

# SEEU: A LOW EMISSION UNIVERSITY CAMPUS



## 1. OUR PROJECT

The scope of this challenging project is to introduce high energy efficiency measures and renewable energy technologies in the South East European University (SEEU) in Tetovo, with the purpose of realizing the first Low Emission University Campus in South East Europe, inspired by the trend of the most celebrated Universities worldwide.

The project has been launched in March 2010 and it has been realized in the framework of the bilateral cooperation agreement signed in 2005 between the Macedonian Ministry of Environment and Physical Planning (MOEPP) and the Italian Ministry for the Environment, Land and Sea (IMELS) in the field of Environment and Sustainable Development. This Memorandum of Understanding was aimed at implementing in the Republic of Macedonia priority actions to mitigate the impact of climate change. Among these, the Authorities recognized as a pilot initiative the transformation of SEEU into a Low Emission University Campus, through the implementation of a Climate Action Plan (CAP): the idea is to develop intelligent and self-sustained energy systems and to completely eliminate GHG emissions within the SEEU Campus, in order to achieve carbon neutrality. At the basis, there is the University management decision to reduce the current GHG emissions of 30% by 2020 and a further challenging ambition of 100% emission reduction by 2030. The project has been financially possible thanks to a donation of IMELS.

The Campus is a model university facility that stretches across a large green area, covering a surface of about 200,000 m<sup>2</sup>, containing purpose-built accommodations. These include: four large lecture halls with the capacity to fit 200 to 500 students, approximately 30 classrooms with a capacity for 30 to 60 students, staff offices, two state-of-the-art computer centers, a library, residential accommodations and several recreational facilities. The Campus hosts approximately 6,000 students of different nationalities.

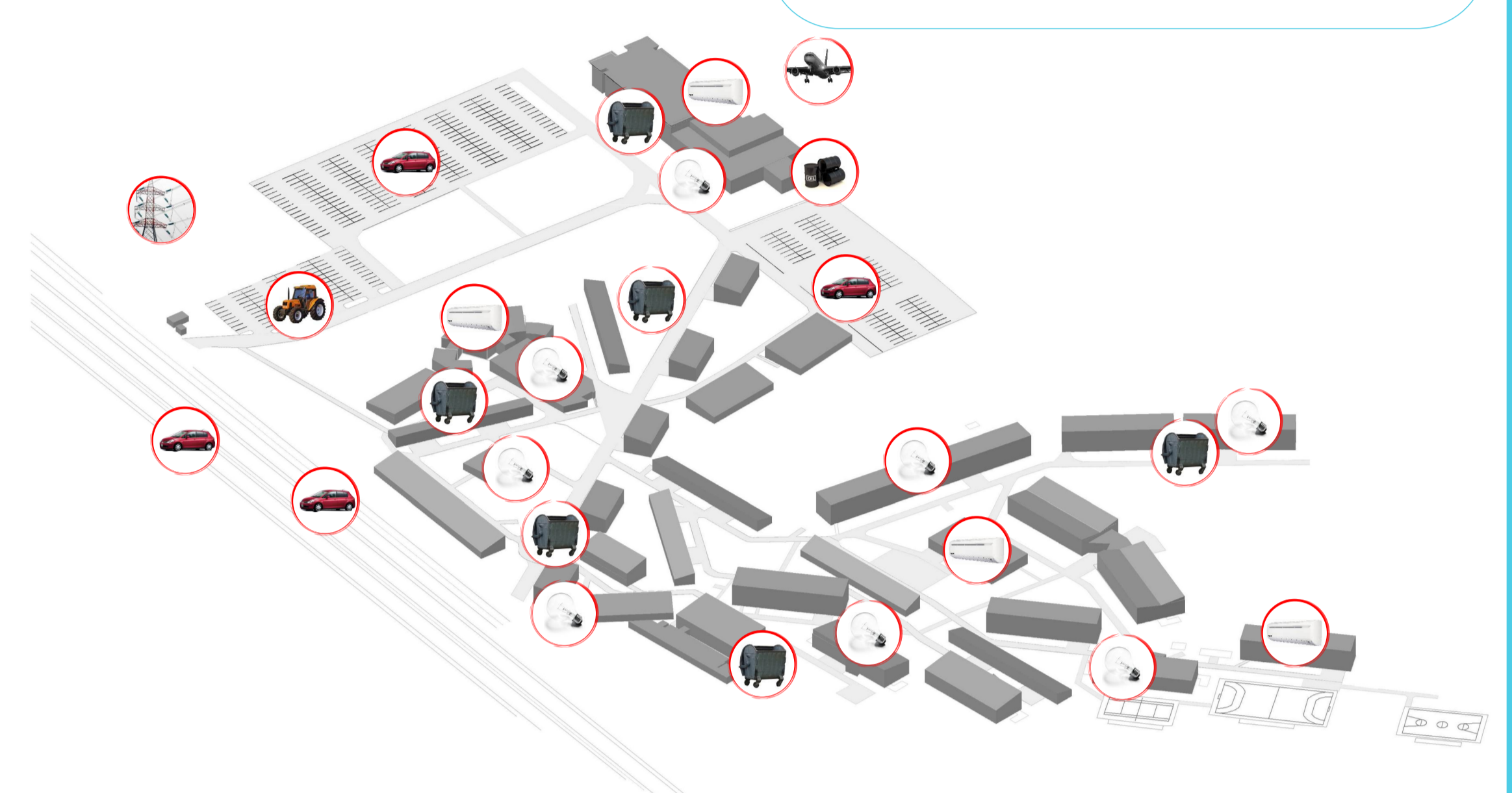
The 'road map' towards the carbon neutrality shall be based on a number of key steps, in many cases to be developed in parallel. The Campus has gone through two main steps:

1. the realization of an **Energy Analysis and GHG Emission Inventory**, with the purpose of defining the energy needs and efficiency levels of the different buildings and estimating direct and indirect carbon emissions at the Campus. The inventory provides a reliable assessment of the current situation at SEEU Campus in terms of carbon emissions, energy management and technology level, to be considered as the starting point on which the carbon reduction strategy and targets have to be based;
2. an integrated planning for the implementation of carbon-friendly measures, the **Climate Action Plan**, which explores and evaluates the most suitable options for cutting the Campus emissions and reducing the dependency from fossil fuels and imported electricity. The CAP is a 10-year strategic plan for the reduction of the Campus emissions, which shows SEEU the road to the goals of climate protection, defining a carbon footprint, identifying priority actions and applicable technologies, milestones to measure progress and target dates, raising funding opportunities.

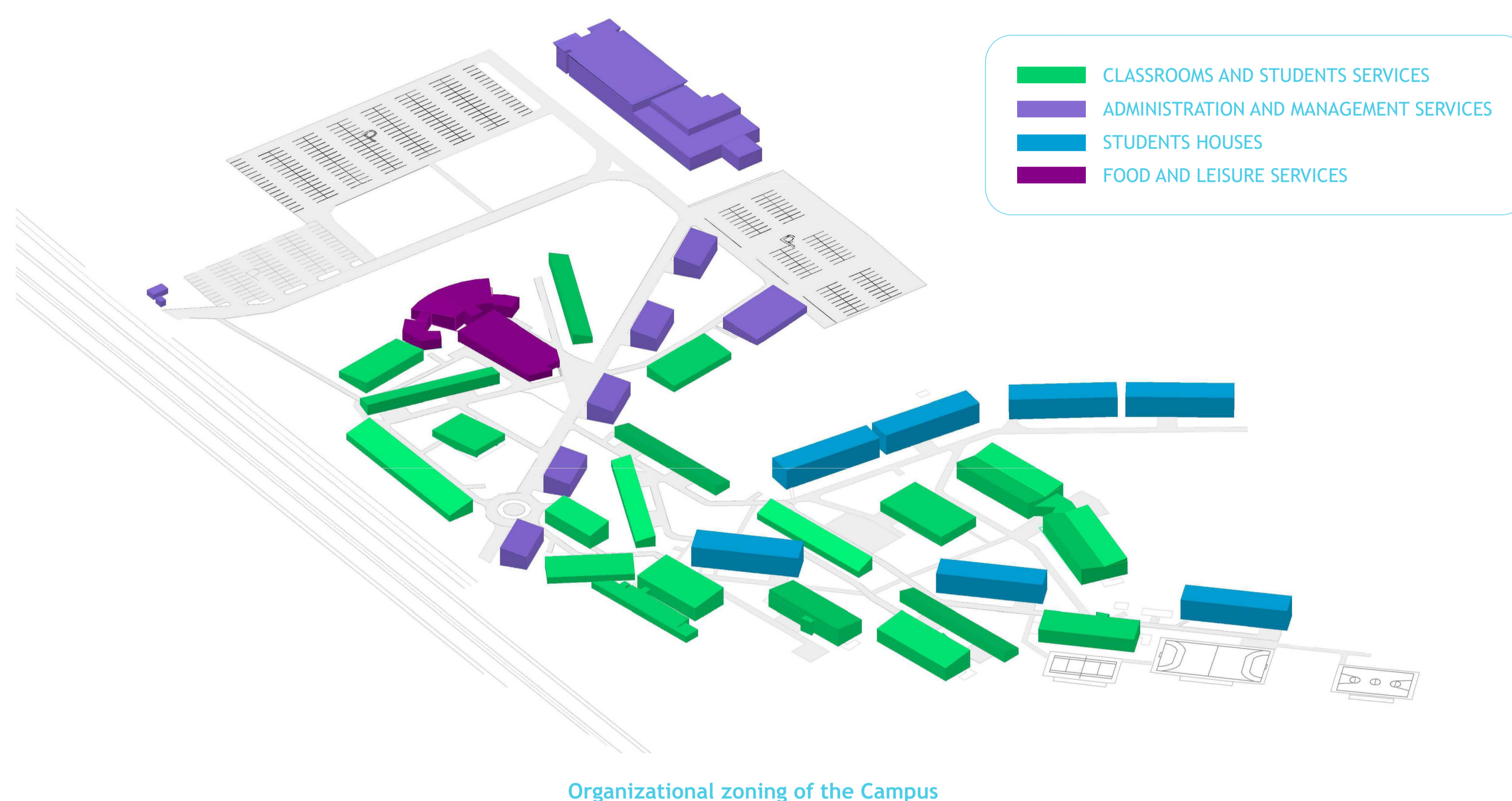
This project is perfectly in line with the international community requirements which ask Governments, institutions, private entities and citizens to take action against climate change. Although the Republic of Macedonia has no binding reduction commitments deriving from the international climate change regime (in particular from the Kyoto Protocol), the voluntary engagement of SEEU in a greener direction demonstrates an open mind and careful approach to the global environmental problems.

The SEEU has long been sensitive to environmental issues: as part of its mission, apart from high standards implemented in the education area, is permanently working on rising ecological consciousness of its students through practical solutions. The University commitment towards climate change and environmental preservation flows into a sustainability oriented institute, the **Institute for Environment and Health (IEH)**. Founded in 2005, its aim is to provide organizational and development activities, science research and to promote and strengthen awareness and partnerships for protecting and improving the environment and health at regional and global level. To add value to its precious work, the building hosting the Institute has been selected within the project as a pilot sustainable initiative and transformed into a Sustainable Energy Building.

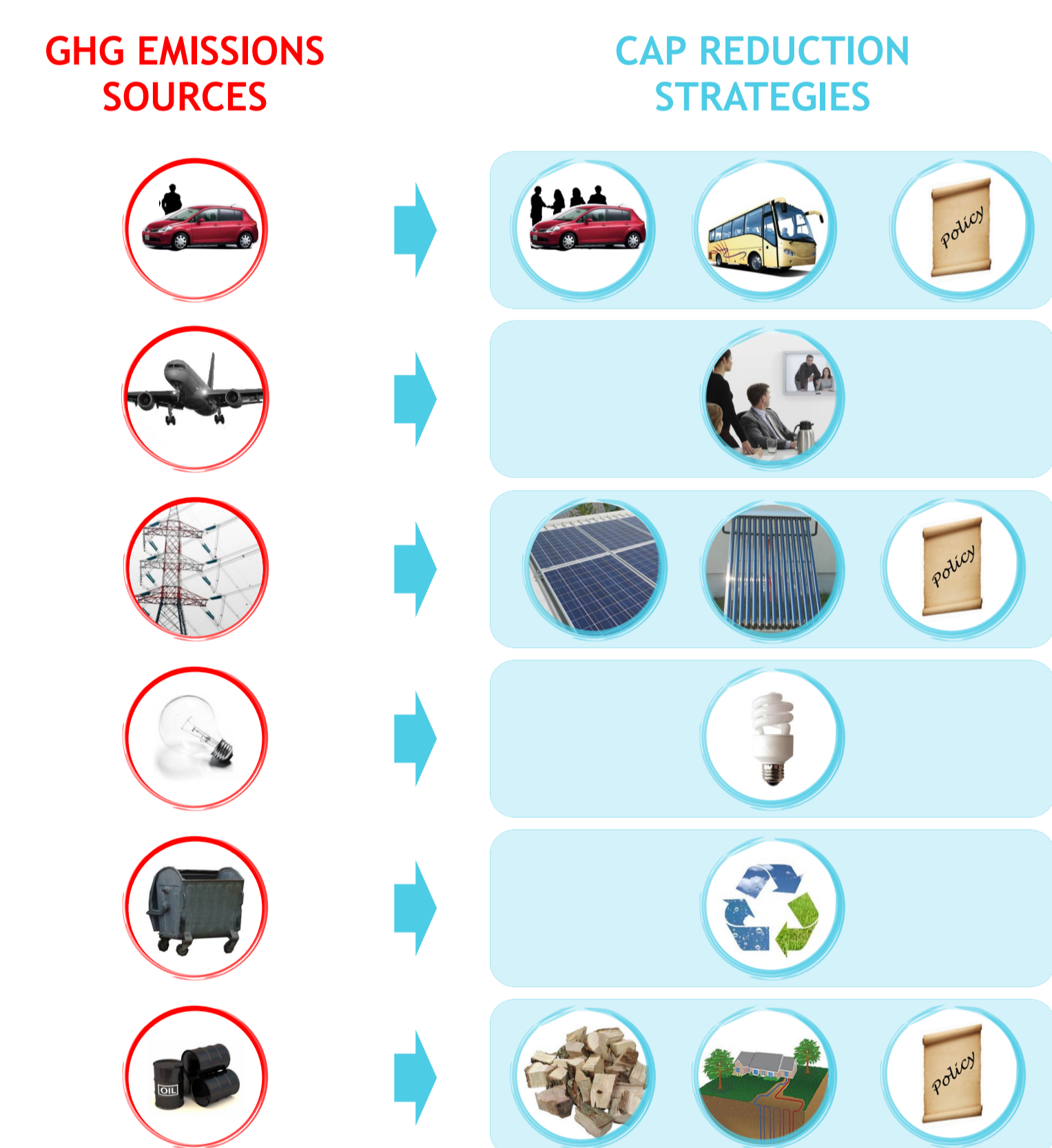
-  DIRECTLY FINANCED AIR TRAVELS
-  PURCHASED ELECTRICITY
-  REFRIGERANTS LEAKAGE
-  SEEU OWNED VEHICLES
-  SOLID WASTE
-  STATIONARY COMBUSTION
-  STUDENTS/FACULTY/STAFF COMMUTING



Main inventoried sources of GHG emissions of the Campus



Organizational zoning of the Campus



The Campus main sources of GHG emissions and the related CAP abatement strategies



Project Developed by

**DAPPOLONIA**

**IEH SEEU**  
Institute for Environment and Health

1. OUR PROJECT

2. GHG INVENTORY AND CLIMATE ACTION PLAN

3. THE SUSTAINABLE ENERGY BUILDING