



Thematic Industrial Innovation Roadmap for the Energy and Environment Sector

This Thematic Industrial Innovation Roadmap for Advanced Manufacturing Sector was prepared by the Chain Reaction partnership as Output O.T4.1: **Thematic industrial innovation roadmaps**, in order to define the potential innovations activities for the transnational stakeholder network.

Re- gion	Suggested innovation action	Description	Timeframe	
			From	To
Styria	New city regulative, forbidding fossil fuel delivery vehicles in city centre	eMobility is seen as a way to reduce the fossil fuel related pollution in the city. In the city centre, with limited vehicle accessibility, the main point of pollution are delivery vehicles (postal service, private delivery, supply of restaurants and shops, pick-up for food delivery). By changing city ordinance, the removal of fossil fuel based vehicles would further boost eMobility.	09/2022	09/2024
Styria	Monitoring energy use in public transport e-vehicles, for the purpose of optimisation	Public transport is an area that needs optimisation in Maribor (new bus routes, new end stations). With more e-vehicles in the bus fleet, there is an important component of modification of routes according to energy efficiency, which can be achieved through monitoring the energy use along various routes and modifying them in a way to still connect the points of entry of the previous route, but drive along the less demanding terrain to reduce energy spending.	09/2022	09/2025
Styria	Introduction of online self-weighing trash containers, for optimization of their emptying	The system of collecting trash has not really changed since the late 1980s, when the separation of waste was introduced in Maribor. The trash is still emptied according to the fixed dates, for a fixed price (based on the pre-set number of emptying). By providing sensory equipment on the containers, the emptying could be determined in real time according to the speed of filling up the container. This	09/2022	09/2026



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		would reduce the number of unnecessary emptying (if the container is not full yet) and reduce the number of the trash truck patrolling the city.		
Re-gens-burg	Developing new system components for fuel cells	A package of different measures and use cases must be bundled to enable a successful energy transition, based on hydrogen. Hydrogen has a high potential to become a storage medium for sustainably generated electricity and to become the substitute for currently used fuel.	04/2021	03/2024
Re-gens-burg	Ddevelopment and improvement of technologies for the production of fuel cells	A package of different measures and use cases must be bundled to enable a successful energy transition, based on hydrogen. In order for hydrogen to become an alternative fuel source in mobility, new fuel cells need to be produced.	04/2021	03/2024
Re-gens-burg	New technologies for the on-site generation of hydrogen	A package of different measures and use cases must be bundled to enable a successful energy transition, based on hydrogen. In order to it the decisive role that it can potentially have, further development in the research, production and application of hydrogen solutions is required.	04/2021	03/2024