




# A Review on the Coherence of the Strategies for Optimizing Photovoltaic Systems

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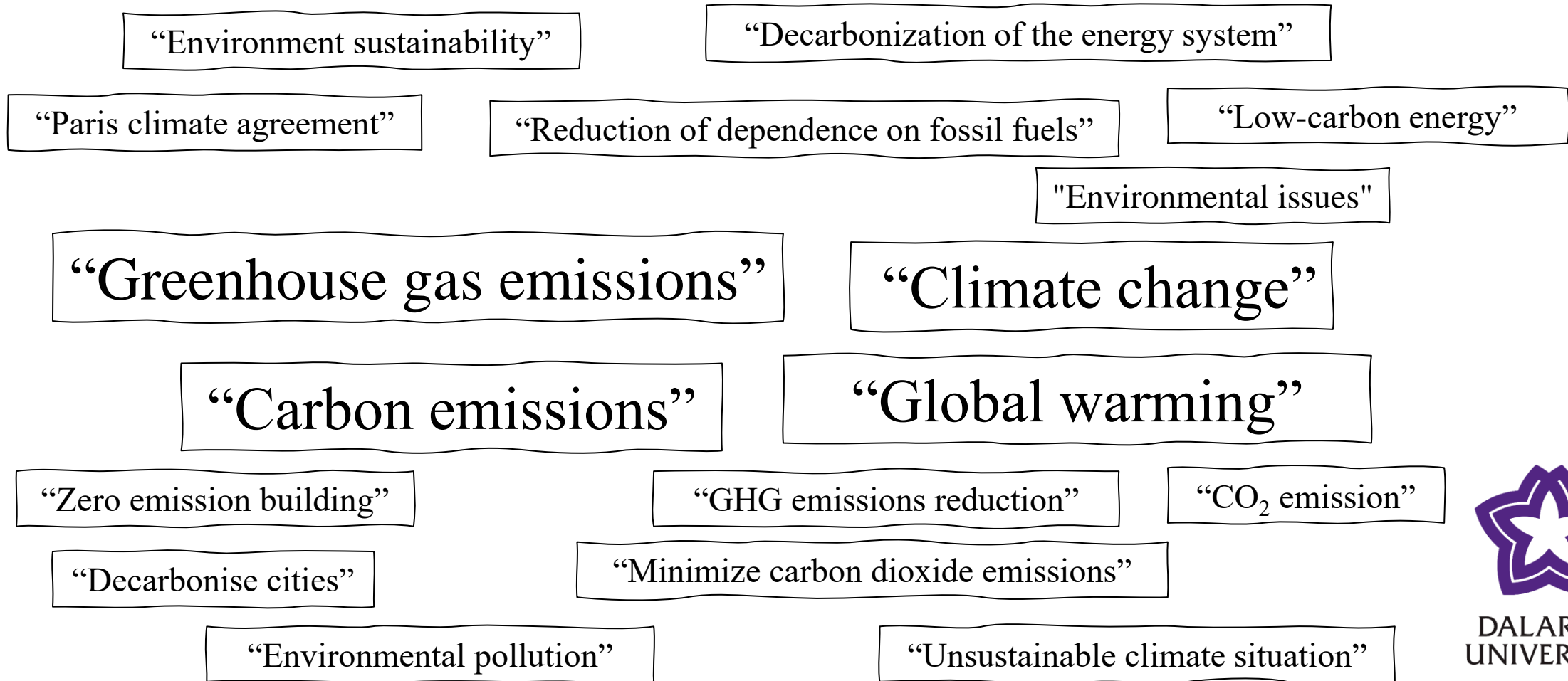
August, 2024

A large, white, cloud-shaped thought bubble with a dark blue outline, connected to a dark blue silhouette of a human head in profile. The bubble contains the text "Why research on optimizing photovoltaic systems?".

