



STAVROS
NIARCHOS
FOUNDATION
CULTURAL
CENTER

ΚΕΝΤΡΟ
ΠΟΛΙΤΙΣΜΟΥ
ΙΔΡΥΜΑ
ΣΤΑΥΡΟΣ
ΝΙΑΡΧΟΣ



SNFCC: Sustainability Hub

2017 Report

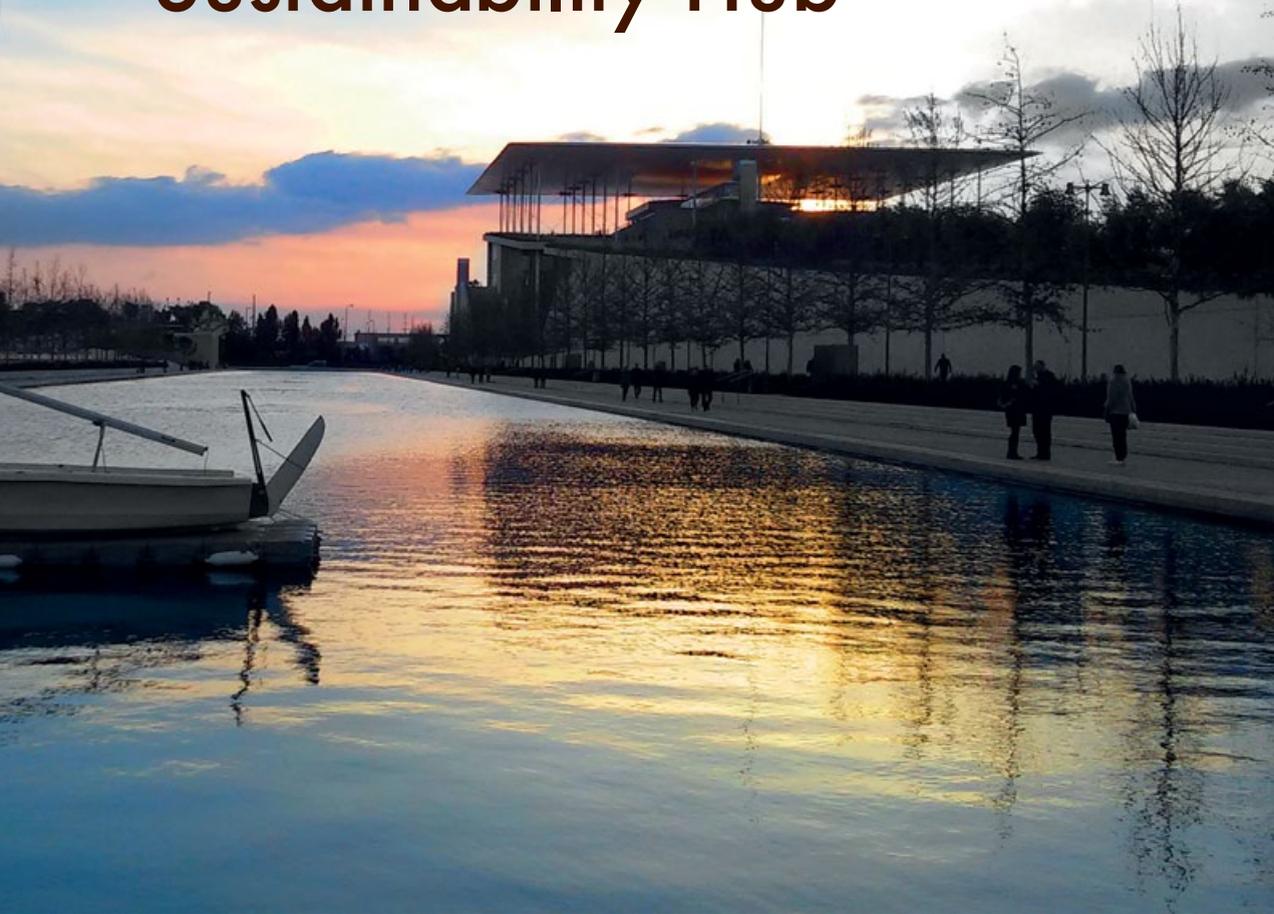


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SNFCC: Sustainability Hub



Sustainability has been an integral component of the Stavros Niarchos Foundation Cultural Center (SNFCC) project since its original inception by the Stavros Niarchos Foundation (SNF) and architect Renzo Piano. Culminating in the great Energy Canopy on the roof of the Greek National Opera building but also reflected in a myriad of details of the building and Stavros Niarchos Park design, the sustainability imperative at the SNFCC stands out as a new paradigm in the construction, operation and maintenance

of public buildings and infrastructure. This concerted effort won international recognition with the award to SNFCC of the LEED Platinum Certification, the most prestigious international distinction for environmentally conscious and sustainable buildings.

For the SNFCC, 2017 was a year rich in experiences and successes. It was the year in which its operation went into full force and it was delivered by SNF to Greek society and the Greek state. The relocation of the Greek National Opera to SNFCC

premises was completed and the relocation of the National Library of Greece was well under way at the end of the year. At the same time, the SNFCC was host for over 3 million visits, a figure exceeding by far the most optimistic estimates.

Throughout 2017, the sustainability apparatus and structures of the SNFCC went into full gear. We were thus able to obtain the first concrete results, which we are proud to share in the present report. This is the first in a series of reports, which we will be regularly publishing from now on. Our aim is not just to provide sets of figures, important as the latter might be, but to contribute to the public debate on sustainability and environmental protection, especially by sensitizing our public, our visitors, our Members, our audiences.

We would like this report to act as a call for people who share our vision contribute to our effort by volunteering, joining our Membership Program, and participating in events, which highlight a sustainable way of living and bring out the urgent need for sustainable cities. We will be working with them in updating and sharpening our goals and in embarking on new programs aimed at enhancing sustainability.



Renzo Piano and
Andreas Dracopoulos

At the SNFCC, we feel we owe deep gratitude to the SNF, its Co-President, Andreas Dracopoulos and its Board of Directors, for their great donation of the SNFCC to Greek society, as well as their ongoing, more than generous, support of our activities and endeavors. Special thanks are due to the Technical Director of the SNF, Theodore Maravelias, who has been a constant source of wisdom and inspiration in matters of sustainability.

