

## LEAN MANUFACTURING

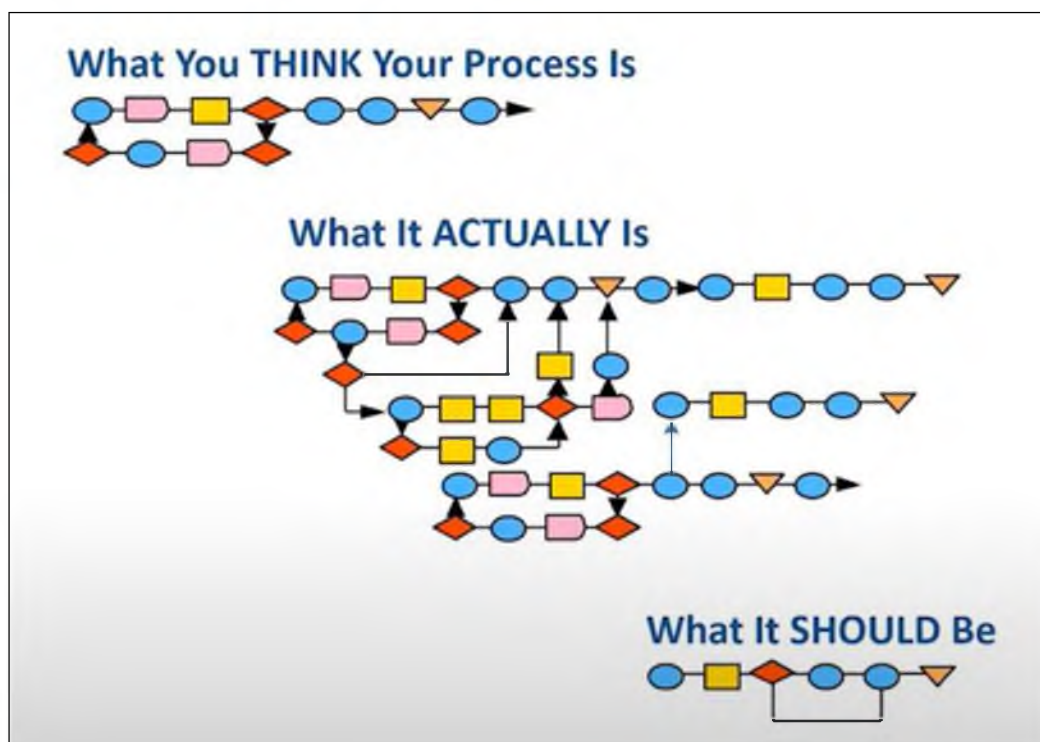
### Бережливое производство

The main aim of the article is to create a notion of lean manufacturing.

Lean principles form a global tendency in manufacturing to help businesses to grow using existing resources, maximizing production capacity and profitability through optimization ongoing processes at plant. No matter what industry you're in. Lean manufacturing is focused on solving growth problems through improving management system and quality control.

When business grows, it benefits from the economies of scale: variable costs grow in line with your sales, but overheads are fixed. The cost per unit decreases, but the complexity increases. Businesses buy more machinery or employ more labor, that is harder to supervise. Due to the lack of control, labor efficiency is falling, on production lines more and more defects occur, profit margins are decreasing, lead times are getting longer.

Waste is often disguised as useful work. Production process seems to be not very complicated at first sight. But when it comes to organization production lines, management, quality and safety control, tremendous quantity of steps turns up. Everyone's busy doing something, but if you look at the processes, how close is it to the way that it should be (see Fig.)?



Three versions of a process

We need to divide the whole process into steps, estimate how much time each step takes, see bottlenecks and level them down.

Lean manufacturing can be defined as the elimination of waste from a process by separating value added and non-value-added steps.

Value is that a client is willing to pay for. This is things like the design of the product, functionality, the quality.

Waste is everything that you shouldn't expect the customer to pay for, like labor costs, delays in production, waiting for products to be checked, after checking rework. All of these things your business carrying, you cannot reflect in the price of the product.

The closer to the customer the product with the defect, the higher the cost of rectifying the problem.

As a result, lean principles help to find the cause and eliminate it at the point of which it's occurring.

### References

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## **FORESIGHT AND BENCHMARKING AS INNOVATIVE METHODS IN THE FINANCIAL MANAGEMENT SYSTEM OF A COMMERCIAL ORGANIZATION**

### **Форсайт и бенчмаркинг как инновационные методы в системе финансового управления коммерческой организации**

Objective: to reveal the content of financial management and its main elements, to consider the theoretical foundations of innovative methods of financial management of a