



PLANET  
CHANGE

# City-Food Crossover:

## I Phase - Analysis and mapping

Teachers manual



**Planet change** is the short name of an EU Erasmus+ project aimed at VET teachers and their students. With small activities, the idea is to create awareness about sustainability and acquire 21st century skills. All this is done in a technical context, mostly from space technology.

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# 1. General information

**Duration:** 240 min in total

**Target group:** 18+ y.o.

**European qualifications framework level:** 4-6

**Teacher preparation:** study background information, materials listed with the activity

## Topic

**Themes:** space hazard, construction, second-life cycle

**Keywords:** sustainability, innovation, fabrication, artistic skills, ICT, food waste, second-life, new materials, social inclusivity

## Activity

### Goals

The activity addresses the project's priorities in developing and implementing innovative cultural initiatives, with the special focus on food topics, by linking them to urban space, active engagement and co-creation actions. Specifically, the activity will focus on the identification of unused or abandoned spaces within the city in order to map them in order to draw the municipalities' attention to the potential of these spaces through artistic and design actions.

Phase I consists in mapping abandoned or dismissed structures or buildings in need of rehabilitation, regeneration and revitalisation within the urban context.

The students/participants will:

- 1) understand the importance of regenerating urban areas or buildings through sustainable architecture;
- 2) recognize the impact of abandoned/used spaces on the urban context on a social, economic and environmental level;
- 3) increase awareness and knowledge of the food debate and issues and urban regeneration, in particular the potential between food, design and the city;
- 4) understand the potential of using satellite software for mapping abandoned/used spaces within the city;
- 5) strengthen skills and competences related to:



- a. data processing
- b. reading and creating digital maps
- c. teamwork

### Summary

The creative workshop as a whole will develop through 3 complementary, but not necessarily consecutive phases. The 3 phases are: **(1) I Phase: Analysis and mapping, (2) II Phase: Concept and Vision and (3) III Phase: Creation and Prototyping.**

It will be possible to develop, for example, the first and second phases, but not the third, or the second and third, but not the first, depending on the teacher's will and timing.

The first phase of the creative workshop - **I Phase: Analysis and mapping** - will focus on the analysis and identification of abandoned or unused spaces in the city surveyed through the use of satellite visualization software - such as Google Earth and Copernicus Browser - and maps provided by municipal administrations. In this first phase all abandoned, unused or degraded buildings and/or spaces in the city where the creative workshop will take place will be mapped.

The work will be done in groups (3 to 5 people) and will last approximately 240 minutes, with the support of educators who will provide guidelines for the creative workshop. At the end of the 240 minutes each group will have to produce the planned output.





## 2. Introduction

The city is not only a reality, it is also a project. An increasingly shared project that describes at the same time new ecological awareness, social cohesion, cultural biodiversity and co-creation forces. Today the term 'City' refers to a journey into innovation, multiplying variable geometries of local and international cross-contaminations combining functionality and sustainability with aesthetics through the social function of architecture and arts.

Nevertheless, cities are becoming both the causes and solutions of the current environmental urgencies and the pivotal field of action of social crisis, dealing with limited urban spaces and resources. In fact, as Europe has entered the post-industrial age, contradictory processes of suburbanization and real-estate spatial reconfiguration of the contemporary urban condition, has resulted in the entropic production of empty public buildings, vacant commercial areas and related unused public and open spaces. As presented in 2010 Venice Architecture Biennale, the exhibition "Vacant NL" by Rietveld Landscape represent with a blue-foam model city, suspended in the top half of the Dutch pavilion, the over 6 million m<sup>2</sup> of vacant public-buildings existing in the Netherlands (3.6% of national building stock). This proportion is even higher in Amsterdam where it reaches 1.8%, the equivalent of 1.3 mil. m<sup>2</sup>. In the meanwhile, the fate of public buildings has reached many other building types, namely schools, factories, shops and housing all across Europe. In order to cope with these challenges as a paradigm shift in conventional urban regeneration is essential, however, the radical restructuring of the global economy in recent decades has resulted in an explosion in the number of such spaces.