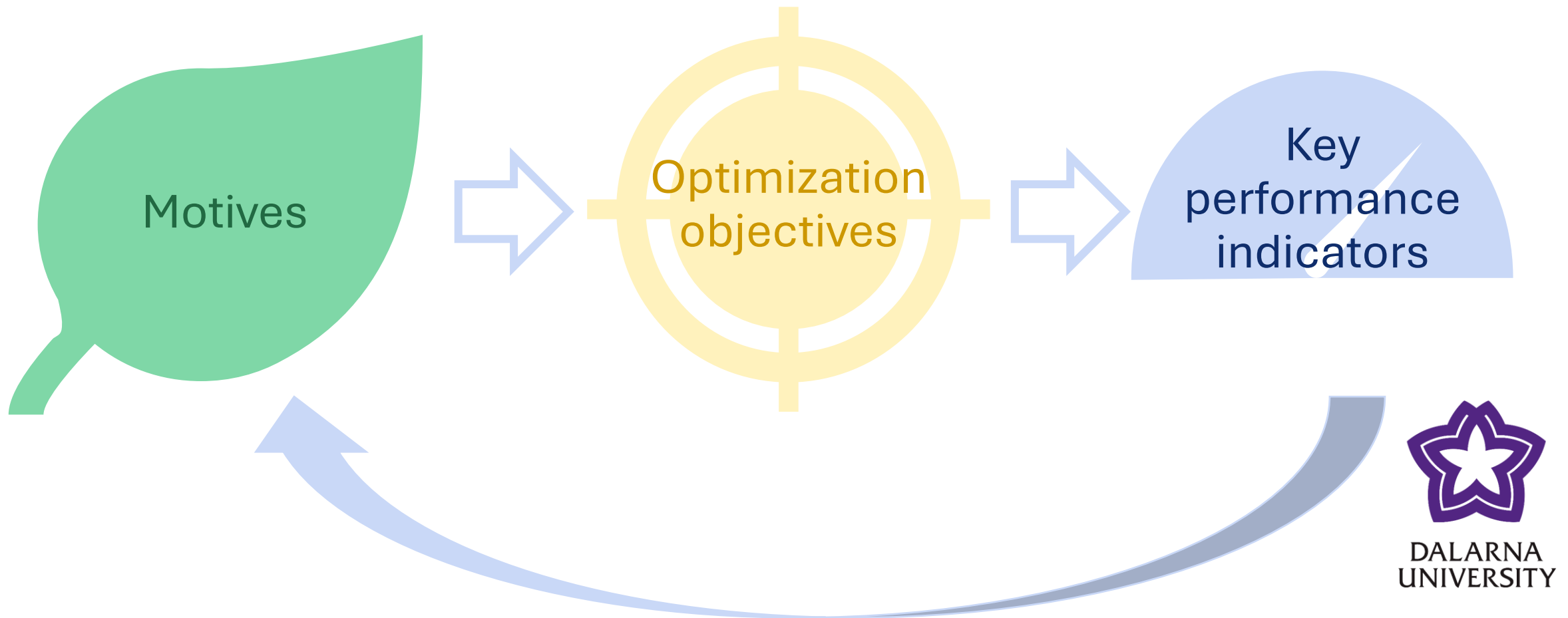
Why research on  
optimizing photovoltaic  
systems?



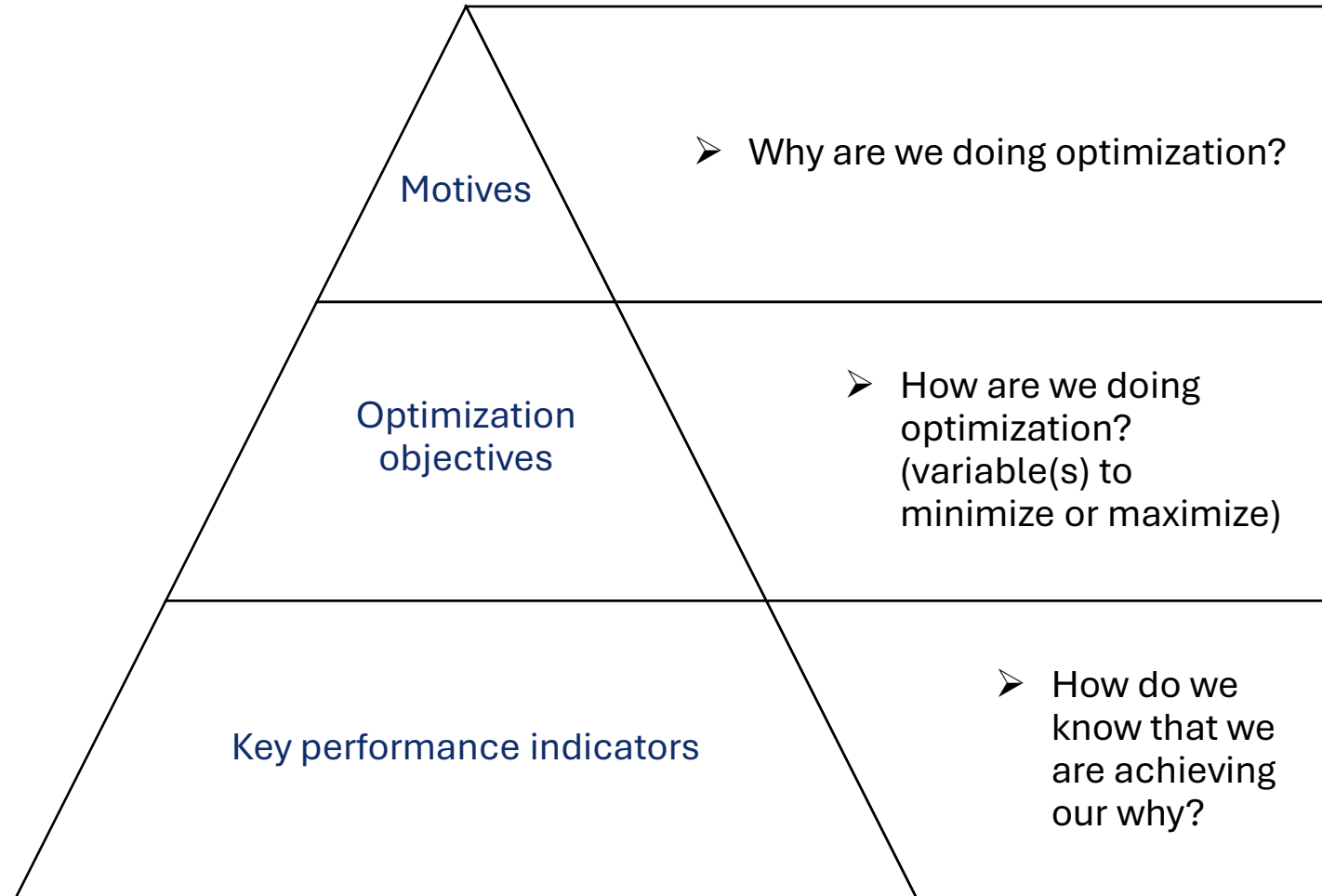
# Why research on optimizing photovoltaic systems?



