Case Design Sheet

1. CASE DESCRIPTION

Improving performance thanks to the economy of functionality

PARTNER	LOCATION	TIME/DURATION
CIRIDD	France	2014

2. DIGITAL TRANSFORMATION CHALLENGE

2.1. BUSINESS TRANSFORMATION

As a service provider the company focused on sale, rental and maintenance of equipment for the industrial and construction sectors. Acting on issues related to compressed air, pumping liquids, temporary electricity production and vacuum.

Under the influence of a few customers and after an initial diagnostic phase, the company decided to change their business model for compressed air from the sale of products to the sale of services.

2.2. CONCEPTUAL TRANSFORMATION

The company retains ownership of the equipment and now propose that the customer pay for the cubic meters of compressed air consumed instead of purchasing the equipment. Thus customers no longer need to take care of the maintenance and operation of the machines since they have contracted only on the result of these.

2.2. TECHNICAL TRANSFORMATION

By selling cubic meters of compressed air, the company commits to their customerson the result and must therefore think on the overall cost of producing compressed air.

50% of this cost is related to energy consumption as the process generates a lot of heat loss (only 10% of the energy consumed is actually used to produce compressed air). This drove the company to reuse the heat given off by the machines within the client company through a caloric recovery system installed on certain compressed air plants (depending on the feasibility).

Case Design Sheet

The implementation of this integrated solution required technical innovations regarding the design and monitoring of equipment. A heat recovery monitoring system has been set up, the equipment is monitored 24 hours per day and staff are on call to be able to intervene at any time.

3. SOLUTION

The sale of cubic meters of compressed air allows the company to offer an environmentally and economically viable solution. Energy efficiency is improved and the heat recovered is the source of avoided costs because it is used to heat the customer's premises or is reintegrated in its industrial process.

The advantage of this solution for customers is to delegate the risks and constraints involved in owning a compressed air plant (very important initial investment, cost of operation and installation). This offer corresponds to their need to reduce and harmonize their costs (with the purchase of m3 the bill follows the monthly consumption), to outsource an activity that is not part of their area of expertise (as is the case for digital industries), and improve their energy performance to match ISO standards.

In addition, the fact that the company remains the owner of the equipment promotes the extension of their lifespan. They go beyond the maintenance plan to keep the equipment operational for as long as possible.

4. KEY SKILLS AND COMPETENCES

New cooperations had to be created to develop and ensure the operation of the heat recovery solution. Knowledge transfer therefore took place through contact with partners, which led to skill improvement.

5. RESULTS

This new service offer has enabled:

- A reinforcement of internal and external cooperation for the company.
- Skills improvement and greater ability to invest in human resources.
- Taking into account the overall cost of the activity (energy consumption, heat loss)
- Greater energy efficiency and savings

Case Design Sheet

5. CONCLUSIONS AND RECOMMENDATIONS

By moving from the sale of their equipment to the sale of m3 of compressed air, the company has succeeded in improving the overall performance of their solution: They now have an environmentally and economically viable solution.

7. REFERENCES

- https://www.eclaira.org/static/leconomie-de-fonctionnalite.html