

TOWARDS SUSTAINABLE RESIDENTIAL SYSTEMS



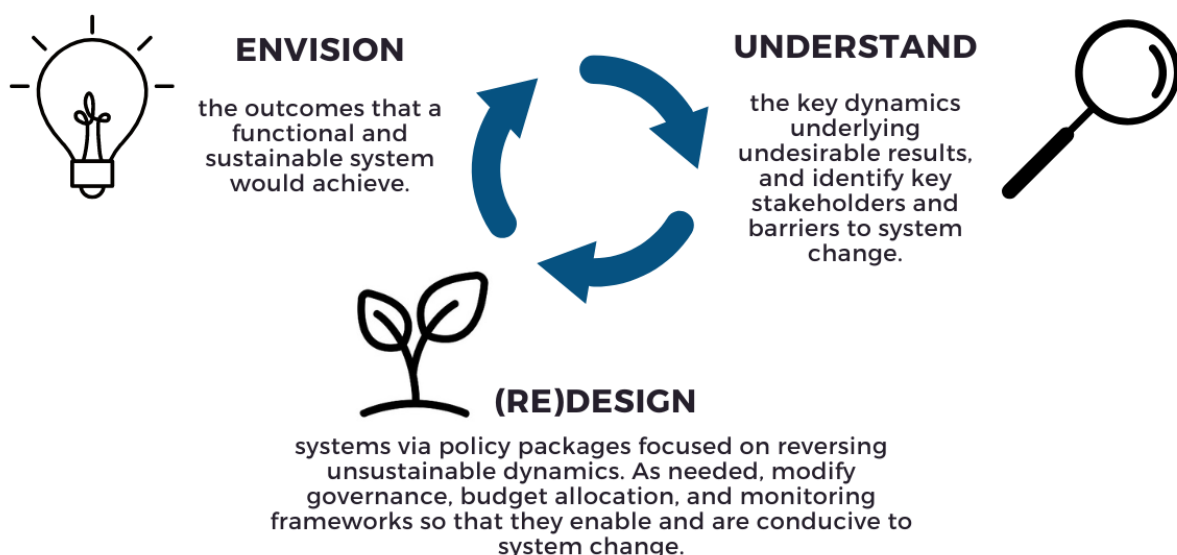
With over half of the world's population living in cities, making them sustainable is paramount. While great progress has been made on the technological front (e.g. houses are better insulated), cities are sprawling and partially offsetting these benefits. Sprawl refers to populations of cities or towns moving further away from inner areas, which often results in large detached homes and car dependency (as cars become the most convenient – and sometimes only – means of transport), in turn leading to high-emitting residential and transport systems.

We now turn our attention to residential systems

This project aims to provide policy recommendations for the transition towards sustainable residential systems. Building on systemic tools and the OECD systems innovation for net-zero process, the project aims to shed light on the following questions:

1. What does a sustainable residential system look like? (*envision*)
2. What has caused sprawl? Said differently, what drives people to choose to move further away, become car-dependent and build bigger and detached houses? (*understand*)
3. Which policies can accelerate the transition towards a truly sustainable residential system? (*redesign*)

Figure 1. Systems innovation for net-zero: bringing systemic tools to policymaking



Note: previously called "the well-being lens" process.

The analysis arising from this proposal will be similar to the analysis in the report [Transport Strategies for Net-Zero Systems by Design](#). This report: i) discusses the systems dynamics and mental models underlying car-dependent systems and preventing authorities from envisioning better functioning systems, ii) identifies three dynamics at the source of car dependency at the global level: induced demand, sprawl, and the erosion of sustainable modes; and iii) provides policy recommendations to reorient efforts so that policies can reverse such “vicious” dynamics and redesign better functioning transport and urban systems.

The understanding of the systems functioning at the global level is then tailored to national and local contexts via case studies. The case studies apply systemic tools to evaluate the potential of implemented and planned policies in a selected group of countries and cities to redesign systems and provide policy recommendations to increase policy effectiveness. The case studies build on desk reviews, interviews with government officials, and interactive workshops. Outputs include:

- A report with policy recommendations from the analysis, recommendations on next steps and methodology description.
- Interactive workshops with key stakeholders where they can experiment with systemic tools use and discuss preliminary insights of the work.
- A visual mapping of policies/actions according to their potential to redesign systems (or trigger transformational change).
- A quantitative systems dynamics model on sprawl.
- Fact sheets for generic policy types summarising their potential to trigger transformational change. The factsheets may include CLDs illustrating how the policy affects (or not) the system structure.
- A database of the policies analysed, with information such as the action/policy name, source of information (e.g. strategy, interview), body responsible for its implementation, category in terms of their potential to trigger transformational change (based on Donella Meadow’s leverage points’ framework), and a short explanation of the reasoning behind the categorisation.

What’s next?

We are currently advancing on the steps “envision” and “understand” and looking for funding opportunities to further advance this work, as well as to tailor it to specific cities via case studies.



Please contact Mariana Mirabile (mariana.mirabile@oecd.org) for further information.

For more information:

OECD (2021), *Transport Strategies for Net-Zero Systems by Design*,
OECD Publishing, Paris, <https://doi.org/10.1787/0a20f779-en>.

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