## Optimization framework...

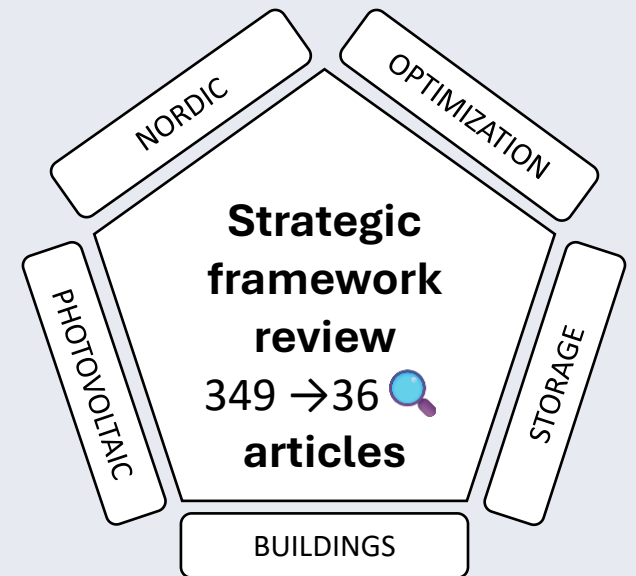


# Strategic framework for optimization

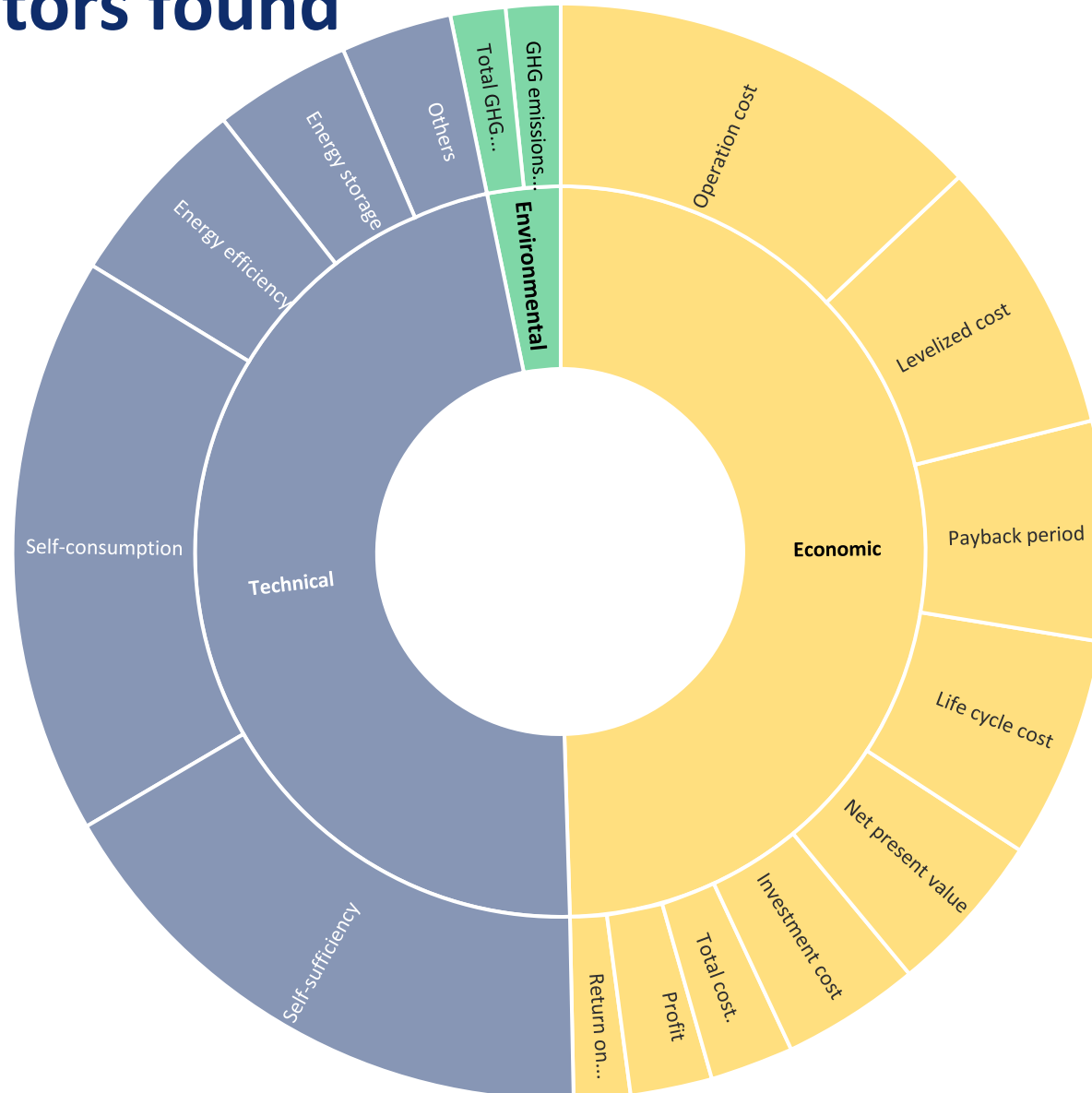


# Strategic frameworks being used?

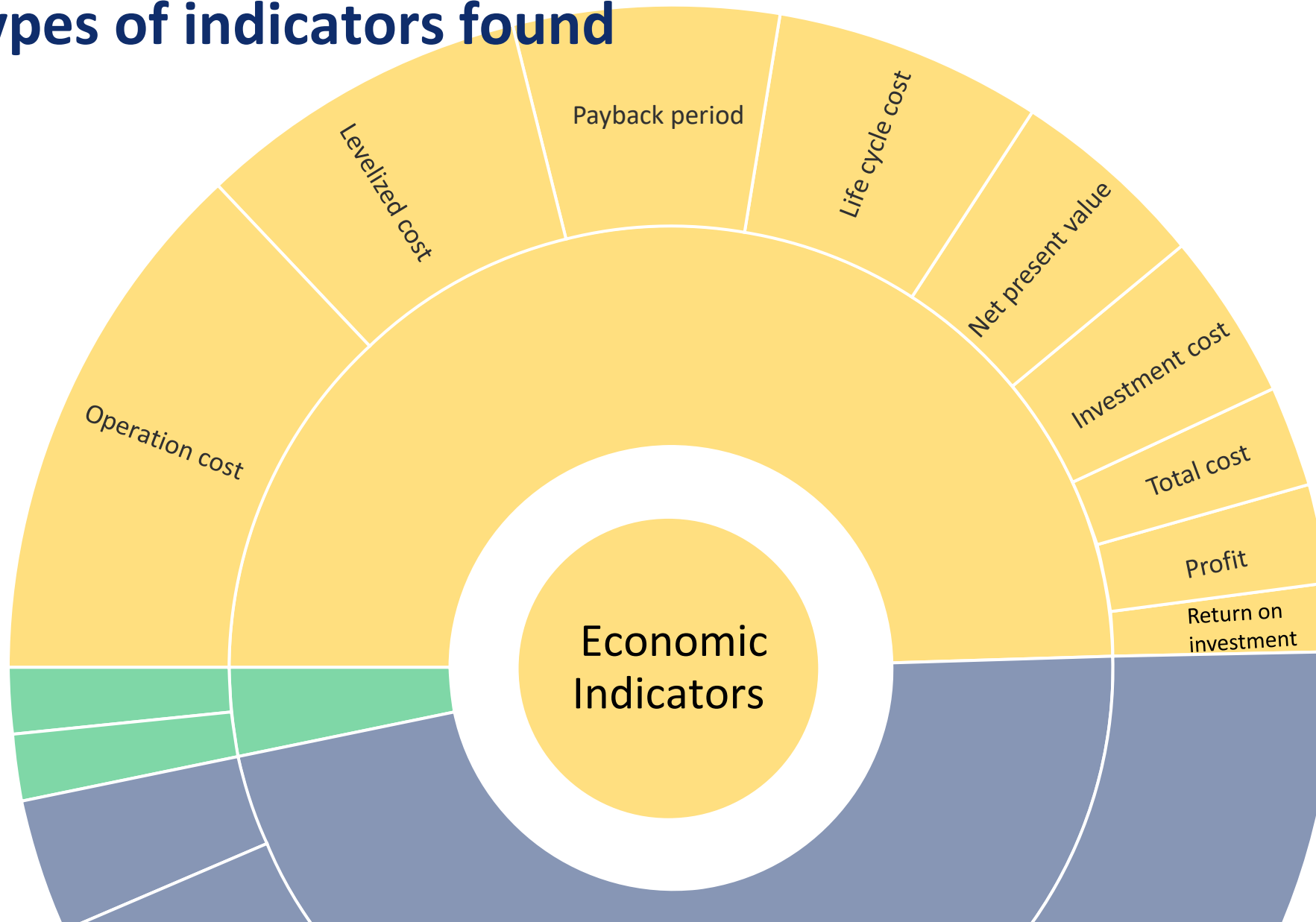
## We analysed them...



