### O.T2.1

**Output factsheet: Pilot actions**

<table>
<thead>
<tr>
<th><strong>Project index number and acronym</strong></th>
<th>CE36 ChemMultimodal</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td><strong>Responsible partner (PP name and number)</strong></td>
<td>PP13 SC Chemical Development PP12 Province of Novara</td>
</tr>
<tr>
<td><strong>Project website</strong></td>
<td><a href="http://interreg-central.eu/chemmultimodal">http://interreg-central.eu/chemmultimodal</a></td>
</tr>
<tr>
<td><strong>Delivery date</strong></td>
<td>16.04.2019</td>
</tr>
</tbody>
</table>
ChemMultimodal's pilot phase had the purpose to test the usefulness and effectiveness of the project's before-developed tool-box which aimed at 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 realised by road could be shifted towards rail and/or short-sea transport. To raise awareness for multimodal transport and to network chemical industry with logistics service providers, a series of local workshops took place during the pilot phase.

In Italy, 15 companies participated in the pilot phase. Together with SC Sviluppo Chimica, Federchimica and Province of Novara, 10 transport routes representing 8550 roadkilometers were investigated for multimodal potentials using the ChemMultimodal tool-box. These transports are responsible for monthly CO₂ emissions of 479.96 tons of CO₂. By the end of the ChemMultimodal pilot phase, 1 transport was successfully shifted off the road and 3 feasible multimodal transport solutions were found allowing to reduce transportkilometers realised by road by 1294. In addition, 1 real-life tests demonstrated the feasibility of multimodal transport on 1 of the addressed transport routes. The pilot action in Italy achieved a CO₂ reduction of 11,99 tons of CO₂ per month, and prepared a CO₂ reduction of 79,39 tons of CO₂ per month, both representing a modal shift of 19 per cent.

In addition, 3 workshops were realised in Milan where an accumulated number of 146 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.
Expected impact and benefits of the pilot action for the concerned territory and target groups

With the realisation of the pilot action in Italy road transports on 4 routes were investigated for their multimodal potentials. In result of the activities carried out, transport on 1 of these routes have been successfully reorganised while feasible potentials for multimodal transport have been identified on 3 of routes for further review by industry decision-makers.

<table>
<thead>
<tr>
<th>Route</th>
<th>Transport distance and modal split before the pilot</th>
<th>Transport distance and modal split after the pilot</th>
<th>CO₂ emitted (per month; calculated) before the pilot</th>
<th>CO₂ reduction after the pilot phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route</td>
<td>Road: 1294 km (100%)</td>
<td>Road: 257 km (21,6%)</td>
<td>19.47 tons of CO₂</td>
<td>11.99 tons of CO₂ per months (-61.5%)</td>
</tr>
<tr>
<td></td>
<td>Road: 243 km (100%)</td>
<td>Rail: 243 km (100%)</td>
<td>45 tons of CO₂</td>
<td>29 tons of CO₂ per months (-64%)</td>
</tr>
<tr>
<td></td>
<td>Road: 641 km (100%)</td>
<td>Road: 63 km (9%)</td>
<td>69.6 tons of CO₂</td>
<td>38.4 tons of CO₂ per months (-55%)</td>
</tr>
<tr>
<td></td>
<td>Road: 365 km (100%)</td>
<td>Road: 3 km (1%)</td>
<td>56.8 tons of CO₂</td>
<td>37.5 tons of CO₂ per months (-66%)</td>
</tr>
</tbody>
</table>

Apart from the measurable impacts, SC Sviluppo chimica and Province of Novara 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.
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 in spring 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 however don’t cover most Italian territories.

The revised tool-box of ChemMultimodal is published on the project’s website. Further information regarding the realisation of the pilot in Italy can be found Italy - Final Implementation Report - D.T 2.8.5.
Lessons learned from the implementation of the pilot action and added value of transnational cooperation

The review of the pilot phase’s experiences allow to refine the ChemMultimodal tool-box and the preparation of Italian action plan specifying how the successfully tested approaches will be continued after the termination of the project’s lifetime.

As a conclusion of this Pilot project phase, we would like to highlight some issues related to the Italian/Central European/ European Logistic System that emerged by the analysis and the confrontation with companies.

- Chemical companies are generally interested to increase multimodality, first of all for safety reasons but more and more if a cost reduction can be achieved;
- Difficulties to be faced regarding infrastructures (not possible to solve in the short period) and operational issues (e.g. not existing connections, transit time, reliability);
- Railways and MM routes between Italy and Germany (and Northern Europe) seem adequately working - considering of course the actual capacity - and they are profitably used by companies;
- Potentials of improvement of MM seem to be existing with Eastern Europe (infrastructural and reliability need to be considered), France (very difficult railway connections for goods in that Country) and Spain (through short-sea solutions). There are common issues in modal shift: lack of infrastructures and equipments, exceeding costs and transit times often rather long;
- There are also product specific issues (e.g. special equipment needed, short transit time).
References to relevant deliverables and web-links
If applicable, pictures or images to be provided as annex

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.T2.8.5 Final implementation report Province of Novara) 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: