

PERFORMANCE BOOST THROUGH FACTORY LAYOUT OPTIMIZATION

Proven concepts for efficiency and cost reduction

EFESO
MANAGEMENT CONSULTANTS

DIGITAL TRANSFORMATION &
MANUFACTURING


INSIGHT


Traditional approaches often fall short of delivering expected results, companies need new strategies to achieve their targets – this is EFESO’s approach to performance improvement

📍 Pressure for improvement


🚧 Roadblocks – common approach

🎯 Target & benefit

-  **Market pressure**
 - Technology trends (digitalization, local for local, ...)
 - Global changes (competitors, consumers, ...)
-  **Green industry**
 - Climate (CO₂ regulations, European Climate Law, ...)
 - Sustainability (ressources, ...)
-  **Rising cost**
 - Raw material (alternatives, prices, availability, ...)
 - Energy (optimized usage, rising costs, ...)



- Limited CAPEX budget
- Lack of implementation capability
- Other constraints and resistances

 **Bypass with EFESO approach**



Performance increase through layout design

Increase of efficiency



Reduction of production cost

Layout optimization delivers significant performance gains by activating multiple improvement levers working in unison

MULTIPLE LAYER PERFORMANCE INCREASE



DISTANCES



Shorter distances reduce transport costs within the plant and at workplace.



OUTPUT



Higher output per area lowers production costs and reduces CAPEX.



LEAD TIME



Structured layouts that prioritize value-adding activities lead to shorter lead times.



TRANSPARENCY



Improved structure through rearrangement enhances process stability and throughput.



INVENTORY



Shorter distances, resizing of buffer areas and capacity alignment reduces WIP inventory.



QUALITY



Better arrangement and shorter transport paths reduce product damage.



FACTORY LAYOUT DESIGN

Every dimension of the layout must be optimized to enable efficient production and peak performance.

Two examples for block layout optimization and workplace optimization show the multiple dimensional improvement potential

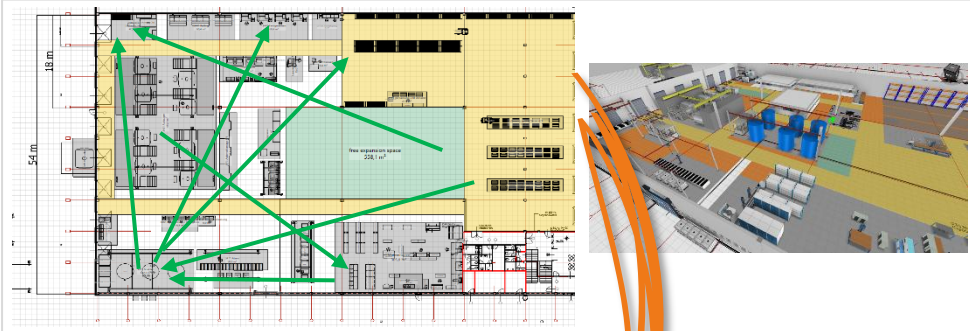


Design status

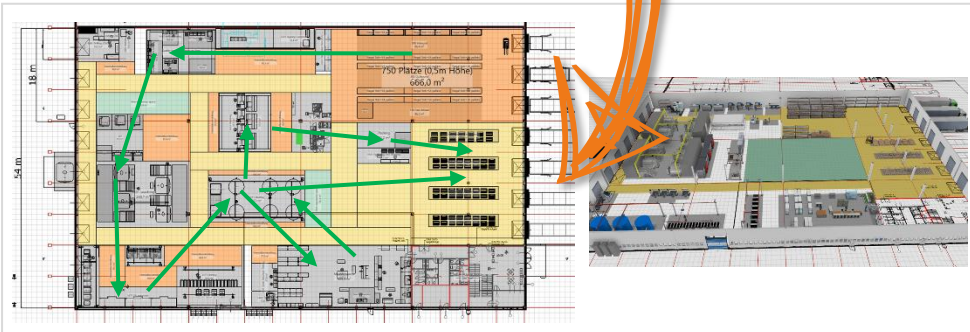
Old layout



Example 1: Rearrangement of block layout

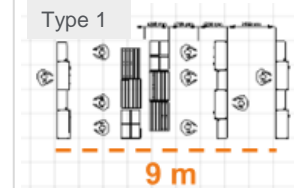


Optimized layout



Example 2: Optimizing of workplace

All-in-one workplaces for all operations



All material at workplace



Division of labor: specialized workplaces



Just-in-Time material delivery



Advantages

+ short distances (-25%)
+ clear material flow

+ consolidated areas
+ capacity extension (+15%)

+ reduced quality cost (-20%)
+ reduced footprint (-20%)

+ focus on value adding
+ WIP alignment



Layout optimization is possible from single workplace up to the whole factory structure.





The advantages of the EFESO approach are outstanding and guarantee customer success with an individual concept and the right partner

Right approach & right partner



Stepwise implementation

Low dependencies and local optimizations like “pilots” or “test runs” possible



Low cost

Normally without major investments, even reduction of planned CAPEX



Low risk

Simulation reduces risk, no technology switch and external knowledge



High acceptance

Everybody benefits from better layout, from machine operator to manager



Eco-friendly

Higher output per area saves consumption of energy and commodities



Factory planning as ‘one-stop-shop’



Future factory



Industry 4.0



Operational excellence



Benefit from our experience from recent projects and achievable results



Project scope

Output increase
Layout design with focus on production volume

CAPEX reduction

Layout design for investment optimization

Efficiency increase
Layout design for more profitability



Your advantage

Up to +15% production volume

Up to -10-15% machine investment

Up to +20% turnover per sqm



Project examples

Improvement of concept for a plant with integration of logistics, operations, and building for electrical products in Middle East



Planning of a brownfield site in Hungary including project management for a manufacturer of turbine blades



Optimization of the overall plant layout and material flow for a large-scale factory for agricultural machinery



We have proven concepts how to improve company's performance with many satisfied customers.



We have a strong track record of working with the leading players of the manufacturing industries

**AUTOMOTIVE
OEM**



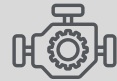
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**CONSUMER
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DEFENCE**