# Types of indicators found

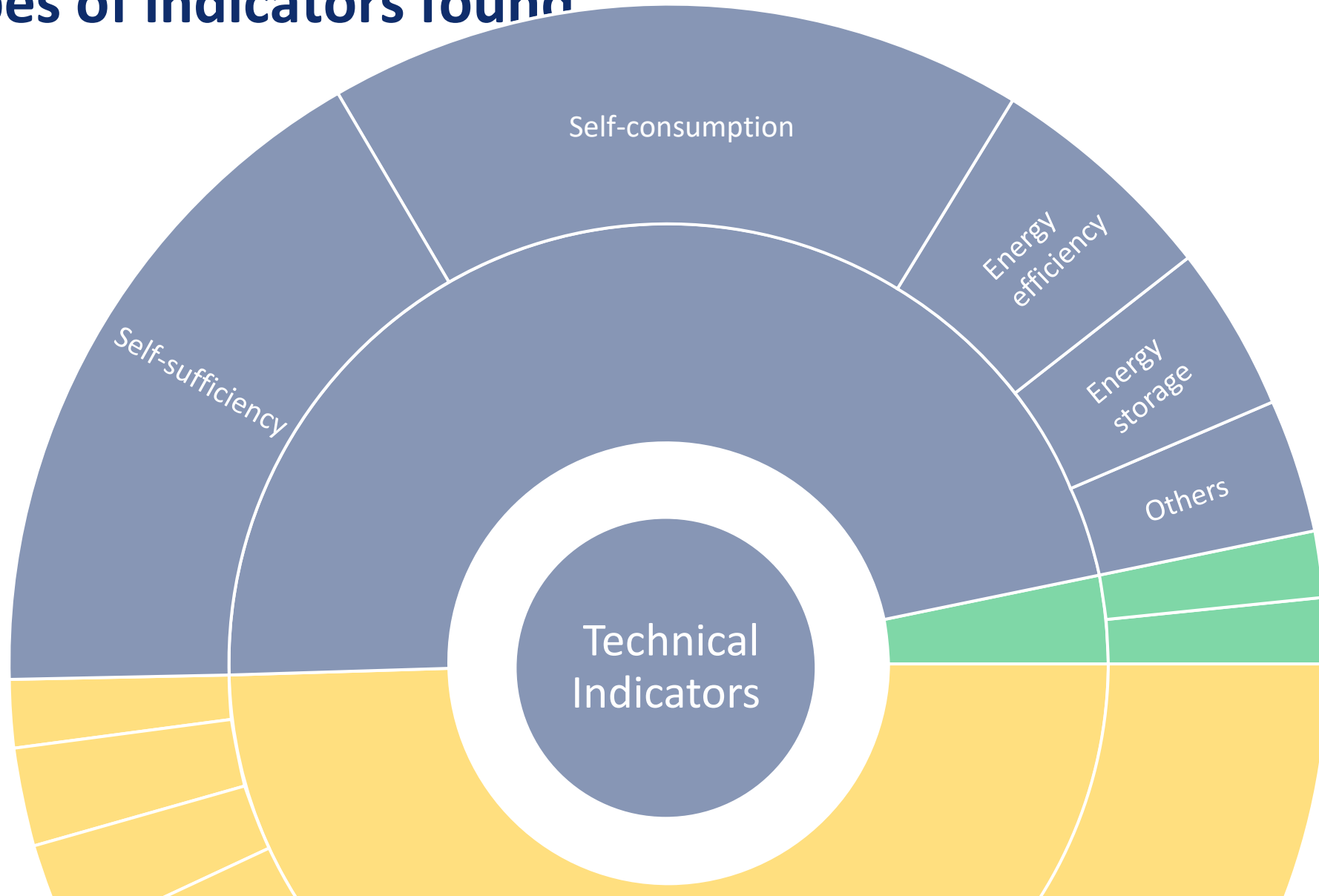


## Types of indicators found



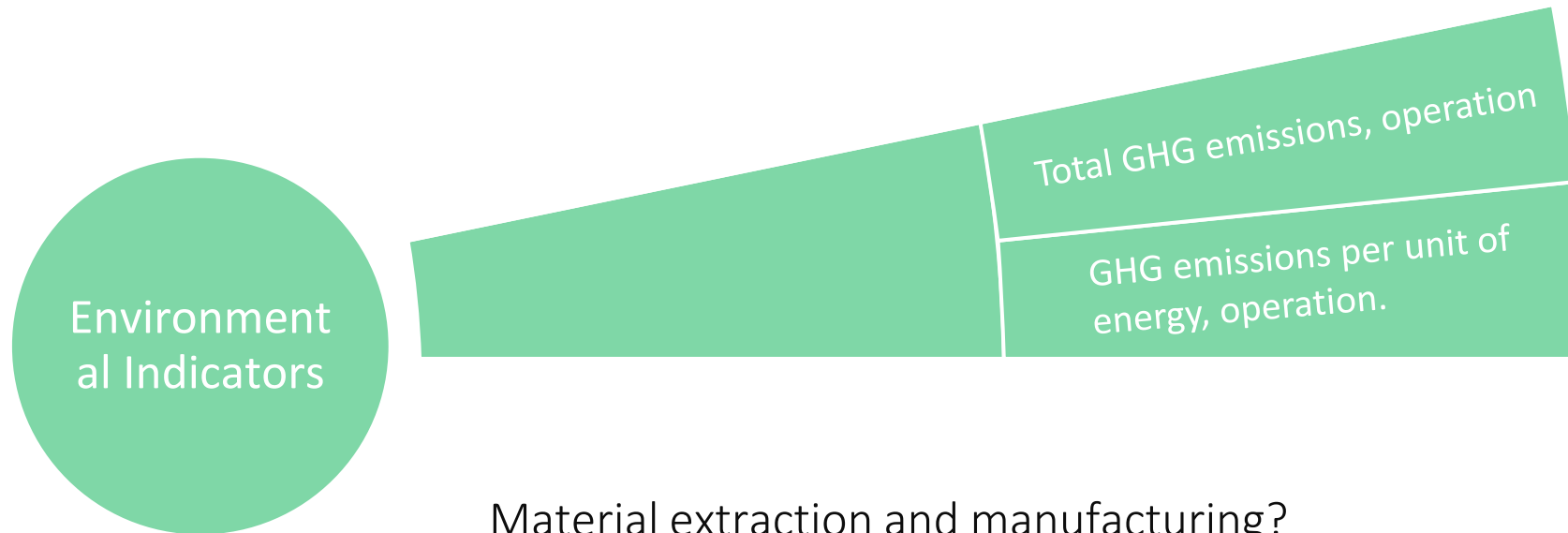


