# O.T2.1

## Output factsheet: Pilot actions

<table>
<thead>
<tr>
<th><strong>Project index number and acronym</strong></th>
<th>CE36 ChemMultimodal</th>
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<tbody>
<tr>
<td><strong>Lead partner</strong></td>
<td>Ministry of Economy, Science and Digitalisation Saxony-Anhalt</td>
</tr>
<tr>
<td><strong>Output number and title</strong></td>
<td>O.T2.1</td>
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<tr>
<td><strong>Responsible partner (PP name and number)</strong></td>
<td>University of Applied Sciences Upper Austria (PP9) Business Upper Austria - Plastics-Cluster (PP11)</td>
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<td><strong>Project website</strong></td>
<td><a href="http://interreg-central.eu/chemmultimodal">http://interreg-central.eu/chemmultimodal</a></td>
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<td><strong>Delivery date</strong></td>
<td>18.04.2019</td>
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Summary description of the pilot action explaining its experimental nature and demonstration character

The pilot phase had the purpose to test the usefulness and effectiveness of the tool-box developed within the project. This toolbox pursues the promotion of multimodal transport. To that aim, companies were addressed in each of the participating regions/countries and invited to collaborate closely with ChemMultimodal project partners to investigate if transports currently carried out by road could be shifted towards rail and/or waterway transport. To raise awareness for multimodal transport and to initiate matchmaking between the chemical industry with logistics service providers, a series of local workshops took place during the pilot phase.

In Upper Austria, 11 companies participated in the pilot phase. Together with Business Upper Austria - Plastic Cluster, 34 transport routes representing 20847 road kilometers were identified for multimodal potentials using the ChemMultimodal tool-box. These transports cause substantial monthly CO2 emissions of 368.57 tons. By the end of the ChemMultimodal pilot phase, 3000 transport kilometers were successfully shifted off the road and feasible multimodal transport solutions were found allowing to reduce transport kilometers. The pilot action in Upper Austria initiated a CO2 reduction of 64.56 tons of CO2 per month, representing a modal shift of 17.52 per cent.

In addition, 6 stakeholder workshops were realised in Linz and Enns where an accumulated number of 127 stakeholders participated. In conclusion of the pilot phase, suggestions to review and modify the ChemMultimodal tool-box were shared with the project consortium, and a discussion was initiated how to continue the promotion of multimodal transport beyond the pilot phase and project lifetime.

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

NUTS AT31 Upper Austria is affected by the measures to implement the strategy. In 2020, Upper Austria will have established itself as an “international logistics region” through the creation of reliable framework conditions as well as advanced location and traffic planning, and will thus support entrepreneurship and venture creation, the further development and settlement of companies. By 2020, Upper Austria will be making a significant contribution to the overall competitiveness of the local companies and their linkage to international markets, thereby securing the manufacturing region through new forms of mobility and logistics concepts, the promotion of suitable infrastructure, and the support of demand-oriented mobility options. Strategy recommendations for NUTS 0 (AT total) at meeting with BMVIT on 07 May 2019 and influence in Austrian overall transport plan.
Expected impact and benefits of the pilot action for the concerned territory and target groups

With the realisation of the pilot action in Upper Austria road transports on 5 routes (out of the 34 identified routes) were investigated in detail for their multimodal potentials. In result of the activities carried out, transport on 3 of these routes have been successfully reorganised while feasible potentials for multimodal transport have been identified on 4 of routes for further review by industry decision-makers.

Apart from the measurable impacts, Business Upper Austria - Plastic Cluster benefitted from the increased knowledge that allowed not only the further refinement of the ChemMultimodal tool-box but also built up capacities to further support chemical industry companies to identify multimodal solutions for the transport of their goods.

Throughout the whole pilot phase in which potential routes and possible transportation flows for modal shift were identified, the ChemMultimodal project has increased awareness of the issue of multimodal transport. The potential savings of CO2 emissions by shifting the transports became transparent for the participating companies during the pilot phase. The CO2 Calculator, as one of the developed toolbox elements, was welcomed by the Upper Austrian companies as an easy-to-use possibility to calculate the emission savings for any route and to potentially use it as a basis for internal company decisions on shifting routes. Nevertheless, most companies admitted that the significance of calculating the emissions from transport is currently not very high in their company and they would primarily use the results for marketing purposes. The Intermodal Links Planner is another tool of the Toolbox that has been classified as very important by the pilot companies in order to become aware of different shifting possibilities.

The tools offer the opportunity to raise awareness and think about alternatives. After completion of the pilot phase, the shifting of transport routes was not finished, but one pilot company started to shift routes on a trial basis as the potential was identified within the company during the ChemMultimodal project.

Learning: Increased awareness on the part of the shippers is necessary as the subject of multimodality is not relevant/current and problematic due to its complexity; moreover, price and environmental concerns in logistics are currently the only other issues that count.
Sustainability of the pilot action results and transferability to other territories and stakeholders

The approach adopted for the pilot phase of ChemMultimodal, namely the direct collaboration with chemical industry and logistics service providers while using the project's developed tool-box, and the regular implementation of awareness raising and networking workshops will be continued amid the achieved successes. Details of the continuation will be identified in an action plan that will be surrendered to the competent decision-makers (BMVIT, Austrian Ministry of Transport) in a upcoming meeting on 07.05.2019.

