

To respond to the energy emergency,
in particular with
Répondre à l'urgence énergétique notamment avec

EnergyScope

Hervé MATHIEU

Co founder **EnergyScope**

2022-10-21

EnergyScope

Our mission is to help companies to improve the energy efficiency of their applications running on servers

Sponsored by

UNE ENTREPRISE
ACCOMPAGNÉE PAR



UNITEC

Inria
StartupStudio

Energy

- Short term challenge: electricity production issue
- Long term challenge: energy cost



We have to tackle the problem in the long term, that means to be more efficient

Short term solutions

plan de sobriété

- switching off nodes
- reducing frequencies... $P=V^2 \cdot C \cdot f$

=> degraded mode



Long term solutions

We all must think **Energy to Solution**

All means: cluster admin, users, developers

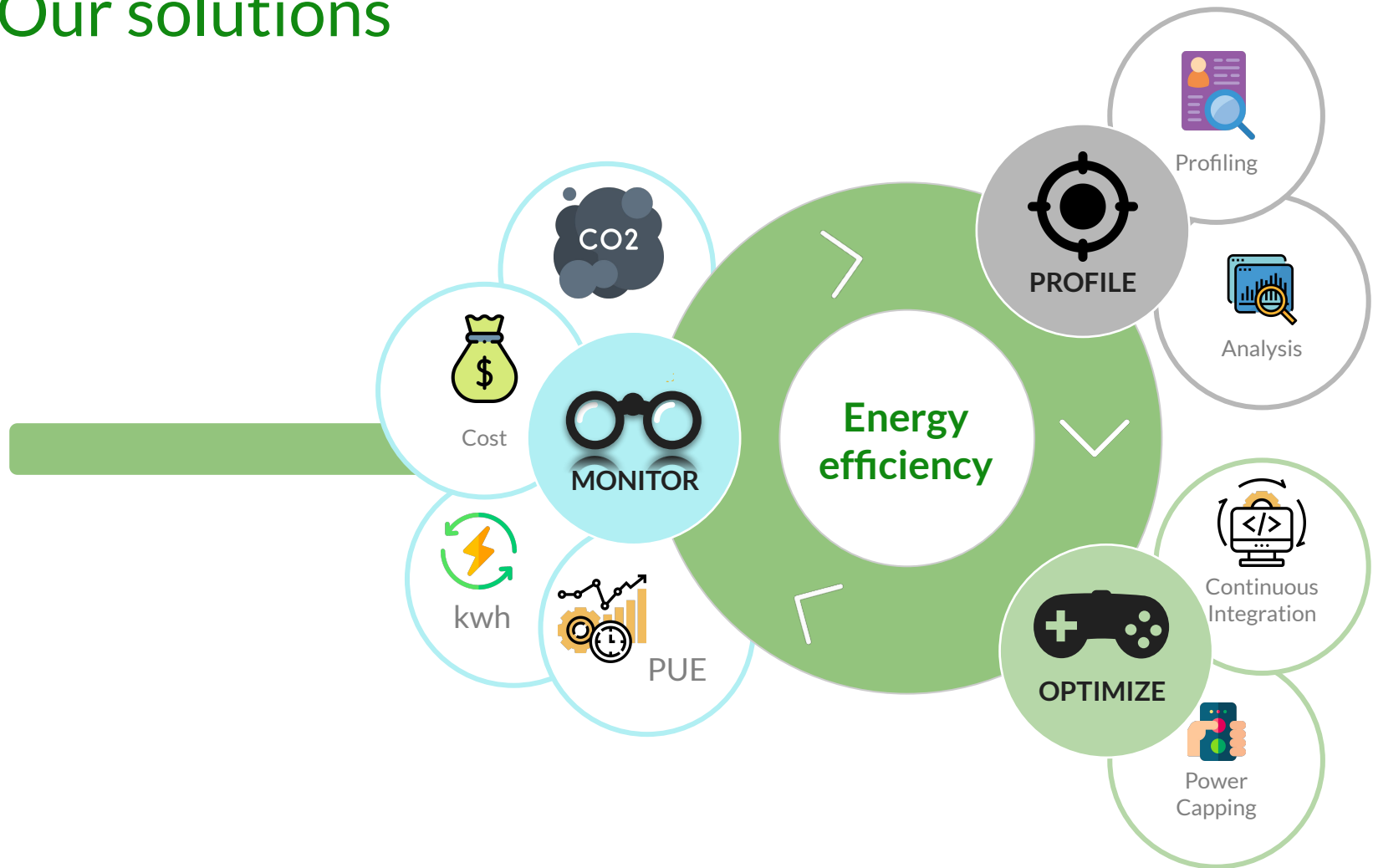


And we must tackle all the dimensions:

- cluster configuration
- mapping software on hardware
- software optimisation



Our solutions



UX Cluster manager & User

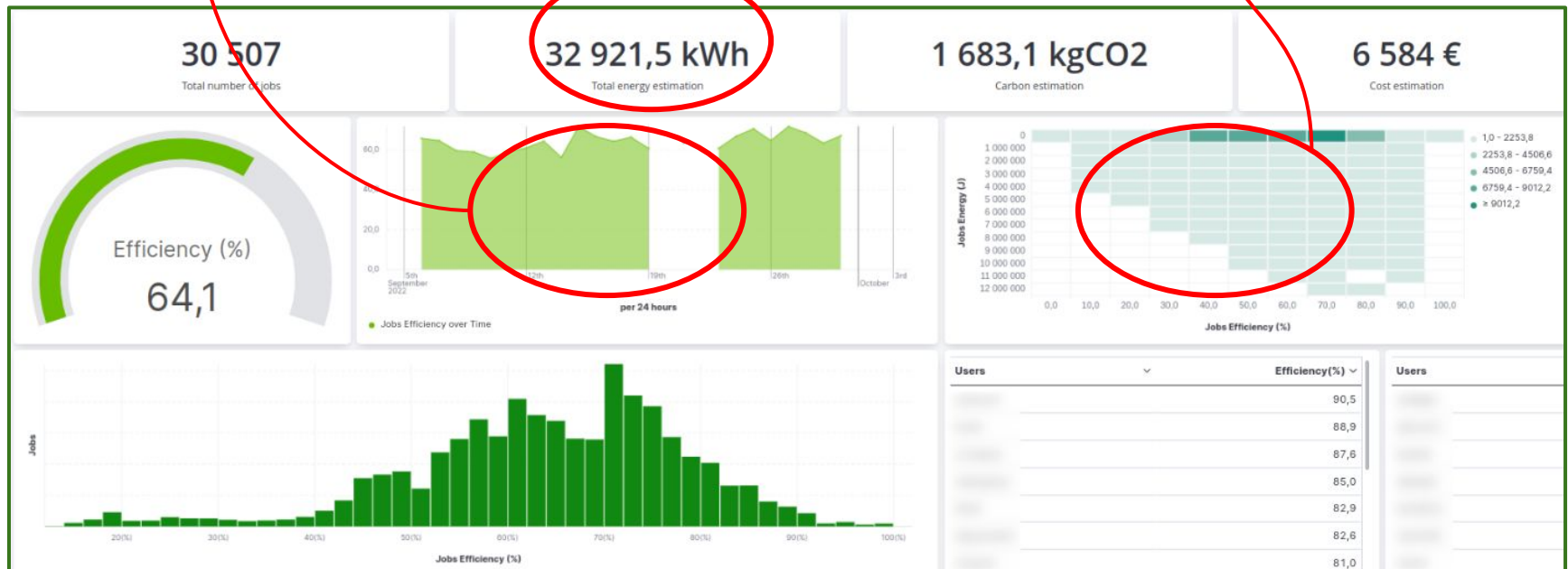
EnergyScope Monitor provides an overview of your system activity when it comes to energy : kwh, cost, CO2, efficiency ...

Navigates over time and get a focus on the applications and/or users that are the less efficient.

