

sustainability walk

Start and finish

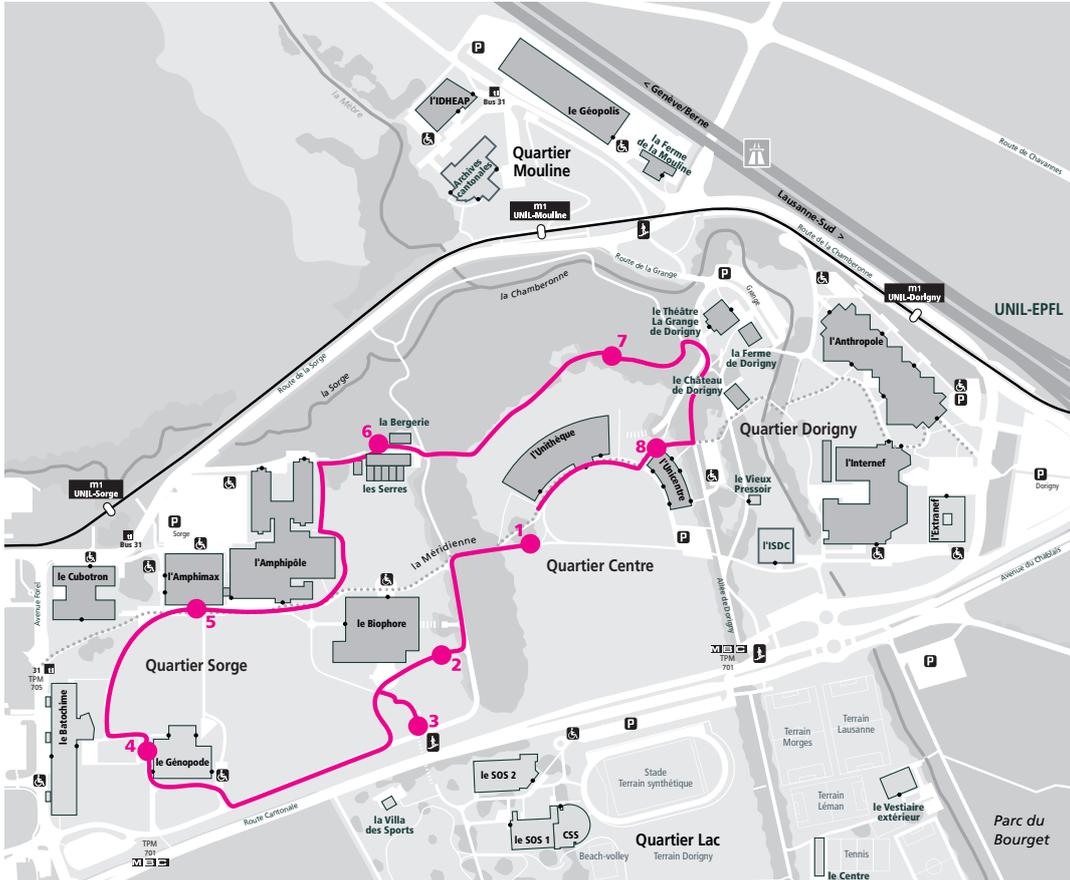
Napoleon's great oak, at one end of the Unithèque building

Duration

1 hour 15 minutes, with 35 minutes actual walking

Distance

2 km



UNIL was founded in 1537. In the 1960s, the State of Vaud purchased the land of the Dorigny estate from a well established family. The decision to locate the University outside the town was based on a bold projection of major increases in student numbers, which ultimately proved accurate (+600% in 40 years). With these larger numbers, UNIL set about developing a series of sustainable actions as part of a clearly defined policy initiative.



From the base of Napoleon's great oak, walk down to the stone bench situated nearby.

1.

BICYCLES AND NON-MOTORISED TRANSPORT

On your left, at the very edge of the Unithèque building, is a self-service cycle station. UNIL has five of these (likewise EPFL) with around six terminals per station. Created in 2009, this model, known today as Publibike, pioneered the boom in self-service cycles now offered by Switzerland's largest cities. Bicycle rental is free for the first 90 minutes, but attracts a charge thereafter (prior registration required for students and staff). As well as getting around by bike,

a major challenge for UNIL and its campus – which fills up and empties on a daily basis – is to offer sustainable mobility where possible, using less energy in relation to distance covered. To this end, UNIL and EPFL are developing jointly a sustainable mobility policy based in particular on improved access to public transport. You can find more information about Publibike and other cycling initiatives on the website www.unil.ch/mobilite.

From this bench, walk up the pebble path and continue straight on. At the crossroads where the trees and shrubs end, turn left along the straight path. After 100 metres, follow the path

on the right which takes you down to the Biophore building.

2.

BIOPHORE

This building was opened in 1983 and is used today by the Faculty of Biology and Medicine. At the time of its construction it broke new ground with its 36 square metres of solar panels on the roof to heat water (a further 20 square metres were added in 2010 when the roof was resealed). The same is true of its original triple glazing. More recently it has been the site of other sustainable actions, for example in the lobby, where the ceiling under the mezzanine was equipped with a LED lighting system which switches on only when a person's presence

is detected. In addition, the lighting intensity drops automatically when outdoor light levels go up. In a different context, in relation to biodiversity, it should be noted that the roofs planted with vegetation are home to hardy varieties, mainly grass and clover, whose only maintenance involves mowing in September.

After crossing the small car park below the Biophore building, turn left where the paths cross and walk to the entrance of an underground passage.

3.

THE USE OF WATER FROM THE LAKE

Near the sports grounds is a pumping station, which pumps water from the lake into a vast network running under the UNIL buildings. Water from the lake is drawn at a depth of 69 metres, 925 metres from the shore, and is distributed under the campus by means of three pumps (maximum capacity 400 litres/second). Regardless of season, the temperature of this water, which is 4° at the catchment point, fluctuates between 5° and 7° at the point of entry to buildings. It is used to cool air and provide air conditioning for premises – an important requirement in some UNIL buildings, particularly where laboratory research is carried out. For the UNIL campus as a whole, the savings compared to a traditional electrically-powered cooling system are in the order of 300 tonnes of CO₂ equivalent per year. This water can also provide some calorific benefit in winter for heating purposes.

The two large pipes visible in this underground chamber are those carrying water from the lake to the UNIL (black) and EPFL (grey) campuses. The circuit is open, since water used on campus is returned to the lake afterwards via the River Chamberonne.

Operational since 1979, this lake water pumping system is part of the underground network of pipe galleries which cross the campus from east to west over a distance of 1,700 metres (the galleries are 7 metres wide and 3 metres tall). The network was constructed between 1971 and 1976 to convey energy: hot water for heating, cooling water, electricity, IT and telephone cables, etc. This network was created with the future in mind, well before most of the existing buildings were built.

Retrace your steps to where the paths cross (near the car park) and turn left. After the house, turn right along the small road. After about 200 metres turn right towards the Génopode building (follow the "UNIL-Livraisons 13" signpost). Follow the side of this building by veering left immediately. At the end, turn right onto a ramp, then climb the stairs to your right.

4.

AN ORGANIC VEGETABLE PLOT MANAGED BY STUDENTS

The organic vegetable plot is at the top of the stairs on the right. It has been cultivated since 2011 by students of the UniPoly association at their own initiative. You don't have to be an expert gardener to join the team. Tools, compost and straw are made available by the UNIL Parks & Gardens Group. The UniPoly association also produces leaflets entitled "Sustainable Tips" and "Consum'actor Guides" offering practical advice in relation to transport, food, cleaning products, etc. With the FAE (Federation of students' associations) and in collaboration with the region's producers, it has organised a market since 2011 which is held on the campus site at least once a week during term time. More information can be found on the website: www.unil.ch/marche.

Continue along the flat, straight path. Then take the first turning on the left, then right, then right again. This last path, bordered with plane trees, leads you to the next point of interest.

5.

SOLAR BINS

Here, you can see two solar-powered bins. At the initiative of the head of the Parks & Gardens Group, UNIL has had 12 of these on its site since 2012. This solar compactor for incinerable waste allows a sevenfold reduction in the volume of waste. One hour's sunshine is all that's needed to keep it operating for a month! It should be noted that the cities of Fribourg and Geneva have also chosen this system for some of their bins. Recycling also makes it possible to reduce the environmental footprint of waste. In recent years, sorting has enabled more than half of all waste generated on campus to be recycled. Since 2009, kitchen waste from restaurants and cafeterias (101 tonnes in 2014) has been sent to Saugealles Farm in the Jorat woods above Lausanne. There it is mixed with manure from the farm's cows and horses to make biogas which, when burned, produces electricity for around a hundred homes in the region.

Continue along the side of the buildings, keeping them as close as possible. At the end of the last building, the Amphipôle, turn left along the narrow path which runs along another side of this building. Follow this winding main path. At the very end of the path and the building,

turn right up a wider, climbing path. At the top of the incline, follow the path which takes you closest to the wooden building.

6.

SHEEP

This wooden building is none other than... a sheepfold! With a presence on campus dating back more than 20 years, sheep have become the local mascot, to the extent that their presence and their familiar bleating are for many an integral part of the campus identity. Since 1st May 2014 the flock has consisted of two varieties: one threatened with extinction in the early 1980s, Les Roux du Valais; and a dwarf variety, Les Moutons d'Ouessant. The sheep are environmentally-friendly mowers for the fifty or so hectares of grassland on the campus. The animals are moved from place to place by a shepherd and his dog. To round off this rural picture, a herd of cows belonging to a local breeder takes up residence near the lake in the summer, while a number of fields, particularly in front of the Unithèque building, are cultivated by another of the region's farmers. Several hectares are given over to flowering meadows which are mown after 15 June to encourage biodiversity.

Continue along the path which soon veers to the right. In the bend, turn off to the left along the wooded path. Not far ahead, at the fork in the path, turn right and follow the winding path which borders the woods and leads you to the Belvédère de Dorigny, where there is an obelisk, a number of century-old lime trees and some wooden benches.

7.

MANAGEMENT OF THE NATURAL HERITAGE AND SUSTAINABILITY

A stroll around the UNIL campus reveals a surprising amount of greenery. Throughout the year, the gardeners of the Parks & Gardens Group keep the Dorigny site looking its best by maintaining and managing the different green spaces (lawns, meadows, woodland, vines, etc). Increasingly, environmentally-friendly methods are being used. Below is a list of some of these sustainable practices:

- No use of chemicals. (except for sports grounds)
- Energy savings by using sheep to cut grass.
- Water savings (use of hosepipes only where necessary).
- Promotion of indigenous plants.
- Promotion of biodiversity (with quickset hedges, for example).

- Careful use of salt for de-icing in winter.
- Reduced emissions of pollutants through the use of vehicles and tools operating on electricity and alkyl (with 90% less benzene).
- Green recycling (at the compost heap located by the side of the m1 metro track).

From the benches, walk down the single forest path. At the bottom, turn right to come out of the woods. Then turn left along the road and cross at the pedestrian crossing. Turn right along the path bordered by plane trees. At the first junction, turn right.

8.

A SUSTAINABLE CAMPUS

To face the challenges of the world that surrounds it, UNIL - through the "Sustainability and Campus" Vice-Rector and his team based at the Unicentre - has decided to introduce a sustainability plan based on around twenty concrete actions, which can be classified into three main categories:

- Ensure that thoughts on sustainability are included in teaching and research.
- Increasingly promote a culture of sustainability in the UNIL community.
- Manage the consumption of natural resources and energy in a rational way.

To this end, the team can rely on a consultative committee made up of representatives of the entire university community. One initiative among others, called "Sustainable Interlude" consists in organising guided walks or presentations during the midday break. You can find full details of sustainable actions on the website: www.unil.ch/durable.

From the Unicentre building, you can see the impressive Napoleon's oak in the distance.