Lastly, the present report will have served its purpose fully if it becomes a useful tool for educational initiatives aimed at disseminating the ideas of sustainability and environmental protection especially among the youth of our country. Towards this end, we intend to roll out a series of outreach activities aimed both at our young visitors and students across Greece.

“Sustainability is not only about green spaces, trees, or the photovoltaic canopy. Sustainability is a way of life. The ability to make the SNFCC an important part of our everyday lives remains a critical aspect of the whole project.”

Andreas Dracopoulos,
Co-President, Stavros Niarchos Foundation

€630 million
investment

21 hectares

3 co-hosted cultural organizations

- National Library of Greece
 - Greek National Opera
 - Stavros Niarchos Foundation Cultural Center S.A.
-

In 2017:

3 million visitors

3,500 free events

organized by SNFCC S.A.

October 29, 2006

The Stavros Niarchos Foundation (SNF) **announces** its plans to sponsor the design, construction and full equipment of SNFCC, including the new premises of the National Library of Greece, of the Greek National Opera and the Stavros Niarchos Park, a metropolitan educational and cultural park.

June 11, 2007

A **Memorandum of Understanding** is signed between the SNF and the Greek State regarding the construction of SNFCC.

February 21, 2008

Renzo Piano Building Workshop **is selected** to design SNFCC.

August 7, 2009

The contract between SNF and the Greek State for the construction of SNFCC **is ratified** by the Greek Parliament.

September 28, 2012

Construction of the SNFCC begins.

August 16, 2016

SNFCC **begins its daily operation.**

February 23, 2017

Donation of the SNFCC to the Greek State by the Stavros Niarchos Foundation.



Sustainable by design

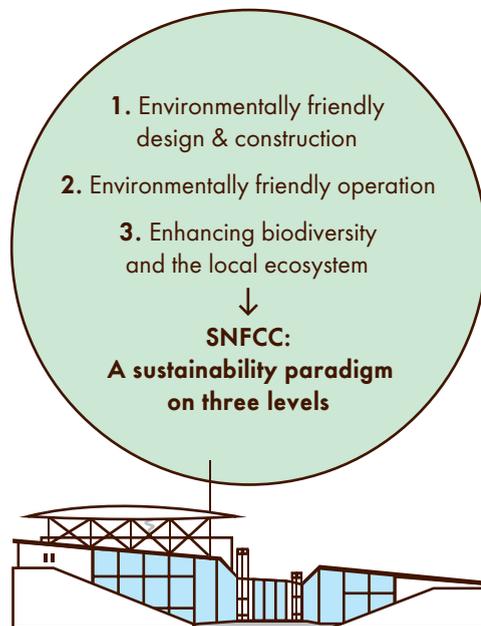
Creating an environmentally friendly and sustainable infrastructure for SNFCC and the Stavros Niarchos Park was a key part of the design and the construction mandate.

AMBITIOUS ENVIRONMENTAL GOALS WERE SET FROM THE BEGINNING:

- To comply with the **Environmental Impact Assessment** and relevant Greek environmental legislation;
- To achieve the highest **environmental certification** possible – **LEED Platinum**;
- To adopt the most demanding **international environmental standards**.

AN INTEGRATED ENERGY STUDY HAS BEEN CONDUCTED AND IMPLEMENTED IN THE BUILDINGS:

- An **integrated design** of the building shell, taking into consideration the building's **location** and **orientation** with respect to the surrounding space and available sunlight;
- Application of the **appropriate thermal insulation** in opaque building elements, as well as suitable frames and high-efficiency electromechanical systems of minimal primary energy consumption;
- Use of **renewable energy technologies** and **automation systems** in the operation of electromechanical installations to minimize unnecessary use.



An olive, the first tree of the Stavros Niarchos Park, was planted in May 2014.

SMART BUILDING ENERGY MANAGEMENT SYSTEM (BEMS):

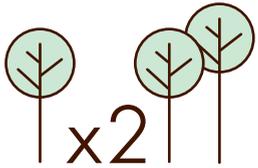
- Early-warning systems for operational failures;
- Remote management;
- Automation of operation;
- Monitoring energy, water, and gas consumption, as well as the energy produced by the photovoltaic system.

IN ADDITION TO THE BEMS, THERE ARE ALSO IN OPERATION:

- Central lift monitoring system;
- Central energy monitoring system;
- Water quality monitoring system for the Canal.

Stavros Niarchos Park

Occupying 85% of SNFCC's total area, Stavros Niarchos Park stretches over an area of 21 hectares. It is home to a rich variety of flora, including olive trees, evergreen shrubs, carob trees, laurels, cypress trees, as well as an extensive selection of indigenous Greek aromatic plants.



Stavros Niarchos Park **doubled the per capita green** space in the greater area from **0.74m²** per person to **1.50m²** per person.



The Park's **temperature is 2 degrees Celsius lower** than in adjacent areas.

The Stavros Niarchos Park **enhances the area's biodiversity**, reviving the Mediterranean landscape. How?

- The Park includes **16 tree species** and **161 shrub species**, a variety of grasses and **bulbs**;
- Plants were selected and arranged with an eye to providing **a variety of seasonal blooming** and creating exciting **color schemes** and **textures**;
- Thanks to the extensive variety of plant species, **insect biodiversity has also been increased**. The presence of rosemary, thyme and lavender has attracted bees, for instance;
- Stavros Niarchos Park has already **been visited by various bird species**, which either overwinter or stop by while migrating.

1,439
trees

128,000
shrubs

123,000
grasses

5,070 m²
of lawn



In 2017, we harvested **11,583 kilos of olives** and produced **1,087 kilos of olive oil** from the Park's olive trees.



2017 ACHIEVEMENTS:

- The Vegetable Garden was established, used for **urban gardening** as well as for **learning opportunities** for both children and adults;
- A series of **lectures** on the Park's plants, as well as **gardening courses** and other educational activities for children and adults were organized.

