

# Green Infrastructures to mitigate Flood risks in Urban and suburban areas and to Improve the quality of rainwater Discharges

NEWSLETTER ABOUT THE PROJECT, CURRENT INFORMATION,  
PROGRESS AND UPCOMING ACTIVITIES.

**GiFluid Newsletter**

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## About the project

The project recognizes the increased risk of flood events in coastal catchment areas in Sicily and Malta, resulting from the impacts of climate change. This risk has been exacerbated by anthropogenic activities, including the increased urbanization of the low-lying areas of these catchments, creating increased hazards to human life, economic and cultural activities.

The project focuses on the mitigation of these risks, through the increased integration of nature-based solutions in the urbanized sections of these catchments, reducing the flow of rain runoff-water and more importantly giving back water to nature, hence supporting the comprehensive optimization of cross-border coastal communities.

## Key Deliverables

- 2 Technical Manuals for GUIs identification
- GIS modelling framework for GUIs application
- Methodology for GUIs cost feasibility





## Expected outcomes

- 6 Pilot Project Testing GUIs in Malta & Sicily
- 2 Regional Master plans for GUIs application & flood risk impact assessment
- 1 Policy Paper for flood risk mitigation through GUIs

## News

### GiFluid promotion at Għajn Open Weekend

The Għajn Open weekend was an exciting event held in Rabat, Malta on the 24<sup>th</sup> and 25<sup>th</sup> September 2022. The event aimed to raise awareness about the concept of Green Infrastructure and its many benefits. The event was held at the very same site where one of the Green Roofs in Malta will be constructed, making it a perfect location for the event.

During the weekend over a thousand visitors including adults and children attended the event and had the opportunity to learn more about the importance of Green Infrastructure and how it can benefit the environment and the economy. The visitors had the chance to attend informative sessions and interactive workshops that were aimed at educating them about sustainable development practices. One event that stood out with the public was an educational talk by an animator where both adults and children had the opportunity to learn about the indigenous and endemic species that will be planted on the Green Roof. The visitors then had the opportunity to plant saplings (same species that will be used for the Green Roof) in pots. The idea behind this was to give the public a hands-on experience of what indigenous species look like and how easy it is to introduce them in their households.



An informative exhibition stand on the project was also present. The public got the opportunity to see various pictures on how the green roofs will look like and read about the works taking place locally and in our neighbouring country, Sicily. Overall, the event was a great success, and left visitors inspired. It was an excellent opportunity for people to learn about the benefits of Green Infrastructure and promote citizen science.





## 3rd Project Management Meeting



A two-day meeting as part of the GiFluid project was organised at the 'Għajn National Water Conservation Awareness Centre' on the 1<sup>st</sup> September 2022. The meeting featured representatives from the Energy Water Agency, Rabat Local Council, the University of Catania, Aci Castello Local Council, and the Region of Sicily attended the third project meeting.

Several presentations and discussions took place on the work that is being carried out. The partners engaged in detailed discussions regarding the project's administrative aspects such as finances and budget. The partners reviewed the project's current financial status, including the funds that have been allocated and spent so far. They also discussed the funding sources and the expected timeline for spending. This allowed the partners to identify any potential shortfalls or budget constraints that need to be addressed to keep the project on track.

The partners also discussed the allocation of resources for different project activities, such as data collection, model development, and implementation of pilot projects. They identified areas where resources could be optimized to ensure the most efficient use of funds. The partners also outlined progress on the pilot projects and the work on the development of flood risk models for the catchments under consideration.

In addition to financial management and resources allocation, the partners also discussed the importance of effective communication and coordination among the project team members. They recognized the need for regular project updates and progress reports, both within the project team and to external stakeholders. Since social media plays an important role in promoting the project to the public, a discussion was also held to come up with new, effective ways to promote the project.

Some of the work highlighted during the presentations was that a team of researchers have been receiving specialized training to model urban runoff. This training will enable them to utilize specialized software to investigate the flow path of water runoff during extreme rainfall events. Through this training, two catchments, one spanning 20 km<sup>2</sup> in Rabat, Malta, and the other spanning 70 km<sup>2</sup> in Aci Castello and Catania, Sicily will be studied. The studies will concentrate on the susceptibility to flooding and urban runoff, which are increasingly significant challenges due to climate change. The resulting findings will provide insights into the best approach to implementing Green Urban Infrastructure in Malta and Sicily to enhance their resilience against the impacts of climate change.



During the guided tour of Għajn Centre, the partners had the opportunity to participate in a variety of interactive games that were designed to educate the public on the importance of sustainability. One game focused on rainwater runoff management in urban areas. This game serves as an educational tool to explain the benefits of urban greening, which help to reduce the negative impact of runoff on the environment. Through the game, the partners learnt the importance of incorporating simple games to help break down complex concepts of green roofs to the public.



## The construction of the rain garden of Misraħ San Duminku, ir-Rabat

The Rabat Local Council will be initiating works in the garden of Misraħ San Duminku, ir-Rabat. The construction works for a rain garden will be carried out under archaeological monitoring by the Superintendent of Cultural Heritage. This is to ensure the safety of the WWII shelter and the St Domenic Grotto underneath the Dominican's Church and convent, which all lie in the vicinity.

This project will see the introduction of porous pavements to allow rainwater to percolate. 700 square meters of the ground will be covered in grass. The grass will then be covered in mulch to reduce the evaporation of moisture. The rest of the area will be covered in hard landscaping, however, the material used will be porous, to allow stormwater runoff to filter and seep down the water table. This idea is innovative as the porous surface area will be at the top of the hill, so it will tackle the problem from the source. At the moment the runoff water normally moves downhill to Vjal il-Ħaddiem Road, Chadwick Lakes, and the sea. As such, this project is an environmental assignment to control soil erosion and urban flooding in urban conservation areas. This project will also help mitigate the effects of climate change we are now facing

