Customer benefit at a fixed price

With pre-engineering to the Perfect Fit mill

Pre-engineering is the basis of a well-founded project budget and ensures that all sub-processes of paper production are optimally coordinated with one another at an early stage. And that pays off:

- **Lowest possible specific investment costs**
- **Highest possible productivity and stability**
- **Smooth project courses with the shortest possible project running times**

In the course of further increase in cost efficiency in paper production, optimal coordination of all sub-processes is gaining more and more significance. The foundation stone for that is already laid an early stage of a large investment: with the preparation of the feasibility study, i.e., with the planning of the entire system with paper machine, auxiliary systems, building and infrastructure.

As process supplier, Voith contributes more than 50% to the overall investment volume. The influence is accordingly large. Consistent orientation to the customer's goals is the decisive precondition for the Perfect Fit process. Ideally, the intensive coordination between customer and Voith takes place within the framework of a preliminary project in which the planning documents, process layouts and building and mill plans are prepared. These documents are the basis for determining the overall budget and the project schedule with high precision.

With large projects, the pre-engineering project typically lasts six to eight months. After that, the project has been worked out to the extent that all

Fig. 1: Increase of engineering reliability in shorter time.

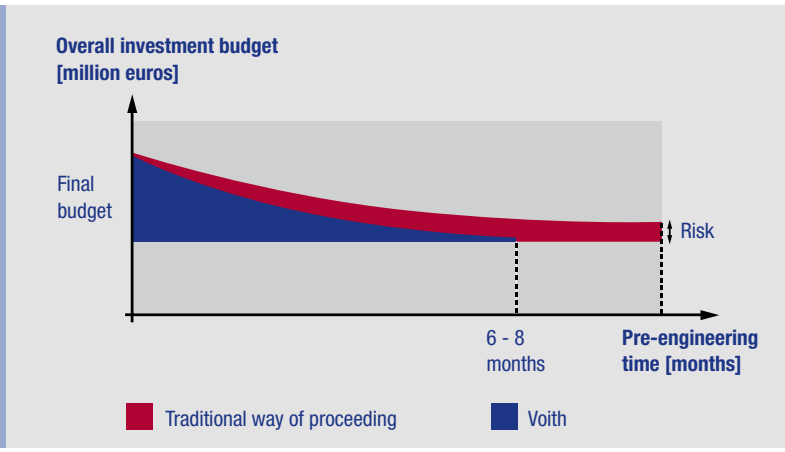
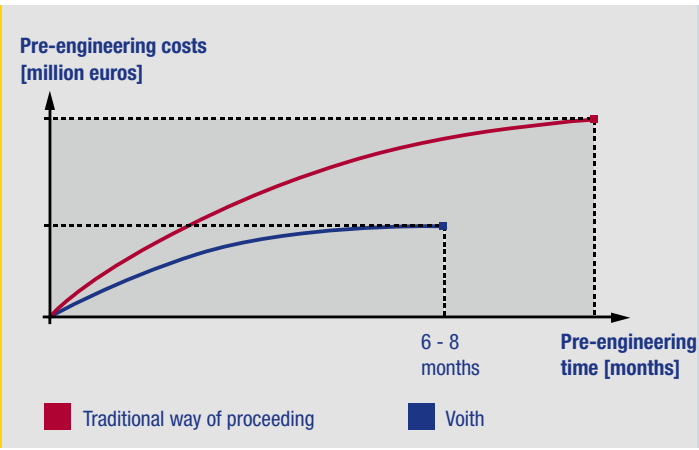


Fig. 2: Cost advantages through integrated engineering of all sub-processes in shorter time.



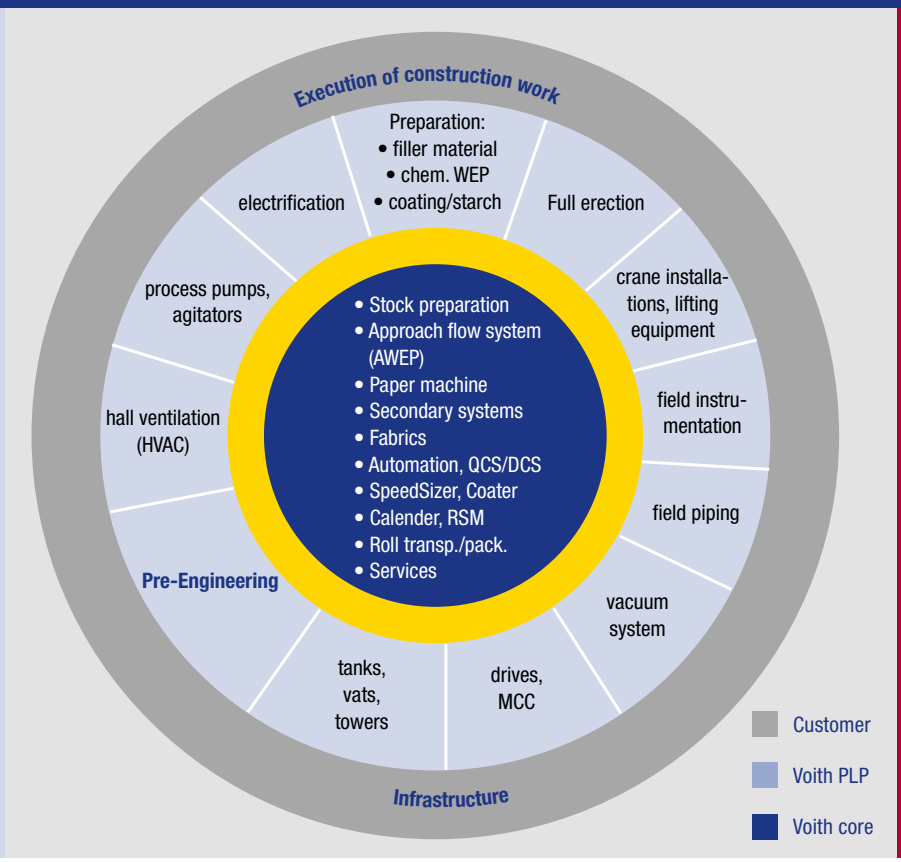


Fig. 3: Typical supply limits with PLP projects.

sections are specified in detail and the implementation can begin. In contrast to large projects in which, according to the traditional way of proceeding, a project was planned without integration of the process supplier, now considerable timesavings result with simultaneously more precise budget planning (Fig. 1).

On the basis of the extensive wealth of experience from numerous projects, the short coordination paths between specialized departments and key personnel and the overall planning of all sub-processes, considerable cost advantages of the pre-engineering project result. For Voith pre-engineering projects, the maxim is to create customer benefit at a fixed price and thus to make an essential contribution to lowering project costs. Along with that, the positive influences on operating costs and consumption such as energy costs and fresh water are becoming more and more important. Especially when Voith assumes responsibility for delivery and commissioning of the Process Line Package (PLP) including detailed planning, the advantages can be seen. The further overall project running time from the start of project implementation to the beginning of commercial paper production is shortened by up to two months. Along with core processes, Voith takes over with engineering, planning and delivery the responsibility for the sub-processes and sections all the way to fulfillment of guarantees. With this manner of proceeding, risks for interfaces and unforeseen things on the customer's side can be considerably reduced. The project successes of various customers confirm the path taken. In the past three years, Voith processed eight extensive pre-engineering projects for new systems in various regions and for various paper grades. But along with pre-engineering projects for new machines, audits and pre-engineering projects for larger rebuilds measures on existing production lines are also gaining significance. Risk minimization and cost optimization through Perfect Fit measures are the precondition for lasting competitiveness.

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