## Types of indicators found



## Indicators found

Environmental impact during operation only!

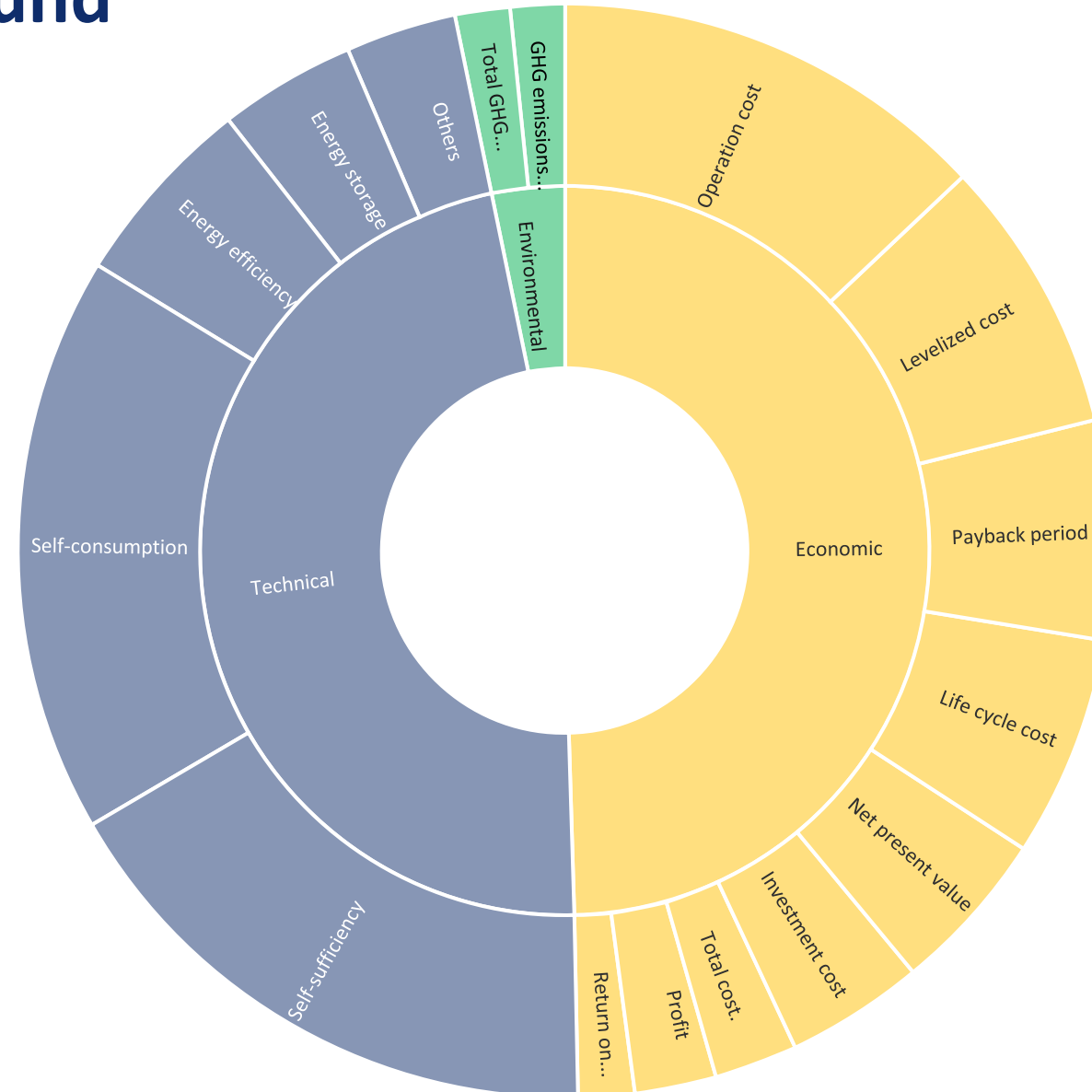


Material extraction and manufacturing?