2018 GOALS:

- Expand **educational, outreach and awareness activities** aimed at familiarizing visitors with indigenous Mediterranean plants;
- Encourage **visitor interaction** with the Park and the Vegetable Garden through participation in joint gardening and other projects;
- Improve the stabilized **ceramic floor** on the Park's paths.



DID YOU KNOW THAT:

- The plants of the Stavros Niarchos Park are **resistant to drought** and fully adapted to Mediterranean conditions, **requiring very little water?**
- Choosing appropriate plants, suitable for Greece's climate and soils ensures sustainability and reduces irrigation and fertilization requirements?
- Stavros Niarchos Park is host to **century-old olive trees?**
- **Green roofs** cover **18,500m²** in Stavros Niarchos Park? The green roofs of the National Library of Greece, the Greek National Opera and the Parking buildings **are all covered with Mediterranean plants** grown in a special substrate.



The Lighthouse Path
and SNFCC's Energy Canopy

Energy

SNFCC, the National Library of Greece and the Greek National Opera have –similarly to all high-traffic public venues– increased, constant needs for heating, cooling, air conditioning, lighting and hot water. From the outset, our goal was to meet these needs while keeping our primary energy consumption to a minimum.



SNFCC's energy efficiency initiatives result in a **40% energy reduction** compared to what a similar building complex would consume without their implementation.

2017 ACHIEVEMENTS

- The **photovoltaic panels** on the energy canopy were activated in May;
- **Between May and December 2017, 667MWhs of natural gas were** consumed, compared to 848MWhs in 2016, respectively – **a 21% reduction**;
- The operation of critical systems, such as **air conditioning**, were optimized to minimize **power consumption**.

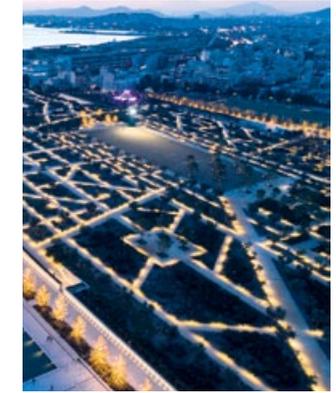
2018 GOALS

- We are going to **optimize energy efficiency, aiming to further reduce the energy required from the power grid**;
- We will proceed to issue SNFCC's **Energy Policy**, which will be binding to all users (entities and concessionaires);
- We will seek **international and domestic partnerships**, e.g. with CRES and **Eurosolar**, the European association for renewable energy.

Smart systems

Heating, air conditioning, lighting – all systems are designed to save energy.

The **planted roofs** of the National Library of Greece, the Greek National Opera and the Parking buildings are all **covered with Mediterranean plants** grown in a special substrate. This substrate and the plants **create cooling conditions for the buildings** and act as a **protective layer in both winter and summer**.

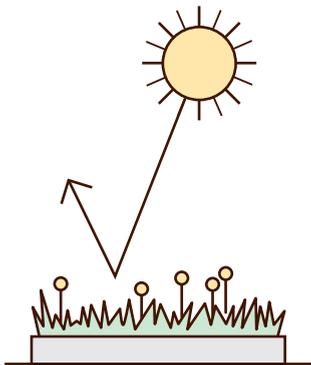


All lighting is controlled by a central smart management system, in which optimal timing settings make it possible to keep lights on only when required. A cornerstone of SNFCC's architectural design, maximizing the use of natural lighting is a key contributor.

Most building areas are equipped with **motion detectors**, ensuring that lights are turned off when there is no human presence.

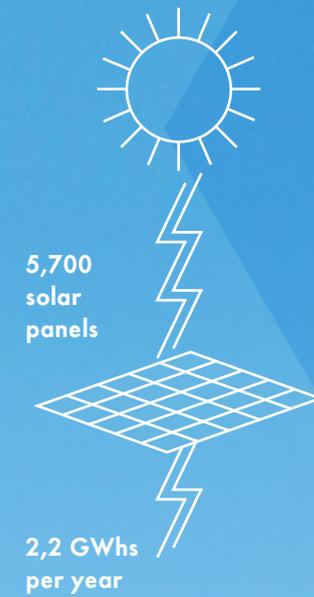
- The facades of the SNFCC buildings are equipped with **automatic shading** systems;
- Hot-water production for air conditioning is effected through **natural gas** combustion, rather than oil. **Heat recovery technology** preheats water for use and heating;

- Air systems feature **free cooling**, that is, they take advantage of outdoor temperature in mid-seasons to reduce the electricity consumed by air conditioning.



Energy Canopy

A large canopy is suspended above the Greek National Opera building and the Lighthouse, 47m above sea level. The canopy measures one hectare, roughly equal to an American football field, and weighs 4,500 tons, equivalent to as many as 160 tri-axle buses.



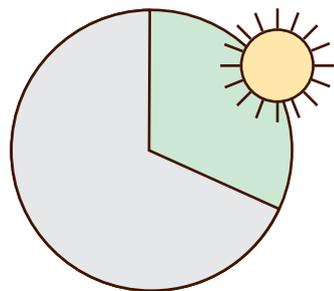
The canopy is covered with **5,700 solar panels**, able to produce up to **2,2 GWhs per year**, substantially contributing to SNFCC's energy needs and minimizing CO₂ emissions. At certain times, the canopy can cover 100% of SNFCC's energy needs.



