated management of green spaces). For easier maintenance and successful greening projects, it will be important to select low-maintenance plant species (perennials, plants that require little water and no wintering, etc.). However, the plants will still need to be monitored and watered regularly for the first two years after planting to ensure their survival. These stipulations should be included in contracts with the organizations responsible for planting, where possible.

## MANAGING INVASIVE ALIEN PLANTS

To ensure that greening efforts on Port property are sustainable, it is important to monitor invasive alien plants and prevent them from spreading and harming native species. All ash trees on the property have been surveyed to limit the spread of the emerald ash borer. The trees are gradually being culled and replaced by more resistant species. Furthermore, a control plan for invasive alien plant species (IAPS) has been implemented to manage the presence of the common reed, Japanese knotweed, and buckthorn at the Baie de Beauport. The goal is to set up a port-wide IAPS control plan that will be closely linked and complementary to the greening plan. The control plan is the next deliverable, due to be completed and released by summer 2026.

IAPS management will be entrusted to local environmental organizations in an effort to find more environmentally friendly control methods (tarping, manual removal, etc.).



A photograph of a group of people sitting around a wooden table in a meeting or workshop. A large blue rectangular overlay is positioned in the center-left, containing the text 'COMMUNICATION AND EDUCATION' in white, bold, sans-serif capital letters. The background shows a woman with blonde hair in a black top looking towards the right, and a man in a blue hoodie looking down at his hands. There are papers, pens, and sticky notes on the table.

# COMMUNICATION AND EDUCATION

# COMMUNITY RELATIONS

To keep the community informed about greening projects on Port property, the Port can post about them on its social media before they begin if community involvement is relevant, as well as when they are completed. Before-and-after pictures will be taken of greening projects to promote them and make them visible to the general public.

Furthermore, the QPA would like to make use of committees (e.g., the Community Relations Committee or citizen round tables) to review greening proposals and collectively discuss priority projects. Some greening efforts will be established through the evaluation process for construction projects on Port property, which involve a multitude of stakeholders.

The Port can also partner with relevant community organizations to conduct awareness-raising activities to educate the community about the importance of greening and biodiversity. These might include planting events that bring together the community, Port employees, and partners, or outreach activities on subjects like urban agriculture, pollinators, and garden maintenance. Information panels can also be installed in strategic locations such as urban gardens, differentiated management areas, and publicly accessible beautification projects.

SOCIAL MEDIA COMMUNICATION  
(FACEBOOK, LINKEDIN,  
INSTAGRAM)

CONSULTATION AND  
CO-CREATION WORKSHOPS

PARTICIPATION ACTIVITIES  
(PLANTING, OUTREACH, ETC.)

SIGNAGE (INFORMATION  
PANELS)







# CONCLUSION





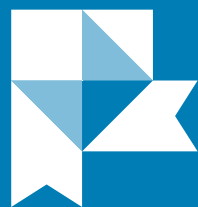
## FROM HERE, WE SEE FAR AHEAD

The Port of Québec wants to become an industry leader in greening Québec City and find innovative ways to green its property by focusing on the ecosystem services that vegetation provides. The 2025–2035 Greening Plan is a first step towards sound planning for long-term greening projects, but also towards a more structured method for identifying as many opportunities as possible to enhance the port area. Through its greening initiatives, the Port of Québec also hopes to improve air quality and encourage citizens, the Port, and the city to coexist harmoniously. Greening the area also reflects the Port's determination to be an employer of choice by contributing to the well-being of its employees and partners.

In the interest of continuous improvement, the Port pledges to regularly update its greening plan to account for the operations taking place on its property. It also commits to reviewing its greening targets in 5 years' time, if necessary, to make sure it implements as many greening initiatives as possible.

Given that this is the Port of Québec's very first greening plan, a certain amount of trial and error and many updates will be required over the next 10 years. The process will lay the groundwork for greening Québec City's industrial sector, and the Port will be able to take the lessons it learns and apply them to its next greening plan.





PORT  
QUÉBEC

▼ D'ICI, ON VOIT LOIN  
*FROM HERE, WE SEE FAR AHEAD*

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