



RIGA LATVIA

Title of Practice

RIGA: FROM FOOD WASTE TO HEALTHY OFF-SEASON FOOD

Milan Urban Food Policy Pact Category FOOD WASTE



Main impacts on other MUFPP categories



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Context

Along the border which separates the Municipality of Riga and the Municipality of Stopini lies the waste landfill Getlini. About 50 percent of all waste produced in Latvia (approximately 300 000 tonnes annually) is transported to this site. Over 40 percent of the total waste is biomass. Given the high volume of waste deposits, efficient reuse of this waste has been an unsolved issue for many years. In fact, when disposed, food waste creates landfill gas that could be properly collected and utilised in order to limit negative impacts to the environment and soil. Moreover, the surrounding areas suffered from limited growth and development opportunities because of the landfill, leading to an increase in crime and social degradation. The Municipality of Riga decided to intervene, turning Getlini into an environmentally friendly, innovative and ecological waste management site.

Overview of the food practice

The renovation plan for the Getlini landfill is based on two main pillars: operational practice and social education. On the operational side, food waste is deposited in environmentally safe biodegradable cells. The landfill gas that forms in the cells is channelled to the Getlini power unit and transformed into energy. The impact of waste on the environment is reduced to a minimum: the Getlini ecological landfill is one of the largest producers of green energy in Latvia (31 to 33 gWh annually). The side-product of energy production is heat (20 gWh in 2015) used for greenhouses that are located in the vicinity of the landfill and operated by Getlini EKO.

The greenhouses provide off-season tomatoes to the citizens of Riga, distributed through the primary supermarket chains. The company has developed a "one-touch" method in gathering, packing and distributing products to the wholesaler. This method allows food harvesting to occur as late as possible to keep products safe and unspoiled, while also enabling them to grow to full maturity for maximum nutrition value. It should also be noted that only organic practices and natural organisms are used to grow healthy tomatoes. During the off-season period, the greenhouse produces 390 tonnes of high-quality tomatoes, whose nutrition value is high compared to imported tomatoes during the winter months.

In 2017, Getlini opened its third greenhouse which is suitable for growing cucumbers. This technologically-advanced greenhouse is the first in the world to use LED lighting as the sole source for growing cucumbers. Now the off-season tomatoes are supplemented by long and short cucumbers.

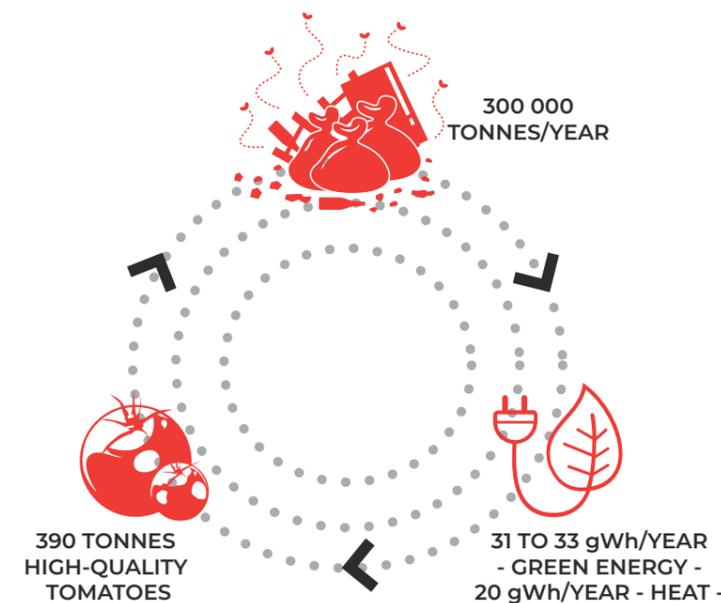
An intensive educational programme has been designed to increase awareness in Latvian society about the life-cycle of household waste, including the process of recycling and food waste reduc-

tion. The company organizes free field trips to the landfill site and traveling seminars on waste recovery-issues. The field trips are available for pre-schools, schools, universities, companies, tourist groups, environmental activists, etc. Specific educational trips related to waste systems design, off-season food production and environmental benefits of waste re-use are designed for future engineers, physicists, agronomists, ornithologists and specialists in other fields.

Results and lessons learned

This ecological management practice has created a chain of co-benefits including food waste turned into green energy and highly nutritious food with significant positive environmental impacts. As a result of this practice the atmosphere is protected from 2000 m³ of environmentally harmful gases per hour and Riga's citizens are provided with healthy off-season vegetables. This is important, since Latvia as a Nordic country is deprived of quality vegetable supplies in winter and spring seasons, preventing its population from accessing healthy, fresh and balanced local dietary choices. The Municipality also supports sustainable nutrition education programmes, breaking down assumptions that landfills are not proper places for greenhouses and food production. Moreover, the vicinity of the landfill has been transformed into a green suburb of Riga, a socially active and educational destination for ornithologists from all over the world and for government, municipal and corporate delegates interested in urban regeneration. It has become a safe environment for both citizens and visitors. The landfill is also among the biggest employers in the suburb where almost 17 percent of all employees in the neighborhood work at the site.

This practice offers an innovative, systemic approach to food waste. The Municipality of Riga generated a process that uses local resources to create value and protect the environment and the surrounding areas, while also fostering healthy dietary habits and sustainable food production.



As a result of this practice the atmosphere is protected from 2 000 m³ / hour of environmentally harmful gases

- www.getlini.lv/en/
- www.facebook.com/getlini/
- www.youtube.com/watch?v=BC1zHJWTPv4