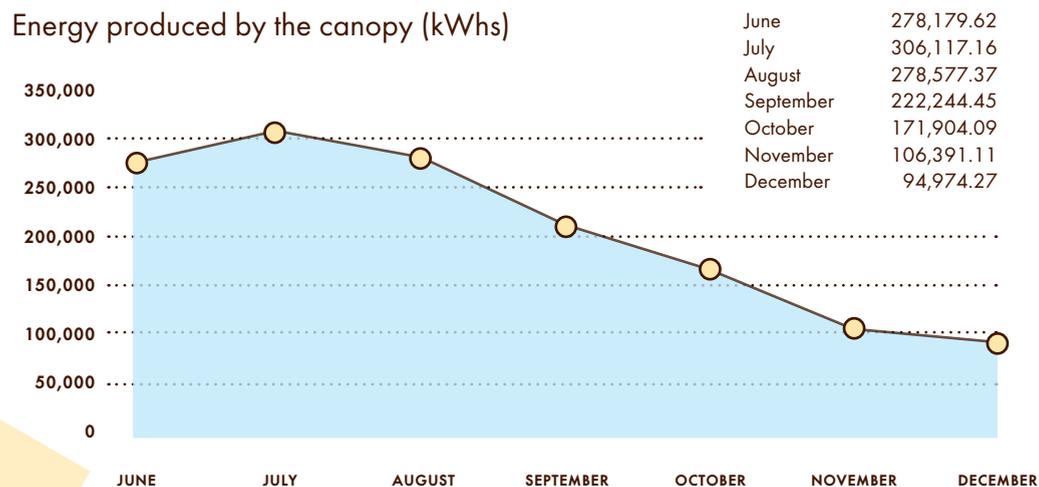


The energy canopy was activated in May. From June to December 2017, it met SNFCC's energy requirements by

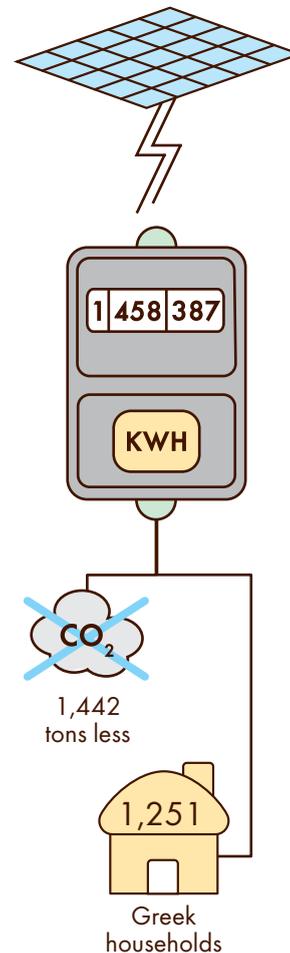
27.98%



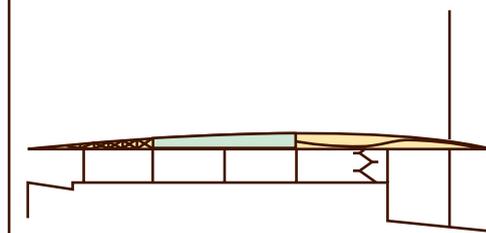
Energy produced by the canopy (kWhs)



In 2017, the canopy's energy production was **1,458,387 kWh**, preventing the release of **1,442 tons** of CO₂, equal to covering the average monthly energy requirements of **1,251 Greek households**.



The "**Umbilical Cord**" connects the canopy's power transformers to the rest of the building.



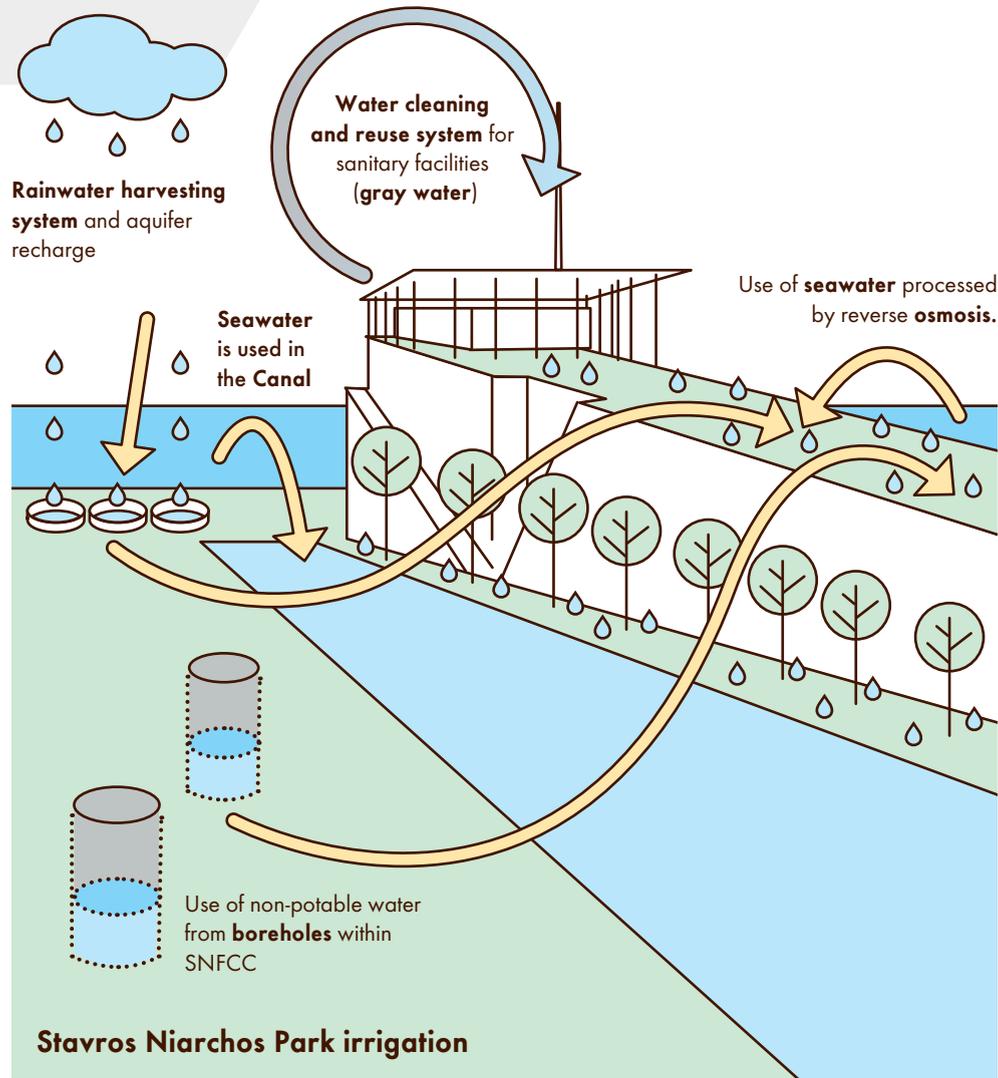
The canopy's section is reminiscent of an **airplane wing**, as, in an area as open and exposed as the Faliro Delta, wind can easily reach high speeds, and the canopy's shape must not offer resistance. To arrive at the final form of the canopy, **750 panels were assembled**.



