

D6.2 AEOLIX LIVING LABS OPERATIONAL IMPACTS ASSESSMENT

Lead Beneficiary: Chalmers

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Full deliverable available here: <http://aeolix.eu/deliverables/>

Deliverable 6.2 provides the AEOLIX impact assessment of living labs at the operational level. It is based on three main impacts namely business, environment, and socio-economic impacts. The three impacts are sub-divided further into sub-categories. The report collects data from twelve living labs involved in AEOLIX.

One of the main goals of AEOLIX was to reduce the costs for various logistics activities as implemented in twelve living labs. The expected benefits in the business area are from reducing the consumption of different resources, reducing the time used for various activities, and from increasing the productivity in certain areas. The economic or business benefits came along two dimensions: (i) in terms of time and (ii) in terms of money. In terms of time, AEOLIX facilitated reducing the time spent on various activities at the companies. In terms of money, AEOLIX helped to save the costs of specific logistics activities within the living lab.

For the environmental aspect an overall value of 20% was set as target value for reduction in CO₂ emission using AEOLIX. Only one of all living labs reached this target value, but there was anyhow a reduction found in all living labs. AEOLIX and its functions have also helped in reducing noise pollution at some of the living labs. In some cases, there was quite a considerable reduction.

For the socio-economic aspects the job creation, SME empowerment, and the improved quality of life are addressed. This study has explored the impact of AEOLIX on job creation in terms of drivers' and operators' jobs. Since the AEOLIX implementation is still in its initial phases, respondents were unable to estimate how many jobs (drivers and/or operators) were created in the long run. SME Empowerment was measured as the increase in SMEs' market share and the increase in direct collaboration between SMEs and large organizations. The results were meager both with regard to the market share and the extent of collaboration. The improved quality of life is measured in the way AEOLIX puts more focus on work, the less stress at work and a positive attitude towards people using it. The results reflect that AEOLIX has greatly helped employees to put more focus on work and to reduce stress levels. Managers consider this as a positive side of the return on investment (ROI) as the business processes are improved. AEOLIX impact on various socio-economic aspects is in principle positive but as this process is very slow to emerge it takes time to observe any changes in social aspects.

Acceptance and trust on AEOLIX can be captured as a majority of the evaluation managers of the living labs found the AEOLIX functions (dashboard, connectivity engine and toolkit) useful to a great extent. The willingness to continue using AEOLIX functions and their usefulness are directly related to each other. This means that the more useful a function is, the more users are willing to continue using it.

The AEOLIX platform, through various services and functions, has a positive impact on society in general and on workers in particular. Although this impact cannot be evaluated financially for the first year of the AEOLIX implementation, numerous studies show that a more satisfying and less stressful job, together with a more welcoming and



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stimulating environment, have an important economic impact in the long-term period. Therefore, the fact that AEOLIX has a positive impact on society will also prove to be an economic benefit for the different companies.

Having a platform, such as AEOLIX, that connects to other systems, means that mitigation of risk and greater profitability of organizations can be achieved through connected and collaborative visibility. AEOLIX must leverage its position as a neutral certified information exchange, building trust and overcoming the major issues of culture that reside within supply chains. Capacity building for industry on digital connectivity could help. As more companies are added to the platform, even greater efficiencies will be delivered due to proliferation of synergies and strategic partnerships. In addition to the improvement of margins and asset utilization, the collaboration can reduce the company's overall km driven, leaving a smaller carbon footprint.

Finally, sharing information via AEOLIX turned out to be a part of an important debate during the implementation of the project. Although some companies see this as a big concern, yet this is not considered as a big hurdle in accepting and adopting AEOLIX.

