

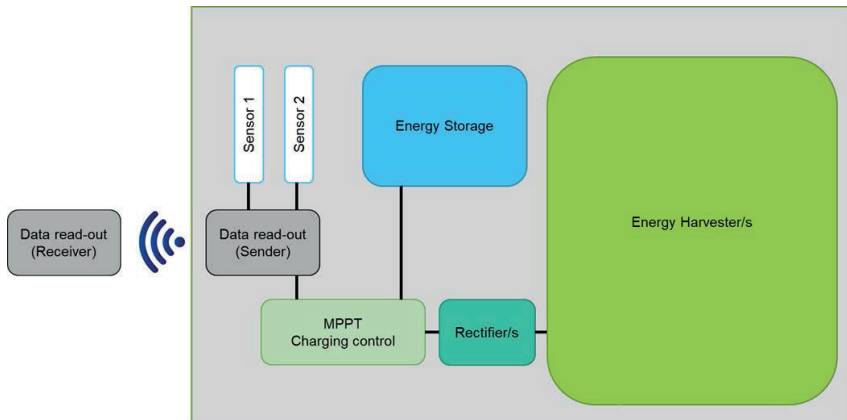


# **SYMPHONY**

**AIMS TO DEVELOP A COST-EFFICIENT AND  
ENVIROMENTALLY FRIENDLY REALIZATION  
OF ENERGY HARVESTING**

The Symphony solution will significantly reduce CO<sub>2</sub> emissions by increasing the lifetime of wind turbines, making room heating/cooling more efficient, through presence and motion tracking smart floors and decreasing the energy consumption in e-bikes, through remote tube pressure control.

# USE CASES: FROM SPECIFICATIONS



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Figure 1: Tentative system design with building blocks that are common for the three SYMPHONY use cases.

After 6 months from the start of the project, many progresses have been made concerning the definition of the specifications for the materials, components, and electronics required for the development of the SYMPHONY energy autonomous sensor system.

From the inputs received from the use cases partners, a set of parameters and building blocks has been derived and used for the tentative system design. It was noticed that some of the SYMPHONY demonstrators

show parameters which are overlapping while others are completely different.

The preparation of sketches representing the preliminary design of the system to be integrated into the wind turbine, bicycle tube and smart floor contributed to identify possible risks for its implementation into the three demonstrators and prepare the related mitigation measures and contingency plans. Through iterations in the project and as technologies develop, the preliminary system

# TO PRELIMINARY SYSTEM DESIGN

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design will be updated to the final design, as reference for the development of each SYMPHONY use case.

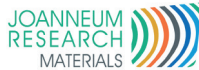
The project is currently benefiting from a very efficient collaboration amongst all the partners with the definition of a detailed process flow and roles distribution. This is demonstrated by the huge number of remote meetings organized in the first months of the project with the aim to discuss the integration of the different materials, devices and electronics and related manufacturing processes.

In parallel, the SYMPHONY project has developed its own brand and website (<https://www.symphony-energy.eu/>) to ensure high visibility of the project achievements, applications, and key players. Moreover, the project is already receiving support, in terms of advices and comments collected during the M6 meeting, from a group of experts, members of the SYMPHONY Business Interest Group. SYMPHONY project, started in May 2020, has a duration of 48 months; please, stay updated about the upcoming project results!

## FACTS

- **START DATE: 01 MAY 2020**
- **END DATE: 30 APRIL 2024**
- **DURATION IN MONTHS: 48 MONTHS**
- **PROJECT EU FUNDING: 6.82M€**
- **GRANT AGREEMENT N.: 862095**
- **H2020 TOPIC: LC-NMBP-32-2019 SMART MATERIALS, SYSTEMS AND STRUCTURES FOR ENERGY HARVESTING**

# Partner



# Funding agency



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