Water Jets at Stavros Niarchos Park

Water management

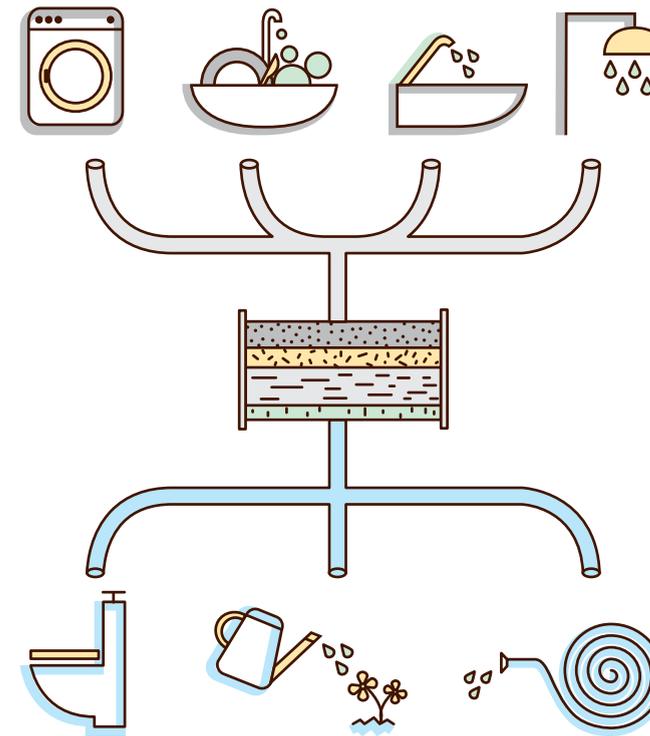
SNFCC and the Stavros Niarchos Park are designed to be as self-sufficient as possible regarding water requirements: irrigation, non-potable water applications and the water used in the Canal.



- ↑ **Irrigation automation** and use of plants with **reduced irrigation requirements**
- Underground drip irrigation** instead of surface irrigation
- River gravel soil cover**, preventing rapid evaporation
- No use of drinking water** from the public water grid.

RESTROOMS

- **Photocell washbasin faucets** help save water;
- Photocell urinals and **dual-flush cisterns**;
- Cleaning and reusing in cisterns 85% of gray water* produced.



*WHAT IS GRAY WATER?

Gray water is water from washing machines, kitchens, faucets and showers. After processing, it can be reused in cisterns, surface irrigation and cleaning. Recycled water is clear; no chlorine or other chemicals are used. In SNFCC, gray water is reused in cisterns.

2017 ACHIEVEMENTS

Thanks to proper planning and streamlining, a **23% reduction in irrigation consumption** was achieved (April-September 2017 vs. 2016).

2018 GOALS

In 2018, the National Library of Greece building will go into full operation, resulting in an increase in the number of daily users.

For this reason, we are optimizing **data management** so that we can target specific areas where we can **reduce consumption**.

Canal

The Canal restores the relationship between the area's residents and the waterfront, incorporating the element of water.

- The Canal is **400 meters** long, **30 meters** wide, and **70 to 150 cm** deep;
- **Water comes from the sea** and is processed in **reverse osmosis** units. Treated water is used for **irrigation**, while the remainder is fed back into the Canal and eventually returned to the sea at the same, or better, quality;
- **Two robotic systems** remove part of the seaweed from the Canal bottom on a daily basis;
- In addition, **scheduled maintenance of the Canal**, which lasts about four weeks, takes place once or twice a year, including draining the Canal, cleaning the bottom and sides with brushes and pressurized water, and cleaning the pipelines and pumping stations;
- SNFCC's **strict environmental specifications and Platinum LEED certification** prohibit cleaning the Canal with chlorine or other chemical agents;
- **The water quality is constantly monitored;**
- The Canal also acts as a **flood control** channel;
- On Evripidou Street, there are **3 reservoirs, collecting rainwater** and releasing it slowly and gradually;
- In addition to being a landscape feature, the Canal is host to weekly **sailing and kayaking lessons** for children and adults.

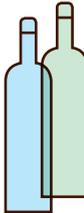
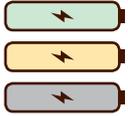
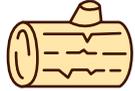
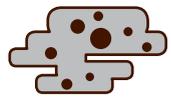


Waste management & recycling

SNFCC has developed processes that encourage recycling by both staff and visitors.



THERE ARE 15 DIFFERENT MATERIAL RECYCLING STREAMS AT SNFCC

 Paper & cardboard	 Plastic	 Aluminum
 Glass	 Cooking oils from F&B points	 Maintenance oils
 Clothing from GNO's activities	 Printer ink cartridges	 Light bulbs
 Household batteries	 Special batteries	 Wood
 Electric & electronic waste (appliances)	 Plant material from the Park's maintenance (for composting)	 Mud from cleaning the Canal



SNFCC waste collection, transportation and recycling is carried out solely by SNFCC, which **outsources its integrated management services**. Moreover, SNFCC must **submit an annual waste report** to the Electronic Waste Registry of the Greek Ministry of Environment & Climate Change.

95%

DID YOU KNOW THAT...

During SNFCC's construction, **95% of the building waste was recycled?**

2017 ACHIEVEMENTS:

- In 2017, SNFCC's **recycling programs** were introduced, designed for separation of waste at source. Based on the its Waste Management Plan, **15 different recycling streams** were installed.

2018 GOALS:

- **Actionable conclusions and comparative data** will be available in 2018, since the recycling programs were introduced in 2017;
- **Cooperation** with GNO and NLG and concessioners will expand to **improve recycling rates**.

Sustainable mobility & public transport



Committed to sustainable mobility, SNFCC fosters a bicycle culture, encouraging the use of bicycles as a means of transport, exercise and recreation.



