



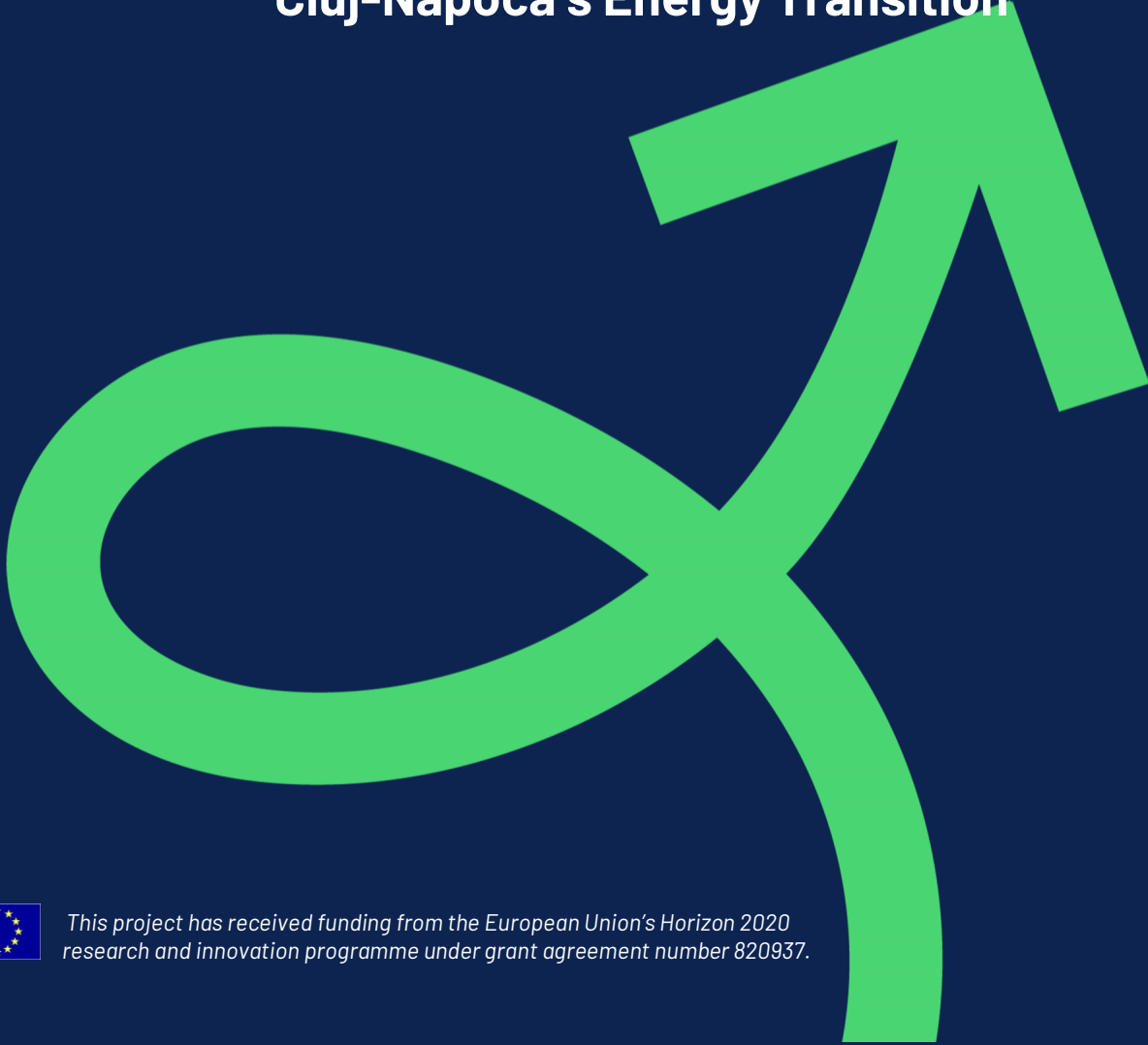
Co-Creating Circular
Resource Flows in Cities

constRuctive mEtabolic processes For materiaL fIOWs in
urban and peri-urban environments across Europe

A REFLOW CASE STUDY

TEACHING GUIDE: ENERGETIC EFFORTS IN CLUJ-NAPOCA

Cluj-Napoca's Energy Transition



*This project has received funding from the European Union's Horizon 2020
research and innovation programme under grant agreement number 820937.*