In this scenario, the concept of reuse, reactivation and recycling applied to architecture, urban space, and landscape appears as a multiscale strategy, capable of reinterpreting the unused urban spaces, and buildings through the overlaps of unconventional functions, temporary uses and mixed programme. Promoting urban recycling practices through architecture and arts will help to accelerate urban transformations and to ensure more sustainable urbanisation, proposing different levels of interpretation of regeneration strategies in a continuous process of exchange and learning between space and society. Because these areas present a great opportunity for the European city, the recycling and reusing of these abandoned urban spaces can be one pathway for greater resource efficiency and new sustainable growth, as an important contribution for a resource efficient Europe.

In line with European Green Deal, leveraging the social function of architecture, arts and design, with the aim of driving social inclusion, accessibility, and contributing to the diffusion of a culture to sustainability, represent a concrete response to urban abandonment by: (1) supporting a compact settlement structure and urban renewal; (2) pushing more resource efficient cities by using the gray energy of the existing building stock instead of building a new one; (3) providing space for economic, social, cultural and environmental uses and needed functions in the city / neighbourhood; (4) protecting European cultural heritage as these vacant buildings often have cultural heritage values; (5) developing new cooperative planning processes between city administration, citizens, NGOs and economic operators to give them an active role in shaping the urban development through the revitalisation of such buildings, open spaces and related contexts.



Examining culturally driven urban transformations and exploring new cooperation paths among relevant stakeholders, including SMEs and CCIs, interested in designing a new European way of life in line with the New European Bauhaus, represent a fundamental social impact of the today's planning. As vacant, abandoned sites and empty public buildings have no official use anymore, so they are "open" for something new, by interpreting transitional aesthetic values as a form or process; architecture and arts can contribute to transform the city as a social shared space of coexistence, common grounds, and place-branding.

## Description of the activity

### Part 1: Preliminary work and analysis

During the preliminary phase of the phase I of the creative workshop, a city will be identified to work on. After choosing the city, teachers will explain how to read and interpret a map and how to obtain data from satellite visualisation software - such as Google Earth and Copernicus Browser.

### Part 2: Mapping and graphic representation

Having acquired basic skills in using the software and understanding cartographic maps, the students will work on the computers with the software provided to analyse and map abandoned or unused spaces in the city. These can be abandoned/unused buildings or public spaces such as degraded squares-gardens-streets.

The output that will be produced at the end of this task will be a complete mapping of abandoned, unused or degraded spaces within the urban context, with a volumetric count.

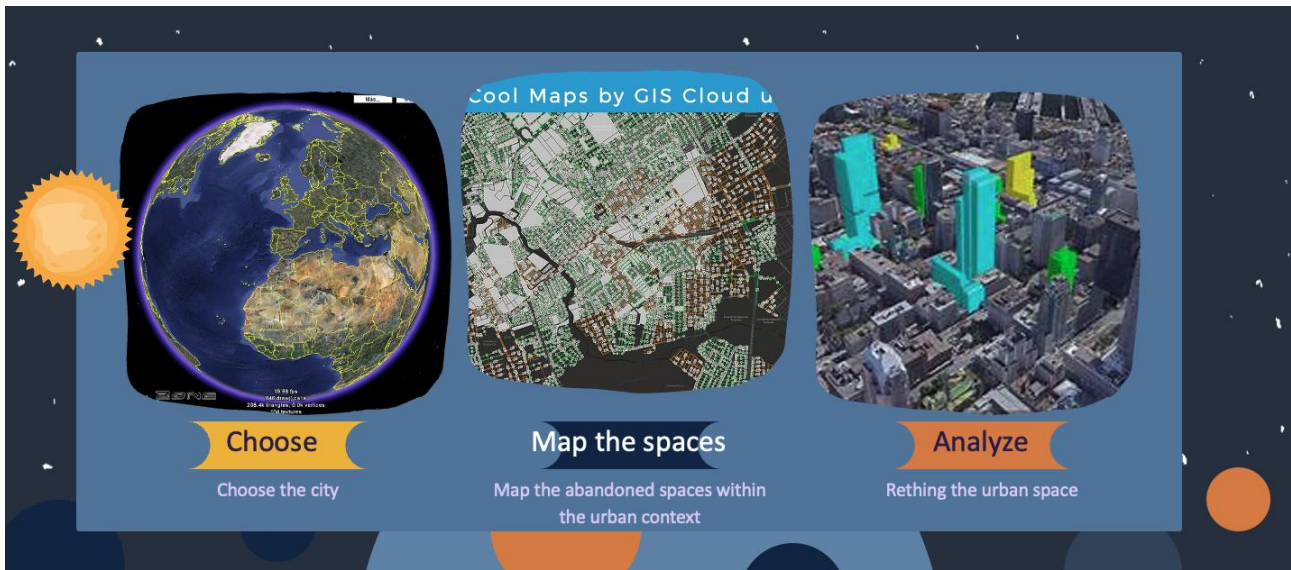
The work will be done in groups (3 to 5 people) and will last approximately 240 minutes, with the support of educators who will provide guidelines for the creative workshop. At the end of the 240 minutes each group will have to produce the planned output.