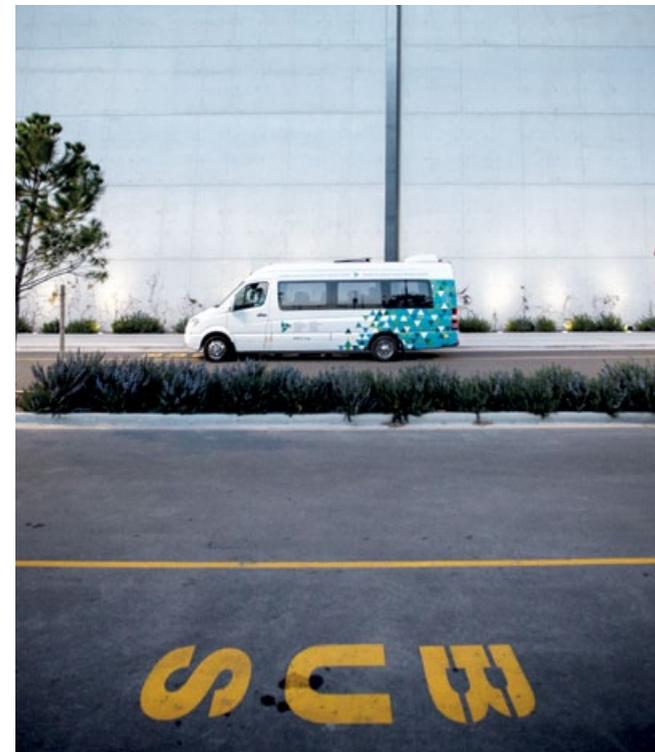
In March 2017, a **75-bike rental service** for adults and children was launched. Our bicycles **were used more than 38,000 times** by SNFCC's visitors in 2017.

BICYCLES

- A **2.5km** bike lane has been created on the perimeter of SNFCC. It is linked to the bike lane network of Kallithea and Athens metropolitan bike lane network;
- There are secure bicycle parking racks in various SNFCC areas for those who opt to arrive by bike;
- In 2017, we carried out a number of bike-related **free and open activities for the public**: from seminars and workshops to cycling classes for both young and old, and from cycling races to free bicycle tuneups.

GETTING TO SNFCC

- Throughout 2017, a **free shuttle bus** service was provided on the Syntagma- Fix Metro Station - SNFCC route, which served **90,000 passengers**;
- In cooperation with Athens Transport, a **bus stop was installed within SNFCC**, serving seasonal line X80 as a pilot project;
- In 2017, a **traffic study** was sponsored by the Stavros Niarchos Foundation. It has been already approved by relevant public administration departments and the Kallithea Municipal Council. The study includes a series of recommendations to mitigate traffic impact around SNFCC and several steps to improve public transport service, including:
 - **Route modifications** on bus lines 910, 860, X80, as well as launching a new bus line between Fix Metro Station and SNFCC;
 - **Modifications on** Pistratou, Navarchou Votsi, Filippou, Evripidou, Lysikratous and Isminis streets around SNFCC.



DID YOU KNOW THAT...

Electric carts are used by SNFCC staff and associates within Stavros Niarchos Park to reduce CO₂ emissions?

One can bike from Kallithea to Flisvos on the Faliro seafront, through SNFCC's Esplanade crossing over Poseidonos Avenue?

SUSTAINABLE TRANSPORT FOR ALL: METRO

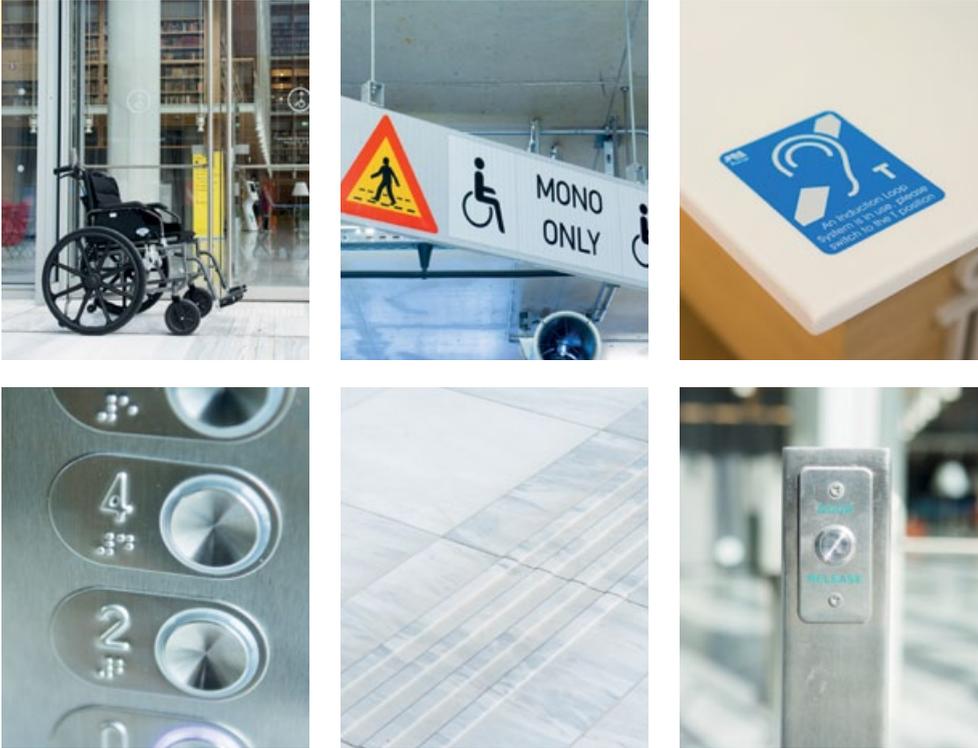
Only in its first year of operation, SNFCC has been already established as a metropolitan destination. In 2017, more than **3 million** people visited SNFCC. For this reason, we **support any investment in public transport**, with particular emphasis on fixed-route transit services. **We are exploring the requirements for setting up a metro station** close to SNFCC, coordinating our action with relevant authorities.



A view of the Panoramic Steps and the Stavros Niarchos Park in the background

Accessibility

Committed to be open to all, the Stavros Niarchos Foundation Cultural Center has been designed to be fully accessible to persons with disabilities.



