

# TEMPLATE

## Output factsheet: Strategies and action plans

Version 1

Project index number and acronym	CE1125 - CIRCE2020
Lead partner	ARPAV
Output number and title	DT1.4.2. Local plans for the prioritization of interventions
Responsible partner (PP name and number)	PP4 - IFKA Public Benefit Non-profit Ltd. for the Development of Industry
Project website	<a href="https://www.interreg-central.eu/Content.Node/CIRCE2020.html">https://www.interreg-central.eu/Content.Node/CIRCE2020.html</a>
Delivery date	09.2018

### Summary description of the strategy/action plan (developed and/or implemented)

Max. 2.000 characters

The first action plan connects to the **composite plastic waste** that is generated in huge amount (4200 t/a) in the Hungarian pilot area. It contains several types of plastic material such as PE, PP, PET, aPET, PVC, EVA, PA and even a small amount organic matter. Due to the production lines and the being a medical product producer the strict quality control mechanisms of the given company, this is the biggest amount of homogenous waste - 4200 tons - generated by the cooperating companies. 42 % of the input materials will be waste at the end. The waste is now transported to incineration. As all of their production sites around the world deliver this waste stream for waste incineration, it would be major breakthrough if the project could find a way to recycle this kind of composite material moving up the waste hierarchy towards material recycling. IFKA has identified two alternative recycler companies that could use this material in their manufacturing process and produce valuable products: outdoor garden furniture & accessories or plastic enclosures.

In the second action plan, **waste tires and vulcanized & un-vulcanized rubber residues** are in the focus. All the generated amount is now sent to incineration utilizing only electricity at the end; the transportation distance is significant. Hungary hosts the most outstanding tire manufacturers within its territory generating a huge sum of these waste streams, so finding material utilization alternatives could also have a multiplication effect. Currently the incineration cannot use the heat energy that is produced by the process, so it would be worth to analyze it to foster the development of the plant itself, as well. Other solution is to make granulates mechanically from these rubber material that could be raw material into roadbed to optimize the quality of bitumen. At least, co-incineration in cement industry could be an alternative solution, too. We are also trying to contact the producers of rubber brick.

### NUTS region(s) concerned by the strategy/action plan (relevant NUTS level)

Max. 500 characters

The Hungarian pilot area, the Tatabánya Industrial Park is situated in the Central Transdanubian region. It is approximately 450 ha, out of which one third belongs to the public administration of Tatabánya and two thirds to Környe. Based on its area it is one of the largest industrial parks in Hungary.

The area is characterized by the diverse variety of companies which are operating in the area, such as automotive, plastic industry, rubber industry, electronics, healthcare and logistic companies.

### Expected impact and benefits of the strategy/action plan for the concerned territories and target groups

Max. 1.000 characters

Currently both waste streams go to incineration, so the first expected impact is to reduce these amounts. In case of composite plastic waste this number annually is 4200 tons, and in case of waste tires it is more than 1000 tons. With material utilization or recycling process this reduction could be feasible.

Additionally, increase resource efficiency is another goal within both pilot actions. Instead of incineration other solutions - that are in higher level of waste hierarchy - have more favorable effect.

Cost reduction is other significant issues to every parties: reduce/avoid cost of storage, processing/energy use (shredder), transportation, or incineration. It is also relevant to reduce the dependency of these companies on the incinerator companies. A change in legislation might also happen resulting in stricter material control sent to these plants. Plus plastic is a critical material, highly in the focus a solution should be developed in the near future.

At least, these impacts will lead to less environmental effect, too.

### Sustainability of the developed or implemented strategy/action plan and its transferability to other territories and stakeholders

Max. 1000 characters

The identified alternative solutions have benefits environmentally, economically and socially. These are listed in the previous section. IFKA has a quite extensive network of small and medium enterprises (SMEs) and larger companies. If the mentioned utilization processes are feasible, as a good practice IFKA can promote them within companies. The methodology how we analyze the technological, environmental and economic, financial feasibility of the alternative solutions is also worth to be promoted. In many cases, companies do their business without their activities' revision since they are already got used to it. Good examples can help them to re-think processes and give inspiration to evolve.

The company's parent company - that produces composite waste plastic - has been working in Denmark where waste goes into incineration too. So finding a solution could have international effect. The company is devoted to environmental protection, the willingness of the company to finding new circular economy solution is high. In relation to the waste tires and rubber residues, in Hungary several automotive companies are operating. With a more circular solution to this waste stream these companies could reduce their waste or utilize efficiently their resources.

## Lessons learned from the development/implementation process of the strategy/action plan and added value of transnational cooperation

Max. 1000 characters

As time goes by the exact action plan is cleared. Stakeholder involvement and deeper analyzes can help us to understand the processes, limitations and possible constrains. From possible companies - that could use waste as a raw material - we learn a lot about the waste itself. Transnational cooperation is a good way to gain information and experiences from other country's representatives through knowledge sharing. MFA tools could help to select the most promising waste flows. In particular, LCA/LCC training in Padova was useful for us and our experts to analyze waste's lifecycle. Personal partnership meetings are effective platform to talk about tasks, experiences and difficulties.

## References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

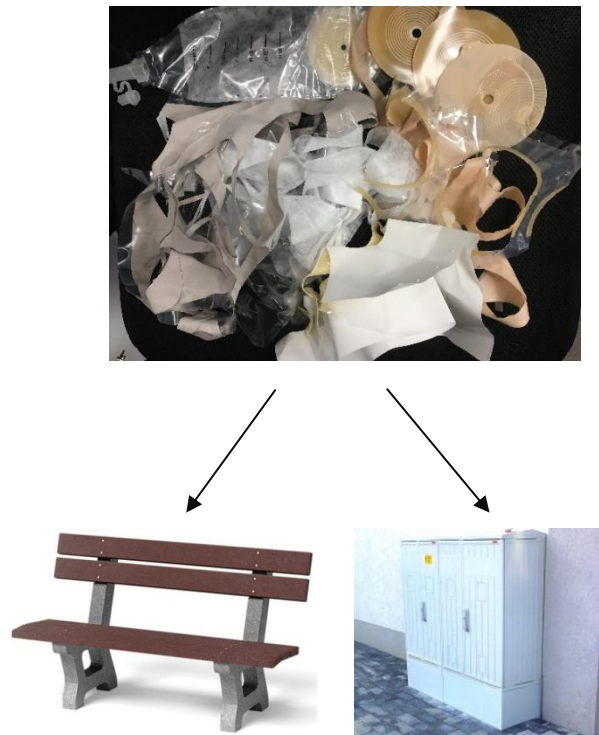
Max. 1.000 characters

Web-links:

[https://ifka.hu/en/article/green\\_economy/projects/69](https://ifka.hu/en/article/green_economy/projects/69)  
[https://ifka.hu/en/article/green\\_economy/news/500](https://ifka.hu/en/article/green_economy/news/500)  
<https://ifka.hu/en/article/workshop-tatabanyan>  
<https://ifka.hu/en/article/CIRCE2020-projekt-bemutatas>  
<https://ifka.hu/en/article/CIRCE2020-Innsbruck>

Annex:

Composite plastic waste:



Tire and vulcanized and unvulcanised rubber waste residues:

