

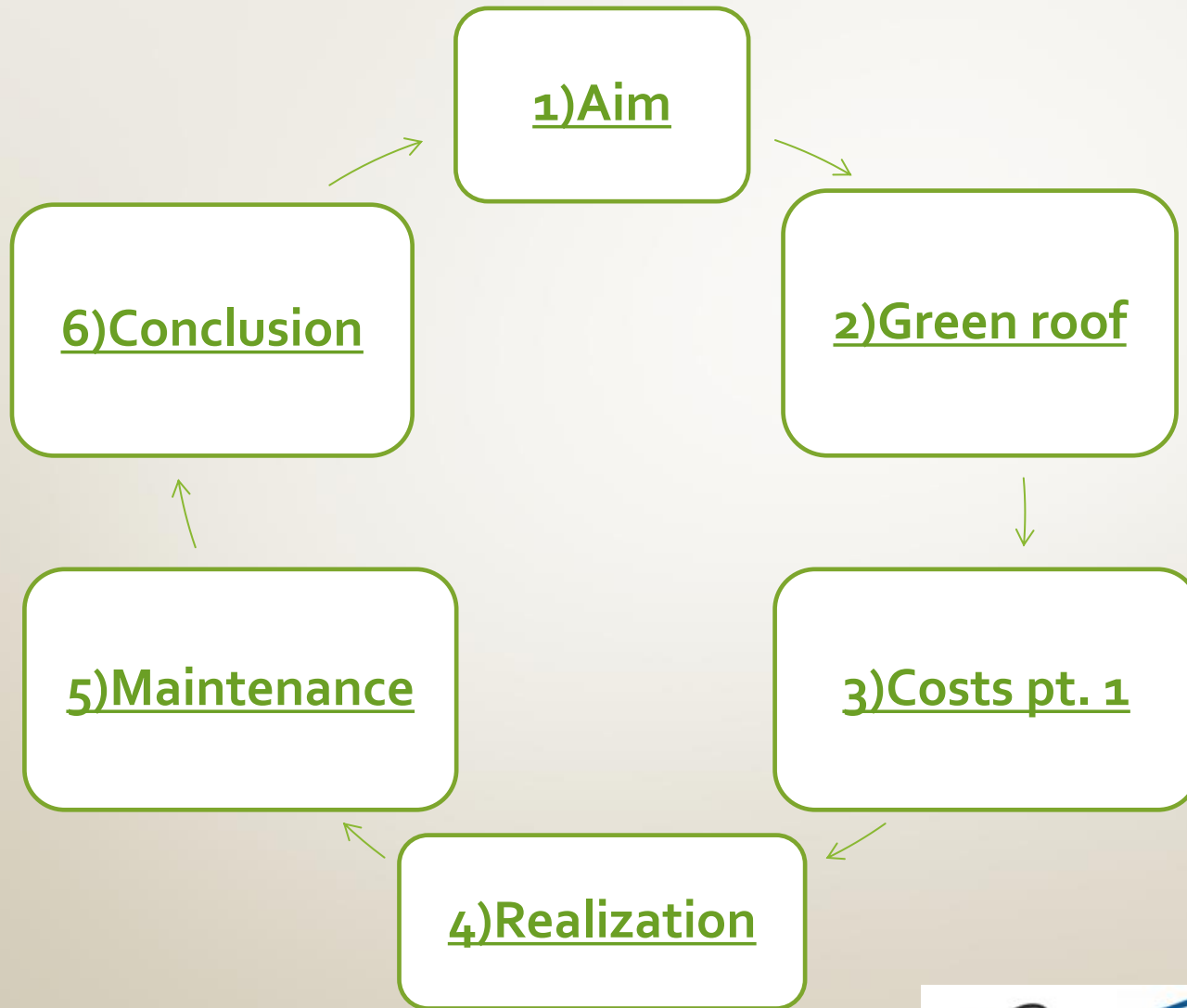
Is a green roof for our school cows shed economically profitable?

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Map



Aim of our UNESCO project

- The **aim** that has guided our group to realize this project is the will to find an interesting connection between the **economic profitability** of a green roof and our **school cowshed**.
- Furthermore we would like to compare the cost of an intensive and an extensive green roof to understand which type of system is **the most economically profitable**.



What about a green roof?

- A **green roof** is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a membrane.
- It involves ,at a minimum, a high quality water-proofing system, root repellent system, drainage system, filter cloth, a lightweight growing medium and plants.
- There are two main types of green roof: **extensive** and **intensive** green roof.





A green roof



Extensive green roof

- It is more often used for **single family** and **multi-family residential buildings**.
- People walk on them mainly for **maintenance**. These green roofs also fit outbuildings such as sheds and garages very well.
- Extensive green roofs are the **simplest to install** and are very often added to existing roofs.



Extensive green roof

Intensive green roof

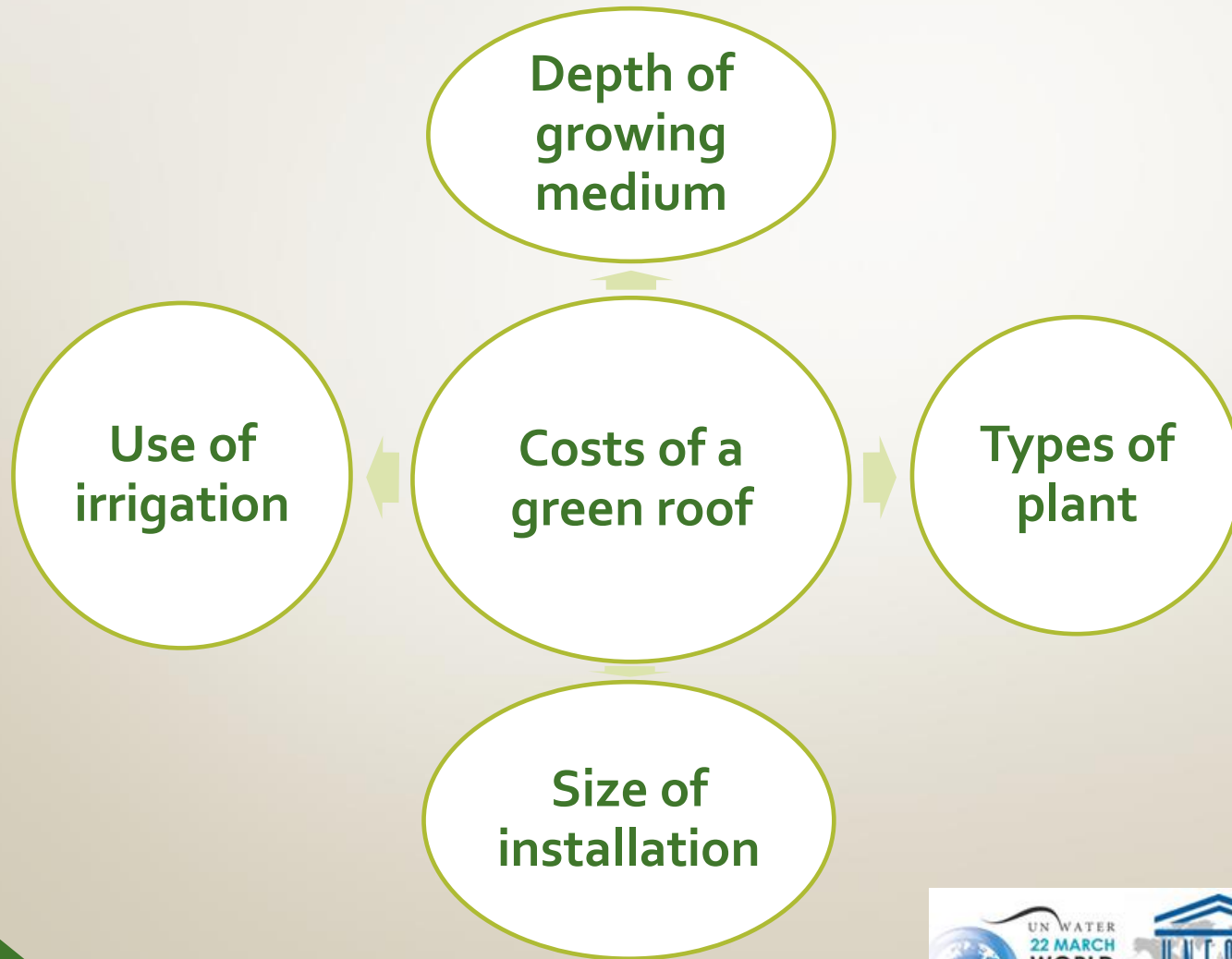
- It is widely used on commercial buildings where owners want to have **large green areas** that incorporate all sizes and types of plants.
- These roofs will have grasses, ground covers, flowers, shrubs and **even trees**. They will often include **paths** and **walkways** to provide space where people can interact with the natural surroundings.



Intensive green roof



How much may a green roof cost?



What about the
costs of realization
and maintenance?

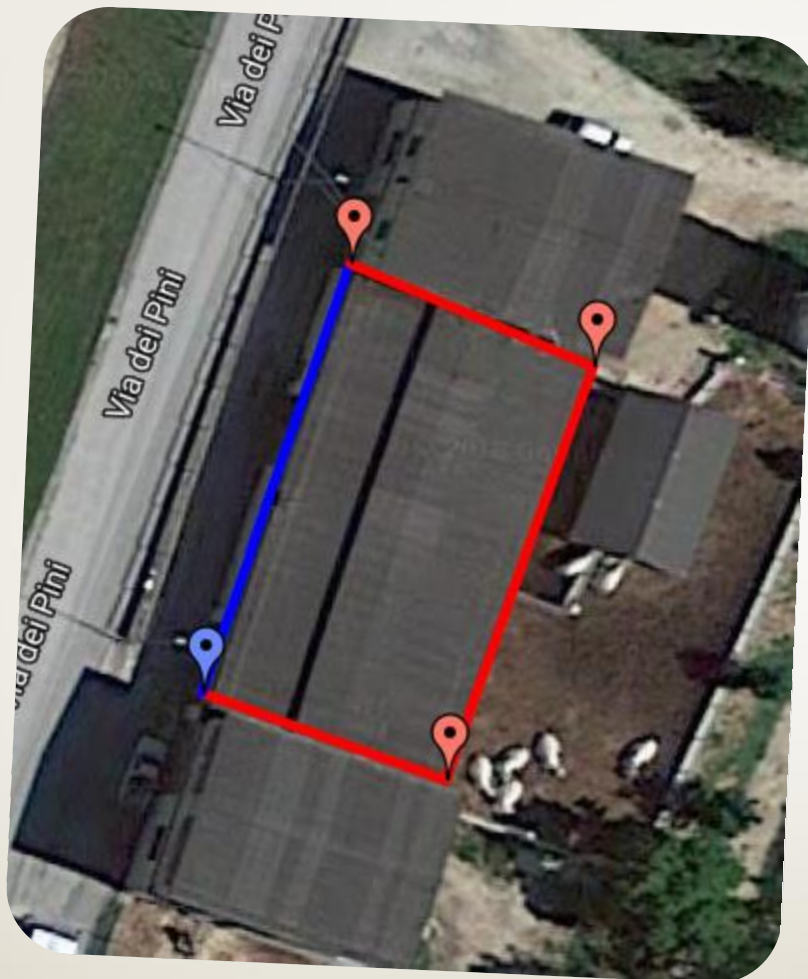


Costs of realization of an extensive green roof

Code	Description	U. M	Price
27.07.001*	Installation for roofs over 200 m ²	m ²	52,29€
27.07.001*	Static irrigation for roofs over 200 m ²	m ²	6,94€
27.07.002*	Extensive vegetation with sedum or other perennial herbaceous plants	m ²	72,11€
		m ²	131,34€

Source: www.norme.marche.it



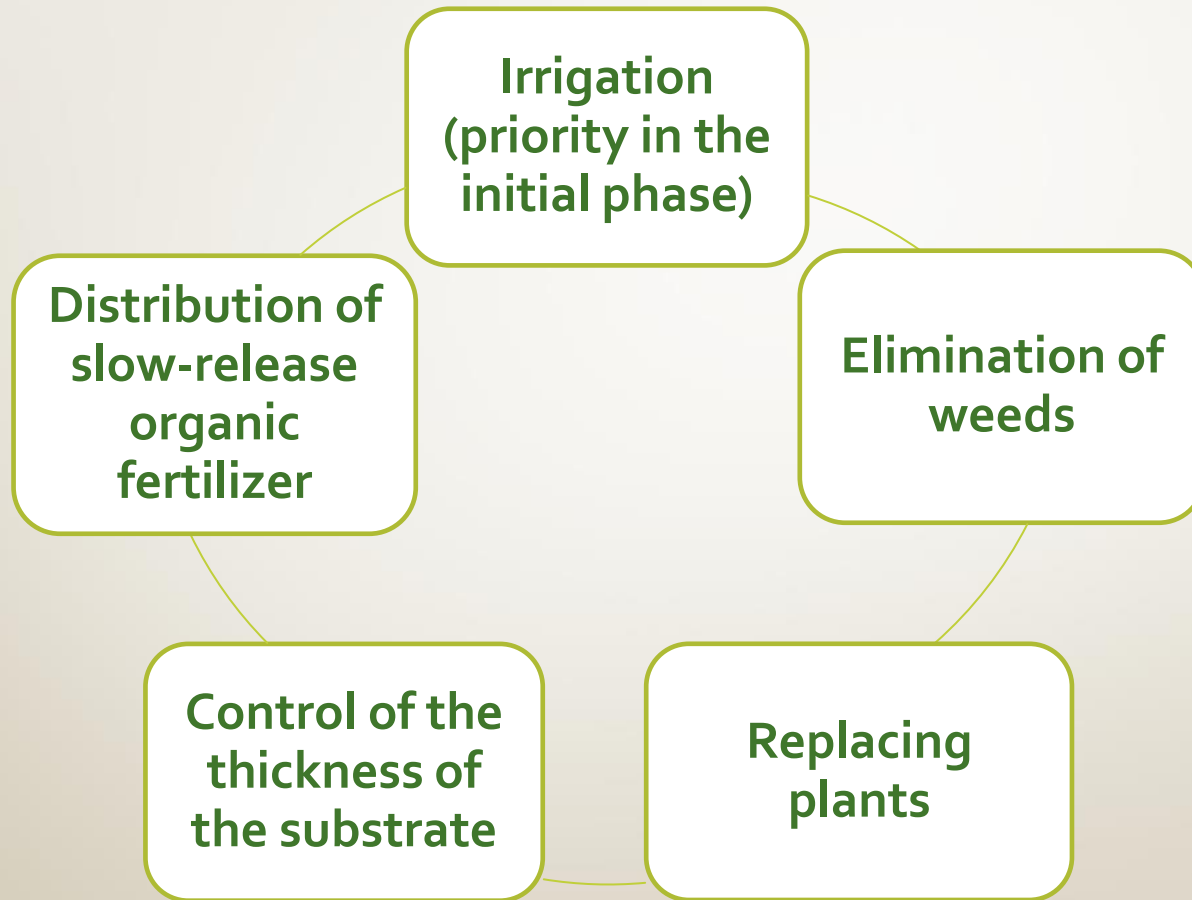


344.0 m² / 0.03440 hectares / 0.0003440 km² / 3702 ft² / 0.08499 acres / 0.0001328 mile²

Square metres of our school cowshed



Maintenance of an extensive green roof





Maintenance of a green roof



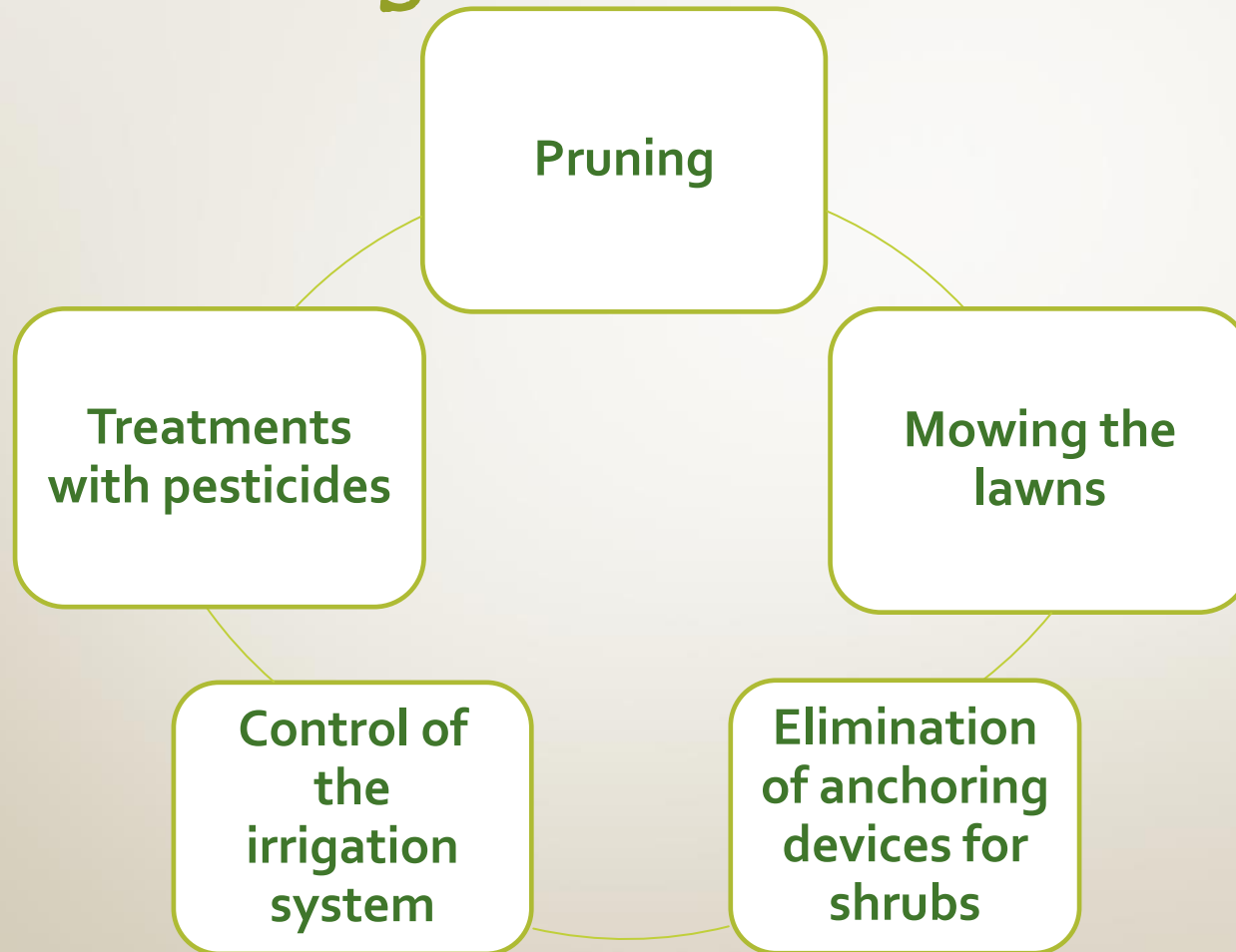
Cost of realization of an intensive green roof

Code	Description	U. M	Price
27.07.001*	Installation for roofs over 200 m ²	m ²	52,29€
27.07.001*	Static irrigation for roofs over 200 m ²	m ²	6,94€
27.07.005*	Intensive vegetation with a 20 cm substrate (it may vary from 20 to 50 cm)	m ²	128,05€
		m ²	187,28 €

Source: www.norme.marche.it



Maintenance of an intensive green roof



Conclusion



Is a green roof for our school cowshed economically profitable?

- According to the UNESCO project made by the group of Isaia, the **extensive green roof** is better than the intensive system for our school cowshed. But this analysis has been made over the advantages of green roofs.
- Instead of considering different functions, **our group** has created a project over the costs of realization of a green roof for our school cowshed in order to verify the **economical profitability** of this system.



Costs of realization

- We think that a green roof for our school cowshed could be considered as suitable, not only for some reasons related to the **advantages**, but also for the **economical profitability** (also due to tax deduction).
- According to an analysis of advantages and costs, we can affirm that the **extensive** system is more economically profitable than the other type of green roof. But why?


Types of
substrate

Types of
vegetation



Maintenance of green roofs

An extensive green roof is planted with sedum and various species of **succulent and xerophile plants**, which can tolerate drought.



These plants are so spartan that **they do not require particular care** but just a couple of visits a year to fertilize and remove any kind of weeds.



Green roofs and taxes?



The Green Bonus allows to deduct **36 % of the expenses** -on a maximum spending limit of 5,000 euros - from IRPEF.



Bibliography

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Thank you for your
attention