- SNFCC premises are **fully accessible** to wheelchair users and mobility-impaired persons;
- A **hearing loop** system is installed in auditoriums and both stages of the Greek National Opera to accommodate assistive listening;
- There are **wheelchair seat locations** and companion seats as well as **wheelchair accessible lifts** in the Greek National Opera's Stavros Niarchos Hall;
- There is **tactile paving for the visually impaired** in SNFCC outdoor areas;
- All buildings have wheelchair accessible entrances and door switches.

Ethical practices

The Stavros Niarchos Foundation Cultural Center seeks to develop initiatives and partnerships that promote the principles of sustainability and ethical employment practices.

The tote bag SNFCC Members receive as a gift is made entirely in Greece from 100% sustainably produced Greek cotton. For this bag, SNFCC collaborated with **Social Fashion Factory – SOFFA**, whose mission is to **educate and reintegrate excluded** persons (refugees, unemployed, sex workers) in the workplace and society through the production of **eco-friendly, sustainable clothing**.



The SNFCC Members tote bag helps integrate survivors of human trafficking into learning and work structures through ethical employment practices.

Environmental education

Part of SNFCC's sustainability strategy is to educate and raise awareness among visitors.



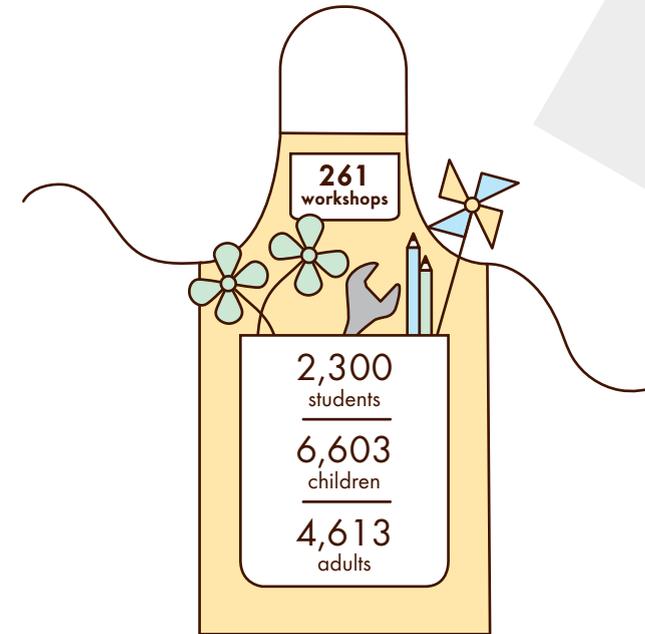
SNFCC ENVIRONMENTAL PROGRAMS FOR SCHOOLS

- **With the power of nature:** Through fun research games, math puzzles, experiments and role-play, children discover the innovative features of SNFCC's energy canopy, green roofs and irrigation reservoirs, as well as their roles in day-to-day operations;
- **Solar energy – a world in constant motion:** Nature, the environment, machines, motion, solar energy, energy conversion, methods to convey mechanical energy, automation.

Students approach these topics by constructing their own engineering models, simulating real-life devices;

- **The Park's Little Gardeners:** The program familiarizes children with Stavros Niarchos Park's flora, making them aware of the importance of urban green spaces and introducing them to the concept of sustainability through dynamic activities, hands-on gardening and role-playing games that promote environmental protection.

In 2017, **2,300 nursery-school, elementary and secondary school pupils** visited SNFCC and participated in our environmental awareness programs for schools.



Moreover, **6,603 children** and **4,613 adults** participated in **261 workshops** on topics related to the **environment, gardening, energy** and **architecture**, organized in 2017.

DID YOU KNOW THAT:

- Many children's workshops are specifically designed to include both children with and children without disabilities in joint activities?
- Admission to SNFCC workshops and school programs organized in 2017 was free of charge thanks to the exclusive grant of the Stavros Niarchos Foundation?
- SNFCC has developed special educational programs for people over 65?

"I like everything about the building. I have discovered how it saves energy; the experiments and the park are fun. I'd like to come back!"
STUDENT, PERACHORA MUNICIPAL SCHOOL, CORINTH

"We'll plant a yummy park!"
STUDENT, HEARING IMPAIRED LEARNING CENTER

2018 GOALS:

- Pilot program for educational visits to the Photovoltaic Canopy;
- Using augmented-reality technologies for the development of virtual tours to SNFCC points of environmental interest and developing a plan for their dissemination in schools and other entities outside Athens.



Membership Program

An integral component of SNFCC's sustainability is the Membership Program, which both contributes financially and builds a network of supporters of the Stavros Niarchos Foundation Cultural Center and its goals.

Arts and culture, sports, entertainment – all contribute to community building and improving quality of life. They can inspire our education system, strengthen our economy and provide Greece with much-needed skills and capabilities.

Supporting the Stavros Niarchos Foundation Cultural Center, the National Library of Greece, the Greek National Opera and Stavros Niarchos Park, the Membership Program contributes to building a common ground where everyone is welcome. It moreover supports accessibility, environmental sustainability, cultural production and social cohesion.

In 2017, 3,652 new membership subscriptions (individual and family) were added to the SNFCC Membership Program.



Awards

In November 2016, SNFCC earned the highest and most stringent environmental certification in the world: LEED Platinum by the U.S. Green Building Council.

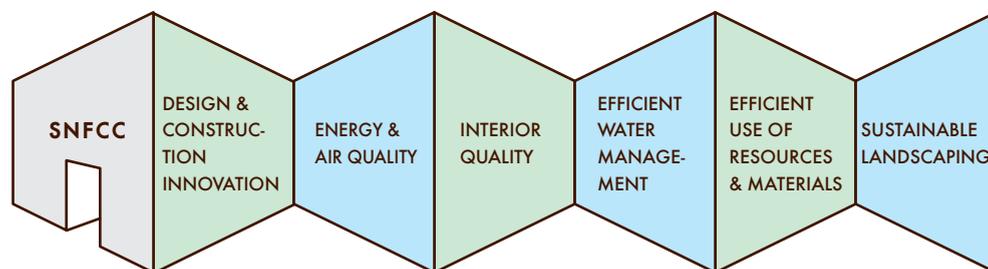


Our certification was the result of visionary architecture and the integration of active and passive technologies that make SNFCC one of the world's most environmentally sustainable buildings.