### Part 3: Output considerations

In the final phase of this mapping and analysis activity students will reason about creative regeneration and recycling strategies applied to architecture and urban space as a significant field of intervention and investment. This theme is also confirmed by the European Commission, which promotes a "wave of quality regeneration" in Europe, strengthening a creative sector with almost 600,000 professionals in Europe-31, as stated by the Architectural Council of Europe Report (ACE 2020-21).

In this holistic approach, the cultural dimension is central. Students will discuss the cultural approach behind the New European Bauhaus initiative, for example, in which the Renovation Wave strategy expresses 7 key principles, including life cycle thinking and circularity; social inclusion and co-design; high environmental standards; respect for aesthetics and architectural quality.







# How to adapt the activity to a target group of 12-18 y students?

## Description of the activity

### Part 1: Preliminary work and mapping

In this case, the activity will take place in the city where the school is located, to make it easier for the students to move around.

During the preliminary phase of the creative workshop, teachers, together with students, will use Google Earth to virtually explore the city and map (using Google Earth's custom mapping tools) abandoned or disused urban spaces (squares, buildings, plots, streets...) in their city.

### Part 2: Exploring session

Having acquired basic skills in using the software and understanding cartographic maps, teachers together with students will choose one of the abandoned/disused urban spaces they have digitally mapped to organise an exploratory site visit.

The outcome at the end of this exploratory session will be a complete mapping of the chosen abandoned/unused/discarded space within the urban context, with a photographic report of the state of the place.

The work will be done in groups (3 to 5 students) and will last approximately 240 minutes, with the support of educators who will provide guidelines for the creative workshop. At the end of the 240 minutes each group will have to produce the planned output (photographic report and map with measurements).

### Part 3: Graphic restitution

After having carried out the field research and completed the mapping and photographic reporting phase, the students, always divided into groups, will reflect on possible strategies/solutions to improve and regenerate the chosen urban space and will produce a graphic work representing their idea.

With the help of their teachers, they will be able to look online for inspiration in terms of urban regeneration projects, street art, temporary installations, inclusive events, etc.

Once possible creative ideas have been developed, the students will produce the graphic work as a result of the creative workshop.

The work can be collages of real photos (taken on site) with the addition of newspaper clippings, other photos, sketches and freehand drawings, etc.



Students in groups (3 to 5 students) will have 240 minutes, roughly divided into 60-90 minutes to research ideas/inspirations online, 160-180 minutes to develop the graphic design.







# Additional materials

How to transform waste into construction materials (e.g., use of compostable materials in architecture)

## 1. What does it mean adopting waste in the construction sector?

<https://www.archdaily.com/893552/8-biodegradable-materials-the-construction-industry-needs-to-know-about>

## 2. "Guess what A":

A series of scenarios or simple images showing urban spaces or buildings where sustainable materials have been employed/integrated for restoring/renovating/creating: guess what is the correct image (e.g. please indicate among the following images which are the ones where you can recognize the integration/usage of sustainable materials): guess what is the correct image (e.g. please indicate among the following images which are the ones where you can recognize the integration/usage of sustainable materials) (example:

<https://sevenprojectstudio.com/architettura-e-sostenibilita/5-progetti-di-architettura-realizzati-con-materiali-riciclati-e-di-recupero> )

## 3. "Guess what B":

A series of scenarios or simple images showing a urban space or a building in in its dilapidated or abandoned appearance and after its restoration/renovation, guess what is the correct image where sustainable materials have been employed/integrated for the process (e.g., graphic/visual representation on: "how it was and how it now looks like", change of materials, colours, shape, etc.)

