Case Study: The analysis of an integrated project management.

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Based on a case study in the Metropolitan Area of Turin

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Textile is still considered to be 'special waste', and in the Metropolitan Area of Turin 4.960 tonnes of it are collected every year (Città Metropolitana di Torino, 2020). This aspect, among others, is one of the challenges that this territory is going up against. Moreover, one local company, Dual Sanitaly (that produces and distributes textile medical devices throughout Italy), has been considered as a specific case study, especially taking into account the internal waste management in relation to the Metropolitan Area waste. Upon second consideration, the context being explored can be seen as a quite diverse and rich area that includes agricultural and industrial clusters, integrated with events and cultural moments.

For these reasons, the goal was to integrate Dual Sanitaly's waste management with three local sectors – agricultural, industrial and social – and finding a way to up-cycle the company's outputs and reintroduce them into the local market as a new support product.

The final designed outcome can be considered as an "integrated project management" that takes into account the knowledge of the company in the health sector, the waste being produced, the surrounding area and today's global situation due to the pandemic. To be more precise, the solution includes:

1. Reusing the textile waste -combined with local agricultural waste, such as cherry pits- creating a therapeutic weighted toy for neurodivergent kids in the present situation.
2. Promoting events, focusing on the topics of health and wellbeing.
3. Empowering the company by requesting labels and regulations of their suppliers in order to ensure higher standards of sustainability.

Integrated project management: methodology

In the systemic design approach, the first necessary step towards complete awareness, and defining the state of the art of a territory, is the holistic diagnosis. A series of topics were considered to guide the collection of quantitative and qualitative data: environmental, cultural, economic, and social aspects were the main directions for the analysis of the territory, with a specific focus on textile. On the other hand, for the company, history, production processes – with particular attention paid to the inputs and outputs – financial aspects and relationships with other stakeholders were the main focus of the analysis.

All the data was then organized and translated into visual representations inside a gigamap, crucial to understand the emerging priorities and the already existing interconnections. The final step was the interpretation of the data, an essential phase for guiding the identification of the existing challenges, but also the future opportunities (Jones & Kijima, 2018). This step is crucial to summarize the previous data and to have a structured summary of the procedure in order to define the consequential steps. These were subsequently based both on the territorial and the company analysis and were clustered according to specific parameters such as environmental, economic, social and flows. Then the information was cross-cut, connected and put in relation with each other, to express and visualize possible considerations for the preliminary strategies that consider stakeholders, inner actions and the transition of the flows in an introductory circular approach.

The step that took into account the Systemic Project consisted in the definition of multi-criteria analysis, to select the best strategies in the defined context, which was integrated into the all-encompassing project. The multi-criteria analysis took into account the five main principles of the systemic design approach:

1. outputs > inputs
2. relationships
3. autopoiesis
4. acting locally
5. human-centred design

as well as adding more fitting, personal criteria to the scenario.

Towards the end of this design phase, a new systemic model was defined, which also included the new relationships between processes and local actors, which optimized energy, matter and information flows and gave value to waste as resources.

Finally, regarding the systematic design methodology, a study of the outcomes was useful for understanding at which levels the project would act and what would be the duration of the consequences. More in detail, this analysis was developed considering different issues – for instance environmental, social, economic, logistic and so on. It also involved a different scale of intervention from micro, to meso and to macro. Finally, the outcomes were analyzed in different timeframes of realization, from the short term to the medium term and to the long one.

Field and stakeholders

The involved sector is the textile one, but with a more defined field – medical – due to the area of intervention of the company. At the same time, there was a will to integrate the project with the historical background of the territory, which in this case, is related to agricultural know-how. For this reason, aside from Dual Sanitaly, the other main actor is going to be Facolt, a local organization of farmers located in Chieri, that can be involved in the first step of the integrated project management.
Other stakeholders that can be involved are the other companies located in the same industrial area of Dual Sanitaly. They can be engaged in the second step of the project.
The last large cluster of stakeholders that can be taken into account is the company's suppliers. They are already part of the company's processes, but with this new approach, the collaborations can be renewed. Finally, the most important factor that the company, and more in general, the whole process has to take into account is the final user: the neurodivergent kids as well as all the people and relatives that gravitate around them.

Feedback sought

Our aim is to receive feedback in the practical matter of the development. The textile sector is one of the most impactful. Moreover, unlike with the agricultural, this sector struggles to reuse mixed output – usually wasted to energy or chemically transformed. This approach is more mechanical; therefore, we would benefit from expanded points of view.

References

Città Metropolitana di Torino. (2020). *Rapporto sullo stato del sistema di gestione dei rifiuti.* http://www.cittametropolitana.torino.it/cms/risorse/ambiente/dwd/rifiuti/Osservatorio_rifiuti/Rapporto_rifiuti_2020/RapportoRifiuti2020.pdf

Jones, P., & Kijima, K. (2018). *Systemic Design: Theory, Methods, and Practice.*