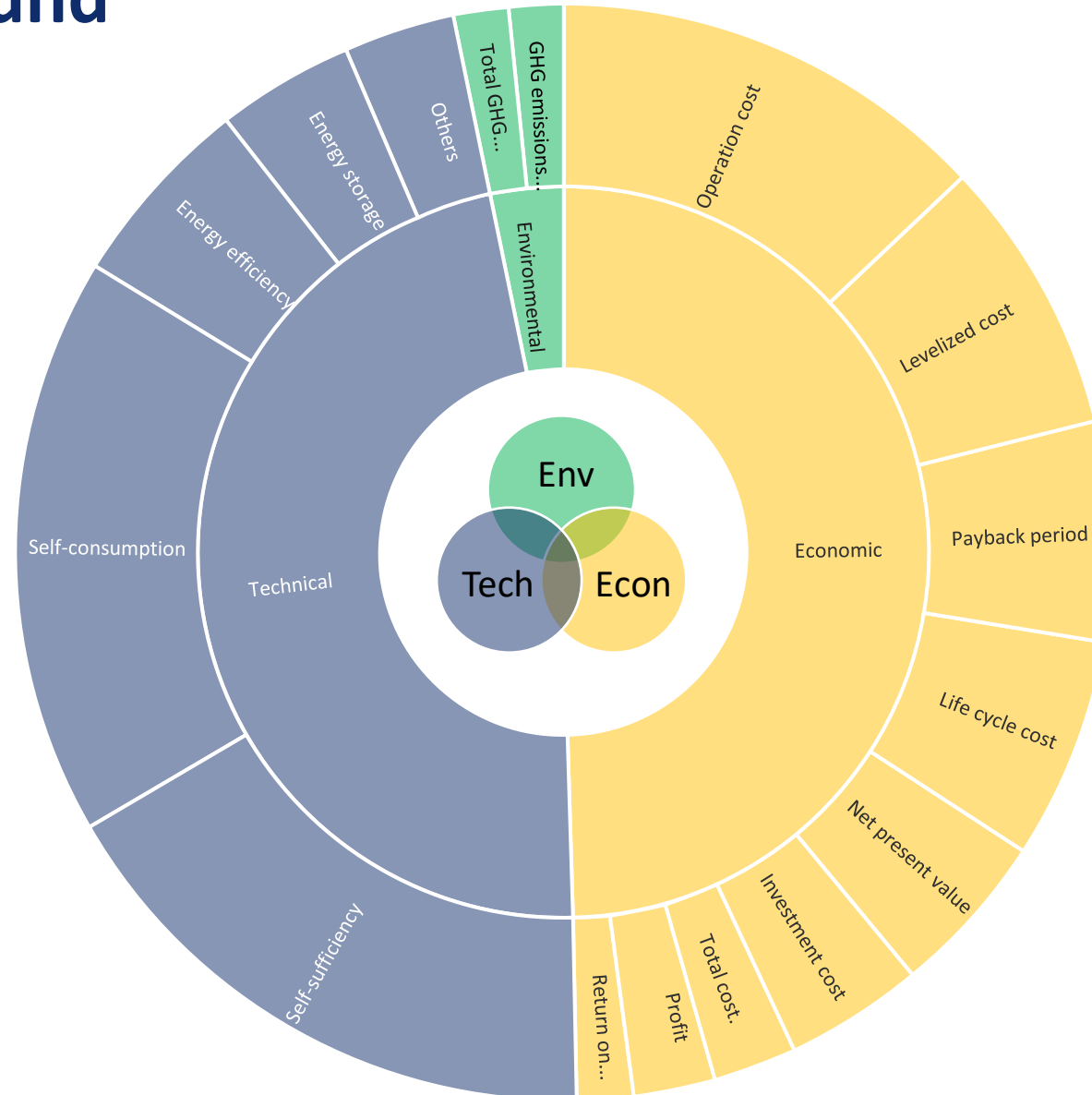
End of life?