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Figure 1: Photo by [Lucut Razvan](#) on [Unsplash](#)

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Synopsis of the Case

This case is based on a real organisation that has carried out activities as part of the European Union Horizon 2020 project, REFLOW. While the case is based on a real organisation and other elements, the case is fictionalised. The main protagonist is the coordinator of the Cluj-Napoca pilot city, Mihai Barbu. The coordinator and his team encounter a barrier to accessing energy consumption data needed for a technological solution which they believe could help to raise awareness on energy consumption and lead to the increased energy efficiency, reduction in energy consumption, and towards the overall energy and circular transition in the city. The gatekeepers of the data, the partly state-owned energy distributor, does not want to release their data needed for the technological solution. With the clock ticking on the REFLOW project's timespan, the coordinator must now figure out what the next steps of the Cluj-Napoca pilot will be. The students are asked to assess what could be done in this situation. Could there be any potential for making a convincing argument or should they go in a different direction, if so, what?

Target Group

The case is suitable for courses in energy transition, strategy and innovation, data governance, strategic decision making, and sustainability courses at the undergraduate and graduate levels.

Learning Objectives and Key Issues

The learning objectives of this case aim to have students evaluate and assess the situation with sustainable and circular projects and the barriers to data sharing. With the pressing need to transition towards more sustainable and circular economies, technological solutions play a key role in ensuring this. However, accessing data is not always easy, especially when there are challenges associated with actors and large public organisations that are more rigid and bureaucratic. After completion of this case, students should be able to understand the following:

- The barriers to data sharing for technological solutions when dealing with bureaucratic and rigid actors
- Learn about the importance of energy transitions and the reality of making sustainable and circular solutions when you do not have feasible access to the data

The case also allows students to make their own assessment of the situation and to identify pathways for how to move forward with a project when things do not go as planned. Students can also be asked to evaluate the scalability and replicability of this place-based situation and if their solution to the dilemma could be translated to other contexts.



Relevant Readings

- Access information on the Cluj-Napoca pilot city on the REFLOW project website [here](#). Blog posts written by the Cluj-Napoca pilot city team can be found on the website, highlighting the broader challenge they are addressing and how they are tackling it.
- Ahmed, M. T., & Omotunde, H. (2012). Theories and strategies of good decision making. *International Journal of Scientific & Technology Research*, 1(10), 51-54.
- Nordic Innovation. (2021). *Data Sharing for a circular economy in the Nordics*. <http://norden.diva-portal.org/smash/get/diva2:1612604/FULLTEXT01.pdf>.
- OECD (2019), *Enhancing Access to and Sharing of Data: Reconciling Risks and Benefits for Data Re-use across Societies*, OECD Publishing, Paris, <https://doi.org/10.1787/276aaca8-en>.

Teaching Strategy

The case should take approximately 90 minutes to present, discuss, and solve. Students (individually or in a group) can discuss the dilemma.

Topic	Time (minutes)
Introduction	5
Discussion Question 1	10
Discussion Question 2	10
Discussion Question 3	10
Discussion Question 4	15
Discussion Question 5	20
Additional Discussion Questions or allocate time to previous discussion question	10
Conclusion	10

Questions for Discussion

1. What is the dilemma that Mihai Barbu finds himself in? Why is this an issue?
2. What does the Cluj-Napoca pilot team, with its technological solution, intend to solve? What are the goals of the Cluj-Napoca pilot team? Are these addressed in the technological solution, the Energy Dashboard, that the pilot team has developed?
3. Why does the Cluj-Napoca pilot team *need* the automatic transfer of energy consumption data? Is this really necessary? What are the challenges of not having the automatic transfer of energy consumption data?



4. What is the role of data in circular economy and what barriers to data sharing are there? What is the barrier to data sharing in this case? Is it possible to move past this barrier? If so, how?
5. Which direction should Mihai Barbu take? Why?

Additional Discussion Questions

What strategic arguments can be made for a more sustainable energy sector in the transition towards a circular and regenerative economy?

What are the reasons why the energy distributor wouldn't give the data over? Outside of legalisation.

Was there an alternative solution other than the automatic data transfer from the energy distributor? Should the pilot team have taken another route?

Why is it difficult to convince actors on the circular economy? What is the difference between arguments for circular economy with public and private actors?

How would this dilemma and your solution translate in another context? Is this situation only specific to Romanian cities and organisations?