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How may Industrial Companies collect data and use them in order to sell more, spend less, and comply with regulations

Collecting data, for an Industrial Company, is usually not the primary concern, which is about products and sales. But the Information System will help considerably achieving these goals. Let us see that from the point of view of the Chairman of the Company.

From his point of view, there are only three objectives: to sell more, to spend less, to have no problems with regulations. Let us see what brings an Information System for each of them.

1. To sell more

The Information System will contain data about the "reliability" of the products: how long they can last, how long between two maintenances, how much costs the replacement of the parts, what is the duration of the warranty, and so on. As a general view, everything which concerns the life cycle of the products, with the associated costs.

When conveniently advertised, the life duration of the products is a good incentive; we can tell our clients to buy them because they are more resistant and live longer. But we should not say that abstractly: we need to provide concrete data!

We can also advertise the following fact: by an appropriate preventive maintenance, the cost of ownership by the client will be smaller; he will have less money to spend, and his product will remain in good condition longer. This is a very strong incentive, but here also one needs to provide concrete data!

This preventive maintenance is very interesting for the Company itself, because it keeps in contact, very frequently, with the customers. We abandon the abstract idea of "we sell the product, and forget"; instead, we know constantly what the customers' needs are, we provide assistance, offer newer products, and so on.

2. Spend less

The Information System, providing reliability data, will allow the Company to make a better planning of maintenance operations. This results immediately in a better use of teams (people are where they should be), of equipment (availability of the tools), and thus provides considerable economy. To set up a preventive maintenance is always much better than having a service which provides an intervention in case of failure; this is obvious, because preventive maintenance can be planned, whereas failures are random. For instance, preventive inspection of central heating is much wiser than waiting for phone calls when each heating system breaks down.

3. Comply with regulations

The Information System also helps the Company prove that it complies with social and environmental regulations:

– Number and circumstances of industrial accidents.
– Impact on the environment, for the production or for the waste.

In short, the Information System will help the Company provide concrete data for each of its claims towards its customers and towards the authorities; it is also the basis of a decision-making tool for the Company itself: what directions develop well, and why?

Recent Contracts

– Snecma Propulsion Solide, 2009: Probabilistic methods for reliability.
– Institut de Radioprotection et de Sûreté Nucléaire, 2009 – 2015: Probabilistic studies for reliability.
– Areva, 2010: Reliability of nuclear waste.
– PSA Peugeot Citroën, 2010 et 2011: Statistical studies about warranties for cars.
– ArcelorMittal, 2011-2012: Probabilistic methods for the overall quality of steel production.
– Air Liquide, 2012: Reliability databases.
– Areva, 2012: Probabilistic methods for the assessment of overall quality of metal parts.
– DCNS (Nuclear Submarines), 2013: General analysis for the reasons of defects on a production site.
– DCNS, 2013: Probabilistic methods in order to improve a welding procedure.
– Société Axtrid, 2013: Improving the efficiency of a detection process.
– Coop de France déshydratation, 2013: Probabilistic analysis of some components.
– IRSN, 2013-2014, 2015: Quality analysis of a detection network.
– EDF SEPTEN, 2015: Information systems for nuclear safety.
– RATP, 2016: Scientific assistance for the definition of the replacement planning for critical equipment.
– Syndicat des Eaux d'Ile de France, 2017: Scientific assistance for the analysis of malfunctions.
– 2018, Eramet: Probabilistic methods in order to improve an industrial process.
– SARP Industries, 2019: Hierarchy of parameters in an industrial process.

- Industry, 2019: Improving an industrial process.
- Orano Mining, 2019: Hierarchy of parameters in an industrial process.
- Groupe Atlantic, 2019: Probabilistic analysis of the calls to the Customer Service.
- Coop de France Luzerne, 2019: Statistical analyzes and comparisons between factories.
- PSA, 2020: Critical analysis of reinsurance thresholds.

– SARP Industries, 2020-21: Analysis of the parameters involved in the operation of a furnace.

– Eiffage Rail, 2021: Tools for analyzing equipment reliability.

– Teréga, 2021: Probabilistic methods for checking the integrity of pipelines.

– Bouygues Energies & Services, 2022: Methodological support for the design of a "Malfunctions and Maintenance" information system.

- Befesa Valéra, 2022: Prioritization of the parameters involved in the adjustment of an oven.
- Léon Grosse, 2022-2023: Analysis of "hail" risk for photovoltaic panels
- SNCF, 2023: Methodological support for rail inspection plans
- National Agency for Secured Titles, 2023: Anticipation of requests for Secured Titles