WHAT IS PLATINUM LEED CERTIFICATION?

The Leadership in Energy and Environmental Design (LEED) certification covers six key areas at both the design and construction stages. The Platinum level is the highest a building can achieve.

- SNFCC is the **first large-scale cultural** project to achieve LEED Platinum certification in Europe;
- In Greece, only three buildings have earned this certification – none at SNFCC's scale;
- Very few public buildings and cultural projects designed to accommodate such a large number of visitors have earned this certification throughout the world.



NON-EXHAUSTIVE LIST OF AWARDS

- LEED Platinum Certification, 2016
- Most Innovative Leisure & Entertainment Facility, 2017 InAVation Awards
- International Project of the Year, 2016 Building Awards
- Best Project – Cultural, 2016 ENR Global Best Projects Awards
- Merit, 2016 International Safety Awards, British Safety Council
- Award for Arts/Entertainment Structures, 2016 Structural Awards
- European Solar Prize 2017, EUROSOLAR
- Nomination, RIBA International Prize 2018, Royal Institute of British Architects (winners to be announced in December 2018)

In November 2017, SNFCC was awarded by **EUROSOLAR** (European Association for Renewable Energy) in **Solar Architecture and Urban Planning** for being a powerful **symbol of sustainability** that highlights the potential of renewable energy, embedded in a cultural center that sets new architectural standards.



SNFCC & UN Sustainable Development Goals

The United Nations Goals for Sustainable Development represent a global commitment to people, the planet and prosperity by 2030. Every individual country, city and organization can, and must, assist with their own efforts in achieving these goals.



UN GOALS

RELEVANT SNFCC ACTIONS & GOALS

GOOD HEALTH AND WELL-BEING



Ensure healthy lives and promote well-being for all at all ages.

Every day, SNFCC organizes and hosts sports events for all ages, with an emphasis on children, young people and people 65+. In addition, outdoor exercise equipment, a running track and a bicycle lane are provided free of charge to use by all.

QUALITY EDUCATION



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

SNFCC promotes lifelong learning through workshops, lectures and educational activities for all ages, inclusive of vulnerable groups, with special emphasis on schools and students.

GENDER EQUALITY



Achieve gender equality and empower all women and girls.

The majority of SNFCC's staff are women. SNFCC S.A. is an equal opportunity employer, forbidding any kind of discrimination against an employee or candidate and ensures the just and fair treatment of all candidates based exclusively on their qualifications and stipulations as set by the law.

CLEAN WATER AND SANITATION



Ensure availability and sustainable management of water and sanitation for all.

By design and construction, SNFCC has taken care not to burden the public water and wastewater utility networks, by building boreholes, using and managing rainwater and seawater, and employing a gray water management system.



Ensure access to affordable, reliable, sustainable and modern energy for all.

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Reduce inequality within and among countries.

Make cities and human settlements inclusive, safe, resilient and sustainable.

With its Energy Canopy, SNFCC is a pioneer in renewable energy use. In addition, it has developed relevant educational programs to encourage sustainable energy and responsible energy consumption.

Thanks to SNF's Recharging the Youth initiative, which improves job prospects and creates new skill-building opportunities for the younger generation, SNFCC provides a six-month paid internship program for young persons aged 18-35.

SNFCC represents a major investment in culture, energy, technology and innovation, incorporating new methods and practices advancing environmental goals, including increasing resources and energy efficiency.

SNFCC is accessible to all, regardless of origin, financial status, disability, orientation, religious or political beliefs. It is an open, public venue, in which over 3,500 free public events were hosted in 2017. In addition, programs promoting coexistence and diversity are hosted by SNFCC.

As a major metropolitan and tourist destination, SNFCC contributes to local economy growth, creating new jobs and spearheading the regeneration of the surrounding area. It is moreover a safe place: In 2017, it attracted 3 million visitors with no notable incidents.



Ensure sustainable consumption and production patterns.

Take urgent action to combat climate change and its impacts.

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Halt and reverse land degradation and halt biodiversity loss.

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

SNFCC's waste and recycling flow management systems address part of the product and consumption life cycle. Furthermore, SNFCC collaborates with organizations promoting ethical practices and strict environmental standards.

From the outset, SNFCC has been committed to saving energy resources and reversing the effects of climate change, such as global warming. Extensive use of renewable energy, bioclimatic design, large areas of sustainable urban green, a free shuttle bus service and a bike rental system, all help reduce emissions.

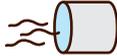
Seawater used in SNFCC is filtered, not only when it flows in, but also when it flows out to return to the sea at the same or better quality than before.

Contributing to biodiversity, Stavros Niarchos Park hosts 200 different Greek and Mediterranean flora species.

The SNFCC model is a tangible example of public and private sector partnership, and of developing synergies across different public entities and organizations.

Green SNFCC at a glance



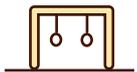
- 1  Seawater pipes to fill the Canal

- 2  Energy Canopy

- 3  Vegetable Garden

- 4  Esplanade: Access to the sea

- 5  Green roofs

- 6  Outdoor gym

- 7  Bike lane

- 8  Canal: Additional flood control

- 9  Running track

- 10  Stavros Niarchos Park

- 11  4 Boreholes

- 12  Rainwater harvesting reservoirs

Environmental management



The SNFCC team in front of the first olive tree planted in Stavros Niarchos Park

The SNFCC **Environmental Unit** has been set up to effectively promote environmental management. All SNFCC staff, however, contribute to **ensuring the sustainability** of the Stavros Niarchos Foundation Cultural Center.

ENVIRONMENTAL UNIT RESPONSIBILITIES:

- **Ensuring compliance with environmental conditions** in SNFCC's operational phase;
- Submitting required **periodic reports**;
- Designing, developing and implementing an **Environmental Management System (EMS)** for SNFCC's operation;
- Ensuring compliance with all **relevant legislation**;
- Liaising with relevant **public authorities**.

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