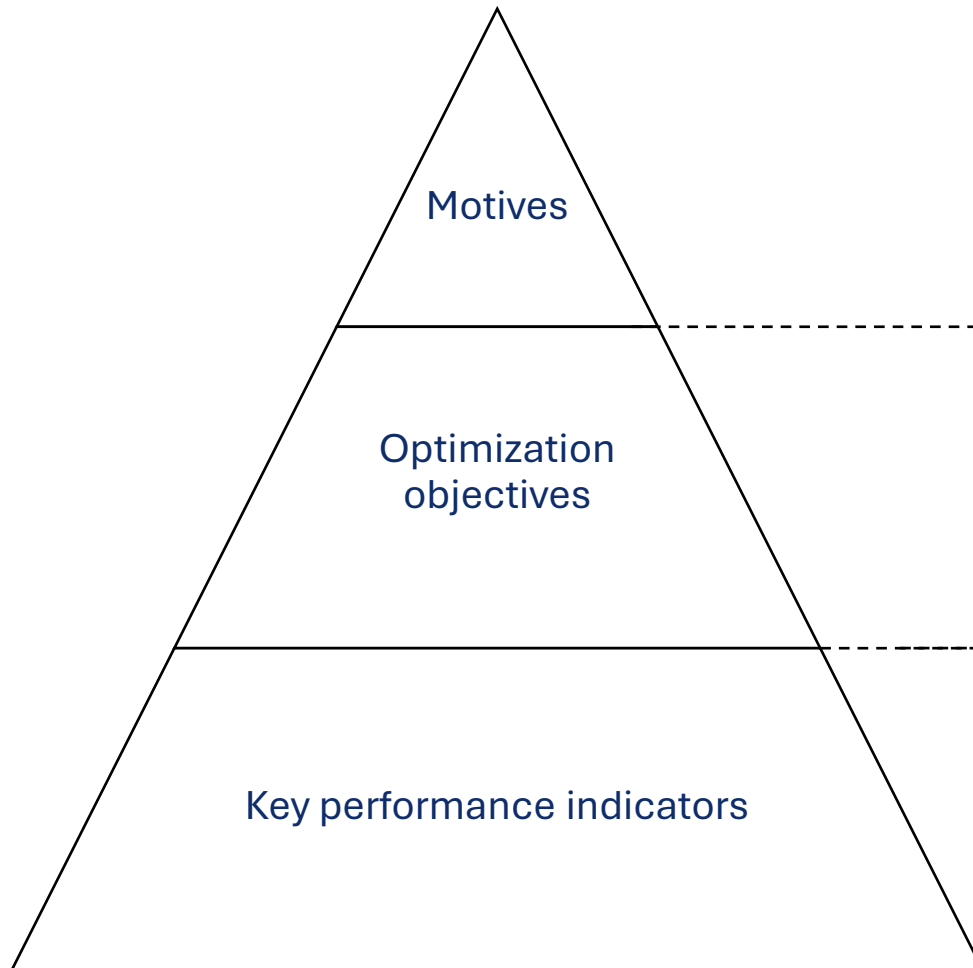
# Indicators found



# Indicators found



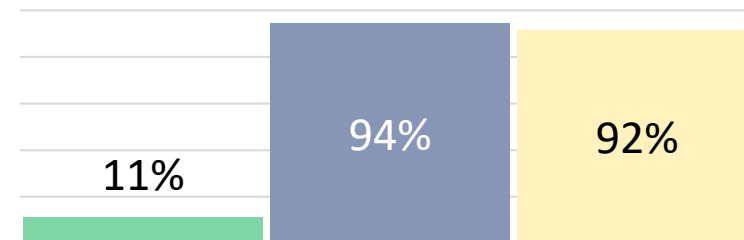
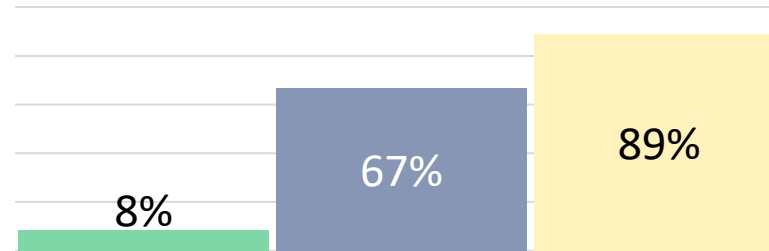
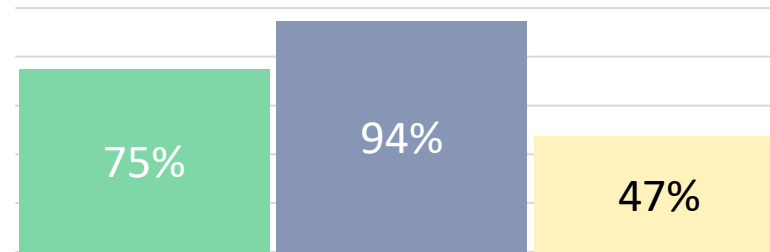
## Strategic framework for optimization



Environmental

Technical

Economic

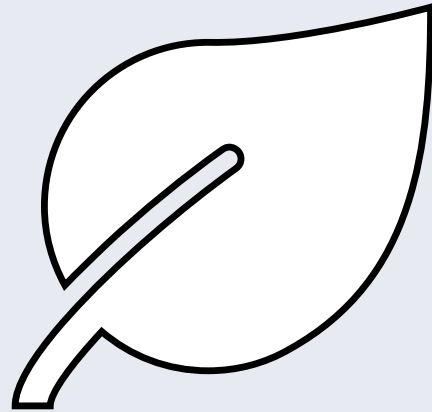


This makes me wonder... 🙄

Are we walking  
blindfolded towards  
our sustainability  
goals?




Most articles show environmental motives...

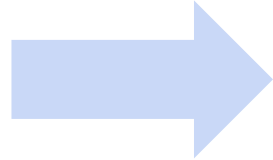


Only a few aim to improve or quantify them directly.




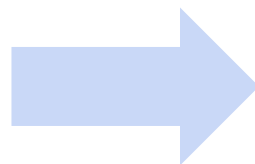
### Yes, so, what is next?

More comprehensive and coherent studies for optimizing PV systems. 



What happens with the **environmental** indicators if we optimize only for **technical** and/or **economic** objectives?

Life cycle approach for the optimization with environmental variables. 



What happens with the lifecycle **environmental** indicators if we optimize only considering the operation emissions?



Thank you!

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