Global data

KPI

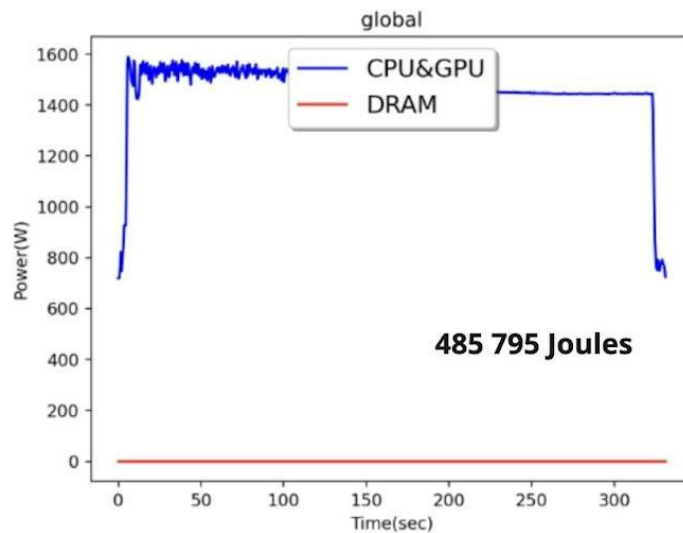
Profiling



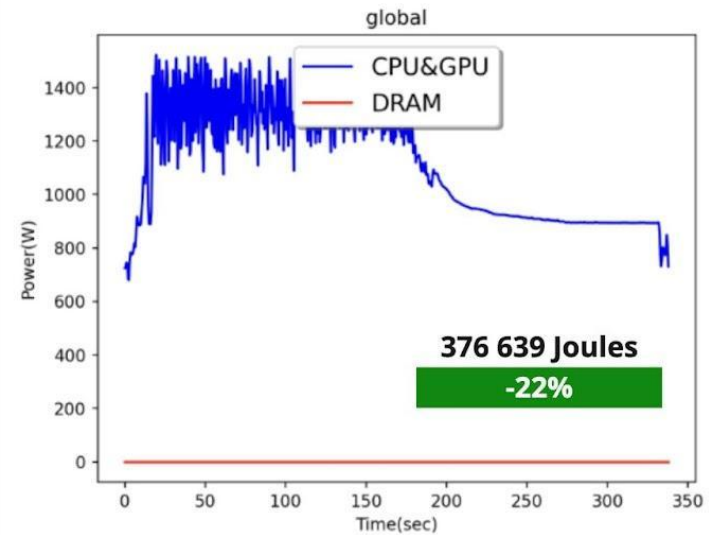
UX developer

EnergyScope Optimize allows you to compare the energetic performance of your code very easily with its system of tagging on which you can easily identify the part of your code on which you should focus.

Initial Profile



After Optimization



miro

Conclusion

Short term : switching off nodes, reducing frequencies

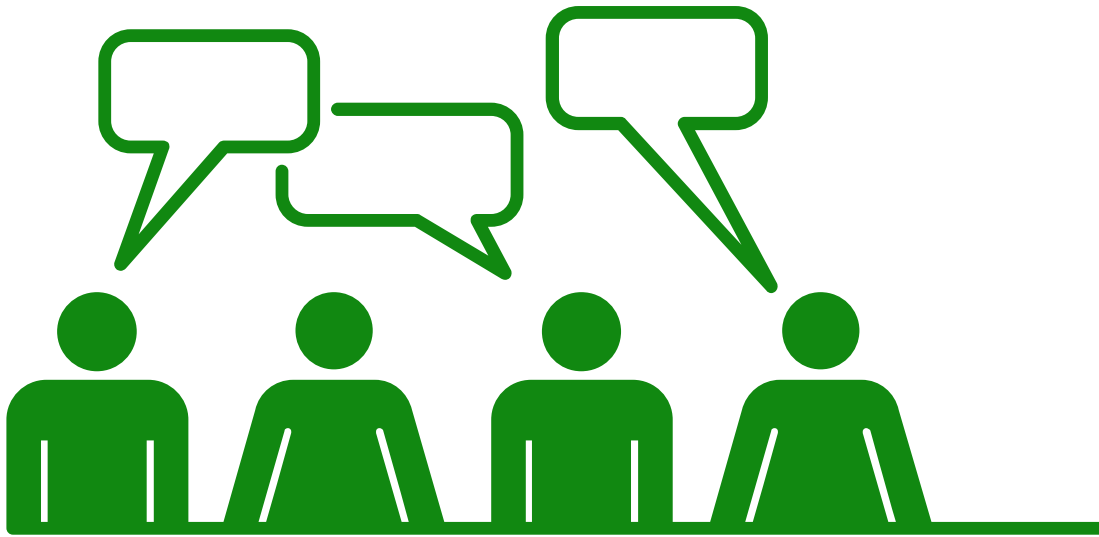
Long term : compromise between time-to-solution and energy-to-solution

EnergyScope proposes already now advanced tools to tackle the challenges

EnergyScope has a R&D program to bring to people involved recommendations to improve the energy efficiency

EnergyScope

Hervé MATHIEU
energy-scope@inria.fr



questions? thank you.