Evolving production network structures

When deciding about future production network configurations, the current structures have to be taken into account. Further, core issues such as the maturity of the products and the capacity requirements for test runs and ramp-ups must be incorporated. Our approach is based on optimization modelling and assigns products and capacity expansions to production sites under the above constraints. It also considers the production complexity at the individual sites and the flexibility of the network. Our implementation results for a large manufacturing network reveal substantial possible cost reductions compared to the traditional manual planning results of our industrial partner.

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