

1 Improving the Ecological Infrastructure on Campus

The Outdoor Spaces group of EPFL's Sustainability unit has assigned you to promote the ecological infrastructure around the Rolex Learning Center.

1.1 Biological Measures

Use the following biological measures to improve the ecological infrastructure on and around the EPFL Learning Center's Esplanade:

Mesophilic grassland (Flower Meadow) [see Fiche D3]

Flower meadows are natural, nutrient-poor, herbaceous surfaces with high ecological and landscape value. These extensive natural areas require no fertiliser or plant protection products to maintain. They are generally mown 1 to 2 times a year.

Exercise objectives

Create around 1'000 m² (10'764 sq. feet) of flower meadows by following these instructions:

- Minimum meadow surface: 100 m² (1'076 sq. feet)
- Minimum meadow width: 10 m (32 feet)



Pond [see Fiche D7]

Ponds create an environment with high ecological value. They provide habitats for many species and a relay zone between other semi-humid and humid areas, strengthening ecological and landscape continuity.

Exercise objectives

Create around 300 m² (3'230 sq. feet) of ponds by following these instructions:

- Minimum pond surface: 50 m² (538 sq. feet)
- Minimum pond width: 5 m (16 feet)



Hedgerow [see Fiche C10]

Hedges, composed of native species and extensively maintained, fulfil ecological, landscape, and ornamental functions. They offer a wide variety of colours, shapes, flowers, and fruit for nature and the well-being of the people.

Exercise objectives

Plant around 300 m² (3'230 sq. feet) of natural hedges by following these instructions:

- Minimum hedge surface: 100 m² (538 sq. feet)
- Minimum hedge width: 3 m (16 feet)



1.2 Group Discussion

Using the Ecology Campus Data [2025.04.11_ENV-462_Ecology_Campus Data], discuss the following questions and define a strategy to improve the ecological infrastructure on and around the Place Cosanday:

- What type(s) of wildlife habitat would you promote first (green, orange or blue) and why?
- Where would you first create new wildlife habitats and why?
- How does your action promote the ecological infrastructure (core areas, stepping stone habitat...)?
- What measures would you take to ensure the sustainability and longevity of the wildlife habitats you create?
- How would you address potential conflicts or challenges arising from human/wildlife interactions within the EPFL campus?

Synthesise the results of your group discussion in the exercise document [2025.04.11_ENV-462_Urban Ecology_Sub-Project_RENDU].

Figure 1 – 2025.04.11_ENV-462_Urban Ecology_Sub-Project_RENDU_MAP



2 Annexes

2.1 Biodiversity Strategy - Green Cover

Green cover (including canopy)	Area [m2]	Area [%]
• canopy>3m	1 385	11%
• green space, open ground	5 595	45%
• green space semi pervious	1 887	15%
• green structure (thickness 50-100 cm)	2 106	17%
• pervious place (gravel)	1 534	12%
Total	12 507	100%

Grey to Green Ratio	Area [m2]	Area [%]
• Green cover (including canopy)	12 507 m2	43 %
• Grey cover	16 452 m2	54 %
Total	28 959 m2	100 %



2.2 Grey-2-Green Strategy - Cost-Effectiveness

Cost-effectiveness	Surface (m2)	Surface (%)
(1) easy	9'147	31.6
(2) +/- easy	3'423	11.8
(3) difficult	10'747	37.1
(4) impossible	5'641	19.5
Total	28'959	100