The approach taken in the pilot phase, described in the tool-box element “consultancy services”, and the raised awareness for transport-related CO2 emissions, using the CO2 calculator element of the tool-box, can be universally applied not only to chemical industries but to other sectors of the economy. Used visualisation tools cover most European territories and allow replication of the approaches in other regions.

The revised tool-box of ChemMultimodal is published on the project's website. Further information regarding the realisation of the pilot in Upper Austria can be found at https://www.kunststoff-cluster.at/kooperationen/nationale-und-internationale-projekte/detail/news/chemmultimodal/.

FH OÖ has guaranteed the sustainability of the pilot action results by developing education materials to promote multimodal transport and integrating these education materials into FH OÖ’s existing education platforms on sustainable transport. The lectures for FH OÖ’s Master students as well as the so-called “Transport School Lab” Workshops for Austrian students also integrate the results of the ChemMultimodal project. This happens in the form of reporting on the experiences from the pilot phase and by offering exercises for the toolbox use. The aim of this education spin-off is to promote the use of our toolbox elements (intermodal links planner, CO2 calculator), teach potential (future) users from the logistics industry how to handle the tool-box elements, familiarize them with the tools and create awareness for multimodal transport options.

The Education Spin-off is available at https://www.reecotrans.at
Lessons learned from the implementation of the pilot action and added value of transnational cooperation

The review of the pilot phase's experiences allows to refine the ChemMultimodal tool-box and the preparation of Upper Austria’s action plan specifying how the successfully tested approaches will be continued after the termination of the project’s lifetime. In particular, the Austrian pilot phase was successfully used to raise awareness for alternative means of transport, visualise intermodal routes and identify unimodal routes that show the potential for alternative means of transport. In the course of the bilateral meetings, regional stakeholders were familiarised with multimodal transport solutions and the ChemMultimodal Toolbox was tested on existing routes. During the pilot phase, the toolbox was very well welcomed. The participating companies were very interested in testing the toolbox and tapping potential for multimodal reorganisation. Implementation and decisions, though, are in the hands of the companies that act in an economic rather than an ecological manner.

The IT visualization tool “Intermodal Links Planner” helped chemical companies to get a first overview of possibilities to shift transport volumes on specific routes by checking if the connections exist and which operators run the routes. This tool was assessed by the companies as a good possibility to receive general information about existing terminals and LSPs, frequency of departure, arranged feed and delivery of transports to/from different terminals on the selected routes. Unfortunately, sometimes information was not exhaustive and needed to be integrated using other sources. For instance, specific information regarding possibilities to handle and store dangerous goods at transshipment terminals was missing. Especially, at the stage of matchmaking between chemical companies and the LSP’s, it was sometimes challenging to get suitable offers from the LSP’s. Although the “Intermodal Links Planner” provided a first idea of feasible routes and services, it was still difficult to connect to specific transportation companies because they were sometimes not interested at all to provider offers for multimodal transports (due to a lack of profitability).

The tool “CO2 Calculator” was successfully used to demonstrate the environmental benefits of multimodal transport. With help of the “CO2 Calculator”, companies were able to estimate transport related CO2 emissions for every tested route. This element was evaluated as self-explanatory and very easy to handle. Unfortunately, for most companies’ transport related CO2 emissions were of minor interest in choosing the transport mode due to missing market demand. But it may play an important role for marketing / CSR purposes. In cases, when the measurement becomes necessary, the tool provides data in a very transparent and clear manner.

Evaluated as most useful evaluated element of the toolbox, the “Consulting Concept” was used as a guide for the collaboration between the project staff and the participating companies. The tool-box element planning guidelines, were revised again in the pilot phase and a checklist was created from it, since the original "Planning Guidelines" were not considered to be very helpful due to their high complexity.
The project results have been integrated into education materials and the tool box elements (intermodal links planner and CO2 calculator) will be further used in workshops and university courses with Austrian logistics students. The main intention is to create awareness for multi-modal transport and the importance of sustainable transport solutions. Therefore, FH OÖ teaches future users (i.e. logistics students) how to handle the tool-box elements and familiarize them with the tools.

The participants of FH OÖ’s workshops and university courses are pupils, students, adult education (e.g. workshops with employees from job centers), teachers (in the course of train-the-trainer workshops). The education website where the education material from the ChemMultimodal project will be uploaded is available in English and German.
At the stakeholder workshop, measures to promote multimodality were elaborated during the discussion:

- Internalisation of external costs
- Provider platform for opportunities MM (Booking.com for multimodality)
- Making CO2 emissions costly
- Improved infrastructure
- Policy long-term strategies over a period of government
- Awareness raising

These points are passed on to policy and legislation at an appointment with the Austrian Transport Ministry BMVIT. This will be incorporated as a measure of the structural measures for the whole of Austria and we will use the results of the project to provide relevant inputs for the decision-making process.
In the course of the Pilot Actions the Toolbox was tested and revised according to the experiences made. The final toolbox elements (D.T1.2.6 It Visualisation of transport flows, D.T1.2.7 Planning Guidelines for increasing multimodal transport, D.T1.2.8 Consulting Services for chemical companies to improve multimodal transport, D.T1.2.9 Measuring CO2 footprint of chemical logistics) are available on the project website:

https://ifsl50.mb.uni-magdeburg.de/chemmultimodal/

The results of the regional Pilot Actions (D.T2.6.5 Final implementation report Upper Austria) are available on the project website:


The comprehensive Pilot Phase report (D.T2.9.3 Evaluation report on results and achievements of pilot projects) is available on the project website: