

O.T3.3 & D.C.3.4 PILOT FACT SHEET

Pilot application of novel low-carbon PT service

Project index number and acronym	CE1100 LOW-CARB
Lead partner	PP1 - Leipzig Transport Company (LVB)
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Responsible partner(s) (PP name and number)	PP Skawina 9
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Summary description of the pilot action (including investment, if applicable) explaining its experimental nature and demonstration character

According to the framework of the LOW-CARB project, the Municipality of Skawina has implemented a pilot line of a low emission feeder bus. The implementation was preceded by the research phase that has helped to define the route and mode of the line, a baseline and overall estimation of expected mobility and CO2 reduction impact. The research was continued during the operation of the line to evaluate its effects and to point necessary changes for the future more efficient operation. The general aim was to follow-up the pilot with the implementation of a permanent feeder bus line which will serve as an internal municipal line that will connect most densely inhabited neighborhoods with the railroad. The pilot has shown that the operation of such a line is reasonable, and in conjunction with the rapid metropolitan railroad may be a great solution for mobility challenges in Skawina, especially for providing a better connection with Kraków city center. Furthermore, the evaluation of the project has shown the possibility of implementing two other internal bus lines to create a whole new PT scheme. It is worth to note that the operation of the pilot line was the very first attempt to organize an internal town bus line, operated by the MPK Kraków (PTO) and functioning within the existing system. It was also the very first line entirely operated by the low-emission hybrid busses. During the project, Skawina has learned a lot about electro-mobility solutions as well as other low emission alternatives. Those experiences may lead to further sustainable mobility changes in Skawina.

NUTS region(s) concerned by the pilot action (relevant NUTS level)

Municipality of Skawina

Country (NUTS 0)	PL
Region (NUTS 2)	PL21
Sub-region (NUTS 3)	PL214

Investment costs (EUR), if applicable

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Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

Impact and benefits:

1. The pilot line was a part of a general plan described in the Skawina's SUMP to reorganize the PT system around the Rapid Metropolitan Rail system with the feeder bus system gathering users from the most populated areas. In that perspective, the Low-Carb pilot line has been a valuable test ground for the new scheme.
2. The pilot has shown the potential of such a line in improving the mobility of the most vulnerable groups i.e.. the elderly and school children and achieving change in mobility behavior.
3. The pilot has shown the possibility of implementing further changes in the PT system, also as described in the evaluation report.
4. PP SKW has learned a lot about electromobility, and the inability of running a pilot of an electric bus has resulted in some political and organizational moves towards the development of the much-needed charging infrastructure in town.
5. The pilot has showcased the proper way of sustainable mobility planning with the extended research phase, testing, and evaluation.
6. During the project, PP Skawina has developed a better connection with PP Kraków and organizational units responsible for the public transportation in Kraków - ZTP Kraków and MPK Kraków.

Sustainability of the pilot action results and transferability to other territories and stakeholders.

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1. The evaluation report has shown a significant number of users that have changed their mode of transportation from a private vehicle to the bus (19,5% of surveyed users)
2. The line played an important role in empowering the most vulnerable age groups (15% of 61+ users)
3. The pilot had significant potential for improving safe and sustainable school travel. However, due to the pandemic situation and school closure, it was never fully shown.
4. The line was operated by two hybrid busses only, and that resulted in significantly lower GHG emissions in comparison to diesel only buses. Additionally, such a short line with lots of stops is a very good setting for a hybrid bus.
5. The study has shown a significant reduction in CO2 emissions related to the line existence (106 236,58 kg of CO2 reduction).
6. The pilot is a valuable example for all the towns located within the FUA of a dominant city and highly dependent on the main city's mobility system. The pilot has shown that the feeder bus line is a replicable solution also in Poland.
7. It was the second line operated by MPK Kraków that is entirely run on another commune's territory (the other one is also in Skawina), and that opens a new possibility for other communes as well.
8. It was another example of the free of charge line and its effects on PT system and mobility behavior patterns.

Lessons learned and added value of transnational cooperation of the pilot action implementation (including investment, if applicable)

1. experience in international project management, using various management tools and techniques,
2. access to best practices from the central European region, especially related to sustainable mobility planning and low emission public transportation,
3. access to novel tools i.e.. SUMP Self-Assessment Tool and knowledgebase, publications,
4. opportunity to co-create and test those tools and contribute to the knowledgebase, publications, and best practices,
5. networking and possibility for further collaboration in other projects (in fact, PP Skawina took place in CIVITAS2020 SUMPs-Up project, as well as has applied to URBACT project while participating in the Low-Carb project)

Contribution to/ compliance with:

- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

1. The pilot line has complied with all the EU and national regulatory requirements regarding public transportation services as it was run based on an existing agreement between the Municipality of Skawina and the City of Kraków regarding public transportation operations,
2. The pilot line has contributed to sustainable development in the field of providing sustainable transport as described in the Sustainable Development Goal no 11 "Make cities and human settlements inclusive, safe, resilient and sustainable", in the field of environmental protection, especially lowering GHG emissions described in the Sustainable Development Goal no 13 "Take urgent action to combat climate change and its impacts"
3. The pilot line has contributed to the horizontal principles by providing free of charge public transportation to underserved areas and vulnerable groups such as the elderly and school children. During the project also a special, more readable timetable was created. What more, the evaluation has shown quite equal distribution of users in terms of the gender.

References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

Please refer to the implementation and evaluation report D.T3.5.2/3 and the LOW-CARB pilot handbook [here](#)



Fig. 1 Volvo 7900 Hybrid (Source: Municipality of Skawina/ Via Vistula)



Fig.2 Solaris 12.9 Hybrid (Source: Municipality of Skawina/ Via Vistula)